

## **Topik : GENDER**

Title:Determinants of market production of cooking banana in Nigeria

View Article: African Crop Science Journal. 2001. 9 (3). 537-547

CD Volume:352

Print Article: Pages: 537-547

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Language:French

Language of Summary:French. English

Abstract:The factors that influence farmers' decisions to produce cooking banana for market in southeast Nigeria were examined. Data were collected from a random sample of 217 farmers through the use of a structured questionnaire. Results of the study indicated that about 80% of the farmers interviewed produce cooking banana both for household consumption and for sale. The proportion of cooking banana sold ranged from 10% to 90% with an average of 45%. Thus, cooking banana performs the dual role of providing food for the households, as well as being an additional source of cash income. Tobit regression analysis revealed that the price and the ripening stage at sale of cooking banana, as well as the presence of middlemen in the marketing chain were the most important determinants of the proportion of cooking banana planted for market. This indicates that cooking banana growers readily respond to market forces. Age and gender ownership of cooking bananas also influenced the proportion of the crop planted for market. Increased involvement of wholesalers and processors in the marketing chain of the crop will probably enhance its market in the region

Geographic Locator:Nigeria

Organism Descriptors:Musa-spp

ISSN:1021-9730

Year:2001

Journal Title:African Crop Science Journal

Title:Gender characteristics of rural financial institutions in Uganda

View Article: African Crop Science Journal. 2001. 9 (3). 549-565

CD Volume:352

Print Article: Pages: 549-565

Author(s):Fendru I Adipala E

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Language:French

Language of Summary:French. English

Abstract:The objectives of this paper are to describe the types and socio-economic characteristics of rural financial institutions in Uganda and to describe gender differences between men and women in the use or non-use of these institutions (services). The paper first gives a brief description of the sample, and this is followed by background social, economic, and demographic characteristics of respondents. There then follows a discussion of the use or non-use of financial institutions by respondents, and respondents' perceptions about using financial services. Subsequently, there is a description of the characteristics of informal financial services such as borrowing, lending, saving and deposit activities, and the characteristics of informal financial groups (IFGS). Finally, the implications of the findings are discussed. Of the total respondents interviewed (527), 66 percent were women. Only 11 and 15% of women and men had bank accounts. A higher proportion of rural men (57%)

than women (52%) borrowed from informal sources. The fundings indicate that there is limited access to and low level use of rural finances by both men and women. Most rural people tend to hold their savings in the form of non-monetary assets, but women tend to have greater ability and propensity to save than men

Geographic Locator:Uganda

Supplemental Descriptors:East-Africa. Africa-South-of-Sahara. Africa. Least-Developed-Countries. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. Anglophone-Africa

ISSN:1021-9730

Year:2001

Journal Title:African Crop Science Journal

Title:Legumes in soil fertility management: the case of pigeonpea in smallholder farming systems of Zimbabwe

View Article: African Crop Science Journal. 2001. 9 (4). 629-644

CD Volume:352

Print Article: Pages: 629-644

Author(s):Mapfumo P Campbell B Mpeperekki S Mafongoya P

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Language:English

Language of Summary:English. French

Abstract:We investigated the current use of legumes in soil fertility management and the feasibility of promoting use of pigeonpea in smallholder farming systems of a Communal Area in Northeast of Zimbabwe. Participatory rural appraisal methods were used to establish farmer management strategies and perceptions on major constraints to crop productivity. Soil fertility parameters were evaluated through farmer participatory experiments. The study revealed limited cultivation of legumes for both human nutrition and soil fertility management. Legumes were generally regarded as women's crops, and therefore minor, because of men's domination over women in the household decision-making process. Balancing gender interests in terms of allocation of inputs and distribution of benefits at household level was identified as a major challenge to the implementation of legume technologies. Poor extension thrusts with respect to legume production, and poor agronomic practices were identified as major production constraints. Over-emphasis on maize in the current extension packages led to the relegation of legumes to the status of 'minor crops'. Participatory experiments suggested that pigeonpea can be successfully grown by farmers under poor soil fertility conditions. The crop yielded about 3 to 9 t ha<sup>-1</sup> of shoot biomass in a single cropping season, and up to 23 t ha<sup>-1</sup> after two seasons of growth. High amounts leaf litter released by the crop in one season (up to 3 t ha<sup>-1</sup>) are considered a potentially viable source of nutrients for subsequent crops, as confirmed by a 22% maize yield increase obtained from a field that was previous cultivated with pigeonpea

Geographic Locator:Zimbabwe

Organism Descriptors:Cajanus-cajan

Supplemental Descriptors:Southern-Africa. Africa-South-of-Sahara. Africa. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. SADC-Countries. Anglophone-Africa

ISSN:1021-9730

Year:2001

Journal Title:African Crop Science Journal

Title:How does gender affect the adoption of agricultural innovations? The case of improved maize technology in Ghana

View Article: Agricultural Economics. 2001. 25 (1). 27-39  
CD Volume:368

Print Article: Pages: 27-39

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Language:English

Abstract:The effects of gender-linked differences in the adoption of improved maize production technologies in Ghana are examined. Data on the adoption of modern varieties and chemical fertilizer were obtained through a national survey of maize growers (n=420) carried out between November 1997 and March 1998. Results suggest that technology adoption decisions depend primarily on access to resources, rather than on gender per se, although the gender of the household head may be important

Descriptors:crop-production. farm-inputs. fertilizers. gender-relations. improved-varieties. innovation-adoption. maize. mathematical-models. surveys

Geographic Locator:Ghana

Organism Descriptors:Zea-mays

Supplemental Descriptors:West-Africa. Africa-South-of-Sahara. Africa. Developing-Countries. ACP-Countries. Commonwealth-of-Nations.

Anglophone-Africa. Zea. Poaceae. Cyperales. monocotyledons. angiosperms. Spermatophyta. plants

Subject Codes:EE110. EE145. FF005. FF100. UU500. FF020. JJ700

Supplementary Info:11 ref

ISSN:0169-5150

Year:2001

Journal Title:Agricultural Economics

Copyright:Copyright CAB International

Title:Impact of agroforestry intervention on farm income under the subsistence farming system of the middle hills, Nepal

View Article: Agroforestry Systems. 2001. 53 (1). 31-37

CD Volume:374

Print Article: Pages: 31-37

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Language:English

Abstract:Practices that minimize the rate of soil degradation, increase crop yields and raise farm income are key to sustaining agricultural productivity in the hills of Nepal. The use of farmland is undergoing rapid changes in response to increasing population pressure, deforestation and subsistence needs. Against this background, this study examined the impact of an agroforestry intervention project on farm income based on a sample of subsistence farm households in Dhadhing district. The project was implemented by Nepal Agroforestry Foundation in 1993-94 to increase fodder production through the promotion of agroforestry. A total of 223 households (82 'with' project and 141 'without' project) were interviewed during May-October 1998 to collect information on production and agroforestrys' impact on farm income. The benefit-cost analysis showed that the agricultural system including agroforestry was more profitable than the conventional one. The results also showed that the introduction of mulberry trees (*Morus alba*) for sericulture could further enhance the profitability of an agroforestry-based system. Thus, agroforestry has great potential for enhancing food production and farmers' economic conditions in a

sustainable manner through its positive contributions to household income

Descriptors:agroforestry. cost-benefit-analysis. farm-income. farming-systems. mulberries. profitability

Geographic Locator:Nepal

Organism Descriptors:Morus-alba

Supplemental Descriptors:Morus. Moraceae. Urticales. dicotyledons. angiosperms. Spermatophyta. plants. South-Asia. Asia. Least-Developed-Countries. Developing-Countries

Subject Codes:EE112. KK600. EE950. FF150

Supplementary Info:8 ref

ISSN:0167-4366

Year:2001

Journal Title:Agroforestry Systems

Copyright:Copyright CAB International

Title:Gender-related distinctions in protein kinase C activity in rat vascular smooth muscle

View Article: Am J Physiol Cell Physiol 2001 Jan;280(1):C34-45

CD Volume:345

Print Article: Pages: C34-C45

Author(s):Kanashiro CA Khalil RA

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Abstract:Gender differences in vascular reactivity have been suggested; however, the cellular mechanisms involved are unclear. We tested the hypothesis that the gender differences in vascular reactivity reflect gender-related, possibly estrogen-mediated, distinctions in the expression and activity of specific protein kinase C (PKC) isoforms in vascular smooth muscle. Aortic strips were isolated from intact and gonadectomized male and female Wistar-Kyoto (WKY) rats and spontaneously hypertensive rats (SHR). Isometric contraction was measured in endothelium-denuded aortic strips. PKC activity was measured in the cytosolic and particulate fractions, and the amount of PKC was measured using Western blots and isoform-specific anti-PKC antibodies. In intact male WKY rats, phenylephrine (Phe,  $10^{-5}$  M) and phorbol 12,13-dibutyrate (PDBu,  $10^{-6}$  M) stimulated contraction to  $0.37 \pm 0.02$  and  $0.42 \pm 0.02$  g/mg tissue wt, respectively. The basal particulate/cytosolic PKC activity ratio was  $0.86 \pm 0.06$ , and Western blots revealed alpha-, delta-, and zeta-PKC isoforms. Phe and PDBu increased PKC activity and caused significant translocation of alpha- and delta-PKC from the cytosolic to particulate fraction. In intact female WKY rats, basal PKC activity, the amount of alpha-, delta-, and zeta-PKC, the Phe- and PDBu-induced contraction, and PKC activity and translocation of alpha- and delta-PKC were significantly reduced compared with intact male WKY rats. The basal PKC activity, the amount of alpha-, delta-, and zeta-PKC, the Phe and PDBu contraction, and PKC activity and alpha- and delta-PKC translocation were greater in SHR than WKY rats. The reduction in Phe and PDBu contraction and PKC activity in intact females compared with intact males was greater in SHR (approximately 30%) than WKY rats (approximately 20%). Phe and PDBu contraction and PKC activity were not significantly different between castrated males and intact males but were greater in ovariectomized (OVX) females than intact females. Treatment of OVX females or castrated males with 17 beta-estradiol, but not 17 alpha-estradiol, subcutaneous implants caused significant reduction in Phe and PDBu contraction and PKC activity that was greater in SHR than WKY rats. Phe and PDBu contraction and PKC activity in OVX females or castrated males treated with 17 beta-estradiol plus the estrogen receptor antagonist

ICI-182,780 were not significantly different from untreated OVX females or castrated males. Thus a gender-related reduction in vascular smooth muscle contraction in female WKY rats with intact gonads compared with males is associated with reduction in the expression and activity of vascular alpha-, delta-, and zeta- $\text{PKC}$ . The gender differences in vascular smooth muscle contraction and  $\text{PKC}$  activity are augmented in the SHR and are possibly mediated by estrogen

Descriptors:Animal. Comparative Study. Estrogens. Female. Male. Models, Animal. Muscle Contraction. Muscle, Smooth, Vascular. Orchiectomy. Ovariectomy. Phenylephrine. Phorbol 12,13-Dibutyrate. Protein Isoforms. Protein Kinase C. Rats. Rats, Inbred SHR. Rats, Inbred WKY. Receptors, Estrogen. Sex Factors. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.  
Geographic Locator:UNITED STATES  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Melatonin secretion occurs at a constant rate in both young and older men and women

View Article: Am J Physiol Endocrinol Metab 2001 Jan;280(1):E11-22  
CD Volume:345

Print Article: Pages: E11-E22

Author(s):Fourtillan JB Brisson AM Fourtillan M Ingrand I Decourt JP Girault J

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Abstract:The magnitude and duration of melatonin (MLT) secretion were measured over a period of 25 h with pharmacokinetic studies employing administration of D(7) MLT at midday and at midnight in two separate studies and two groups of subjects, 12 young and 11 older men and women. Plasma levels of endogenous MLT and D(7) MLT were quantified separately by use of a specific and sensitive method (gas chromatography-mass spectrometry) previously developed in our laboratory, enabling us to measure endogenous and exogenous MLT levels down to 0.5 pg/ml in plasma. In the two groups of subjects, MLT secretion occurred only at night: onset time of secretion was from 1915 to 2205 (Greenwich mean time), and offset was from 0305 to 0545. No MLT peak was observed in individual nocturnal MLT profiles that were similar to curves obtained for a rate-constant infusion. Modelization demonstrated the superimposition of observed data and simulated curves. MLT concentrations decreasing from the offset of secretion might correspond to the elimination of MLT present in the body at the end of nocturnal secretion. By use of the MLT clearance given by pharmacokinetics, the amount of secreted MLT was found to be 35.7 and 21.6 microg for men and women, respectively, and the rate of secretion was 4.6 and 2.8 microg/h, respectively. No significant gender difference was observed for these two parameters when normalized to body weight. No significant gender difference was observed for onset times of secretion or duration of secretion (7.6-8.6 h) within the two groups, or between young and older subjects  
Descriptors:Administration, Oral. Adult. Age Factors. Aged. Aging. Antioxidants. Circadian Rhythm. Comparative Study. Female. Human. Infusions, Intravenous. Male. Melatonin. Sex Factors

Geographic Locator:UNITED STATES

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Reference intervals for glucose, beta-cell polypeptides, and counterregulatory factors during prolonged fasting

View Article: Am J Physiol Endocrinol Metab 2001 Jan;280(1):E50-8  
CD Volume:345

Print Article: Pages: E50-E58

Author(s):Hojlund K Wildner Christensen M Eshoj O Skjaerbaek C Holst  
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Abstract:To establish reference intervals for the pancreatic beta-cell response and the counterregulatory hormone response to prolonged fasting, we studied 33 healthy subjects (16 males, 17 females) during a 72-h fast. Glucose, insulin, C-peptide, and proinsulin levels decreased ( $P < 0.001$ ), and the levels of counterregulatory factors increased during the fast [ $P < 0.05$ ; glucagon and free fatty acids (FFA) with a linear increase and epinephrine, norepinephrine, and cortisol with a clear underlying circadian rhythm]. Growth hormone secretion increased from the first to third day of fasting ( $P < 0.05$ ) but actually decreased from the second to third day of fasting ( $P = 0.03$ ). Males had higher glucose and glucagon levels and lower FFA levels during the fast ( $P < 0.05$ ), whereas no effect of gender on beta-cell polypeptides was observed. A high body mass index resulted in higher insulin and C-peptide levels during the fast ( $P < 0.05$ ). In conclusion, we have provided reference intervals for glucoregulatory factors during a 72-h fast. We observed a diminished beta-cell response concomitant with an increased secretion of counterregulatory hormones. These results should be of clinical and scientific value in the investigation of hypoglycemic disorders

Descriptors:Adult. Aged. B-Lymphocytes. \*Blood Glucose. Body Mass Index. C-Peptide. Chemistry, Clinical. Epinephrine. Fasting. Fatty Acids, Nonesterified. Female. Glucagon. Human. Hydrocortisone. Hyperinsulinemia. Hypoglycemia. Insulin. Male. Middle Age. Norepinephrine. Peptides. Proinsulin. Reference Values. Serum

Albumin. Sex Factors. Somatropin

Geographic Locator:UNITED STATES

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Estradiol-induced attenuation of pulmonary hypertension is not associated with altered eNOS expression

View Article: Am J Physiol Lung Cell Mol Physiol 2001 Jan;280(1):L88-97

CD Volume:345

Print Article: Pages: L88-L97

Author(s):Resta TC Kanagy NL Walker BR

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Abstract:Female rats develop less severe pulmonary hypertension (PH) in response to chronic hypoxia compared with males, thus implicating a potential role for ovarian hormones in mediating this gender difference. Considering that estrogen upregulates endothelial nitric oxide (NO) synthase (eNOS) in systemic vascular tissue, we hypothesized that estrogen inhibits hypoxic PH by increasing eNOS expression and activity. To test this hypothesis, we examined responses to the endothelium-derived NO-dependent dilator ionomycin and the NO donors S-nitroso-N-acetylpenicillamine and spermine NONOate in U-46619-constricted, isolated, saline-perfused lungs from the following groups: 1) normoxic rats with intact ovaries, 2) chronic hypoxic (CH) rats with intact ovaries, 3) CH ovariectomized rats given 17 beta-estradiol (E(2)beta), and 4) CH ovariectomized

rats given vehicle. Additional experiments assessed pulmonary eNOS levels in each group by Western blotting. Our findings indicate that E(2)beta attenuated chronic hypoxia-induced right ventricular hypertrophy, pulmonary arterial remodeling, and polycythemia. Furthermore, although CH augmented vasodilatory responsiveness to ionomycin and increased pulmonary eNOS expression, these responses were not potentiated by E(2)beta. Finally, responses to S-nitroso-N-acetylpenicillamine and spermine NONOate were similarly attenuated in all CH groups compared with normoxic control groups. We conclude that the inhibitory influence of E(2)beta on chronic hypoxia-induced PH is not associated with increased eNOS expression or activity

Descriptors:15-Hydroxy-11 alpha,9 alpha-(epoxymethano)prosta-5,13-dienoic. Animal. Anoxia. Chronic Disease. Endothelium, Vascular. Enzyme Inhibitors. Estradiol. Female. Hypertension, Pulmonary. Hypertrophy, Right Ventricular. Ionomycin. Ionophores. Nitric Oxide. Nitric Oxide Donors. Nitric-Oxide Synthase. Nitroarginine. Ovariectomy. Penicillamine. Polycythemia. Pulmonary Circulation. Rats. Rats, Sprague-Dawley. Spermine. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Vascular Resistance. Vasoconstrictor Agents. Vasodilation

Geographic Locator:UNITED STATES  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Heat-shock factor-1, steroid hormones, and regulation of heat-shock protein expression in the heart

View Article: Am J Physiol Heart Circ Physiol 2001 Jan;280(1):H455-64  
CD Volume:345

Print Article: Pages: H455-H464

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Abstract:Heat-shock proteins (HSPs) are an important family of endogenous, protective proteins. Overexpression of HSPs is protective against cardiac injury. Previously, we observed that dexamethasone activated heat-shock factor-1 (HSF-1) and induced a 60% increase in HSP72 in adult cardiac myocytes. The mechanism responsible for this effect of dexamethasone is unknown. Because HSP90 is known to bind the intracellular hormone receptors, we postulated that the interaction between HSP90, the receptors, and HSF was an important element in activation of HSF-1 by hormones. We hypothesized that there is an equilibrium between HSP90 and the various receptors/enzymes that it binds and that alteration in levels of certain hormones will alter the intracellular distribution of HSP90 and activate HSF-1. We report that, in adult cardiac myocytes, HSF-1 coimmunoprecipitates with HSP90. HSP90 redistributes in cardiac myocytes after treatment with 17beta-estradiol or progesterone. Estrogen and progesterone activate HSF-1 in adult male isolated cardiac myocytes, and this is followed by an increase in HSP72 protein. Testosterone had no effect on HSP levels; however, no androgen receptor was found in cardiac myocytes; therefore, testosterone would not be expected to effect binding of HSP90 to HSF. Geldanamycin, which inactivates HSP90 and prevents it from binding to receptors, activates HSF-1 and stimulates HSP72 synthesis. Activation of HSF-1 by steroid hormones, resulting from a change in the interaction of HSP90 and HSF-1, represents a novel pathway for regulating expression of HSPs. These findings may explain some of the gender differences in cardiovascular disease

Descriptors:Animal. Blotting, Western. Cell Fractionation. Cells, Cultured. DNA-Binding Proteins. Electrophoresis, Polyacrylamide Gel. Estradiol. Heat-Shock Proteins. Heat-Shock Proteins 90. Immunohistochemistry. Male. Myocardium. Precipitin Tests. Progesterone. Protein-Tyrosine Kinase. Quinones. Rats. Rats, Sprague-Dawley. Steroids. Support, U.S. Gov't, P.H.S.. Transcription Factors. Transcription, Genetic  
Geographic Locator:UNITED STATES  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Gender influence on jejunal migrating motor complex  
View Article: Am J Physiol Gastrointest Liver Physiol 2001 Feb;280(2):G255-63  
CD Volume:345  
Print Article: Pages: G255-G263  
Author(s):Aytug N Giral A Imeryuz N Enc FY Bekiroglu N Aktas G Ulusoy NB  
Author Affiliation:Division of Gastroenterology, Department of Internal Medicine, University of Marmara School of Medicine, 81326 Haydarpasa, Istanbul, Turkey  
Abstract:The role of gender and the menstrual cycle in small bowel motility has not been clearly elucidated. Jejunal motility was recorded with a nasojejunal catheter incorporating five solid-state pressure transducers in ambulatory menstruating women and men of comparable age over 24 h. All women were studied twice, in the early follicular (early-F) and midluteal (mid-L) phases of the menstrual cycle, verified by determining serum levels of gonadal steroids and gonadotropins. The propagation velocity of phase III was slow and the contraction amplitude was high in both menstrual cycle phases compared with men, and these parameters were correlated with serum estrogen levels in the mid-L phase. In the early-F phase, migrating motor complex (MMC) cycle duration during sleep was long compared with other groups and positively correlated with estrogen concentrations, whereas in the mid-L phase MMC cycle duration during sleep was negatively correlated with serum progesterone levels. In all groups, the frequency of phase III contractions was low and the intercontractile interval measured from pressure peak to peak was long during sleep compared with the awake state. Postprandial motility did not display gender difference in any parameter examined. The results demonstrate that the majority of patterns of motility are similar in menstruating women and men, whereas certain aspects of the MMC, most conspicuously propagation velocity and phase III contraction amplitude, differ. We have also documented circadian variation of phase III contraction frequency in both women and men  
Descriptors:Adult. Circadian Rhythm. Estradiol. Fasting. Female. Follicular Phase. Human. Jejunum. Luteal Phase. Male. \*Myoelectric Complex, Migrating. Postprandial Period. \*Sex Characteristics. Sleep. Support, Non-U.S. Gov't. Wakefulness  
Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Effect of ascorbic acid treatment on conduit vessel endothelial dysfunction in patients with hypertension  
View Article: Am J Physiol Heart Circ Physiol 2001 Feb;280(2):H528-34  
CD Volume:346  
Print Article: Pages: H528-H534

Author(s):Duffy SJ Gokce N Holbrook M Hunter LM Biegelsen ES Huang A Keaney JF Jr Vita JA

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Abstract:Hypertension is associated with low plasma ascorbic acid levels and impaired endothelial function. Recent evidence suggests that increased vascular oxidative stress contributes to the pathophysiology of endothelial dysfunction and hypertension. We recently showed that chronic oral ascorbic acid therapy lowers blood pressure in hypertensive patients. We hypothesized that it would also improve endothelial vasomotor function. In a randomized, double-blind, placebo-controlled study, we examined the effect of acute (2 g po) and chronic (500 mg/day for 1 mo) ascorbic acid treatment on brachial artery flow-mediated dilation in 39 patients with hypertension. Compared with 82 age- and gender-matched normotensive controls, these patients had impaired endothelium-dependent, flow-mediated dilation of the brachial artery [8.9 +/- 6.1 vs. 11.2 +/- 5.7% (SD),  $P < 0.04$ ]. After therapy, plasma ascorbic acid concentrations increased acutely from 50 +/- 12 to 149 +/- 51 micromol/l and were maintained at 99 +/- 33 micromol/l with chronic treatment (both  $P < 0.001$ ). As previously reported, chronic ascorbic acid therapy reduced systolic and mean blood pressure in these patients. However, acute or chronic ascorbic acid treatment had no effect on brachial artery endothelium-dependent, flow-mediated dilation or on endothelium-independent, nitroglycerin-mediated dilation. These results demonstrate that conduit vessel endothelial dysfunction secondary to hypertension is not reversed by acute or chronic treatment with oral ascorbic acid. The effects of this treatment on resistance vessel vasomotor function warrant further investigation

Descriptors:Adult. Antioxidants. Ascorbic Acid. Brachial Artery. Cohort Studies. Cyclic GMP. Eicosanoids. Endothelium, Vascular. Female. Human. Hypertension. Male. Middle Age. Nitric Oxide. Regional Blood Flow. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Vasodilation

Geographic Locator:United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Determinants and interindividual variation of R-R interval dynamics in healthy middle-aged subjects

View Article: Am J Physiol Heart Circ Physiol 2001 Mar;280(3):H1400-6 CD Volume:346

Print Article: Pages: H1400-H1406

Author(s):Pikkujamsa SM Makikallio TH Airaksinen KE Huikuri HV

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Abstract:Determinants and intersubject variations of fractal and complexity measures of R-R interval variability were studied in a random population of 200 healthy middle-aged women (age 51 +/- 6 yr) and 189 men (age 50 +/- 6 yr) during controlled conditions in the supine and sitting positions. The short-term fractal exponent ( $\alpha(1)$ ) was lower in women than men in both the supine (1.18 +/- 0.20 vs. 1.12 +/- 0.17,  $P < 0.01$ ) and sitting position ( $P < 0.001$ ). Approximate entropy (ApEn), a measure of complexity, was higher in women in the sitting position (1.16 +/- 0.17 vs. 1.07 +/- 0.19,  $P < 0.001$ ), but no gender-related differences were observed in ApEn in the supine position. Fractal and complexity measures were not related to any other demographic, laboratory, or lifestyle factors.

Intersubject variations in a fractal measure,  $\alpha(1)$  (e.g., 1.15 +/- 0.20 in the supine position, z value 1.24, not significant), and in a complexity measure, ApEn (e.g., 1.14 +/- 0.18 in the supine position, z value 1.44, not significant), were generally smaller and more normally distributed than the variations in the traditional measures of heart rate variability (e.g., standard deviation of R-R intervals 49 +/- 21 ms in the supine position, z value 2.53, P < 0.001). These results in a large random population sample show that healthy subjects express relatively little interindividual variation in the fractal and complexity measures of heart rate behavior and, unlike the traditional measures of heart rate variability, they are not related to lifestyle, metabolic, or demographic variables. However, subtle gender-related differences are also present in fractal and complexity measures of heart rate behavior

Descriptors:Adult. Cohort Studies. Electrocardiography. Female. Heart Rate. Human. Male. Middle Age. \*Models, Cardiovascular. \*Nonlinear Dynamics. Sex Factors

Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Gender and aging in a transgenic mouse model of hypertrophic cardiomyopathy

View Article: Am J Physiol Heart Circ Physiol 2001 Mar;280(3):H1136-44

CD Volume:346

Print Article: Pages: H1136-H1144

Author(s):Olsson MC Palmer BM Leinwand LA Moore RL

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Abstract:Mutations in the cardiac myosin heavy chain (MHC) can cause familial hypertrophic cardiomyopathy (FHC). A transgenic mouse model has been developed in which a missense (R403Q) allele and an actin-binding deletion in the alpha-MHC are expressed in the heart. We used an isovolumic left heart preparation to study the contractile characteristics of hearts from transgenic (TG) mice and their wild-type (WT) littermates. Both male and female TG mice developed left ventricular (LV) hypertrophy at 4 mo of age. LV hypertrophy was accompanied by LV diastolic dysfunction, but LV systolic function was normal and supranormal in the young TG females and males, respectively. At 10 mo of age, the females continued to present with LV concentric hypertrophy, whereas the males began to display LV dilation. In female TG mice at 10 mo of age, impaired LV diastolic function persisted without evidence of systolic dysfunction. In contrast, in 10-mo-old male TG mice, LV diastolic function worsened and systolic performance was impaired. Diminished coronary flow was observed in both 10-mo-old TG groups. These types of changes may contribute to the functional decompensation typically seen in hypertrophic cardiomyopathy. Collectively, these results further underscore the potential utility of this transgenic mouse model in elucidating pathogenesis of FHC

Descriptors:Aging. Animal. Cardiomyopathy, Hypertrophic. Coronary Circulation. \*Disease Models, Animal. Female. Male. Mice. \*Mice, Transgenic. Myocardial Contraction. Myosin Heavy Chains. Organ Weight. \*Sex Characteristics. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Ventricular Dysfunction, Left. Ventricular Pressure

Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title: Ambulatory 24-h colonic manometry in healthy humans  
View Article: Am J Physiol Gastrointest Liver Physiol 2001  
Apr;280(4):G629-39  
CD Volume:347

Print Article: Pages: G629-G639

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Abstract: Our aim was to investigate motor activity of the healthy, relatively unprepared colon in the ambulatory state. Twenty-five age- and gender-matched adults had a six-sensor solid-state probe inserted into the proximal transverse colon without sedation. Subjects ambulated freely and ate standard meals. In 528 h of recording, we found a lower ( $P < 0.05$ ) area under the curve during the night. Waking induced a threefold increase in motility, whereas meals induced a twofold increase. Women showed less activity ( $P < 0.05$ ) in the transverse/descending colon than men. The transverse/descending colon showed more ( $P < 0.05$ ) activity than the rectosigmoid colon. Seven patterns were recognized; predominantly, they were simultaneous, propagated, or periodic bursts of 3-cycles/min (cpm) waves. A specialized propagating pressure wave with a high amplitude ( $>105$  mmHg) and a prolonged duration ( $>14$  s) occurred in all subjects (mean 10/day), mostly after waking, after meals, or with defecation. A 3-cpm motor activity was seen in the rectosigmoid region predominantly at night. The colon exhibits a wide spectrum of pressure activity around the clock, with gender and regional differences and circadian rhythm. This comprehensive study provides qualitative and quantitative normative data for colonic manometry

Descriptors: Aged. Area Under Curve. Colon. Female. Gastrointestinal Motility. Human. Male. Manometry. Middle Age. Monitoring, Ambulatory. Pressure. Sex Characteristics. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.

Geographic Locator: United States

ISSN:0002-9513

Year:2001

Journal Title: American Journal of Physiology

Title: Adipose tissue tumor necrosis factor and interleukin-6 expression in human obesity and insulin resistance  
View Article: Am J Physiol Endocrinol Metab 2001 May;280(5):E745-51  
CD Volume:347

Print Article: Pages: E745-E751

Author(s): Kern PA Ranganathan S Li C Wood L Ranganathan G  
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Abstract: Adipose tissue expresses tumor necrosis factor (TNF) and interleukin (IL)-6, which may cause obesity-related insulin resistance. We measured TNF and IL-6 expression in the adipose tissue of 50 lean and obese subjects without diabetes. Insulin sensitivity (S(I)) was determined by an intravenous glucose tolerance test with minimal-model analysis. When lean [body mass index (BMI)  $<25$  kg/m<sup>2</sup>] and obese (BMI 30-40 kg/m<sup>2</sup>) subjects were compared, there was a 7.5-fold increase in TNF secretion ( $P < 0.05$ ) from adipose tissue, and the TNF secretion was inversely related to S(I) ( $r = -0.42$ ,  $P < 0.02$ ). IL-6 was abundantly expressed by adipose tissue. In contrast to TNF, plasma (rather than adipose) IL-6 demonstrated the strongest relationship with obesity and insulin resistance. Plasma IL-6 was

significantly higher in obese subjects and demonstrated a highly significant inverse relationship with S(I) ( $r = -0.71$ ,  $P < 0.001$ ). To separate the effects of BMI from S(I), subjects who were discordant for S(I) were matched for BMI, age, and gender. By use of this approach, subjects with low S(I) demonstrated a 3.0-fold increased level of TNF secretion from adipose tissue and a 2.3-fold higher plasma IL-6 level ( $P < 0.05$ ) compared with matched subjects with a high S(I). Plasma IL-6 was significantly associated with plasma nonesterified fatty acid levels ( $r = 0.49$ ,  $P < 0.002$ ). Thus the local expression of TNF and plasma IL-6 are higher in subjects with obesity-related insulin resistance

Descriptors: Adipose Tissue. Adult. Body Mass Index. Female. Human.

\*Insulin Resistance. Interleukin-6. Male. Obesity. RNA, Messenger.

Reference Values. Support, Non-U.S. Gov't. Support, U.S. Gov't, Non-P.H.S.. Support, U.S. Gov't, P.H.S.. Tumor Necrosis Factor

Geographic Locator: United States

ISSN: 0002-9513

Year: 2001

Journal Title: American Journal of Physiology

Title: Gender-specific compensation for the lack of NO in the mediation of flow-induced arteriolar dilation

View Article: Am J Physiol Heart Circ Physiol 2001 Jun;280(6):H2456-61

CD Volume: 348

Print Article: Pages: H2456-H2461

Author(s): Wu Y Huang A Sun D Falck JR Koller A Kaley G

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Abstract: Flow-induced dilation of gracilis muscle arterioles was examined in both genders of control rats and rats chronically treated with N(omega)-nitro-L-arginine methyl ester (L-NAME). After L-NAME treatment (4 wk), systolic blood pressure was significantly increased compared with control, whereas the plasma concentration of nitrate/nitrite was significantly reduced. Isolated and pressurized arterioles dilated significantly in response to increases in flow (0-25 microl/min). Flow-induced dilation was comparable in arterioles of control and L-NAME-treated rats but was significantly greater in female than in male rats. L-NAME + indomethacin, which abolished flow-induced dilation in arterioles of male control rats, inhibited the dilation by only ~75% in female control rats. The residual portion of the response was eliminated by additional administration of miconazole, an inhibitor of cytochrome P-450. Indomethacin did not affect the dilation in female L-NAME-treated rats but completely inhibited the response in male L-NAME-treated rats. The indomethacin-insensitive, flow-induced dilation in female L-NAME-treated arterioles was abolished by miconazole, 6-(2-proparglyoxyphenyl)hexanoic acid, or charybdotoxin. Thus an augmented release of endothelial prostaglandins accounts for the preserved flow-induced dilation in arterioles of male rats, whereas a metabolite of cytochrome P-450 is responsible for the maintenance of flow-induced dilation in female rats, suggesting important differences in the adaptation of the endothelium of arterioles from male and female rats to the lack of nitric oxide (NO) synthesis

Descriptors: Animal. Arterioles. Blood Flow Velocity. Blood Pressure.

Cyclooxygenase Inhibitors. Cytochrome P-450. Enzyme Inhibitors.

Female. Heart Rate. In Vitro. Male. Muscle, Skeletal. NG-

Nitroarginine Methyl Ester. Nitrates. Nitric Oxide. Nitric-Oxide

Synthase. Nitrites. Perfusion. Rats. Rats, Wistar. Sex Factors.

Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Vasodilation

Geographic Locator: United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Prenatal cytokine exposure results in obesity and gender-specific programming

View Article: Am J Physiol Endocrinol Metab 2001 Aug;281(2):E326-34  
CD Volume:350

Print Article: Pages: E326-E334

Author(s):Dahlgren J Nilsson C Jennische E Ho HP Eriksson E Niklasson A Bjorntorp P Albertsson Wikland K Holmang A

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Abstract:Prenatal events appear to program hormonal homeostasis, contributing to the development of somatic disorders at an adult age. The aim of this study was to examine whether maternal exposure to cytokines or to dexamethasone (Dxm) would be followed by hormonal consequences in the offspring at adult age. Pregnant rats were injected on days 8, 10, and 12 of gestation with either human interleukin-6 (IL-6) or tumor necrosis factor-alpha (TNF-alpha) or with Dxm. Control dams were injected with vehicle. All exposed offspring developed increased body weight ( $P < 0.05$ -- $0.001$ ), apparently due to an increase of 30--40% in adipose tissue weight ( $P < 0.05$ -- $0.01$ ). Corticosterone response to stress was increased in the IL-6 group ( $P < 0.05$ - $0.01$ ). Dxm-treated male rats exhibited blunted Dexamethasone suppression test results. In male rats, insulin sensitivity was decreased after IL-6 exposure ( $P < 0.01$ ), whereas basal insulin was elevated in the TNF-alpha group ( $P < 0.01$ ). In female rats, plasma testosterone levels were higher in all exposed groups compared with controls ( $P < 0.01$ -- $0.001$ ), with the exception of Dxm-exposed offspring. Males in the TNF-alpha group showed decreased locomotor activity ( $P < 0.05$ ), and females in the IL-6 group showed increased locomotor activity ( $P < 0.05$ ). These results indicate that prenatal exposure to cytokines or Dxm leads to increased fat depots in both genders. In females, cytokine exposure was followed by a state of hyperandrogenicity. The results suggest that prenatal exposure to cytokines or Dxm can induce gender-specific programming of neuroendocrine regulation with consequences in adult life

Descriptors:Adipose Tissue. Animal. Body Weight. Comparative Study. Corticosterone. Cytokines. Dexamethasone. Drug Administration Schedule. Exercise Test. Female. Glucocorticoids, Synthetic. Insulin. Interleukin-6. Male. Motor Activity. Neurosecretory Systems. Obesity. Pregnancy. \*Prenatal Exposure Delayed Effects. Rats. Sex Factors. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Testosterone. Tumor Necrosis Factor

Geographic Locator:United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Developmental variability in expression and regulation of inducible nitric oxide synthase in rat intestine

View Article: Am J Physiol Gastrointest Liver Physiol 2001 Aug;281(2):G552-9  
CD Volume:350

Print Article: Pages: G552-G559

Author(s):Morin MJ Karr SM Faris RA Gruppuso PA

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Abstract:Inducible nitric oxide synthase (iNOS) may be a key mediator of intestinal injury, which varies with developmental age. One member of the mitogen-activated protein kinase (MAPK) family, p38, is involved in the lipopolysaccharide (LPS)-mediated iNOS induction. The involvement of p38 MAPK in basal and LPS-induced iNOS expression was examined in the rat intestine at two developmental ages. Neonatal (4 days postnatal) and adolescent (15 days postnatal) rats were injected with LPS (5 microg/g ip), a selective p38 inhibitor (SB 203580), or both. Tissue was removed after 4 h and 6 h for mRNA and protein analysis. iNOS mRNA and protein were markedly upregulated in the adolescent female following LPS exposure, whereas males had an attenuated response. Neonates had a minimal response. SB 203580 suppressed LPS-induced iNOS mRNA and protein in the ileum, more so in females than in males. Adolescent ileal p38 activation was constitutively high and nonresponsive to LPS. Basal and post-LPS p38 phosphorylation was low in neonatal ileum. We conclude that ileal iNOS expression is developmentally regulated and influenced by gender and that p38 is permissive for LPS effect. The developmental regulation of p38 may contribute to age-dependent variations of intestinal injury

Descriptors:Animal. Animals, Newborn. Enzyme Inhibitors. Female. \*Gene Expression Regulation, Developmental. Ileum. Imidazoles. Lipopolysaccharides. Liver. Male. Mitogen-Activated Protein Kinases. Nitric-Oxide Synthase. Pyridines. RNA, Messenger. Rats. Rats, Sprague-Dawley. Sex Factors. Up-Regulation  
Geographic Locator:United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:The catecholamine response to spaceflight: role of diet and gender

View Article: Am J Physiol Endocrinol Metab 2001 Sep;281(3):E500-6  
CD Volume:350

Print Article: Pages: E500-E506

Author(s):Stein TP Wade CE

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Abstract:Compared with men, women appear to have a decreased sympathetic nervous system (SNS) response to stress. The two manifestations where the sexual dimorphism has been the most pronounced involve the response of the SNS to fluid shifts and fuel metabolism during exercise. The objectives of this study were to investigate whether a similar sexual dimorphism was found in the response to spaceflight. To do so, we compared catecholamine excretion by male and female astronauts from two similar shuttle missions, Spacelab Life Sciences 1 (SLS1, 1991) and 2 (SLS2, 1993) for evidence of sexual dimorphism. To evaluate the variability of the catecholamine response in men, we compared catecholamine excretion from the two SLS missions against the 1996 Life and Microgravity Sciences Mission (LMS) and the 1973 Skylab missions. RESULTS: No gender- or mission-dependent changes were found with epinephrine. Separating out the SLS1/2 data by gender shows that norepinephrine excretion was essentially unchanged with spaceflight in women (98 +/- 10%; n = 3) and substantially decreased with the men (41 +/- 9%; n = 4, P < 0.05). Data are a percentage of mean preflight value +/- SE. Comparisons among males demonstrated significant mission effects on

norepinephrine excretion. After flight, there was a transient increase in norepinephrine but no evidence of any gender-specific effects. We conclude that norepinephrine excretion during spaceflight is both mission and gender dependent. Men show the greater response, with at least three factors being involved, a response to microgravity, energy balance, and the ratio of carbohydrate to fat in the diet

Descriptors:Comparative Study. \*Diet. Energy Metabolism. Epinephrine. Female. Human. Kinetics. Male. Nitrogen. Norepinephrine. \*Sex Characteristics. \*Space Flight. Support, U.S. Gov't, Non-P.H.S.. United States. United States National Aeronautics and Space Administration. Weight Loss. Weightlessness

Geographic Locator:United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Effects of alosetron on spontaneous migrating motor complexes in murine small and large bowel in vitro

View Article: Am J Physiol Gastrointest Liver Physiol 2001

Oct;281(4):G974-83

CD Volume:351

Print Article: Pages: G974-G983

Author(s):Bush TG Spencer NJ Watters N Sanders KM Smith TK

Author Affiliation:Department of Physiology and Cell Biology, University of Nevada School of Medicine, Reno, Nevada 89557-0046, USA

Abstract:Alosetron (Lotronex) is a serotonin subtype 3 (5-HT<sub>3</sub>) receptor antagonist that alleviates symptoms of irritable bowel syndrome (IBS) in female patients. Alosetron may act centrally, involve the alteration of ascending pain sensation, or modulate peristaltic, secretory, or sensory function. To investigate further the mechanisms underlying its action and gender selectivity we recorded the effect of increasing concentrations of alosetron or ondansetron on spontaneous migrating motor complexes (MMCs) from isolated terminal ileum or colon from C57BL/6 mice. Both antagonists inhibited MMC frequency before affects on duration or amplitude. The threshold of inhibition for alosetron was 100-fold less in small intestine from females (20 nM) than from males. The opposite effect of gender was observed with ondansetron in the colon. All MMCs were abolished by either drug at 10 microM. Our results demonstrate that alosetron selectively inhibits MMC frequency in isolated preparations of murine bowel. Because contractile events in the ileum correlate with symptoms of IBS in humans, the gender selectivity of alosetron may be caused by a direct action within the small intestine

Descriptors:Animal. Carbolines. Colon. Colonic Diseases, Functional. Disease Models, Animal. Dose-Response Relationship, Drug. Female. Gastrointestinal Agents. Human. Ileum. In Vitro. Male. Mice. Mice, Inbred C57BL. Myoelectric Complex, Migrating. Ondansetron. Serotonin Antagonists. Sex Characteristics. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Mechanisms of insulin resistance in cystic fibrosis

View Article: Am J Physiol Endocrinol Metab 2001 Nov;281(5):E1022-8

CD Volume:351

Print Article: Pages: E1022-E1028

Author(s):Hardin DS Leblanc A Marshall G Seilheimer DK

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Abstract:Cystic fibrosis (CF) is associated with a high incidence of diabetes. Studies evaluating causes of CF-related diabetes (CFRD) have consistently documented decreased insulin secretion. In patients with CFRD, insulin sensitivity has been documented to be decreased, but controversy exists in patients with normal or impaired glucose tolerance (IGT). We undertook this study 1) to reexplore insulin sensitivity in patients with IGT and 2) to evaluate potential mechanisms of insulin resistance in CF, including GLUT-4 translocation, elevation of serum cytokines, and free fatty acid (FFA) levels. We recruited nine CF subjects with impaired glucose tolerance (IGTCF) and nine age-, gender-, and body mass index-matched control volunteers. Each underwent a hyperinsulinemic euglycemic clamp (200 mU. m(-2). min(-1)) to measure insulin sensitivity. A muscle biopsy was obtained at maximal insulin stimulation for measure of GLUT-4 translocation with sucrose gradients. An oral glucose tolerance test and National Institutes of Health (NIH) clinical status scores were measured in all volunteers. We also measured tumor necrosis factor (TNF)-alpha levels and FFA in all subjects. Additionally, we report the results of TNF-alpha and FFA in 32 CF patients previously studied by our group. Results were that glucose disposal rate (GDR) was significantly lower in the CFIGT subjects than in controls, indicative of impaired insulin action. GLUT-4 translocation was impaired in CF and correlated with GDR. TNF-alpha levels were higher in all CF subjects than in controls and correlated with GDR. There was no difference in FFA between CF and control subjects. Modified NIH clinical status scores were inversely correlated with GDR and TNF-alpha levels. We conclude that IGTCF patients have decreased peripheral insulin sensitivity. Mechanisms include elevation of TNF-alpha and impaired translocation of GLUT-4  
Descriptors:Adult. Biopsy. Body Mass Index. Cystic Fibrosis. Cytokines. Fatty Acids, Nonesterified. Female. Glucose Clamp Technique. Glucose Intolerance. Glucose Tolerance Test. Human. Hyperinsulinemia. Insulin. \*Insulin Resistance. Male. Monosaccharide Transport Proteins. Muscle, Skeletal. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Tumor Necrosis Factor  
Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Gender affects sympathetic and hemodynamic response to postural stress  
View Article: Am J Physiol Heart Circ Physiol 2001 Nov;281(5):H2028-35  
CD Volume:352  
Print Article: Pages: H2028-H2035  
Author(s):Shoemaker JK Hogeman CS Khan M Kimmerly DS Sinoway LI  
Author Affiliation:Neurovascular Research Laboratory, School of Kinesiology, University of Western Ontario, London, Ontario, Canada, N6A 3K7. kshoemak@uwo.ca  
Abstract:We tested the hypothesis that differences in sympathetic reflex responses to head-up tilt (HUT) between males (n = 9) and females (n = 8) were associated with decrements in postural vasomotor responses in women. Muscle sympathetic nerve activity (MSNA; microneurography), heart rate, stroke volume (SV; Doppler), and blood pressure (Finapres) were measured during a progressive HUT protocol (5 min at each of supine, 20 degrees, 40 degrees, and 60 degrees ). MSNA and hemodynamic responses were also measured during the cold pressor test (CPT) to examine nonbaroreflex neurovascular control. SV

was normalized to body surface area (SV(i)) to calculate the index of cardiac output (Q(i)), and total peripheral resistance (TPR). During HUT, heart rate increased more in females versus males ( $P < 0.001$ ) and SV(i) and Q(i) decreased similarly in both groups. Mean arterial pressure (MAP) increased to a lesser extent in females versus males in the HUT ( $P < 0.01$ ) but increases in TPR during HUT were similar. MSNA burst frequency was lower in females versus males in supine ( $P < 0.03$ ) but increased similarly during HUT. Average amplitude/burst increased in 60 degrees HUT for males but not females. Both males and females demonstrated an increase in MAP as well as MSNA burst frequency, mean burst amplitude, and total MSNA during the CPT. However, compared with females, males demonstrated a greater neural response (DeltaTotal MSNA) due to a larger increase in mean burst amplitude ( $P < 0.05$ ). Therefore, these data point to gender-specific autonomic responses to cardiovascular stress. The different MSNA response to postural stress between genders may contribute importantly to decrements in blood pressure control during HUT in females

Descriptors:Adult. Blood Pressure. Female. Heart Rate. Hemodynamics. Human. Male. Posture. \*Sex Characteristics. Stress. Stroke Volume. Support, Non-U.S. Gov't. Support, U.S. Gov't, Non-P.H.S.. Support, U.S. Gov't, P.H.S.. Sympathetic Nervous System. Tilt-Table Test  
Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Gender differences in lipid and glucose kinetics during short-term fasting

View Article: Am J Physiol Endocrinol Metab 2001 Dec;281(6):E1333-9  
CD Volume:352

Print Article: Pages: E1333-E1339

Author(s):Mittendorfer B Horowitz JF Klein S

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Abstract:Data obtained from studies conducted in animal models and humans suggest that gender affects the metabolic response to fasting. However, differences in body composition between males and females confound the interpretation of these studies, because increased adiposity itself alters the metabolic response to short-term fasting. We evaluated whole body lipid and glucose kinetics during basal (14-h fast) and short-term fasting (22-h fast) conditions in six women and six men who were matched for adiposity (24 +/- 2 and 23 +/- 2% body wt as fat, respectively). Substrate kinetics were measured by infusing stable isotope labeled tracers of glucose ( $[(2)H(2)]$ glucose) and glycerol ( $[(2)H(5)]$ glycerol). Basal glycerol rate of appearance (R(a)) in plasma, an indicator of whole body lipolytic rate, was greater in women than in men (2.1 +/- 0.2 vs. 1.5 +/- 0.1 micromol x kg body wt<sup>-1</sup> x min<sup>-1</sup>;  $P < 0.05$ ). However, the relative increase in glycerol R(a) with continued fasting was blunted in women compared with men (40 +/- 7 vs. 80 +/- 4% increase;  $P < 0.05$ ), resulting in similar lipolytic rates in both genders at 22 h (2.8 +/- 0.2 and 2.6 +/- 0.1 micromol x kg body wt<sup>-1</sup> x min<sup>-1</sup> for women and men, respectively). In contrast, glucose R(a) was similar in men and women at 14 h (11 +/- 0.6 vs. 12 +/- 0.7 micromol x kg body wt<sup>-1</sup> x min<sup>-1</sup>) and 22 h of fasting (9 +/- 0.6 vs 10 +/- 0.6 micromol x kg body wt<sup>-1</sup> x min<sup>-1</sup>). These data demonstrate the presence of sexual dimorphism in lipid, but not glucose, metabolism during both basal and short-term fasting conditions

Descriptors:Adipose Tissue. Adult. Blood Glucose. Comparative Study. Fasting. Female. Glycerol. Hormones. Human. Kinetics. Lipids. Lipolysis. Male. Sex Characteristics. Support, U.S. Gov't, P.H.S. Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Long-term growth hormone excess induces marked alterations in lipoprotein metabolism in mice  
View Article: Am J Physiol Endocrinol Metab 2001 Dec;281(6):E1230-9  
CD Volume:352  
Print Article: Pages: E1230-E1239  
Author(s):Frick F Bohlooly Y M Linden D Olsson B Tornell J Eden S Oscarsson J  
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Abstract:The effects of long-term chronic growth hormone (GH) excess on lipid and lipoprotein metabolism were investigated in 8-mo-old bovine GH (bGH)-transgenic mice. Total body weight, serum cholesterol, insulin-like growth factor-I, and insulin levels were higher, whereas serum levels of glucose, free fatty acids, and triglycerides were lower in transgenic mice. Very low-density lipoprotein (VLDL) cholesterol levels were lower, and low-density lipoprotein (LDL) cholesterol levels were higher, in transgenic mice irrespective of gender, whereas only transgenic male mice had higher high-density lipoprotein cholesterol levels. Total serum apolipoprotein B (apoB) levels were not affected, but the amount of apoB in the LDL fraction was higher in transgenic mice. Hepatic LDL receptor expression was unchanged, whereas apoB mRNA editing and hepatic triglyceride secretion rate were reduced in bGH-transgenic male mice. Both lipoprotein lipase activity in adipose and heart tissue and beta-adrenergic-stimulated lipolysis were increased in transgenic male mice. The relative weight of adipose tissue was lower in transgenic mice, whereas hepatic triglyceride content was unchanged. Fat feeding of the mice equalized serum triglycerides and free fatty acids in bGH-transgenic and control mice. In summary, long-term GH excess is associated with marked alterations in lipid and lipoprotein metabolism, indicating decreased production and increased degradation of VLDL and preferential flux of fatty acids to muscle tissues

Descriptors:Animal. Apolipoproteins B. Blood Glucose. Blotting, Western. Body Weight. Cholesterol. Insulin. Insulin-Like Growth Factor I. Lipolysis. Lipoprotein Lipase. Lipoproteins. Liver. Mice. Mice, Transgenic. Organ Weight. RNA Editing. RNA, Messenger. Receptors, LDL. Somatotropin. Support, Non-U.S. Gov't. Triglycerides Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Gender differences in cortical representation of rectal distension in healthy humans  
View Article: Am J Physiol Gastrointest Liver Physiol 2001 Dec;281(6):G1512-23  
CD Volume:352  
Print Article: Pages: G1512-G1523  
Author(s):Kern MK Jaradeh S Arndorfer RC Jesmanowicz A Hyde J Shaker R

Author Affiliation:Medical College of Wisconsin Dysphagia Institute, Division of Gastroenterology and Hepatology, Biophysics Research Institute, Milwaukee, Wisconsin 53226, USA

Abstract:Cerebral cortical processing of information relayed via visceral afferents is poorly understood. We determined and compared cortical activity caused by various levels of rectal distension in healthy male and female subjects. Twenty-eight healthy, young (20-44 yr) volunteer subjects (13 male, 15 female) were studied with a paradigm-driven functional magnetic resonance imaging (fMRI) technique during barostat-controlled rectal distension at perception threshold and 10 mmHg below and above perception threshold. Male subjects showed localized clusters of fMRI activity primarily in the sensory and parietooccipital regions, whereas female subjects also showed activity in the anterior cingulate and insular regions. A progressive increase in maximum percent fMRI signal change and total volume of cortical activity was associated with the intensity of rectal distension pressure in both genders. Regions of cortical activity for below-threshold stimuli showed less substantial signal intensity and volume than responses for threshold and above-threshold stimuli. Volume of cortical activity during rectal distension in women was significantly higher than that for men for all distensions. We conclude that 1) there are substantial differences in female cortical activation topography during rectal distension compared with males; 2) intensity and volume of registered cortical activity due to rectal stimulation are directly related to stimulus strength; and 3) rectal stimulation below perception level is registered in the cerebral cortex

Descriptors:Adult. Biomechanics. Cerebral Cortex. Comparative Study. Female. Human. Magnetic Resonance Imaging. Male. Perception. Physical Stimulation. Pressure. Rectum. Sensation. \*Sex Characteristics. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2001

Journal Title:American Journal of Physiology

Title:Increased severity of alcoholic liver injury in female rats: role of oxidative stress, endotoxin, and chemokines

View Article: Am J Physiol Gastrointest Liver Physiol 2001

Dec;281(6):G1348-56

CD Volume:352

Print Article: Pages: G1348-G1356

Author(s):Nanji AA Jokelainen K Fotouhinia M Rahemtulla A Thomas P Tipoe GL Su GL Dannenberg AJ

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Abstract:Alcoholic liver injury is more severe and rapidly developing in women than men. To evaluate the reason(s) for these gender-related differences, we determined whether pathogenic mechanisms important in alcoholic liver injury in male rats were further upregulated in female rats. Male and age-matched female rats (7/group) were fed ethanol and a diet containing fish oil for 4 wk by intragastric infusion. Dextrose isocalorically replaced ethanol in control rats. We analyzed liver histopathology, lipid peroxidation, cytochrome P-450 (CYP)2E1 activity, nonheme iron, endotoxin, nuclear factor-kappa B (NF-kappa B) activation, and mRNA levels of cyclooxygenase-1 (COX-1) and COX-2, tumor necrosis factor-alpha (TNF-alpha), monocyte chemotactic protein-1 (MCP-1), and macrophage inflammatory protein-2 (MIP-2). Alcohol-induced liver injury was more severe in female vs. male rats. Female rats had higher endotoxin, lipid peroxidation, and nonheme iron levels and increased NF-kappa B activation and

upregulation of the chemokines MCP-1 and MIP-2. CYP2E1 activity and TNF-alpha and COX-2 levels were similar in male and female rats. Remarkably, female rats fed fish oil and dextrose also showed necrosis and inflammation. Our findings in ethanol-fed rats suggest that increased endotoxemia and lipid peroxidation in females stimulate NF-kappa B activation and chemokine production, enhancing liver injury. TNF-alpha and COX-2 upregulation are probably important in causing liver injury but do not explain gender-related differences

Descriptors:Animal. Chemokines. Comparative Study. Cytochrome P-450 CYP2E1. Dietary Fats, Unsaturated. Endotoxemia. Endotoxins. Ethanol. Female. Fish Oils. Iron. Isoenzymes. Lipid Peroxidation. Liver. Liver Diseases, Alcoholic. Male. Monocyte Chemoattractant Protein-1. NF-kappa B. \*Oxidative Stress. Prostaglandin-Endoperoxide Synthase. RNA, Messenger. Rats, Wistar. \*Sex Characteristics. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Tumor Necrosis Factor. Weight Gain

Geographic Locator:United States  
ISSN:0002-9513  
Year:2001  
Journal Title:American Journal of Physiology

Title:Association of insulin-like growth factor-I (IGF-I) gene polymorphism with serum IGF-I concentration and body weight in Korean Native Ogol chicken

View Article: Asian-Australasian Journal of Animal Sciences. 2001. 14 (7). 915-921

CD Volume:379

Print Article: Pages: 915-921

Author(s):Seo D S Yun J S Kang W J Jeon G J Hong K C Ko Y

Author Affiliation:Department of Animal Science, Korea University, Seoul 136-701, Korea Republic

Language:English

Abstract:IGF-I is involved in the regulation of growth and differentiation in mammals, but its role as a modulator of growth and metabolism in poultry is poorly understood. And, no studies have so far been reported for the comparison between serum IGF-I concentration and body growth in the egg type or the dual purposes (meat and egg type) chicken including the Korean Native Ogol Chicken (KNOC; Korea Republic). Therefore, in order to improve the body growth and meat production of the KNOC, this study was conducted for the identification of the polymorphism of IGF-I gene and for its possible association with both body weight and IGF-I concentration. The RFLP patterns for IGF-I gene were identified by the PstI restriction enzyme. The frequencies of +/+, +/-, and -/- genotype were 16.9%, 51.7%, and 31.4%, respectively. Any statistical significance was not observed in all variations except for sex variation ( $p < 0.01$ ) by covariate quadratic model. The significant effect of the IGF-I genotype on body weight by sex indicates that there are different physiological characteristics in gender. Although the body weights of male KNOCs in most ages were not significant, there was a tendency of KNOCs with +/+ IGF-I genotype to be heavier than those with any other genotypes. But all IGF-I genotypes in female did not influence on body weight. The ANOVA revealed no significant effects of IGF-I genotypes on serum IGF-I concentration but sex effect was highly significant on the IGF-I concentration at 20 and 40 weeks ( $p < 0.01$ ). Although the +/+ genotype, in gender, tended to express a higher IGF-I concentration than the other genotypes at all ages in males, a statistical difference among the genotypes was not found except for 60 weeks ( $p < 0.05$ ). Furthermore, since body weight and IGF-I genotypes are associated, it is possible

to improve KNOC to a meat type breed if a continuous selection can be made for the body weight and/or IGF-I traits

Descriptors:body-weight. genes. genotypes. growth. insulin-like-growth-factor. native-livestock. genetic-polymorphism. poultry. sex-differences

Geographic Locator:Korea-Republic

Organism Descriptors:fowls

Supplemental Descriptors:Gallus-gallus. Gallus. Phasianidae.

Galliformes. birds. vertebrates. Chordata. animals. poultry. East-Asia. Asia. Developing-Countries. Threshold-Countries. OECD-Countries

Subject Codes:LL240. LL600

Supplementary Info:25 ref

ISSN:1011-2367

Year:2001

Journal Title:Asian-Australasian Journal of Animal Sciences

Copyright:Copyright CAB International

Title:Effects of feeding and processing methods of diets on performance, morphological changes in the small intestine and nutrient digestibility in growing-finishing pigs

View Article: Asian-Australasian Journal of Animal Sciences. 2001. 14 (10). 1450-1459

CD Volume:379

Print Article: Pages: 1450-1459

Author(s):Yang J S Jung H J Xuan Z N Kim J H Kim D S Chae B J Han I K

Author Affiliation:Department of Animal Science and Technology, College of Agriculture and Life Sciences, Seoul National University, Suwon 441-744, Korea Republic

Language:English

Abstract:One hundred and fifty growing pigs (average weight=23.33 plus or minus 0.75 kg) and 120 finishing pigs (average weight=59.22 plus or minus 0.56 kg) were used in Exp. 1 (growing phase) and 2 (finishing phase), respectively. Pigs were grouped on the basis of body weight and gender, and randomly allotted into 6 different treatments with 5 replications in each treatment. Treatments were: (1) dry feeding with a mash diet (DM); (2) dry feeding with a pelleted diet (DP); (3) dry feeding with an expanded crumble diet (DEC); (4) dry/wet feeding with a mash diet (WM); (5) dry/wet feeding with a pelleted diet (WP) and (6) dry/wet feeding with and expanded crumble diet (WEC). In Exp. 1, there were no significant difference in the average daily gain (ADG) and average daily feed intake (ADFI) among treatments during the entire experimental period, but feed conversion ratio (FCR) was significantly ( $P<0.05$ ) improved upon feeding of pelleted diets regardless of feeding method. FCR was best in the pigs fed a DP diet and worst in the pigs fed a WM diet. Pigs fed a pelleted diet showed a 6.2 or 4.0% improvement in FCR compared with those fed a mash diet or an expanded crumble diet. Water disappearance was not significantly affected by dry/wet feeding or feed processing. Significant differences in villus height were not found among treatments, but villus height tended to be improved by dry/wet feeding. Dry/wet feeding or feed processing did not affect crypt depth. Digestibilities of calcium and phosphorus were significantly ( $P<0.05$ ) improved in pigs fed an expanded crumble diet compared with pigs fed mash diets. Especially, pigs fed a WEC diet digested 8.1% more P than those fed a DM diet. Feed cost per kg weight gain (FCG) tended to be increased by dry/wet feeding rather than dry feeding. In Exp. 2, ADG and ADFI were not significantly different among treatments, but a significant difference in FCR was found among feed processing forms. The best FCR was obtained in pigs fed a pelleted diet. Pigs fed a DP diet showed an 11.3% improvement

compared with those fed a DEC diet. Water disappearance was significantly ( $P=0.0408$ ) decreased by feeding the mash diet. However, water disappearance was not affected by dry/wet feeding during the finishing period. The villus height and crypt depth were not significantly different among treatments. However, crypt depth tended to be decreased by dry/wet feeding at the mid part of the small intestine. Fat digestibility was improved by dry feeding rather than dry/wet feeding, and was improved by 4.8% by feeding pellet diets compared with expanded crumble diets. Except for carcass grade, carcass characteristics were not significantly ( $P<0.05$ ) different among treatments. The best carcass grade was observed in the pigs fed a WP diet. Feed cost per kg weight gain (FCG) was significantly decreased in pigs fed a pelleted diet compared with those fed an expanded crumble diet, and tended to be decreased by dry/wet feeding. In conclusion, these studies suggest that feeding the pelleted diet to growing-finishing pigs can be beneficial in terms of FCR and production cost. Dry/wet feeding can be helpful for the maintenance of villus height, but may not be reflected in improved growth performance or reduction of production costs

Descriptors:calcium. carcass-quality. digestibility. dry-feeding. fat. feed-conversion-efficiency. feed-intake. finishing. liveweight-gain. nutritive-value. phosphorus. small-intestine. villi. wet-feeding

Organism Descriptors:pigs

Supplemental Descriptors:Sus-scrofa. Sus. Suidae. Suiformes.

Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:LL120. LL510. LL520. QQ030. QQ500. RR300

Supplementary Info:36 ref

ISSN:1011-2367

Year:2001

Journal Title:Asian-Australasian Journal of Animal Sciences

Copyright:Copyright CAB International

Title:Influence of breed, slaughter weight and gender on chemical composition of beef. Part 1. Amino acid profile and biological value of proteins

View Article: Asian-Australasian Journal of Animal Sciences. 2001. 14 (11). 1555-1559

CD Volume:379

Print Article: Pages: 1555-1559

Author(s):Hollo G Csapo J Szucs E Tozser J Repa I Hollo I

Author Affiliation:Faculty of Agricultural & Environmental Sciences, Szent Istvan University, H-2103 Godollo, Pater K. u. 1., Hungary

Language:English

Abstract:Two experiments were conducted to establish differences in amino acid profile and the biological value (BV) of proteins between Holstein-Friesian and Hungarian Simmental cattle. The influence of breed, gender and slaughter weight on amino acid composition and BV of proteins in beef was also analysed. In the first study, samples were taken from the 11-13th rib of Hungarian Simmental (HS,  $n=22$ ) and Holstein-Friesian (HF,  $n=18$ ) cull cows. In the second one, that of females ( $n=15$ ) and males ( $n=12$ ) of HF breed were analysed for amino acid composition, and BV of proteins. No significant influence of either breed or slaughter weight was established. Thus, the essential amino acid content and BV of the proteins in Hungarian Simmental breed were practically the same as in the Holstein-Friesian. On the other hand, gender proved to be a significant factor influencing the amino acid profile of beef proteins, as the quantity of essential amino acids turned out to be significantly larger in females than in males. No statistical difference could be established for the non-essential amino acids and BV between the two genders

Descriptors:amino-acids. beef. breed-differences. essential-amino-acids. Holstein-Friesian. Hungarian-Simmental. proteins. sex-differences. slaughter-weight  
Organism Descriptors:cattle  
Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates  
Subject Codes:LL120. LL240. QQ030  
Supplementary Info:15 ref  
ISSN:1011-2367  
Year:2001  
Journal Title:Asian-Australasian Journal of Animal Sciences  
Copyright:Copyright CAB International

Title:Influence of breed, slaughter weight and gender on chemical composition of beef. Part 2. Fatty acid composition of fat in rib samples

View Article: Asian-Australasian Journal of Animal Sciences. 2001. 14 (12). 1719-1723

CD Volume:379

Print Article: Pages: 1719-1723

Author(s):Hollo G Csapo J Szucs E Tozser J Repa I Hollo I

Author Affiliation:Faculty of Agricultural Sciences, Szent Istvan University, H-2103 Godollo, Pater K. u. 1., Hungary

Language:English

Abstract:The effect of slaughter weight and gender on fatty acid composition of homogenised rib samples of Hungarian Simmental (HS) and Holstein-Friesian (HF) cattle breeds was investigated. In the first experiment 22 Hungarian Simmental and 18 Holstein-Friesian cattle's meat, in the second experiment 15 females and 12 males Holstein-Friesian cattle's meat was analysed on fatty acid content. Saturated and mono- or polyunsaturated fatty acid profile did not seem to vary either by breed or by slaughter weight categories. The effect of gender, however, proved to be significant in influencing the quantity of polyunsaturated fatty acids, including linoleic and linolenic acids, as well as polyunsaturated fatty/saturated fatty acids (PUFA/SAFA) ratio. The amount of polyunsaturated fatty acids (PUFA) was higher in males than in females. Negative correlation was established between the quantity of PUFA and the amount of adipose tissue in rib samples

Descriptors:adipose-tissue. beef. beef-quality. breed-differences. fatty-acids. linoleic-acid. linolenic-acid. monoenoic-fatty-acids. polyenoic-fatty-acids. ribs. sex. slaughter-weight

Organism Descriptors:cattle

Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:LL120. QQ030. QQ500

Supplementary Info:13 ref

ISSN:1011-2367

Year:2001

Journal Title:Asian-Australasian Journal of Animal Sciences

Copyright:Copyright CAB International

Title:Dispersal and monoecy in *Atriplex cinerea* (Chenopodiaceae)

View Article: Australian Journal of Botany. 2001. 49 (4). 501-508

CD Volume:338

Print Article: Pages: 501-508

Author(s):Heyligers P C

Author Affiliation:CSIRO Sustainable Ecosystems, GPO Box 284, Canberra, ACT 2601, Australia

Language:English

Abstract:A. cinerea, indigenous to southern coasts of Australia, has occasionally been found along the shores of Cook Strait, New Zealand. Buoyancy tests have shown that most fruits stay afloat less than 5 weeks. Published data from drift bottle and drift card experiments indicate that it takes at least 300 days for a floating object to cross the Tasman Sea. It is therefore unlikely that A. cinerea fruits have arrived in New Zealand unaided. Transport on rafts of flotsam or by migrating birds are mooted possibilities. A. cinerea is dioecious or monoecious. Monoecious plants are self-compatible and thus one individual could start a new population. Inspection of herbarium specimens and plants during April 1999 (in New South Wales) and March 2000 (in South Australia) showed that there is at least a one in five and possibly a better than a one in three chance that a plant is monoecious. A. cinerea is hexaploid. Some plants of A. canescens, a polyploid species from North America, change their gender from year to year owing to the sexually labile nature of tetraploid and hexaploid genotypes. Inherent genetic factors as well as seasonal weather conditions have an influence on these changes. It would be interesting to find out whether this also happens in A. cinerea. As A. cinerea is used for saltland rehabilitation, a study of its variability could benefit the selection of better-adapted strains

Descriptors:dispersal. self-compatibility

Geographic Locator:Australia. New-South-Wales. South-Australia

Identifiers:Atriplex cinerea

Organism Descriptors:Atriplex

Supplemental Descriptors:Chenopodiaceae. Caryophyllales.

dicotyledons. angiosperms. Spermatophyta. plants. Atriplex.

Australasia. Oceania. Developed-Countries. Commonwealth-of-Nations.

OECD-Countries. Australia

Subject Codes:FF060. PP720. ZZ331

Supplementary Info:28 ref

ISSN:0067-1924

Year:2001

Journal Title:Australian Journal of Botany

Copyright:Copyright CAB International

Title:Book review: 'Shady Practices: Agroforestry and Gender Politics in The Gambia' by Richard A. Schroeder, Berkeley, Calif, University of California Press, 1999, xxxvii + 172 pp

View Article: Developing Economies. 2001. 39 (3). 327-330

CD Volume:368

Print Article: Pages: 327-330

Author(s):Kawano S

Language:English

Geographic Locator:Gambia

ISSN:0012-1533

Year:2001

Journal Title:Developing Economies

Title:Gender differences in wealth transfer and expenditure allocation: evidence from the rural Philippines

View Article: Developing Economies. 2001. 39 (4). 366-394

CD Volume:368

Print Article: Pages: 366-394

Author(s):Estudillo J P Quisumbing A R Otsuka K

Language:English

Abstract:This paper seeks to assess whether there is gender bias in intrahousehold allocation of expenditures and intergenerational transfers of wealth in the Philippines. The data in the paper come from 3 household surveys conducted in 1989 and 1997-98 in 5 rice-

growing villages (2 in Central Luzon and 3 in Panay Island) in the Philippines. The 1989 data come from an inheritance survey that collected data by gender on intergenerational transfers of land and investment in schooling that the parents passed on to the survey respondents (161 in Central Luzon and 178 in Panay) and to the respondents' siblings. The 1997-98 data consist of 2 surveys covering the same set of households that were interviewed in 1989. The first, administered in 1997, is an inheritance survey that collected data on transfers from the respondents to their children, while the second is the 1998 survey on household income and expenditures. It is revealed that daughters receive less land but are compensated by more schooling. Larger investments in the schooling of daughters would tend to neutralize existing gender inequalities in land inheritance in favour of sons, which is consistent with parental equity concerns regarding their children's future welfare. The study did not find any strong evidence that daughters and wives are particularly less favoured in expenditure allocation compared to sons and husbands

Descriptors:educational-attendance. gender-relations. household-expenditure. household-surveys. inheritance-of-property. parity. property-transfers. rural-areas  
Geographic Locator:Philippines  
Identifiers:rural households  
Supplemental Descriptors:South-East-Asia. Asia. Developing-Countries. ASEAN-Countries  
Subject Codes:CC100. EE165. UU500. UU800  
Supplementary Info:many ref  
ISSN:0012-1533  
Year:2001  
Journal Title:Developing Economies  
Copyright:Copyright CAB International

Title:Education Expenditure Responses to Crop Loss in Indonesia: A Gender Bias  
View Article: Economic Development and Cultural Change. 49 (2) 2001. 351-63  
CD Volume:361  
Print Article: Pages: 351-363  
Author(s):Cameron L A Worswick C  
Author Affiliation:U Melbourne. Carleton U  
Language:English  
Descriptors:Economic Development: Human Resources; Income Distribution; Migration. Microeconomic Analyses of Economic Development. Economics of Gender. Consumer Economics: Empirical Analysis. Analysis of Education  
Geographic Locator:Indonesia  
Subject Codes:EE450. UU200. EE720. CC000  
ISSN:0013-0079  
Year:2001  
Journal Title:Economic Development and Cultural Change  
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Title:The farmer's voice in priority setting: a cross-country experiment in eliciting technological preferences  
View Article: Economic Development and Cultural Change. 2001. 49 (3). 591-610  
CD Volume:361  
Print Article: Pages: 591-610  
Author(s):Pingali P L Rozelle S D Gerpacio R V  
Language:English

Abstract:A study was conducted in 1995-96 in the Philippines, China, Vietnam, and India to elicit and examine the technological preferences of farmers (n=401), using an experimental voting (ranking) method that allows for reasonable quantitative estimates of preferences and the socioeconomic determinants of adoption. In particular, the study sought to discover which of 4 post-Green Revolution technologies currently under research would most likely be adopted by Asian farmers, and why: higher yielding varieties; higher-quality varieties; a labour-saving mechanical stripper-harvester; or a simple, environmet-friendly method of integrated pest management. The results indicate that farmers have strong preferences for certain technologies and are ambivalent about others. In most cases, their preferences are driven by the need to conserve scarce factors of production or to maximize farm income. The results are consistent with the induced innovation hypothesis. The determinants of farmers' technology preferences are also consistent with the findings of the adoption literature in terms of the importance of education, farming experience, farm size, and gender

Descriptors:farmers'-attitudes. harvesters. high-yielding-varieties. improved-varieties. induced-innovations. innovation-adoption. integrated-pest-management. socioeconomics. technology

Geographic Locator:Asia. China. India. Philippines. Vietnam

Supplemental Descriptors:East-Asia. Asia. Developing-Countries.

South-Asia. Commonwealth-of-Nations. South-East-Asia. ASEAN-Countries. Indochina

Subject Codes:EE110. FF020. HH300. NN400. UU485

Supplementary Info:23 ref

ISSN:0013-0079

Year:2001

Journal Title:Economic Development and Cultural Change

Copyright:Copyright CAB International

Title:Reproductive impairment of sea urchin upon chronic exposure to cadmium. Part II: Effects on sperm development

View Article: Environmental Pollution. 111 (1). 2001. 11-20

CD Volume:376

Print Article: Pages: 11-20

Author(s):Au D W T Reunov A A Wu R S S

Author Affiliation:Center for Coastal Pollution and Conservation, Department of Biology and Chemistry, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon, Hong Kong

Language:English

Language of Summary:English (EN)

Abstract:Chronic pollution may impair the reproductive success of adult organisms through a decrease in the quality of gametes. Our parallel study on gamete quality, showed that male sea urchins were more sensitive than the females towards cadmium pollution. The effects of chronic exposure to 0.01 and 1 ppm Cd<sup>2+</sup> on sperm development of the sea urchin *Anthocidaris crassispina* were studied. Despite the fact that no significant change in gonad index was observed when sea urchins were exposed to both levels of Cd<sup>2+</sup> for 4 weeks, deposition of electron-dense materials was conspicuous at the wall and intracellular space of male gonads. Apparent cytological alterations were observed in sperm cells, including changes in morphology of nuage in spermatogonia. The discrete, granular bodies of nuage were replaced by a large electron-dense body. Spermatozoa with short, incomplete 'broken' tails (scanning electron microscope observation) or tails of spermatids/spermatozoa with extraordinary electron-density (transmission electron microscope observation) were more abundant in gonads exposed to both levels of Cd<sup>2+</sup>. Mitochondrial cristae deformation was observed for sperm cells at all stages of

development. Sperm plasma membrane also became more convoluted but acrosome remained intact. The observed cytological distortion of sperm tails and mitochondria/midpiece could help to explain the decline in motility as well as poor perseverance in sperm produced by sea urchins exposed to cadmium observed in our earlier study

Descriptors:gamete quality; gender differences; nuage; pollution; reproductive success; spermatogenesis. Pollution Assessment Control and Management; Reproductive System (Reproduction); Toxicology.

cadmium (II) ions: exposure, heavy metal, pollutant, toxin

Organism Descriptors:Anthocidaris crassispina [sea urchin] (Echinoidea): bioindicator, female, male. gonad: endocrine system, reproductive system; sperm: motility, reproductive system

Supplemental Descriptors:Echinoidea: Echinodermata, Invertebrata, Animalia. Animals; Echinoderms; Invertebrates

Subject Codes:Pollution Assessment Control and Management; Reproductive System (Reproduction); Toxicology

ISSN:0269-7491

Year:2001

Journal Title:Environmental Pollution

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Title:Accumulation status of persistent organochlorines in albatrosses from the North Pacific and the Southern Ocean

View Article: Environmental Pollution. 114 (3). 2001. 389-398

CD Volume:376

Print Article: Pages: 389-398

Author(s):Guruge K S Watanabe M Tanaka H Tanabe S

Author Affiliation:Center for Marine Environmental Studies, Ehime University, Tarumi 3-5-7, Matsuyama, 790-8566: shinsuke@agr.ehime-u.ac.jp

Language:English

Language of Summary:English (EN)

Abstract:Current status of contamination by persistent organochlorines (OCs) such as polychlorinated biphenyles (PCBs), dichlorodiphenyl trichloroethane and its metabolites (DDTs), isomers of hexachlorocyclohexane (HCHs), hexachlorobenzene (HCB) and chlordanes compounds (CHLs) were examined in 61 individuals belonging to eight albatross species collected from the North Pacific and the Southern Ocean. Generally high OC concentrations were found in albatrosses from the North Pacific than those from the Southern Oceans. Black-footed albatrosses had noticeably high PCBs and DDTs concentrations with mean values of 92 and 33 mug/g wet weight in subcutaneous fat, respectively. Among the other OCs, concentration of CHLs was higher than that of HCB in North Pacific albatrosses. HCHs accumulation was the lowest among all the OCs analyzed. Species-specific differences were observed for HCB, CHLs and DDTs in some species in the Southern Ocean. No significant difference of gender and age-related accumulation was observed in total OCs. However, PCB concentrations were higher in mature birds than those from immature ones in the Southern Ocean. Species-specific accumulation patterns of OCs in albatrosses were closely related with their feeding, migration, age and geographical ranges

Descriptors:bioaccumulation. Marine Ecology (Ecology, Environmental Sciences); Terrestrial Ecology (Ecology, Environmental Sciences); Pollution Assessment Control and Management; Toxicology. DDTs: persistent organochlorine, pollutant, toxin, water; chlordanes compounds: persistent organochlorine, pollutant, toxin, water; dichlorodiphenyl trichloroethane: persistent organochlorine, pollutant, toxin, water; hexachlorobenzene: persistent organochlorine, pollutant, toxin, water; hexachlorocyclohexane:

persistent organochlorine, pollutant, toxin, water; polychlorinated biphenyls: persistent organochlorine, pollutant, toxin, water  
Geographic Locator:North Pacific (Pacific Ocean); Southern Ocean (Antarctic Ocean)

Organism Descriptors:Diomedea cauta [white-capped albatross] (Procellariiformes): female, immature, male, mature; Diomedea chlororhynchos [yellow-nosed albatross] (Procellariiformes): female, immature, male, mature; Diomedea chrysostoma [grey-headed albatross] (Procellariiformes): female, immature, male, mature; Diomedea epomophora [royal albatross] (Procellariiformes): female, immature, male, mature; Diomedea immutabilis [Laysan albatross] (Procellariiformes): female, immature, male, mature; Diomedea melanophrys [black-browed albatross] (Procellariiformes): female, immature, male, mature; Diomedea nigripes [black-footed albatross] (Procellariiformes): female, immature, male, mature; Phoebastria palpebrata [light-mantled sooty albatross] (Procellariiformes): female, immature, male, mature

Supplemental Descriptors:Procellariiformes: Aves, Vertebrata, Chordata, Animalia. Animals; Birds; Chordates; Nonhuman Vertebrates; Vertebrates

Subject Codes:Marine Ecology (Ecology, Environmental Sciences); Terrestrial Ecology (Ecology, Environmental Sciences); Pollution Assessment Control and Management; Toxicology

ISSN:0269-7491

Year:2001

Journal Title:Environmental Pollution

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Title:Arscopic accumulation in the liver tissue of marine mammals

View Article: Environmental Pollution. 115 (2). 2001. 303-312

CD Volume:376

Print Article: Pages: 303-312

Author(s):Kubota R Kunito T Tanabe S

Author Affiliation:Center for Marine Environmental Studies (CMES), Ehime University, Tarumi 3-5-7, Matsuyama, 790-8566:

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Language:English

Language of Summary:English (EN)

Abstract:Arscopic concentrations were determined in livers of 226 individuals representing 16 different marine mammal species to elucidate its accumulation with age, sex, and feeding habits. Arscopic concentrations varied widely among species and individuals, and ranged from < 0.10 to 7.68 mug g<sup>-1</sup> dry weight. Marine mammals feeding on cephalopods and crustaceans contained higher arsenic concentrations than those feeding on fishes. No significant gender difference in arsenic concentration was found for almost all the species. Also, no apparent trend with age (or body length) in arsenic accumulation was found for most of the species. It was noted that two seal species, Baikal seal and Caspian seal, from landlocked water environments, contained lower arsenic concentrations than the marine species. To our knowledge, this is the first comprehensive study of arsenic accumulation in a wide range of marine mammal species

Descriptors:Pollution Assessment Control and Management; Toxicology.

arsenic: marine mammal accumulations; arsenobetaine

Organism Descriptors:Callorhinus ursinus [northern fur seal]

(Otariidae); Dugong dugon [dugong] (Dugongidae); Enhydra lutris [sea otter] (Mustelidae); Eumetopias jubatus [steller sea lion]

(Otariidae); Globicephala macrorhynchus [short-finned pilot whale]

(Delphinidae); Grampus griseus [Risso's dolphin] (Delphinidae);

Neophocaena phocaenoides [finless porpoise] (Delphinidae); Orcinus

orca [killer whale] (Delphinidae); Peponocephala electra [melon-

headed whale] (Delphinidae); Phoca caspica [Caspian seal] (Phocidae); Phoca fasciata [ribbon seal] (Phocidae); Phoca groenlandica [harp seal] (Phocidae); Phoca hispida [ringed seal] (Phocidae); Phoca sibirica [Baikal seal] (Phocidae); Phocoena phocoena [harbor porpoise] (Delphinidae); Sousa chinensis [Indo-Pacific humpbacked dolphin] (Delphinidae); marine mammals (Mammalia): age, feeding habits, sex. liver: arsenic accumulation, digestive system  
Supplemental Descriptors:Delphinidae: Cetacea, Mammalia, Vertebrata, Chordata, Animalia; Dugongidae: Sirenia, Mammalia, Vertebrata, Chordata, Animalia; Mammalia: Vertebrata, Chordata, Animalia; Mustelidae: Carnivora, Mammalia, Vertebrata, Chordata, Animalia; Otariidae: Pinnipedia, Mammalia, Vertebrata, Chordata, Animalia; Phocidae: Pinnipedia, Mammalia, Vertebrata, Chordata, Animalia. Animals; Carnivores; Cetaceans; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Pinnipeds; Sirenians; Vertebrates  
Subject Codes:Pollution Assessment Control and Management; Toxicology  
ISSN:0269-7491  
Year:2001  
Journal Title:Environmental Pollution  
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Title:Female Employment and Occupational Changes in the 1990s: How Is the EU Performing Relative to the US?

View Article: European Economic Review. 45 (4-6) 2001. 875-89

CD Volume:371

Print Article: Pages: 875-889

Author(s):Dolado J J Felgueroso F Jimeno J F

Author Affiliation:U Carlos III and CEPR. CEPR and U Oviedo. CEPR, U Alcala, and FEDEA

Language:English

Abstract:This paper provides a comparison of the incidence and composition of female employment both in the EU and in the US. Despite a significant increase in female labour market participation in the EU, about 50% of the difference between the employment rates in the US and the EU can still be attributed to differences in the educational attainments and the employment rates of women aged We highlight the main features of female employment in both areas, paying particular attention to the differences across age cohorts and educational levels. Our main findings are as follows: i) the educational level of the EU female population is slowly converging to that of the US across age cohorts, (ii) the employment rates of less educated women are much lower in the EU than in the US (with the exceptions of the Scandinavian countries) even for women aged 25-34, and (iii) occupational segregation is lower for the younger highly educated women who seem to be entering more typically male occupations and less typically female occupations, although at a higher rate in the US than in the EU

Descriptors:Economics of Gender. Occupational and Intergenerational Mobility; Promotion. Human Capital; Occupational Choice; Labor Productivity

Geographic Locator:EU. U.S.

Subject Codes:UU200. EE900

ISSN:0014-2921

Year:2001

Journal Title:European Economic Review

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Title:Economic Reform and Mortality in the Former Soviet Union: A Study of the Suicide Epidemic in the 1990s

View Article: European Economic Review. 45 (4-6) 2001. 1007-19  
CD Volume:371

Print Article: Pages: 1007-1019

Author(s):Brainerd E

Author Affiliation:Williams College and Ctr for International  
Development, Harvard U

Language:English

Abstract:Male suicide rates in Russia, Belarus, Ukraine and the  
Baltic countries increased substantially in the early 1990s and are  
now the highest in the world. To what extent is this suicide epidemic  
explained by the macroeconomic instability experienced by these  
countries in that period? Fixed effects regressions across 22  
transition economies indicate that male suicide rates are highly  
sensitive to the state of the macroeconomy, suggesting that the steep  
and prolonged declines in GDP in the western countries of the former  
Soviet Union may have been partly to blame for the suicide epidemic.  
Evidence also indicates that the general adult male mortality crisis  
in the region had a "feedback" effect on suicide rates, with the loss  
of a spouse or friend--or declining life expectancy itself--  
contributing to rising suicide rates. Female suicide rates, in  
contrast, are insensitive to the state of the macroeconomy and are  
more strongly related to alcohol consumption

Descriptors:Health Production: Nutrition, Mortality, Morbidity,  
Disability, and Economic Behavior. Socialist Systems and  
Transitional Economies: Factor and Product Markets; Industry Studies;  
Population. Economics of Gender. Socialist Institutions and Their  
Transitions: Consumer Economics; Welfare and Poverty

Geographic Locator:Russia. Belarus. Ukraine. Baltic-Countries

Subject Codes:UU350. EE100. UU200

ISSN:0014-2921

Year:2001

Journal Title:European Economic Review

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Title:Gender-Biased Redistribution and Intra-household Distribution

View Article: European Economic Review. 45 (9) 2001. 1711-22

CD Volume:371

Print Article: Pages: 1711-1722

Author(s):Dasgupta I

Author Affiliation:U Nottingham

Language:English

Abstract:This paper examines the implications of income  
redistribution from men to women for the welfare of married women and  
children. We develop a Cournot model of a two-person household where  
agents provide market labor and allocate their spending between a  
private consumption good and goods for children. We show that, under  
plausible restrictions on individual preferences, small  
redistributions to married women reduce their welfare. This happens  
because the income redistribution induces men to reduce their own  
spending on children by more than the amount redistributed. A  
relative increase in women's independent earnings may however improve  
children's welfare

Descriptors:Economics of Gender. Provision and Effects of Welfare  
Programs. Household Production

Subject Codes:UU200. UU300. EE720

ISSN:0014-2921

Year:2001

Journal Title:European Economic Review

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Title:Addressing food security in Africa via multiple livelihood strategies of women farmers

View Article: Food Policy. 2001. 26 (2). 177-207

CD Volume:355

Print Article: Pages: 177-207

Author(s):Gladwin C H Thomson A M Peterson J S Anderson A S

Author Affiliation:Food and Resource Economics Department, Box 110240 IFAS, University of Florida, Gainesville, FL 32611, USA

Language:English

Abstract:Projects and programmes for food insecure farmers in Africa, which aim at increasing production of subsistence crops, may be ineffective. It is because food insecurity is primarily a problem of low household incomes and poverty, and not just inadequate food production. Government should look for ways to improve returns to farmers' resources in a broader context, which may include expanded opportunities for non-farm microenterprises and agricultural labour. This has been the conventional wisdom since the writings of Amartya Sen. Still unclear, however, are the implications of his thinking for the roles of African women farmers who are traditionally the food crop 'producers' in Africa and are often food insecure. Immediate expansion of income-earning activities such as cash cropping and non-farm microenterprises may not be possible for women in male headed households in many African societies where cash income is seen as part of the male domain. In addition, women farmers may need a long adjustment period to diversify their income sources fully because most African countries are at the early stages of structural transformation. Different developmental interventions, both in policy and in technology, are therefore needed to address food security and economic transformations in Africa in the short and long term

Descriptors:agricultural-manpower. development-policy. farmers. female-labour. food-production. food-security. gender-relations. income. low-income-groups. poverty. women

Geographic Locator:Africa

Organism Descriptors:man

Supplemental Descriptors:Homo. Hominidae. Primates. mammals. vertebrates. Chordata. animals

Subject Codes:EE110. EE116. EE900. EE950. UU500. EE125. UU485

Supplementary Info:many ref

ISSN:0306-9192

Year:2001

Journal Title:Food Policy

Copyright:Copyright CAB International

Title:Household composition and food expenditures: a cross-country comparison

View Article: Food Policy. 2001. 26 (6). 571-586

CD Volume:355

Print Article: Pages: 571-586

Author(s):Sabates R Gould B W Villarreal H J

Author Affiliation:Department of Agricultural and Applied Economics, University of Wisconsin-Madison, 427 Lorch St, Madison, WI 53706, USA

Language:English

Abstract:In the analysis of food expenditures, use of household member counts as an explanatory variable, assuming each member has the same marginal food expenditure impact. Data are collected from Argentina (over February 1996-March 1997), Brazil (between August and

November 1996), and Mexico (between August and November 1996). In our analysis of Latin American food expenditures, we reject this assumption via the estimation of endogenously determined adult equivalence scales that vary by household member gender and age. A series of hypothesis tests indicate significant differences not only in the male versus female equivalence scales but also across country. With the use of such equivalence scales in the definition of per capita expenditures we find significant differences in the distributions implying substantially different poverty rankings

Descriptors:comparisons. household-surveys  
Geographic Locator:Argentina. Brazil. Mexico  
Identifiers:food expenditure  
Supplemental Descriptors:South-America. America. Developing-Countries. Threshold-Countries. Latin-America. North-America. OECD-Countries  
Subject Codes:EE116. EE720. QQ000  
Supplementary Info:26 ref  
ISSN:0306-9192  
Year:2001  
Journal Title:Food Policy  
Copyright:Copyright CAB International

Title:Gender, flexibility and global value chains  
View Article: IDS Bulletin. 2001. 32 (3). 83-93  
CD Volume:357  
Print Article: Pages: 83-93  
Author(s):Barrientos S  
Language:English  
Abstract:This article provides an initial contribution to an analysis of gender and value chains, drawing on the example of the horticultural value chain linking South Africa and Chile to European retail. It explores how flexible female employment at one end of the chain provides supply flexibility in the global chain. At the other end, supermarkets exploit changing working and consumption patterns to sell high value-added food, previously prepared in the home. Examining the gender dimension provides a much more comprehensive analysis of value chains, through which all aspects of their functioning can be better understood  
Descriptors:employment. female-labour. gender-relations. globalization. international-trade. marketing-channels. retail-marketing. value-added  
Geographic Locator:Chile. South-Africa  
Supplemental Descriptors:South-America. America. Developing-Countries. Threshold-Countries. Latin-America. Southern-Africa. Africa-South-of-Sahara. Africa. Anglophone-Africa. Commonwealth-of-Nations  
Subject Codes:EE110. EE111. EE600. EE700. EE900. UU500. QQ050  
Supplementary Info:19 ref  
ISSN:0265-5012  
Year:2001  
Journal Title:IDS Bulletin  
Copyright:Copyright CAB International

Title:Complex communities and relational webs: uncertainty, surprise and transformation in Machakos  
View Article: IDS Bulletin. 2001. 32 (4). 78-87  
CD Volume:357  
Print Article: Pages: 78-87  
Author(s):Rocheleau D  
Author Affiliation:Clark University, Worcester, MA, USA  
Language:English

Abstract: Poststructural applications of actor-network theory and complexity theory promise a means to encompass uncertainty, diversity and surprise in changing communities and complex human ecologies. Local organizations and social movements mediate relations within and between households, groups and communities based on gender, class, age, occupation and political affiliation. Community groups tend toward multiple membership, complex identities and flexible webs of affinity between disparate groups. Coalitions gel, melt, collide and coalesce according to need and do not follow narrowly circumscribed economic or ideological lines. An example from Machakos District, Kenya draws upon a landscape and a community dramatically shaped in the last hundred years by global empires, international economies and militaries, foreign and civil wars, local innovation and resistance, and changing gender and class relations. The case study focuses on the changing nature of community groups, their representation of multiple local constituencies and the shifting and pivotal roles of various groups in interactions between people, their lands and external forces (state, market and civil society)

Descriptors: case-studies. communities. community-involvement. human-ecology. resource-management. social-interaction. social-participation. theory

Geographic Locator: Kenya

Organism Descriptors: man

Supplemental Descriptors: East-Africa. Africa-South-of-Sahara. Africa. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. Anglophone-Africa. Homo. Hominidae. Primates. mammals. vertebrates. Chordata. animals

Subject Codes: UU450. UU485. UU800

Supplementary Info: 24 ref

ISSN: 0265-5012

Year: 2001

Journal Title: IDS Bulletin

Copyright: Copyright CAB International

Title: Women in forestry and forest research

View Article: International Forestry Review. 2001. 3 (1). 64-68

CD Volume: 362

Print Article: Pages: 64-68

Author(s): Burley J

Author Affiliation: Oxford Forestry Institute, South Parks Road, Oxford OX1 3RB, UK

Language: English

Abstract: This paper presents a masculine perspective of the roles and problems for women in forestry research. It identifies common misconceptions about female characteristics that have led to societal categorization; the view that gender issues are synonymous with female issues has ignored the fact that gender issues strictly concern relations between men and women. The paper calls for greater recognition of the need to resolve these issues in order to obtain a more equitable place and voice for women in forestry and forest research and to achieve truly sustainable forest management. The advantages and disadvantages of networks, especially for women, are considered; as a preferable alternative to a network composed solely of women, a Research Group on Gender and Forestry was established by the International Union of Forest Research Organizations with the main objective of developing and disseminating knowledge of how management and use of forest resources affect and are affected by gender

Descriptors: forest-management. forestry. forests. gender-relations. IUFRO. networking. research-workers. roles. women

Organism Descriptors: man

Supplemental Descriptors:Homo. Hominidae. Primates. mammals.  
vertebrates. Chordata. animals  
Subject Codes:KK110. UU500  
Supplementary Info:9 ref  
ISSN:1465-5489  
Year:2001  
Journal Title:International Forestry Review  
Copyright:Copyright CAB International

Title:Size-dependent sex allocation in a gynodioecious wild  
strawberry: The effects of sex morph and inflorescence architecture  
View Article: International Journal of Plant Sciences. 162 (2).  
March, 2001. 327- 334

CD Volume:353

Print Article: Pages: 327-334

Author(s):Ashman Tia Lynn Pacyna Jennifer Diefenderfer Christy  
Leftwich Tamika

Author Affiliation:Department of Biological Sciences, University of  
Pittsburgh, Pittsburgh, PA, 15260: TIA1+@PITT.EDU

Language:English

Language of Summary:English (EN)

Abstract:Some models of sex allocation predict that if male fitness gains decelerate faster than female fitness gains with increasing size, then plants should increase allocation to female function with increasing plant size. We tested this prediction in a gynodioecious (females and hermaphrodites) wild strawberry by manipulating plant size in clonally replicated genotypes, by hand-pollinating with pollen from unrelated donors, and by measuring sex allocation response at two levels: among flowers and within flowers. These methods avoided potential confounding factors that can occur in studies of size-based allocation under natural conditions, such as genotype-based variation in size, and size-based variation in pollen limitation or self-pollination. They also allow us to determine if inflorescence architecture represented a constraint on the response to plant size. We found that a 75% increase in the vegetative size of hermaphrodites resulted in 78% more flowers, 91% more fruits, 10% more pollen per flower, and 16% more ovules per flower. These responses to plant size represent a significant modification of phenotypic gender at the within-flower level (pollen : ovule ratio) but not at the among-flower level (fruit : flower ratio). We also found that while female plants enhanced flower and fruit allocation with plant size to the same degree as hermaphrodites, they increased ovule number per flower to a greater degree. Sex differential effects of plant size such as those just described could influence breeding system evolution if they alter the relative seed fertility of the sex morphs. We also found that inflorescence architecture modified the response to plant size. Specifically, the effect of plant size on ovule number was strongest in basal positions and was absent at the most distal position. This, combined with a trend in the opposite direction for pollen production, resulted in position-dependent pollen : ovule ratios. Small plants had higher pollen : ovule ratios than large plants at the primary (basal) position, equivalent ratios at intermediate positions, and lower ratios at the quaternary (distal) position. We suggest that this architectural variation in response to plant size may result from structural limitations or physiological trade-offs within the inflorescence

Descriptors:intra-inflorescence variation; pollen: ovule ratio; sex morph effect; size-dependent sex allocation. Reproductive System (Reproduction)

Organism Descriptors:Fragaria virginiana [wild strawberry]  
(Rosaceae): gynodioecious. inflorescence: architecture

Supplemental Descriptors:Rosaceae: Dicotyledones, Angiospermae, Spermatophyta, Plantae. Angiosperms; Dicots; Plants; Spermatophytes; Vascular Plants

Subject Codes:Reproductive System (Reproduction)

ISSN:1058-5893

Year:2001

Journal Title:International Journal of Plant Sciences

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Title:Sex expression and sexual dimorphism in subdioecious *Wurmbea dioica* (Colchicaceae)

View Article: International Journal of Plant Sciences. 162 (3). May, 2001. 589- 597

CD Volume:353

Print Article: Pages: 589-597

Author(s):Ramsey Mike Vaughton Glenda

Author Affiliation:Department of Botany, University of New England, Armidale, NSW, 2351: mramsey@metz.une.edu.au

Language:English

Language of Summary:English (EN)

Abstract:Subdioecy is a sexual system with male, female, and hermaphrodite phenotypes and is often considered a transitory stage in the evolution of full dioecy. Here, we examine sex ratios, sex expression, and sexual dimorphism in three subdioecious populations of *Wurmbea dioica* to gain insight into the stability of this sexual system. Sex ratios in the field were slightly male biased: 50% males, 43% females, and 7% hermaphrodites. Sex expression of females was constant for 3 yr under favorable glasshouse conditions. Male sex expression was labile, and 71% of males became hermaphrodites. Hermaphrodites remained unchanged, probably in response to the favorable conditions. In the field, estimates of femaleness of hermaphrodites tended toward maleness ( $G = 0.31$ ). Females produced three times more seeds per plant than did hermaphrodites. This increased fecundity resulted from females producing more ovuliferous flowers per plant and more ovules per flower but fewer aborted seeds (21% vs. 51%). Hermaphrodites were self-compatible, and their lower seed set may reflect inbreeding depression and/or differences in allocation patterns compared with females. Males produced 1.3 times more pollen per flower that was 7% more viable than did hermaphrodites, indicating resource-based trade-offs between male and female functions when males produced functional pistils. Males produced flowers that were slightly larger in diameter than those of hermaphrodites, and flowers of both were 1.3 times larger than those of females. Males and hermaphrodites produced similar numbers of flowers, both producing more than females. Fecundity differences between females and hermaphrodites are consistent with models for the maintenance of constant females. Male sex lability may be advantageous if male fitness gain curves decelerate in response to increased resource availability and seed production augments plant fitness. This is consistent with resource-based threshold models of male gender modification

Descriptors:gender modification; sex expression; sex lability; sex ratio; sexual dimorphism; subdioecy. Reproduction

Organism Descriptors:*Wurmbea dioica* (Liliaceae): subdioecious

Supplemental Descriptors:Liliaceae: Monocotyledones, Angiospermae, Spermatophyta, Plantae. Angiosperms; Monocots; Plants;

Spermatophytes; Vascular Plants

Subject Codes:Reproduction

ISSN:1058-5893

Year:2001

Journal Title:International Journal of Plant Sciences

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Title:A note on the influence of gender relations on the technical efficiency of smallholder coffee production in Papua New Guinea  
View Article: Journal of Agricultural Economics. 2001. 52 (1). 153-156

CD Volume:356

Print Article: Pages: 153-156

Author(s):Overfield D Fleming E

Language:English

Abstract:This paper reports an analysis of the impact of gender relations on the technical efficiency of coffee smallholders in Papua New Guinea. The analysis entailed the detailed monitoring of 18 households in 6 villages in Benabena District, Eastern Highlands Province, over a 2-year period (1992 and 1993). Likelihood ratio tests revealed significant technical inefficiencies in coffee production. The mean technical efficiency for the whole period was 0.57 (with a standard deviation of 0.30). The following gender factors significantly influenced technical efficiency: the proportion of male labour; the incentive effect on women supplying their labour in coffee production; the commitment by male and female household heads to the commercial production of coffee; and the education of the male household head. An important policy finding is the pressing need to explore the reasons for productivity discrepancies between men and women in coffee production for average and "best practice" farmers. Another potential area for policy analysis is the scope for satisfying women's needs in, and commitment to, cash cropping through extension work, in light of the finding that women's attitude to cash cropping is positively associated with technical efficiency in coffee production

Descriptors:coffee. crop-production. efficiency. female-labour. gender-relations. male-labour. productivity

Geographic Locator:Papua-New-Guinea

Organism Descriptors:Coffea

Supplemental Descriptors:New-Guinea. Melanesia. Australasia. Oceania. Pacific-Islands. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. Rubiaceae. Rubiales. dicotyledons. angiosperms.

Spermatophyta. plants

Subject Codes:EE110. EE111. EE900. FF003. FF100. UU500

Supplementary Info:4 ref

ISSN:0021-857X

Year:2001

Journal Title:Journal of Agricultural Economics

Copyright:Copyright CAB International

Title:Effect of supplemental vitamins and trace minerals on performance and carcass quality in finishing pigs  
View Article: Journal of Animal Science. 79 (1). January, 2001. 141-147

CD Volume:358

Print Article: Pages: 141-147

Author(s):Edmonds M S Arentson B E

Author Affiliation:Kent Feeds, Inc., 1600 Oregon Street, Muscatine, IA, 52761: michael\_edmonds@kentfeeds.com

Language:English

Language of Summary:English (EN)

Abstract:Two trials with finishing pigs (PIC line 355 X Camborough 22) were conducted to evaluate the effects of vitamin and trace mineral (VTM) supplement deletions on performance, carcass quality, and tissue nutrient levels. Trial 1, a 3 X 2 factorial arrangement of treatments involving three VTM supplement regimens and two stress

regimens, was conducted for 12 wk with 252 pigs (mixed sex). Average initial weight of pigs was 54 kg. The VTM regimens consisted of control (adequate level of VTM throughout trial), VTM deleted for the final 6 wk, and VTM deleted for entire 12 wk of the trial. The stress regimens consisted of leaving half the treatments in their original location or moving the other half of the treatments to a new pen location every 3 wk. There were three replications (pens) per treatment with 14 pigs per pen (0.80 m<sup>2</sup>). Diets were medicated with bacitracin methylene disalicylate. Overall, there were no treatment differences ( $P > 0.05$ ) for ADG, ADFI, gain:feed ratio, longissimus muscle area, or last-rib backfat. However, there was a greater than 75% decrease ( $P < 0.001$ ) in vitamin E content of longissimus muscle from deleting VTM for 6 or 12 wk. Trial 2, a 3 X 2 factorial arrangement of treatments involving three VTM regimens and two genders, was conducted for 12 wk with 306 pigs. Average initial weight of pigs was 58 kg. The VTM regimens were identical to those used in Trial 1. Each treatment consisted of three gender replications of 17 pigs per pen (0.66 m<sup>2</sup>), and all diets were unmedicated. Overall, pigs fed diets without VTM for 12 wk had lower ( $P < 0.06$ ) ADG than those fed the control diets. Vitamin E content of the ham muscle was reduced by greater than 50% ( $P < 0.001$ ) when pigs were fed diets without VTM for 6 or 12 wk compared with those fed the control diet. Concentrations of copper in ham muscle were reduced ( $P < 0.05$ ) in pigs fed diets without VTM. These data suggest that deleting VTM during the finishing stage markedly lowers the vitamin E content of pork muscle

Descriptors:average daily gain; body weight; carcass quality; diet; performance; stress. Animal Husbandry (Agriculture); Foods; Nutrition. copper: deletion, dietary supplement, trace mineral; vitamin E: deletion, dietary supplement

Organism Descriptors:pig (Suidae): finishing. longissimus muscle: muscular system

Supplemental Descriptors:Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

Subject Codes:Animal Husbandry (Agriculture); Foods; Nutrition

ISSN:0021-8812

Year:2001

Journal Title:Journal of Animal Science

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Title:Interactions in postweaning production of F1 cattle from Hereford, Limousin, or Piedmontese sires

View Article: Journal of Animal Science. 2001. 79 (2). 317-324  
CD Volume:358

Print Article: Pages: 317-324

Author(s):Grings E E Short R E MacNeil M D Roeder R A Roeder M J

Author Affiliation:USDA-ARS, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT 59301, USA

Language:English

Abstract:A 2-year study was conducted to evaluate the interactions of castration, feeding length, and dietary crude protein (CP) on growth and carcass characteristics of male cattle (bulls and steers) that vary in expression of muscular hypertrophy. Crossbred cows were bred by AI to Hereford, Limousin, or Piedmontese bulls, which represented genotypes with normal, moderate, and hypermuscularity, respectively, but with similar mature weights. Male calves (131 in year 1 and 120 in year 2) were placed in pens with individual electronic feeding gates. Calves were fed growing diets until they reached 386 kg body weight and then were individually switched to finishing diets for 90 or 132 d. Interactions were observed among sire breed, gender, and

feeding length on carcass composition. Bulls were more efficient than steers in producing live weight gain. Length of finishing period accounted for a larger source of variation than gender or weight characteristics, whereas gender was the larger source of variation for carcass composition. Concentration or degradability of dietary CP influenced rate of gain from weaning to 386 kg. Interactions resulting from varying management on carcass characteristics among calves of different sire breeds indicate that unique strategies may be beneficial for the production of meat from these breeds  
Descriptors:bulls. calf-feeding. calves. carcass-quality. castration. cattle-breeds. dietary-protein. growth. Hereford-(cattle-breed). Limousin-(cattle-breed). liveweight-gain. muscular-hypertrophy. sex-differences. steers

Identifiers:Piedmont (cattle breed)

Organism Descriptors:cattle

Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:LL120. LL520. QQ030. QQ500

Supplementary Info:28 ref

ISSN:0021-8812

Year:2001

Journal Title:Journal of Animal Science

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Title:Effect of dietary L-carnitine on growth performance and body composition in nursery and growing-finishing pigs

View Article: Journal of Animal Science. 79 (6). June, 2001. 1509-1515

CD Volume:358

Print Article: Pages: 1509-1515

Author(s):Owen K Q Nelssen J L Goodband R D Tokach M D Friesen K G

Author Affiliation:Department of Animal Sciences and Industry, Kansas State University, Manhattan, KS, 66506-0201: Goodband@ksu.edu

Language:English

Language of Summary:English (EN)

Abstract:Two experiments were conducted to determine the effect of dietary L- carnitine on growth performance and carcass composition of nursery and growing-finishing pigs. In Exp. 1, 216 weanling pigs (initially 4.9 kg and 19 to 23 d of age) were used in a 35-d growth trial. Pigs were blocked by weight in a randomized complete block design (six pigs per pen and six pens per treatment). Four barrows and four gilts were used to determine initial carcass composition. L-Carnitine replaced ground corn in the control diets to provide 250, 500, 750, 1,000, or 1,250 ppm. On d 35, three barrows and three gilts per treatment (one pig/block) were killed to provide carcass compositions. L-Carnitine had no effect ( $P>0.10$ ) on growth, percentages of carcass CP and lipid, or daily protein accretion. However, daily lipid accretion tended to decrease and then return to values similar to those for control pigs (quadratic  $P<0.10$ ) with increasing dietary L-carnitine. In Exp. 2, 96 crossbred pigs (initially 34.0 kg BW) were used to investigate the effect of increasing dietary L-carnitine in growing-finishing pigs. Pigs (48 barrows and 48 gilts) were blocked by weight and sex in a randomized complete block design (two pigs/pen and eight pens/treatment). Dietary L-carnitine replaced cornstarch in the control diet to provide 25, 50, 75, 100, and 125 ppm in grower (34 to 56.7 kg; 1.0% lysine) and finisher (56.7 to 103 kg; 0.80% lysine) diets. At 103 kg, one pig/pen was slaughtered, and standard carcass measurements were obtained. Dietary L-carnitine did not influence growth performance ( $P>0.10$ ). However, increasing dietary carnitine decreased average and tenth-rib backfat (quadratic,  $P<0.10$  and 0.05), and increased

percentage lean and daily CP accretion rate (quadratic,  $P < 0.05$ ). Break point analysis projected the optimal dosage to be between 49 and 64 ppm of L-carnitine for these carcass traits. It is concluded that dietary carnitine fed during the nursery or growing-finishing phase had no effect on growth performance; however, feeding 49 to 64 ppm of L-carnitine during the growing-finishing phase increased CP accretion and decreased tenth-rib backfat

Descriptors:body composition; breakpoint analysis: analytical method; carcass characteristics; gender; growth performance; tenth-rib backfat; weight. Animal Husbandry (Agriculture); Foods; Nutrition. L-carnitine: dietary level; lipid: accretion; protein: accretion  
Organism Descriptors:pig (Suidae): barrow, gilt, growing-finishing, nursery

Supplemental Descriptors:Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

Subject Codes:Animal Husbandry (Agriculture); Foods; Nutrition

ISSN:0021-8812

Year:2001

Journal Title:Journal of Animal Science

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Title:Effects of dietary rice bran, lasalocid, and sex of calf on postpartum reproduction in Brahman cows

View Article: Journal of Animal Science. 79 (12). December, 2001. 2968-2974. <http://www.asas.org/jas>

CD Volume:358

Print Article: Pages: 2968-2974

Author(s):Webb S M Lewis A W Neuendorff D A Randel R D

Author Affiliation:Texas Agricultural Experiment Station, Overton, TX, 75684; E- Mail: [r-randel@tamu.edu](mailto:r-randel@tamu.edu)

Language:English

Abstract:To determine the effects of dietary lasalocid and increased dietary fat on reproduction, multiparous Brahman cows ( $n = 68$ ), body condition score (BCS) of  $6.2 \pm 0.7$  and BW of  $500.9 \pm 42.6$  kg, were randomly assigned within sex of calf to receive one of four rations. All treatment groups grazed Coastal bermudagrass overseeded with rye-ryegrass and were given ad libitum access to hay and water. The control ( $n = 17$ ) group received 4.17 kg corn:soybean meal of 4:1 corn:soybean meal. The rice bran ( $n = 17$ ) group received 4.35 kg corn:soybean meal:rice bran of 3:1:1 corn:soybean meal:rice bran (5.2% dietary fat). The lasalocid ( $n = 17$ ) group received the Control diet with the addition of 200 mg of lasalocid. The rice bran-lasalocid ( $n = 17$ ) group received the rice bran diet with the addition of 200 mg of lasalocid. Diets were fed once daily from d 1 after parturition through the detection of first estrus. Weight and BCS of cows and BW of calves were recorded at 14-d intervals from d 1 after parturition through detection of first estrus and at weaning. Cows were bled on d 1, 3, 5, 7, and 14 and at weekly intervals until estrus and on d 7 and d 10 after estrus. Ovarian follicular populations were monitored by transrectal ultrasonography weekly from d 14 after parturition through detection of first estrus. Plasma 13-14-dihydro-15-ketoprostaglandin-F<sub>2</sub>alpha (PGFM) and progesterone (P4) concentrations were quantified using RIA. Concentrations of PGFM from d 1 to 7 and P4 concentrations on d 7 and 10 after estrus were not influenced ( $P > 0.10$ ) by diet or sex of calf. Changes in BW and BCS were not affected ( $P > 0.10$ ) by diet. The number of medium-sized follicles tended to be greater ( $P < 0.06$ ) in Controls than in cows on lasalocid or rice bran + lasalocid treatments on d 21. Cumulative return to estrus with a functional corpus luteum by d 60 postpartum was greater ( $P < 0.02$ ) in the rice

bran (70.6%) and lasalocid groups (76.5%) than in Controls (52.9%) or the group given rice bran + lasalocid (25.0%). Normal first estrous cycles were less likely ( $P < 0.07$ ) to be exhibited in cows given rice bran + lasalocid than in other groups. Intervals from calving to corpus luteum formation, functional corpus luteum, and first P4 gtoREQ 1 ng/mL were longer ( $P < 0.02$ ) in cows given rice bran + lasalocid than in other cows. Combining increased dietary fat (5.2%) with lasalocid lengthened the time to reproductively important events

Descriptors: dietary supplements; gender; postpartum reproduction; sex. Animal Husbandry (Agriculture); Endocrine System (Chemical Coordination and Homeostasis); Nutrition; Reproductive System (Reproduction). dietary fat; dietary lasalocid; dietary rice bran

Organism Descriptors: cow (Bovidae): breed-Brahman. follicles: endocrine system, reproductive system

Supplemental Descriptors: Bovidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

Subject Codes: Animal Husbandry (Agriculture); Endocrine System (Chemical Coordination and Homeostasis); Nutrition; Reproductive System (Reproduction)

ISSN:0021-8812

Year:2001

Journal Title:Journal of Animal Science

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Title:A survey of household domestic water-use patterns in rural semi- arid Nigeria

View Article: Journal of Arid Environments. 49 (2). October, 2001. 387-400

CD Volume:357

Print Article: Pages: 387-400

Author(s):Nyong A O Kanaroglou P S

Author Affiliation:Department of Geography and Planning, Faculty of Environmental Sciences, University of Jos, Jos, Plateau State

Language:English

Language of Summary:English (EN)

Abstract:This paper presents the pattern of domestic water use in Katarko village in north-eastern Nigeria, to improve the understanding of how local communities in the Sahel relate to water. Contrary to popular belief that women are the primary water collectors in rural sub-Saharan Africa, we show that the gender of primary water collectors depends on the custom and culture of the local community. Our results reveal a trade-off between using good-quality water and the effort it takes to obtain it. This, with poor sanitation and unhygienic water handling practices, may explain the high incidence of diarrhoea in the village. The preferred method of water purification is cloth-filtration, followed by the addition of anthill soil, with boiling ranking third

Descriptors:diarrhea; domestic water-use patterns; sanitation; water purification practices. Conservation

Geographic Locator:Nigeria (Ethiopian region)

Organism Descriptors:human (Hominidae)

Supplemental Descriptors:Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia. Animals; Chordates; Humans; Mammals; Primates; Vertebrates

Subject Codes:Conservation

ISSN:0140-1963

Year:2001

Journal Title:Journal of Arid Environments

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Title:Phenotypic trends in incidence of stillbirth for Holsteins in the United States

View Article: Journal of Dairy Science. 84 (2). February, 2001. 515-523

CD Volume:359

Print Article: Pages: 515-523

Author(s):Meyer C L Berger P J Koehler K J Thompson J R Sattler C G

Author Affiliation:Department of Animal Science, Iowa State

University, Ames, IA, 50011-3150

Language:English

Language of Summary:English (EN)

Abstract:The objectives for this study were to determine 1) if there was a trend in stillbirths for the U.S. Holstein population, 2) if stillbirths are the same trait in primiparous and multiparous cows, and 3) what was the role of dystocia in stillbirths. A sample of 666,341 births from the MidStates Dairy Records Processing Center and the National Association of Animal Breeders was used to examine the influence of sire, herd, year, season, sex of calf, parity of dam, calving ease, and gestation length on the survival of the calf. Parity was scored as an ordered variable (1, 2, 3+). Calving ease was scored on a scale of 1 (no assistance) to 3+ (needed assistance). An increasing trend in stillbirths was found in primiparous and multiparous cows. The percentage of stillborn calves in primiparous cows increased from 9.5 in 1985 to 13.2 in 1996. Stillbirths in multiparous cows increased from 5.0 to 6.6% from 1985 to 1996. Variation about the trend was greater in primiparous cows than in multiparous cows. Dystocia was a major determinant of stillbirth incidence, but the association was stronger in primiparous cows. Sex of calf had different associations with stillbirth incidence in primiparous and multiparous cows. Gestation length and season of birth also had significant associations with stillbirth incidence. Logistic regression models with fixed and random effects were fit to the data to preserve the binary nature of the stillbirth response. The expected probability of stillbirths for an average herd and sire was 10% for primiparous cows and 5% for multiparous cows. Replacement of stillborn calves is a substantial cost to the dairy industry at more than dollar sign125.3 million per year. Because of the increasing incidence of stillbirths, these costs have increased by dollar sign75.9 million from 1985 to 1996

Descriptors:birth season; calf gender; calving ease; gestation length; parity; phenotypic trends. Animal Husbandry (Agriculture); Veterinary Medicine (Medical Sciences); Reproductive System (Reproduction). dystocia: reproductive system disease/female; stillbirth: incidence, reproductive system disease/female

Geographic Locator:USA (North America, Nearctic region)

Organism Descriptors:cattle (Bovidae): breed-Holstein, dairy animal, female, multiparous cow, primiparous cow

Supplemental Descriptors:Bovidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

Subject Codes:Animal Husbandry (Agriculture); Veterinary Medicine (Medical Sciences); Reproductive System (Reproduction)

ISSN:0022-0302

Year:2001

Journal Title:Journal of Dairy Science

Copyright:Biological Abstracts Inc. (BIOSIS) All Rights Reserved

Title:Gender and Corruption

View Article: Journal of Development Economics. 64 (1) 2001. 25-55

CD Volume:376

Print Article: Pages: 25-55

Author(s):Swamy A  
Author Affiliation:Williams College  
Language:English  
Abstract:Using several independent data sets, we investigate the relationship between gender and corruption. We show using micro-data that women are less involved in bribery, and are less likely to condone bribe-taking. Cross-country data show that corruption is less severe where women hold a larger share of parliamentary seats and senior positions in the government bureaucracy, and comprise a larger share of the labor force  
Descriptors:Economics of Gender. Bureaucracy; Administrative Processes in Public Organizations; Corruption. Illegal Behavior and the Enforcement of Law  
Geographic Locator:Selected-Countries  
Subject Codes:UU200. EE120. DD500  
ISSN:0304-3878  
Year:2001  
Journal Title:Journal of Development Economics  
Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2001 by the American Economic Association

Title:Are Women Overrepresented among the Poor? An Analysis of Poverty in 10 Developing Countries  
View Article: Journal of Development Economics. 66 (1) 2001. 225-69  
CD Volume:376  
Print Article: Pages: 225-269  
Author(s):Quisumbing A R Haddad L Pena C  
Author Affiliation:IFPRI. IFPRI. World Bank  
Language:English  
Abstract:This paper presents new evidence on the proportion of women in poverty in 10 developing countries. It compares poverty measures for males and females, and for male- and female-headed households, and investigates the sensitivity of these measures to the use of per capita and per adult equivalent units and different definitions of the poverty line. While poverty measures are higher for female-headed households and for females, the differences are significant in only a fifth to a third of the datasets. The contribution of female-headed households to aggregate poverty is less than that of females, due to the low population share of the former. Stochastic dominance analysis reveals that differences between male- and female-headed households, and between males and females, are often insignificant, except for Ghana and Bangladesh, where females are consistently worse-off. These results suggest that cultural and institutional factors may be responsible for higher poverty among women in these countries. Our results point to the need to analyze determinants of household income and consumption using multivariate methods, and to give greater attention to the processes underlying female headship  
Descriptors:Economic Development: Human Resources; Income Distribution; Migration. Measurement and Analysis of Poverty. Economics of Gender  
Geographic Locator:LDCs  
Subject Codes:EE450. UU300. UU200  
ISSN:0304-3878  
Year:2001  
Journal Title:Journal of Development Economics  
Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2001 by the American Economic Association

Title:Consumer acceptance of irradiated meat and poultry in the United States  
View Article: Journal of Food Protection. 64 (12). December, 2001. 2020-2026  
CD Volume:362  
Print Article: Pages: 2020-2026  
Author(s):Frenzen Paul D DeBess Emilio E Hechemy Karim E Kassenborg Heidi Kennedy Malinda McCombs Katherine McNees Alex Foodnet Working Group  
Author Affiliation:Economic Research Service, U.S. Department of Agriculture, 1800 M Street N.W., Washington, DC, 20036; E-Mail: pfrenzen@ers.usda.gov  
Language:English  
Abstract:Food manufacturers in the United States are currently allowed to irradiate raw meat and poultry to control microbial pathogens and began marketing irradiated beef products in mid-2000. Consumers can reduce their risk of foodborne illness by substituting irradiated meat and poultry for nonirradiated products, particularly if they are more susceptible to foodborne illness. The objective of this study was to identify the individual characteristics associated with willingness to buy irradiated meat and poultry, with a focus on five risk factors for foodborne illness: unsafe food handling and consumption behavior, young and old age, and compromised immune status. A logistic regression model of willingness to buy irradiated meat or poultry was estimated using data from the 1998- 1999 FoodNet Population Survey, a single-stage random-digit dialing telephone survey conducted in seven sites covering 11% of the U.S. population. Nearly one-half (49.8%) of the 10,780 adult respondents were willing to buy irradiated meat or poultry. After adjusting for other factors, consumer acceptance of these products was associated with male gender, greater education, higher household income, food irradiation knowledge, household exposure to raw meat and poultry, consumption of animal flesh, and geographic location. However, there was no difference in consumer acceptance by any of the foodborne illness risk factors. It is unclear why persons at increased risk of foodborne illness were not more willing to buy irradiated products, which could reduce the hazards they faced from handling or under-cooking raw meat or poultry contaminated by microbial pathogens  
Descriptors:age differences; consumer acceptance; educational level; food consumption behavior; food handling behavior; geographic differences; immune status; income level; meat: meat product; microbial pathogens; poultry: poultry product. Epidemiology (Population Studies); Foods; Infection. foodborne illness: infectious disease  
Geographic Locator:USA (North America, Nearctic region)  
Organism Descriptors:human (Hominidae)  
Supplemental Descriptors:Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia. Animals; Chordates; Humans; Mammals; Primates; Vertebrates  
Subject Codes:Epidemiology (Population Studies); Foods; Infection  
ISSN:0362-028X  
Year:2001  
Journal Title:Journal of Food Protection  
Copyright:Biological Abstracts Inc. (BIOSIS) All Rights Reserved

Title:Gender differences in phenoloxidase activity of *Panorpa vulgaris* hemocytes  
View Article: Journal of Invertebrate Pathology. 2001. 78 (1). 53-55  
CD Volume:358  
Print Article: Pages: 53-55  
Author(s):Kurtz J Sauer K P

Author Affiliation:Institut fur Evolutionsbiologie und Okologie,  
Universitat Bonn, An der Immenburg 1, 53121 Bonn, Germany  
Language:English

Abstract:Gender difference in the activity of phenoloxidas (PO),  
enzymes catalysing the formation of melanins during wound healing and  
parasite encapsulation, were studied in Panorpa vulgaris. Haemocytes  
were obtained from 1-3 micro l of haemolymph from individual adult  
male and female P. vulgaris. Cell monolayers were prepared in  
anticoagulant buffer carefully exchanged with Grace's insect medium.  
Haemocytes with PO activity stained brown, after incubation with  
DOPA, due to the conversion of DOPA into melanin. Haemocyte  
monolayers from 19 male and 40 female P. vulgaris were examined. Only  
haemolymph derived from females contained PO-reactive cells. The  
percentage of PO-reactive haemocytes in females ranged between 0-  
7.5%. On average, 2.0% of the haemocytes were PO positive

Descriptors:enzyme-activity. enzymes. haemocytes. healing. melanins.  
sex-differences

Identifiers:Panorpa vulgaris. phenoloxidase

Organism Descriptors:Mecoptera

Supplemental Descriptors:insects. arthropods. invertebrates. animals

Subject Codes:YY400

Supplementary Info:19 ref

ISSN:0022-2011

Year:2001

Journal Title:Journal of Invertebrate Pathology

Copyright:Copyright CAB International

Title:Gender Differences in Land Inheritance and Schooling  
Investments in the Rural Philippines

View Article: Land Economics. 77 (1) 2001. 130-43

CD Volume:356

Print Article: Pages: 130-143

Author(s):Estudillo J P Quisumbing A R Otsuka K

Author Affiliation:Foundation for Advanced Studies on Int'l  
Development, Tokyo. IFPRI. Tokyo Metropolitan U

Language:English

Abstract:This paper examines the preferences of parents with respect  
to the allocation of land and investments in schooling between sons  
and daughters in two generations of households in the rural  
Philippines. In the older generation, better-educated fathers prefer  
to invest in sons' schooling, while land-owning mothers  
preferentially bestow land to daughters. While gender preference in  
relation to parental resources has disappeared in the child  
generation, sons are preferred with respect to land inheritance,  
while daughters are treated more favorably in schooling investments

Descriptors:Economics of Gender. Economic Development: Human  
Resources; Income Distribution; Migration. Economic Development:  
Regional, Urban, and Rural Analyses. Land Ownership and Tenure; Land  
Reform; Land Use; Irrigation. Renewable Resources and Conservation;  
Environmental Management: Land; Waste Disposal and Recycling.

Analysis of Education

Geographic Locator:Philippines

Subject Codes:UU200. EE450. EE110. EE160. PP300. CC000

ISSN:0023-7639

Year:2001

Journal Title:Land Economics

Copyright:Record from the EconLit database, \_Copyright (c)\_2001

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Title:Fatty acid profiles in three stress genotypes of swine and  
relationships with performance, carcass and meat quality traits

View Article: Meat Science. 57 (1). January, 2001. 71-77

CD Volume:377

Print Article: Pages: 71-77

Author(s):Piedrafita J Christian L L Lonergan S M

Author Affiliation:Departament de Patologia i de Produccio Animals,  
Universitat Autonoma de Barcelona, 08193, Bellaterra, Barcelona

Language:English

Language of Summary:English (EN)

Abstract:The objective of this study was to investigate differences in adipose tissue fatty acid composition among stress genotypes as well as to determine relationships of those fatty acids with performance, carcass and meat quality traits. Haplotypic analysis of parents and offspring was employed to assign 48 pigs to three stress genotypes of swine. Individual fatty acid profiles were determined on subcutaneous backfat. Stress genotype had a significant effect on the proportions of C14:0 ( $P < 0.05$ ), C16:0 ( $P < 0.10$ ), C16:1 ( $P < 0.05$ ) and C18:0 ( $P < 0.05$ ) fatty acids. After adjusting for stress and gender, there was a negative correlation between backfat thickness and essential fatty acids (linoleic and linolenic) ( $P < 0.001$ ). In contrast, the correlation of loin muscle area with C18:2 ( $P < 0.01$ ) and C18:3 ( $P < 0.001$ ) was positive. The degree of fat firmness was negatively correlated to the proportion of total unsaturated fatty acids ( $P < 0.01$ ). No significant correlations were observed between fatty acid contents and lean meat quality traits

Descriptors:carcass quality; fatty acid profiles; growth performance; meat quality; stress genotypes. Animal Husbandry (Agriculture);

Genetics. linoleic acid; linolenic acid; myristic acid; palmitic acid; palmitoleic acid; stearic acid; unsaturated fatty acids

Organism Descriptors:swine (Suidae)

Supplemental Descriptors:Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

Subject Codes:Animal Husbandry (Agriculture); Genetics

ISSN:0309-1740

Year:2001

Journal Title:Meat Science

Copyright:Biological Abstracts Inc. (BIOSIS) All Rights Reserved

Title:Sensory quality and cooking loss of ham muscle (M. biceps femoris) from pigs reared indoors and outdoors

View Article: Meat Science. 57 (3). March, 2001. 245-250

CD Volume:377

Print Article: Pages: 245-250

Author(s):Jonsall A Johansson L Lundstrom K

Author Affiliation:Department of Domestic Sciences, Uppsala University, Uppsala, S- 752

Language:English

Language of Summary:English (EN)

Abstract:The aim of this study was to evaluate the sensory characteristics and cooking loss of ham from pigs of different genotype and sex and on different rearing systems. Half of each litter was reared indoors in a large pen (120 mm<sup>2</sup>), and the other half outdoors. Ham muscles (M. biceps femoris) from 48 Hampshire crosses (carriers or non-carriers of the RN- allele) were subjected to sensory evaluation by means of descriptive analysis by a selected and trained nine-member panel. Ham from RN- carriers scored higher than that from non-carriers with regard to smell intensity and meat taste, also it was more tender and tended to have a more acidulous taste. Ham from pigs reared indoors had a juicier and more acidulous taste than that from pigs reared outdoors. Ham from castrates was more tender and more juicy than ham from gilts

Descriptors:gender differences; genotype differences; ham: cooking loss, meat, sensory quality; indoor rearing; musculus biceps femoris: meat; outdoor rearing. Foods

Organism Descriptors:pig (Suidae): breed-Hampshire, castrate, gilt  
Supplemental Descriptors:Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

Subject Codes:Foods

ISSN:0309-1740

Year:2001

Journal Title:Meat Science

Copyright:Biological Abstracts Inc. (BIOSIS) All Rights Reserved

Title:Reaction to boar odour by different South African consumer groups

View Article: Meat Science. 59 (4). December, 2001. 353-362

CD Volume:377

Print Article: Pages: 353-362

Author(s):de Kock H L van Heerden S M Heinze P H Dijksterhuis G B Minnaar A

Author Affiliation:Department of Food Science, University of Pretoria, Pretoria, 0002: riette@scientia.up.ac.za

Language:English

Language of Summary:English (EN)

Abstract:A consumer sensory study of South African pork consumers (n=300) including equal numbers of males and females and consumers from three ethnic groupings (black, white and coloured consumers) was conducted to determine the effects of gender and ethnicity on consumer reactions towards boar odour compounds. Samples consisted of boar fat with varying concentrations of skatole and androstenone. Each consumer evaluated the odour of seven fat samples. Consumers' liking of pork meat in general had a significant effect on the hedonic rating of the boar odour. The majority of consumers represented in this study would be dissatisfied with pork meat exhibiting detectable levels of skatole. In general, more females compared with males, will also respond more negatively towards samples with detectable levels of androstenone. An apparent liking for samples with medium levels of androstenone (0.5-1 µg/g) was found for some consumers, especially males, and can be partly attributed to the inability of some consumers to smell this compound at these levels or a genuine liking for the odour of androstenone. Significant differences in the sensitivity of consumers from different ethnic groups were found with white females responding more negatively than white males and blacks. Although it was not possible to compare responses directly with the white and black groups, it was found that a higher percentage of coloureds responded negatively to boar odour compounds. Coloured males responded particularly negatively towards samples with detectable skatole, while black males, in general, were found to be more critical than black females. Based on these results it is predicted that the majority of consumers would be less willing to consume pork meat exhibiting detectable levels of boar odour

Descriptors:South African consumer groups; boar fat: fats and oils; consumer reactions; consumer sensory study; ethnicity; gender; pork: boar odor, meat. Foods; Population Studies. androstenone; boar odor compounds; skatole

Organism Descriptors:boar (Suidae): odor; human (Hominidae): South African, black, female, male, pork consumer, white

Supplemental Descriptors:Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Suidae: Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia. Animals; Artiodactyls; Chordates; Humans;

Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Primates;  
Vertebrates

Subject Codes:Foods; Population Studies

ISSN:0309-1740

Year:2001

Journal Title:Meat Science

Copyright:Biological Abstracts Inc. (BIOSIS) All Rights Reserved

Title:Fertility, Education, and Development: Evidence from India

View Article: Population and Development Review. 27 (1) 2001. 33-63  
CD Volume:356

Print Article: Pages: 33-63

Author(s):Dreze J Murthi M

Author Affiliation:Delhi School of Econ. Centre for History & Econ,  
King's College

Language:English

Abstract:Fertility has declined significantly in many parts of India since the early 1980s. This article examines the determinants of fertility levels and fertility decline, using data on Indian districts for and 1991. The authors find that women's education and child mortality are the most important factors explaining fertility differences across the country and over time. Low levels of son preference also contribute to lower fertility. By contrast, general indicators of modernization and development such as urbanization, poverty reduction, and male literacy exhibit no significant association with fertility. En passant, the authors probe a subject of much confusion--the relation between fertility decline and gender bias

Descriptors:Economic Development: Human Resources; Income

Distribution; Migration. Fertility; Child Care; Children; Youth

Geographic Locator:India

Subject Codes:EE450. UU200

ISSN:0098-7921

Year:2001

Journal Title:Population and Development Review

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Title:Prenatal Sex Determination and Sex-Selective Abortion in Rural Central China

View Article: Population and Development Review. 27 (2) 2001. 259-81  
CD Volume:356

Print Article: Pages: 259-281

Author(s):Chu J

Author Affiliation:Institute of Population Research, Peking U

Language:English

Abstract:This study analyzes the practice of prenatal sex selection in rural central China. It examines the prevalence and determinants of prenatal sex determination by ultrasound scanning and subsequent sex-selective abortion. The data are derived from a survey of 820 married women aged 20-44 and from in-depth interviews with rural women and men, village leaders, family planning managers, and health providers, conducted by the author in one county in central China in 2000. Prenatal sex determination was a widespread practice, especially for second and higher-order pregnancies. Sex-selective abortion was prevalent and order of pregnancy, sex of fetus, and sex of previous children were major determinants of the practice. A female fetus representing a high-order pregnancy in a family with one or more daughters was the most likely to be aborted. Awareness among rural families that in the population at large a future marriage

squeeze was likely did not diminish the demand for sex-selective abortion

Descriptors:Fertility; Child Care; Children; Youth. Socialist Systems and Transitional Economies: Factor and Product Markets; Industry Studies; Population. Economics of Gender. Economic Development: Human Resources; Income Distribution; Migration. Health: Government Policy; Regulation; Public Health  
Geographic Locator:China  
Subject Codes:UU200. EE100. EE450. UU350  
ISSN:0098-7921  
Year:2001

Journal Title:Population and Development Review  
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Title:Health Interventions and Health Equity: The Examples of Measles Vaccination in Bangladesh

View Article: Population and Development Review. 27 (2) 2001. 283-302  
CD Volume:356

Print Article: Pages: 283-302

Author(s):Koenig M A Bishai D Khan M A

Author Affiliation:Johns Hopkins U. Johns Hopkins U. Centre for Health & Population Research, Bangladesh

Language:English

Abstract:Although the existence of socioeconomic differentials in infant and childhood mortality in developing countries is well established, little consensus exists as to the most effective approaches to reducing such differentials. This article utilizes longitudinal data from the Matlab study area in rural Bangladesh to investigate the impact of an efficacious child survival intervention--measles vaccination--on reductions in gender and socioeconomic differentials in childhood mortality. The article analyzes data from 16,270 vaccinated children and randomly matched controls, and evaluates their subsequent mortality risks. Proportional hazards analysis demonstrates that unvaccinated children from very poor families face more than a threefold higher risk of subsequent early child mortality, compared to vaccinated children from families of high economic status. While measles vaccination has little impact on mortality risks among children of higher economic status, the improvement in survival among children from poorer households is pronounced. The provision of measles vaccination markedly reduces mortality risks for poorer children--from over three times higher to just over 1.5 times higher relative to vaccinated children from wealthier families. The findings of this study are evaluated in terms of the potential of child survival interventions such as measles vaccination to promote greater health equity

Descriptors:Health Production: Nutrition, Mortality, Morbidity, Disability, and Economic Behavior. Economic Development: Human Resources; Income Distribution; Migration. Fertility; Child Care; Children; Youth

Geographic Locator:Bangladesh

Subject Codes:UU350. EE450. UU200

ISSN:0098-7921

Year:2001

Journal Title:Population and Development Review

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Title:Women's autonomy in India and Pakistan: the influence of religion and region

View Article: Population and Development Review. 2001. 27 (4). 687-712

CD Volume:356

Print Article: Pages: 687-712

Author(s):Jejeebhoy S Sathar Z

Language:English

Language of Summary:English

Abstract:This article compares the lives of women and explores dimensions of their autonomy in different regions of South Asia-- Punjab in Pakistan, and Uttar Pradesh in north India and Tamil Nadu in south India. It explores the contextual factors underlying observed differences and assesses the extent to which these differences could be attributed to religion, nationality, or north-south cultural distinctions. Findings suggest that while women's autonomy--in terms of decision-making, mobility, freedom from threatening relations with husband, and access to and control over economic resources--is constrained in all three settings, women in Tamil Nadu fare considerably better than other women, irrespective of religion. Findings lend little support to the suggestion that women in Pakistan have less autonomy or control over their lives than do Indian women. Nor do Muslim women--be they Indian or Pakistani--exercise less autonomy in their own lives than do Hindu women in the subcontinent. Rather, findings suggest that in the patriarchal and gender-stratified structures governing the northern portion of the subcontinent, women's control over their lives is more constrained than in the southern region

Geographic Locator:India. Pakistan

ISSN:0098-7921

Year:2001

Journal Title:Population and Development Review

Title:Gender differences in the inhibitory effects of a reduction in ambient temperature and a reduction in food quantity on reproduction in the Southern African rodent, *Rhabdomys pumilio*

View Article: Reproduction 2001 Sep;122(3):385-95

CD Volume:379

Print Article: Pages: 385-395

Author(s):Jackson C Bernard RT

Author Affiliation:Department of Zoology and Entomology, Rhodes University, Grahamstown 6139, South Africa

Abstract:The effects of a reduction in ambient temperature (from 26 degrees C to 15 degrees C) and a 10% reduction in daily food consumption on reproductively active male and female four-striped field mice (*Rhabdomys pumilio*) were investigated. In male *R. pumilio*, both reduced ambient temperature and a reduction in food quantity had an inhibitory effect on spermatogenesis and on size of the reproductive organs, and this was greatest when the two factors were combined and the effect of fat was removed. Female *R. pumilio* responded differently and reproduction was inhibited by a reduction in food quantity, irrespective of ambient temperature. The masses of the ovaries and uterus, the numbers of developing follicles and corpora lutea, and the development of the uterine wall were all reduced by food deprivation at 26 degrees C to levels similar to those that resulted from a reduction in ambient temperature to 15 degrees C with a reduction in food quantity. It is concluded that reproduction in *R. pumilio* from the Eastern Cape Province of South Africa is opportunistic, that reproduction will be inhibited by an energetic challenge and that there is sexual dimorphism in the response to ambient temperature and food supply

Descriptors:Animal. \*Cold. Comparative Study. Corpus Luteum. Dietary Fats. Female. \*Food Deprivation. Male. Muridae. Ovarian Follicle.

Ovary. \*Reproduction. \*Sex Characteristics. South Africa.  
Spermatogenesis. Support, Non-U.S. Gov't. Temperature. Uterus  
Geographic Locator:England  
ISSN:1470-1626  
Year:2001  
Journal Title:Reproduction

Title:Small business success in rural communities: explaining the sex gap

View Article: Rural Sociology. 2001. 66 (4). 507-531

CD Volume:372

Print Article: Pages: 507-531

Author(s):Bird S R Sapp S G Lee M Y

Author Affiliation:Department of Sociology, 104 East Hall, Iowa State University, Ames, IA 50011-1070, USA

Language:English

Abstract:Building on previous theory and research, we propose a "structural relational" view of the sex gap in small business success. Our findings, based on analyses of data from small business owners (n=423) in Iowa, USA, in 1995, show support for our model and suggest that links between owners, social relational processes, business structure, and small business success operate differently depending on the industry location of the business and the owner's sex. Results also indicate that the business owner's sex has direct and indirect effects on business success. This finding suggests that social relations, organizations, and institutions are all gendered in ways that influence the sex gap in sales, but that further research is needed to more fully explain sex differences in small business success. We discuss these and other findings in terms of their theoretical and practical implications, and suggest directions for future research

Descriptors:gender-relations. interpersonal-relations. models. rural-areas. rural-communities. small-businesses

Geographic Locator:Iowa. USA

Supplemental Descriptors:West-North-Central-States-of-USA. North-Central-States-of-USA. USA. North-America. America. Developed-Countries. OECD-Countries. Corn-Belt-States-of-USA

Subject Codes:EE350. UU485. UU800

Supplementary Info:42 ref

ISSN:0036-0112

Year:2001

Journal Title:Rural Sociology

Copyright:Copyright CAB International

Title:Hunting and rural socialization: contingent effects of the rural setting on hunting participation

View Article: Rural Sociology. 2001. 66 (4). 599-617

CD Volume:372

Print Article: Pages: 599-617

Author(s):Stedman R C Heberlein T A

Author Affiliation:Department of Agricultural Economics and Rural Sociology, The Pennsylvania State University, 111-B Armsby Building, University Park, PA 16802, USA

Language:English

Abstract:This paper examines the relationship between rural socialization and hunting participation. A national survey in the USA, which was completed between September 1996 and January 1997 through phone interviews (n=769), used a socialization framework to explore the more specific conditions under which rural upbringings were associated with increased hunting participation. Rural upbringings fostered an increase in hunting primarily when the

socialization relationship between agent and target was unlikely to do so and when participation was consistent with gender norms: rural males whose fathers did not hunt were more likely to hunt than urban males whose fathers did not. In no other cases did rural upbringings result in an increased propensity for hunting. We suggest that broad statements about the cultural significance of hunting to rural life be made more cautiously, with the effects of other variables taken into account

Descriptors:families. gender-relations. hunting. participation. relationships. rural-areas. rural-sociology. socialization. surveys  
Geographic Locator:USA

Supplemental Descriptors:North-America. America. Developed-Countries. OECD-Countries

Subject Codes:UU485. UU625. UU800

Supplementary Info:many ref

ISSN:0036-0112

Year:2001

Journal Title:Rural Sociology

Copyright:Copyright CAB International

Title:Conflicts over Credit: Re-evaluating the Empowerment Potential of Loans to Women in Rural Bangladesh

View Article: World Development. 29 (1) 2001. 63-84

CD Volume:376

Print Article: Pages: 63-84

Author(s):Kabeer N

Author Affiliation:Institute of Development Studies, Sussex

Language:English

Abstract:This paper explores the reasons why recent evaluations of the empowerment potential of credit programs for rural women in Bangladesh have arrived at very conflicting conclusions. Although these evaluations use somewhat different methodologies and have been carried out at different points of time, the paper argues that the primary source of the conflict lies in the very different understandings of intrahousehold power relations that these studies draw on. It supports this argument through a comparative analysis with the findings of a participatory evaluation of a rather different credit program in Bangladesh in which the impact of loans was evaluated by women loanees themselves

Descriptors:Economic Development: Financial Markets; Saving and Capital Investment. Economic Development: Human Resources; Income Distribution; Migration. Economics of Gender

Geographic Locator:Bangladesh

Subject Codes:EE450. UU200

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Building on Poor People's Capacities: The Case of Common Property Resources in India and West Africa

View Article: World Development. 29 (1) 2001. 119-33

CD Volume:376

Print Article: Pages: 119-133

Author(s):Beck T Nesmith C

Author Affiliation:Institute of Asian Research, Vancouver. N. Vancouver, BC

Language:English

Abstract:This article examines the relation between poor women and men and common property resources (cprs). It locates poor people's use of cprs within a wider focus on sustainable livelihoods, which argues that development initiatives need to build on people's assets and strengths, and identifies cprs as a crucial element of poor people's coping and adaptive strategies. The article considers evidence from India and West Africa with a particular focus on poverty reduction, equity, gender and management issues. Development agencies and governments which have re-focused their attention on poverty in recent years will find that cprs provide an entry point to understanding poor people's perceptions of poverty and for building on their capacities

Descriptors:Economic Development: Human Resources; Income Distribution; Migration. Measurement and Analysis of Poverty. Provision and Effects of Welfare Programs

Geographic Locator:India. W.-Africa

Subject Codes:EE450. UU300

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Paradox of Empowerment: Reflections on a Case Study from Northern Ghana

View Article: World Development. 29 (1) 2001. 135-53

CD Volume:376

Print Article: Pages: 135-153

Author(s):Botchway K

Author Affiliation:Parlin, New York

Language:English

Abstract:In recent years the "development" industry has began to incorporate into its vocabulary notions about the "empowerment of the poor," participatory democracy," "gender in development" etc. as part of a strategy for poverty alleviation in the developing world. This paper critically examines the notion of participation as the basis of empowerment in the context of a joint Canadian-Ghanaian financed rural development project in the Northern Region of Ghana. The paper argues that because of the inherent goodness of the notion of participation, it has become a substitute for the structural reforms needed for social change. The paper raises questions not just about the terms and mode of participation but further points out that reference to the term "village" or "community" as the basis of participation is simplistic and problematic. The paper also questions the feasibility of the institutional and administrative structures within which such concepts may be realized

Descriptors:Economic Development: Human Resources; Income Distribution; Migration. Measurement and Analysis of Poverty. Provision and Effects of Welfare Programs

Geographic Locator:Ghana

Subject Codes:EE450. UU300

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Nonfarm Employment and Poverty in Rural El Salvador

View Article: World Development. 29 (3) 2001. 529-47

CD Volume:376

Print Article: Pages: 529-547

Author(s):Lanjouw P

Author Affiliation:Free U Amsterdam and World Bank

Language:English

Abstract:This paper analyzes two complementary data sets to study poverty and the nonfarm sector in rural El Salvador. We find that rural poverty in El Salvador remains acute and significantly higher than in urban areas. While the rural poor are mainly agricultural laborers and marginal farmers, some nonfarm activities are also of importance to the poor. In fact, nonfarm activities in El Salvador account for a significant share of rural employment and income for both the poor and the nonpoor. The poor, on the one hand, are engaged in "last resort" nonfarm activities that are not associated with high levels of labor productivity. The nonpoor, on the other, are engaged in productive nonfarm activities which are likely to present a potent force for upward mobility. Significant correlates of these high-productivity occupations include education, infrastructure, location, and gender. While most of the analysis is at the household level, the data also permit some focus on small-scale rural enterprise activities. It appears that in El Salvador very few rural enterprises report utilizing formal credit in setting up their activities. In addition, a significant proportion of enterprises are engaged in subcontracting arrangements with some larger, often urban-based, firm

Descriptors:Measurement and Analysis of Poverty. Economic

Development: Regional, Urban, and Rural Analyses. Urban, Rural, and

Regional Economics: Regional Migration; Regional Labor Markets;

Population. Economic Development: Human Resources; Income

Distribution; Migration

Geographic Locator:El-Salvador

Subject Codes:UU300. EE450. UU100. EE900

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Disempowerment of Men in Rural and Urban East Africa:

Implications for Male Identity and Sexual Behavior

View Article: World Development. 29 (4) 2001. 657-71

CD Volume:376

Print Article: Pages: 657-671

Author(s):Silberschmidt M

Author Affiliation:U Copenhagen

Language:English

Abstract:Patriarchal structures and stereotyped notions of gender hide the increasing disempowerment of many men in rural and urban East Africa. Socioeconomic change has left men with a patriarchal ideology bereft of its legitimizing activities. Unemployment or low incomes prevent men from fulfilling their male roles as head of household and breadwinner. Women's roles and responsibilities have increased. This affects men's social value, identity and self-esteem. Multi-partnered sexual relationships and sexually aggressive behavior

seem to strengthen male identity and sense of masculinity. Strategies to improve sexual and reproductive health must take into account how socioeconomic changes have affected traditional gender roles and male sexual behavior

Descriptors:Economics of Gender. Economic Development: Regional, Urban, and Rural Analyses. Economic Development: Human Resources; Income Distribution; Migration

Geographic Locator:Africa

Subject Codes:UU200. EE450

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Pension Reform and Gender Gaps in Latin America: What Are the Policy Options?

View Article: World Development. 29 (5) 2001. 911-23

CD Volume:376

Print Article: Pages: 911-923

Author(s):Bertranou F M

Author Affiliation:International Labour Office, Chile

Language:English

Abstract:Several Latin American countries have implemented structural reforms in their social security-pension systems. These reforms have modified the traditional public pay-as-you-go defined benefit PAYG-DB) schemes, introducing multipillar systems where fully funded defined contribution (FF-DC) schemes play an important role. Gender gaps in coverage and benefits under PAGY-DB and FF-DC schemes have been one of the policy issues missing in most of the reforms, in part because it has been certainly underresearched in the literature. This paper studies the sources of pension gender gaps and provides the pros and cons of a set of policy options that may contribute to overcoming the gaps found in both schemes. These policies are divided on the one hand, into specific policies that directly affect the determination of pension benefits by modifying formula design or eligibility conditions and, on the other hand, policies that indirectly affect the level of benefits and the likelihood of being entitled to them by changing incentives in labor market conditions

Descriptors:Economics of Gender. Social Security and Public Pensions. Economic Development: Human Resources; Income Distribution; Migration. Wages, Compensation, and Labor Costs: Public Policy

Geographic Locator:Latin-America

Subject Codes:UU200. UU300. EE450. EE900

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:The Long-Term Impact of Health on Economic Growth in Latin America

View Article: World Development. 29 (6) 2001. 1025-33

CD Volume:376

Print Article: Pages: 1025-1033

Author(s):Mayer D

Author Affiliation:Centro de Investigacion y Docencia Econ

Language:English

Abstract:Growth regressions adapted as Granger-type causality tests give strong evidence of 30-year causality from health to income in 18 Latin American countries. The health indicator is probability of survival by age and gender groups for 1950-90. A permanent increment of between 0.8% and 1.5% annual income is associated with typical adult and, surprisingly, old age health improvements. The channels of causation from health to income are diverse and need to be identified in microeconomic studies that should, however, include a wide variety long-term phenomena to account for the economic effects of health

Descriptors:Health Production: Nutrition, Mortality, Morbidity, Disability, and Economic Behavior. Measurement of Economic Growth; Aggregate Productivity. Economic Development: Human Resources; Income Distribution; Migration

Geographic Locator:Latin-America

Subject Codes:UU350. EE100. EE450

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Microenterprise Lending to Female Entrepreneurs: Sacrificing Economic Growth for Poverty Alleviation?

View Article: World Development. 29 (7) 2001. 1225-36

CD Volume:376

Print Article: Pages: 1225-1236

Author(s):Kevane M Wydick B

Author Affiliation:Santa Clara U. U San Francisco

Language:English

Abstract:This research compares the performance of female and male entrepreneurs in a microenterprise credit program in Guatemala. Previous research and field practice has suggested that targeting credit at female borrowers allows for greater increases in household welfare, but that male entrepreneurs may more aggressively expand enterprises when given access to credit. In this paper, we develop a model that shows that increases in value of home time during childbearing years for women may substantially account for gender differences in responses to credit access. Empirical results from Guatemalan survey data yield estimations consistent with the predictions from our model

Descriptors:Economics of Gender. Entrepreneurship. Measurement and Analysis of Poverty. Provision and Effects of Welfare Programs. Industrialization; Manufacturing and Service Industries; Choice of Technology. Economic Development: Human Resources; Income Distribution; Migration. Measurement of Economic Growth; Aggregate Productivity

Geographic Locator:Guatemala

Subject Codes:UU200. EE200. UU300. EE450. EE100

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Women's Participation in Local Organizations: Conditions and Constraints

View Article: World Development. 29 (8) 2001. 1391-1404

CD Volume:376

Print Article: Pages: 1391-1404

Author(s):Weinberger K Jutting J P

Author Affiliation:Asian Vegetable Research & Development Center. Center for Development Research, U Bonn

Language:English

Abstract:Civic organizations have a capacity to contribute to economic growth and an equitable distribution of welfare by reducing information asymmetries and transaction costs. While donors increasingly recognize that group-based projects are a means to advocate organizational capacities of target groups, it is not clear whether group-based organizations always increase efficiency and equity. This article analyses the determinants of participation in local development groups (LDGs) using data from two projects funded by UNDP in Kashmir and GTZ in Chad. A major result of the empirical analysis is the identification of a "middle-class effect" of participation. The exclusion of the majority of the poor can be explained by high opportunity costs to join the group, especially for income-earning women. In addition, it can be shown that an existing social network is a pre-condition for participation. Finally, the assumption has been confirmed that bargaining power of the members is important for their decision to participate in groups

Descriptors:Economics of Gender. Economic Development: Human Resources; Income Distribution; Migration. Economic Development: Regional, Urban, and Rural Analyses

Geographic Locator:Pakistan. Chad

Subject Codes:UU200. EE450

ISSN:0305-750X

Year:2001

Journal Title:World Development

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Title:Maquiladoras: Exploitation or Emancipation? An Overview of the Situation of Maquiladora Workers in Honduras

View Article: World Development. 29 (9) 2001. 1553-67

CD Volume:376

Print Article: Pages: 1553-1567

Author(s):Ver Beek K A

Author Affiliation:Calvin College

Language:English

Abstract:Are offshore assembly workers being exploited or emancipated? The answer depends largely on what factors are being considered and with whom the workers are being compared. This paper presents data on 12 indicators, including both economic and social factors, which together provide an overview of the situation of maquiladora workers in Honduras. Second, it uses an alternative control group, first time applicants to the maquiladoras. Finally, this paper presents data collected in Honduras in 1998--providing insights into the industry as it is operating post-NAFTA and in a non-Mexican setting

Descriptors:Safety; Accidents; Industrial Health; Job Satisfaction; Related Public Policy. Industrialization; Manufacturing and Service Industries; Choice of Technology. Multinational Firms; International Business. Economic Development: Human Resources; Income Distribution; Migration. Economics of Gender. International Linkages to Development; Role of International Organizations  
Geographic Locator:Honduras  
Subject Codes:EE900. EE450. EE600. UU200  
ISSN:0305-750X  
Year:2001

Journal Title:World Development  
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Title:Integration of an Essential Services Package (ESP) in Child and Reproductive Health and Family Planning with a Micro-credit Program for Poor Women: Experience from a Pilot Project in Rural Bangladesh  
View Article: World Development. 29 (9) 2001. 1611-21  
CD Volume:376

Print Article: Pages: 1611-1621  
Author(s):Amin R  
Author Affiliation:Morgan State U  
Language:English

Abstract:In early 1992, a two-phased pilot project, initially integrating a micro-credit program for poor women with a family planning and expanded program of immunization (EPI) (in the first phase) and subsequently and incrementally with an essential services package ESP) in reproductive and maternal and child health (in the second phase), was initiated in rural Bangladesh. Data on the project show that there has been a significant increase in contraceptive use and a decline in fertility since the initiation of the first phase of the project. There also has been an increase in the dissemination of information on, and utilization of, ESP medical technologies in the intervention community at large

Descriptors:Health: Government Policy; Regulation; Public Health. Fertility; Child Care; Children; Youth. Economic Development: Human Resources; Income Distribution; Migration. Microeconomic Analyses of Economic Development. Economics of Gender  
Geographic Locator:Bangladesh  
Subject Codes:UU350. UU200. EE450  
ISSN:0305-750X  
Year:2001

Journal Title:World Development  
Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2001 by the American Economic Association. Record from the EconLit database is used with the permission of Elsevier Scie

Title:Participatory Exclusions, Community Forestry, and Gender: An Analysis for South Asia and a Conceptual Framework  
View Article: World Development. 29 (10) 2001. 1623-48  
CD Volume:376

Print Article: Pages: 1623-1648  
Author(s):Agarwal B  
Author Affiliation:Institute of Econ Growth, Delhi  
Language:English

Abstract: The idea of people's participation has long been part of development thinking. But today the management of local natural resources by village communities is widely accepted as an institutional imperative. It is therefore essential to examine how these institutions perform, especially from the perspective of the more disadvantaged. Based on extensive fieldwork among community forestry groups in India and Nepal, and existing case studies, this paper demonstrates how seemingly participatory institutions can exclude significant sections, such as women. It provides a typology of participation, spells out the gender equity and efficiency implications of such exclusions, and analyzes what underlies them. It also outlines a conceptual framework to help analyze the process of gender exclusion and how it might be alleviated

Descriptors: Formal and Informal Sectors; Shadow Economy; Institutional Arrangements. Economic Development: Agriculture; Natural Resources; Environment; Other Primary Products. Economics of Gender. Renewable Resources and Conservation; Environmental Management: Forestry

Geographic Locator: India. Nepal

Subject Codes: EE450. UU200. EE150. KK000

ISSN: 0305-750X

Year: 2001

Journal Title: World Development

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Title: Designing agricultural technology for African women farmers: lessons from 25 years of experience

View Article: World Development (Oxford) 2001. 29 (12). 2075-2092  
CD Volume: 376

Print Article: Pages: 2075-2092

Author(s): Doss C R

Author Affiliation: Yale University, New Haven, Connecticut, USA

Language: English

Abstract: Women farmers in Africa are less likely than men to adopt improved crop varieties and management systems. This paper addresses how gender affects technology adoption among farmers in Africa and how the introduction of new technologies affect women's wellbeing. Three conclusions come out of an extensive and critical review of the literature: African households are complex and heterogeneous; gender roles within African households and communities cannot be simply summarized; and gender roles and responsibilities are dynamic, they respond to changing economic circumstances. The paper demonstrates the complexity and importance of efforts to design interventions for African women

Descriptors: agricultural-development. farmers. gender-relations. innovation-adoption. social-impact. technical-progress. technology-transfer. varieties. women

Geographic Locator: Africa

Organism Descriptors: man

Supplemental Descriptors: Homo. Hominidae. Primates. mammals. vertebrates. Chordata. animals

Subject Codes: EE110. UU485. UU500. UU800. CC200

Supplementary Info: many ref

ISSN: 0305-750X

Year: 2001

Journal Title: World Development

Copyright: Copyright CAB International

Title:Land inheritance and schooling in matrilineal societies:  
evidence from Sumatra  
View Article: World Development (Oxford) 2001. 29 (12). 2093-2110  
CD Volume:376  
Print Article: Pages: 2093-2110  
Author(s):Quisumbing A R Otsuka K  
Author Affiliation:International Food Policy Research Institute,  
Washington, Dist. of Columbia, USA  
Language:English  
Abstract:This paper explores statistically the implications of the  
shift from communal to individualized tenure on the distribution of  
land and schooling between sons and daughters in matrilineal  
societies. It is based on a case study in Sumatra, Indonesia,  
involving 60 households. The inheritance system is evolving from a  
strictly matrilineal system to a more egalitarian system in which  
sons and daughters inherit the type of land which is more intensive  
in their respective work effort. While gender bias is either non-  
existent or small in land inheritance, daughters tend to be  
disadvantaged with respect to schooling. The gender gap in schooling,  
however, appears to be closing for the generation of younger children  
Descriptors:agricultural-society. case-studies. daughters. education.  
gender-relations. land-consolidation. land-ownership. land-  
transfers. sons. tenure-systems  
Geographic Locator:Indonesia. Sumatra  
Organism Descriptors:man  
Supplemental Descriptors:South-East-Asia. Asia. Developing-Countries.  
ASEAN-Countries. Indonesia. Homo. Hominidae. Primates. mammals.  
vertebrates. Chordata. animals  
Subject Codes:CC100. EE165. UU485. UU800  
Supplementary Info:48 ref  
ISSN:0305-750X  
Year:2001  
Journal Title:World Development  
Copyright:Copyright CAB International

Title:Household composition and food expenditures in China  
View Article: Agribusiness (New York) 2002. 18 (3). 387-407  
CD Volume:383  
Author(s):Gould B W  
Author Affiliation:Wisconsin Center for Dairy Research, University of  
Wisconsin-Madison, Wisconsin, USA  
Other Title:Household composition and food expenditures in China  
Language:English  
Abstract:With China admitted to the World Trade Organization there is  
the potential for dramatic increases in US agricultural exports. The  
present analysis uses household-level data to identify important  
determinants of expenditures on food for at-home consumption by  
households in three Chinese urban provinces. Besides the role of  
household income, we examine the impact of household member  
age/gender composition on expenditures via the estimation of  
endogenously determined adult equivalents. Results from the analysis  
show that overall food at-home expenditures are income inelastic,  
some commodities exhibit elastic responses to changes in their own  
price and household composition has a significant impact on food  
choice  
Descriptors:families. food-consumption. food-products. household-  
consumption. household-surveys. income. income-elasticities  
Geographic Locator:China  
Identifiers:food expenditure  
Supplemental Descriptors:East-Asia. Asia. Developing-Countries

Subject Codes:ee116. ee130. ee720. ee950. qq000  
Supplementary Info:35 ref  
ISSN:0742-4477  
Year:2002  
Journal Title:Agribusiness  
Copyright:Copyright CAB International

Title:Seasonal labor constraints and intra-household dynamics in the female fields of southern Cameroon  
View Article: Agricultural Economics. 2002. 27 (1). 23-32  
CD Volume:387

Author(s):Elad R L Houston J E  
Author Affiliation:Division of Agricultural and Forest Resources, Abraham Baldwin Agricultural College, ABAC 8, 2802 Moore Highway, Tifton, GA 31794, USA  
Other Title:Seasonal labor constraints and intra-household dynamics in the female fields of southern Cameroon  
Language:English

Abstract:African agricultural production is modelled as a sequential decision process, with men's labour first allotted to clearing, then women's labour allotted to harvesting. A switching regression is then used to measure the constraints due to clearing labour capacity and harvesting labour capacity. Production information for the household groundnut field covers 2 cropping seasons and 115 households in southern Cameroon. The import of men's clearing labour depends on the valuation of shadow wages. Output appears to be more frequently constrained by husband's clearing labour, and in this situation male labour appears under-utilized. However, output is also significantly constrained by female harvest labour, although the findings imply that female labour is over-utilized at this stage

Descriptors:agricultural-production. constraints. female-labour. gender-relations. mathematical-models. seasonal-labour. wages

Geographic Locator:Cameroon

Supplemental Descriptors:Central-Africa. Africa-South-of-Sahara. Africa. Developing-Countries. ACP-Countries. Francophone-Africa

Subject Codes:ee110. ee900. uu500

Supplementary Info:10 ref

ISSN:0169-5150

Year:2002

Journal Title:Agricultural Economics  
Copyright:Copyright CAB International

Title:A modelling approach for analysis of agro pastoral activity at the one-farm level

View Article: Agricultural Systems. 2002. 71 (3). 187-206

CD Volume:388

Author(s):Herve D Genin D Migueis J

Author Affiliation:IRD (Institut de Recherche pour le Developpement, ex-ORSTOM)-CIP (International Potato Center), Aptdo 1558, Lima 12, Peru

Other Title:A modelling approach for analysis of agro pastoral activity at the one-farm level

Language:English

Abstract:A model was developed to represent the general functioning of a low input farming system in Pumani, Bolivia, in order to dispose of a tool able to simulate the effects of changes in productive and social organization in traditional Andean rural communities. The model analyses daily agropastoral activities of different members of an Andean peasant family, and farm crop production, across a 1-year timeframe, according to climate and labour organization. The modelling approach uses object-oriented language, describes the

objects and their relations with a unified modelling language formalism and manages time as illustrated by a sample potato crop. To demonstrate this methodology, one-farm observed and simulated data are compared within two frameworks: the cattle-feeding system; and the labour allocation system detailed by task and by gender. Results show good reliance in the first case study and, in the second case, a satisfactory overview of the agropastoral calendar of household member workers, regarding the priorities given by peasants according to climate, land use constraints, social organization and out-farm activities. Due to its modularity, the object-oriented modelling approach appears to improve understanding of the general functioning of agropastoral households by allowing multipurpose simulations and exploring the links between social and productive activities

Descriptors:agricultural-production. agropastoral-systems. farming-systems. models. multiple-land-use. pastoral-society. pastoralism. rural-communities

Geographic Locator:Bolivia

Supplemental Descriptors:South-America. America. Developing-Countries. Andean-Group. Latin-America

Subject Codes:ee110. ee900. uu450. uu485. uu800. ff150. ll180

Supplementary Info:40 ref

ISSN:0308-521X

Year:2002

Journal Title:Agricultural Systems

Copyright:Copyright CAB International

Title:Adoption of agroforestry in the hills of Nepal: a logistic regression analysis

View Article: Agricultural Systems. 2002. 72 (3). 177-196

CD Volume:388

Author(s):Neupane R P Sharma K R Thapa G B

Author Affiliation:Rural Development, Gender and Resources Program, School of Environment, Resources and Development, Asian Institute of Technology, Klong Luang, Pathumthani 12120, Thailand

Other Title:Adoption of agroforestry in the hills of Nepal: a logistic regression analysis

Language:English

Abstract:Widespread deforestation and increasingly intensive use of land to sustain a growing population has increased soil erosion, lowered soil fertility, and reduced agricultural productivity in the hills of Nepal. This has raised concern over the sustainability of the hill farming system. There is growing evidence that agroforestry can be a potential solution to these problems. However, the development of agroforestry as a viable alternative for farmers in diverse ecological and socioeconomic conditions has become a very challenging issue. The objective of this paper was to identify factors influencing the adoption of agroforestry by subsistence farmers in the hills, with reference to an agroforestry project initiated by Nepal Agroforestry Foundation. Necessary information for this study came from a survey of 223 households (82 project and 141 non-project) from Kumpur, Nalang, and Salang villages in Dhading district in 1998. The results showed that male membership in local non-governmental organizations (NGOs), female education level, livestock population, and farmer's positive perception towards agroforestry have significantly positive effects on adoption of agroforestry among project households. However, the number of children below 5 years of age, number of males aged 10-59 years, male education, female's NGO membership, and respondents' age had significantly negative effects. Among non-project households, those with more livestock and male membership to local NGOs were found more

likely to adopt, while the households headed by males were less likely to adopt agroforestry  
Descriptors:agroforestry. agroforestry-systems. hill-land. household-surveys. innovation-adoption. socioeconomic. subsistence-farming. sustainability  
Geographic Locator:Nepal  
Supplemental Descriptors:South-Asia. Asia. Least-Developed-Countries. Developing-Countries  
Subject Codes:ee110. ee112. kk600. pp300. uu485. zz100  
Supplementary Info:47 ref  
ISSN:0308-521X  
Year:2002  
Journal Title:Agricultural Systems  
Copyright:Copyright CAB International

Title:Sustainable soil management options for Malawi: can smallholder farmers grow more legumes?

View Article: Agriculture, Ecosystems & Environment. 2002. 91 (1/3). 159-174

CD Volume:387

Author(s):Snapp S S Rohrbach D D Simtowe F Freeman H A

Author Affiliation:Department of Horticulture, 440A Plant Soil Science Building, Michigan State University, East Lansing, MI 48824-1325, USA

Other Title:Sustainable soil management options for Malawi: can smallholder farmers grow more legumes?

Language:English

Abstract:Sole-cropped, unfertilized maize is the dominant cropping system throughout southern Africa. Yields have become stagnant and legumes are frequently advocated as an affordable option for resource poor farmers, to enhance productivity. Farmer participatory research was employed to test legume intensification as a means to improve maize-based systems in Malawi. A range of options were evaluated, from grain/legume intercrops of long-duration pigeonpea (*Cajanus cajan*) and groundnut (*Arachis hypogaea*) rotated with maize (*Zea mays*), to a relay green manure system of maize with *Tephrosia vogelii*. Two years of on-farm experimentation indicated that under on-farm conditions legume-intensified systems produced residues that contained approx equal to 50 kg N/ha per year, two-fold higher than sole-cropped maize residues. Grain yields from legume-intensified systems were comparable to yields from continuous sole maize, even in a dry lakeshore ecology. These preliminary findings were linked to farmer assessment, where farmers participating in the trials expressed strong interest in the technologies. Yet the probability of adoption remains uncertain. Associated surveys outlined constraints and trade-offs underlying technology choice, information that is not usually considered in conjunction with on-farm trials. Although the legumes were highly productive, farmers expressed worries about the marginal loss of maize production. While the trial performance was similar across regions, differences in market condition, farm resources and household composition appears to stimulate different technology choices. Farmers weigh the benefits of weed suppression and potential cash earnings, against the costs of seed, problems of seed access, labour requirements and problems of grain market access and price. Surveyed farmers commonly manage residues by burning. Promotion and experimentation with more efficient use of legume residues may offer higher short-term impacts than efforts to promote adoption of another cash crop. Ultimately, adoption and soil fertility benefits may depend on market returns to legume production. This study documents the value of researchers and farmers partnering

in evaluation of technologies, adoption constraints and competing technology choices

Descriptors:cost-benefit-analysis. crop-residues. crop-yield. cropping-systems. farmers'-attitudes. field-experimentation. gender-relations. groundnuts. innovation-adoption. labour-requirements. maize. pigeon-peas. small-farms. soil-fertility. soil-management. sole-cropping. sustainability. technology-transfer. weed-control. weeds

Geographic Locator:Malawi

Organism Descriptors:Arachis-hypogaea. Cajanus-cajan. Tephrosia-vogelii. Zea-mays

Supplemental Descriptors:Arachis. Papilionoideae. Fabaceae. Fabales. dicotyledons. angiosperms. Spermatophyta. plants. Cajanus. East-Africa. Africa-South-of-Sahara. Africa. Least-Developed-Countries. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. SADC-Countries. Anglophone-Africa. Tephrosia. Zea. Poaceae. Cyperales. monocotyledons

Subject Codes:cc200. ee110. ff005. ff100. ff150. jj600. jj900. uu485. uu500. xx200

Supplementary Info:33 ref

ISSN:0167-8809

Year:2002

Journal Title:Agriculture, Ecosystems & Environment

Copyright:Copyright CAB International

Title:Determinants of farmers' adoption and adaptation of alley farming technology in Nigeria

View Article: Agroforestry Systems. 2002. 55 (2). 99-112

CD Volume:384

Author(s):Adesina A A Chianu J

Author Affiliation:Southern Africa Regional Office, The Rockefeller Foundation, P.O. Box MP 172, 7th Floor Kopje Plaza, Harare, Zimbabwe

Other Title:Determinants of farmers' adoption and adaptation of alley farming technology in Nigeria

Language:English

Abstract:Understanding the factors affecting farmers' adoption of improved technologies is critical to success of implementing agroforestry development programs. This paper evaluated the determinants of farmers' decisions to adopt and adapt alley farming technology and its variants in the farming systems of Nigeria, using econometric Logit models. Eleven variables were significant in explaining farmers' adoption decisions. The model results show that farmer characteristics that influenced adoption included the gender of the farmer, contact with extension agents, years of experience with agroforestry and tenancy status in the village. Economic factors, proxied by village-level characteristics that condition resource use incentives, were also significant. These variables include the extent of village land pressure, extent of erosion intensity, village fuel wood pressure, importance of livestock as an economic activity in the village and the distance of the village locations from urban centers. The paper showed that farmers are already making significant modifications to the conventional alley farming technology introduced by scientists. The two most important modifications were the introduction of fallow periods into the conventional system and changes in the pruning regime of the system. Model results showed that human capital variables were significant in explaining farmers' decisions to adapt and modify the technology. Farmer education and family size significantly influence the choice of pruning regime. Farmers' age, education, intensity of erosion in the farmers' village, and farmers' land availability significantly influence whether or not fallow period is introduced into the

conventional system. To promote greater adoption of agroforestry alternatives to slash-and-burn agriculture, particular attention should be placed on the use of appropriate socioeconomic characterization, to better target technologies to areas with higher adoption potential

Descriptors:agroforestry. agroforestry-systems. alley-cropping. decision-making. economic-analysis. farmers'-attitudes. innovation-adoption. mathematical-models. technology

Geographic Locator:Nigeria

Supplemental Descriptors:West-Africa. Africa-South-of-Sahara. Africa. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. Anglophone-Africa

Subject Codes:cc300. kk600. uu485. zz100

Supplementary Info:30 ref

ISSN:0167-4366

Year:2002

Journal Title:Agroforestry Systems

Copyright:Copyright CAB International

Title:Female Participation and Labor Market Attachment in Rural Canada

View Article: American Journal of Agricultural Economics. 84 (1) 2002. 210-21

CD Volume:393

Print Article: Pages: 210-221

Author(s):Phimister E Vera Toscano E Weersink A

Author Affiliation:U Aberdeen. U CA, Davis. U Guelph

Other Title:Female Participation and Labor Market Attachment in Rural Canada

Language:English

Abstract:This article explores the reasons for differences in female rural-urban participation rates by estimating a dynamic model of participation allowing for unobserved heterogeneity and state dependence using Canadian panel data. The results suggest that overall observed differences in rural-urban participation rates are primarily due to differences in observed socioeconomic characteristics. However, for women resident in low-income households, there is evidence that the operation of rural labor markets effectively lowers their participation rates

Descriptors:Economics of Gender. Urban, Rural, and Regional Economics: Regional Migration; Regional Labor Markets; Population

Geographic Locator:Canada

Subject Codes:uu200. uu100. ee900

ISSN:0002-9092

Year:2002

Journal Title:American Journal of Agricultural Economics

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Title:Turnover in U.S. Agricultural Labor Markets

View Article: American Journal of Agricultural Economics. 84 (2) 2002. 427-37

CD Volume:393

Print Article: Pages: 427-437

Author(s):Tran L H Perloff J M

Author Affiliation:Federal Trade Commission. U CA, Berkeley and Giannini Foundation

Other Title:Turnover in U.S. Agricultural Labor Markets

Language:English

Abstract:Agricultural workers move in and out of agriculture frequently. Migration between types of jobs takes relatively little time. Legal female workers tend to stay out of the U.S. labor market longer once they stop being employed and their access to jobs outside of agriculture is more limited than that of their male counterparts. Predictions made when the 1986 Immigration Reform and Control Act was passed that granting people amnesty would induce most of them to leave agriculture were incorrect

Descriptors:Agricultural Labor Markets. Geographic Labor Mobility; Immigrant Workers. Economics of Gender

Geographic Locator:U.s.

Subject Codes:ee900. uu200

ISSN:0002-9092

Year:2002

Journal Title:American Journal of Agricultural Economics

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Title:Nitrogen dioxide exposure: effects on airway and blood cells

View Article: American Journal of Physiology (Consolidated). 2002.

282. (1 Part 1.). L155-L165

CD Volume:382

Author(s):Frampton MW Boscia J Roberts NJ Jr Azadniv M Torres A Cox C Morrow PE Nichols J Chalupa D Frasier LM Gibb FR Speers DM Tsai Y Utell MJ

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Other Title:Nitrogen dioxide exposure: effects on airway and blood cells

Language:English

Abstract:This study examined the effects of nitrogen dioxide (NO<sub>2</sub>) exposure on airway inflammation, blood cells, and antiviral respiratory defense. Twenty-one healthy volunteers were exposed on separate occasions to air and 0.6 and 1.5 ppm NO<sub>2</sub> for 3 h with intermittent moderate exercise. Phlebotomy and bronchoscopy were performed 3.5 h after each exposure, and recovered cells were challenged with respiratory viruses in vitro. Blood studies revealed a 4.1% NO<sub>2</sub> dose-related decrease in hematocrit (P = 0.003). Circulating total lymphocytes (P = 0.024) and T lymphocytes (P = 0.049) decreased with NO<sub>2</sub> exposure. Exposure to NO<sub>2</sub> increased the blood lymphocyte CD4(+)-to-CD8(+) ratio from 1.74 +/- 0.11 to 1.85 +/- 0.12 in males but decreased it from 1.88 +/- 0.19 to 1.78 +/- 0.19 in females (P < 0.001 for gender difference). Polymorphonuclear leukocytes in bronchial lavage increased with NO<sub>2</sub> exposure (P = 0.003). Bronchial epithelial cells obtained after exposure to 1.5 ppm NO<sub>2</sub> released 40% more lactate dehydrogenase after challenge with respiratory syncytial virus than with air exposure (P = 0.024). In healthy subjects, exposures to NO<sub>2</sub> at levels found indoors cause mild airway inflammation, effects on blood cells, and increased susceptibility of airway epithelial cells to injury from respiratory viruses

Descriptors:Adult. Air. Blood Cells. Bronchi. Bronchoalveolar Lavage Fluid. CD4-CD8 Ratio. Cell Survival. Disease Susceptibility. Dose-Response Relationship, Drug. Double-Blind Method. Epithelial Cells. Female. Human. Influenza. Lactate Dehydrogenase. Lymphocytes. Male. Neutrophils. Nitrogen Dioxide. Phenotype. Respiratory Syncytial Virus Infections. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Gender difference in the glucagon response to glucopenic stress in mice

View Article: American Journal of Physiology (Consolidated). 2002. 282. (1 Part 2.). R281-R288

CD Volume:382

Author(s):Karlsson S Scheurink AJ Ahren B

Author Affiliation:Department of Medicine, Lund University, SE-221 84 Lund, Sweden. Sven.Karlsson@med.lu.se

Other Title:Gender difference in the glucagon response to glucopenic stress in mice

Language:English

Abstract:A gender difference in the glucagon response to insulin-induced hypoglycemia was previously demonstrated in humans. Whether this reflects a gender difference in autonomic activation or in pancreatic alpha-cell regulation is not known. We investigated the glucagon, epinephrine, and norepinephrine responses to neuroglycopenic stress induced by 2-deoxy-D-glucose (2-DG) or insulin in female and male mice. 2-DG increased plasma glucagon levels by 559 +/- 68% in females versus 281 +/- 46% in males ( $P < 0.01$ ). Plasma levels of epinephrine or norepinephrine after 2-DG administration did not differ between genders. During insulin-induced hypoglycemia, the glucagon response was similarly higher in females ( $P < 0.001$ ), whereas the plasma catecholamine response was higher in males ( $P < 0.05$ ). In vivo, the glucagon response to carbachol or clonidine was higher in females ( $P < 0.05$ ). In isolated islets, the glucagon response to carbachol (100 microM;  $P = 0.003$ ) but not to clonidine (1 microM) was larger in females. We conclude that in addition to a larger alpha-cell mass (previously described in female mice), an increased sensitivity of the glucagon-producing alpha-cell to cholinergic activation contributes to the larger glucagon response to glucopenic stress in female mice

Descriptors:Adrenal Glands. Animal. Antimetabolites. Autonomic Nervous System. Blood Glucose. Carbachol. Cholinergic Agonists. Clonidine. Deoxyglucose. Epinephrine. Female. Glucagon. Hypoglycemia. Hypoglycemic Agents. Insulin. Islets of Langerhans. Male. Mice. Mice, Inbred Strains. Norepinephrine. \*Sex Characteristics. Stress.

Support, Non-U.S. Gov't. Sympatholytics

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Effects of age, gender, and blood pressure on myogenic responses of mesenteric arteries from C57BL/6 mice

View Article: American Journal of Physiology (Consolidated). 2002. 282. (1 Part 2.). H380-H388

CD Volume:382

Author(s):Gros R Van Wert R You X Thorin E Husain M

Author Affiliation:Heart and Stroke Richard Lewar Center of Excellence, University of Toronto, Toronto, Ontario, Canada

Other Title:Effects of age, gender, and blood pressure on myogenic responses of mesenteric arteries from C57BL/6 mice

Language:English

Abstract:The myogenic response (MR) may represent an important physiological parameter underlying arterial blood pressure (BP). We studied the effects of age, gender, and BP on the MR of mesenteric arteries from 8- to 52-wk-old mice. Increasing age and BP are associated with an increase in the perfusion pressure at which tone

develops (myogenic set point). An inverse correlation exists between age and extent (magnitude) of the MR in male ( $r(2) = 0.93$ ,  $P = 0.0087$ ) and female mice ( $r(2) = 0.90$ ,  $P = 0.013$ ) as well as between BP and extent of the MR in male ( $r(2) = 0.96$ ,  $P = 0.0036$ ) and female ( $r(2) = 0.90$ ,  $P = 0.014$ ) mice. In contrast, the strength of the

Descriptors:Aging. Animal. Blood Pressure. Body Weight. Female. Male. Mesenteric Arteries. Mice. Mice, Inbred C57BL. Muscle Contraction. Muscle, Smooth, Vascular. \*Sex Characteristics. Support, Non-U.S. Gov't

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Estrogen attenuates postexercise HSP70 expression in skeletal muscle

View Article: American Journal of Physiology (Consolidated). 2002.

282. (2 Part 1.). C245-C251

CD Volume:382

Author(s):Paroo Z Dipchand ES Noble EG

Author Affiliation:Faculty of Health Sciences, School of Kinesiology, and Lawson Health Research Institute, University of Western Ontario, London, Ontario, Canada N6A 3K7

Other Title:Estrogen attenuates postexercise HSP70 expression in skeletal muscle

Language:English

Abstract:Exercise has been demonstrated as a physiological inducer of heat shock protein (HSP)70. Many of the proposed signals of this response exhibit sexual dimorphism. Thus the present objectives were to determine whether HSP70 induction after exercise exhibits gender specificity and to elucidate the mechanisms underlying such a phenomenon. Postexercise HSP70 induction in skeletal muscle was greater in male than female rats at the level of protein and mRNA ( $P = 0.005$ ). Moreover, placebo-treated ovariectomized animals demonstrated a greater HSP70 response to exercise than those treated with estrogen ( $P = 0.015$  and  $0.019$  for protein and mRNA, respectively). These findings indicate that the gender-specific HSP70 response to exercise is mediated by the female-specific hormone estrogen. Compounds structurally related to 17beta-estradiol, the major endogenous estrogen, but which do not activate the estrogen receptor, also attenuated HSP70 induction with exercise ( $P < 0.01$ ), indicating a nongenomic hormonal mechanism. These findings highlight a specific example of the biological differences between males and females and reiterate the physiological effects of sex hormones extending beyond their roles in reproductive function

Descriptors:Animal. Estradiol. Estrogen Antagonists. Estrogens.

Female. Heat-Shock Proteins 70. Heme Oxygenase (Decyclizing). Male.

Motor Activity. Muscle, Skeletal. Rats. \*Sex Characteristics.

Support, Non-U.S. Gov't. Tamoxifen

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Gender differences in substrate utilization during submaximal exercise in endurance-trained subjects

View Article: American Journal of Physiology (Consolidated). 2002.

282. (2 Part 1.). E435-E447

CD Volume:382

Author(s):Roepstorff C Steffensen CH Madsen M Stallknecht B Kanstrup IL Richter EA Kiens B

Author Affiliation:Department of Human Physiology, Copenhagen Muscle Research Centre, University of Copenhagen, DK-2100 Copenhagen, Denmark. croepstorff@ifi.ku.dk

Other Title:Gender differences in substrate utilization during submaximal exercise in endurance-trained subjects

Language:English

Abstract:Substrate utilization across the leg during 90 min of bicycle exercise at 58% of peak oxygen uptake ( $\text{VO}_2$  peak) was studied in seven endurance-trained males and seven endurance-trained, eumenorrheic females by applying arteriovenous catheterization, stable isotopes, and muscle biopsies. The female and male groups were matched according to  $\text{VO}_2$  peak per kilogram of lean body mass, physical activity level, and training history of the subjects. All subjects consumed the same diet, well controlled in terms of nutrient composition as well as energy content, for 8 days preceding the experiment, and all females were tested in the midfollicular phase of the menstrual cycle. During exercise, respiratory exchange ratio (RER) and leg respiratory quotient (RQ) were similar in females and males. Myocellular triacylglycerol (TG) degradation was negligible in males but amounted to  $12.4 \pm 3.2$  mmol/kg dry wt in females and corresponded to  $25.0 \pm 6.0$  and  $5.0 \pm 7.3\%$  of total oxygen uptake in females and males, respectively ( $P < 0.05$ ). Utilization of plasma fatty acids ( $12.0 \pm 2.5$  and  $9.6 \pm 1.5\%$ ), blood glucose ( $13.6 \pm 1.5$  and  $14.3 \pm 1.5\%$ ), and glycogen ( $48.5 \pm 4.9$  and  $42.8 \pm 2.1\%$ ) were similar in females and males. Thus, in females, measured substrate oxidation accounted for 99% of the leg oxygen uptake, whereas in males 28% of leg oxygen uptake was unaccounted for in terms of measured oxidized lipid substrates. These findings may indicate that males utilized additional lipid sources, presumably very low density lipoprotein-TG or TG located between muscle fibers. On the basis of RER and leg RQ, it is concluded that no gender difference existed in the relative contribution from carbohydrate and lipids to the oxidative metabolism across the leg during submaximal exercise at the same relative workload. However, an effect of gender appears to occur in the utilization of the different lipid sources

Descriptors:Adult. Bicycling. Blood Glucose. Cardiovascular Physiology. Exercise. Fatty Acids. Female. Glucose. Hormones. Human. Kinetics. Leg. Male. Muscle, Skeletal. \*Physical Education and Training. \*Physical Endurance. Respiratory Physiology. \*Sex Characteristics. Support, Non-U.S. Gov't

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Myocellular triacylglycerol breakdown in females but not in males during exercise

View Article: American Journal of Physiology. 2002. 282 (3 Part 1.). e634-e642

CD Volume:382

Author(s):Steffensen C H Roepstorff C Madsen M Kiens B

Author Affiliation:Department of Human Physiology, Copenhagen Muscle Research Centre, University of Copenhagen, DK-2100 Copenhagen, Denmark

Other Title:Myocellular triacylglycerol breakdown in females but not in males during exercise

Language:English

Abstract:The resting content and use of myocellular triacylglycerol (MCTG) during 90 min of submaximal exercise [60% of peak oxygen uptake ( $\text{Vo}_2$  peak)] were studied in 21 eumenorrheic female and 21 male subjects at different training levels [untrained (UT), moderately

trained (MT), and endurance trained (END)], in Denmark. Males and females were matched according to their Vo<sub>2</sub> peak expressed relative to lean body mass, physical activity level, and training history. All subjects ingested the same controlled diet for 8 days, and all females were tested in the midfollicular phase of the menstrual cycle. Resting MCTG, measured with the muscle biopsy technique, averaged 48.4 plus or minus 4.2, 48.5 plus or minus 8.4, and 52.2 plus or minus 5.8 mmol/kg dry weight in UT, MT, and END females, respectively, and 34.1 plus or minus 4.9, 31.6 plus or minus 3.3, and 38.4 plus or minus 3.0 mmol/kg dry weight in UT, MT, and END males, respectively (P<0.001, females vs. males in all groups). Exercise decreased MCTG content in the female subjects by an average of 25%, regardless of training status, whereas in the male groups MCTG content was unaffected by exercise. The arterial plasma insulin concentration was higher (P<0.05) and the arterial plasma epinephrine concentration was lower (P<0.05) in the females than in the males at rest and during exercise. MCTG use was correlated to the resting concentration of MCTG (P<0.001). It is concluded that resting content and use of MCTG during exercise are related to gender and furthermore are independent of training status

Descriptors: blood-plasma. body-lean-mass. epinephrine. exercise. females. insulin. males. menstrual-cycle. physical-activity.

triacylglycerols

Geographic Locator: Denmark

Identifiers: myocellular triacylglycerol

Organism Descriptors: man

Supplemental Descriptors: Scandinavia. Northern-Europe. Europe.

Developed-Countries. European-Union-Countries. OECD-Countries. Homo.

Hominidae. Primates. mammals. vertebrates. Chordata. animals

Subject Codes: vv050. vv120

Supplementary Info: 48 ref

ISSN: 0002-9513

Year: 2002

Journal Title: American Journal of Physiology

Copyright: Copyright CAB International

Title: Influence of vascular dimension on gender difference in flow-dependent dilatation of peripheral conduit arteries

View Article: American Journal of Physiology (Consolidated). 2002.

282. (4 Part 2.). H1262-H1269

CD Volume: 382

Author(s): Joannides R Costentin A Iacob M Compagnon P Lahary A Thuillez C

Author Affiliation: Department of Pharmacology, Institut National de la Sante et de la Recherche Medicale E9920, Institut Federatif de Recherche Multidisciplinaire Sur les Peptides No. 23, Rouen University Hospital, 76031 Rouen, France. robinson.joannides@chu-rouen.fr

Other Title: Influence of vascular dimension on gender difference in flow-dependent dilatation of peripheral conduit arteries

Language: English

Abstract: To assess the influence of initial diameter on the gender difference in flow-dependent dilatation (FDD) of the conduit artery, we measured radial artery internal diameter (echotracking), flow (Doppler) and total blood viscosity in 24 healthy (25 +/- 0.8 yr) men and women during reactive hyperemia (RH) and during a gradual hand skin heating (SH). At baseline, mean diameter (men, 2.76 +/- 0.09 vs. women, 2.32 +/- 0.07 mm, P < 0.05), flow (men, 21 +/- 4 vs. women, 10 +/- 1 ml/min, P < 0.05), and blood viscosity (men, 4.13 +/- 0.07 vs. women, 3.92 +/- 0.13 cP, P < 0.05) were higher in men but mean shear stress (MSS) was not different between groups. During RH, the percent

increase in diameter was lower in men (men, 9 +/- 1 vs. women, 13 +/- 1%, P < 0.05). This difference was suppressed after correction for baseline diameter. During SH, the increase in diameter with flow was higher in women (P < 0.01). However, the increase in MSS was higher in women because of their smaller diameter at each level of flow (P < 0.01) and there was no difference between groups for the increase in diameter at each level of MSS. These results demonstrate in a direct manner that initial diameter influences the magnitude of FDD of conduit arteries in humans by modifying the value of the arterial wall shear stress at each level of flow and support the interest of the heating method in presence of heterogeneous groups

Descriptors:Analysis of Variance. Blood Flow Velocity. Blood Pressure. Body Mass Index. Female. Heat. Hemodynamics. Human. Hyperemia. Male. Muscle, Smooth, Vascular. Radial Artery. Regional Blood Flow. Regression Analysis. Reproducibility of Results. \*Sex Characteristics. Skin. Skin Temperature. Vasodilation

Geographic Locator:United States  
ISSN:0002-9513  
Year:2002  
Journal Title:American Journal of Physiology

Title:Gender differences in naphthalene metabolism and naphthalene-induced acute lung injury

View Article: American Journal of Physiology (Consolidated). 2002. 282. (5 Part 1.). L1122-L1134  
CD Volume:382

Author(s):Van Winkle LS Gunderson AD Shimizu JA Baker GL Brown CD  
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Other Title:Gender differences in naphthalene metabolism and naphthalene-induced acute lung injury

Language:English

Abstract:Humans are widely exposed to polycyclic aromatic hydrocarbons, commonly found in cigarette smoke and diesel exhaust. These can undergo site- and cell-specific metabolism to cytotoxic intermediates. Metabolism of naphthalene and Clara cell cytotoxicity have been extensively studied in male animals. To address whether male and female mice are equally susceptible to naphthalene, mice were injected with naphthalene, and lungs were examined 1, 2, 3, 6, and 24 h after treatment. By analysis of acute injury using differential permeability to fluorescent nuclear dyes and high-resolution histopathology, injury in female mice was found to be more extensive, occur earlier, and include permeable cells in proximal airways, including airway bifurcations. HPLC analysis of the products of cytochrome P-450 (CYP)-mediated metabolism in microdissected airways indicated that although both genders produced a predominance of products from CYP2F2, female mice produced more naphthalene dihydrodiol in distal airways, the primary sites of injury. We conclude that there are clear gender differences in susceptibility to naphthalene-induced injury and that differences in metabolism of naphthalene may play a role in elevated susceptibility in female mice

Descriptors:Animal. Bronchi. Comparative Study. Cytochrome P-450 Enzyme System. Female. Gene Expression. Lung Diseases. Male. Mice. Naphthalenes. RNA, Messenger. \*Sex Characteristics. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Gender difference in the Oatp1-mediated tubular reabsorption of estradiol 17beta-D-glucuronide in rats

View Article: American Journal of Physiology (Consolidated). 2002. 282. (6 Part 1.). E1245-E1254

CD Volume:382

Author(s):Gotoh Y Kato Y Stieger B Meier PJ Sugiyama Y

Author Affiliation:Graduate School of Pharmaceutical Sciences, University of Tokyo, Tokyo 113-0033, Japan

Other Title:Gender difference in the Oatp1-mediated tubular reabsorption of estradiol 17beta-D-glucuronide in rats

Language:English

Abstract:The gender difference in the urinary excretion of estradiol-17beta-glucuronide (E(2)-17betaG) was examined in rats. The urinary clearance of E(2)-17betaG was >250 times lower in male than in female rats. No such major gender difference was observed in its biliary excretion or metabolism in kidney homogenate. Both plasma protein binding and inulin clearance were comparable in male and female rats, suggesting that this gender difference cannot be explained by glomerular filtration. The urinary clearance with respect to the plasma unbound E(2)-17betaG in male rats was <1% of the glomerular filtration rate, indicating its potential reabsorption by the kidney, and this increased to a level comparable with that found in female rats when dibromosulfophthalein was coinjected. A marked increase in E(2)-17betaG urinary excretion was also observed in male rats that had undergone orchidectomy. Testosterone injections given to female rats reduced the urinary excretion to a level comparable with that of control male rats. The concomitant change in the expression of the gene product for organic anion-transporting polypeptide Oatp1, of which E(2)-17betaG is a typical substrate, was found in the kidney membrane fractions after these treatments. These results suggest that urinary E(2)-17betaG excretion is subject to hormonal regulation and that the large gender difference can be explained by regulation in Oatp1-mediated reabsorption

Descriptors:Absorption. Animal. Bile. Blood Proteins. Cell Membrane. Comparative Study. Estradiol. Female. Gene Expression. Glomerular Filtration Rate. Glucuronides. Kidney. Kidney Tubules. Liver. Male. Orchiectomy. Organic Anion Transporters, Sodium-Independent. Rats. Rats, Sprague-Dawley. \*Sex Characteristics. Testosterone

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Effect of gender on lipid kinetics during endurance exercise of moderate intensity in untrained subjects

View Article: American Journal of Physiology (Consolidated). 2002. 283. (1 Part 1.). E58-E65

CD Volume:383

Author(s):Mittendorfer B Horowitz JF Klein S

Author Affiliation:Center for Human Nutrition and Department of Internal Medicine, Washington University School of Medicine, St. Louis, Missouri 63110, USA

Other Title:Effect of gender on lipid kinetics during endurance exercise of moderate intensity in untrained subjects

Language:English

Abstract:We evaluated lipid metabolism during 90 min of moderate-intensity (50% VO(2) peak) cycle ergometer exercise in five men and five women who were matched on adiposity (24 +/- 2 and 25 +/- 1% body fat, respectively) and aerobic fitness (VO(2) peak: 49 +/- 2 and 47 +/- 1 ml x kg fat-free mass(-1) x min(-1), respectively). Substrate oxidation and lipid kinetics were measured by using indirect

calorimetry and [(13)C]palmitate and [(2)H(5)]glycerol tracer infusion. The total increase in glycerol and free fatty acid (FFA) rate of appearance (R(a)) in plasma during exercise (area under the curve above baseline) was approximately 65% greater in women than in men (glycerol R(a): 317 +/- 40 and 195 +/- 33 micromol/kg, respectively; FFA R(a): 652 +/- 46 and 453 +/- 70 micromol/kg, respectively; both P < 0.05). Total fatty acid oxidation was similar in men and women, but the relative contribution of plasma FFA to total fatty acid oxidation was higher in women (76 +/- 5%) than in men (46 +/- 5%; P < 0.05). We conclude that lipolysis of adipose tissue triglycerides during moderate-intensity exercise is greater in women than in men, who are matched on adiposity and fitness. The increase in plasma fatty acid availability leads to a greater rate of plasma FFA tissue uptake and oxidation in women than in men. However, total fat oxidation is the same in both groups because of a reciprocal decrease in the oxidation rate of fatty acids derived from nonplasma sources, presumably intramuscular and possibly plasma triglycerides, in women

Descriptors:Adult. Body Composition. Calorimetry, Indirect. Epinephrine. Exercise Test. Exertion. Fatty Acids, Nonesterified. Female. Glycerol. Human. Infusions, Intravenous. Insulin. Lipids. Male. Norepinephrine. Oxidation-Reduction. Oxygen Consumption. Palmitic Acid. Physical Fitness. Sex Factors. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Influence of puberty on muscle development at the forearm  
View Article: American Journal of Physiology (Consolidated). 2002.  
283. (1 Part 1.). E103-E107  
CD Volume:383

Author(s):Neu CM Rauch F Rittweger J Manz F Schoenau E

Author Affiliation:Children's Hospital, University of Cologne, 50924 Cologne, Germany

Other Title:Influence of puberty on muscle development at the forearm  
Language:English

Abstract:Despite its fundamental importance for physical development, the growth of the muscle system has received relatively little consideration. In this study, we analyzed the relationship between cross-sectional area (CSA) of forearm muscles and maximal isometric grip force with age and pubertal stage. The study population comprised 366 children, adolescents, and young adults from 6 to 23 yr of age (185 female) and 107 adults (88 female) aged 29 to 40 yr. By use of peripheral quantitative computed tomography, muscle CSA was determined at the site of the forearm, whose distance to the ulnar styloid process corresponded to 65% of forearm length. Both muscle CSA and grip force were higher in prepubertal boys than in girls. The gender differences decreased until pubertal stage 3 and reincreased thereafter. In girls at pubertal stage 5, muscle CSA no longer increased with age (P > 0.4), whereas there was still some age-related increase in grip force (P = 0.02). In boys at pubertal stage 5, both muscle CSA and grip force continued to increase significantly with age (P < 0.005 each). Specific grip force (grip force per muscle CSA) adjusted for forearm length increased by almost one-half between 6 and 20 yr of age, with no difference between the genders. In conclusion, forearm muscle growth takes a gender-specific course during puberty, indicating that it is influenced by hormonal changes. However, the increase in specific grip force is similar in both genders and thus appears to be independent of sex hormones

Descriptors:Adolescent. Adult. Aging. Anatomy, Cross-Sectional. Anthropometry. Child. Female. Forearm. Germany. Hand Strength. Human. Isometric Contraction. Male. Muscle Contraction. Muscle, Skeletal. Puberty. Regression Analysis. Tomography, X-Ray Computed  
Geographic Locator:United States  
ISSN:0002-9513  
Year:2002  
Journal Title:American Journal of Physiology

Title:Intrauterine growth restriction in rats is associated with hypertension and renal dysfunction in adulthood  
View Article: American Journal of Physiology. 2002. 283 (1 Part 1.). E124-E131

CD Volume:383

Author(s):Battista M C Oligny L L St Louis J Brochu M  
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Other Title:Intrauterine growth restriction in rats is associated with hypertension and renal dysfunction in adulthood

Language:English

Abstract:Epidemiological studies have produced evidence that unfavourable intrauterine environments during fetal life may lead to adverse outcomes in adulthood. We have previously shown that a low-sodium diet, given to pregnant rats over the last week of gestation, results in intrauterine growth restriction (IUGR). We hypothesize that pups born with IUGR are more susceptible to the development of hypertension in adulthood. IUGR fetuses and rats aged 1 wk were characterized for organ growth and renal morphogenesis. The adults (12 wk) were evaluated for weight, systolic blood pressure, activity of the renin-angiotensin-aldosterone system (RAAS), and renal function; hearts and kidneys underwent a histological examination. Brain and cardiac ventricle-to-body ratios were increased in IUGR fetuses compared with age-matched controls, whereas the kidney-to-body ratio was unchanged. Systolic blood pressure was elevated in both IUGR male and female adults. Plasma aldosterone levels were not correlated with increased plasma renin activity. Moreover, urinary sodium was decreased, whereas plasma urea was elevated in both males and females, and creatinine levels were augmented only in females, suggesting a glomerular filtration impairment in IUGR. In our model of IUGR induced by a low-sodium diet given to pregnant rats, high blood pressure, alteration of the RAAS, and renal dysfunction are observed in adult life. Differences observed between male and female adults suggest the importance of gender in outcomes in adulthood after IUGR

Descriptors:aldosterone. animal-models. blood-pressure. body-measurements. females. glomerular-filtration. hypertension. males. pregnancy. renin. sodium. urea

Identifiers:intrauterine growth restriction. renal dysfunction

Organism Descriptors:rats

Supplemental Descriptors:Muridae. rodents. mammals. vertebrates.

Chordata. animals. small-mammals

Subject Codes:vv140

Supplementary Info:51 ref

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Copyright:Copyright CAB International

Title:Redox signaling of cardiac HSF1 DNA binding

View Article: American Journal of Physiology (Consolidated). 2002. 283. (2 Part 1.). C404-C411

CD Volume:383

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Other Title:Redox signaling of cardiac HSF1 DNA binding

Language:English

Abstract:Experiments involving chemical induction of the heat shock response in simple biological systems have generated the hypothesis that protein denaturation and consequential binding of heat shock transcription factor 1 (HSF1) to proximal heat shock elements (HSEs) on heat shock protein (hsp) genes are the result of oxidation and/or depletion of intracellular thiols. The purpose of the present investigation was to determine the role of redox signaling of HSF1 in the intact animal in response to physiological and pharmacological perturbations. Heat shock and exercise induced HSF1-HSE DNA binding in the rat myocardium ( $P < 0.001$ ) in the absence of changes in reduced glutathione (GSH), the major nonprotein thiol in the cell. Ischemia-reperfusion, which decreased GSH content ( $P < 0.05$ ), resulted in nonsignificant HSF1-HSE formation. This dissociation between physiological induction of HSF1 and changes in GSH was not gender dependent. Pharmacological ablation of GSH with L-buthionine-[S,R]-sulfoximine (BSO) treatment increased myocardial HSF1-HSE DNA binding in estrogen-naive animals ( $P = 0.007$ ). Thus, although physiological induction of HSF1-HSE DNA binding is likely regulated by mediators of protein denaturation other than cellular redox status, the proposed signaling pathway may predominate with pharmacological oxidation and may represent a plausible and accessible strategy in the development of HSP-based therapies  
Descriptors:Animal. Buthionine Sulfoximine. Cause of Death. DNA. DNA-Binding Proteins. Female. Glutathione. Heat. Heat-Shock Proteins. Male. Motor Activity. Myocardium. Ovariectomy. Oxidation-Reduction. Rats. Response Elements. Shock. Signal Transduction. Support, Non-U.S. Gov't

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Effect of gender on endothelium-dependent dilation to bradykinin in human adipose microvessels

View Article: American Journal of Physiology (Consolidated). 2002. 283. (3 Part 2.). H845-H852

CD Volume:383

Author(s):Sato A Miura H Liu Y Somberg LB Otterson MF Demeure MJ Schulte WJ Eberhardt LM Loberiza FR Sakuma I Gutterman DD  
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Other Title:Effect of gender on endothelium-dependent dilation to bradykinin in human adipose microvessels

Language:English

Abstract:We examined the influence of gender and climacteric status, two coronary risk factors, on bradykinin (BK)-induced dilation in adipose arterioles from men and women of different ages [premenopausal women (Pre-W), postmenopausal women (Post-W), and similar aged men (Y-M and O-M), respectively]. We examined the responses from both omental (more closely associated with coronary disease) and subcutaneous fat. Tissues were obtained at surgery and cannulated (60 mmHg) for measurement of internal diameter. In vessels from omental tissue, dilation to BK was more sensitive in Pre-W than other groups, whereas in vessels from subcutaneous tissue,

sensitivity to BK was greater in both Pre-W and Post-W compared with Y-M and O-M. Maximal dilation was similar among groups. Indomethacin (Indo;  $10^{-5}$  M) alone had no effect on dilation to BK in any groups, but Indo and N(omega)-nitro-L-arginine methyl ester (L-NAME;  $10^{-4}$  M) reduced dilation to BK in Pre-W more than in Y-M. L-NAME increased dilation to BK in subcutaneous fat from Y-M but had no effect in Post-W and O-M. Indo- and L-NAME-resistant dilation in all vessels was markedly reduced by 30 mM KCl. There was no difference in sodium nitroprusside-induced dilation among groups. We conclude that gender and climacteric state contribute to mechanisms of microvascular regulation in humans. Functional vascular differences in visceral and subcutaneous fat may underlie the proposed differential influence of these tissues on cardiovascular risk

Descriptors: Adipose Tissue. Adult. Bradykinin. Climacteric. Comparative Study. Cyclooxygenase Inhibitors. Endothelium, Vascular. Enzyme Inhibitors. Female. Human. In Vitro. Indomethacin. Male. Microcirculation. Middle Age  
Geographic Locator: United States  
ISSN: 0002-9513  
Year: 2002  
Journal Title: American Journal of Physiology

Title: Prostaglandins that increase renin production in response to ACE inhibition are not derived from cyclooxygenase-1  
View Article: American Journal of Physiology (Consolidated). 2002. 283. (3 Part 2.). R638-R646  
CD Volume: 383

Author(s): Cheng HF Wang SW Zhang MZ McKanna JA Breyer R Harris RC  
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Other Title: Prostaglandins that increase renin production in response to ACE inhibition are not derived from cyclooxygenase-1  
Language: English

Abstract: It is well known that nonselective, nonsteroidal anti-inflammatory drugs inhibit renal renin production. Our previous studies indicated that angiotensin-converting enzyme inhibitor (ACEI)-mediated renin increases were absent in rats treated with a cyclooxygenase (COX)-2-selective inhibitor and in COX-2  $-/-$  mice. The current study examined further whether COX-1 is also involved in mediating ACEI-induced renin production. Because renin increases are mediated by cAMP, we also examined whether increased renin is mediated by the prostaglandin E(2) receptor EP(2) subtype, which is coupled to G(s) and increases cAMP. Therefore, we investigated if genetic deletion of COX-1 or EP(2) prevents increased ACEI-induced renin expression. Age- and gender-matched wild-type (+/+) and homozygous null mice ( $-/-$ ) were administered captopril for 7 days, and plasma and renal renin levels and renal renin mRNA expression were measured. There were no significant differences in the basal level of renal renin activity from plasma or renal tissue in COX-1 +/+ and  $-/-$  mice. Captopril administration increased renin equally [plasma renin activity (PRA): +/+  $9.3 \pm 2.2$  vs.  $50.1 \pm 10.9$ ;  $-/-$   $13.7 \pm 1.5$  vs.  $43.9 \pm 6.6$  ng ANG I  $\times$  ml $^{-1}$   $\times$  h $^{-1}$ ]; renal renin concentration: +/+  $11.8 \pm 1.7$  vs.  $35.3 \pm 3.9$ ;  $-/-$   $13.0 \pm 3.0$  vs.  $27.8 \pm 2.7$  ng ANG I  $\times$  mg protein $^{-1}$   $\times$  h $^{-1}$ ];  $n = 6$ ;  $P < 0.05$  with or without captopril]. ACEI also increased renin mRNA expression (+/+  $2.4 \pm 0.2$ ;  $-/-$   $2.1 \pm 0.2$  fold control;  $n = 6-10$ ;  $P < 0.05$ ). Captopril led to similar increases in EP(2)  $-/-$  compared with +/+. The COX-2 inhibitor SC-58236 blocked ACEI-induced elevation in renal renin concentration in EP(2) null mice (+/+  $24.7 \pm 1.7$  vs.  $9.8 \pm 0.4$ ;  $-/-$   $21.1 \pm 3.2$  vs.  $9.3 \pm 0.4$  ng ANG I  $\times$  mg protein $^{-1}$   $\times$  h $^{-1}$ ).

1); n = 5) as well as in COX-1 -/- mice (SC-58236-treated PRA: +/+ 7.3 +/- 0.6; -/- 8.0 +/- 0.9 ng ANG I x ml(-1) x h(-1); renal renin: +/+ 9.1 +/- 0.9; -/- 9.6 +/- 0.5 ng ANG I x mg protein(-1) x h(-1); n = 6-7; P < 0.05 compared with no treatment). Immunohistochemical analysis of renin expression confirmed the above results. This study provides definitive evidence that metabolites of COX-2 rather than COX-1 mediate ACEI-induced renin increases. The persistent response in EP(2) nulls suggests involvement of prostaglandin E(2) receptor subtype 4 and/or prostacyclin receptor (IP)

Descriptors:Angiotensin-Converting Enzyme Inhibitors. Animal. Captopril. Cyclooxygenase Inhibitors. Gene Deletion. Gene Expression. Isoenzymes. Juxtaglomerular Apparatus. Male. Mice. Mice, Inbred Strains. Mice, Knockout. Prostaglandin-Endoperoxide Synthase. Prostaglandins. RNA, Messenger. Receptors, Prostaglandin E. Renin. Support, U.S. Gov't, Non-P.H.S.. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Comparison of generalized and gender-specific transfer functions for the derivation of aortic waveforms

View Article: American Journal of Physiology (Consolidated). 2002.

283. (3 Part 2.). H1150-H1156

CD Volume:383

Author(s):Hope SA Tay DB Meredith IT Cameron JD

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Other Title:Comparison of generalized and gender-specific transfer functions for the derivation of aortic waveforms

Language:English

Abstract:Arterial transfer functions have been promoted for the derivation of central aortic waveform characteristics not usually accessible noninvasively, but possibly of prognostic significance. The utility of generalized rather than gender-specific transfer functions has not been assessed. Invasive central aortic and noninvasive radial (Millar Mikro-tip tonometer) blood pressure waveforms were recorded simultaneously in 78 subjects (61 male and 17 female). Average transfer functions were obtained for the whole group and for each gender by two methods. Reverse transformation was performed with the use of each transfer function. Measured aortic waveform parameters were compared with those derived using average, gender-appropriate, and gender-inappropriate transfer functions. Differences in central waveform characteristics were demonstrated between men and women. Derived waveform parameters were significantly different from measured values [e.g., subendocardial viability index and augmentation index (P < 0.001)]. A gender-appropriate transfer function significantly improved the derivation of some parameters, including systolic pressure and systolic and diastolic pressure time integrals (P < 0.05). Generalized arterial transfer functions may not be universally applicable across all waveform parameters of potential interest, and gender-specific transfer functions may be more appropriate

Descriptors:Aorta. Blood Pressure. Comparative Study. Diastole.

Female. Human. Male. Sex Factors. Support, Non-U.S. Gov't. Systole

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Diabetic kidney disease: impact of puberty  
View Article: American Journal of Physiology (Consolidated). 2002.  
283. (4 Part 2.). F589-F600  
CD Volume:383

Author(s):Lane PH

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Other Title:Diabetic kidney disease: impact of puberty

Language:English

Abstract:Puberty accelerates microvascular complications of diabetes mellitus, including nephropathy. Animal studies confirm a different renal hypertrophic response to diabetes before and after puberty, probably due to differences in the production of transforming growth factor-beta (TGF-beta). Many of the complex physiological changes during puberty could affect potentially pathogenic mechanisms of diabetic kidney disease. Increased blood pressure, activation of the growth hormone-insulin-like growth factor I axis, and production of sex steroids could all play a role in pubertal susceptibility to diabetic renal hypertrophy and nephropathy. These factors may influence the effects of hyperglycemia and several systems that ultimately control TGF-beta production, including the renin-angiotensin system, cellular redox systems, the polyol pathway, and protein kinase C. These phenomena may also explain gender differences in kidney function and incidence of end-stage renal disease. Normal changes during puberty, when coupled with diabetes and superimposed on a genetically susceptible milieu, are capable of accelerating diabetic hypertrophy and microvascular lesions. A better understanding of these processes may lead to new treatments to prevent renal failure in diabetes mellitus

Descriptors:Adolescent. Diabetic Nephropathies. Female. Human.

Kidney. Male. Puberty. Sex Hormones. Support, Non-U.S. Gov't.

Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Sexual dimorphism in the complexity of cardiac pacemaker activity

View Article: American Journal of Physiology (Consolidated). 2002.  
283. (4 Part 2.). H1695-H1702

CD Volume:383

Author(s):Kuo TB Yang CC

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Other Title:Sexual dimorphism in the complexity of cardiac pacemaker activity

Language:English

Abstract:This study explored the effects of gender and aging on the complexity of cardiac pacemaker activity. Electrocardiogram signals were studied in normal women (n = 240) and men (n = 240) ranging in age from 40 to 79 yr. Nonlinear analysis of short-term resting R-R intervals was performed using the correlation dimension (CD), approximate entropy (ApEn), and largest Lyapunov exponent (LLE). Evidence of nonlinear structure was obtained by the surrogate data test. CD, ApEn, and LLE were negatively correlated with age. Despite similar means and SDs of the R-R intervals, women had a significantly higher CD, ApEn, and LLE compared with men in the age strata of 40-44 and 45-49 yr. CD and ApEn were strongly ( $r > 0.71$ ) correlated with low- and high-frequency components. We conclude that the resting cardiac pacemaker activity of women is more complex than that of men

in middle age, and the gender-related difference diminishes after the age of 50 yr. The higher complexity implies a more comprehensive neural modulation

Descriptors:Adult. Aged. Biological Clocks. Comparative Study. Female. Heart. Heart Rate. Human. Linear Models. Male. Middle Age. Nonlinear Dynamics. Parasympathetic Nervous System. \*Sex Characteristics. Support, Non-U.S. Gov't. Sympathetic Nervous System  
Geographic Locator:United States  
ISSN:0002-9513  
Year:2002  
Journal Title:American Journal of Physiology

Title:Growth hormone secretion pattern is an independent regulator of growth hormone actions in humans

View Article: American Journal of Physiology (Consolidated). 2002. 283. (5 Part 1.). E1008-E1015  
CD Volume:383

Author(s):Jaffe CA Turgeon DK Lown K Demott Friberg R Watkins PB  
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Other Title:Growth hormone secretion pattern is an independent regulator of growth hormone actions in humans

Language:English

Abstract:The importance of gender-specific growth hormone (GH) secretion pattern in the regulation of growth and metabolism has been demonstrated clearly in rodents. We recently showed that GH secretion in humans is also sexually dimorphic. Whether GH secretion pattern regulates the metabolic effects of

Descriptors:Biological Markers. Bone and Bones. Comparative Study. Cytochrome P-450 CYP1A2. Cytochrome P-450 Enzyme System. Female. Human. Human Growth Hormone. Insulin-Like Growth Factor Binding Protein 3. Insulin-Like Growth Factor I. Male. Pulse Therapy, Drug. \*Sex Characteristics. Support, U.S. Gov't, Non-P.H.S.. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Gender differences in cardiac ACE expression are normalized in androgen-deprived male mice

View Article: American Journal of Physiology (Consolidated). 2002. 283. (5 Part 2.). H1997-H2003  
CD Volume:383

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Other Title:Gender differences in cardiac ACE expression are normalized in androgen-deprived male mice

Language:English

Abstract:Gender differences have been described in the response of the cardiovascular system to a number of stimuli, including ventricular remodeling in response to pressure overload, but the molecular basis for these differences remains unclear. Because gender differences in the cardiac expression of angiotensin-converting enzyme (ACE) could contribute to differences in myocardial remodeling, we examined myocardial ACE expression in age-matched male and female mice. Ventricular ACE was more abundant in male than female mice at both mRNA and protein levels. These differences became

apparent once the mice reached sexual maturity and became more pronounced with increasing age. The influence of mouse gonadal status on ventricular ACE expression was also examined. Oophorectomy slightly increased ACE levels in female mice, whereas ventricular ACE levels were substantially decreased in androgen-deprived males. The antithetical changes in ventricular ACE abundance seen in agonadal male and female mice suggest that testosterone as well as estrogen may play a role in regulating ACE expression in the heart  
Descriptors:Animal. Estrogens. Female. Gene Expression Regulation, Enzymologic. Heart Ventricle. Male. Mice. Mice, Inbred C57BL. Myocardial Diseases. Myocardium. Orchiectomy. Ovariectomy. Peptidyl-Dipeptidase A. RNA, Messenger. \*Sex Characteristics. Testosterone Geographic Locator:United States  
ISSN:0002-9513  
Year:2002  
Journal Title:American Journal of Physiology

Title:Abdominal fat distribution and peripheral and hepatic insulin resistance in type 2 diabetes mellitus  
View Article: American Journal of Physiology (Consolidated). 2002. 283. (6 Part 1.). E1135-E1143  
CD Volume:383

Author(s):Miyazaki Y Glass L Triplitt C Wajcberg E Mandarino LJ DeFronzo RA

Author Affiliation:University of Texas Health Science Center and Texas Diabetes Institute, San Antonio, Texas 78229-3900, USA

Other Title:Abdominal fat distribution and peripheral and hepatic insulin resistance in type 2 diabetes mellitus

Language:English

Abstract:We examined the relationship between peripheral/hepatic insulin sensitivity and abdominal superficial/deep subcutaneous fat (SSF/DSF) and intra-abdominal visceral fat (VF) in patients with type 2 diabetes mellitus (T2DM). Sixty-two T2DM patients (36 males and 26 females, age = 55 +/- 3 yr, body mass index = 30 +/- 1 kg/m<sup>2</sup>) underwent a two-step euglycemic insulin clamp (40 and 160 mU. m(-2). min(-1)) with [3-3H]glucose. SSF, DSF, and VF areas were quantitated with magnetic resonance imaging at the L(4-5) level. Basal endogenous glucose production (EGP), hepatic insulin resistance index (basal EGP x FPI), and total glucose disposal (TGD) during the first and second insulin clamp steps were similar in male and female subjects. VF (159 +/- 9 vs. 143 +/- 9 cm<sup>2</sup>) and DSF (199 +/- 14 vs. 200 +/- 15 cm<sup>2</sup>) were not different in male and female subjects. SSF (104 +/- 8 vs. 223 +/- 15 cm<sup>2</sup>) was greater (P < 0.0001) in female vs. male subjects despite similar body mass index (31 +/- 1 vs. 30 +/- 1 kg/m<sup>2</sup>) and total body fat mass (31 +/- 2 vs. 33 +/- 2 kg). In male T2DM, TGD during the first insulin clamp step (1st TGD) correlated inversely with VF (r = -0.45, P < 0.01), DSF (r = -0.46, P < 0.01), and SSF (r = -0.39, P < 0.05). In males, VF (r = 0.37, P < 0.05), DSF (r = 0.49, P < 0.01), and SSF (r = 0.33, P < 0.05) were correlated positively with hepatic insulin resistance. In females, the first TGD (r = -0.45, P < 0.05) and hepatic insulin resistance (r = 0.49, P < 0.05) correlated with VF but not with DSF, SSF, or total subcutaneous fat area. We conclude that visceral adiposity is associated with both peripheral and hepatic insulin resistance, independent of gender, in T2DM. In male but not female T2DM, deep subcutaneous adipose tissue also is associated with peripheral and hepatic insulin resistance  
Descriptors:Abdomen. Adipose Tissue. Blood Glucose. Body Composition. Diabetes Mellitus, Non-Insulin-Dependent. Female. Glucose. Glucose Clamp Technique. Human. Insulin. \*Insulin Resistance. Liver. Magnetic Resonance Imaging. Male. Middle Age. Sex Factors. Support, U.S. Gov't, Non-P.H.S.. Support, U.S. Gov't, P.H.S.

Geographic Locator:United States  
ISSN:0002-9513  
Year:2002  
Journal Title:American Journal of Physiology

Title:Influence of gender on the response to hemodynamic overload after myocardial infarction  
View Article: American Journal of Physiology (Consolidated). 2002. 283. (6 Part 2.). H2544-H2550  
CD Volume:383

Author(s):Jain M Liao R Podesser BK Ngoy S Apstein CS Eberli FR  
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Other Title:Influence of gender on the response to hemodynamic overload after myocardial infarction

Language:English

Abstract:After myocardial infarction (MI), the left ventricle (LV) undergoes ventricular remodeling characterized by progressive global dilation, infarct expansion, and compensatory hypertrophy of the noninfarcted myocardium. Little attention has been given to the response of remodeling myocardium to additional hemodynamic overload. Studies have indicated that gender may influence remodeling and the response to both MI and hemodynamic overload. We therefore determined 1) structural and function consequences of superimposing hemodynamic overload (systemic hypertension) on remodeling myocardium after a MI and 2) the potential influence of gender on this remodeling response. Male and female Dahl salt-sensitive and salt-resistant rats underwent coronary ligation, resulting in similar degrees of MI. One week post-MI, all rats were placed on a high-salt diet. Four groups were then studied 4 wk after initiation of high-salt feeding:

Descriptors:Animal. Blood Pressure. Cardiac Volume. Diastole. Disease Models, Animal. Female. \*Hemodynamics. Hypertension. In Vitro. Male. Myocardial Infarction. Myocardium. Organ Weight. Rats. Rats, Inbred Dahl. Sex Factors. Support, U.S. Gov't, P.H.S.. Ventricular Remodeling

Geographic Locator:United States

ISSN:0002-9513

Year:2002

Journal Title:American Journal of Physiology

Title:Carotid distensibility characterized via the isometric exercise pressor response

View Article: American Journal of Physiology (Consolidated). 2002. 283. (6 Part 2.). H2592-H2598  
CD Volume:383

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Other Title:Carotid distensibility characterized via the isometric exercise pressor response

Language:English

Abstract:Distensibility of the large elastic arteries is a key index for cardiovascular health. Distensibility, usually estimated from resting values in humans, is not a static characteristic but a negative curvilinear function of pressure. We hypothesized that differences in vascular function with gender and age may only be recognized if distensibility is quantified over a range of pressures. We used isometric handgrip exercise to induce progressive increases in pressures and carotid diameters, thereby enhancing the characterization of distensibility. In 30 volunteers, evenly

distributed by gender and age across the third to fifth decades of life, we derived pulsatile distensibility slopes as a function of arterial pressure for a dynamic distensibility index and compared it with a traditional static index at a reference pressure of 95 mmHg. We also assessed intima-media thickness (IMT). We found that women had greater distensibility slopes within each decade, despite comparable IMT. Furthermore, declines in distensibility slope with increasing age were correlated to increased IMT. The static distensibility index failed to show gender-related differences in distensibility but did show age-related differences. Our results indicate that gender- and age-related differences can be manifest even in young, healthy adults and may only be identified with techniques that assess carotid distensibility across a range of pressures

Descriptors:Adult. Age Distribution. Age Factors. Blood Pressure. Carotid Arteries. Elasticity. Exercise. Female. Hand Strength. Human. Male. Middle Age. Reference Values. Sex Distribution. Sex Factors. Support, Non-U.S. Gov't. Support, U.S. Gov't, P.H.S.. Tilt-Table Test. Tunica Intima. Tunica Media. Ultrasonography  
Geographic Locator:United States  
ISSN:0002-9513  
Year:2002  
Journal Title:American Journal of Physiology

Title:Effect of creatine monohydrate on finishing pig growth performance, carcass characteristics and meat quality  
View Article: Animal Feed Science and Technology. 2002. 96 (3/4). 135-145  
CD Volume:388

Author(s):James B W Goodband R D Unruh J A Tokach M D Nelssen J L Dritz S S O'Quinn P R Andrews B S  
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Other Title:Effect of creatine monohydrate on finishing pig growth performance, carcass characteristics and meat quality  
Language:English

Abstract:Growth performance, carcass characteristics, and meat quality were evaluated from 320 pigs (PIC C22 x L326) fed either a control diet (6.5 g lysine kg<sup>-1</sup>) or diets containing added creatine monohydrate (CMH). Pigs (initially 53.5 kg) were sorted by weight, gender, and ancestry in a randomized complete block design and allotted to one of four dietary treatments with 8 replicates. Pigs were fed a sorghum-soyabean meal diet until 30 days pre-slaughter (87.2 kg), when dietary treatments were initiated. Experimental treatments consisted of: 1 - a control diet; 2 - control diet with 3 g CMH per pig per day for 30 days (maintenance); 3 - 25 g CMH per pig per day for 5 days followed by 3 g CMH per pig per day for the next 25 days (early load); or 4 - 25 g CMH per pig per day for 5 days before slaughter (late load). Average market weight was 112.4 kg. Feeding CMH did not affect average daily gain (ADG), average daily feed intake (ADFI), or feed efficiency (F/G). Average backfat, 10th rib fat depth, longissimus muscle area, and percentage lean were also not affected by feeding CMH. Visual colour and marbling scores were not affected at 24 h or 14 days postmortem. However, the mean firmness score of longissimus from all pigs fed CMH was greater (P<0.05) at 24 h and 14 days postmortem than from pigs fed the control diet. Percentages of moisture, protein, and lipid in longissimus muscle and purge loss and Warner-Bratzler shear force values at 14 days postmortem were not affected by treatment. Percentage drip loss of longissimus at 24 h postmortem was less (P<0.05) for pigs fed maintenance and late load CMH compared to pigs

fed early load CMH (4.06 and 4.15% versus 5.76%). Results for pigs fed early load CMH were inconsistent compared to pigs fed maintenance or late load CMH. Longissimus from maintenance CMH pigs also tend to have less drip loss than that from control pigs (4.06% versus 5.31%). At 14 days postmortem, the mean drip loss from pigs fed CMH tend to be less ( $P < 0.06$ ) than control pigs. These results suggest that added CMH does not affect finishing pig growth performance, but may increase longissimus muscle firmness at 24 h and decrease drip loss at 14 days postmortem. Equivocal results were achieved by feeding 3 g CMH per pig per day for 30 days (maintenance) compared with feeding greater amounts of CMH for short periods. Therefore, this supplementation strategy might be most economical if this technology were to be applied

Descriptors:carcass-composition. carcasses. creatinine. diets. feed-conversion. feed-conversion-efficiency. feed-intake. growth-rate. liveweight-gain. meat-quality. moisture-content. pig-feeding. pigmeat. protein-content

Organism Descriptors:pigs

Supplemental Descriptors:Sus-scrofa. Sus. Suidae. Suiformes.

Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:11500. 11520. qq030. qq500

Supplementary Info:22 ref

ISSN:0377-8401

Year:2002

Journal Title:Animal Feed Science and Technology

Copyright:Copyright CAB International

Title:Intensification of redclaw crayfish *Cherax quadricarinatus* culture II. Growout in a separate cell system

View Article: Aquacultural Engineering. 2002. 26 (4). 263-276

CD Volume:387

Author(s):Manor R Segev R Leibovitz M P Aflalo E D Sagi A

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Other Title:Intensification of redclaw crayfish *Cherax quadricarinatus* culture II. Growout in a separate cell system

Language:English

Abstract:In the process of exploring ways to intensify crayfish culture, a growout system of individual cages (cells) was designed to determine the effects of gender and cell size on the growth of the red claw crayfish *Cherax quadricarinatus*. Cells of three different diameters - large (25 cm), medium (20 cm) and small (16 cm) - were used. When crayfish were stocked at a mean weight of approximately 10 g, growth rate of males was significantly higher than that of females. The growth rate of the males in the large cells was 0.31 plus or minus 0.14 g/day, while that of the females was 0.18 plus or minus 0.09 g/day. The size of the cell had significant influence on the weight of males. Male crayfish in the large and medium cells grew better than those in the small cells. When males were stocked at a higher mean weight (about 23 g), their mean weight after 206 days was higher in the large cells (69.28 plus or minus 15.72 g) than in the small cells (58.11 plus or minus 12.66 g), suggesting that the growth of large males was also affected by cell size. Regardless of cell size, male animals of this species grew faster than females under conditions of individual cells. This intensive culture method appears to present a powerful improvement in yields, by as much as two orders of magnitude, in comparison with communal cultures

Descriptors:body-weight. growth. growth-rate. intensive-farming. sex-differences. shellfish-culture. stocking-density

Organism Descriptors:*Cherax quadricarinatus*

Supplemental Descriptors:Cherax. Parastacidae. Decapoda.  
Malacostraca. Crustacea. arthropods. invertebrates. animals. aquatic-  
animals. aquatic-organisms  
Subject Codes:mm120  
Supplementary Info:37 ref  
ISSN:0144-8609  
Year:2002  
Journal Title:Aquacultural Engineering  
Copyright:Copyright CAB International

Title:A calmodulin binding site in the tuberous sclerosis 2 gene  
product is essential for regulation of transcription events and is  
altered by mutations linked to tuberous sclerosis and  
lymphangiomyomatosis

View Article: Arch Biochem Biophys 2002 Feb 1;398(1):132-40  
CD Volume:385

Author(s):Noonan DJ Lou D Griffith N Vanaman TC

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Other Title:A calmodulin binding site in the tuberous sclerosis 2  
gene product is essential for regulation of transcription events and  
is altered by mutations linked to tuberous sclerosis and  
lymphangiomyomatosis

Language:English

Abstract:Mutations in the tuberous sclerosis 2 (TSC2) gene product  
have been genetically linked to the pathology of both tuberous  
sclerosis (TSC) and the gender-specific lung disease,  
lymphangiomyomatosis (LAM). Both diseases are classified as  
disorders of cellular migration, proliferation, and differentiation.  
Earlier studies from our laboratory (1) linked TSC2 with  
steroid/nuclear receptor signaling. Studies presented here provide  
evidence for calmodulin (CaM) signaling in the propagation of this  
TSC2 activity. Far Western screening of a lambda phage human brain  
cDNA library to identify interacting proteins for the TSC2 gene  
product (tuberin) yielded multiple clones encoding human CaM. Direct  
binding with <sup>32</sup>P-labeled tuberin demonstrated Ca<sup>2+</sup>-dependent binding  
to CaM-Sepharose which was lost upon deletion of the C-terminal 72  
residues. The sequence (1740)WIARLRHIKRLRQRIC(1755) was identified as  
one capable of forming a basic amphipathic helix indicative of CaM  
binding domains in known calmodulin binding proteins. Studies with a  
synthetic peptide of this sequence demonstrated very tight Ca<sup>2+</sup>-  
dependent binding to CaM as judged by tryptophan fluorescence  
perturbation studies and phosphodiesterase activation by CaM.  
Deletion mutagenesis studies further suggested that this CaM binding  
domain is required for tuberin modulation of steroid receptor  
function and that mutations in this region may be involved in the  
pathology of TSC and LAM

Descriptors:Amino Acid Sequence. Base Sequence. Blotting, Western.  
Brain. Calcium. Calmodulin. Down-Regulation. Gene Deletion. Gene  
Expression Regulation. Gene Library. Human. Lymphangiomyomatosis.  
Molecular Sequence Data. Mutation. Peptides. Protein Structure,  
Tertiary. Receptors, Steroid. Repressor Proteins. Sequence Homology,  
Amino Acid. Signal Transduction. Support, Non-U.S. Gov't. Support,  
U.S. Gov't, P.H.S.. \*Transcription, Genetic. Tuberous Sclerosis  
Geographic Locator:United States

ISSN:0003-9861

Year:2002

Journal Title:Archives of Biochemistry and Biophysics

Title:Activation and induction of glycine N-methyltransferase by retinoids are tissue- and gender-specific  
View Article: Archives of Biochemistry and Biophysics. 2002. 401 (1). 73-80

CD Volume:385

Author(s):McMullen M H Rowling M J Ozias M K Schalinske K L  
Author Affiliation:Department of Food Science and Human Nutrition, Iowa State University, Ames, IA 50011, USA

Other Title:Activation and induction of glycine N-methyltransferase by retinoids are tissue- and gender-specific

Language:English

Abstract:Glycine N-methyltransferase (GNMT) is a key protein in the liver that functions to regulate S-adenosylmethionine (SAM) and the SAM/S-adenosylhomocysteine ratio. Significant GNMT expression is also present in the kidney and pancreas. Inappropriate regulation of GNMT may have negative consequences on methyl group and folate metabolism. We have demonstrated that retinoid compounds significantly elevated hepatic GNMT activity and abundance (approx equal to 2-fold) in male rats. However, pancreatic GNMT activity and abundance were not altered by retinoid treatment. Likewise, retinoid administration was without effect on renal GNMT activity. Hepatic GNMT activity was also elevated in female rats treated with all-trans-retinoic acid, but to a lesser extent compared to males. Collectively, these results indicate that the modulation of methyl group metabolism by retinoids is tissue- and gender-specific, and may compromise the availability of methyl groups for SAM-dependent transmethylation reactions. In support of this, SAM-dependent synthesis of creatinine was significantly reduced 21% following all-trans-retinoic acid treatment

Descriptors:animal-models. enzyme-activity. kidneys. laboratory-animals. liver. pancreas. retinoic-acid. retinoids

Identifiers:glycine N-methyltransferase

Organism Descriptors:rats

Supplemental Descriptors:Muridae. rodents. mammals. vertebrates.

Chordata. animals. small-mammals

Subject Codes:vv140

Supplementary Info:53 ref

ISSN:0003-9861

Year:2002

Journal Title:Archives of Biochemistry and Biophysics

Copyright:Copyright CAB International

Title:Effects of dietary treatment, gender, and implantation on calpain/calpastatin activity and meat tenderness in skeletal muscle of Korean native cattle

View Article: Asian-Australasian Journal of Animal Sciences. 2002. 15 (11). 1653-1658

CD Volume:390

Print Article: Pages: 1653-1658

Author(s):Choi B H Ahn B J Kook K Sun S S Myung K H Moon S J Kim K H Kim J H

Author Affiliation:Department of Animal Science, Institute of Biotechnology, Chonnam National University, Gwangju 500-757, Korea Republic

Other Title:Effects of dietary treatment, gender, and implantation on calpain/calpastatin activity and meat tenderness in skeletal muscle of Korean native cattle

Language:English

Abstract:The objective of this study was to examine the calpain activity and meat tenderness in Korean native cattle (KNC) subjected to three different feeding patterns. Forty-five cattle were equally divided into three groups: long term restriction feeding (LTFR),

long-term restriction feeding and hormone treatment (LTFR-tH), and short term non-restriction feeding (STFNR). Concentrate level was restricted based on the body weight in groups 1 and 2. However, it was given ad libitum in group 3. Hormonal implantation using M-POTM for bulls and F-TOTM for heifers was performed at 18, 20, 22 months of age in group 2. Animals were purchased (3-5 month old) from local cattle market and managed in two local farms and university research unit at three different years. Animals were slaughtered at 24 months of age for long-term trial and at 18 months of age for short-term trial. Loin and tender loin muscles were used for the determination of calpain activity and meat quality. Calpain proteolytic system was not affected by the treatment. However, calpastatin activity was low in short-term trial. The calpain and calpastatin activity showed reciprocal relationship, therefore, the high calpain activity may affect quality grade. Cooking loss was significantly higher in short-term than in long-term trial, and gradually decreased with aging. Hormone implants greatly influenced calpastatin activity and meat yield than calpain activity and meat tenderness. There was no significant difference in the loin in terms of meat colour-a\*. Meat colour-b\* was decreased as postmortem aging time increased for the tenderloin. Western blots were performed to determine whether these proteins were degraded during postmortem storage and whether this degradation temporally parallels the decrease of shear force value. Vinculin was detected at day 0 and 1 and degraded after day 3. In conclusion, calpain activity slightly affected meat tenderness, while calpastatin effectively influenced meat tenderness

Descriptors:beef-cattle. colour. hormones. meat-quality. native-livestock. plane-of-nutrition. tenderness

Geographic Locator:Korea-Republic

Identifiers:calpain. calpastatin

Organism Descriptors:cattle

Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates. East-Asia. Asia. Developing-Countries. Threshold-Countries. OECD-Countries

Subject Codes:11120. 11510. qq030. qq500

Supplementary Info:23 ref

ISSN:1011-2367

Year:2002

Journal Title:Asian-Australasian Journal of Animal Sciences

Copyright:Copyright CAB International

Title:The palm wine trade in Freetown, Sierra Leone: Production, income, and social construction

View Article: Economic Botany. 2002. 56 (3). 246-254

CD Volume:390

Print Article: Pages: 246-254

Author(s):Lebbie A R Guries R P

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Other Title:The palm wine trade in Freetown, Sierra Leone: Production, income, and social construction

Abstract:Palm wine tapped from *Elaeis guineensis* provides high incomes to certain groups such as Limbo tribe members and women while creating social networks among tappers, traders, and retail vendors. Income levels from palm-wine tapping were several-fold higher than the minimum daily wage in Sierra Leone during 1998. Gender differences were particularly important in the marketing of palm wine, with women dominating the retail sector whereas men served as producers and middleman. An estimated 90% of palm wine middlemen are males, whereas kiosk vendors are mostly females. A formalized gift-

giving culture has developed to ensure the continuous flow of palm wine from tapper to consumer

Descriptors:palm wine; ethnicity; NTFP; household income; social networks

ISSN:0013-0001

Year:2002

Journal Title:Economic Botany

Title:Economic crisis and forest cover change in Cameroon: the roles of migration, crop diversification, and gender division of labor  
View Article: Economic Development and Cultural Change. 2002. 50 (3). 581-606

CD Volume:397

Print Article: Pages: 581-606

Author(s):Sunderlin W D Pokam J

Author Affiliation:Center for International Forestry Research, Bogor, Indonesia

Other Title:Economic crisis and forest cover change in Cameroon: the roles of migration, crop diversification, and gender division of labor

Language:English

Abstract:This paper examines the role of agricultural smallholders in Cameroon's forest cover loss within the context of dramatic macroeconomic events (i.e., economic crisis and devaluation) in the 1980s and 1990s. Three hypotheses are tested: (1) rural to urban migration has slowed as a consequence of the economic crisis, and populations in villages have grown, with increased forest clearing as a consequence, but there has been no net return migration from urban to rural areas; (2) between the years prior to the crisis and the present, production of cocoa and coffee has stagnated and farmers have compensated by increasing production of food crops, especially plantain, which are usually produced in primary forests; and (3) the collapse of plantation prices has led to growing participation by men in the production of food crops, and the gender division of labour has weakened as a consequence of the urgent need to increase household income. Data were obtained through a survey of 4078 households in the Center and South provinces of Cameroon between September and November 1997. The results demonstrate that macroeconomic conditions can have an important role in determining the way that population, agriculture, and labour roles affect forest-clearing activities. In the pre-crisis era, macroeconomic conditions affected these variables in such a way as to alleviate pressure on forests; after the onset of the crisis, macroeconomic conditions affected these variables in such a way as to increase pressure on forests

Descriptors:bananas. cocoa. coffee. crop-production. crops. deforestation. diversification. division-of-labour. economic-crises. food-crops. forests. gender-relations. land-diversion. macroeconomics. migration. plantation-crops. plantations. rural-population. rural-urban-migration. small-farms. surveys

Geographic Locator:Cameroon

Organism Descriptors:Coffea. Musa. Theobroma-cacao

Supplemental Descriptors:Central-Africa. Africa-South-of-Sahara.

Africa. Developing-Countries. ACP-Countries. Francophone-Africa.

Musaceae. Zingiberales. monocotyledons. angiosperms. Spermatophyta.

plants. Theobroma. Sterculiaceae. Malvales. dicotyledons. Rubiaceae.

Rubiales

Subject Codes:ee110. ee111. ee112. ee900. ff003. ff100. kk100. pp600. uu200. pp300. ee115

Supplementary Info:52 notes and ref

ISSN:0013-0079

Year:2002

Journal Title:Economic Development and Cultural Change

Copyright:Copyright CAB International

Title:Gender, Social Change, and Educational Attainment

View Article: Economic Development and Cultural Change. 2002. 51 (1). 109-34

CD Volume:397

Print Article: Pages: 109-134

Author(s):Beutel Ann M Axinn William G

Author Affiliation:U OK; U MI

Other Title:Gender, Social Change, and Educational Attainment

Language:English

Descriptors:Economics of Gender -- J160 Economic Development: Human Resources; Income Distribution; Migration (nutrition, health, education, fertility, household structure and formation, labor markets) -- O150 Analysis of Education -- I210 Human Capital; Skills; Occupational Choice; Labor Productivity (Formal Training Programs; On-the-Job Training) -- J240 Gender

Geographic Locator:Nepal

ISSN:0013-0079

Year:2002

Journal Title:Economic Development and Cultural Change

Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2002 by the American Economic Association

Title:Cyclical Patterns in School Attrition and Attendance: A Study in the Labor-Market Behavior of Children

View Article: Economic Development and Cultural Change. 2002. 51 (1). 135-60

CD Volume:397

Print Article: Pages: 135-160

Author(s):Redmount Esther

Author Affiliation:CO College

Other Title:Cyclical Patterns in School Attrition and Attendance: A Study in the Labor-Market Behavior of Children

Language:English

Descriptors:Economic History: Labor and Consumers, Demography, Education, Income and Wealth: U.S.; Canada: Pre-1913 -- N310 Economic History: Labor and Consumers, Demography, Education, Income and Wealth: U.S.; Canada: 1913- -- N320 Analysis of Education -- I210 Economics of Gender -- J160 Fertility; Family Planning; Child Care; Children; Youth -- J130 Children

Geographic Locator:U.s

ISSN:0013-0079

Year:2002

Journal Title:Economic Development and Cultural Change

Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2002 by the American Economic Association

Title:Current levels of DDT, PCB and trace elements in the Baltic ringed seals (*Phoca hispida baltica*) and grey seals (*Halichoerus grypus*)

View Article: Environmental Pollution. 2002. 119 (3). 399-412

CD Volume:388

Author(s):Nyman M Koistinen J Fant M L Vartiainen T Helle E

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Other Title:Current levels of DDT, PCB and trace elements in the Baltic ringed seals (*Phoca hispida baltica*) and grey seals (*Halichoerus grypus*)

Language:English

Abstract:Residue levels of polychlorinated biphenyls (PCBs) and 1,1,1-trichloro-2,2-bis[*p*-chlorophenyl]ethane (DDT) were determined from liver samples of ringed seals (*Phoca hispida*) from the Baltic Sea and Svalbard, and of grey seals (*Halichoerus grypus*) from the Baltic Sea and Sable Island in Canada. Both Baltic seal populations showed clearly higher average sum PCB (SPCB) and sum DDT (SDDT) levels than the reference seal populations. Among the Baltic seals, SPCB levels were twice as high as SDDT levels, and both contaminants were higher in ringed seals than in grey seals. A difference in gender was observed only in the Sable Island grey seal population, in which males showed a higher level of contamination than females. A reduction of the SDDT levels, and to a lower extent of the SPCB levels can be observed in the Baltic seals since the peak contaminant levels during the 1970s. The decrease has been more rapid in the grey seals than in the ringed seals. The SPCB levels in the Baltic ringed seals are still high enough to cause a threat to their well being. Residue levels of the trace elements mercury, cadmium, lead and selenium were determined from liver, kidney and muscle samples of grey seals from the Baltic Sea and Sable Island. Only cadmium showed a geographic difference being higher in the seals from Sable Island than from the Baltic Sea. No clear reduction of the metal burden can be observed in the Baltic grey seal population since the 1970s

Descriptors:cadmium. DDT. female-animals. kidneys. lead. liver. male-animals. mercury. muscle-tissue. pesticide-residues. polychlorinated-biphenyls. selenium. sex-differences. water-pollution

Geographic Locator:Canada

Identifiers:*Phoca hispida baltica*

Organism Descriptors:*Halichoerus grypus*. *Phoca*. seals

Supplemental Descriptors:North-America. America. Developed-Countries. Commonwealth-of-Nations. OECD-Countries. *Halichoerus*. Phocidae.

Pinnipedia. carnivores. mammals. vertebrates. Chordata. animals.

aquatic-animals. aquatic-organisms. marine-mammals

Subject Codes:mm300. pp600. yy900. hh430

Supplementary Info:many ref

ISSN:0269-7491

Year:2002

Journal Title:Environmental Pollution

Copyright:Copyright CAB International

Title:Utilizing wild *Fragaria virginiana* in strawberry cultivar development: inheritance of photoperiod sensitivity, fruit size, gender, female fertility and disease resistance

View Article: Euphytica. 2002. 126 (2). 177-184

CD Volume:384

Author(s):Hancock J F Luby J J Dale A Callow P W Serce S El Shiek A

Author Affiliation:Department of Horticulture, Michigan State

University, East Lansing, MI 48824, USA

Other Title:Utilizing wild *Fragaria virginiana* in strawberry cultivar development: inheritance of photoperiod sensitivity, fruit size, gender, female fertility and disease resistance

Language:English

Abstract:The genetics of photoperiod sensitivity, flowering date, fruit size, gender, female fertility, and disease resistance were investigated in progeny between sets of elite *F. virginiana* selections and *F. ananassa* cultivars and selections planted at sites in Michigan and Minnesota (USA) and Ontario (Canada). Progeny means varied considerably for all the production traits. Most notable were

the large fruit and high fertility observed in crosses with High Falls 22 at all three sites, and Montreal River 10 in Ontario and Michigan. *Fragaria virginiana* subsp. *virginiana* parents yielded progeny with much larger fruit than *F. virginiana* subsp. *glauca* parents. General combining ability was significant for all traits at all locations, while specific combining ability was significant for only fruit diameter, ovule set and fruit set in Michigan. Overall, the highest number of day-neutral genotypes were detected in Ontario (mean=44%) compared to Minnesota (31%) and Michigan (26%). In progeny populations of day-neutral *F. ananassa* x short-day *F. virginiana* almost all fit the 1:1 ratio expected if day-neutrality is regulated by a single dominant gene; however, only a few families of short-day *F. ananassa* x day-neutral *F. virginiana* crosses fit a 1:1 ratio. Likewise, in progeny of day-neutral *F. virginiana* x day-neutral *F. ananassa* crosses, only a few of them fit the 3:1 ratio expected if day-neutrality is regulated by a single dominant gene. These data suggest that it should be relatively easy to use *F. virginiana* germplasm in strawberry cultivar improvement, and that several different sources of day-neutrality may exist in natural populations

Descriptors:disease-resistance. female-fertility. fertility. flowering-date. fruit-set. fruits. general-combining-ability. germplasm. inheritance. photoperiod. plant-genetic-resources. specific-combining-ability. strawberries

Geographic Locator:Canada. Michigan. Minnesota. Ontario. USA

Organism Descriptors:*Fragaria*. *Fragaria-ananassa*. *Fragaria-virginiana*

Supplemental Descriptors:North-America. America. Developed-Countries. Commonwealth-of-Nations. OECD-Countries. *Fragaria*. Rosaceae. Rosales. dicotyledons. angiosperms. Spermatophyta. plants. East-North-Central-States-of-USA. North-Central-States-of-USA. USA. Lake-States-of-USA. West-North-Central-States-of-USA. Canada

Subject Codes:ff020. ff610. hh600. pp720

Supplementary Info:31 ref

ISSN:0014-2336

Year:2002

Journal Title:Euphytica

Copyright:Copyright CAB International

Title:Farmers' highland maize (*Zea mays* L.) selection criteria: implication for maize breeding for the Hararghe highlands of eastern Ethiopia

View Article: Euphytica. 2002. 127 (1). 11-30

CD Volume:384

Author(s):Mulatu E Habtamu Zelleke

Author Affiliation:Department of Plant Sciences, College of Agriculture, Alemaya University, P.O. Box 138, Dire Dawa, Ethiopia

Other Title:Farmers' highland maize (*Zea mays* L.) selection criteria: implication for maize breeding for the Hararghe highlands of eastern Ethiopia

Language:English

Abstract:Despite the presence of large numbers of improved maize cultivars, farmers in the Hararghe highlands of eastern Ethiopia persistently grow local cultivars and are not benefiting from the varietal improvement programme. By growing local cultivars, farmers obtain an average yield of 1.2 t/ha, whereas research has released cultivars yielding 5-11 t/ha under on-station conditions. Recognizing this and the important role maize is playing in the livelihood system of farmers in eastern Ethiopia, participatory varietal selection was conducted for three consecutive seasons (1996-98) in three locations. The objectives of the study were to identify cultivar selection criteria of farmers for future breeding, to enable farmers to assess the performance of improved cultivars under their management, to

increase the access of farmers to the cultivars of their preference by injecting source seed into the local seed system, and to investigate whether breeding for wide adaptation like for the Hararghe highlands has any drawbacks. The study indicated farmers' maize varietal selection criteria together with the differences in selection criteria across locations classified under the same adaptation zone. Though farmers selected some of the many improved cultivars tested, no improved cultivar had all the characteristics, which farmers want in a single cultivar. To be able to combine cultivar selection traits, farmers considered cultivar combinations in all locations, but not the single 'best' cultivar. Despite the yield advantage of hybrids, farmers selected open pollinated varieties because they had more preferred traits. Farmers also preferred to retain their local cultivars despite their lower yield compared to most of the improved cultivars. Both situations confirmed how resource poor farmers' cultivar requirements are much more diverse than yield per se. Gender and social group-driven difference in cultivar preference was also observed. The study revealed the need for proper zoning of the Hararghe highlands as a prerequisite to developing better adapted maize cultivars to the varied agroecological and socioeconomic niches. As shown in this study, proper zoning, due consideration to farmers' relevant selection traits and wider use of participatory approaches should be adapted to develop cultivars which can gain farmers acceptance

Descriptors:crop-yield. cultivars. farmers. groups. hybrids. maize. selection. selection-criteria. zoning  
Geographic Locator:Ethiopia  
Organism Descriptors:Zea-mays  
Supplemental Descriptors:East-Africa. Africa-South-of-Sahara. Africa. Least-Developed-Countries. Developing-Countries. ACP-Countries. Zea. Poaceae. Cyperales. monocotyledons. angiosperms. Spermatophyta. plants  
Subject Codes:ff005. ff020. ff100. uu450  
Supplementary Info:28 ref  
ISSN:0014-2336  
Year:2002  
Journal Title:Euphytica  
Copyright:Copyright CAB International

Title:Beverage consumption among US children and adolescents: full-information and quasi maximum-likelihood estimation of a censored system

View Article: European Review of Agricultural Economics. 2002. 29 (1). 85-103

CD Volume:397

Print Article: Pages: 85-103

Author(s):Yen S T Lin B H

Author Affiliation:Department of Agricultural Economics, University of Tennessee, Knoxville, TN 37996-4518, USA

Other Title:Beverage consumption among US children and adolescents: full-information and quasi maximum-likelihood estimation of a censored system

Language:English

Abstract:Milk, soft drink and juice consumption is investigated for children and adolescents in the USA. This study uses data from the 1994-96 USDA Continuing Survey of Food Intakes by Individuals. Full-information maximum likelihood estimator (FIML) and a parsimonious quasi maximum-likelihood (QML) alternative are used to estimate a censored system of beverage equations. The QML estimator is found to be an acceptable alternative to the FIML estimator for the empirical application considered. We find displacement of milk by soft drinks

as a child or adolescent grows older. Income, television watching, gender, race, and other demographic variables also play significant roles in determining beverage consumption  
Descriptors:adolescents. beverages. children. estimation. food-consumption. juices. milk. socioeconomics. soft-drinks. statistical-analysis. substitution  
Geographic Locator:Usa  
Organism Descriptors:man  
Supplemental Descriptors:North-America. America. Developed-Countries. OECD-Countries. Homo. Hominidae. Primates. mammals. vertebrates. Chordata. animals  
Subject Codes:ee116. qq010. qq050. vv110. zz100. uu485  
Supplementary Info:32 ref  
ISSN:0165-1587  
Year:2002  
Journal Title:European Review of Agricultural Economics  
Copyright:Copyright CAB International

Title:Abrupt pubertal elevation of DNase I gene expression in human pituitary glands of both sexes  
View Article: FEBS Lett 2002 Jan 2;510(1-2):22-6  
CD Volume:385  
Author(s):Yasuda T Takeshita H Nakajima T Mogi K Kaneko Y Ueki M Iida R Kishi K  
Author Affiliation:Department of Biology, Fukui Medical University, Matsuoka, Fukui 910-1193, Japan  
Other Title:Abrupt pubertal elevation of DNase I gene expression in human pituitary glands of both sexes  
Language:English  
Abstract:Deoxyribonuclease I (DNase I) was confirmed to be expressed in the human pituitary gland, particularly the anterior lobe, at levels comparable to those in the pancreas. The DNase I activity and the amount of gene transcript present in the pituitary glands of individuals aged from 1 month to 89 years was significantly age-dependent, with an abrupt elevation after the neonatal and prepubertal periods irrespective of gender, followed by a gradual age-dependent decline in males and a marked reduction in females in their postreproductive period. This DNase I age dependence in the pituitary gland was not present in the pancreas and serum. These observations suggest that tissue-specific up-regulation of DNase I gene expression in the pituitary gland occur, possibly at the onset of puberty  
Descriptors:Adolescent. Adult. Aged. Aged, 80 and over. Aging. Child. Child, Preschool. Deoxyribonuclease I. Female. \*Gene Expression. Human. Infant. Male. Middle Age. Pancreas. Pituitary Gland. Puberty. RNA, Messenger. Support, Non-U.S. Gov't  
Geographic Locator:Netherlands  
ISSN:0014-5793  
Year:2002  
Journal Title:FEBS Letters

Title:The effect of frozen storage on the functional properties of the muscle of volador (*Illex coindetii*)  
View Article: Food Chemistry. 2002. 78 (2). 149-156  
CD Volume:388  
Author(s):Ruiz Capillas C Moral A Morales J Montero P  
Author Affiliation:Instituto del Frio, (C.S.I.C.) Ciudad Universitaria, 28040 Madrid, Spain  
Other Title:The effect of frozen storage on the functional properties of the muscle of volador (*Illex coindetii*)  
Language:English

Abstract: The functional properties of the muscle proteins of volador (*Illex coindetii*) were evaluated during frozen storage and classified according to gender and anatomical part of the animal. Solubility of protein in 5% NaCl, in all lots, showed a significant increase in the initial months followed by a decrease. This solubility was generally greater in the mantles than in the arms. The viscosity was initially very high and decreased rapidly, and there were no significant differences between the lots. This initial viscosity was greater in the arm lots than in the mantle ones. Likewise, extracts of the muscle of the arms also had the greatest initial emulsifying capacity values (Pless than or equal to 0.05). Soluble collagen in an acid medium exhibited a similar trend in all lots, throughout frozen storage. At the early stages of storage, soluble collagen remained stable or increased slightly, and then tended to become insoluble. The lowest solubilities were for the muscles of the arms. Myofibrillar protein and collagen solubilities, as well as emulsifying capacities were effective for detecting molecular changes in the proteins during frozen storage. Results showed that the volador mantles were more suited to frozen storage than the arms

Descriptors: collagen. emulsifying. frozen-storage. muscles. protein. solubility. viscosity

Identifiers: functional properties. volador

Organism Descriptors: Cephalopoda

Supplemental Descriptors: Mollusca. invertebrates. animals

Subject Codes: qq060. qq110. qq500. qq600

Supplementary Info: 30 ref

ISSN: 0308-8146

Year: 2002

Journal Title: Food Chemistry

Copyright: Copyright CAB International

Title: *Diplodus sargus* interrenal-pituitary response: chemical communication in stressed fish

View Article: General and Comparative Endocrinology. 2002. 127 (1). 66-70

CD Volume: 385

Author(s): Olivotto I Mosconi G Maradonna F Cardinali M Carnevali O

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Other Title: *Diplodus sargus* interrenal-pituitary response: chemical communication in stressed fish

Language: English

Abstract: In the present study, the response of white sea bream (*Diplodus sargus*), used as experimental model, to different stocking densities was tested to assess whether the induced stress conditions were able to activate a chemical communication. Once a good recovery was evident, 6 days after capture and transportation, experiments were started to evaluate eventual changes in cortisol plasma levels as well as in both plasma and pituitary alpha -melanocyte stimulating hormone (alpha -MSH) levels. These studies demonstrated that a low stocking density (2.5 kg/1000 litres) is not deleterious for this species, whereas a higher one (10 kg/1000 litres) induces the activation of the hypothalamus-pituitary-interrenal axis (HPI). Thus, in these fish both a significant increase of cortisol plasma levels and a significant decrease of alpha -MSH pituitary levels were evident, whereas no significant changes were detected in alpha -MSH plasma concentrations. The most relevant result reported in this study, for the first time in marine species, is the presence of a chemical communication among stressed fish. It also should be noted that the data obtained from cortisol and alpha -MSH detections strongly indicate a gender specificity of this chemical signal

Descriptors:hydrocortisone. melanotropins. stocking-density. stress  
Identifiers:chemical signal. Diplodus. Diplodus sargus. hypothalamus-  
pituitary-interrenal axis  
Supplemental Descriptors:Sparidae. Perciformes. Osteichthyes. fishes.  
vertebrates. Chordata. animals. aquatic-animals. aquatic-organisms  
Subject Codes:11240. 11600. mml20  
Supplementary Info:23 ref  
ISSN:0016-6480  
Year:2002  
Journal Title:General and Comparative Endocrinology  
Copyright:Copyright CAB International

Title:Atlantic halibut growth hormone: structure and plasma levels of  
sexually mature males and females during photoperiod-regulated annual  
cycles

View Article: General and Comparative Endocrinology. 2002. 127 (1).  
94-104

CD Volume:385

Author(s):Einarsdottir I E Sakata S Bjornsson B T

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Other Title:Atlantic halibut growth hormone: structure and plasma  
levels of sexually mature males and females during photoperiod-  
regulated annual cycles

Language:English

Abstract:The main objectives of this study were to obtain the amino  
acid sequence of Atlantic halibut (*Hippoglossus hippoglossus*) growth  
hormone (hhGH) and compare it with other teleost species, to  
establish a radioimmunoassay to assess plasma hhGH levels and thus to  
gain information about possible biological functions and regulation  
by photoperiod. The hhGH gene was cloned and its amino acid sequence  
deduced from the cDNA. The mature hhGH protein consisted of 186 amino  
acids. Comparison with other flatfish species as well as a species  
from a different order, the pufferfish, revealed that the sequence  
similarities of the mature hhGH with that of the barfin flounder, the  
Japanese flounder, the sole and the pufferfish were 99.5, 81.7, 74.2,  
and 65.2%, respectively. The sequence similarities appeared to  
correctly reflect the gross phylogenetic relationships among these  
teleost species. A specific GH-RIA was developed for measurements of  
Atlantic halibut GH levels. Assessment of plasma GH levels in adult  
halibut revealed large gender differences, with GH levels frequently  
being an order of magnitude higher in males than females. The mean (  
plus or minus SEM) plasma GH for males kept on normal annual  
photoperiod were 25.2 plus or minus 6.11 ng ml<sup>-1</sup> and for females were  
5.14 plus or minus 1.94 ng ml<sup>-1</sup>. It appears likely that plasma growth  
hormone levels in Atlantic halibut can be inversely correlated to  
growth and metabolism. Shifting of the annual photoperiod cycles  
demonstrated that photoperiod is not a regulator of plasma GH levels  
in the Atlantic halibut, but further research is needed to assess  
whether GH plays a role in the reproduction of this marine teleost  
species

Descriptors:amino-acid-sequences. complementary-DNA. DNA-sequencing.  
genes. nucleotide-sequences. photoperiod. phylogeny.  
radioimmunoassay. sex-differences. somatotropin

Identifiers:Fugu. Fugu rubripes. *Verasper moseri*

Organism Descriptors:halibut. *Paralichthys-olivaceus*. *Solea*

Supplemental Descriptors:Tetraodontidae. Tetraodontiformes.

Osteichthyes. fishes. vertebrates. Chordata. animals. aquatic-  
animals. aquatic-organisms. *Hippoglossus*. Pleuronectidae.

Pleuronectiformes. *Paralichthys*. Bothidae. Soleidae

Subject Codes:11240. 11250. 11600. mml20

Supplementary Info:many ref  
ISSN:0016-6480  
Year:2002  
Journal Title:General and Comparative Endocrinology  
Copyright:Copyright CAB International

Title:The contribution of display size and dichogamy to potential geitonogamy in *Campanula americana*  
View Article: International Journal of Plant Sciences. 2002. 163 (1). 133-139

CD Volume:393

Print Article: Pages: 133-139

Author(s):Galloway L F Cirigliano T Gremski K

Author Affiliation:Department of Biology, University of Virginia, Charlottesville, VA 22904-4328, USA

Other Title:The contribution of display size and dichogamy to potential geitonogamy in *Campanula americana*

Language:English

Abstract:An increase in floral display size may enhance fitness by increasing a plant's attractiveness to pollinators. Alternatively, a larger display may reduce fitness by increasing pollen movement within an individual. In dichogamous species, the frequency of this geitonogamy also depends on floral gender ratio and pollinator response to floral gender and to inflorescence architecture. We explored the relationships of floral display size and dichogamy to potential geitonogamy in *C. americana*, a protandrous herb. We observed pollinators in a natural population, in which individuals differed in display size, gender ratio, distance to conspecifics and in experimental arrays, in which individuals differed only in display size. In both settings, bees (*Bombus* sp.) responded to increased floral displays by increasing the number and length of foraging bouts. The number of potentially geitonogamous visits, those to female-phase flowers after male-phase flowers, also increased with display size. In addition, although proportion of flowers visited did not increase with the floral display, the proportion of geitonogamous visits did. There was no evidence that dichogamy reduced the potential for geitonogamy. The ratio of male- to female-phase flowers did not affect bee behaviour, and bees did not display a gender preference. In contrast to other studies, the presentation of female-phase flowers below male-phase flowers on reproductive branches did not reduce geitonogamy. Variation in floral display size may cause the mating system to vary among populations. We found that display size varied among 12 populations and that geitonogamy may be infrequent in many populations as a result of small display sizes. Finally, within populations, the selfing rates of larger biennial *C. americana* are likely to exceed those of smaller annual individuals  
Descriptors:animal-behaviour. flowers. inflorescences. mating. mating-preferences. pollen. pollination. pollinators. selfing. size

Identifiers:*Campanula americana*

Organism Descriptors:*Bombus*. *Campanula*

Supplemental Descriptors:Apidae. Hymenoptera. insects. arthropods. invertebrates. animals. Campanulaceae. Campanulales. dicotyledons. angiosperms. Spermatophyta. plants. *Campanula*

Subject Codes:ff003. ff060. yy500

Supplementary Info:42 ref

ISSN:1058-5893

Year:2002

Journal Title:International Journal of Plant Sciences  
Copyright:Copyright CAB International

Title:Protogyny, pollination, and sex expression of andromonoecious Pseudocymopterus montanus (Apiaceae, Apioideae)  
View Article: International Journal of Plant Sciences. 2002. 163 (3). 409-417

CD Volume:393

Print Article: Pages: 409-417

Author(s):Schlessman Mark A Graceffa Laura M

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Other Title:Protogyny, pollination, and sex expression of andromonoecious Pseudocymopterus montanus (Apiaceae, Apioideae)

Language:English

Abstract:Studies of dichogamy seldom address its possible effects on other floral traits. An exception has been work on the apioid umbellifers (Apiaceae, subfamily Apioideae), which typically exhibit andromonoecy and both intra- and interfloral dichogamy. Several students of apioid umbellifers have suggested that variation in proportions of perfect and staminate flowers among sequentially blooming inflorescences (umbels) of individual plants has evolved in response to dichogamy. Here, we report a 2-yr study of dichogamy, pollination, and sex expression in Pseudocymopterus montanus, a common wildflower of the Rocky Mountains. We recorded floral phenology, determined the timing of pollination, collected and identified floral visitors, documented variation in sex expression and fecundity within and among plants, and examined possible reasons why some perfect flowers did not set fruit. Floral visitors included andrenid and halictid bees and anthomyid, muscoid, syrphid, and tachinid flies. Autogamy was prevented by strong intrafloral protogyny of the perfect flowers, which were pollinated before their anthers dehisced. Flowering individuals produced a single primary (terminal) umbel, one or two secondary (lateral) umbels, and occasionally a tertiary (sublateral) umbel. Umbels of different orders matured sequentially, producing multiple cycles of protogyny. Weak interfloral protogyny within and among umbels allowed the possibility of geitonogamous selfing. All individuals expressed the same pattern of variation in sex expression among sequentially blooming umbels. Over 90% of flowers in primary umbels were staminate, but the frequency of staminate flowers fell to 65% or less in secondary and tertiary umbels. Primary and secondary umbels differed significantly in sex expression, even though their prepollination reproductive efforts (floral biomass) were the same. We favor the view that this distinctive pattern of within-plant sex expression, i.e., decreasing proportions of staminate flowers in sequentially blooming umbels, evolved in response to protogyny. In apioid umbellifers, protogyny appears to have been derived from protandry. The selective forces involved in the derivation of protogyny may have included more specialized interactions with pollinators and the ability to geitonogamously self-pollinate if cross-pollination failed. Sex allocation theory predicts that protogyny is a sufficient condition for the evolution of increasing relative allocations to female function in sequentially blooming flowers or inflorescences. Plants with higher reproductive effort had higher absolute allocations to both male and female reproductive functions as well as higher relative allocations to female function (higher phenotypic femaleness). The more female-biased gender of larger plants may result from higher frequencies of geitonogamy in inflorescences with more flowers

Descriptors:Reproductive-System (Reproduction-) andromonoecy-; dichogamy-; floral-traits; pollination-; protogyny-; sex-expression  
Geographic Locator:Rocky-Mountains (North-America, Nearctic-region)

Organism Descriptors:Pseudocymopterus-montanus (Umbelliferae-):  
andromonoecious-species  
Supplemental Descriptors:Umbelliferae-: Dicotyledones-, Angiospermae-  
, Spermatophyta-, Plantae- Angiosperms-; Dicots-; Plants-;  
Spermatophytes-; Vascular-Plants  
ISSN:1058-5893  
Year:2002  
Journal Title:International Journal of Plant Sciences  
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Title:Linkage analysis using direct and indirect counting and  
relative efficiencies for codominant and dominant loci  
View Article: Journal of Animal Science. 2002. 80 (10). 2528-2539  
CD Volume:400

Print Article: Pages: 2528-2539

Author(s):Da Y Garbe J London N Xu J

Author Affiliation:Department of Animal Science, University of  
Minnesota, Saint Paul

Other Title:Linkage analysis using direct and indirect counting and  
relative efficiencies for codominant and dominant loci

Language:English

Abstract:A method based on direct and indirect counting is developed  
for rapid and accurate linkage analysis for codominant and dominant  
loci. Methods for estimating gender-specific recombination  
frequencies are available for cases where at least one of the two  
loci is multiallelic and for biallelic loci with mixed parental  
linkage phases where at least one locus is codominant. Most of the  
estimates of gender-average and gender-specific recombination  
frequencies required iterative solutions. The new method makes use of  
the full data set, yields exact estimates of the recombination  
frequencies when the observed and expected genotypic frequencies are  
equal, and are computationally efficient. Relative efficiency of  
various data types is affected by the inheritance mode and by  
parental linkage phases of biallelic loci, but unaffected by the  
locus polymorphism when using the full data set for linkage analysis.  
The ability to determine parental linkage phases is affected by the  
locus polymorphism as well as inheritance mode. Intercross (or F-2  
design) is more efficient for mapping codominant loci, whereas  
backcross is more efficient if dominance is involved. Mixed parental  
linkage phases of biallelic loci are less efficient than coupling or  
repulsion linkage phases. Ignoring noninformative offspring results  
in biased estimates of recombination frequency for biallelic loci  
only and reduced LOD scores for all cases

Descriptors:alleles. chromosome-polymorphism. codominance. dominance.  
gene-mapping. inheritance. linkage. loci. methodology. recombination

Subject Codes:11240. zz100

Supplementary Info:15 ref

ISSN:0021-8812

Year:2002

Journal Title:Journal of Animal Science

Copyright:Copyright CAB International

Title:Genetic and nutritional effects on swine excreta

View Article: Journal of Animal Science. 2002. 80 (11). 2809-2816

CD Volume:400

Print Article: Pages: 2809-2816

Author(s):Crocker A W Robison O W

Author Affiliation:Department of Animal Science, North Carolina State  
University, Raleigh, NC 27695-7621, USA

Other Title:Genetic and nutritional effects on swine excreta

Language:English

Abstract: The objective of this study was to investigate genetic and nutritional effects on swine excreta. Two studies were used. Study I was a 3x2x2 factorial design with three genetic groups, two diets and two sexes. Genetic groups were a maternal line (WL), paternal line (BL) and their F1 progeny. Corn-soyabean meal diets with either 18 or 14% CP, differing only by substitution of soyabean meal for corn, were used in both studies. Study II was a 2x2 factorial design with two genetic groups and two diets. High testosterone (D2) and low testosterone (D1) Duroc lines were used. Solid and liquid wastes were collected for 3 days. A total of 108 pens in Study I and 50 pens in Study II were sampled twice. Total excreta were measured and samples collected for chemical analysis of N, NH<sub>3</sub>N, P, Ca, Cu, K, Zn and Fe. Measures were adjusted for pig weight and feed disappearance. Maternal-line pigs excreted significantly less P, Ca, Cu, Zn and Fe than F1 or BL pigs and numerically smaller quantities of all nutrients than BL pigs. In study II, differences were found between lines of the same breed. Line D2 pigs had greater output of P, Ca and Cu (P<0.05) than D1 pigs and numerically larger quantities of all other nutrients except NH<sub>3</sub>N and Fe. Pigs fed 14% CP excreted less N, NH<sub>3</sub>N and K (P<0.01) in both studies and excreted significantly less P in Study I. Pigs on a 14% CP diet excreted numerically smaller amounts of all nutrients in both studies except Ca in Study II. In Study I, gilts excreted smaller (P<0.05) amounts of all nutrients than barrows. Genetic, nutritional and gender differences influenced waste output

Descriptors: ammonium-nitrogen. calcium. copper. crude-protein. dietary-protein. diets. Duroc. excreta. genetic-effects. gilts. iron. line-differences. maize-meal. maternal-effects. nitrogen. paternal-effects. phosphorus. potassium. sex-differences. soyabean-oilmeal. testosterone. zinc

Organism Descriptors: pigs

Supplemental Descriptors: Sus-scrofa. Sus. Suidae. Suiformes.

Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes: 11240. 11500. 11510

Supplementary Info: 5 ref

ISSN: 0021-8812

Year: 2002

Journal Title: Journal of Animal Science

Copyright: Copyright CAB International

Title: Weaning, yearling, and preharvest ultrasound measures of fat and muscle area in steers, bulls, and heifers

View Article: Journal of Animal Science. 2002. 80 (11). 2817-2824  
CD Volume: 400

Print Article: Pages: 2817-2824

Author(s): Crews D H Jr Shannon N H Crews R E Kemp R A

Author Affiliation: Agriculture and Agri-Food Canada Research Centre, Lethbridge, Alberta T1J 4B1, Canada

Other Title: Weaning, yearling, and preharvest ultrasound measures of fat and muscle area in steers, bulls, and heifers

Language: English

Abstract: Longissimus muscle area and fat thickness were measured following weaning, at yearling and prior to harvest using realtime ultrasound and corresponding carcass measurements were recorded 3 to 7 days following the preharvest scan in composite steers (n=116, 447 plus or minus 19 days), bulls (n=224, 521 plus or minus 11 days) and heifers (n=257, 532 plus or minus 12 days). Although fat deposition was limited in bulls and heifers from weaning to yearling, coefficients of variation ranged from 8.46 to 13.46% for muscle area and from 27.55 to 38.95% for fat thickness, indicating that significant phenotypic variance exists across genders. Residual

correlations, adjusted for the effects of year of birth, gender and age at measurement, were high and ranged from 0.79 to 0.87 among ultrasound and carcass measures of muscle area. Residual correlations among ultrasound and carcass measures of fat thickness were also high, ranging from 0.64 to 0.86. Weaning and/or yearling ultrasound muscle area yielded similarly accurate predictions of carcass muscle area. Yearling ultrasound fat thickness accounted for 13% more of the observed variance in carcass fat thickness than the weaning ultrasound measure in single-trait prediction models. When both weaning and yearling ultrasound measures were used to predict carcass fat thickness, partial R<sup>2</sup> values were 0.15 and 0.61 for weaning and yearling ultrasound fat thickness, respectively. The difference between predicted and carcass measures with respect to muscle area (fat thickness) was less than 6.45 cm<sup>2</sup> (2.5 mm) for 80.2 to 88.9% (90.3 to 95%) of animals. Preharvest ultrasound measures yielded standard errors of prediction of less than 4.95 cm<sup>2</sup> for muscle area and 1.51 mm or less for fat thickness. These results indicate that ultrasound measures taken between weaning and yearling provide accurate predictors of corresponding carcass traits in steers, bulls and heifers

Descriptors:body-fat. bulls. carcass-composition. carcass-quality. fat-thickness. heifers. longissimus-dorsi. steers. ultrasonography. ultrasound

Organism Descriptors:cattle

Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:zz900. 11120

Supplementary Info:14 ref

ISSN:0021-8812

Year:2002

Journal Title:Journal of Animal Science

Copyright:Copyright CAB International

Title:Leptin in horses: tissue localization and relationship between peripheral concentrations of leptin and body condition

View Article: Journal of Animal Science. 2002. 80 (11). 2942-2948

CD Volume:400

Print Article: Pages: 2942-2948

Author(s):Buff P R Dodds A C Morrison C D Whitley N C McFadin E L Daniel J A Djiane J Keisler D H

Author Affiliation:Animal Sciences Department, University of Missouri, Columbia, MO 65211, USA

Other Title:Leptin in horses: tissue localization and relationship between peripheral concentrations of leptin and body condition

Language:English

Abstract:Obesity has been a major concern in the horse industry for many years and the recent discovery of leptin and leptin receptors in numerous nonequine species has provided a basis for new approaches to study this problem in equines. The objectives were to: (1) clone a partial sequence of the equine leptin and leptin receptor genes so as to enable the design of primers for reverse transcription-polymerase chain reaction (RT-PCR) determination of leptin and leptin receptor gene presence and distribution in tissues, (2) develop a radioimmunoassay to quantify peripheral concentrations of leptin in equine, (3) determine if peripheral concentrations of leptin correlate with body condition scores in equine and (4) determine if changing body condition scores would influence peripheral concentrations of leptin in equine. In Experiment 1, equine leptin (GenBank accession number AF179275) and the long-form of the equine leptin receptor (GenBank accession number AF139663) genes were partially sequenced. Equine leptin receptor messenger RNA was

detected in liver, lung, testis, ovary, choroid plexus, hypothalamus and subcutaneous adipose tissues using RT-PCR. In Experiment 2, a total of 71 horses were categorized by gender, age, and body condition score and blood samples were collected. Sera were assayed for leptin using a heterologous leptin radioimmunoassay developed for equine sera. Serum concentrations of leptin increased in horses with body condition score (1=thin to 9=fat;  $r=0.64$ ;  $P=0.0001$ ). Furthermore, serum concentrations of leptin were greater in geldings and stallions than in mares ( $P=0.0002$ ) and tended to increase with age of the animal ( $P=0.08$ ). In Experiment 3, blood samples, body weights and body condition scores were collected every 14 days from 18 pony mares assigned to gain or lose weight over a 14-week interval based on initial body condition score. Although statistical changes ( $P=0.001$ ) in body condition scores were achieved, congruent statistical changes in peripheral concentrations of leptin were not observed, likely due to the small range of change that occurred. Nonetheless, serum concentrations of leptin tended to be greater in fat-restricted mares than in thin-supplemented mares ( $P=0.09$ ). We conclude that leptin and leptin receptors are present in equine tissues and that peripheral concentrations of leptin reflect a significant influence of fat mass in equine

Descriptors:age-differences. blood-chemistry. body-condition. hormone-receptors. leptin. mares. messenger-RNA. sex-differences. stallions. tissue-distribution

Organism Descriptors:horses

Supplemental Descriptors:Equus. Equidae. Perissodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:11600

Supplementary Info:21 ref

ISSN:0021-8812

Year:2002

Journal Title:Journal of Animal Science

Copyright:Copyright CAB International

Title:Digestibility and dry matter intake of diets containing alfalfa and kenaf

View Article: Journal of Animal Science. 2002. 80 (11). 2989-2995

CD Volume:400

Print Article: Pages: 2989-2995

Author(s):Phillips W A Rao S C Fitch J Q Mayeux H S

Author Affiliation:USDA-ARS Grazinglands Research Laboratory, El Reno, OK 73036, USA

Other Title:Digestibility and dry matter intake of diets containing alfalfa and kenaf

Language:English

Abstract:Two experiments were conducted to determine the dietary value of pellets containing kenaf (*Hibiscus cannabinus* cv. 'Everglade 41') hay. Averaged across both experiments, kenaf pellets contained 82.6% kenaf hay, 16.6% liquid molasses and 0.8% mineral oil. The chemical composition of the kenaf pellet was 12.6% crude protein (CP), 41.2% neutral detergent fibre (NDF) and 14.4% acid detergent fibre (ADF). In Exp. 1 (digestion and N balance trial), 18 lambs (body weight (BW)=36.4 kg) were blocked by BW. Lambs were randomly assigned within a block to Diet 1 (59.5% corn and 40.5% alfalfa pellet), Diet 2 (59.7% corn, 28.4% lucerne pellets and 11.9% kenaf pellets) or Diet 3 (59.6% corn, 16.5% lucerne pellets and 23.9% kenaf pellets). Diets were formulated so that CP was the first-limiting nutrient. Each diet was limit-fed at 2.4% of BW. Replacing lucerne pellets with kenaf pellets tended to decrease ( $P=0.10$ ) CP and ADF intakes but increased ( $P=0.01$ ) DM digestibility. Diet had no effect ( $P=0.33$ ) on N balance. In Exp. 2 (dry matter (DM) intake trial), 32

lambs (BW=30.4 kg) were blocked by gender and BW. Within a block, lambs were randomly assigned to one of four diets in a 2x2 factorial arrangement. Main effects were hay (bermuda grass (*Cynodon dactylon*) or fescue (*Festuca*)) and supplemental protein source (kenaf or lucerne pellets). Lambs were housed in individual pens with ad libitum access to the assigned hay. Supplemental protein was fed (185 g of DM) once daily. Hay intake was measured weekly for 8 weeks. Lambs consumed more (P=0.002) fescue than bermuda grass hay (743 vs. 621 g/day). Lambs fed fescue hay gained weight more rapidly (P=0.001) than lambs fed bermuda grass hay (120 vs. 72 g/day). Hay intake and ADG were similar (P=0.90) for lambs fed alfalfa or kenaf pellets. Kenaf hay mixed with molasses and mineral oil can be formed into a pellet. In the diets used in this experiments, kenaf pellets can replace lucerne pellets in diets fed to lambs without altering forage intake, gain or N retention

Descriptors:chemical-composition. crude-protein. diets. digestibility. dry-matter. feed-intake. feed-supplements. fibre. hay. kenaf. lamb-feeding. lambs. liveweight-gain. lucerne-pellets. protein-intake. protein-supplements

Organism Descriptors:*Cynodon-dactylon*. *Festuca*. *Hibiscus-cannabinus*. sheep

Supplemental Descriptors:*Cynodon*. Poaceae. Cyperales. monocotyledons. angiosperms. Spermatophyta. plants. *Hibiscus*. Malvaceae. Malvales. dicotyledons. Ovis. Bovidae. ruminants. Artiodactyla. mammals.

vertebrates. Chordata. animals. ungulates

Subject Codes:ff007. 11500. 11520. rr300

Supplementary Info:22 ref

ISSN:0021-8812

Year:2002

Journal Title:Journal of Animal Science

Copyright:Copyright CAB International

Title:Effects of growth potential and growth path on tenderness of beef longissimus muscle from bulls and steers

View Article: Journal of Animal Science. 2002. 80 (12). 3211-3221  
CD Volume:400

Print Article: Pages: 3211-3221

Author(s):Purchas R W Burnham D L Morris S T

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Other Title:Effects of growth potential and growth path on tenderness of beef longissimus muscle from bulls and steers

Language:English

Abstract:The influence of growth potential or growth path on the tenderness of the longissimus muscle was investigated using 117 Angus and Angus-cross bulls and steers raised on pasture over two successive years. Growth rate for a period of 100 d from a weight of about 200 kg was used to identify the faster-growing two-thirds of cattle within the gender groups, half of which were grown fast to a slaughter weight of 530 kg at 16 to 18 mo of age (the Fast group), whereas the other half were restricted in growth (the Restricted group) so they attained a similar final weight as the slower-growing third (the Slow group) at about 26 mo of age. The Restricted group was included to determine whether the tougher meat expected from the Slow group relative to the Fast group (based on previous results) was due to the greater age of the Slow group or to their slower early growth rate. Beef from the Fast group was tenderer than that from both the Slow and Restricted groups based on sensory panels (P < 0.05) and objective measures (P < 0.05), indicating that the early growth-rate potential was less important than the differences in age

or the patterns of growth for the Slow and Restricted groups. Improved tenderness for the Fast group was associated with more intramuscular fat ( $P < 0.05$ ) and higher myofibrillar fragmentation indexes ( $P < 0.05$ ). Patterns of tenderness differences between treatment groups were similar for bulls and steers, but beef from bulls was tougher ( $P < 0.001$ ) than that from steers. The more tender beef from steers was associated with a slightly lower ultimate pH ( $P < 0.001$ ), higher myofibrillar fragmentation indexes ( $P < 0.001$ ), and more intramuscular fat ( $P < 0.001$ ). Ultimate pH affected beef tenderness ( $P < 0.01$ ), but adjustments to a constant pH did not decrease differences between treatment and gender groups. The higher growth rates ( $P < 0.01$ ) and leaner carcasses ( $P < 0.01$ ) of bulls compared with steers were consistent with other studies. Increases in age of 8 to 10 mo may be associated with less tender beef for cattle finished on pasture, and beef from bulls is likely to be less tender than that from steers

Descriptors:Animal-Husbandry (Agriculture-); Foods- animal-science; beef-: analysis-, meat-product, quality-; carcass-quality-traits; cattle-production; growth-paths: effects-; growth-potential: effects-; growth-rates; meat-quality-studies; pH-

Organism Descriptors:beef-cattle (Bovidae-): breed-Angus, bull-, steer-; human- (Hominidae-): sensory-panelist longissimus-muscle: analysis-, muscular-system, tenderness-

Supplemental Descriptors:Bovidae-: Artiodactyla-, Mammalia-, Vertebrata-, Chordata-, Animalia-; Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia- Animals-; Artiodactyls-; Chordates-; Humans-; Mammals-; Nonhuman-Mammals; Nonhuman-Vertebrates; Primates-; Vertebrates-

ISSN:0021-8812

Year:2002

Journal Title:Journal of Animal Science

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Title:Effects of selection for milk yield on growth hormone response to growth hormone releasing factor in growing Holstein calves

View Article: Journal of Dairy Science. 2002. 85 (10). 2529-2540

CD Volume:401

Print Article: Pages: 2529-2540

Author(s):Baumgard L H Weber W J Kazmer G W Zinn S A Hansen L B Chester Jones H Crooker B A

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Other Title:Effects of selection for milk yield on growth hormone response to growth hormone releasing factor in growing Holstein calves

Language:English

Abstract:Bull and heifer calves (n=81) from genetic lines of Holstein cows that differed by more than 4000 kg milk/305-d lactation were used to determine effects of selection for milk yield on growth hormone (GH) response to a GH releasing factor (GRF) analog. Calves received GRF (4 mug/100 kg BW) on 10, 56, 140, 196, 252, and 364±3 d of age. Jugular blood samples (n=15) were obtained from -30 to 120 min relative to GRF administration. Area under the GH response curve (0 to 60 min, AUC60) was quantified after subtracting mean prechallenge GH concentrations. Data were analysed for effects of line, age, gender, and their interactions with PROC MIXED of SAS for repeated measures and incorporated the spatial power law for unequally spaced data with age as the repeated effect. Means were considered different when  $P < 0.05$ . Prechallenge GH concentrations did not differ between lines, were greater in bulls than heifers (4.6 vs. 3.7 ng/ml), and decreased with age. The AUC60 decreased with age but

did not differ between lines. Heifers responded more to GRF than bulls (1550 vs. 1336 ngXmin/ml). Peak GH concentration decreased with age and was less in bulls than heifers (54.7 vs. 62.1 ng/ml) but did not differ between lines. Although plasma GH has been identified as an inheritable trait, we conclude the GH variables measured in this study were not useful in predicting genetic merit of calves from these substantially different lines of cows

Descriptors:Animal-Husbandry (Agriculture-); Endocrine-System (Chemical-Coordination-and-Homeostasis); Genetics-; Veterinary-Medicine (Medical-Sciences) growth-hormone; growth-hormone-releasing-factor-analog; hormone-drug genetic-selection; milk-yield Organism Descriptors:cattle- (Bovidae-): breed-Holstein, calf-, female-, growing-, immature-, male-

Supplemental Descriptors:Bovidae-: Artiodactyla-, Mammalia-, Vertebrata-, Chordata-, Animalia- Animals-; Artiodactyls-; Chordates-; Mammals-; Nonhuman-Mammals; Nonhuman-Vertebrates; Vertebrates- ISSN:0022-0302

Year:2002

Journal Title:Journal of Dairy Science

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Title:The Roles of Destination, Gender, and Household Composition in Explaining Remittances: An Analysis for the Dominican Sierra

View Article: Journal of Development Economics. 68 (2) 2002. 309-28 CD Volume:388

Author(s):de la Briere B

Author Affiliation:Dept for International Development, UK

Other Title:The Roles of Destination, Gender, and Household

Composition in Explaining Remittances: An Analysis for the Dominican Sierra

Language:English

Abstract:Two non-exclusive hypotheses about what motivates remittances sent by Dominican migrants to their rural parents in the Sierra are tested: a) an insurance contract taken by parents with their migrant children and (b) an investment by migrants in potential bequests. Results show that the relative importance of these two motives to remit is affected by destination (US vs. cities in the Dominican Republic), gender, and household composition. The insurance function is mainly fulfilled by female migrants to the US. Only when a male is the sole migrant in his household does he play the role of insurer. Investment, by contrast, is pursued by both males and females, but only among those migrating to the US

Descriptors:Economic Development: Human Resources; Income Distribution; Migration. Microeconomic Analyses of Economic Development. Economics of Gender. Geographic Labor Mobility; Immigrant Workers

Geographic Locator:Dominican-Republic

Subject Codes:ee450. uu200. ee900

ISSN:0304-3878

Year:2002

Journal Title:Journal of Development Economics

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Title:Estimating the benefits and costs to mountain bikers of changes in trail characteristics, access fees, and site closures: choice experiments and benefits transfer

View Article: Journal of Environmental Management. 2002. 64 (4). 411-422

CD Volume:387

Author(s):Morey E R Buchanan T Waldman D M  
Author Affiliation:Department of Economics, Campus Box 256,  
University of Colorado, Boulder, CO 80309-0256, USA  
Other Title:Estimating the benefits and costs to mountain bikers of  
changes in trail characteristics, access fees, and site closures:  
choice experiments and benefits transfer  
Language:English  
Abstract:Mountain biking is an increasingly popular leisure pursuit.  
Consequences are trail degradation and conflicts with hikers and  
other users. Resource managers often attempt to resolve these  
problems by closing trails to mountain biking. In order to estimate  
the impact of these developments, a model has been devised that  
predicts the effects of changes in trail characteristics and  
introduction of access fees, and correlates these with biker  
preference on trail selection. It is based on data collected at  
Portland Bicycle Show in Oregon, USA, on 11-12 March 1995. It  
estimates each individual's per-ride consumer's surplus associated  
with implementing different policies. The surplus varies  
significantly as a function of each individual's gender, budget, and  
interest in mountain biking. Estimation uses stated preference data,  
specifically choice experiments. Hypothetical mountain bike trails  
were created and each surveyed biker was asked to make 5 pair-wise  
choices. A benefit-transfer simulation is used to show how the model  
and parameter estimates can be transferred to estimate the benefits  
and costs to mountain bikers in a specific area  
Descriptors:access. bicycling. consumer-surplus. cost-benefit-  
analysis. decision-making. fees. outdoor-recreation. simulation-  
models. trails  
Geographic Locator:Oregon. USA  
Supplemental Descriptors:Pacific-Northwest-States-of-USA. Pacific-  
States-of-USA. Western-States-of-USA. USA. North-America. America.  
Developed-Countries. OECD-Countries  
Subject Codes:ee119. ee720. uu485. uu610. uu625  
Supplementary Info:37 ref  
ISSN:0301-4797  
Year:2002  
Journal Title:Journal of Environmental Management  
Copyright:Copyright CAB International

Title:Capital assets and intercultural borderlands: Socio-cultural  
challenges for natural resource management  
View Article: Journal of Environmental Management. 2002. 66 (4). 429-  
440  
CD Volume:387  
Author(s):Stratford Elaine Davidson Julie  
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Research Group, School of Geography and Environmental Studies,  
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Other Title:Capital assets and intercultural borderlands: Socio-  
cultural challenges for natural resource management  
Language:English  
Abstract:In their design or implementation, many natural resource  
management (NRM) programs ignore critical socio-cultural dimensions  
of the challenge to advance sustainability. Building on particular  
ideas about culture and human ecosystems, we combine the strengths of  
the capital assets model of sustainability and the idea of  
intercultural borderlands to respond to this gap. To advance our  
thesis about the utility of these tools, we critically reviewed and  
analysed a cross-disciplinary literature relating to the socio-  
cultural dimensions of NRM. This paper stems from that labour and

examines particular tensions that arise in land management as a result of Australians' specific colonial and postcolonial legacies. These tensions-related to ethnicity, gender, population, age and health-are among the threads in the larger tapestry that comprises the socio-cultural dimensions of NRM. For the Australian case, they are central, longstanding and persistent, and thus worthy of analysis; and they are applicable in general terms to other places with similar histories of settlement and land use

Descriptors:Environmental-Sciences; Sociology- (Population-Studies) age-; capital-assets; capital-assets-model; colonial-legacy; critical-socio-cultural-dimensions; cross-disciplinary-literature; culture-; ethnicity-; gender-; health-; human-ecosystems; intercultural-borderlands; natural-resource-management-programs [NRM-programs]: socio-cultural-dimensions; population-; postcolonial-legacy; socio-cultural-challenges

Geographic Locator:Australia- (Australasian-region)

Identifiers:natural-resource-management: applied-and-field-techniques

Organism Descriptors:human- (Hominidae-): Australian-Supplemental Descriptors:Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia- Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

ISSN:0301-4797

Year:2002

Journal Title:Journal of Environmental Management

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Title:Youth transitions and interdependent adult-child relations in rural Bolivia

View Article: Journal of Rural Studies. 2002. 18 (2). 123-133

CD Volume:388

Author(s):Punch S

Author Affiliation:Department of Applied Social Science, University of Stirling, Stirling FK9 4LA, UK

Other Title:Youth transitions and interdependent adult-child relations in rural Bolivia

Language:English

Abstract:This paper, based on ethnographic fieldwork in a rural community in Bolivia, considers how young people make decisions about different types of school-to-work transitions (migrating to continue their formal education, working in the community, or looking for migrant work in the regional town or in neighbouring Argentina). It explores how young people negotiate structural constraints over their choice of transition, including the rural location, economic resources, parental attitudes and family background, gender, birth order, social networks and role models. It is highlighted that underlying young people's choice of transition are interdependent household relations. In the majority world, in this case in Bolivia, rural young people may achieve economic independence sooner than those in the minority world. However, long-term family interdependence tends to be maintained throughout the life course. It is suggested that the notion of 'negotiated interdependence' is a more appropriate way to understand youth transitions and relations between young people and adults in rural areas of the majority world

Descriptors:adults. children. decision-making. education. employment. interpersonal-relations. migration. rural-areas. rural-communities. rural-society. rural-youth

Geographic Locator:Bolivia

Organism Descriptors:man

Supplemental Descriptors:South-America. America. Developing-Countries. Andean-Group. Latin-America. Homo. Hominidae. Primates. mammals. vertebrates. Chordata. animals

Subject Codes:uu450. uu485. uu800. ee900  
Supplementary Info:29 ref  
ISSN:0743-0167  
Year:2002  
Journal Title:Journal of Rural Studies  
Copyright:Copyright CAB International

Title:A hero's journey: young women among males in forestry education  
View Article: Journal of Rural Studies. 2002. 18 (3). 293-306  
CD Volume:388

Author(s):Follo G  
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Science and Technology, N-7491 Trondheim, Norway

Other Title:A hero's journey: young women among males in forestry  
education

Language:English

Abstract:In Norway, women are grossly under-represented in all  
sectors of forestry industry, and recruiting women has been  
difficult. Are gender attitudes a barrier to recruitment? In this  
article, the question is scrutinized in relation to young women and  
practical forestry. The article is based on in-depth interviews with  
12 girls and 11 boys who attended comprehensive school courses in  
forestry in 1998-99. The female students did not necessarily plan to  
work in practical forestry. The girls' participation in the setting  
of forestry education has some characteristics which are best  
captured in the metaphor of the hero's journey: a travel in foreign  
country, a road of trials, some helpers, and a return as a stronger,  
wiser and more self-confident person. This article argues that gender  
attitudes were not a barrier to the girls' recruitment to a career in  
practical forestry work in the future

Descriptors:educational-courses. forest-products-industries.  
forestry. gender-relations. interviews. participation. recruitment.  
women

Geographic Locator:Norway

Organism Descriptors:man

Supplemental Descriptors:Scandinavia. Northern-Europe. Europe.  
Developed-Countries. EFTA. OECD-Countries. Homo. Hominidae. Primates.  
mammals. vertebrates. Chordata. animals

Subject Codes:kk110. uu500. cc100

Supplementary Info:many ref

ISSN:0743-0167

Year:2002

Journal Title:Journal of Rural Studies

Copyright:Copyright CAB International

Title:Focus groups, feminist research and farm women: opportunities  
for empowerment in rural social research

View Article: Journal of Rural Studies. 2002. 18 (3). 339-351

CD Volume:388

Author(s):Pini B

Author Affiliation:School of Management, Queensland University of  
Technology, GPO Box 2434, Brisbane, QLD 4000, Australia

Other Title:Focus groups, feminist research and farm women:  
opportunities for empowerment in rural social research

Language:English

Abstract:This paper uses data from a doctoral study examining women's  
involvement in the Australian sugar industry to argue that focus  
groups are a valuable method for feminist rural social research. 16  
initial and follow-up focus groups conducted with 80 women were not  
just valuable for the production of raw data, they were also valuable  
in addressing feminist research goals. Using extracts from the focus

groups, 4 examples of their effectiveness as a feminist research method are examined. That is, focus group participation made what is invisible to many women visible; it enabled connections to be made between individual and collective experiences; it facilitated challenges to dominant beliefs; and it provided space for discussion and reflexivity about gender issues. The paper concludes by arguing that the potential of focus groups as an empowering strategy for participants is not just of importance to feminist scholars, but to all rural social researchers who are interested in engaging less hierarchical research relationships, in producing knowledge which is contextualized, and in contributing to political and social change

Descriptors:empowerment. groups. participation. research. rural-areas. rural-sociology. rural-women. sugar-industry. woman's-status. women

Geographic Locator:Australia

Organism Descriptors:man

Supplemental Descriptors:Australasia. Oceania. Developed-Countries.

Commonwealth-of-Nations. OECD-Countries. Homo. Hominidae. Primates.

mammals. vertebrates. Chordata. animals

Subject Codes:aa500. ee110. uu485. uu500. uu800

Supplementary Info:many ref

ISSN:0743-0167

Year:2002

Journal Title:Journal of Rural Studies

Copyright:Copyright CAB International

Title:The cultural representation of the farming landscape: masculinity, power and nature

View Article: Journal of Rural Studies. 2002. 18 (4). 373-384

CD Volume:388

Author(s):Saugeres L

Author Affiliation:CAVA, Department of Sociology and Social Policy, University of Leeds, Leeds LS2 9JT, UK

Other Title:The cultural representation of the farming landscape: masculinity, power and nature

Language:English

Abstract:This paper explores ideas of masculinity and femininity as articulated in the representation of the rural landscape among farm families in a community of southern France. Data are obtained from in-depth life history interviews with 36 farming families (men=17 and women=19) over a period of 3 months, and in-depth follow up interviews with 8 women and 7 men. It is shown that the local discourses of the farming landscape emphasize the embodied inherited relationship between the farmer and the land. In these discourses, the good farmer is one who has an innate understanding of nature. This sympathetic feel for the land is associated with traditional peasant farming. In contrast, the alienated and exploitative attitude of the bad farmer towards nature is associated with modern agriculture. It is argued that this rhetoric of landscape and identity reproduces patriarchal ideologies which exclude and marginalize women from farming. The real farmer can only be a man because only men are seen as having this natural connection with the land. Women in contrast are defined by their lack of connection to farming and the land. Through an analysis of discourse, it is shown how an imagery of earth and blood constitutes a cultural idiom which legitimates men's mastery over nature and women

Descriptors:agricultural-land. culture. farm-families. farmers.

farmers'-attitudes. farming. gender-relations. ideology. landscape.

rural-areas. rural-communities. rural-sociology

Geographic Locator:France

Supplemental Descriptors:Western-Europe. Europe. Mediterranean-Region. Developed-Countries. European-Union-Countries. OECD-Countries  
Subject Codes:uu450. uu485. uu800. ee110. ee115. pp300  
Supplementary Info:many ref  
ISSN:0743-0167  
Year:2002  
Journal Title:Journal of Rural Studies  
Copyright:Copyright CAB International

Title:Relationships between beef carcass shape and muscle to bone ratio

View Article: Meat Science. 2002. 61 (3). 329-337

CD Volume:388

Author(s):Purchas R W Fisher A V Price M A Berg R T

Author Affiliation:Institute of Food, Nutrition & Human Health, Massey University, Palmerston North, New Zealand

Other Title:Relationships between beef carcass shape and muscle to bone ratio

Language:English

Abstract:Relationships between muscularity and muscle to bone ratio were investigated for beef carcasses of several breeds and crosses, and three genders using data from Bristol and Alberta. Side dissection data in terms of muscle, fat and bone weights were used to calculate muscle to bone ratios (MtoB) and muscularity indexes (MUSC) for the whole side or for the region around the femur bone. Highly significant breed and gender effects on MtoB and MUSC were shown for both the Bristol and the Alberta data sets, but the group differences for MtoB were not the same as those for MUSC despite the fact that these two characteristics were closely correlated. For both sets of data, for example, MUSC values at a common muscle plus bone weight were significantly higher for carcasses of bulls than heifers, but similarly adjusted MtoB values were generally higher for carcasses of heifers than bulls. Differences among breed groups were mainly in a similar direction for MUSC and MtoB, but the size of the differences varied widely. For example, relative to the Friesian, the Jersey breed had a significantly higher MtoB but a significantly lower MUSC and carcasses of double-muscled bulls had a femur-region MtoB that was 19.2% greater than that of a group of Shorthorn-cross carcasses, but a MUSC that was only 1.7% higher. These findings show that because of the inconsistent relationships between muscularity and muscle to bone ratio among different classes of beef carcasses, lean meat yield cannot always be predicted without bias if measures of carcass shape are used as indicators of muscle to bone ratio

Descriptors:beef. bulls. carcass-composition. carcass-quality. carcasses. heifers. leanness. meat-yield. muscle-bone-ratio. sex-differences

Organism Descriptors:cattle

Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:ll120. qq030. qq500

Supplementary Info:22 ref

ISSN:0309-1740

Year:2002

Journal Title:Meat Science

Copyright:Copyright CAB International

Title:Processing and sensory characteristics of cooked roast beef: effect of breed, age, gender and storage conditions

View Article: Meat Science. 2002. 62 (4). 419-427

CD Volume:388

Author(s):Boles J A Swan J E

Author Affiliation:Animal and Range Sciences, Montana State University, PO Box 172900, Bozeman, MT 59717 2900, USA  
Other Title:Processing and sensory characteristics of cooked roast beef: effect of breed, age, gender and storage conditions  
Language:English

Abstract:Two separate experiments investigated the effect of breed (Bos indicus, Bos indicus x Bos taurus and Bos taurus), gender/age and chilled and frozen storage on the processing characteristics of roasts made from inside rounds (semimembranosus, adductor and gracilis muscles). Roasts were injected with a salt/phosphate brine and cooked to an internal temperature of 63 deg C. Freezing the meat increased purge lost from the raw meat. Country of origin (Australia or USA) had no significant effect on cook yield. Sensory evaluations with a US consumer panel indicated only slight sensory differences due to country of origin and breed; however a significant effect of the storage regime was observed. Tenderness comparisons between breeds were confounded by country of origin and indicated that roast beef from inside rounds from Brahman cattle had lower WBS values than roast beef made from inside rounds from British cattle. Although breed and age/gender often significantly affected processing characteristics of the roasts, differences were small and would have little practical or economic importance for selecting the type of meat for this market sector

Descriptors:age-differences. beef. breed-differences. chilling. cold-storage. consumer-panels. crossbreds. frozen-storage. meat. organoleptic-traits. sensory-evaluation. sex-differences. tenderness  
Identifiers:panelists

Organism Descriptors:cattle. zebu

Supplemental Descriptors:Bos. Bovidae. ruminants. Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates

Subject Codes:ll240. qq030. qq110. qq500

Supplementary Info:31 ref

ISSN:0309-1740

Year:2002

Journal Title:Meat Science

Copyright:Copyright CAB International

Title:Spatial patterns and density dependence in the dynamics of a roe deer (*Capreolus capreolus*) population in central Italy  
View Article: *Oecologia*. 2002. 130 (3). 411-419  
CD Volume:383

Author(s):Focardi S Pelliccioni E R Petrucco R Toso S

Author Affiliation:Istituto Nazionale per la Fauna Selvatica, via Ca' Fornacetta 9, 40064 Ozzano dell'Emilia, Italy

Other Title:Spatial patterns and density dependence in the dynamics of a roe deer (*Capreolus capreolus*) population in central Italy

Language:English

Abstract:The demography of roe deer living in a mountain area of central Italy was studied from 1995 to 1999 with 104 radio-tagged animals, including fawns and adults of both sexes. From spring surveys, we estimated population density by mark-resighting (average: 53.8 plus or minus 4.8 individuals km<sup>-2</sup>) and found an average fawn/doe ratio of 0.75 plus or minus 0.4. The fawn/doe ratio was negatively correlated to density suggesting density-dependent regulation in this population. Using culled and net-trapped individuals, we evaluated the dressed body weights of adult males (23.1 plus or minus 1.0 kg) and females (22.0 plus or minus 1.0 kg), which indicated a low level of sexual dimorphism. The potential litter size (1.44 plus or minus 0.1 embryos) depended on female body weight, and a threshold of 20.9 plus or minus 1.4 kg separated adult females carrying one or two embryos. Both fawn (0.38 plus or minus

0.07) and adult survival (0.90 plus or minus 0.07) were evaluated from radio-tagged individuals and no gender effect was observed in either age class. During the study period, we recorded a population decline in one part of the study area and an increasing fawn mortality, which was attributed to the spreading of an enteropathogenic disease. The study revealed an unexpected spatial structure in population dynamics at a scale of few square kilometres. In the two studied subareas, which are very close and ecologically similar, we documented significant differences in several demographic parameters: females in the subarea with the highest deer density produced smaller litters and allocated their reproductive effort preferentially to males, which is consistent with the hypothesis that local resource competition determines sex allocation in roe deer. The importance of spatial variability with respect to roe deer demography was overlooked in previous studies, and our results raise new interesting research questions relative to the study of population equilibria which are also relevant for the management of this important game species

Descriptors:body-weight. female-animals. game-animals. litters. male-animals. mortality. population-decrease. population-density. population-dynamics. reproductive-performance. spatial-distribution. survival. young-animals

Geographic Locator:Italy

Organism Descriptors:Capreolus-capreolus

Supplemental Descriptors:Capreolus. Cervidae. ruminants.

Artiodactyla. mammals. vertebrates. Chordata. animals. ungulates.

Southern-Europe. Europe. Mediterranean-Region. Developed-Countries.

European-Union-Countries. OECD-Countries

Subject Codes:ll050. yy200. zz332

Supplementary Info:44 ref

ISSN:0029-8549

Year:2002

Journal Title:Oecologia

Copyright:Copyright CAB International

Title:Habitat insularity and fire response traits: Evidence from a sclerophyll archipelago

View Article: Oecologia Berlin. 2002. 132 (4). 582-591

CD Volume:383

Author(s):Clarke Peter J

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Other Title:Habitat insularity and fire response traits: Evidence from a sclerophyll archipelago

Language:English

Abstract:Rock outcrops are landscape features that may form habitat islands in a matrix of more widespread vegetation. The patterns of floristics, reproduction, gender, life span, growth forms, and fire response traits were compared between rock outcrops and matrix sclerophyll vegetation to test for insularity in taxon composition and functional traits. The outcrops and matrix had similar reproduction, gender, life span, and growth form traits, being dominated by co-sexual sclerophyll shrubs. The outcrops, however, were dissimilar in species composition and functional traits forming an archipelago of habitat islands in a forest matrix. Rank abundance curves were less even on rock outcrops than in adjacent forests, being dominated by shrubs that were killed by fire (obligate seeders). The ratio of shrubs killed by fire (obligate seeders) to resprouters was 70:30 on the outcrops compared with 38:62 in the matrix. Evidence for functional convergence in fire response traits comes from 27 genera, in 17 families, which have congeners in each

habitat. Most shrub congeners on or near rocky outcrops were killed by fire whereas related taxa in the forests resprout after fire. Functional convergence can be related to disturbance frequency and/or differences in regeneration niche among habitats. A resprouting response appears to be related to more frequent fires in the matrix as outcrops experience fires less often. The dominance of obligate seeding shrubs on high rainfall outcrops may also be related to better resources in an environment where allocation to growth rather than storage could be advantageous. In drier and shadier habitats, however, resprouting may be promoted over seedling recruitment as the risks of recruitment failure are higher

Descriptors:Terrestrial-Ecology (Ecology-, Environmental-Sciences) fire-; fire-response-traits; floristics-; functional-convergence; growth-forms; habitat-insularity; lifespan-; matrix-sclerophyll-vegetation; rank-abundance; reproduction-; rock-outcrops

ISSN:0029-8549

Year:2002

Journal Title:Oecologia

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Title:Maternal Work and Child Care in China: A Multi-method Analysis

View Article: Population and Development Review. 28 (1) 2002. 31-57

CD Volume:402

Print Article: Pages: 31-57

Author(s):Short S E

Author Affiliation:Population Studies & Training Center, Brown U

Other Title:Maternal Work and Child Care in China: A Multi-method Analysis

Language:English

Abstract:The majority of women in China, including mothers of young children, are in the labor force. This article investigates the relationship between mothers' work and child care and explores how type of work affects level of involvement in children's care. Substantive understandings of the relationship between mothers' work and child care may well depend on the way work is conceptualized and measured, especially non-wage work. Nearly two-thirds of women in China live in rural areas, where non-wage work predominates. Analysis of data from eight provinces indicates that wage workers spend less time in child care, but so do women with heavy non-wage demands. Women's involvement in multiple economic activities has consequences for both work-child care compatibility and work intensity, and may be especially important in efforts to categorize women's work in industrializing economies. Because the majority of the world's women do not work in the wage sector, the implications of these findings extend beyond China

Descriptors:Fertility; Family Planning; Child Care; Children; Youth. Economics of Gender. Economic Development: Human Resources; Income Distribution; Migration. Socialist Systems and Transitional Economies: Factor and Product Markets; Industry Studies; Population Geographic Locator:China

Subject Codes:uu200. ee450. ee100

ISSN:0098-7921

Year:2002

Journal Title:Population and Development Review

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Title:Cigarette Use and the Narrowing Sex Differential in Mortality

View Article: Population and Development Review. 28 (1) 2002. 77-104

CD Volume:402

Print Article: Pages: 77-104

Author(s):Pampel F C

Author Affiliation:U CO

Other Title:Cigarette Use and the Narrowing Sex Differential in Mortality

Language:English

Abstract:What explains the recent reversal in many countries of century-long trends toward a growing female advantage in mortality? And might the reversal indicate that new roles and statuses of women have begun to harm their health relative to men? Using data on 21 high-income countries that separate smoking deaths from other deaths, this study answers the first question by showing that the reversal in the direction of change in the sex differential results from increased levels of smoking among women relative to men. Using additional cross-national data on cigarette consumption and indicators of gender equality, this article answers the second question in the negative by showing that the declining female advantage in smoking mortality results from patterns of the diffusion of cigarette use rather than from improvements in women's status. Evidence of continued improvement in the female mortality advantage net of smoking deaths, and the likely decline of smoking among women in the future, imply that the recent narrowing of the differential will reverse

Descriptors:Health Production: Nutrition, Mortality, Morbidity, Substance Abuse and Addiction, Disability, and Economic Behavior. Demographic Trends and Forecasts; General Migration. Economics of Gender

Geographic Locator:Selected-Countries

Subject Codes:uu350. uu200

ISSN:0098-7921

Year:2002

Journal Title:Population and Development Review

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Title:Sex Differentials in Undernutrition: A Look at Survey Evidence

View Article: Population and Development Review. 28 (2) 2002. 275-84  
CD Volume:402

Print Article: Pages: 275-284

Author(s):Marcoux A

Author Affiliation:Unlisted

Other Title:Sex Differentials in Undernutrition: A Look at Survey Evidence

Language:English

Abstract:This note seeks indirect evidence regarding possible sex biases in food intake for adults and children, through large-scale survey findings for anthropometric indicators. Among adults, excess female undernutrition is a serious problem in view of the large populations concerned (rural China, India), but data are still needed to assess the situation in many countries. Regarding preschool children, the anti-female biases once noted for China, India, and other countries seem to have disappeared. Where differences exist, boys fare worse than girls (probably because girls, given a less than adequate food supply, tend to cope with it better than boys). Anti-female discriminatory practices either are limited in magnitude or apply in groups that are too few or too small to be detectable in large populations

Descriptors:Health Production: Nutrition, Mortality, Morbidity, Substance Abuse and Addiction, Disability, and Economic Behavior. Economic Development: Human Resources; Income Distribution;

Migration. Demographic Trends and Forecasts; General Migration.  
Economics of Gender  
Geographic Locator:LDCs  
Subject Codes:uu350. ee450. uu200  
ISSN:0098-7921  
Year:2002

Journal Title:Population and Development Review  
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Title:A Turning Point in Gender Bias in Mortality? An Update on the  
Number of Missing Women

View Article: Population and Development Review. 28 (2) 2002. 285-312  
CD Volume:402

Print Article: Pages: 285-312

Author(s):Klasen S Wink C

Author Affiliation:U Munich. German Development Corporation, Cologne

Other Title:A Turning Point in Gender Bias in Mortality? An Update on  
the Number of Missing Women

Language:English

Abstract:Amartya Sen started a debate about gender bias in mortality  
by estimating the number of "missing women," which refers to the  
number of females of any age who have presumably died as a result of  
discriminatory treatment. Depending on the assumptions made, the  
combined estimates for countries exhibiting the presence of such  
gender bias varied between 60 and 107 million. As new population data  
have become available for these countries, this article examines  
whether the number of "missing women" has changed in the past decade.  
The combined estimate of the number of missing women has risen in  
absolute terms but has fallen slightly in relation to overall  
population. Considerable improvement is evident in West Asia, North  
Africa, and parts of South Asia, while only small improvements have  
occurred in India and a deterioration took place in China. Analyses  
of the underlying causes of gender bias in mortality suggest that  
improvements are largely related to improved female education and  
employment opportunities and rising overall incomes, while  
deterioration is mostly attributable to the rising incidence of sex-  
selective abortions

Descriptors:Economics of Gender. Economic Development: Human  
Resources; Income Distribution; Migration. Health Production:  
Nutrition, Mortality, Morbidity, Substance Abuse and Addiction,  
Disability, and Economic Behavior

Geographic Locator:LDCs

Subject Codes:uu200. ee450. uu350

ISSN:0098-7921

Year:2002

Journal Title:Population and Development Review

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copyrighted (c)\_2002 by the American Economic Association

Title:Reactions of developing-country elites to international  
population policy

View Article: Population and Development Review. 2002. 28(4). 707-734  
CD Volume:402

Print Article: Pages: 707-734

Author(s):Luke N Watkins S C

Author Affiliation:Center for Population and Development Studies at  
Harvard University

Other Title:Reactions of developing-country elites to international population policy

Language:English

Abstract:The authors examine the global diffusion of international population policy, which they consider a cultural item. The process of cultural diffusion is often seen as spontaneous: items of Western culture are in demand because they are universally attractive. Yet cultural flows may also be directed, they may be unattractive to their intended recipients, and their acceptance may depend on persuasion and material incentives. The authors consider the range of responses of national elites to the new population policy adopted by the United Nations at Cairo in 1994. Strongly influenced by feminists, the Cairo Program of Action promotes gender equity and reproductive health and demotes previous concerns with population growth. The data are interviews with representatives of governmental and nongovernmental organizations involved in population and health in five developing countries. To interpret the interviews, the authors draw on two theoretical frameworks. The first emphasizes the attractiveness of new cultural items and the creation of a normative consensus about their value. The second emphasizes differentials in power and resources among global actors and argues that the diffusion of cultural items can be directed by powerful donor states.

Interviews in Bangladesh, Ghana, Jordan, Malawi, and Senegal portray a mixed reception to Cairo: enthusiastic embrace of certain aspects of the Cairo policy by some members of the national elite and a realistic assessment of donor power by virtually all. Strategies of rhetoric and action appear to be aimed at maintaining and directing the flows of donor funds

ISSN:0098-7921

Year:2002

Journal Title:Population and Development Review

Title:Gender and agricultural science: evidence from two surveys of land-grant scientists

View Article: Rural Sociology. 2002. 67 (1). 24-45

CD Volume:401

Print Article: Pages: 24-45

Author(s):Buttel F H Goldberger J R

Author Affiliation:Department of Rural Sociology, University of Wisconsin-Madison, Madison, Wisconsin, USA

Other Title:Gender and agricultural science: evidence from two surveys of land-grant scientists

Language:English

Abstract:We test two sets of hypotheses concerning the association between gender and various structural and attitudinal variables, using data collected in two surveys (1979 and 1995-96) from random samples of land-grant agricultural scientists in the USA. The first set of hypotheses centres on the expectation that the resources and rewards of agricultural science are distributed unequally by gender. We find significant gender differences in scientists' postdoctoral work experience, academic rank, employment of graduate students, rate of book publication, and links with private industry. Our second set of hypotheses, drawing on the literatures of feminist epistemology and situated knowledge, focuses on the relationship between scientists' gender and perceptions of the goals of agricultural research. Our findings indicate that gender is unimportant in explaining differences in scientists' commitment to agricultural sustainability, environmental issues, and family farm preservation as important goals of land-grant research. Yet we find significant gender differences in attitudes toward biotechnology and the growing links between land-grant universities and private industry

Descriptors:agricultural-research. attitudes. disparity. gender-  
relations. scientists. surveys  
Geographic Locator:Usa  
Supplemental Descriptors:North-America. America. Developed-Countries.  
OECD-Countries  
Subject Codes:aa500. uu485. uu500. uu800  
Supplementary Info:36 ref  
ISSN:0036-0112  
Year:2002  
Journal Title:Rural Sociology  
Copyright:Copyright CAB International

Title:Gender, power, and reproduction: rural-urban differences in the  
relationship between fertility goals and contraceptive use in Kenya  
View Article: Rural Sociology. 2002. 67 (1). 46-70

CD Volume:401

Print Article: Pages: 46-70

Author(s):Dodoo F N A Tempenis M

Author Affiliation:2169 LeFrak Hall, University of Maryland, College  
Park, MD 20742, USA

Other Title:Gender, power, and reproduction: rural-urban differences  
in the relationship between fertility goals and contraceptive use in  
Kenya

Language:English

Abstract:Rural-urban variances in fertility-related phenomena  
traditionally are explained by differences in access to contraception  
and by spatial variations in reproductive goals. As a corollary,  
changes in existing supply- and demand-side inequities should enable  
rural women to attain their reproductive goals to the same extent as  
their urban counterparts. We find, however, that reproductive  
decisions in rural areas reflect entrenched male dominance, such that  
the gender inequality in decision making must be redressed if rural  
women are to realize their fertility goals as fully as urban women.  
The paper is based on a pooled sample of the 1989 and 1993 Kenya  
Demographic and Health Surveys

Descriptors:contraceptives. disparity. gender-relations. human-  
fertility. reproduction. rural-areas. rural-women. urban-areas. women

Geographic Locator:Kenya

Organism Descriptors:man

Supplemental Descriptors:East-Africa. Africa-South-of-Sahara. Africa.  
Developing-Countries. ACP-Countries. Commonwealth-of-Nations.

Anglophone-Africa. Homo. Hominidae. Primates. mammals. vertebrates.  
Chordata. animals

Subject Codes:uu500. uu800. vv060. vv065

Supplementary Info:many ref

ISSN:0036-0112

Year:2002

Journal Title:Rural Sociology

Copyright:Copyright CAB International

Title:Race and gender inequality in homeownership: does place make a  
difference?

View Article: Rural Sociology. 2002. 67 (4). 603-621

CD Volume:401

Print Article: Pages: 603-621

Author(s):Allen B L

Author Affiliation:Department of Sociology, Iowa State University,  
303 East Hall, Ames, IA 50011, USA

Other Title:Race and gender inequality in homeownership: does place  
make a difference?

Language:English

Abstract:Racial differences in home ownership have long been a topic of sociological study. Previous studies, however, neglected to consider differences in levels of home ownership between nonmarried black and white women in the context of place. Accordingly, this paper focuses on the interaction between place, race, and gender and its impact on home ownership for nonmarried persons in the USA. The study employs the Integrated Public Use Microdata Series and logistic regression analysis based on the US Census data from the 1970, 1980, and 1990. It analyses whether the racial differential in home ownership for nonmarried women changed from 1970-90, and how do place, race, and gender interact to determine the levels of home ownership for nonmarried women. The findings reveal that, although black women were less likely than white women to own homes, the racial differential declined dramatically in rural areas over the two-decade period. The overall trend of decline was opposite to that for urban areas

Descriptors:gender-relations. ownership. property. race-relations. regression-analysis. rural-areas. rural-sociology. trends

Geographic Locator:Usa

Supplemental Descriptors:North-America. America. Developed-Countries. OECD-Countries

Subject Codes:ee165. uu485. uu800. uu850

Supplementary Info:many ref

ISSN:0036-0112

Year:2002

Journal Title:Rural Sociology

Copyright:Copyright CAB International

Title:Considerations of correlated fertility between genders on genetic diversity: the *Pinus densiflora* seed orchard as a model

View Article: Theoretical and Applied Genetics. 2002. 105 (8). 1183-1189

CD Volume:383

Author(s):Kang K S El Kassaby Y A

Author Affiliation:Tree Breeding Department, Korea Forest Research Institute, 44-3 Omokchun, Kwonsun, Suwon, Kyonggi, 441-350, Korea Republic

Other Title:Considerations of correlated fertility between genders on genetic diversity: the *Pinus densiflora* seed orchard as a model

Language:English

Abstract:The correlation between 99 clone female and male fertilities in a first generation seed orchard of *P. densiflora* (collected from Anmyun, Korea Republic) was studied over 6 years (1994-99). The effective number of the parent ( $N_p$ ) and the variance effective population number [ $N_e(v)$ ] were used to assess the impact of total ( $\psi T$ ), female ( $\psi f$ ), and male ( $\psi m$ ) fertility variation. A theoretical framework was developed to account for female and male fertility correlations as well as the impact of possible pollen contamination. Total fertility variation was described by the sibling coefficient ( $\psi T$ : the probability that two genes randomly chosen from the gamete gene pool originate from the same parent), which was further subdivided into  $\psi f$  and  $\psi m$ . These parameters were compared under various conditions including the total seed harvest, imposing on equal seed harvest among the orchard's clones and two contamination scenarios ( $M=0$  and  $20\%$ ). Fertility variations among females, males, and clones were observed within and among years. Sibling coefficients ( $\psi T$ ) were lower, but the effective number of parent ( $N_p$ ) and variance effective population number ( $N_e(v)$ ) were higher in years with moderate female and good male strobilus production.  $N_p$  for female and male reproductive outputs varied from 49 to 82 and from 57 to 93, respectively.  $N_p$  was higher for males

than females. When the crop of the 6 years was pooled,  $N_p$  for female, male and the clone were 73, 87, and 85, respectively. The impact of female-male fertility correlation for conditions with no-, positive- and negative-correlations were assessed and their impact on  $PSI_T$ ,  $N_p$  and  $Ne(v)$  was also evaluated. It was demonstrated that the practice of equal seed harvesting from every clone, or the mixing of seeds from several years, would substantially improve the genetic diversity and the genetic representation of the seed orchard population when a positive correlation between gender fertilities was observed. The relevance of these results to supplemental-mass-pollination was discussed under two cases where equal- and unequal amounts of pollen from clones were included in the pollen mixes

Descriptors:fertility. gametes. genetic-diversity. genetic-variation. plant-genetic-resources. pollen

Geographic Locator:Korea-Republic

Organism Descriptors:Pinus-densiflora

Supplemental Descriptors:East-Asia. Asia. Developing-Countries.

Threshold-Countries. OECD-Countries. Pinus. Pinaceae. Pinopsida.

gymnosperms. Spermatophyta. plants

Subject Codes:ff020. kk100. pp720

Supplementary Info:28 ref

ISSN:0040-5752

Year:2002

Journal Title:Theoretical and Applied Genetics

Copyright:Copyright CAB International

Title:Gender Effects of Social Security Reform in Chile

View Article: World Bank Economic Review-2002-16 (3)-321-343

CD Volume:389

Print Article: Pages: 321-343

Author(s):Edwards A C

Other Title:Gender Effects of Social Security Reform in Chile

Language:English

Abstract:In 1981 Chile replaced a mature government-run social security system that operated on a pay-as-you-go basis with a privately managed system based on individual retirement accounts-The new system is more fiscally sustainable because pension benefits are defined by contributions-The minimum pension guaranteed to beneficiaries with at least 20 years is funded from general taxes-preserving the tight matching between contributions and benefits-The new system also eliminates several cross-subsidies-Men and women with less than secondary education gain under the new system-but single women with more education lose-Comparison of the old and the new systems reveals a complex set of factors that cause gender effects given constant behavior or change behavior across genders

Geographic Locator:Chile

ISSN:0258-6770

Year:2002

Journal Title:World Bank Economic Review

Title:Low Schooling for Girls-Slower Growth for All? Cross-Country Evidence on the Effect of Gender Inequality in Education on Economic Development

View Article: World Bank Economic Review-2002-16 (3)-345-373

CD Volume:389

Print Article: Pages: 345-373

Author(s):Klasen S

Other Title:Low Schooling for Girls-Slower Growth for All? Cross-Country Evidence on the Effect of Gender Inequality in Education on Economic Development

Language:English

Abstract:Using cross-country and panel regressions-this article investigates how gender inequality in education affects long-term economic growth-Such inequality is found to have an effect on economic growth that is robust to changes in specifications and controls for potential endogeneities-The results suggest that gender inequality in education directly affects economic growth by lowering the average level of human capital-In addition-growth is indirectly affected through the impact of gender inequality on investment and population growth-Some 0.4-0.9 percentage points of differences in annual per capita growth rates between East Asia and Sub-Saharan Africa-South Asia-and the Middle East can be accounted for by differences in gender gaps in education between these regions  
ISSN:0258-6770  
Year:2002  
Journal Title:World Bank Economic Review

Title:Gender-Time Use-and Change: The Impact of the Cut Flower Industry in Ecuador  
View Article: World Bank Economic Review-2002-16 (3)-375-395  
CD Volume:389  
Print Article: Pages: 375-395  
Author(s):Newman C  
Other Title:Gender-Time Use-and Change: The Impact of the Cut Flower Industry in Ecuador  
Language:English  
Abstract:This article uses survey data from Ecuador to examine the effects of women's employment on the allocation of paid and unpaid labor within the household-I compare a region with high demand for female labor with a similar region in which demand for female labor is low-The comparison suggests that market labor opportunities for women have no effect on women's total time in labor but increase men's time in unpaid labor-The increase in men's time in unpaid work reflects women's increased bargaining power in the home  
Geographic Locator:Ecuador  
ISSN:0258-6770  
Year:2002  
Journal Title:World Bank Economic Review

Title:Why Governments Should Invest More to Educate Girls  
View Article: World Development. 30 (2) 2002. 207-25  
CD Volume:388  
Author(s):Schultz T P  
Author Affiliation:Yale U  
Other Title:Why Governments Should Invest More to Educate Girls  
Language:English  
Abstract:Women and men often receive the same percentage increase in their wage rates with advances in schooling. Because these returns decline with more schooling, the marginal returns for women will tend to exceed those for men, especially in countries where women are much less educated. The health and schooling of children are more closely related to their mother's education than father's. More educated women work more hours in the market labor force, broadening the tax base and thereby potentially reducing tax distortions. These three conditions, it is argued, justify the disproportionate allocation of public expenditures toward women's education  
Descriptors:Economic Development: Human Resources; Income Distribution; Migration. Economics of Gender. Education: Government Policy. Personal Income and Other Nonbusiness Taxes and Subsidies; includes inheritance and gift taxes  
Geographic Locator:Selected-Countries  
Subject Codes:ee450. uu200. cc000. ee800

ISSN:0305-750X

Year:2002

Journal Title:World Development

Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2002 by the American Economic Association

Title:Living in a walking world: rural mobility and social equity issues in sub-Saharan Africa

View Article: World Development (Oxford) 2002. 30 (2). 285-300

CD Volume:388

Author(s):Porter G

Author Affiliation:University of Durham, Durham, UK

Other Title:Living in a walking world: rural mobility and social equity issues in sub-Saharan Africa

Language:English

Abstract:Accessibility and mobility are embedded in the development nexus in far-reaching ways. Field studies of mobility among women and men in rural settlements with poor road access in Ghana illustrate the frustrations and costs of living off-road. They are frequently marginalized and invisible, even to local administrations. State decentralization appears to have had little positive impact in reducing "tarmac bias" and improving rural service delivery. A range of potential interventions, from Intermediate Means of Transport to electronic communications is reviewed, and opportunities for building social capital in off-road areas through nurturing improvements in state-civil society relations are considered

Descriptors:access. decentralization. gender-relations.

infrastructure. marginalization. mobilization. roads. rural-areas. rural-settlement. social-impact. transport. travel. villages

Geographic Locator:Ghana

Supplemental Descriptors:West-Africa. Africa-South-of-Sahara. Africa. Developing-Countries. ACP-Countries. Commonwealth-of-Nations. Anglophone-Africa

Subject Codes:uu100. uu300. uu485. uu800. uu850

Supplementary Info:many ref

ISSN:0305-750X

Year:2002

Journal Title:World Development

Copyright:Copyright CAB International

Title:Employment and Unemployment in Jordan: The Importance of the Gender System

View Article: World Development. 30 (3) 2002. 413-27

CD Volume:388

Author(s):Miles R

Author Affiliation:FL State U

Other Title:Employment and Unemployment in Jordan: The Importance of the Gender System

Language:English

Abstract:Using data from focus group interviews, this study investigates how the gender system influences employment and unemployment patterns in Jordan. Cultural and family-level factors affect not only whether women are in the labor market but also their success in finding a job. Cultural proscriptions on female mobility are a significant constraint in women's job searches. State and employer-level factors are also important in explaining high unemployment rates among women. The shrinking of the public sector disproportionately affects women, the location of jobs matters more for women than for men, and discrimination in the private sector remains

Descriptors:Unemployment: Models, Duration, Incidence, and Job Search. Economics of Gender. Labor Force and Employment, Size, and Structure. Discrimination. Economic Development: Human Resources; Income Distribution; Migration

Geographic Locator:Jordan

Subject Codes:ee900. uu200. ee450

ISSN:0305-750X

Year:2002

Journal Title:World Development

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Title:Disciplining Gender?

View Article: World Development. 30 (3) 2002. 497-509

CD Volume:388

Author(s):Jackson C

Author Affiliation:U East Anglia

Other Title:Disciplining Gender?

Language:English

Abstract:Taken as a whole, research on gender issues in development, whether directly oriented to policy questions or to broader understandings of social change in developing countries, has been marked by a broad and deep disciplinary, multidisciplinary and interdisciplinary character which has been central to its success. Development agencies research strategies, however, particularly multilaterals, remain dominated by economics, which therefore constrains the extent to which other disciplines are able to contribute to development knowledge and policy evolution. The purpose of this paper is to argue that interdisciplinarity and multidisciplinary must be sustained in researching gender and development, and that sociology, anthropology and politics are of increasing significance because of changing priorities in development. I argue that these disciplines have particular conceptual and methodological strengths, very briefly indicated, for researching gender and development, and that there is a need to resource these fields equally through capacity building in developing countries and renewed efforts to increase numbers of women researchers

Descriptors:Economics of Gender. Relation of Economics to Other Disciplines. Economic Development: General. Economic Development: Human Resources; Income Distribution; Migration. Economic Methodology  
Geographic Locator:LDCs

Subject Codes:uu200. ee100. ee450

ISSN:0305-750X

Year:2002

Journal Title:World Development

Copyright:Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c)\_2002 by the American Economic Association

Title:Combining Quantitative and Qualitative Approaches in Poverty Analysis

View Article: World Development. 30 (3) 2002. 511-22

CD Volume:388

Author(s):White H

Author Affiliation:Institute of Development Studies, Brighton

Other Title:Combining Quantitative and Qualitative Approaches in Poverty Analysis

Language:English

Abstract: Economics is commonly associated with the use of quantitative methods, and because of this, supposedly, the discipline is more "rigorous" than other social sciences, which are in turn associated with the application of qualitative methods, presumed to be less rigorous. This paper challenges these assumptions and argues that the more serious distinction, which applies both to quantitative and to qualitative research, is between data analysis and data mining. Opposing the opposition of quantitative and qualitative analyses, the paper shows how a productive synergy may be established both between methods, and between disciplines, using examples from studies of labor in rural Africa, of the relationships of household size and poverty, and of child survival

Descriptors: Fertility; Child Care; Children; Youth. Measurement and Analysis of Poverty. Health Production: Nutrition, Mortality, Morbidity, Disability, and Economic Behavior. Economic Development: Regional, Urban, and Rural Analyses. Economic Development: Human Resources; Income Distribution; Migration. Economic Methodology. Economics of Gender

Geographic Locator: Africa. Selected-Countries

Subject Codes: uu200. uu300. uu350. ee450. ee100

ISSN: 0305-750X

Year: 2002

Journal Title: World Development

Copyright: Record from the EconLit database is used with the permission of Elsevier Science B.V. The EconLit database service is copyrighted (c) 2002 by the American Economic Association

Title: Livestock market dynamics and local vulnerabilities in the Sahel

View Article: World Development (Oxford) 2002. 30 (4). 683-705

CD Volume: 388

Author(s): Turner M D Williams T O

Author Affiliation: University of Wisconsin, Wisconsin, USA

Other Title: Livestock market dynamics and local vulnerabilities in the Sahel

Language: English

Abstract: As institutions that facilitate the conversion of livestock to grain and adjust livestock populations to local forage availabilities, livestock markets play important economic and ecological roles in dryland Africa. Using a comprehensive database of 1580 sales of livestock owned by members of 54 households in western Niger over a major drought-and-recovery cycle (1984-94), the effect of real livestock markets on stocking decisions and the economic vulnerability of rural households was investigated. While livestock markets are shown to facilitate destocking of animals from drought areas, price formation is socially-biased (by gender, wealth, residence) reflecting the differential access and powers within local markets

Descriptors: arid-zones. drought. livestock. livestock-numbers. market-prices. marketing. markets

Geographic Locator: Africa. Niger. Sahel

Supplemental Descriptors: West-Africa. Africa-South-of-Sahara. Africa. Least-Developed-Countries. Developing-Countries. ACP-Countries.

Francophone-Africa

Subject Codes: ee110. ee130. ee700. ll180

Supplementary Info: many ref

ISSN: 0305-750X

Year: 2002

Journal Title: World Development

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Title:Wages for wives: renegotiating gender and production relations in contract farming in the Dominican Republic  
View Article: World Development (Oxford) 2002. 30 (5). 783-798  
CD Volume:388  
Author(s):Raynolds L T  
Author Affiliation:Colorado State University, Fort Collins, Colorado, USA  
Other Title:Wages for wives: renegotiating gender and production relations in contract farming in the Dominican Republic  
Language:English  
Abstract:This study analyses the intersection of gender and production relations in small-scale contracting in nontraditional agriculture. The case of the processing tomato industry in the Dominican Republic exemplifies patterns found throughout the region. Building on a critique of unitary household models, I analyse the gendered relations mobilizing resources for contract farming. Household data are obtained from 2 surveys: one with a random sample of 50 male tomato contract growers; and a sample of 40 women active in household's contracted tomato parcel. Contracting has heightened demand for women's farm labour. Contracting has simultaneously provided women with openings for contesting the appropriation of their unpaid labour and many women are claiming payment for work in contract farming. This case demonstrates the importance of gender issues in informing contract farming debates and policy interventions  
Descriptors:contract-farming. female-labour. gender-relations. household-surveys. housewives. wages. woman's-status  
Geographic Locator:Dominican-Republic  
Supplemental Descriptors:Greater-Antilles. Caribbean. America. Developing-Countries. Threshold-Countries. Latin-America  
Subject Codes:ee110. ee900. uu500  
Supplementary Info:many ref  
ISSN:0305-750X  
Year:2002  
Journal Title:World Development  
Copyright:Copyright CAB International

Title:Socioeconomic Context, Family Regimes, and Women's Early Labor Market Experience: The Case of Colombia and Venezuela  
View Article: World Development. 30 (5) 2002. 799-816  
CD Volume:388  
Author(s):Parrado E A  
Author Affiliation:Duke U  
Other Title:Socioeconomic Context, Family Regimes, and Women's Early Labor Market Experience: The Case of Colombia and Venezuela  
Language:English  
Abstract:This paper compares the early labor market experience of mature and young cohorts of women in Bogota and Caracas. The cross-country, cross-cohort comparisons demonstrate the importance of both rising women's human capital and family regimes to women's labor market behavior. While divorce was a central stimulus of women's work in both contexts, the more stable, patriarchal family regime in Bogota more strongly conflicted with employment than the matrifocal and flexible pattern in Caracas. Results also show important changes in the dynamics of female employment, as younger cohorts exhibit more intermittent and unstable employment patterns  
Descriptors:Economics of Gender. Time Allocation and Labor Supply. Economic Development: Human Resources; Income Distribution; Migration. Labor Force and Employment, Size, and Structure. Marriage; Marital Dissolution; Family Structure. Economic Development: Regional, Urban, and Rural Analyses  
Geographic Locator:Colombia. Venezuela

Subject Codes:uu200. ee900. ee450

ISSN:0305-750X

Year:2002

Journal Title:World Development

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Title:Men's crops? Women's crops? The gender patterns of cropping in Ghana

View Article: World Development (Oxford) 2002. 30 (11). 1987-2000

CD Volume:388

Author(s):Doss C R

Author Affiliation:Yale University, New Haven, Connecticut, USA

Other Title:Men's crops? Women's crops? The gender patterns of cropping in Ghana

Language:English

Abstract:Cultural distinctions between men's crops and women's crops are found frequently in the literature on agriculture in West Africa. This paper uses nationally representative household survey data from Ghana (1991-92) to examine whether crops can be divided into men's and women's crops. Three definitions of farmer are used: the gender of the household head; the gender of the plot holder; and the person who keeps the revenue from the plot. Few crops can be defined as men's crops and none are clearly women's crops

Descriptors:crop-production. cropping-systems. cultural-differentiation. gender-relations. household-surveys. men. ownership. women

Organism Descriptors:man

Supplemental Descriptors:Homo. Hominidae. Primates. mammals. vertebrates. Chordata. animals

Subject Codes:ee110. ff100. uu485. uu500

Supplementary Info:11 ref

ISSN:0305-750X

Year:2002

Journal Title:World Development

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