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89th ANNUAL MEETING of the AAAS PACIFIC DIVISION
PROGRAM with ABSTRACTS

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III. CONTRIBUTED PAPERS

1100 (time italicized and underlined) indicates a student presentation
* indicates the speaker from among several authors listed
63 (bolded number) indicates abstract number

**Western Society of Crop Science**

Gerry Clark Art Center

**Monday**

8:15 AM – 2:35 PM

**Session 1**

Cropping Systems and Crop Production

Moderator: Jack Cecil (University of Wyoming)

0815 Introductory Comments

0820 119 Irrigation and Nitrogen Effects on Teff in the Southern High Plains, LEONARD M. LAURIAULT (Plant and Environmental Sciences Department, New Mexico State University, Tucumcari, NM)

0840 120 Five Years of Research with Skip Row Rainfed Corn to Improve Drought Tolerance in the High Plains, ROBERT KLEIN¹, DREY LYON², DAVID BALTENSPERGER¹, ALEXANDER PAVLISTA², CHARLES SHAPIRO³, STEVEN KNEZEVIC¹, STEPEH MASON¹, ROGER ELMORE³, ALAN SCHILEGEL, MERLE VIGIL and JEFFERY GOLUS¹ (¹University of Nebraska, North Platte, NE; ²University of Nebraska-Lincoln, Scottsbluff, NE; ³Texas A&M Univ., College Station, TX; ¹University of Nebraska-Lincoln, Concord, NE; ²University of Nebraska-Lincoln, Lincoln, NE; ³Iowa State University, Ames, IA; ¹Kansas State University, Tribune, KS; ²USDA-ARS, Central Great Plains Research Station, Akron, CO)

0900 121 Canolage: Increasing the Value of Winter Canola, CLARK B. NEELY (Dept. of Plant, Soil, and Entomological Sciences, University of Idaho, Moscow, ID)

0920 122 Comparison of Harvesting Methods of Winter Canola in the Pacific Northwest, DON WYSOCKI and NICK SIROVATKA (Crop and Soil Science, Oregon State University, Pendleton, OR 97801)

0940 123 Development of Breeding Populations for Genomics Research in Cotton, JINFA ZHANG¹, RICHARD PERCY² and SANJAY BAJAJ¹ (¹Department of Plant & Environmental Sciences, New Mexico State University, Las Cruces, NM; ²Crop Germplasm Research Unit, USDA-ARS, College Station, TX)

1000 BREAK

1020 124 Response of the Model Legume Medicago truncatula to Aluminum-toxicity, SUSAN MIVASAKA and CHERYN CLAYTON (University of Hawaii, University of Hawaii, Hilo, HI)

1040 125 Pea and Lentil Response to Environments and the Satellite Breeding Program at Montana State University, CHENGCI CHEN¹, KARNES NEILL¹ and KEVIN MCPHEE² (¹Central Ag Research Center, Montana State University, Mocassin, MT; ²USDA-ARS-NPA-SPNRU, Washington State University, Pullman, WA)

1100 126 Efficacy of Screening Methods for Identification of Physiological White Mold Resistance in Dry Bean, HENRY TERAN and SHREE SINGH (Plant, Soil and Entomological Sciences Department, University of Idaho, Kimberly, ID)

1120 127 Improving Wheat Straw for Use as a Feedstock for Ethanol Production, *MACKENZIE T. ELLISON, J. L. HANSEN, A. KARASEV and ROBERT ZEMETRA (Department of Plant Soil and Entomological Sciences, University of Idaho, Moscow, ID)

1140 128 Effects of Phaseolus vulgaris L. on the Development of Experimentally Induced Breast Cancer, MARK BRICK¹, HENRY J. THOMPSON² and MATTHEW THOMPSON² (¹Dept. of Soil & Crop Sciences, Colorado State University, Fort Collins, CO; ²Department of Horticulture and Landscape Architecture, Cancer Prevention Laboratory, Colorado State University, Ft. Collins, CO)

1200 LUNCH

**Session 3**

Fertility and Crop Physiology

Moderator: Leonard Lauriault (New Mexico State University)

1315 129 Physiological Responses of Potato (Solanum tuberosum L.) Genotypes to NaCl Salinity: Effects of Supplementary Calcium and NaCl Salt Pre-treatment, *MASOOMEH ETEHADNIA, DOUG WATERER and KAREN K. TANINO (Department of Plant Sciences, College of Agriculture-University of Saskatchewan, Saskatoon, Canada)

1335 130 Winter Wheat Nitrogen Fertilizer Rate and Application:
CONTRIBUTED ORAL PAPERS

A Conventional and No Till Comparison. STEPHEN GUY and MARY LAUVER (Dept. of Plant, Soil, and Entomological Sciences, University of Idaho, Moscow, ID)

1355 131 Impacts of Metsulfuron and Chlorosulfuron on Greasewood and Rabbitbrush communities, *JORDGE J. LAFANTASIE*, STEPHEN F. ENLOE*, MARK A. FERRELL*, ANDREW R. KNISS and STEVER D. AA蹿ARD (Plant Sciences, University of Wyoming, Laramie, WY; 3Agronomy & Soils, Auburn University, Auburn, AL)

1415 132 Genotypic Responses to Biological Nitrogen Fixation on Trigonelline Accumulation and Pod Yield in Peanuts, EMMANUEL KODJOE*, NAVEEN PUPPALA* and YOUNGKOO CHO (Department of Biology, Eastern New Mexico University, Portales, NM; New Mexico State University, ASC at Clovis, Clovis, NM)

Joint Session of the Chemistry and Biochemistry, and Health Sciences Sections
Kono Center for English Studies
Monday
9:00 AM – 11:45 AM

Program Organizers: Kenneth Cornell (Department of Chemistry and Biochemistry, Boise State University, Boise, ID) and H. K. Choi (Department of Biology, California State University Dominguez Hills, Carson, CA).

Session Chair: H. K. Choi

0900 Introductory Comments

0905 133 Novel Approaches to Treat Glioblastoma Multiforme. *ALOK BHUSHAN, WAJHA TAHI RA ALI, SHILPA PULI and JAMES C.K. LAI (Department of Biomedical and Pharmaceutical Sciences, College of Pharmacy and ISU Biomedical Research Institute, Idaho State University, Pocatello, ID)

0925 134 Pharmacology of a Novel Positive Allosteric Modulator for Neuronal Nicotinic Receptors. *ANSHUL PANDYA*, MEAGAN WELTZIN*, BRIAN EDMONDS*, MARVIN SCHULTE* and RICHARD GLENNON (Department of Chemistry and Biochemistry, University of Alaska Fairbanks, Fairbanks, AK; 2Department of Biology and Marine Biology, School of Arts and Science, University of Alaska Southeast, Juneau, AK; 3Department of Medicinal Chemistry, School of Pharmacy, Virginia Commonwealth University, Richmond, VA)

0945 135 Iridium Oxide Nanowire Monitors for Protein Detection, VINU L. VENKATRAMAN*, RAVIKIRAN K REDDY*, FENGYAN ZHANG*, VICTOR HSU*, BRUCE ULRICI and SHALINI PRASAD (Portland State University, Portland, OR; 2Sharp Labs of America Inc, Camas WA)

1005 BREAK

1025 136 Activation Induced Cell Death of Antigen Specific CD4 T Lymphocytes and Its Role in the Immune Evasion of Anaplasmatis, *SUSAN HAN, JUNZO NORIMINE and WENDY BROWN (Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, WA)

1045 137 Inflammation Decreases Lipid Processing by Macrophages during Egg Yolk Peritonitis in the Chicken (Gallus gallus domesticus). *INGRID CORNAX EDWARDS and KIRK C. KLASING (Department of Animal Science, University of California, Davis, CA)

1105 138 Effect of Mucus Viscoelasticity and Surface Adhesivity on Mucus Displacement during Cough in Sickness and Health. *ANPALAKI J RAGAVAN*, CAHIT A EVRENSEL and PETER KRUNPE (Department of Biomedical Engineering, University of Nevada, Reno, NV; 3Department of Mechanical Engineering, University of Nevada, Reno, NV; School of Medicine, University of Nevada, Reno, NV)

1125 139 Effects of Volcanic Sulfur Dioxide (SO2) Emissions on Pulmonary Function in Adults. *REID HOSHIDE*, ELIZABETH TAM*, JOHN GROVE*, BARBARA BROOKS*, EDWARD FERNANDEZ*, JENNIFER ORR*, A. JEFF SUTTON*, TAMAR ELIAS*, ANDREW GRANDIN-TIFF and PETER HOLCK (Departments of Medicine and 3Public Health Sciences, John A. Burns School of Medicine, University of Hawaii, Honolulu, HI; 3Hawaii State Department of Health; 4US Geological Survey, Hawaii National Park, Volcano, HI; 4BSB 222C, Honolulu, HI)

Joint Session of the Education and the History and Philosophy of Science Sections
Room 23
Monday
10:00 AM – 12:05 PM

Program Organizers: William B.N. Berry (Department of Earth and Planetary Sciences, University of California, Berkeley, CA) and Donald J. McGraw (Chula Vista, CA).

Session Chair: William B.N. Berry

1000 Introductory Comments

1005 140 Exploring Undergraduate Student Conceptions of Environmental Processes. *BRIANA K MCCARTHY and KIMBERLY TANNER (Department of Biology, Science Education Partnership and Assessment Lab, San Francisco State University, San Francisco, CA)

1025 141 When Mythic and Theoretic Experiences Becomes Shareable: A Case Study of Scholarship and Learning in the Realm of Post-theoretic Emergences, *BHA VNA HARI-
Haran1, Colleen Saxen2 and Syed Shariq1 (1Kozmetsky Global Collaboratory, Stanford University, Stanford, CA; 2School of Public Health, Wright State University, Dayton, OH)

1045 142 Marine Science Graduate Students as Educators, Erin Blackwood (Romberg Tiburon Center, San Francisco State University, Tiburon, CA)

1105 143 Introducing the Principles of Electromechanical Energy Conversion with a Low-Cost Experiment for Lower-Division Students, Thomas F. Schubert, Jr., Frank G. Jacobitz, and Ernest M. Kim (Department of Engineering, University of San Diego, San Diego, CA)

1125 144 A New Approach to Understanding Technological Knowledge and Innovation, J. Scott Hauger (Desert Research Institute, Reno, NV)

1145 145 Scourge of the Osage from the Hand that Held the Quill: The Astonishing Nineteenth-Century Survival and Success of the Osage Nation while Plagued by Indian Removal, Athena Stephanopoulos (Departments of History and Biology, Wichita State University, Wichita, KS)

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Wednesday, 18 June 2008

Joint Session of the Agriculture and Horticulture, Anthropology and Archaeology, and Ecology, Organismal Biology and Environmental Science Sections
Room 42
Wednesday
8:00 AM – 11:45 AM

Program Organizers: Michael D. MacNeil (USDA Agricultural Research Service, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT), Walter Carl Hartwig (Touro University College of Osteopathic Medicine, Mare Island, CA), Stephen Frost (Department of Anthropology, University of Oregon, Eugene, OR), Michael Parker (Department of Biology, Southern Oregon University, Ashland, OR), and Richard Van Buskirk (Department of Environmental Studies, Pacific University, Forest Grove, OR).

Session Chair: Michael D. MacNeil

0800 Introductory Comments

0805 146 Understanding Island Poverty and Mainland Richness: Seasonal Avifaunas in Western Mexico, Hartmut S. Walter (Department of Geography, University of California, Los Angeles, CA)

0825 147 Can Northern Anchovies (Engraulis mordax) Serve as Paratenic Hosts for the Parasitic Protozoan, Toxoplasma gondii? *Gloeta N. Massie and Michael W. Black (Department of Biological Sciences, California Polytechnic State University, San Luis Obispo, CA)

0845 148 Down and Dirty: Examining Mercury Levels in Predatory Pelagic Fish and Their Lower Trophic Level Prey as a Function of Depth in Pelagic Ecosystems Surrounding Hawaii, C. Anela Choy (Department of Oceanography, University of Hawaii, Honolulu, HI)

0905 149 Farmland Impact on Seed Dispersal by Flying Foxes in Tropical Dry Forests, Matthew Scott Luskin (Department of Geography, University of California, Los Angeles, CA)

0925 150 China’s Wildman, the Yeren. D. Jeffrey Meldrum (Department of Biological Sciences, Idaho State University, Pocatello, ID)

0945 BREAK

Session Chair: D. Jeffrey Meldrum

1005 151 Mitochondrial Markers: A Valuable Tool for the Molecular Taxonomy of Fruit Flies (Diptera: Tephritidae), *Samia FKIH1, 2, David S. Haymer1, Mohamed Rabeh Hajlaoui1 and Mohamed Makni1 (1Faculté des Sciences Mathématiques, Physiques et Naturelles
**Variation at the DNA Level Within and Between Populations and Species of the Bactrocera dorsalis Species Complex,** *CHRISTIE K. M. NAEOLE* and *DAVID S. HAYMER* (Department of Cell and Molecular Biology, University of Hawai`i at Manoa, Honolulu, HI)

**Preliminary Evidence for Epistasis between Map-Based QTL Markers Associated with Powdery Mildew Resistance in Hop (Humulus lupulus L.),** *JOHN A. HENNING*, M. SHAUN TOWNSEND* and DAVID H. GENT* (USDA-ARS-FSCU, Corvallis, OR; Department of Crop & Soil Sciences, Oregon State University, Corvallis, OR)

**Quantitative Trait Loci Affecting Fatty Acid Composition of Beef,** N.O.M. TSHIPULISO*, L.J. ALEXANDER*, T.W. GEARY*, W.M. SNELLING*, D.C. RULE*, J.E. KOLTES* and B.E. MOTE* and *M.D. MacNEIL* (Agricultural Research Council, Irene, South Africa; USDA Agricultural Research Service, Miles City, Montana; USDA Agricultural Research Service, Clay Center, Nebraska; Department of Animal Science, University of Wyoming, Laramie; Department of Animal Science, Iowa State University, Ames, IA)

**Seven Habits of Effective Transgenic Product Development,** PAUL D. OLSON (Pioneer Hi-Bred International, Waimea, Kauai, HI)

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**Joint Sessions of the Atmospheric and Oceanographic Sciences, the Earth Sciences, and the Industrial Sciences and Technology Sections**

Room 41

Wednesday

10:40 AM – 12:00 PM

Program Organizers: Anne A. Sturz (College of Arts and Sciences, Dean’s Office, University of San Diego, San Diego, CA), J. Thomas Dutro, Jr. (U.S. Geological Survey, ret., National Museum of Natural History, Washington, D.C.), Henry Oman (Seattle, WA), and Frank Jacobitz (Department of Engineering, University of San Diego, San Diego, CA).

Session Chair: Anne Sturz

**Introductory Comments**

**Enhanced Natural Convection Using Liquid Metals and Alloys during Conjugate Heat Transfer,** *M. McGARRY, C. BONILLA* and *I. METZGER* (University of San Diego, Department of Engineering, San Diego, CA)

**Turbulence in a Velocity Spiral,** FRANK G. JACOBITZ (Mechanical Engineering Program, University of San Diego, San Diego, CA)
Thursday, 19 June 2008

Social, Economic and Political Sciences Section
Kono Center for English Studies
Thursday
1:15 PM – 2:00 PM

Program Organizer: Carl A. Maida (UCLA Schools of Dentistry and Medicine, University of California, Los Angeles, CA).

Session Chair: Carl A. Maida

1315 Introductory Comments

1320 160 Competent Court Interpreting in Diverse, Low-Case-load Court Systems: Dilemmas and Proposed Solutions, MARCELLA ALOHALANI BOIDO, (Hawaii Certified Court Interpreter and Retinopathy of Prematurity Subproject, Research in Minorities in Institutions Project, University of Hawaii at Hilo, Hilo, HI)

1340 161 Redefining Security: Nuclear Weapons at the 1986 Constitutional Commission of the Philippines, VINCENT K. POLLARD (Asian Studies Program, University of Hawai‘i at Manoa, Honolulu, HI)