



PROGRAM EVENTS

Lactation Workshop

Sunday, July 26, 1998

7:45 a.m. - 6:30 p.m.

Adam's Mark

7:45 Introduction - Welcome Dr. Ron Kensinger

Theme 1. Mammary Gland as Bioreactor

Chair: Dr. Mike Akers

8:00 Proper post-translational modification of human therapeutic proteins produced in the milk of transgenic animals. Dr. Bill Drohan, American Red Cross, Rockville MD.

8:40 Transgenic livestock: Practical and commercial applications. Dr. Dave Ayares, PPL Therapeutics, Blacksburg VA.

9:20 Local control of mammary Stat5 β -casein gene expression and milk protein synthesis in dairy cattle. J. Yang, V. E. Baracos, J. J. Kennelly.

9:35 Break for Coffee/Tea. (Posters Available)

Theme 2. Plasticity and Variations in Mammary Gland Function.

10:10 New approaches to impact milk production in well fed sows. Dr. Ray King, Victorian Institute of Animal Science, Australia.

10:50 Developmental regulation of lactoferrin in the mouse mammary gland—Contrast with the ruminant and the human. Dr. Peggy Neville, University of Colorado School of Medicine.

11:30 Protein kinase C isoforms of mammary gland and adipose tissue during lactation. R. G. Vernon, R. A. Clegg, and E. Finley.

11:45 Lunch Break (Posters Available)

Theme 3. Local Regulators of Mammary Development

Chair: Dr. Ron Kensinger

1:15 Local regulation of pubertal mammary growth in heifers. Dr. Stig Purup, Danish Institute of Agricultural Sciences, Foulum, Denmark.

1:55 Autocrine and paracrine factors and mammary cell proliferation. Dr. Tom McFadden, Ag Research, Ruakura Research Centre, Hamilton, New Zealand.

2:35 Differences in the proliferation and morphogenesis of mammary organoids from the peripheral and medial parenchymal zones of the prepubertal bovine mammary gland. S. Ellis, S. Purup, K. Sejrsen, and R. M. Akers.

2:50 Break for Coffee/Tea (Posters Available)

Theme 4. Nutrition and Management Effects on Milk Production

3:15 The nutritional paradigm behind sow lactation: Theory and applications. Nathalie L. Trottier, Michigan State University.

3:55 Nutritional and endocrine strategies for metabolic support of milk component synthesis in dairy cattle. Denis Petitclerc, Agriculture Canada, Lennoxville, Quebec.

4:35 Quantitative model descriptions of amino acid, glucose and fatty acid metabolism in sows consuming varying protein and energy. J. P. McNamara, Washington State University.

4:50 General Summary

5:00 Informal Discussions, Poster Viewing and Cocktails. Authors should be with their posters from 5:00 to 6:30 p.m.

6:30 Adjourn



Program Events

Current Concepts of Growth IX: The Undiscovered Country

July 26 - July 27, 1998
Adam's Mark

PROGRAM

Sunday, July 26

6:00 p.m. Reception, cash bar

Evening Program

8:00 p.m. Keynote Address: Genetic and transgenic models in the study of growth. Dr. Lawrence Frohman, University of Illinois-Chicago, Chicago, IL.

Monday, July 27

8:00 a.m. Welcome; opening remarks. Dr. James Sartin, Auburn University, Auburn, AL.

Morning Program

8:10 a.m. Defining the differentiation action of PPAR γ . Dr. Gonzalo Castillo, Dana Farber Cancer Institute, Boston, MA.

9:05 a.m. Regulation of PPAR γ activity. Dr. Mitch Lazar, Division of Endocrinology, Diabetes, and Metabolism, University of Pennsylvania School of Medicine, Philadelphia, PA.

10:00 a.m. Break

10:20 a.m. CEBP α and the control of adipogenesis. Dr. Daniel Lane, Johns Hopkins University, Baltimore, MD.

11:15 a.m. Extending endocrine axes to include leptin. Dr. Mark Heiman, Lilly Research Laboratories, Indianapolis, IN.

12:10 p.m. Lunch

Afternoon Program

1:45 p.m. IGF-I and Anabolic/Catabolic Balance. Dr. Lawrence Phillips, Division of Endocrinology, Emory University School of Medicine, Atlanta, GA.

2:35 p.m. Adrenomedullin: a pluripotent peptide in health and disease. Dr. Frank Cuttitta, NIH-NCI, Rockville, MD.

3:25 p.m. Break

3:55 p.m. Dynamic molecular analysis of hormone secretion. Dr. Steve Frawley, Medical University of South Carolina, Charleston, SC.

4:45 p.m. General Discussion



ROCHE/ASAS FOUNDATION BEEF CATTLE NUTRITION SYMPOSIUM FORAGE SUPPLEMENTATION AND GRAZING

Sponsored by Roche/ASAS Foundation
A. C. Hammond, USDA, ARS, Brooksville, Florida, Presiding
Tuesday, 2:00 p.m. - 5:00 p.m.
Room A105/107, Colorado Convention Center

- 2:00 Effects of supplement type on animal and ruminal physiology of grazing cattle. F. T. McCollum, III, Texas A&M University System, Amarillo.
- 2:40 Effects of supplementation on voluntary forage intake, diet digestibility, and animal performance. J. E. Moore, M. H. Brant, W. E. Kunkle, and D. I. Hopkins, University of Florida, Gainesville.
- 3:20 Effects of supplementation, management, and environment on grazing behavior. W. E. Pinchak, Texas Agricultural Experiment Station, Vernon.
- 4:00 Effects of previous grazing nutrition and management on feedlot performance. J. S. Drouillard, Kansas State University, Manhattan.
- 4:40 Discussion
- 5:00 Adjourn

ADSA Dairy Foods Symposium Making Nutrition Research Work for the Dairy Foods Industry

Tuesday, 2:00 p.m. - 5:00 p.m.
Room A209, Colorado Convention Center
Chairperson: J. U. McGregor, Louisiana State University Agricultural Center, Baton Rouge

- 2:00 Opening Remarks: John U. McGregor, Louisiana State University Agricultural Center.
- 2:15 Integration of milkfat nutrition research with product development: A nutrition researcher's perspective. Michael Lefevre, Dairy Research Institute on Diet, Genetics, and Heart Disease, Pennington Biomedical Research Center, Baton Rouge, LA.
- 2:45 Unresolved issues in designing diets to meet dairy research needs: A research dietician's perspective, Catherine Champagne, Pennington Biomedical Research Center, Baton Rouge, LA.
- 3:15 Break
- 3:30 Funding: The DMI Perspective. Douglas B. DiRienzo, Dairy Management, Inc., Rosemont, IL.
- 4:00 The Role of Nutrition Research in Food Product Development: An Industry Perspective. R. Scott Rambo, Dean Foods Company, Rockford, IL.
- 4:30 Merging Dairy Foods Processing Expertise with Food Nutrition Expertise: A Case Study and Discussion. John U. McGregor, Louisiana State University Agricultural Center, Baton Rouge.



Program Events

FASS Congressional Science Fellow Panel Discussion

Tuesday, July 28, from 2:15 p.m. - 4:00 p.m.
Room A202/204, Colorado Convention Center

The Congressional Science Fellowship Program, now in its ninth year, continues to provide a unique experience for individuals who may be interested in taking a different approach to their careers after graduate school, or for those faculty members who are interested in an alternative sabbatical opportunity. The Fellowship Program allows for an exhilarating year promoting scientific understanding in Washington, DC, where Fellows interact with individuals from other scientific societies and work with elected Congressional members on agricultural policy. Come interact with both previous Fellows and the current FASS Fellow to learn more about this exciting opportunity!

Chair: Ellen Bergfeld, American Society of Animal Science, Congressional Science Fellow '96-'97.

- 2:15 p.m. Bob Zimbelman. History and Overview of CSF Program.
- 2:30 p.m. Angela Siemens. Congressional Science Fellow '90-'91
- 2:45 p.m. Michael Westendorf. Congressional Science Fellow '91-'92
- 3:00 p.m. John Goldberg. Congressional Science Fellow '94-'95
- 3:15 p.m. Caleb Gilchrist. Congressional Science Fellow '97-'98
- 3:30 p.m. Discussion

ADSA Dairy Foods Division Symposium Marketing Dairy Value Through Technology

Wednesday, July 29, 1998, 8:00 a.m. - 10:45 a.m.
Room A209, Colorado Convention Center

Co-Chairs: S. E. Duncan and S. S. Sumner, Virginia Polytechnic Institute and State University, Blacksburg

- 8:00 a.m. Opening Remarks: S. E. Duncan and S. S. Sumner, Virginia Polytechnic Institute and State University, Blacksburg
- 8:15 a.m. Enhancing the intrinsic value of milk through dairy herd management practices. J. H. Herbein, Virginia Polytechnic Institute and State University, Blacksburg
- 8:45 a.m. Isolating the value in milk through separation technologies. L. M. Huffman and W. J. Harper, New Zealand Milk Products, North America, Santa Rosa, and The Ohio State University, Columbus
- 9:15 a.m. Enhancing market value of milk by adding cultures. R. Chandan, Global Technologies, Inc., New Brighton, MN.
- 9:45 a.m. New product image: Improving the acceptability of milk and milk components. L. Dunning, Germantown International, Limited, Germantown
- 10:15 a.m. Wrapping it all up: The value of packaging. D. Gorski, Dairy Foods Magazine, Des Plaines



ARPAS Symposium **Information Technology Skill Set Inventory for Today's Animal Scientist**

Wednesday, July 29, 1998 8:00 a.m. - 11:00 a.m.
Room A202/204, Colorado Convention Center

Animal Science Oriented Tools

Animal and feeding management. R. Brill, President, Brill Corporation

Overview of modeling programs used in animal production today. Panel Discussion

Basic Tools

Multimedia and the Internet as communications and publications tools. R. Muller, Eli Lilly & Co., Elanco Animal Health

Statistical and data analysis. A. Dudley, SAS Institute

Spreadsheets and databases: Which is most appropriate? L. Jones, FARME Institute and R. Muller, Elanco Animal Health

ADSA Dairy Foods Division Symposium **Advances in the Microbiological Safety of Dairy Foods**

Wednesday, July 29, 1998, 1:00 p.m. - 4:15 p.m.
Room A214, Colorado Convention Center
Chairperson: J. F. Frank, University of Georgia, Athens

- 1:00 p.m. Opening Remarks: Dr. J. F. Frank, University of Georgia, Athens
- 1:05 p.m. Acid adaptation in pathogenic bacteria. Dr. Mark Harrison, University of Georgia, Athens
- 1:40 p.m. New methods for sanitation control. Dr. Mansel Griffiths, University of Guelph, Guelph
- 2:15 p.m. New methods for the detection of pathogens in dairy foods. Dr. Russell Flowers, Silliker Labs, Inc. Homewood, IL
- 2:50 p.m. Recovery of sublethally injured pathogens. Dr. Catherine Donnelly, University of Vermont, Burlington
- 3:30 p.m. Bacteriocins in Dairy products: Possibilities and reality. Dr. Ahmed Yousef, The Ohio State University, Columbus

Nonruminant Nutrition Symposium

Skeletal Tissue: Applications of Nutrition to Enhance and Measure Skeletal Integrity

Wednesday, July 29, 1998, 1:00 p.m. - 5:00 p.m.
Ballroom 4, Colorado Convention Center
Chair: Gretchen Myers Hill, Michigan State University

I. Role of the Skeleton from a Physiology/Endocrine Functional Perspective

- 1:00 p.m. Bone-more than a stick. Nigel Loveridge, Cambridge University
- 1:45 p.m. Regulation of Growth Plate Cartilage Turnover. Michael Orth, Michigan State University
- 2:05 p.m. What's normal; what's not. Dale Rozeboom, Michigan State University



Program Events

II. Manipulation and Nutritional Management of Skeletal Tissue to Enhance Longevity

- 2:25 p.m. Sow, cows and old ladies. Don Kimmel, Merck Incorporated
- 3:10 p.m. Gilt skeleton manipulation. Tom Crenshaw, University of Wisconsin
- 3:30 p.m. Postprandial insulin resistance and Osteochondrosis in weanling fillies. S. L. Ralston, Rutgers University
- 3:45 p.m. Refreshment Break and Posters

III. Invasive and Non-invasive Measures of the Skeleton

- 4:00 p.m. The teen—Mother or daughter. Connie Weaver, Purdue University
- 4:30 p.m. It doesn't work in pigs. Tom Crenshaw, University of Wisconsin
- 4:40 p.m. Markers, markers everywhere-but do they work in livestock? Michael Orth, Michigan State University
- 4:50 p.m. What we know in the pig. Scott Carter, Oklahoma State University

Animal Health Symposium Parasitism and Productivity: Biology, Pathophysiology and Nutritional Effects of Internal Parasites in Cattle

Thursday, 8:00 a.m. - 11:00 a.m.
Room A209, Colorado Convention Center

Chairperson: R. Rew, Pfizer Animal Health, Terre Haute

Sponsored by Pfizer Animal Health

- 8:00 a.m. Overview: Prevalence and economic impacts of internal parasites. R. Rew, Pfizer Animal Health, Terre Haute, IN
- 8:15 a.m. Biology of the host-parasite relationship. C. Reinemeyer, University of Tennessee, Knoxville.
- 8:45 a.m. Effects of parasitic infection on appetite. M. T. Fox, The Royal Veterinary College, University of London.
- 9:25 a.m. BREAK
- 9:40 a.m. Pharmacology of Anthelmintics. D. Upson, Kansas State University, Manhattan.
- 10:10 a.m. Utilization of Doramectin and Ivermectin/Clorsulon to improve performance of Stocker calves. R. Blaylock, Alabama Cooperative Extension Service, Auburn University, AL.
- 10:25 a.m. Utilization of Doramectin and Ivermectin to Improve Performance of Cow-Calf Herd. S. Wikse, Texas A&M University, College Station.
- 10:40 a.m. Question and Answer session
- 11:00 a.m. Adjourn



Teaching Focus Session Fostering Critical Thinking Skills

Thursday, July 30, 1998

7:45 a.m. - 11:00 a.m.

Room A212, Colorado Convention Center

R. Green, Colorado State University and C. Orr, Berea College, Presiding

Sophistication in thinking is prerequisite to many of the goals of both liberal and of professional education. Why is critical thinking so hard for students to learn (and thus for us to teach?).

In this workshop we will explore three distinct ways of answering this question. These draw on three complementary perspectives: first, cognitive science (mental models and misconceptions, novice v. expert distinctions, models for thinking about thinking); second, intellectual and ethical development (especially on Perry and on Belenky et al.'s *Women's Ways of Knowing*) and, third, thinking-as-conversation (college as reacculturation; disciplinary discourse).

We will explore the implications of each approach for classroom practices and ask how we can support the students' movement toward more powerful modes of thinking and valuing. An underlying theme will be that often critical thinking can be fostered best by increasing the ratio of support offered for a given level of challenge. We will consider both the ways we structure content and the pedagogies we use.

In the workshop, mini-lectures will alternate with writing and small- and whole group discussions of examples and implementation. Participants will be asked to consider and discuss how these approaches might apply in their own teaching.

Session Leader: Dr. Craig Nelson, Professor, Department of Biology and the School of Public and Environmental Affairs, Indiana University, Bloomington.

7:45 Coffee

8:00 Part I: What is critical thinking? How do students progress towards more powerful critical thinking? How can we structure our class content to better foster progress?

9:30 Break

9:40 Part II: What are the most effective pedagogies for science? How do we know? And what effect does student heterogeneity have?

Cost for this session is \$30.00 which includes breaks. Session is limited to 50 participants. To register for this session, see page 41.

Contemporary Issues Committee / Regulatory Agencies Committee Symposium Prudent Uses of Antibiotics in Food Animals for Production Enhancement

Thursday, July 30, 1998

8:00 a.m. - 11:00 a.m.

Room A105/107, Colorado Convention Center

Chair: J. W. Lauderdale, Pharmacia and Upjohn, Inc., Kalamazoo, MI

8:00 a.m. Welcome and Introductions. J. W. Lauderdale, Pharmacia and Upjohn, Inc., Kalamazoo, MI

8:15 a.m. Antimicrobial resistance: Problems facing the regulation of antimicrobial drugs used in animal agriculture. S. Sundlof, Center for Veterinary Medicine, Rockville, MD.

8:45 a.m. Why should we be concerned about antibiotic resistance transfer in animals and humans: How to measure the potential transfer and its public safety implications. C. Thomsberry, Brentwood, TN.

9:15 a.m. Risk/Benefit considerations: What we know, what we do not know, what we need to know. J. Coffman, Kansas State University, Manhattan.

9:45 a.m. Discussion



Program Events

Panel: Above Speakers and:

T. Stahly, Iowa State University, Ames

R. Carnevale, Animal Health Institute

P. Sundberg, National Pork Producers Council

J. Cooper, CVM/FDA

V. Hays, University of Kentucky

Regulatory Agencies Committee Symposium

ADAA - Will Recent Legislative Changes Make Animal Drugs More Available? How Has the Animal Scientists Role Changed? How Will it Effect the Animal Industry?

Thursday, July 30, 1998

1:00 p.m. - 5:00 p.m.

Room A105/107, Colorado Convention Center

Background and Implementation Overview. S. Sundlof, Center for Veterinary Medicine, Rockville, MD.

Animal Producer View Point. J. Brandenberger

The Pharmaceutical Manufacturers Prospective. R. Carnevale

Impact upon the Feed Industry. D. Bossman

Minor Use/Minor Species-Animal Scientists Involvement. L. Miller

Requirements and Projects at FDA-Approval for Minor Use Minor Species. M. Oeller

Efficacy Studies-How the ADAA Has Changed the Study Requirements. M. Schoenemann

Requirements for Approval and Combination Feed Drugs-What's New? C. Andres

Discussion

Adjourn

Luncheon Programs

Minority and Women's Issues Luncheon/Program

Thursday, July 30, 12:00 p.m. - 2:00 p.m.

Adam's Mark Hotel

The speaker for the luncheon will be Michael J. Blackwell, Deputy Director, Center for Veterinary Medicine, Food and Drug Administration; the Chief Veterinarian of the US Public Health Service; and Rear Admiral or Assistant Surgeon General in the US Public Health Service. Dr. Blackwell's topic will be "President Clinton's Food Safety Initiative." If you plan to attend this luncheon, don't forget to indicate this on the registration form. Tickets for the luncheon will be \$21.00 for professionals and \$10.00 for students.

Program Events



ADSA Foundation - ASAS Foundation Roundtable

The foundations of the American Dairy Science Association and the American Society of Animal Science will be joining forces to present the ADSA Foundation - ASAS Foundation Roundtable. This year's topic is, "Food Animal Agriculture: A Crisis in Funding." Four guest speakers will be presenting their views on the agricultural agenda. You are encouraged to be a part of this lively exchange. The Roundtable is scheduled for Tuesday, July 28 from 12:00 noon to 2:00 p.m. in the Colorado Convention Center.

ADSA Foundation-ASAS Foundation Roundtable Food Animal Agriculture: A Crisis in Funding

Tuesday, July 28, 1998

12:00 p.m. - 2:00 p.m.

Moderator: N. A. Jorgensen, University of Wisconsin, Madison
Room A202/204, Colorado Convention Center

Introduction N. A. Jorgensen, University of Wisconsin, Madison

Funding for Agriculture: What's the Problem? J. J. Goldberg, US House of Representatives, Washington, DC.

The Animal Agenda: FAIR '95 and FAIR 2002. E. D. Aberle, University of Wisconsin, Madison.

Promoting the Agricultural Agenda. S. Minor, The Pennsylvania State University, Washington.

Marketing the Agricultural Agenda. T. Nipp, AESOP Enterprises, Washington, DC.

Question and Answer Period

SAD Awards Luncheon

Awards will be presented for the following categories: Outstanding Student, Chapter, Advisor, and Yearbook. Student Paper Presentation Award winners and scholarship winners will also be recognized. The Luncheon will be held on Wednesday, July 29 from 12:00 p.m. to 2:00 p.m. in the Forum Ballroom at the Executive Tower. The featured speaker is Dr. Thomas G. Field, Department of Animal Sciences, Colorado State University. He is an Associate Professor in Beef Cattle Management Systems. The ticket cost for this event is \$15.00 for students and \$20.00 for professionals. Be sure to mark this event on your registration form if you plan to attend.



SUMMARY OF SCHEDULED EVENTS

Friday, July 24

2:00 p.m.-6:00 p.m. ASAS Executive Committee Meeting (Adam's Mark)

Saturday, July 25

8:00 a.m.-12:00 p.m. ASAS Board Committees Meeting (Adam's Mark)

1:00 p.m.-5:00 p.m. ASAS Board Meeting (Adam's Mark)

1:00 p.m.-5:00 p.m. REGISTRATION (Adam's Mark)

6:30 p.m. ADSA-ASAS Directors and Colorado State Administrators Dinner (location to be determined)

Sunday, July 26

8:00 a.m.-5:00 p.m. ADSA Board Meeting (Marriott City Center)

8:00 a.m.-5:00 p.m. ASAS Board Meeting (Adam's Mark)

7:00 a.m.-3:00 p.m. REGISTRATION (Adam's Mark)

7:45 a.m.-5:00 p.m. Lactation Workshop (Adam's Mark)

5:00 p.m.-6:30 p.m. Lactation Workshop Informal Discussions, Poster Viewing, and Cocktails (Adam's Mark)

6:00 p.m.-9:00 p.m. Reception for Biennial Growth Symposium (Adam's Mark)

Monday, July 27

7:00 a.m. Golf Tournament (City Park Golf Course in Denver, shuttle buses depart Colorado Convention Center at 7:00 a.m.)

7:00 a.m.-9:00 p.m. REGISTRATION (Convention Center, Lobby A)

8:00 a.m.-5:00 p.m. Biennial Growth Symposium

8:00 a.m.-2:00 p.m. ASAS Board Meeting (Adam's Mark)

8:00 a.m.-5:00 p.m. ARPAS Governing Council Meeting

8:30 a.m.-5:00 p.m. Tour A: Northern Colorado Agricultural Tour

11:00 a.m.-5:00 p.m. Commercial Exhibitor Move In

1:00 p.m.-3:00 p.m. ADSA Journal Management Committee Meeting

1:30 p.m.-3:30 p.m. ADSA Foundation Board of Trustees Meeting (Marriott City Center)

2:00 p.m.-3:00 p.m. ADSA Dairy Foods Division Resolution Committee Meeting (Colorado Convention Center)

3:00 p.m.-4:00 p.m. ADSA Dairy Foods Division Council Meeting (Colorado Convention Center)

3:00 p.m.-4:00 p.m. ADSA Archives Committee Meeting (Colorado Convention Center)

3:00 p.m.-4:00 p.m. ADSA Production Division Council Meeting (Colorado Convention Center)



Schedule

- 4:00 p.m.-5:00 p.m. ADSA Production Division Committee Meetings: (all in the Colorado Convention Center)
- 1) Dairy Cattle Improvement
 - 2) Extension and Education
 - 3) Graduate Student Paper Competition
 - 4) Health
 - 5) Management
 - 6) Milk Synthesis
 - 7) Nutrition
 - 8) Physiology
 - 9) Resolutions
 - 10) Nominations
- 6:00 p.m.-7:00 p.m. Opening Program - Featured Speaker: Baxter Black (National Western Stock Show Complex)
- 7:00 p.m.-9:00 p.m. "Western Style Reception" (National Western Stock Show Complex)

Tuesday, July 28

- 6:30 a.m. Nebraska Breakfast (Adam's Mark)
- 6:30 a.m. Oklahoma Breakfast (Adam's Mark)
- 6:30 a.m. Illinois Breakfast (Adam's Mark)
- 7:00 a.m. Penn State Breakfast (Marriott City Center)
- 7:00 a.m.-5:00 p.m. REGISTRATION (Colorado Convention Center, Lobby A)
- 7:00 a.m.-8:00 a.m. ADSA Journal Editorial Board Breakfast and Meeting
- 8:00 a.m.-5:00 p.m. Commercial Exhibits (Colorado Convention Center, Exhibit Hall A)
- 8:00 a.m.-12:00 p.m. Oral and Poster Sessions (Colorado Convention Center)
- 8:00 a.m.-12:00 p.m. Meat Science and Muscle Biology/Growth and Development Symposium on Muscle Ultrastructure, Development, and Fiber Plasticity (Colorado Convention Center, Room A207)
- 8:00 a.m.-12:00 p.m. Environment and Behavior Symposium on Recent Advances in Assessment and Management of Heat Stress in Domestic Animals (Colorado Convention Center, Room A202/204)
- 8:00 a.m.-12:00 p.m. Extension Symposium on The Future of Concentrated Livestock Operations (Colorado Convention Center, Room A102/104/106)
- 8:00 a.m.- 11:15 a.m. Teaching Focus Session on Innovative Teaching Techniques Roundtable Discussion and Demonstrations (Cyber Cafe, Colorado Convention Center, Exhibit Hall A)
- 8:00 a.m.-12:00 p.m. Ruminant Nutrition Symposium on Nutritional Factors Impacting the Nutrient Balance of Beef and Dairy Operations (Colorado Convention Center, Ballroom 4)
- 8:30 a.m.-9:45 a.m. ADSA Dairy Foods Division Graduate Student Paper Competition Presentations (Colorado Convention Center, Room A212)
- 9:00 a.m.-4:00 p.m. Tour B: Denver City and Foothills Tour
- 9:30 a.m.-11:00 a.m. Physiology and Milk Synthesis Roundtable Discussion on Plasticity of Mammary Gland Function (Colorado Convention Center, Room A201)
- 11:00 a.m.-12:00 p.m. Marschall Rhône-Poulenc International Dairy Science Award Lecture (Colorado Convention Center, Room A209)
- 11:00 a.m.-12:00 p.m. ASAS Resolutions Open Forum
- 12:00 p.m.-2:00 p.m. ADSA Foundation-ASAS Foundation Roundtable—Food Animal Agriculture: A Crisis in Funding (Colorado Convention Center, Room A202/204)
- 1:00 p.m.-5:00 p.m. Oral and Poster Sessions (Colorado Convention Center)

Schedule



1:00 p.m.-4:00 p.m.	Animal Health Symposium on Inflammation and Animal Health (Colorado Convention Center, Room A109)
1:00 p.m.-5:00 p.m.	Breeding and Genetics Symposium on the Implications of Cloning for Breed Improvement Strategies (Colorado Convention Center, Ballroom 4)
1:00 p.m.-5:00 p.m.	Extension Symposium on Concentrated Pig Operations (Colorado Convention Center, Room A205)
1:00 p.m.-3:30 p.m.	Growth and Development Symposium on Molecular Mechanisms of Hormone Action (Colorado Convention Center, Room A110/112)
1:00 p.m.-4:00 p.m.	ADSA Production Division Graduate Student Paper Competition Presentations (Colorado Convention Center, Room A206)
2:00 p.m.-5:00 p.m.	Roche/ASAS Foundation Beef Cattle Nutrition Symposium on Forage Supplementation and Grazing (Colorado Convention Center, Room A105/107)
2:00 p.m.- 5:00 p.m.	ADSA Dairy Foods Division Symposium on Making Nutrition Research work for the Dairy Foods Industry (Colorado Convention Center, Room A209)
2:15 p.m.-4:00 p.m.	Contemporary Issues Panel Discussion with Former ADSA-ASAS Congressional Science Fellows (Colorado Convention Center, Room A202/204)
2:00 p.m.-4:00 p.m.	Physiology and Milk Synthesis Symposium on Emerging Reproductive Technologies (Colorado Convention Center, Room A201)
2:00 p.m.-3:30 p.m.	International Animal Agriculture Panel Discussion about Experiences in Teaching International Animal Agriculture (Colorado Convention Center, Room A210)
3:30 p.m.-5:00 p.m.	International Animal Agriculture Panel Discussion About How Study Abroad Enhances an Animal Science Curriculum (Colorado Convention Center, Room A210)
4:00 p.m.-10:00 p.m.	Tour C: Central City and Blackhawk
4:15 p.m.-5:00 p.m.	ADSA Production Division Foundation Scholar Award Lecture (Colorado Convention Center, Room A202/204)
5:00 p.m.	ADSA-ASAS International Reception
5:15 p.m.-6:15 p.m.	ADSA Town Hall Forum
5:30 p.m.-11:30 p.m.	Tour D: Central City and Blackhawk
6:00 p.m.	ADSA Past Presidents' Dinner (Marriott City Center, Gold Coin Room)
7:00 p.m.-9:00 p.m.	Informal Calf Session
8:00 p.m.-11:00 p.m.	Iowa State University Social (Marriott City Center)

Wednesday, July 29

6:30 a.m.	Fun Run (Denver City Park)
6:30 a.m.	Kentucky Breakfast (Adam's Mark, Plaza Court I)
6:30 a.m.	Wisconsin Sesquicentennial Breakfast (Adam's Mark)
6:30 a.m.-7:45 a.m.	ADSA Production Extension Specialists' Breakfast (Marriott City Center)
6:45 a.m.-8:00 a.m.	ADSA Dairy Foods Division Dairy Products Evaluation Committee Breakfast
7:30 a.m.-5:00 p.m.	REGISTRATION (Colorado Convention Center, Lobby A)
8:00 a.m.-5:00 p.m.	Commercial Exhibits (Colorado Convention Center, Exhibit Hall A)
8:00 a.m.-11:00 a.m.	Oral and Poster Sessions (Colorado Convention Center)
8:00 a.m.-11:00 a.m.	ASAS Foundation Trustees Meeting



Schedule

8:00 a.m.-10:45 a.m.	ADSA Dairy Foods Division Symposium on Marketing Value through Technology (Colorado Convention Center, Room A209)
8:00 a.m.-10:00 a.m.	Contemporary Issues in the Classroom Forum (Colorado Convention Center, Room A210)
8:00 a.m.-11:00 a.m.	ARPAS Panel Discussion on Information Technology Skill Set Inventory for Today's Animal Scientist (Colorado Convention Center, Room A202/204)
8:00 a.m.-11:00 a.m.	Extension Symposium on Concentrated Dairy Operations (Colorado Convention Center, Room A205)
8:00 a.m.-11:00 a.m.	Ruminant Nutrition Symposium on Assessment of Feeding Management Practices for Beef and Dairy Cattle (Colorado Convention Center, Ballroom 4)
9:30 a.m. - 11:00 a.m.	Breeding and Genetics Dedicated Session on Future of Education Programs in Animal Breeding (Colorado Convention Center, Room A105/107)
8:00 a.m.-11:00 a.m.	Growth and Development Symposium on Cytokines (Myostatin) and Animal Growth (Colorado Convention Center, Room A110/112)
8:00 a.m.-5:00 p.m.	Tour E: Estes Park and Rocky Mountain National Park
10:00 a.m.-11:00 a.m.	Physiology and Milk Synthesis Symposium on Cell Turnover in Reproductive Processes (Colorado Convention Center, Room A201)
11:00 a.m.-11:30 a.m.	ARPAS Business Meeting
11:00 a.m.-1:00 p.m.	ASAS EOAC Luncheon
11:00 a.m.-12:00 p.m.	ADSA Production Division Business Meeting (Colorado Convention Center,)
11:00 a.m.-12:00 p.m.	ADSA Dairy Foods Division Business Meeting (Colorado Convention Center,)
12:00 p.m.-2:00 p.m.	ASAS Past Presidents' Luncheon (Adam's Mark)
12:00 p.m.-1:00 p.m.	ADSA Dairy Foods Division Program Committee Luncheon Meeting
12:00 p.m.-1:00 p.m.	ADSA Dairy Foods Milk Protein and Enzyme Committee Meeting (Convention Center)
12:00 p.m.-2:00 p.m.	ADSA Student Affiliate Division Awards Luncheon (Executive Tower Inn)
12:00 p.m.-2:00 p.m.	National Block & Bridle Advisors' Luncheon (Holiday Inn, Cripple Creek Room)
1:00 p.m.-5:00 p.m.	Oral and Poster Sessions (Colorado Convention Center)
1:00 p.m.-4:00 p.m.	ASAS Western Section Graduate Student Competition (Colorado Convention Center, Room A206)
1:00 p.m.-4:15 p.m.	ADSA Dairy Foods Division Symposium on Advances in the Microbiological Safety of Dairy Foods (Colorado Convention Center, Room A214)
1:00 p.m.-5:00 p.m.	Breeding and Genetics Dedicated Session on Information Technology for Animal Breeding Purposes (Colorado Convention Center, Room A105/107)
1:00 p.m.-5:00 p.m.	Nonruminant Symposium on Skeletal Tissue: Applications of Nutrition to Enhance Skeletal Integrity (Colorado Convention Center, Ballroom 4)
2:00 p.m.-5:00 p.m.	Teaching Committee Symposium on Professional Career Skills, "The Art of Selling Yourself" (Colorado Convention Center, Room A108)
2:00 p.m.-4:00 p.m.	Physiology and Milk Synthesis Symposium on Metabolic Regulation of Reproduction: Leptins (Colorado Convention Center, Room A201)
2:00 p.m.-3:30 p.m.	Retirees' Social (Colorado Convention Center)
2:00 p.m.-5:00 p.m.	Production and Management Dairy Decision Case Study (see information on page 36) (Colorado Convention Center, Room A202/204)
4:00 p.m.-5:30 p.m.	ASAS New Section Editors' Meeting
4:15 p.m.-5:00 p.m.	ADSA Dairy Foods Division Foundation Scholar Award Lecture (Colorado Convention Center, Room A209)

Schedule



- 4:30 p.m.-6:45 p.m. ADSA Award Donors Dinner (Marriott City Center)
- 7:00 p.m.-8:00 p.m. ADSA Awards Program (Marriott City Center)
- 8:00 p.m.-10:00 p.m. ADSA Foundation Auction and Ice Cream Social (Marriott City Center)

Thursday, July 30

- 6:30 a.m.-7:45 a.m. ADSA Dairy Foods Extension Specialists' Breakfast (Marriott City Center)
- 6:30 a.m. Purdue Breakfast (Adam's Mark)
- 7:00 a.m.-8:30 a.m. ADSA Production Division Committee Officers Breakfast Meeting (Marriott City Center)
- 7:30 a.m.-10:30 a.m. ADSA Board Meeting (Marriott City Center)
- 7:30 a.m.-5:00 p.m. REGISTRATION (Colorado Convention Center, Lobby A)
- 8:00 a.m.-5:00 p.m. Commercial Exhibits (Colorado Convention Center, Exhibit Hall A)
- 8:00 a.m.-11:00 a.m. Oral and Poster Sessions (Colorado Convention Center)
- 8:00 a.m.-9:30 a.m. ADSA Foundation-ASAS Foundation Planned Giving Breakfast Seminar
- 8:00 a.m.-11:00 a.m. Animal Health Symposium on Parasitism and Productivity: Biology, Pathophysiology and Nutritional Effects of Internal Parasites in Cattle (Colorado Convention Center, Room A209)
- 8:00 a.m.-5:00 p.m. Breeding and Genetics Demonstrations and Posters in Cyber Cafe (Colorado Convention Center, Exhibit Hall A)
- 8:00 a.m.-11:00 a.m. Horse Symposium on Potential Applications of Equine Somatotropin in the Horse Industry (Colorado Convention Center, Room A201)
- 8:00 a.m.-11:00 a.m. Extension Symposium on Concentrated Beef Operations (Colorado Convention Center, Room A205)
- 8:00 a.m.-11:00 a.m. Teaching Symposium on Fostering Critical Thinking (Colorado Convention Center, Room A212)
- 8:00 a.m.-11:00 a.m. Rabbit "VHD" Symposium on Viral Hemorrhagic Disease in Rabbits: Its Differentials and Impact on Domestic Production and Biomedical Research (Colorado Convention Center, Room A210)
- 8:00 a.m.-11:00 a.m. Contemporary Issues Committee and Regulatory Agencies Committee Symposium on Prudent Uses of Antibiotics in Food Animals for Production Enhancement (Colorado Convention Center, Room A105/107)
- 8:00 a.m.-5:00 p.m. Tour F: Colorado Springs/Air Force Academy/Garden of the Gods and Pike's Peak Cog Railway
- 9:30 a.m.-11:00 a.m. Physiology and Milk Synthesis and Dairy Foods Division Symposium on a Bold New Look at Milkfat (Colorado Convention Center, Ballroom 4)
- 11:00 a.m.-12:00 p.m. ADSA Business Meeting (Colorado Convention Center)
- 11:00 a.m.-12:00 p.m. ASAS Business Meeting (Colorado Convention Center)
- 12:00 p.m.-2:00 p.m. Minority and Women's Issues Luncheon; Michael J. Blackwell, Speaker (Adam's Mark)
- 12:00 p.m.-2:00 p.m. Western Section Awards Luncheon
- 12:00 p.m.-1:30 p.m. ASAS Section Editors' Luncheon
- 1:00 p.m.-5:00 p.m. Oral and Poster Sessions (Colorado Convention Center)
- 1:00 p.m.-5:00 p.m. Sheep Symposium on The Callipyge Phenomenon: Challenges and Opportunities (Colorado Convention Center, Room A207)
- 1:00 p.m.-5:00 p.m. ASAS Livestock-Dairy Committee Symposium on Nutritionally Improved Corn Grain Hybrids: Influence on the Feed Industry and the Feeding of Dairy and Beef Cattle (Colorado Convention Center, Room A101/103)