



**AMERICAN DAIRY SCIENCE ASSOCIATION
and
AMERICAN SOCIETY OF ANIMAL SCIENCE
ASAS WESTERN SECTION MEETING AND ARPAS ANNUAL MEETING**

Joint Meeting

July 27-31, 1998
Denver, Colorado

The Department of Animal Sciences at Colorado State University is looking forward to hosting the American Dairy Science Association-American Society of Animal Science meetings this summer in Denver. Our goal is to facilitate a productive and enjoyable meeting in the Mile High City of Denver. You can expect clear, warm days with cool evenings and a picturesque view of snow-capped mountains. We have organized daily tours to interesting areas of Denver and the State of Colorado (including an evening junket to the casinos in Central City/Blackhawk) and an opening reception with true Western hospitality. The Colorado Convention Center provides a spacious and comfortable meeting facility that is convenient to all convention hotels.

We hope you'll join us for a few days in the Rocky Mountains and that you have a productive and enjoyable visit. Should you have questions, just contact a Colorado State representative. We'll all be wearing green CSU shirts, so we'll be easy to find!

See you in Denver.

David Ames, Host Committee Chair

Denver Convention and Visitors Bureau

(303) 893-1112

Colorado Tourism

(800) 265-6236



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June 22	Housing Reservation Form Due
July 6	General Registration Form Due
July 6	Last Day to Cancel Tours with Full Refund

Important Deadlines:

Registration Information



Registration Information

Registration Materials

All registration materials are included in this mailing. Registration information and forms are also available by visiting the Joint Meeting Web site at <http://www.adsa.uiuc.edu/meet/98meet/>. Each member should complete a General Registration Form. If you have a spouse/guest participating in any of the activities of the meeting, they should be included on the member's General Registration Form and the Adult/Family Registration Form for the specific activities.

Registration Deadline

Register early to help us plan better. Those registrations that are postmarked on or before July 6 will be at a lower rate than those received after July 6. No telephone registrations will be accepted. Faxed registrations can be accepted only if payment is made by credit card (FAX: 217/398-4119). We accept Visa, MasterCard, and American Express.

Student Rate '98:

Free Student Registration!

This year, students who are members of ADSA or ASAS receive free registration. Student Nonmembers pay a nominal registration fee of \$20 which includes membership in the organization of your choice. (Please note: students are responsible for fees associated with ticketed events.)

Membership Information

You do not have to be a member of ADSA or ASAS to attend the meeting; however, the differential between the member and non-member registration fee makes it very attractive to join one or both societies at the time of registration. Membership applications for ADSA and ASAS are included in this booklet on pages 45 and 47.

Payment

Checks for Registration must be in US dollars written on US banks made payable to ADSA-ASAS Joint Meeting. Payment by credit card (in US dollars) is available: complete the "Credit Card" section at the end of the General Registration Form.

Receipts

If you register before July 6 we will mail you a registration receipt. Verify the receipt and contact the Business Office if you have any questions.

Program Book

The Meeting Program will not be mailed. The program will be distributed with your registration packet in Denver and will be available on the Joint Meeting Web site <http://www.adsa.uiuc.edu/meet/98meet/> by early June. Note: please check the Web sites often, as program details are subject to change. If you do not have access to the Web sites, please contact us at headquarters, and we will provide you with the information you need.

Abstract Book

Abstract books will not be mailed prior to the meeting. Participants will receive the book of abstracts in Denver.



Registration Information

On-Site Registration

Registration will be in the Colorado Convention Center, in Lobby A Monday, July 27–Friday, July 31, the 14th Street Entrance. Registration hours for the ADSA-ASAS meeting, including special symposia and other meetings, will be as follows:

Monday, July 27, 1998	7:00 a.m. - 9:00 p.m.
Tuesday, July 28, 1998	7:00 a.m. - 5:00 p.m.
Wednesday, July 29, 1998	7:30 a.m. - 5:00 p.m.
Thursday, July 30, 1998	7:30 a.m. - 5:00 p.m.
Friday, July 31, 1998	8:00 a.m. - 12:00 Noon

The telephone number for the ADSA-ASAS Registration Desk for Monday, July 27–Friday, July 31 is (303) 228-8385.

PLEASE NOTE: Registration for the Lactation and Growth Symposia will be Saturday, July 25 and Sunday, July 26 at the Adam's Mark Hotel from 1:00 p.m. – 5:00 p.m. on Saturday and 7:00 a.m. – 3:00 p.m. on Sunday.

Reminder

Wear your name tag! It's your admission to most meeting events and serves as your ADSA-ASAS shuttle bus pass for the Opening Program. Tickets for special events and meal functions will be collected at the door at each specific event.

Questions

All program registrations will be handled by the ADSA-ASAS Business Office. All inquiries about preregistration or the 1998 ADSA-ASAS Joint Meeting should be made to the ADSA-ASAS Business Office, 1111 N. Dunlap Avenue, Savoy, IL 61874; Phone: (217) 356-3182; Fax: (217) 398-4119; E-mail: adsa@assochq.org or asas@assochq.org.

Special Needs

All meeting rooms are wheelchair-accessible. Please indicate any special needs when sending in your registration form.

Accommodations



Hotels

Rooms have been blocked at five hotels, all within walking distance of the Colorado Convention Center (see downtown Denver map on page 50). A housing information and reservation form is included (page 49) with your preregistration materials. You may contact hotels directly with any questions you have regarding their guest room accommodations; however, all reservations (and changes to existing reservations) must be made through the ADSA-ASAS Housing Bureau. Reservations must be made on the housing form on page 49 of this booklet. Your housing reservation form is to be returned by June 22, 1998 directly to:

ADSA-ASAS Housing Bureau
1555 California Street, Suite 300
Denver, CO 80202-4264
FAX: (303) 571-9435

HOTEL	Single	Double	Triple	Quad	Distance to Convention Center
Adam's Mark <i>ASAS Headquarter Hotel</i> 1550 Court Place Denver, CO 80202	\$129.00	\$129.00	\$144.00	\$144.00	3 blocks
Denver Marriott City Center <i>ADSA Headquarter Hotel</i> 1701 California Street Denver, CO 80202	\$131.00	\$131.00	\$141.00	\$151.00	4 blocks
Hyatt Regency Denver <i>ADSA Headquarter Hotel</i> 1750 Welton Street Denver, CO 80202	\$124.00	\$124.00	\$139.00	\$139.00	5 blocks
Executive Tower Inn <i>SAD Headquarter Hotel</i> 1405 Curtis Street Denver, CO 80202	\$ 89.00	\$ 89.00	\$ 89.00	\$ 89.00	2 blocks
Holiday Inn Denver <i>Official Meeting Hotel</i> 1450 Glenarm Denver, CO 80202	\$105.00	\$105.00	\$105.00	\$105.00	2 blocks

Campgrounds/RV Parks

Deluxe RV Park
 5520 N. Federal Blvd. (I-70, Exit 272)
 Denver, CO 80221
 303-433-0452
 29 sites, laundry, showers, rest rooms

Denver Meadows RV Park
 2075 Potomac Street
 Aurora, CO 80011
 303-364-9483
 278 sites, rest rooms, showers, phone,
 laundry, groceries, swimming pool

Denver North Campground and RV Park
 16700 N. Washington (I-25, Exit 229)
 Broomfield, CO 80020
 800-851-6521
 FAX - 303-452-4156

Golden's Dakota Ridge RV Park
 17700 West Colfax Avenue
 Golden, CO 80401
 303-279-1625



Transportation

Airport Shuttle Service

A complete Ground Transportation Center is located on the fifth level of the terminal, near the baggage claim. There are three shuttle services (Airporter, SuperShuttle and Denver Express Shuttle) that run every half hour from 5 a.m. to 10 p.m. to all downtown hotels. Travel time is 30 minutes to one hour. Cost is \$15 each way or \$27 round trip. To arrange passage, stop at these shuttles' counters on the fifth level. (Discount coupons for SuperShuttle will be included with your registration receipt.)

Airlines

Discounted rates have been negotiated for this event. Call Conventions in America at 1-800-929-4242 and ask for Group #695. You will receive 5%-10% off the lowest applicable fares on United Airlines, or the lowest available fare on any carrier. Take an additional 5% off if you purchase at least 60 days prior to departure. Travel must be between July 24 and August 3, 1998. All customers of Conventions in America also receive free flight insurance of \$100,000. If you call United Airlines direct at 1-800-521-4041, ask for Tour Code 514QW.

Rental Cars at Denver International Airport

Advantage	(303) 342-0990
Avis	(800) 331-1212
Dollar	(800) 756-3701
Enterprise	(800) 720-7222
Hertz	(303) 342-3800
National	(800) 227-7368
Thrifty	(303) 342-9400
Value	(800) 468-2583

Bus

RTD buses leave from DIA to downtown Denver at 45 minutes past the hour from 6:45 a.m. to 12:45 a.m. The route takes approximately 50 minutes and is \$6 each way or \$10 round trip. Exact fare is required when boarding the bus.

Taxi

Taxi Service from DIA is \$35 - \$42, excluding gratuity to downtown Denver. Yellow, Metro and Freedom Cabs have a flat rate of \$35 to the downtown area, unlimited passengers. Time varies from 30-40 minutes.

Personal Automobile

Denver is accessible by three major freeway systems, I-25, I-70 and I-76. The Colorado Convention Center is located in downtown Denver at 14th and California. If approaching Denver from the north or south on I-25, take the Speer Blvd. South Exit. Follow the signs to the convention center. If approaching Denver from the northeast on I-76 or from the east on I-70, turn onto I-25 south and follow the above directions.



Downtown Denver Parking and Access Tips

- Coming from DIA? Take Pena Blvd. To I-70 west. Then, take I-70 to I-25 south to Speer Blvd. South.
- Downtown Denver is a simple grid of numbered streets intersecting named streets. (For example: 1512 Larimer St. lies between 15th and 16th streets on Larimer.)
- Whether you're going to The Colorado Convention Complex, Coors Field, Lower Downtown, Larimer Square, or the Performing Arts Complex, you will find parking within a block or two of the 16th Street Mall. (The 16th Street Mall is an outdoor pedestrian mall with shops and restaurants.) 16th Street bisects the core downtown area.
- Metered parking is available adjacent to the Colorado Convention Center and pay parking lots are located across the street and throughout the downtown area. Access to these lots can be limited during the week due to the high demand on these lots during normal business in the downtown area.
- All downtown meters accept dimes and quarters. If you plan to park for an extended length of time, it is best to park in a self-pay or attended lot. Time limits on meters range from ½ hour to 2 hours. Many metered spaces are free after 6:00 p.m.
- Parking lot prices will range between \$5.00 per day to \$12.00 per day, depending on location.
- There are many self-pay parking lots in the downtown area. You must pay in advance in these lots. Simply read the signs and insert the appropriate amount of money in the numbered slot that corresponds with the space you are parked in.
- If you are staying in a downtown hotel and have a rental car, it is best to park at your hotel and walk to the convention center. Denver is a very pedestrian-oriented city. Once downtown you can easily walk to your destination or catch the free 16th Street Mall Shuttle. The shuttle stops at every intersection along the Mall between Civic Center and Market Street stations.
- You may want to consider parking in one of the RTD outlying lots that you will see and then take the RTD downtown. For southbound I-25 travelers, a lot is located at I-25 and Wagon Road (120th St. Exit). This express route takes you directly downtown for approximately \$2.00. For northbound I-25 travelers, RTD Light Rail departs every 5-10 minutes from Park-n-Ride at Broadway and I-25, travels downtown along California Street and stops directly in front of the Colorado Convention Center at 14th & California. Both routes are available only on weekdays. Parking in both lots is free, at your own risk (the lots are well-lighted).
- If you are flying into Denver you may want to consider not renting a car unless you really need to travel outside the downtown area. Parking at the participating hotels varies from \$5-\$15+ per day, depending on the hotel and level of service.



General Information

Denver Information Center

The Denver Metro Convention & Visitors Bureau's city information desk will be located in the main concourse area of the Colorado Convention Center. Their booth is staffed with very knowledgeable ambassadors to the city of Denver. They will be happy to assist you with city information, tour and transportation options, assistance with visiting Denver's many attractions, as well as inform you of Denver's world-class dining opportunities from fun and casual brew pubs to elegant five star restaurants.

Green Shirts

All Colorado State University Host Committee Members can be identified by green CSU shirts. If you're lost or have a question while attending the meeting, please look for the smiling face in the green shirt. Also, don't forget to thank them for hosting a great meeting!

Important Telephone Numbers

Registration Desk	(303) 228-8385
Emergency-Fire-Police-Medical	911
Poison Control Center	(303) 629-1123
St. Joseph's Hospital	(303) 837-7111
Colorado Tourism	(800) 265-6236
Airporter	(303) 227-0000
SuperShuttle	(303) 370-1300
Denver Express Shuttle	(303) 766-7959
City Buses	(303) 299-6000
Adam's Mark	(303) 893-3333
Denver Marriott City Center	(303) 297-1300
Hyatt Regency Denver	(303) 295-1234
Executive Tower Inn	(303) 571-0300
Holiday Inn Downtown	(303) 573-1450

Publicity/Public Relations/Media Center

Room 113 in the Colorado Convention Center will be reserved as a Publicity and Public Relations Center. Publicity, news releases, and the daily newsletter will be issued from this location. The telephone number for the Media Center will be (303) 228-8386.

Business Copy Center

A Business Copy Center for your use is located on the Grand Concourse in the Colorado Convention Center. You may purchase small business items and have copies made at your expense.

Retiree Social

All retirees and their spouses are cordially invited to attend a social gathering to relax, reminisce, and enjoy refreshments at the Colorado Convention Center on Wednesday, July 29 from 2:00p.m.-3:30 p.m.



Slide and LCD Projector Preview Room

A room for you to preview your slides and test your computer with an LCD projector before your presentation will be located in the Colorado Convention Center, Room A208. You will need to provide your own slide carousel and laptop computer.

Attention LCD Projector Users

For the first time, presenters may use lcd projectors to display their Power Point presentations. LCD projectors will be available in the slide preview room with the slide projectors and overheads. Presenters are strongly encouraged to rehearse their presentation immediately prior to their session and to come to the session with their presentations up and ready to go.

Joint Meeting presenters using computer display projectors should review the following guidelines before coming to Denver:

- Have your display set to 640x480 or 800x600 (avoid 1024x768 - it may not display correctly). Know how to configure your video settings in case there is a problem.
- Avoid delays from booting your computer at the start of the presentation. Some computers require the projector be attached in order for the video port to be activated - use a computer that is able to detect a video display without requiring a reboot.

The ideal scenario would be to load the presentation software and open the slide show prior to the presentation, and then put the computer in a "suspend" or "sleep" state. At the start of the presentation, attach the projector to the video port, and then "wake" or "resume" the computer.

- Know how to activate your computer's video port - this often requires a specific key combination and is different on different computers.
- Bring your computer's power cable/cord and use it to be sure of a strong signal from the computer to the projector. Do not plan to power your computer with the battery. You will not need an extension cord.
- There will be no remote control, so plan on running the keyboard yourself.

It is highly recommended that you use your computer with an 800x600 display projector prior to the meetings so you will be familiar with the connection and configuration required for your type of computer. A preview room with LCD panel will be available.

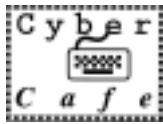
L Special Note for Macintosh Users

- You must bring your own docking cable for the connection between the computer and the projector.
- You must have "Video Mirroring" on your system. This can be loaded from the System disks (version 7.0 and higher).



General Information

NEW



Let technology keep you caught up with work and in touch with friends and family during the ADSA-ASAS Annual Meeting. For the first time ever, ADSA-ASAS meeting attendees can attend the annual meeting knowing they can easily keep up with business activities at work by visiting the Cyber Cafe. At the Cyber Cafe, meeting attendees can check E-mail throughout the day, display their company's Web site, and meet with colleagues to exchange information found on the Internet. The Cyber Cafe will be located in a very visible location in the exhibit hall so all 4000+ meeting attendees can have easy access to this area. Meeting attendees can utilize the many computer stations, all with access to the Internet, each day during the conference.

Placement Center

A Placement Center will be located in the Colorado Convention Center, Exhibit Hall A near the Cyber Cafe. Employers are invited to submit 50 copies of all position descriptions and prospective employees are invited to submit 30 copies of brief (2-page) résumés prior to the meeting. The job announcements and résumés will be organized into the following categories (please indicate preference) for posting and distribution. Should you have any questions please contact Nancy A. Irlbeck, Colorado State University, 212A Animal Sciences, Fort Collins, CO 80523; phone (970) 491-0668; e-mail nirlbeck@ceres.agsci.colostate.edu.

Animal Health, Environment and Behavior
Breeding and Genetics
Extension
Food Science
International Animal Agriculture
Growth and Development
Lactation
Meat Science and Muscle Biology

Nonruminant Nutrition
Nutrition
Pharmacology and Toxicology
Production and Management
Reproduction
Reproductive Physiology
Ruminant Nutrition
Teaching

Mail job postings and résumés to the attention of Nancy A. Irlbeck, Colorado State University, 212A Animal Sciences, Fort Collins, CO 80523.



ARPAS CEUs – The ADSA-ASAS Joint Meeting is approved for up to 28 continuing education units (CEUs) for American Registry of Professional Animal Scientists certification requirements.

Sponsorship Opportunities

There are numerous sponsorship opportunities for companies wanting additional recognition or for those that want to support the organization. Some of the activities your contribution could support include the Opening Reception, Cyber Cafe, printing of the abstracts issue, a scientific session, Fun Run, Golf Tournament, or the Daily Newsletter. All donors will receive excellent recognition and top donors (more than \$2500) get a complimentary exhibit booth (a \$800 value). For more details, visit the Joint Meeting Web Site at <www.adsa.uiuc.edu/meet/98meet/sponsor> or contact the marketing department at 217/356-3182 or by E-mail: cydew@assoqh.org.

New FASS Membership Directory

Come to the meeting and pick up your copy of the FASS Membership Directory!

This first-ever joint directory of ADSA, ASAS, and Poultry Science Association (PSA) members contains over 10,000 names of your colleagues from around the world. The Directory will be available in the exhibit hall area and is free to ADSA, ASAS, and PSA members (in addition to the on-line FASS Membership Directory). The Directory is not available to nonmembers.



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.



Opening Program

Opening Program and “Western Style Reception”

Monday, July 27, 1998
6:00 p.m. - 9:00 p.m.

National Western Complex

“An Evening Western Style” will be the theme for this year’s opening program and reception at the National Western Stock Show Complex, home of the world’s largest breeding cattle show. A horse demonstration begins the evening’s activities. Pfizer, Inc. is sponsoring the opening presentation of the convention by one of the world’s funniest cowboys. Baxter Black can shoe a horse, string a barbed wire fence and bang out a Bob Wills classic on his flat-top guitar. He has more hair around his lip than on his head, and his roping skills could use some improvement. These facts alone would make the former livestock veterinarian a fairly typical modern cowboy if it weren’t for one small detail: Baxter makes a living as a poet.

Since 1982, Baxter Black has been rhyming his way into the national spotlight, and now stands as the best-selling cowboy poet in the world. He’s written 12 books (including a rodeo novel), recorded over a dozen audio and video tapes, and achieved notoriety as a syndicated columnist and radio commentator. From the *Tonight Show* and PBS to NPR and NFR, Baxter’s wacko verse has been seen and heard by millions. His works are prominently displayed in both big city libraries and small town feed stores. Baxter’s philosophy is simple enough - in spite of all the computerized, digitized, high-tech innovations now available, there will always be a need for someone who can “think up stuff.”

At the “Western Style” reception following Baxter’s presentation, you will have the opportunity to taste new beef, pork and lamb products, thanks to the coordination of the National Cattlemen’s Beef Association. Coors Brewery has graciously provided two beer trucks (with taps on the sides of the trucks) to complement the other finger foods and cash bar. Western Dairy Coop, Inc. and Horizon Cheese have also donated cheese. Live music will be provided by Timothy P. and Rural Route 3.

Shuttle bus transportation will be provided from the Convention Center and will begin the first run at 5:00. Free parking is also available on the Stock Show grounds. Plan to dress western and enjoy “An Evening Western Style.”

Driving on your own to the National Western Complex from downtown Denver: Take Broadway north over the overpass. At this point, Broadway changes to Brighton Boulevard. Pass under I-70 to the first stop light. Turn left on 47th Street and follow to the National Western Complex parking lots. The drive is about 4 miles and should take you about 12 minutes. Parking is free.



Baxter Black

- 5:00 p.m. Shuttle buses begin leaving Convention Center and parking lots open at National Western Complex for those driving
- 5:20 p.m. Horse Demonstration (to arrive on time for this event, please take the first bus run at 5:00)
- 6:00 p.m. Post Colors (on horseback) & Pledge of Allegiance
- 6:05 p.m. Welcome by Colorado, Colorado State University, and National Western
- 6:15 p.m. Introduction of Speaker
- 6:20 p.m. Opening Speaker - Baxter Black
- 7:00 p.m. Social Reception: Food, Drinks, and Music
- 8:30 p.m. Shuttle buses begin return to Convention Center
- 9:00 p.m. Reception ends

Special thanks to the National Western, Pfizer, Coors, National Cattlemen’s Beef Association, Western Dairyfarmers’ Promotion Association, Colorado Wool Growers, and National Pork Producers Council for helping to provide this special event.

Special Events



ADSA Awards Ceremony

The ADSA Awards Ceremony will be held on Wednesday, July 29 from 7:00 p.m. to 8:00 p.m. at the Denver Marriott City Center. All meeting participants, families, and friends are welcome.

ADSA Fun Auction and Ice Cream Social

Plan to attend the sixth annual ADSA Foundation Auction, to be held in conjunction with the Ice Cream Social. Proceeds from the auction will support the Foundation, helping ADSA achieve its goals. For more information or to contribute an item to the auction, contact ADSA Headquarters at 217/356-3182. See the latest list of auction items on pages 53 and 54 of this booklet.

Also, enjoy the best ice cream in all of Colorado at the ADSA Ice Cream Social on Wednesday evening after the Awards Program! (Please indicate on the Registration Form if you plan to attend to ensure an accurate count.)

ASAS Awards Program and Ice Cream Social

The ASAS Awards Program has been scheduled for 8:00 p.m., Thursday, July 30, at the Adam's Mark. It will be followed by an Ice Cream Social so donors of awards can be thanked and recipients can be congratulated. The Awards Program and Ice Cream Social are open to all meeting participants, their families, and friends. (Please indicate on the Registration Form if you plan to attend to ensure an accurate count.)

Special thanks to Robinson Dairy for their generous donation of the best ice cream in all of Colorado for both ice cream socials.

ADSA Town Hall Meeting

The ADSA Board of Directors will be hosting an old-fashioned Town Hall Meeting on Tuesday, July 28, 5:15 p.m.–6:15 p.m., to talk openly about issues that are of concern to the membership. Agenda items will include a discussion about the *Journal of Dairy Science*. This is your opportunity to express your opinions and offer ideas for improving your membership in ADSA. You'll also have the chance to talk one-on-one with ADSA board members.

Golf Outing



Thanks to Elanco Animal Health and ANKOM Technology for making the 1998 ADSA-ASAS Golf Outing a very special event. Elanco has graciously bought the course for our exclusive use. ANKOM will be providing over \$500 in prizes.

Plan to join us Monday, July 27 at the City Park Golf Course in Denver. Located only 5 minutes from downtown, City Park is a unique, 18-hole golf course in a beautiful urban setting with fantastic views of downtown Denver and the Rocky Mountains. Shuttle vans will be available and will leave the convention center promptly at 7:00 a.m. We will have a shotgun start at 8:00 a.m. and use a scramble format. Put your own team together or we will assign you to a winning foursome!

Prior to tee-off, Brian Layton, Regional Manager for ANKOM and former PGA professional will give a clinic for participants. Transportation will be provided to and from the convention center. Participation is limited to 120. Cost will be \$35, which includes green fees, cart, lunch and transportation to and from the course. The Denver Zoo and Denver Museum of Natural History are located across the street in City Park, so bring the family!



Special Events

Iowa State University Social

If you traditionally attend the ISU Social, be sure to register for it on the Registration form in the back of the booklet. This event will be held on Tuesday, July 28 from 8:00 p.m. to 11:00 p.m. at the Marriott City Center. A cash bar and munchies will be available at this event.

Fun Run

The Fun Run this year will be held Wednesday, July 29th at 6:30 a.m. This event is scheduled for Denver City Park located 2 miles from the Convention Center. This is the same location as the Denver Zoo, City Park Golf Course and the Museum of Natural History. Shuttle vans will be available from the Convention Center for your convenience. WE REALIZE THAT ALL TRUE RUNNERS WILL LIKELY JOG THE TWO MILES TO CITY PARK! City Park provides an excellent view of the mountains and the downtown area. Anyone who wishes to walk, jog, or run will enjoy an early morning breath of Mile High Air! Cost of this event is \$10 and includes a T-shirt for all participants. Please register by June 22 to reserve your Fun Run T-shirt.

Meeting Jackets



Official ADSA-ASAS meeting jackets with the 1998 ADSA-ASAS Joint Annual Meeting logo will be available on-site (subject to availability). Order early to secure your jacket and save money. The hooded, pull-over style jackets with a ½ zipper front are high quality, 100% supplex nylon. Jackets will be navy blue with the meeting logo printed in white. Advance jacket order price, \$22.00; on-site price: \$25.00.

Poster Sessions

The poster sessions will be located with the commercial exhibits in Exhibit Hall A in the Colorado Convention Center (upper level). **Poster sessions will be all day Tuesday, Wednesday, Thursday, and Friday until noon. Posters will be staffed by a presenter at times designated in the scientific program, but will be available for viewing from 8:00 a.m. to 5:00 p.m. on the day on which the session is scheduled.** The poster board surface is 48" high and 96" wide. Poster presenters must supply their finished poster and the push pins to display their poster.

Tours



Tours

AgriTravel of Denver will have a table in the registration area to provide information for individual travel, commercially available tours, day trips to Central City and locally available attractions.

All tours will depart and return from the Colorado Convention Center.

Please note that all tours are based on sufficient interest; tours may be consolidated if registrations for the individual tours are inadequate.

Tour A

Monday, July 27, 1998; 8:30 a.m. - 5:00 p.m.

Northern Colorado Agricultural Tour

Cost \$29 (Lunch is included.)

This tour will showcase the agricultural variety in Northern Colorado with stops at a large cattle feedlot and large lamb feedlot in the fourth richest agricultural county in the United States. You will also tour a large commercial dairy and visit the Foothills Campus of Colorado State University to tour the Animal Reproduction and Biotechnology Laboratory (ARBL) and the Equine Center.

Tour B

Tuesday, July 28, 1998 9:00 a.m. - 4:00 p.m.

Denver City and Foothills Tour

Cost \$24 (Lunch is on your own.)

This tour will feature the Denver area and attractions such as the United States Mint, Unsinkable Molly Brown House, Governor's Mansion, Sixteenth Street Mall, Mile High Stadium and the town of Golden. Stops will be made at the Colorado State Capitol Building, Red Rocks Park and Amphitheater, Buffalo Bill's Grave and Museum on Lookout Mountain and the Coors Brewery.

Tour C

Tuesday, July 28, 1998 4:00 p.m. - 10:00 p.m.

Central City and Blackhawk

Cost \$10 (Dinner is on your own.)

Take a ride into the foothills west of Denver and follow the route of the miners and railroaders to the old gold mining towns of Central City and Blackhawk. This tour will take you to the "richest square mile on earth" as Central City was known in its mining heyday. This area is now a National Historic District and one of only three towns in Colorado where limited stakes gambling is allowed. There will be time to stroll around town, take the shuttle between casinos, eat and gamble.

Tour D

Tuesday, July 28, 1998 5:30 p.m. - 11:30 p.m.

Central City and Blackhawk

Cost \$10 (Dinner is on your own.)

This is the same tour as C with a later departure time.



Tour E

Wednesday, July 29, 1998 8:00 a.m. - 5:00 p.m.

Estes Park and Rocky Mountain National Park

Cost \$32 (Lunch is on your own.)

Travel north from Denver through coal, oil and natural gas fields and the western edge of the fourth richest agricultural county in the United States. At Loveland we will continue west up the Big Thompson Canyon, past its water diversion projects to the town of Estes Park. In Estes Park, there will be time for shopping and lunch on your own at the many restaurants and cafes. We will then pass into Rocky Mountain National Park up through the alpine tundra and over North America's highest continuous highway at 12,183 feet to the Alpine Visitors Center. Return to Denver will be by way of Lyons, Longmont and the North Saint Vrain River Route.

Tour F

Thursday, July 30, 1998 8:00 a.m. - 5:00 p.m.

Colorado Springs/Air Force Academy/Garden of the Gods and Pikes Peak Cog Railway

Cost \$27 (Lunch is on your own.)

Travel down the valley highway through one of the fastest growing counties in the United States, past Castle Rock and Greenland Ranch to Pikes Peak Country. We will spend the day in the shadow of 14,110 foot Pikes Peak and see what inspired Kathryn Lee Bates to pen the words to "America the Beautiful". We will then travel through the towering red sandstone formations of the Garden of the Gods city park. There will be time to stroll the streets of the historic areas of Old Colorado City or Manitou Springs. We will also visit the officer training facility and "university for the Air Force", better known as the United States Air Force Academy before returning to Denver.



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)



Schedule

- 1:00 p.m.-5:00 p.m. Growth and Development Symposium on Transgenic Technology, Techniques, Application, and the Future (Colorado Convention Center, Ballroom 4)
- 1:00 p.m. - 5:00 p.m. Contemporary Issues Committee and Regulatory Agencies Committee Symposium on ADAA: Will Recent Legislative Changes Make Animal Drugs More Available? How Has the Animal Scientist's Role Changed? How Will It Affect the Animal Industry? (Colorado Convention Center, Room A105/107)
- 1:30 p.m.-5:00 p.m. Beef Symposium on The Role of the Animal Scientist in Beef Production Alliances (Colorado Convention Center, Room A205)
- 1:30 p.m.-5:00 p.m. Goat Symposium on Prospects of the US Dairy and Meat Goat Industry (Colorado Convention Center, Room A212)
- 2:00 p.m.-5:00 p.m. Animal Health Roundtable Discussion on Nutrition and Immune Function (Colorado Convention Center, Room A209)
- 2:30 p.m.-4:00 p.m. Physiology and Milk Synthesis Symposium on Male Reproduction (Colorado Convention Center, Room A201)
- 6:00 p.m.-7:45 p.m. ASAS Award Photo Session (Adam's Mark)
- 8:00 p.m.-9:00 p.m. ASAS Awards Program (Adam's Mark)
- 9:00 p.m.-10:00 p.m. ASAS Ice Cream Social (Adam's Mark)

Friday, July 31

- 6:30 a.m. 1999 ASAS Program Chairs' Breakfast
- 6:30 a.m.-7:45 a.m. ASAS Extension Specialists' Breakfast (Adam's Mark)
- 8:00 a.m. 2000 Joint Planning Committee Meeting
- 8:00 a.m.-12:00 p.m. REGISTRATION (Colorado Convention Center, Lobby A)
- 8:00 a.m.-12:00 p.m. Oral Sessions (Colorado Convention Center)
- 8:00 a.m.-11:00 a.m. Teaching Roundtable Discussion on the Role of ASAS and ADSA in the Development and Dissemination of Educational Materials (Colorado Convention Center, Room A202/204)
- 12:00 p.m.-1:30 p.m. ASAS Board Meeting (Adam's Mark)

ADSA STUDENT AFFILIATE DIVISION SCHEDULE

Monday, July 27

- 7:00 a.m.-8:00 p.m. Registration (Colorado Convention Center, Lobby A)
- 11:00 a.m.-5:00 p.m. Student Dairy Clubs Set Up Exhibits (Colorado Convention Center, Exhibit Hall A)
- 1:00 p.m.-3:00 p.m. Student Affiliate Division Officers and Advisors Meeting (Executive Tower Inn)
- 3:00 p.m.-5:00 p.m. Student Affiliate Division Mixer (Executive Tower Inn)
- 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

- 7:00 a.m.-5:00 p.m. Registration (Colorado Convention Center, Lobby A)
- 8:00 a.m.-5:00 p.m. Student Dairy Club Exhibits (Colorado Convention Center, Exhibit Hall A)

Schedule



9:00 a.m.-11:00 a.m.	Student Affiliate Division Business Meeting - Officer Candidate Nominations
10:00 a.m.-12:00 p.m.	Student Affiliate Division Judging of Yearbooks, Scrapbooks, Annual Reports, Outstanding Advisor and Outstanding Student
11:00 a.m.-12:00 p.m.	Student Affiliate Division Activities Symposium
1:00 p.m.-3:00 p.m.	Student Affiliate Division Production Undergraduate Paper Presentations
3:00 p.m.-5:00 p.m.	Student Affiliate Division Dairy Foods Undergraduate Paper Presentations
9:00 p.m.-12:00 a.m.	Student Affiliate Division Dance (Executive Tower Inn)

Wednesday, July 29

7:00 a.m.-5:00 p.m.	Registration (Colorado Convention Center, Lobby A)
8:00 a.m.-5:00 p.m.	Student Dairy Club Exhibits (Colorado Convention Center, Exhibit Hall A)
8:30 a.m.-10:00 a.m.	Student Affiliate Division Business Meeting - Election of Officers and Advisors
10:00 a.m.-11:30 a.m.	Student Affiliate Division Careers Symposium
12:00 p.m.-2:00 p.m.	Student Affiliate Division Awards Luncheon (Executive Tower Inn) Speaker - Dr. Thomas G. Field
2:00 p.m.-4:00 p.m.	Student Affiliate Division Committee Meeting - Old & New Officers and Advisors
2:00 p.m.-4:00 p.m.	Attend Scientific Sessions and Exhibits (Convention Center)
2:00 p.m.-5:00 p.m.	Professional Career Skills Session, "The Art of Selling Yourself", ASAS Teaching Committee (Colorado Convention Center, Room A1 08)
5:00 p.m.	Dismantle Club Displays
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

8:00 a.m.-5:00 p.m.	Opportunity to Attend Scientific Sessions and Exhibits
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SAD Awards Luncheon

Awards will be presented for the following categories: Outstanding Student, Chapter, Advisor, and Yearbook. Student Paper Presentation Award winners and scholarship winner 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.



Youth Program

Due to the numerous opportunities in the Denver area, no special youth programs or tours have been scheduled. For a list of area attractions especially suited for families, refer to page 35 or contact the Denver Convention & Visitors Bureau at telephone given on page 1.

Hospitality Room

The hospitality lounge, located in the Colorado Convention Center offers adults a place to relax, get acquainted, and enjoy light refreshments. Information on scheduled ADSA-ASAS activities and meetings and highlights of the Denver area will be posted and/or available here. The hospitality room is in the immediate vicinity of the ADSA-ASAS Registration Area, meeting rooms, and the departure and return location for the bus tours. Hours will be posted in the registration area as well as in the first Joint Meeting Newsletter.

Denver Entertainment

Colorado Rockies Major League Baseball Club

The Colorado Rockies will be in town during the week of the convention. They will play the St. Louis Cardinals July 26th at 6:05 p.m., then meet the Pittsburgh Pirates for a three game series July 27, 28 and 29. Each of these games will be at 7:05 p.m. Tickets for the Rockies sell quickly. Tickets for each of these games will go on sale in late February. "Rockpile" tickets (\$4 for adults, \$1 for children) are sold in advance, but some are also reserved for day-of-the-game sales. For all ticket prices and availability call 1-800-388-ROCK.

Elitch Gardens Amusement Park

Modeled after the great parks of Europe, this is America's only downtown amusement park, complete with \$100 million worth of attractions including 21 thrill rides, shows, formal flower garden, restaurants and a kiddy-land. Regular one-day ticket prices are \$23.95 for those 48" tall and above, \$12.95 for those less than 48" and \$15.95 for those ages 55-70 and the physically challenged. Children 3 and under and adults 70 and over are free. Please note that **Premier Club Cards** will be available in your conference registration materials. These cards discount the regular price by \$3/day on weekends and \$7/day on weekdays. For additional information call (303) 595-4FUN.

Water World



America's largest family water park features 32 attractions on 65 beautifully landscaped acres, including two ocean-like wave pools, twisting water slides and whitewater raft adventures. One-day ticket prices are \$19.95 for adults and \$18.95 for children under 12. For more information, call (303) 427-SURE.



Lo-Do

Short for “Lower Downtown” this 26-square block historic district is now the hottest entertainment district in the West with 65 bars, restaurants and brew pubs and over 40 art galleries.

16th St. Pedestrian Mall

Located on 16th St. between Market and Broadway, this mile-long pedestrian plaza is lined with restaurants and stores. The “Mall” is the heart of the city. There are 10 outdoor cafes and dozens of benches, making this the best people watching spot in the Rockies. Street performers, chess players, pedicabs, and horse-drawn carriages...there’s always something happening on the Mall. Free buses shuttle back and forth as often as every 90 seconds. The Mall is located within easy walking distance of each of the convention hotels.

Denver Dining

There are numerous food courts and more than 50 restaurants and brew pubs within walking/shuttle distance of the 16th St. Mall. The Denver Metro Convention & Visitor’s Bureau’s Dining Desk is a free restaurant reservation service designed to you know about Denver’s world-class dining opportunities from casual to elegant. The Dining Desk is staffed with experienced reservation personnel and can help you choose an enjoyable and pleasant dining experience.

Denver Shopping

16th St. Mall

Located within easy walking distance of each convention hotel, the 16th St. Mall is home to hundreds of shops, restaurants and department stores. Shuttle buses offer free transportation up and down the mile long mall.

Cherry Creek Shopping Center

Denver’s largest shopping scene is centered around First Ave. and Detroit. On the south side of the street is an ultra-deluxe mall with Saks Fifth Avenue, Neiman Marcus, Lord & Taylor, Foley’s and more than 140 specialty shops. On the north side, 300 one-of-a-kind boutiques, art galleries, cafes, restaurants and shops can be found on tree-lined streets.

The Tabor Center

This two-block long, glass-enclosed, sunlit shopping center has over 60 stores on three levels. Located on 16th Street Mall.

Castle Rock Factory Outlet

Colorado’s largest outlet mall is just 25 minutes south of downtown Denver on I-25.

Park Meadows Shopping Center

The latest addition to Denver’s shopping scene offers Nordstrom, Dillard’s and 115 other specialty shops. Located at I-25 South and Dry Creek Road.



Area Attractions

Colorado State Capitol

Enjoy free tours on weekdays or climb 93 steps to the open-air rotunda for the best panoramic view of Denver and the mountains.

Denver Art Museum

Over 40,000 art pieces are on display, including 17,000 Native American art objects, considered by many to be the finest collection of its kind in the world.

US Mint

Learn how to make money! Over 10 billion coins are stamped here each year. Free tours on weekdays include stops at a money museum and a coin gift shop.

Museum of Western Art

The third largest collection of Western art covers all periods and includes masterpieces by Remington, Russell, Bierstadt, Moran and Georgia O'Keefe.

Molly Brown House

The Victorian home of "Unsinkable Molly Brown," who was made famous by the Broadway musical and movie based on her adventurous life.

Denver Museum of Natural History

The fifth largest museum of its kind, it is a maze of dioramas, dinosaurs, gems and exhibits. Prehistoric Journey traces the history of life on Earth through 3.5 billion years, while the Hall of Life offers "hands-on" health science exhibits. Includes an IMAX theatre and Planetarium.

Denver Zoo

Home to more than 3500 animals, it is considered one of the top ten zoos in America. The new \$14 million Primate Panorama offers an up close and personal look at gorillas, while Tropical Discovery is a trip to a rainforest with a jungle river teeming with crocodiles.

Denver Botanic Gardens

A tranquil spot with a Japanese garden, rose garden, rare high-altitude mountain wildflowers and tropical conservatory.

Area Attractions



Children's Museum of Denver



A place of wonder, discovery and excitement for kids is the only year-round ski slope in North America, plus many other adventures.

Rocky Mountain National Park



One of the most scenic spots in the nation, the park offers 412 square miles of lakes, meadows, wildflowers, waterfalls, hiking trails, wildlife and horseback riding. The resort village of Estes Park has shopping and dining at the eastern entrance to the park.

Butterfly Pavilion and Insect Center



Features a lush tropical forest filled with up to 1,600 free-flying butterflies. There is also an insect center, gift shop, outdoor gardens and many fun, educational exhibits.



Decision Case

This year's program will include a decision case sponsored by the Dairy Management Committee. The decision case session enables participants from a variety of disciplines to engage in meaningful discussion. The case documents an actual situation that is presented to participants in an unbiased, multidimensional perspective. It is based on a real-life, unresolved problem that places the participants in a decision-making role. In this role the participant must analyze the situation and identify the key issues surrounding possible objectives, outcomes, and options.

The case title is *The Final Permit*. It documents the dilemma posed by investing in an existing dairy with the potential for adverse future environmental regulations. The current owners need to expand the dairy to reach their retirement goal in 15 years. However, environmental regulations in force at that time might prohibit issuance of a new permit when the dairy is sold, thus jeopardizing the retirement plans.

Anyone interested can participate in the Decision Case session. **Familiarization with the case prior to attendance is strongly encouraged.** There are several ways to get case materials.

- Request the *1998 Decision Case Documentation Packet* from ADSA Headquarters by calling (217) 356-3182 or sending e-mail to ADSA@assoqhq.org. You will be sent a printed copy of the decision case narrative and exhibits. Supplementary materials in electronic format will not be included.
- Visit the decision case web site at: <http://www.dairystrategies.com/dc/ADSA98>. The web site contains a variety of materials including:
 - The case narrative and exhibits in Adobe Acrobat format.
 - Input data files for all software programs referenced in the case.
 - Free or shareware applications used in the case.
 - Ordering instructions or hyperlinks to commercially available software referenced in the case.
- Printed copies of the case will be distributed at the Decision Case session during the annual meeting.

The Final Permit

Will Environmental Policy Crack the Retirement Nest Egg?

Peter and Mary Cary were just making ends meet, working hard and long hours, and barely maintaining their equity. They felt their hard work should have bigger rewards. Their son Jim, a recent high school graduate, thinks he is interested in farming but doesn't like milking cows. Working together they had increased the production of their 65 cows from about 16,000 in 1992 to over 21,000 in 1995 with assistance from a dairy advisory team. They recognized the increase in milk production was responsible for the improved cash flow and improved equity position. They gained a new level of confidence in what was possible and saw future opportunities with the dairy. Income available for family living had improved to about \$22,000. This met their financial obligations, but they recognized that their savings for retirement and farm net worth were not growing to meet their retirement hopes or support Jim's potential entry into the business. They had gladly dedicated long hours every day to working for the farm business but now wanted some free time away from the farm. Their retirement dreams and keeping Jim on the farm were at risk if something wasn't done to increase income and ease up on the intensity of the work and the long hours. It was time to take stock of where they were and explore options. This took a lot of soul searching about what they wanted their future to be. To realize their vision, farm income needed to be increased to pay down debt faster, provide for retirement savings, improve family living draws, support a better life style, and make an opportunity for Jim if that was his long-term wish. Doing nothing jeopardized their hope, but putting all they had accomplished at risk was not reasonable. Their debt to asset ratio was at 52% and stretching that beyond 60% was beyond their comfort zone.

Expanding the dairy incrementally made the most sense. They felt the long-term future was in a modern dairy unit with free stall barns and a labor-efficient pit parlor for milking. The current



outdated dairy would not sell well in 15 years but a modern facility could. This led them to consider growing the dairy to 500 cows someday. They began exploring options that would help them reach their goals and be within their means and comfort zone. To minimize risk they developed a plan for growing the herd size over time in steps. They wanted to be debt-free in retirement within 15 years and pass on a viable healthy dairy business that Jim or someone else could purchase at an appreciated value.

Peter and Mary own 178 acres and rent another 140, for a total of 318 acres. Maintaining 500 cows on 318 acres and removing the youngstock from the farm will give them 650 animal units, more than 2 animal units per acre. They live in a county where permitting dairy farms is already more difficult than in many regions of the U.S. because of local public concern over pollution of ground waters and waterways by farming. Peter and Mary take pride in farming in a responsible and environmentally sustainable way. They have an environmental goal to add no more nitrogen or phosphorus to the fields than can be removed by the crops. However, many of their fields already test in the very high range for phosphorus. Increasing cow numbers will almost certainly force them to compromise their self-imposed environmental goal. Equally troubling are how new legislation might impact a dairy operation over the next 15 years. They are aware of national furor over the pfiesteria outbreaks in the east and other non-point source pollution concerns and fear this signals more stringent environmental regulations in the future. When they reach their planned retirement age and the future owner seeks a new permit, will their retirement nest egg be safe? Or will their dairy be polluted with phosphorus and ineligible to be sold as a modern dairy operation? What must they do today to ensure their retirement plans? Who can help them answer these questions?

Unanswered is the question, "How can they realize their vision of increasing their family living , growing their net worth with more time for themselves, planning for a comfortable retirement, and supporting Jim's potential entry into the business while being good stewards of the environment? What are the options? What are the limitations? What are the risks?



Commercial Exhibits

Who Will Be Attending?

More than 3,000 dairy and animal industry professionals representing nearly every major university, extension department, governmental agency, and agricultural corporation worldwide will come together for an exchange of scientific information. ADSA and ASAS members are the decision makers you need to meet.

Exhibits will be located in Exhibit Hall A of the Colorado Convention Center.

Who Should Exhibit?

You should exhibit if you provide any of the following:

- Animal Feeds and Ingredients
- Animal Production Equipment and Housing
- Artificial Insemination and Embryo Transfer Equipment and Supplies
- Computer Hardware and Software
- Flavoring Ingredients
- Food Processing Equipment
- Food Products and Packaging
- Industry Publications
- Information Services
- Laboratory and Testing Equipment and Supplies
- Pharmaceuticals
- Textbooks and Teaching Aids
- Veterinary Supplies

Booth Rates

All spaces 10' X 10'

Zone A (Corner spots) - \$950.00

Zone B - \$850.00

(see floor plan on the next page)

Exhibit form located on page 38 of this booklet.



EXHIBIT SCHEDULE

Setup:

Monday, July 27 11:00 a.m. - 5:00 p.m.

Exhibit Hours:

Tuesday, July 27 8:00 a.m. - 5:00 p.m.

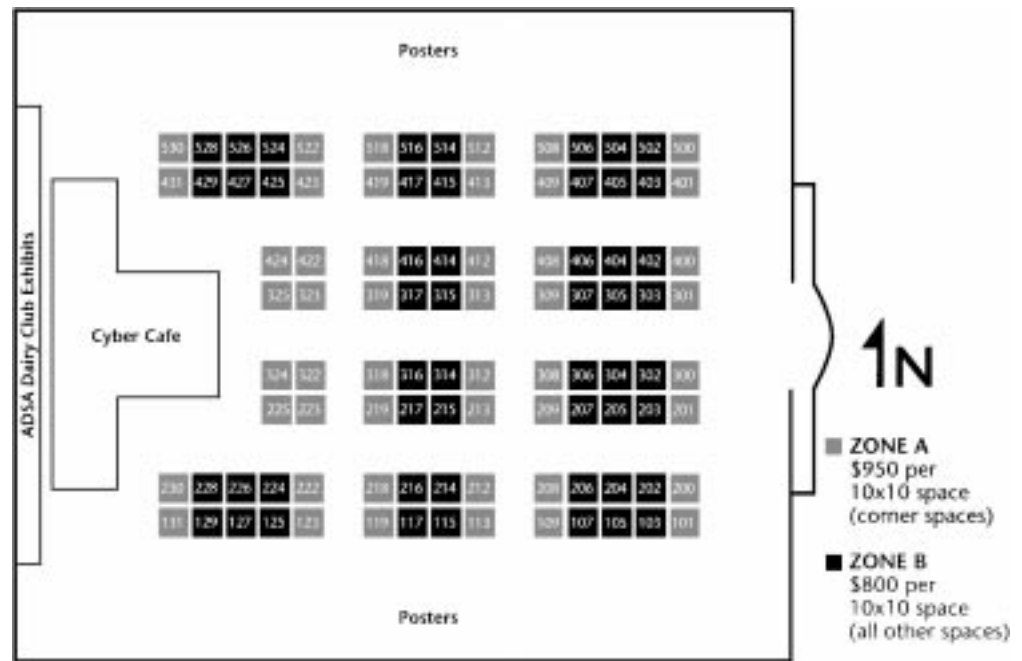
Wednesday, July 28 8:00 a.m. - 5:00 p.m.

Thursday, July 29 8:00 a.m. - 5:00 p.m.

Dismantling:

Thursday, July 29 5:00 p.m. - 8:00 p.m.

FLOOR PLAN:



Colorado Convention Center - Hall A Floor Plan