

Welcome to the Joint Meeting of ADSA–ASAS–PSA



Joseph O'Donnell
ADSA President



Terry Etherton
ASAS President



Tony Pescatore
PSA President

We're pleased you've joined us here in St. Louis to see old friends, make new ones, and exchange information with other scientists. This second joint meeting of the American Dairy Science Association, the American Society of Animal Science, and the Poultry Science Association will provide the very best in professional networking and educational opportunities.

We have an outstanding program this year that has something for everyone, including premeeting sessions on dairy foods sensory evaluation, biosecurity, and digestive physiology and metabolic challenges. In his keynote address, Dr. Christopher Delgado, senior research fellow at the International Food Policy Research Institute, will discuss the important topic of global meat and dairy products. The program includes a number of very topical presentations on animal health and welfare, as well as symposia on reducing the environmental impact of animal production, reproductive management, and food safety.

Last year, ASAS and ADSA changed the poster presentations format so that they took place in the morning, before symposia and oral sessions started, to accommodate networking. This format will be used again this year, with poster sessions from 7:30 to 9:30 each morning to allow you the opportunity to review and discuss poster displays.

Award ceremonies have been staggered—with the ASAS ceremony on Monday, July 26, the ADSA ceremony on Tuesday, July 27, and the PSA awards banquet on Wednesday, July 28—to allow you to attend one or all three. An old-fashioned ice cream social open to all will be held Tuesday night after the ADSA award ceremony.

The agenda for this year's meeting is a testament to the program organizers who have invested an enormous amount of time and effort in bringing distinguished scientists in animal agriculture and animal food products to one place. In addition to several invited speakers, this program represents 35 symposia and almost 2,000 presentations. Many thanks to the ADSA/ASAS/PSA program committees and staff of ADSA, PSA, ASAS, and FASS for their hard work. Our program committee, chair Larry Benyshek, John Carey, Joe Ford, and Chuck Schwab, along with FASS staff members Jennifer Gavel, Keely Roy, Lisa Sprinkle, and Kim Surles, did a fantastic job. A special thanks goes out to the executive directors of the three societies—Jerry Baker, Brenda Carlson, James Kessler, and Paula Schultz—for keeping everything headed in the right direction.

Thank you for participating in the ADSA–ASAS–PSA joint meeting and for making it a success.

Table of Contents

Welcome Letter	1
General Meeting Information	3
Headquarter Hotels	3
Transportation	5
Special Events	6
Award Donors	9
St. Louis Information	10
Exhibit Directory	16
Corporate Sustaining Members	27
Schedule of Events	29
ADSA SAD Schedule of Events	32
Downtown St. Louis Housing Map	33
America's Center Maps	34
Meeting Sponsors	36
Scientific Program Table of Contents	37
Scientific Sessions	43
Author Index	189
Program at a Glance	215

www.fass.org/2004

Important Message

In the event that protestors interrupt your meetings, please ignore them. Their goal is to attract attention. Any attention you give them will only help them. Please ignore them and continue your regular business. Convention staff has a plan in place to handle these situations, and they depend on your cooperation. If you are approached by the media for an interview, please politely refuse and direct them to the convention's media room where spokespersons are available. Keep your cool and walk the other way.

Thank you for your cooperation.

Survey of Meeting Attendees

The program committee has provided the meeting attendees an opportunity to help improve benefits to members and attendees. A survey will be available at the Cyber Cafe during the meeting. The survey should only take a few minutes to complete. When you use the Cyber Cafe to access the Internet or check emails, please take advantage of the opportunity to provide your input and complete the survey. Thank you!

General Meeting Information

Registration Hours

Registration will be located in Plaza Lobby North of the America's Center. Registration hours for the 2004 ADSA-ASAS-PSA Joint Meeting, including special symposia and other events, will be as follows:

Saturday, July 24 (pre-registered only)	10 am - 5 pm
Sunday, July 25	7 am - 7 pm
Monday, July 26	6:30 am - 4 pm
Tuesday, July 27	6:30 am - 3:30 pm
Wednesday, July 28	7 am - 3 pm
Thursday, July 29	8 am - 10 am

Headquarter Hotels

Adam's Mark - ASAS HQ

Fourth St. & Chestnut, St. Louis, MO 63102
Phone: (314) 241-7400; Fax: (314) 241-9839

Holiday Inn Select - Student HQ

811 North 9th Street, St. Louis, MO 63101
Phone: (314) 421-4000; Fax: (314) 421-5974

Renaissance Grand Hotel - ADSA and PSA HQs

800 Washington Avenue, St. Louis, MO, 63101, USA
Phone: (314) 621-9600; Fax: (314) 621-9601

Publicity/Public Relations/Media Center

Room 116 will serve as the Publicity and Public Relations Center. Publicity and news releases will be issued from this location.

Business Center

There is a business center located in the Plaza Lobby of the America's Center. There is also a Kinko's located in the Renaissance Grand across the street from the America's Center.

Speaker Ready Room

The Speaker Ready Room is located on the first floor of the America's Center in Room 120. This room will be available from 7 am - 5 pm each day of the meeting and will be equipped with an LCD projector, screen, and computer for presentation preparation.

Hospitality Lounge

This area, located in the Convention Center, Room 120, offers meeting attendees a place to relax, get acquainted, or catch up with old friends. It's also a convenient place when making plans with someone to meet at a specific location. Information on St. Louis will be posted and/or available here.

Poster Presentations

We have dedicated a two-hour block each morning for poster presentations only. The "open posters" will be from 7:30 am - 9:30 am Monday, Tuesday, and Wednesday in the Convention Center, Exhibit Hall 5. Oral sessions will not begin until 9:30 am Monday and Tuesday, and 10:30 am on Wednesday.

Each poster presentation will be scheduled for public viewing for the entire day, with the presenting authors available during the "open posters" time (7:30 am - 9:30 am). All posters should be mounted on the board one-half hour prior to the beginning of the day's session (posters open at 7:30 am). The exhibit hall will open at 6:15 am on Monday, July 26 - Wednesday, July 28. Posters must be removed by 5 pm each day.

The poster board surface area is 48" high and 96" wide. The top of the poster space should include the abstract number, title, authors, and affiliations. The lettering for this section should be at least 1" high. **Presenters must furnish their own tacks or push pins.**

Locating the Correct Poster Board

Please look for the poster board number as noted in the program. Each poster board will have a number, which corresponds to the number in the program. Monday posters will have an "M", Tuesday a "T", and Wednesday a "W" preceding the board number.

ARPAS Continuing Education Units

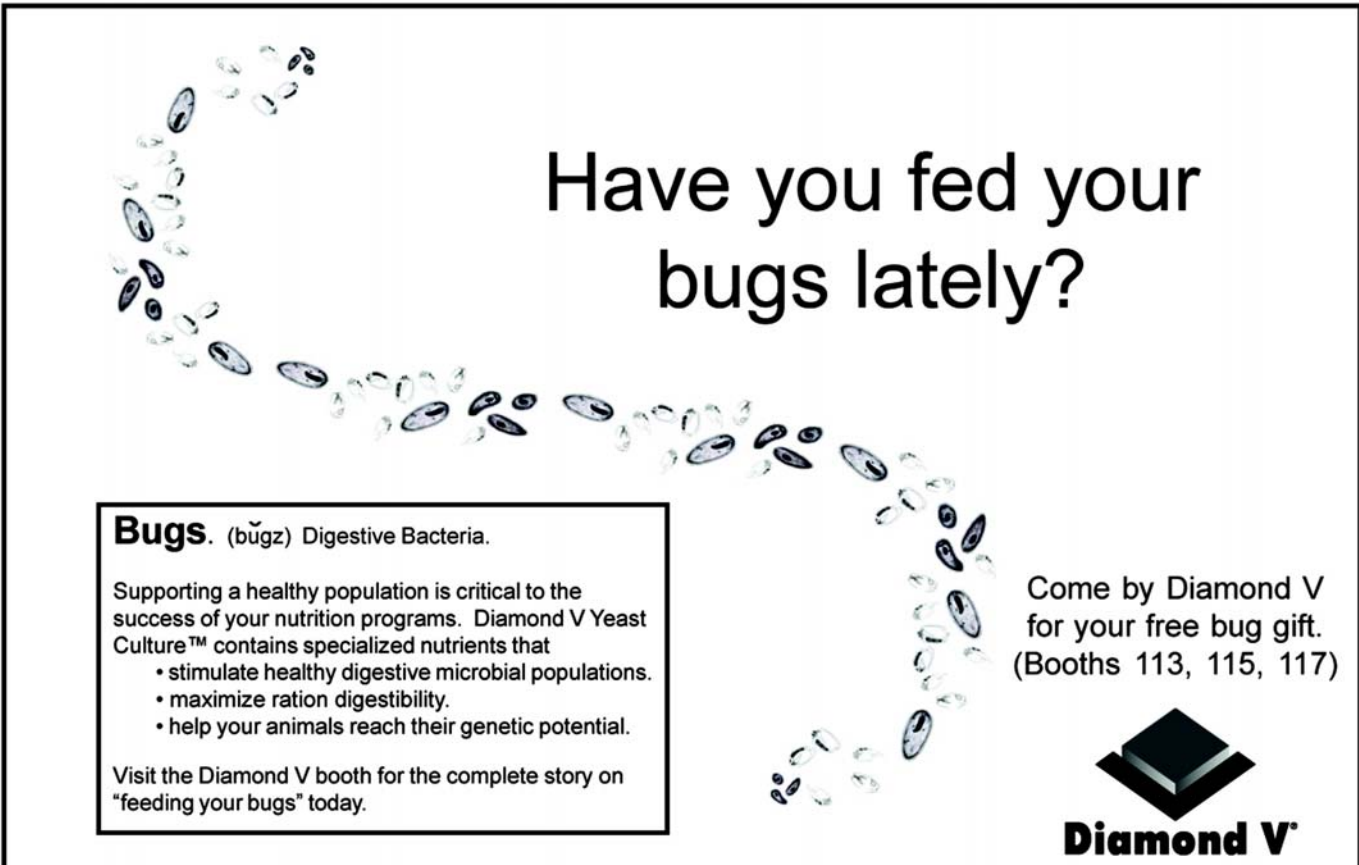
The ADSA-ASAS-PSA Joint Annual Meeting has been approved for up to 28 continuing education units (CEUs) for the American Registry of Professional Animal Scientists certification requirements. Check the schedule of events for the times and location of the exams.

Placement Center

The Placement Center is located in Exhibit Hall 5. The job center announcements and resumes will be organized into the following categories for posting and distribution: Animal Health, Environment, and Behavior; Breeding and Genetics; Extension; Food Science; International Animal Agriculture; Growth and Development; Lactation; Meat Science and Muscle Biology; Nutrition; Nonruminant Nutrition; Pharmacology and Toxicology; Poultry; Production and Management; Reproduction; Reproductive Physiology; Ruminant Nutrition; Teaching

Cyber Café and Internet Connections

Let technology keep you caught up with work and in touch with friends and family during the ADSA-ASAS-PSA Annual Meeting. The Cyber Cafe, sponsored by Diamond V Mills and DSM Nutritional Products, Inc., is located in Exhibit Hall 5. America's Center also has a complimentary Internet Cafe located in the Plaza Lobby and Wireless Internet connections available in selected areas (Washington Lobby, Plaza Lobby, and Second Floor Atrium) at no charge to the general public.



Have you fed your bugs lately?


Bugs. (bŭgz) Digestive Bacteria.

Supporting a healthy population is critical to the success of your nutrition programs. Diamond V Yeast Culture™ contains specialized nutrients that

- stimulate healthy digestive microbial populations.
- maximize ration digestibility.
- help your animals reach their genetic potential.

Visit the Diamond V booth for the complete story on "feeding your bugs" today.

Come by Diamond V for your free bug gift. (Booths 113, 115, 117)



Diamond V

Transportation

MetroLink

St. Louis' light rail system, MetroLink, has been called one of the best mass transit systems in the country. The clean, efficient trains are a big hit with visitors and locals alike who want to see many of St. Louis' attractions without a car. The system – which begins at Lambert-St. Louis International Airport and covers 38 miles – ends in suburban Belleville, Illinois and stops at 28 Missouri and Illinois stations in between.

MetroLink's trains pull into stations near many of St. Louis' visitor attractions. These stations, listed in bold, are near the following attractions: **Delmar/Loop** - Loop neighborhood via buses 58, 91, 97, 60 or 16; **Forest Park – Zoo**, Art Museum, History Museum, Science Center; **Central West End** - Central West End neighborhood, restaurants, Cathedral Basilica of Saint Louis; **Grand** - Saint Louis University, Cupples House, Museum of Contemporary Religious Art, Grand Center entertainment district theaters, Pulitzer Foundation for the Arts, Contemporary Art Museum, via buses 57, 70, 92, 15 or 42; **Union Station** - Union Station festival marketplace, restaurants, entertainment, hotels; **Civic Center** - Savvis Center arena, City Hall, hotels; **Stadium** - Busch Stadium, St. Louis Cardinals Museum, Bowling Hall of Fame & Museum, hotels; **8th & Pine** - Central downtown, restaurants, Kiener Plaza, Old Courthouse, hotels; **Convention Center** - America's Center convention complex, Edward Jones Dome, hotels; **Arch-Laclede's Landing** - historic district, entertainment, President Casino, restaurants, Gateway Arch, riverboat cruises, hotels; **East Riverfront** - Casino Queen.

A one-way ride on MetroLink costs \$1.25. Tickets may be purchased and validated at each station. Tickets from the airport station to downtown St. Louis cost \$3. Day Passes for MetroLink and MetroBus are \$4. Trains run every seven minutes during rush hours, every 10 minutes during non-rush hours and every 15 minutes in the evening during the week. A Free Ride Zone allows passengers to board at no charge from Union Station to Arch-Laclede's Landing and all stations in between, Monday through Friday, from 11:30 a.m. until 1:30 p.m. For schedule information, dial (314) 231-2345. TTY: (314) 982-1555.

MetroLink Shuttles

Three shuttle services take visitors from MetroLink stations to even more attractions. From the Forest Park Station, the #90 Hampton bus serves the Forest Park attractions. The Garden Express shuttle runs on weekdays only between the Central West End Station, the Missouri Botanical Garden and Tower Grove Park. The #58 Clayton-Ballas bus leaves from the Forest Park Station for Washington University, the Clayton neighborhood and the Galleria shopping mall. A one-way adult fare costs \$1.25.

MetroBus and Greyhound

The Bi-State system – called MetroBus (314) 231-2345 – serves most areas of St. Louis and St. Louis County. Call the Transit Information Center, Monday through Friday, or visit the MetroRide store in the Visitor Information Center at Seventh and Washington in downtown St. Louis from 8:30 a.m.-5:00 p.m. Buses generally run from 4:00 a.m. until 2:00 a.m. The fare is \$1.25. Greyhound Bus Lines (314) 231-4485 or (800) 231-2222 operates service to and from the St. Louis station at 1450 N. 13th Street.

St. Louis by Car

An easy-to-use network of interstate highways runs through St. Louis making it a short drive to attractions. From the east, I-70, I-64 and I-55 head west across the Poplar Street Bridge and into downtown St. Louis. I-70 swings through downtown, past the airport and west through Missouri. I-55 turns south past the Anheuser-Busch brewery and continues through southeastern Missouri. I-64, which the locals call Highway 40, continues west through St. Louis, past Forest Park and to the Missouri River. I-44 begins in St. Louis and runs southwest along the former path of Route 66 to Springfield, Missouri.

Vans, Taxis & Limousines

Trans Express Transportation (314) 428-7799 or (800) 844-1985 provides van service from Lambert-St. Louis International Airport to downtown hotels for \$13 one-way and \$21 round-trip. Other area hotels are also served.

Taxi companies maintain stands at the America's Center convention complex, at the Airport and at major hotels throughout St. Louis. Taxi drivers are uniformed and their vehicles must meet strict standards enforced by the St. Louis Metropolitan Taxicab Commission. Eleven limo services, offering everything from town cars to super-stretch vehicles, also operate in St. Louis.

Special Events

Dairy Foods Workshop

Saturday, July 24, 1:30 pm - 6 pm

and Sunday, July 25, 8:45 am - 1 pm

Convention Center, Room 225

Dairy Product Evaluation: Traditional and Descriptive Techniques is an 2004 ADSA Pre-Meeting Workshop intended for graduate and undergraduate students and others using sensory techniques in their dairy research, as well as those with a general interest in the sensory evaluation of dairy products. The first part of the workshop reviews traditional techniques used in USDA grading of dairy products, and focuses on the judging of Cheddar cheese and ice cream through lectures and practical training sessions. The second part of the workshop covers descriptive analysis, data interpretation and reporting techniques used in dairy research, and includes a practical training session using descriptive techniques for Cheddar cheese. This workshop brings together the expertise of Mr. R. Aschebrock, Dr. R.L. Bradley, Dr. R.T. Marshall and Dr. M.A. Drake for a comprehensive view of the sensory evaluation of dairy products. To facilitate travel to and attendance at the 2004 ADSA Annual Meeting, the workshop will be held from 1:30 pm to 6:00 pm on Saturday July 24 and from 8:45 am to 12:30 pm on Sunday July 25, 2004.

Opening Session

Sunday, July 25

7 pm - 8:30 pm

Convention Center, Rooms 220-229



“A Brave New World for Global Meat and Dairy: The Rise of the Developing Countries.” In September 2003, Christopher Delgado was appointed the founding Director of the Joint International Livestock Research Institute (ILRI)-International Food Policy Research Institute (IFPRI) Program on Livestock Market Opportunities. ILRI, based in Nairobi, Kenya, and IFPRI, based in Washington, D.C., are international agricultural research centers funded by the Consultative Group on International Agricultural Research (CGIAR), whose secretariat is headquartered in the World Bank. The Joint ILRI-IFPRI Program on Livestock Market Opportunities conducts collaborative research in a large number of developing countries, seeking market-oriented ways to increase the vital contribution of livestock to improved human welfare. Chris continues his twenty-five year affiliation with the Markets, Trade and Institutions Division of IFPRI, where he is also a Senior Research Fellow. In recent years, his work has focused on the growing markets in developing countries for livestock and fisheries products. Author or editor of five books and over one hundred articles in professional journals, he has taught or conducted research at the Center for Development Studies and Education in Chad, the University of Ouagadougou in Burkina Faso, the University of Michigan, the University of Puerto Rico, and the Johns Hopkins School of Advanced International Studies in Washington, D.C. Dr. Delgado received his Ph.D. in Economics from Cornell University and his undergraduate degree in Economics and Philosophy from Tufts University.

Opening Reception

Sunday, July 25

8:30 pm - 10 pm

Convention Center, Ballroom Foyer

End the evening on a sweet note by joining us in the Ballroom Foyer after the Opening Session for socializing with colleagues and friends over a delicious dessert buffet.

ASAS Awards Program

Monday, July 26

7 pm - 8:30 pm

Adam's Mark, St. Louis DE

All meeting participants, families, and friends are welcome to attend the 2004 ASAS Awards Program. Please join us at this special event congratulating the 2004 ASAS award winners at the Adam's Mark on Monday, July 26.

Graduate Student Mixer
Monday, July 26
9 pm - 12 am
Trainwreck on the Landing

Join your fellow graduate students from ASAS, ADSA, and PSA at a mixer at Trainwreck on the Landing. The mixer will be held on Monday, July 26 from 9 pm - midnight. Trainwreck (www.trainwrecksaloon.com) is an old-time saloon with a restaurant and sports theme. A 2nd story nightclub with high tech lights and music for 350 people wanting to dance the night away is also available. It is located in Laclede's Landing not far from the Convention Center and meeting hotels. This private party for graduate students will include refreshments served up in this establishment that used to be a mid-nineteenth century five-story warehouse, originally occupied by the Buck Stove Company. Come enjoy an event to meet and socialize with other graduate students.

Undergraduate Student Mixer
Monday, July 26
8:30 pm - 12:30 am
Holiday Inn Select

Come ready to rock on Monday, July 26 from 8:30 pm – 12:30 am at the SAD Dance. Plan now to be a part of this great night of dancing, refreshments and fun. This event is open to all meeting attendees, including students, advisors and anyone else looking for a fun evening.

5K Fun Run
Tuesday, July 27
6:30 am
Meet at America's Center

Join in the fun on Tuesday, July 27 at 6:30 am. Runners will leave from the Washington Street entrance of the America's Center. The scenic route will head to the Riverfront and go south to the Poplar Street Bridge and circle back to America's Center offering the runners a great view of the river and St. Louis Arch. Refreshments will be available at America's Center.

Spouses Luncheon
Tuesday, July 27
12 pm - 2 pm
Laclede's Landing

Gateway Arch Riverboats welcomes you aboard a cruise on the Mississippi. The Tom Sawyer riverboat is a replica of their 19th century predecessors; they have all the traditional steamboat charm, plus all the conveniences that modern vessels can offer. The Tom Sawyer vessel is located on the St. Louis Levee below the Gateway Arch. The Spouses lunch cruise is scheduled for Tuesday, July 27; boarding 12 pm; departing 12:30 pm; 1½ hour cruise with lunch. Take a trip back in time with the Captain's historic narration of St. Louis and learn of an era gone by.

ADSA Awards Program
Tuesday, July 27
7 pm - 8 pm
Renaissance, Majestic A-D

All meeting participants, families, and friends are welcome to attend the 2004 ADSA Awards Program. Please join us at this special event in congratulating all of our award winners on Tuesday, July 27 at the Renaissance.

2004 ADSA-ASAS-PSA Ice Cream Social
Tuesday, July 27
8:30 pm - 9:30 pm
Renaissance, Majestic A-D

The ADSA-ASAS-PSA Ice Cream Social will be held from 8:30 pm - 9:30 pm at the Renaissance. All meeting participants, families, friends, and award donors are invited to join us for the joint Ice Cream Social.

ADSA Foundation Auction & Raffle

Tuesday, July 27

8:30 pm - 9:30 pm

Renaissance, Majestic A-D

Also while enjoying your ice cream, take one more look at the silent auction items and place your last bid. The 2004 auction promises to be more exciting than ever, with more opportunity to get your hands on some fantastic items while catching up with old friends and making new acquaintances. More than 40 items have been donated to this year's event. Items include an array of milk bottles, framed art, dairy collectibles and much more.

Golf Tournament

Wednesday, July 28

12:30 pm

America's Center Lobby

The 2004 Golf Scramble is to take place at Far Oaks Golf Club in St. Louis on Wednesday, July 28 with a tee time of 1 pm. The bus will depart from the America's Center lobby at 12:30 pm.

PSA Awards Banquet

Wednesday, July 28

6 pm - 9:30 pm

Convention Center, Room 225/226

All meeting participants, families, and friends are welcome to attend the 2004 PSA Awards Banquet. Please join us at this special event in congratulating all of our award winners on Wednesday, July 28 at the America's Center Ballroom 223-224.

Discovery.

It's not just about finding something new. It's a sense of adventure. A sense of challenge. Discovery pushes us to theorize, analyze, scrutinize. It makes us excited for the future. It reminds us that we have only gotten so far. And it pushes us to go even further.

You're invited to attend the **Novus open house** exclusively for ADSA, ASAS and PSA meeting attendees.

Discover how Novus is delivering new, creative and better solutions to customers around the world, and enjoy food, refreshments and entertainment with a genuine St. Louis flair.

Discover Novus. Discover St. Louis.

Open House

Monday, July 26, 2004 • 6:00 p.m. to 10:00 p.m. Tuesday, July 27, 2004 • 10:00 a.m. to 2:00 p.m.

Novus International, Inc. Research Center
Missouri Research Park • 20 Research Park Drive • St. Charles, MO 63304

Transportation will be provided.

Visit Novus at tradeshow booth #323 for details.

NOVUS[®]
INTERNATIONAL, INC.

Growing. Forward.

ADSA-ASAS-PSA Award Donors

ADSA

Alltech, Inc.
 ABS Global, Inc.
 ADSA Foundation
 American Dairy Science Association
 American Feed Industry Association
 Cargill Animal Nutrition
 DeLaval Inc.
 DSM Food Specialties USA, Inc.
 Elanco Animal Health
 International Association of Food Industry
 Suppliers
 International Dairy Foods Association
 Kraft Foods
 Land O'Lakes, Inc.
 Land O'Lakes Farmland Feed/Purina
 Marschall Rhodia, Inc.
 Merial
 National Milk Producers Federation
 Nutrition Professionals, Inc.
 Pfizer Animal Health
 Pioneer Hi-Bred International, Inc.
 West Agro, Inc.

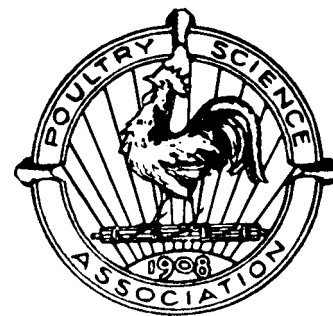
ASAS

ABS Global, Inc.
 American Feed Industry Association
 American Society of Animal Science
 Bouffault Award Fund
 DSM Nutritional Products, Inc.
 Elanco Animal Health
 Land O'Lakes/Purina
 Merial
 Monsanto Company
 Morrison Award Fund
 Omega Protein Corporation
 Pfizer Animal Health
 The Iams Company

PSA

Alltech
 American Egg Board
 American Feed Industry Association
 American Poultry Historical Society
 Hy-Line International
 Land O'Lakes/Purina
 Merck
 National Chicken Council
 National Turkey Federation
 Nicholas Turkey Breeder Farms
 Phibro
 Texture Technologies Corp.
 United Egg Products

Thank you for your support!



St. Louis Information

St. Louis is known around the world for its collection of fascinating attractions, great restaurants and exciting blues music and nightlife. But what was here on the banks of the Mississippi River before the modern, lively city you see today? Clues are all around in our museums, our architecture and our cosmopolitan outlook on life.

St. Louis was French and Spanish before it was American. And before the European explorers traveled down the great river, this rich land was home to the Mississippians, a mighty Indian civilization of mound builders where more than 20,000 people lived in the fertile river valley. When that culture disappeared during Europe's Middle Ages, only their huge, mysterious earthen structures were left, earning St. Louis its earliest nickname, "Mound City."

In 1764, French fur traders from New Orleans founded a city named for Louis IX, the Crusader King of France. St. Louis was built in Spanish territory on a high bluff just 18 miles south of the confluence of the Mississippi and Missouri rivers - a perfect site from which to trade with Native Americans in the fur-rich lands to the west. France regained rights to St. Louis and the west again in 1800, but Napoleon sold the Louisiana Territory to President Thomas Jefferson in 1803 without taking possession. Overnight the size of the United States had doubled.

When Jefferson sent explorers Lewis & Clark from St. Louis to chart the new Louisiana Territory in 1804, more than 1,000 people, mostly French, Spanish, Indian and both free and slave blacks, lived in the city which already was the center of the fur trade in America. Two years later, after the triumphant explorers returned from the Pacific with their Corps of Discovery, St. Louis became the last stop for mountain men and trappers heading to the newly opened frontier. St. Louis' booming fur trade lasted until 1840, but the westward movement of Americans through St. Louis - "the gateway to the west" - was to last for many more years. For decades, entrepreneurs would make fortunes in St. Louis by selling goods to pioneers and adventurers who gathered their supplies and headed west for land, gold and glory.

25 Things To Do in St. Louis

There's so much to see and do in St. Louis, here are just 25 of the hundreds of ways you can explore St. Louis for yourself:

1. Climb on the giant sculptures in Turtle Playground.
2. Attend one of St. Louis' fascinating ethnic festivals.
3. Explore the free attractions in Forest Park: the Zoo, Art Museum, Science Center and History Museum.
4. Visit St. Louis' historic neighborhoods for dining, shopping and mingling with the locals.
5. Meet Lady Luck on one of our glittering riverboat casinos.
6. Stroll through an authentic Japanese Garden or a tropical rain forest at the Missouri Botanical Garden.
7. Cheer for the Cardinals, Rams, Blues and other teams in North America's Best Sports City.
8. Board a space station at the Science Center's new Space Sciences Center.
9. Thrill yourself on the world-class rollercoasters at Six Flags St. Louis.
10. Mangia bene! Eat well on The Hill, St. Louis' Italian neighborhood.
11. Play Scott Joplin's ragtime tunes at the composer's restored historic home.
12. Talk to the animals at Grant's Farm and Purina Farms.
13. Follow the 1804 adventures of explorers Lewis & Clark at museums, historic sites and the confluence of the Mississippi and Missouri rivers.
14. Cruise the mighty Mississippi on a paddlewheel riverboat.
15. Find out how good feeling bad can be when you visit St. Louis' blues music clubs.
16. Follow Old Route 66 as the "Mother Road" winds through St. Louis.
17. Ride to the top of the Gateway Arch for a 30-mile bird's eye view of St. Louis.
18. Free your inner child at the Magic House, City Museum and other kid-friendly attractions.
19. Discover the past at the Old Courthouse and The Black World History Museum.
20. Dine in style in a city *Gourmet* magazine calls a "spirited and flavorful place."
21. Hit the road at Gateway International Raceway or the Museum of Transportation.
22. Count the mosaics at the beautiful Cathedral Basilica of Saint Louis.
23. Visit an ancient civilization at Cahokia Mounds, a United Nations World Heritage Site.
24. Taste the good life on a day trip to Missouri Wine Country.
25. Float through the Butterfly House & Education Center or the Butterfly Dome at the Zoo.

St. Louis Tour Options

With the abundance of things to do in St. Louis, there will be no formal tours offered during the 2004 ADSA-ASAS-PSA Annual Meeting. Listed below are some exciting tour options for you to consider while in St. Louis.

Gateway Arch

www.gatewayarch.com

Every year millions of visitors head for the Arch with one goal in mind: a journey to the top. This is where you'll get a stunning glimpse of the St. Louis region from a dizzying height of 630 feet. But how do you get to the top? You take a tram ride from the south or north leg of the Arch.

On your way to the top using the south leg, you'll return to an era in the 1800s when the St. Louis riverfront was bustling with steamboats, fur traders, and merchants. On your way to the top using the north leg, you'll be transported back to 1965 when construction workers wedged the last triangular Arch section into place.

Open 7 days a week 8 am – 10 pm. Adults - \$8; Children 13-16 - \$5; Children 3-12 - \$3

Gateway Riverboat Cruises

www.gatewayarchriverboats.com; (877) 982-1410

Step aboard a one-hour narrated cruise and your Captain will transport you back in time when steamboats ruled the river. Frequent departures daily from the levee below the Gateway Arch at 10:30, Noon, 1:30, 3:00, 4:30. Fares: \$10.00 adults; \$4.00 children (3 to 12 yrs); Infants are free

St. Louis Carriage Company

From the front door of the Adam's Mark Hotel or The Old Spaghetti Factory, step into one of our fine carriages and discover the quiet elegance of horse-drawn transportation.

Your comfortable carriage offers you a charming view of historic Laclede's Landing and the cobblestone riverfront with its variety of boats and bridges, and of the magnificent Gateway Arch, symbol of America's westward expansion. See also the Basilica of St. Louis IX, the Old Courthouse (of Dred Scott fame), the beautifully restored Union Station, St. Louis Soldiers Memorial, Busch Stadium and many other landmarks and famous attractions.

Downtown Rides: 15 Min - \$25.00; 1/2 Hour - \$45.00; 1 hour - \$80.00

Campbell House Museum

(314) 421-0325

The historic Campbell House Museum is one of the best-preserved 19th century buildings in St. Louis and is the last remaining vestige of the elegant neighborhood Lucas Place. From 1854 to 1938 the house was the home of prominent 19th Century entrepreneur Robert Campbell and his family. The museum opened in 1943 preserving not only the building, but the Campbell collection of original furniture, objects, light fixtures and more than 300,000 pages of family documents.

Campbell House is currently in the midst of a complete restoration using historic documents and photos from the Campbell family papers. Phase One was completed in 2001 at a cost of over \$2 million. This stage of the restoration corrected structural problems, installed new mechanical systems and returned the building exterior to its 1880s appearance. Phase Two, the interior decoration, started in 2002. This phase will accurately recreate the Victorian interior of the Campbell House when it was one of the centers of St. Louis society.

A visit to the Campbell House in 2004 represents a once in a lifetime opportunity to see the historic restoration of the house in progress and the discoveries made along the way.

The museum is located at the corner of 15th and Locust streets in downtown St. Louis. Museum hours through December 2004 are Wednesday through Saturday from 10 am to 4 pm. and Sunday from 12 p.m. to 4 p.m. Admission is \$4 per person, children 12 and under are free.

DeMenil Mansion & Museum

(314) 771-5828

The Chatillon-DeMenil Mansion, listed on the National Register of Historic Places, is one of only a handful of homes remaining that were built in the Greek Revival style in St. Louis. The home, built in three sections with the oldest part dating from 1848, was originally built by Henri Chatillon, a native of the Carondelet area of St. Louis and a hunter and guide for the American Fur Company. Chatillon was immortalized in historian Francis Parkman Jr.'s 1849 bestseller "The Oregon Trail" after their adventures together in the New Frontier. The DeMenil family purchased the home in 1856 and made two additions, 1861-3 and 1875 that transformed the farmhouse into the mansion it is today.

The museum is open 10 am - 4 pm, Tuesday-Saturday. The last tour of the day starts at 3:00 pm. (Opened January by appointment only). Admission: \$4, adults; \$3, groups over 20 or AAA cardholders; \$2 student groups over age 12; \$1, children under 12.

Anheuser Busch Tours

www.budweisertours.com

Your tour through the historic 100-acre plant in St. Louis, Missouri, just 3 minutes from the Gateway Arch, will follow the journey of how we create our great beers. You will also have the opportunity to visit the Anheuser-Busch Clydesdale paddock and stable, the beechwood aging cellars, our historic Brew House, the Bevo packaging plant, and everyone's favorite stop, the Hospitality Room. Check the web site to begin the journey of our great beers.

June-Aug: Mon-Sat, 9:00 am - 5:00 pm; Sun, 11:30 am - 5:00 pm

St. Louis Zoo

www.stlouiszoo.com

Free admission, several attractions have separate fees.; open 8 am - 7 pm, parking \$8 with limited street parking for free.



St. Louis Art Museum

www.slam.org; (314) 721-0072

The Saint Louis Art Museum is situated in Forest Park, one of the largest urban parks in the United States, just west of downtown St. Louis.

The museum is open Tuesday – Sunday from 10 am – 5 pm and has free admission. Some temporary displays may have a charge.

Grant's Farm

www.grantsfarm.com; (314) 843-1700

Grant's Farm is a 281-acre wildlife preserve and historical site located just south of the city of St. Louis and operated by Anheuser-Busch, Inc. The farm is home to hundreds of exotic animals from around the world.

The farm takes its name from our 18th president of the United States of America, Ulysses S. Grant. In the 1850's, Ulysses S. Grant farmed a portion of the 281 acres. The land, which later became the ancestral home of the Busch Family, today is preserved as a living symbol of the family's love for animals and Anheuser-Busch's commitment to wildlife conservation and preservation.

The park is open Tuesday – Friday, 9 am – 3:30 pm. Admission is free with a \$5 parking fee.

St. Louis Union Station

www.stlouisunionstation.com

St. Louis Union Station, once the largest and busiest passenger rail terminal in the world, is now one of America's great marketplaces. Union Station first opened in 1894, but ceased operation as an active train terminal in 1978. Union Station reopened in August of 1985 as the largest adaptive re-use project in the United States.

Today, this 109-year-old National Historic Landmark of unmatched beauty and elegance has been dramatically restored and redeveloped as a dynamic mixed-use project that includes great shopping, delicious dining and fabulous entertainment.

St. Louis Union Station houses a 539 room Hyatt Regency Hotel, luxury offices, a lake, four active train tracks and a plaza for festivals, concerts and other special events. The century-old St. Louis Union Station boasts a unique and colorful history as well as a bright future. St. Louis Union Station is truly a shopper's delight with over 90 shops and restaurants to choose from. An important part of the Station's special appeal is the variety of unique retail shops, offering everything from fine fashions to one-of-a-kind gifts.

Missouri Botanical Gardens

www.mobot.org; (314) 577-9400

Open 9 am to 5 pm daily. Admission is \$7 for ages 13-64. Narrated trams circle the grounds with stops at various locations, weather permitting, and visitors may reboard a later tram. Tram tickets are \$3 per person (free for children 2 and under). Free public tours at 1 pm daily.

Has your organic zinc lost its magic?



Maybe you're feeding the wrong zinc.

Two university trials demonstrated statistically greater bioavailability from zinc proteinate (chelate), when compared to zinc methionine complex.

This may explain why you may not be getting the same response from your current zinc complex as you did in the past.

These research studies were reported in the Journal of Animal Science and Animal Feed Science & Technology

Want to know more?

Talk with your nutritionist about this research. Or, for more info, email CMC at: cmc@chelatedmineralscorp.com

© 2004 Chelated Minerals, Corporation | Products Made in the USA

 **Chelated Minerals Corporation**

Your Quality Chelate Manufacturer

3310 West 900 South | Salt Lake City, UTAH 84104

Day Trips From St. Louis

Missouri Wine Country

Traveling west from St. Louis, day trippers will find themselves in the rolling, green hills of the Missouri River valley where immigrants from Germany's Rhine River planted vineyards, constructed wine cellars and created America's first wine district.

Along Highway 94, wineries perch on river bluffs overlooking the site where Daniel Boone once lived. To see the famous pioneer's home, stop in at Historic Boonesfield Village (www.geocities.com/Athens/Parthenon/7109), (636) 798-2005, near the town of Defiance. In Augusta, sit back and enjoy the view at the Mount Pleasant Winery (www.mountpleasant.com), (800) 467-WINE or (636) 482-WINE, located on top of a beautiful terrace high above the river valley.

Sample wines, listen to live music and nibble on snacks from the winery's bistro. Bikers and hikers will enjoy the area's KATY Trail (www.mostateparks.com/katytrail.htm), a former railroad right-of-way converted into a scenic path through the valley.

In the picturesque town of Hermann, Missouri's German heritage is celebrated with Old World enthusiasm. Visit the Stone Hill Winery (www.stonehillwinery.com), (573) 486-2120 or (800) 909-WINE, where visitors are welcome for tours, tastings, just-for-fun grape stomping, food and music throughout the year.

In the heart of Missouri Wine Country, the charming town of Washington offers restaurants, gift shops and galleries along the river where visitors can shop, dine and relax before heading back to St. Louis.

From St. Louis, take I-70 west to Hwy. 19 south into Hermann (70 miles). Travel back to St. Louis along scenic highways 94 or 100 which lead through the towns of Missouri's Wine Country. For more information, contact the Missouri Weinstrasse Association (888) 667-9463. For more information on Washington, MO, dial (888) 792-7466 or (636) 239-7575, or visit www.washmo.org.

Historic St. Charles

Located just 30 minutes west of downtown St. Louis, this charming community on the Missouri River was founded in 1769 and served as the state's first capital. Explore South Main Street where more than 100 shops, restaurants and cafes welcome visitors to the beautifully preserved historic district. The Frenchtown area, known for its antique shopping, has 58 historic buildings of French Colonial and German architecture. Visit the Lewis & Clark Center (www.lewisandclarkcenter.org) to learn more about the famous explorers or try your luck aboard the expanded Ameristar Casino (www.ameristarcasinos.com). The First Missouri State Capitol (www.mostateparks.com/firstcapitol.htm) building and the Shrine of St. Phillipine Duchesne also are open for tours.

For more information, contact the Greater St. Charles Convention & Visitors Bureau at (636) 946-7776 or (800) 366-2427 or visit www.historicstcharles.com. From St. Louis, take I-70 west to the Fifth Street exit.

Kimmswick

Located south on I-55 just 30 minutes from downtown St. Louis, the tiny river town of Kimmswick was founded in 1859 by German immigrants. Today the community is a living museum stocked with homemade crafts, antiques, historic architecture and simple charms. Browse through specialty shops and enjoy a leisurely lunch at one of the town's famous restaurants known throughout the region for hearty Midwestern cuisine and tempting baked goods. Shops are open year-round and are closed only on Mondays. For more information, contact the Historic Kimmswick Visitor Center at (636) 464-6464.

Exhibit Schedule

Exhibit Hall 5

Exhibit Hours

Monday, July 26

7:30 am - 5 pm

Tuesday, July 27

7:30 am - 5 pm

Wednesday, July 28

7:30 am - 5 pm

Exhibitor Setup

Sunday, July 25

8 am - 5 pm

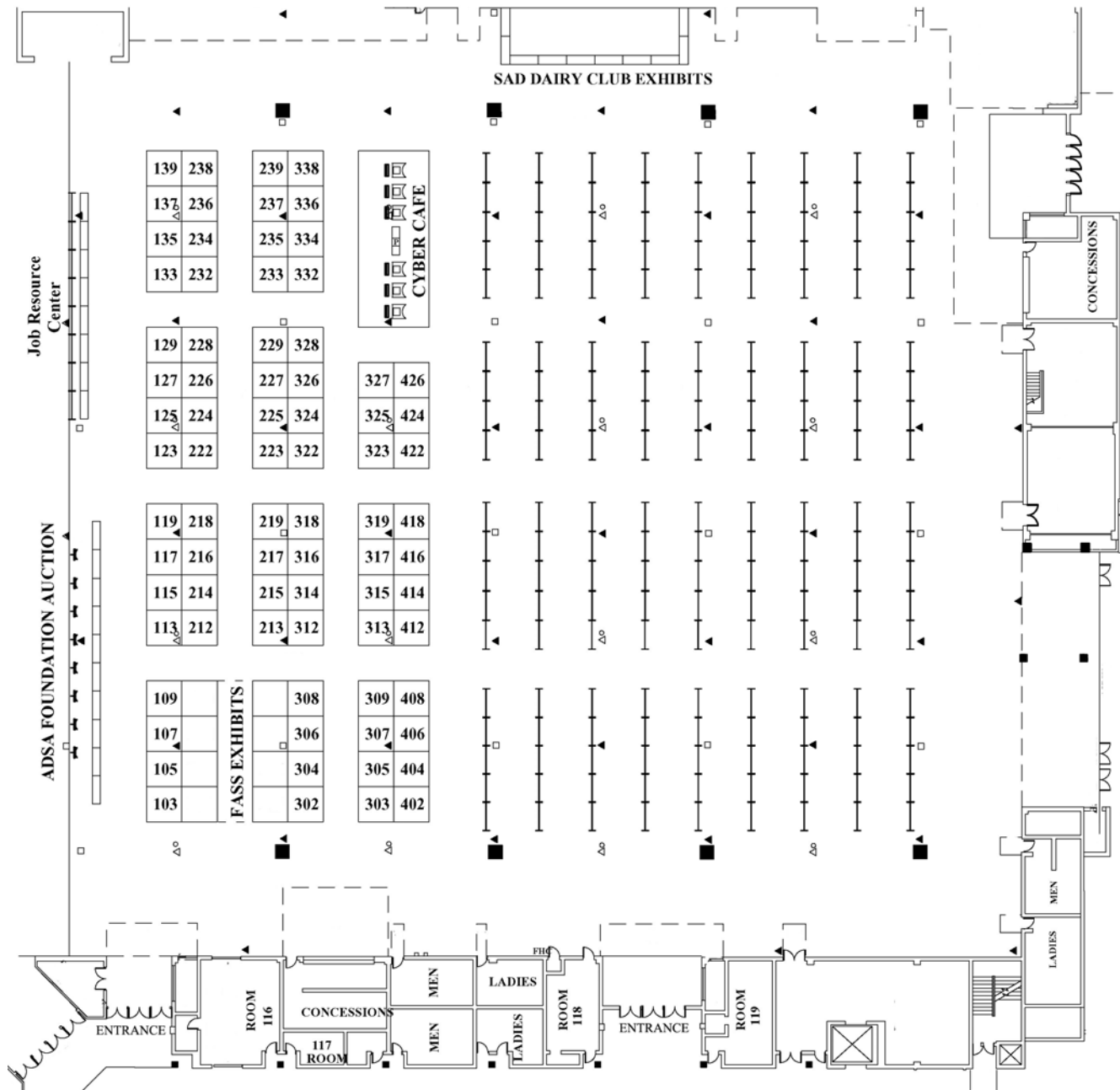
Exhibitor Teardown

Wednesday, July 28

5 pm - 8 pm

Exhibit Hall Floorplan

Exhibit Hall 5



Guide to Exhibitors/Booth Numbers

AAALAC International	214	DSM Nutritional Products, Inc.	404
Acadian Agritech.....	322	Elsevier.....	218
Adisseo	239	FARME Institute	406
Ag Processing Inc. - Amino Plus	307	Fats & Proteins Research Foundation	237
Alltech, Inc.	313, 315, 317, 319, 412, 414, 416, 418	FDA Center for Veterinary Medicine.....	316
ALOKA	308	Federation of Animal Science Societies (FASS)	208, 209
Alpharma.....	236	Feed Management Systems, Inc.	119
Alternative Design Manufacturing & Supply, Inc.	109	Feedstuffs Newspaper	213
American Dairy Science Association (ADSA)	202	Format International, Inc.	338
American Registry of Professional Animal Scientists (ARPAS)	207	GrowSafe Systems Ltd.....	332
American Society of Animal Science (ASAS)	204	Hoard's Dairyman.....	105
APC, Inc.	334	International Ingredient Corporation	305
Arm & Hammer Animal Nutrition Group	229	LignoTech USA/Soypass	227
A-Systems.....	228	MetaFarms, Inc.	225
Balchem Encapsulates.....	137	Mosdal Scale Systems, Inc.....	402
Bar Diamond, Inc.....	216	MS Specialty Nutrition	133
Biomim USA, Inc.....	107	Novus International, Inc.	323
Bioproducts, Inc.	215, 217, 219	Omega Protein, Inc.	408
BioSentry	233	PetAg, Inc.	212
BioZyme Incorporated	129	Pfizer Animal Health	314
Blackwell Publishing Professional	223	Pierce Biotechnology, Inc	302
CABI Publishing.....	326	Poultry Protein & Fat Council	139
Chelated Minerals Corporation	303	Poultry Science Association (PSA)	203
Chr. Hansen, Inc.	224, 226	Probiotech International Inc.	123, 222
Cotton Incorporated	422	Saf Agri/Lesaffre Feed Additives.....	235
CottonFloZ, LLC	312	SODA Feed Ingredients LLC	234
Council for Agricultural Science and Technology	135	Soybean Meal Information Center	325
Dairy Records Management Systems	306	SoyBest.....	327, 426
Dalex Computer Systems.....	324	Trouw Nutrition USA	328
Diamond V Mills	113, 115, 117	USDA, Agricultural Research Service.....	127
Distillers Grains Technology Council.....	304	USDA/Animal Welfare Information Center	125
		Varied Industries Corporation	309
		West Central Soy.....	318
		Western Yeast Company.....	424
		Zinpro Corporation	103

A special thank you to our
2004 ADSA-ASAS-PSA
Joint Meeting Exhibitors!

Exhibit Directory

AAALAC International
11300 Rockville Pike, Suite 1211
Rockville, MD 20902
Phone: (301) 231-5353; Fax: (301) 231-8282
Web Site: www.aaalac.org
Booth: 214

AAALAC International (the Association for Assessment and Accreditation of Laboratory Animal Care) offers accreditation and assessment services for agricultural and biomedical animal research programs. Earning accreditation demonstrates your institution's dedication to responsible animal care and use. It also assures customers, funding sources, students and partners of your commitment to quality research and good science. More than 650 institutions in 19 countries have earned AAALAC accreditation.

Acadian Agritech
30 Brown Avenue
Dartmouth, Nova Scotia B3B 1X8
Canada
Phone: (902) 468-2840; Fax: (902) 468-3474
Web Site: www.acadianseaplants.ca
Booth: 322

Tasco™ is a functional food designed to address critical production issues in today's beef industry. All-natural, Tasco™ helps modulate functions relative to health, productivity and stress resistance. Numerous University and producer trials have demonstrated cow/calf, stocker, starter and feedlot operations can benefit from feeding programs that include Tasco™.

Adisseo
3480 Preston Ridge Road, Suite 375
Alpharetta, GA 30005
Phone: (678) 339-1500; Fax: (678) 339-1600
Web Site: www.AdisseoNorthAmerica.com
Booth: 239

Ag Processing Inc. - Amino Plus
12700 West Dodge Road
Omaha, NE 68154
Phone: (402) 498-5559; Fax: (402) 496-6686
Web Site: www.amino-plus.com
Booth: 307

Alltech, Inc.
3031 Catnip Hill Pike
Nicholasville, KY 40356
Phone: (859) 885-9613; Fax: (859) 887-3256
Web Site: www.alltech.com
Booths: 313, 315, 317, 319, 412, 414, 416, 418

ALOKA
10 Fairfield Boulevard
Wallingford, CT 06492
Phone: (203) 269-5088; Fax: (203) 269-6075
Web Site: www.aloka.com
Booth: 308

Alpharma
One Executive Drive
Fort Lee, NJ 07024
Web Site: www.alpharma.com
Booth: 236

Alternative Design Manufacturing & Supply, Inc.
PO Box 6330, 3055 Cheri Whitlock Drive
Siloam Springs, AR 72761-6330
Phone: (479) 524-4343; Fax: (479) 524-4210
Web Site: www.altdesign.com
Booth: 109

American Dairy Science Association (ADSA)
1111 North Dunlap Avenue
Savoy, IL 61874
Phone: (217) 356-5146; Fax: (217) 398-4119
Web Site: www.adsa.org
Booth: 202

American Registry of Professional Animal Scientists (ARPAS)
1111 North Dunlap Avenue
Savoy, IL 61874
Phone: (217) 356-5390; Fax: (217) 398-4119
Web Site: www.arpas.org
Booth: 207

American Society of Animal Science (ASAS)
1111 North Dunlap Avenue
Savoy, IL 61874
Phone: (217) 356-9050; Fax: (217) 398-4119
Web Site: www.asas.org
Booth: 204

APC, Inc.
2425 SE Oak Tree Court
Ankeny, IA 50021
Phone: (515) 289-7600; Fax: (515) 289-4360
Web Site: www.functionalproteins.com
Booth: 334

APC, Inc. is the world leader in the development of functional proteins for animal health and nutrition. Products include: AP920 – petfood, weaning and sow diets, milk replacers and nutritional supplements; Solutein – water supplement during stress; Endure – companion animals; Biofend – aquaculture diets; New Uses – lactation diets & poultry applications.

Arm & Hammer Animal Nutrition Group
469 N. Harrison Street
Princeton, NJ 08543
Phone: (609) 279-7685; Fax: (609) 497-7176
Web Site: www.ahdairy.com
Booth: 229

The ARM & HAMMER® Animal Nutrition Group, a division of Church & Dwight Co., Inc., is the leading manufacturer of specialty dairy feed ingredients. Our family of products include: rumen buffer (ARM & HAMMER® Feed Grade Sodium Bicarbonate, SQ-810® sodium sesquicarbonate, ARMACAD® -G Feed Grade Sodium Sesquicarbonate and DCAD Plus® Feed Grade Potassium carbonate); rumen bypass fats (MEGALAC®, MEGALAC® -R and MEGALAC PLUS™ with 6% methionine equivalent); and rumen fermentation enhancers (BI-CHLOR® and FERMENTEN®).

A-Systems
41, rue des Chantiers
Versailles 78 000

France

Phone: 33 1 39 072675; Fax: 33 1 39 072677

Web Site: www.allix-formulation.com

Booth: 228

RUMINIX: Ruminant ration calculation. Allows the user to design his own model and add all the desired parameters (NRC,...). Rations can be calculated by hand or by linear optimization. All Ruminant Species can be modeled. ALLIX²: Least cost optimization software. This feed formulation program exists in several flexible versions that fit the needs of all departments. Developed around standard databases. Allix² offers a wide range of functions which are useful for the purchasing department as well as for the nutritionists.

Balchem Encapsulates
PO Box 600
New Hampton, NY 10958
Phone: (877) 222-8811; Fax: (845) 326-5717
Web Site: www.balchem.com
Booth: 137

Bar Diamond, Inc.
PO Box 60
Parma, ID 83660
Phone: (208) 722-6761; Fax: (208) 722-6686
Web Site: www.bardiamond.com
Booth: 216

Biomim USA, Inc.
1852 Lockhill Selma, Suite 105
San Antonio, TX 78216
Phone: (210) 342-9555; Fax: (210) 342-9575
Web Site: www.biomin.net
Booth: 107

Bioproducts, Inc.
320 Springside Drive #300
Fairlawn, OH 44333
Phone: (330) 665-1999; Fax: (330) 665-2195
Web Site: www.dairy1to1.com
Booths: 215, 217, 219

Ener GI Transition Formula is a specific, patented combination of fatty acids designed for the transition period of a dairy cow. Ener GI is the first product in the market developed specifically for this purpose. Benefits include: 1) Increased first milk; 2) lowers milk fat and thus spares cow energy; and 3) provides omega-6 acids that can help reduce days open.

What does the **JOURNAL OF ANIMAL SCIENCE** say about **Feedstuffs**?

“Readership, timeliness, and information credibility were greater for *Feedstuffs* than for any other commercial publication.”

(JANSAG 75(2) 297-592)

Dr. Fredric Owens, while at the Oklahoma Agricultural Experiment Station, surveyed 52 animal and dairy scientists regarding frequency of use and reliability of information from 27 different publications and information sources.

Feedstuffs ranked first among ALL journals studied for most frequently used information source among Private Consultants and Industry Scientists. *Feedstuffs* ranked third to the *Journal of Animal Science* and National Research Council publications by University Scientists.

As a member of ADSA/ASAS/PSA, you qualify for exceptional subscription rates of up to **30% off** the cover price!! One-year subscriptions for only **\$95** and two-year subscriptions for only **\$150**. Visit our booth (#213), or watch your mail for details about this exclusive offer for the industry's Number-One commercial information source!

Be sure to mention your ADSA/ASAS/PSA membership when you subscribe TODAY!

800-441-1410 • 630-462-2224

www.Feedstuffs.com

You prevent coccidiosis, right?

Well,
more or
less.



We kill
more *coccidia*.
With less.



Rumensin® is proven stronger than Bovatec®, delivering more complete prevention and control in each of the *coccidia* parasite's three reproductive stages.

A coccidiosis outbreak is no laughing matter, as any cattle producer who has dealt with one can attest. The persistent parasite that causes coccidiosis continually threatens your herd, reinfecting from inside—where it reproduces in the millions, damaging an animal's ability to absorb nutrients—and outside—where its oocysts lay in wait for the next animal to ingest, beginning the cycle all over again.

It's important to know that not all products available for coccidiosis control are equal.

Rumensin is proven to be a more potent product than Bovatec®, delivering both the prevention and control you need to: maintain your herd health; reduce the shedding of oocysts; and break the disease cycle. That's truly doing more with less.

So when it comes to taking a strong stand against coccidiosis, "more or less" simply doesn't cut it. Feed your calves and heifers Rumensin from Elanco Animal Health and get the upper hand on coccidiosis, once and for all.

ELANCO

Rumensin®

Right from the start.

Decox is a registered trademark of Alpharma Animal Health.
Rumensin® is a trademark for Elanco's brand of monensin sodium.
© 2004 Elanco Animal Health.

BioSentry
1481 Rock Mountain Blvd.
Stone Mountain, GA 30083
Phone: (770) 723-9211 or (800) 788-4246; Fax:
7707237056
Web Site: www.biosentry.com
Booth: 233

BioZyme Incorporated
PO Box 4428
St. Joseph, MO 64505
Phone: (816) 238-3326; Fax: (816) 238-7549
Web Site: www.biozymeinc.com
Booth: 129

Amaferm is an all-natural microbial extract that's formulated using a patented, two-stage fermentation process. This process produces 2,200 different characteristics that deliver key nutrients and essential growth factors critical to efficient feed conversion, digestion and rumen fermentation. It's an all-natural additive with a unique mode of action that boosts feed utilization and rumen fermentation.

Blackwell Publishing Professional
2121 State Avenue
Ames, IA 50014
Phone: (515) 292-0140; Fax: (515) 292-3348
Web Site: www.blackwellprofessional.com
Booth: 223

CABI Publishing
Nosworthy Way
Wallingford, Oxon OX10 8DE
UK
Phone: 44 1491 832111; Fax: 44 1491 829198
Web Site: www.cabi-publishing.org
Booth: 326

Chelated Minerals Corporation
PO Box 27872
Salt Lake City, UT 84127
Phone: (801) 973-4500; Fax: (801) 972-4068
Web Site: www.keylated.com
Booth: 303

Chr. Hansen, Inc.
9015 West Maple Street
Milwaukee, WI 53214
Phone: (414) 607-5800; Fax: (414) 607-5701
Web Site: www.chr-hansen.com
Booths: 224, 226

Cotton Incorporated
6399 Weston Parkway
Cary, NC 27513
Phone: (919) 678-2369; Fax: (919) 678-2233
Web Site: www.cottoninc.com
Booth: 422

CottonFloZ, LLC
1001 Tillman Street, PO Box 80407
Memphis, TN 38108-0407
Phone: (901) 320-8633; Fax: (901) 320-8204
Web Site: www.cottonfloz.com
Booth: 312

For many years, the dairy and beef industry has been looking for an affordable, flowable, easy to handle cottonseed feed. CottonFlo™ and FuzZpellet™ are manufactured cottonseed feeds that offer these and other nutritional advantages versus whole cottonseed. With superior logistical and nutritional advantages, CottonFlo™ and FuzZpellets™ will become the market leaders in cottonseed feeds.

Council for Agricultural Science and Technology
4420 West Lincoln Way
Ames, IA 50014
Phone: (515) 292-2125; Fax: (515) 292-4512
Web Site: www.cast-science.org
Booth: 135

Dairy Records Management Systems
313 Chapanoke Road, Suite 100
Raleigh, NC 27603
Phone: (919) 661-3100; Fax: (919) 661-3145
Web Site: www.drms.org
Booth: 306

DRMS processes DHI data each month on over 14,000 herds with more than 1.7 million cows, making it the largest volume dairy processing center in the US. Dairy herd management software from DRMS includes PCDART, PocketDairy for handheld units, CTAP for data analysis, and DairyMetrics, a web-based system benchmarking system.

Dalex Computer Systems
240 Industrial Blvd.
Waconia, MN 55387
Phone: (800) 421-3834
Web Site: www.dalex.com
Booth: 324

Consulting Nutritionist is a flexible ration-balancing program designed for Dairy, Beef, Swine and Horse. Lab Assay import, graphing and FeedTags available for all species! This program provides ration-balancing and ration-modeling using up-to-date scientific data including NRC-Dairy-2001, CNCPS-Model, NRC-Swine-1998 and NRC-Beef-1996. Come see our newest release in booth 324. Call 1-800-421-3834.

Diamond V Mills
838 1st Street NW
Cedar Rapids, IA 52407
Phone: (319) 366-0745; Fax: (319) 366-6333
Web Site: www.diamondv.com
Booths: 113, 115, 117

Distillers Grains Technology Council
University of Louisville, 435 Lutz Hall
Louisville, KY 40292
Phone: (800) 759-3448; Fax: (502) 852-1577
Web Site: www.distillersgrains.org
Booth: 304

DSM Nutritional Products, Inc.
45 Waterview Boulevard
Parsippany, NJ 07054
Phone: (800) 526-0189; Fax: (973) 257-8653
Web Site: www.nutraaccess.com
Booth: 404

Elsevier
360 Park Avenue South
New York, NY 10010
Phone: (212) 633-3756; Fax: (212) 633-3112
Web Site: www.elsevier.com
Booth: 218

Discover the complete range of Elsevier products in Dairy and Animal Science! Journals, Books, Electronic Products, E-mail alerting services and demonstrations of ScienceDirect®, the world's most comprehensive resource for research journals, abstract databases and reference works. We look forward to seeing you!

FARME Institute
5937 US Route 11, PO Box 88
Homer, NY 13077
Phone: (607) 749-5747; Fax: (607) 749-5634
Web Site: www.farme.com
Booth: 406

Fats & Proteins Research Foundation
16551 Old Colonial Road
Bloomington, IL 61704
Phone: (309) 829-7744; Fax: (309) 829-5147
Web Site: www.fprf.org
Booth: 237

The Fats and Proteins Research Foundation Inc. is a not-for-profit organization founded in 1962 and dedicated to support the utilization of animal byproducts. Its mission is to provide an institution for evaluation, soliciting and supporting research initiatives to utilize rendered animal byproducts in enhanced or new use applications. Proposals for research grants are accepted for evaluation September 15 and March 15 of each year. Details can be acquired on the foundation's website www.fprf.org.

FDA Center for Veterinary Medicine
7519 Standish Place
Rockville, MD 20855
Phone: (301) 827-3800; Fax: (301) 827-4065
Web Site: www.fda.gov/cvm
Booth: 316

Federation of Animal Science Societies (FASS)
1111 North Dunlap Avenue
Savoy, IL 61874
Phone: (217) 356-3182; Fax: (217) 398-4119
Web Site: www.fass.org
Booths: 208, 209

Feed Management Systems, Inc.
6120 Earle Brown Drive, Suite 300
Brooklyn Center, MN 55430
Phone: (763) 560-8139; Fax: (763) 560-8160
Web Site: www.feedsys.com
Booth: 119

Feedstuffs Newspaper
12400 Whitewater Drive, Suite 100
Minnetonka, MN 55343
Phone: (952) 930-4374; Fax: (952) 938-1832
Web Site: www.feedstuffs.com
Booth: 213

Feedstuffs is the only weekly, paid news journal for agribusiness. Our subscribers are the world's leading animal feed and petfood manufacturers, as well as the industry's most influential nutritionists, veterinarians and feed formulators.

Format International, Inc.
10715 Kahlmeyer Drive
St. Louis, MO 63132
Phone: (314) 428-2671; Fax: (314) 428-4102
Web Site: www.formatinternational.com
Booth: 338

Format International, Inc. designs, authors and markets a wide range of software products for the petfood, animal feed, human food and other allied industries worldwide. We have a global reputation for providing profit-enhancing formulation and resource optimization tools.

GrowSafe Systems Ltd
RR #1 Suite #1 Box 19
Airdrie, Alberta T4B 2A3
Canada
Phone: (403) 540-4177; Fax: (403) 948-6351
Web Site: www.growsafe.com
Booth: 332

Hoard's Dairyman
PO Box 801
Fort Atkinson, WI 53538-0801
Phone: (920) 563-5551; Fax: (920) 563-7298
Web Site: www.hoards.com
Booth: 105

International Ingredient Corporation
4240 Utah Street, Box 22106
St. Louis, MO 63116
Phone: (314) 776-2700; Fax: (314) 776-3395
Web Site: www.iicag.com
Booth: 305

LignoTech USA/Soypass
100 Grand Avenue
Rothschild, WI 54474
Phone: (715) 359-6544; Fax: (715) 355-3648
Web Site: www.bypassprotein.com
Booth: 227

MetaFarms, Inc.
2980 Commers Drive, Suite 400
Eagan, MN 55121
Phone: (651) 905-7438; Fax: (651) 905-7434
Web Site: www.metafarms.com
Booth: 225

Mosdal Scale Systems, Inc.
15411 Mosdal Road
Broadview, MT 59015
Phone: (406) 667-2233; Fax: (406) 667-2232
Web Site: www.mosdal.com
Booth: 402

MS Specialty Nutrition
PO Box 278
Dundee, IL 60118
Phone: (847) 426-3411; Fax: (847) 426-3636
Web Site: www.msspecialtynutrition.com
Booth: 133

MS Specialty Nutrition Key Brands: ENERGY BOOSTER 100®: More Energy for High Producing Cows; Highest NE_L in the market; More dry matter intake; More components; More return per lactation; Transition Energy for ALL Cows; Fed only 21 days prior to calving; Reduced days open; Increased % pregnant; More return post transition. EXCELERATE®: The original "intensified growth" formula; Establishing the research standard; BIGGER, leaner calves; BETTER development; FASTER returns on investments. KWIK MIX®: The mark of a great milk replacer; Easier mixing crystals.

Novus International, Inc.
530 Maryville Centre Drive
St. Louis, MO 63141
Phone: (888) 906-6887; Fax: (314) 576-4635
Web Site: www.novusint.com
Booth: 323

Novus serves customers in more than 80 countries and is a nutrition and health solution leader in the animal feed industry. Novus products include: ALIMET® feed supplement, SANTOQUIN® feed preservative; ACTIVATE™ nutritional feed acid, ADVENT® coccidiosis control, MINTREX™ organic trace minerals, TOX-GUARD® mold inhibitor and OASIS® hatchling supplement.

Omega Protein, Inc.
PO Box 1799
Hammond, LA 70404
Phone: (985) 345-5553; Fax: (985) 345-5744
Web Site: www.omegaproteininc.com
Booth: 408

Omega Protein, Inc is the largest fish meal producer in North America. Omega Protein produces three grades of fish meal – Special Select™, Sea-Lac™, and FAQ; Neptune fish concentrate; and various refined and crude oils. Products are available in bulk, bag, or drums and can be shipped in containers or bulk vessels.

PetAg, Inc.
PO Box 396
Hampshire, IL 60140
Phone: (847) 683-2288; Fax: (847) 683-2343
Web Site: www.petag.com
Booth: 212

Vast array of pet products including market leading milk replacers Esbilac® and KMR®, Rawhide Brand®, USA Beefhide chews Made in the U.S.A., Chunky Chew™, award winning Pink Parrot® avian toys and treats, Doggy Giggles™ dog toys and many other PetAg® nutritional products including EnerGel™, MirraCoat® skin & coat supplements for canine, feline and equine. Foal-Lac® equine milk replacer, Formula V® veterinary products and Zoologic Milk Matrix system for exotic animals.



Intake Measurement
Behavior Monitoring
Body Weight Measurement
Individual and Group Data
Automated Data Acquisition
Electronic Animal Identification
Real-time Large Dataset Analysis
Wireless Data Communication
Biological and Environmental Sensors
Specialized Integration—Video, Advanced Imaging



GrowSafe User Group Meeting
Tuesday, July 27, 2004, 5:00–7:00 PM
Register by visiting us at **Booth #332**

280105 Range Road 22 Airdrie AB Canada T4B 2A3
Telephone (403) 540-4177 Fax (403) 948-6351
email info@growsafe.com
www.growsafe.com

Pfizer Animal Health
150 East 42nd Street
New York, NY 10017-5612
Phone: (212) 573-2323; Fax: (212) 573-7851
Web Site: www.pfizer/ah
Booth: 314

Pfizer Animal Health is a world leader in animal health, committed to providing high-quality innovative health products, including pharmaceuticals and biologicals for livestock and companion animals. Pfizer Animal Health is a business unit of Pfizer Inc., a research-based pharmaceutical company with global operations.

Pierce Biotechnology, Inc
3747 N. Meridian Rd., PO Box 117
Rockford, IL 61105-0117
Phone: (800) 874-3723; Fax: (815) 968-7316
Web Site: www.piercenet.com
Booth: 302

Poultry Protein & Fat Council
1530 Cooleage Road
Tucker, GA 30084
Phone: (770) 493-9401; Fax: (770) 493-9257
Web Site: www.poultryegg.org
Booth: 139

Poultry Science Association (PSA)
1111 North Dunlap Avenue
Savoy, IL 61874
Phone: (217) 356-5386; Fax: (217) 398-4119
Web Site: www.poultryscience.org
Booth: 203

Probiotech International Inc.
105 Echo
St Eustache, QC J7P 3W3
Canada
Phone: 45 09747252; Fax: 45 09749509
Booths: 123, 222

Saf Agri/Lesaffre Feed Additives
433 East Michigan Street
Milwaukee, WI 53202
Phone: (414) 615-4046; Fax: (414) 615-4003
Web Site: www.saf-agri.com
Booth: 235

SODA Feed Ingredients LLC
306 11th Street #3
Brookings, SD 57006
Phone: (866) 763-2872; Fax: (605) 692-7632
Web Site: www.soda-ingredients.com
Booth: 234

Soybean Meal Information Center
4554 NW 114th Street
Urbandale, IA 50322
Phone: (515) 251-8640; Fax: (515) 251-8657
Web Site: www.soymeal.org
Booth: 325

SoyBest
PO Box 157
West Point, NE 68788
Phone: (402) 372-2429; Fax: (402) 372-3305
Web Site: www.soybest.com
Booth: 327, 426

SoyBest® High Bypass Soybean Meal delivers excellent bypass protein. Produced by the mechanical process, this product contains no chemical solvents and is all-natural. Importantly, SoyBest® is an economical source of metabolizable methionine and lysine. These essential amino acids are critical for ration balancing and profitable dairy production.

Trouw Nutrition USA
115 Executive Drive
Highland, IL 62249
Phone: (618) 654-2070; Fax: (618) 654-1818
Booth: 328

Trouw Nutrition USA manufactures and markets feed additives for feed manufacturers, livestock producers and pet food manufacturers worldwide. Products include OPTiMIN® Proteinated Trace Minerals; Protimax® Spray Dried Egg; ProtiOne™ Globulin Protein Source; NovaSilplus™ Hydrated Aluminosilicate; Milkivit™ Milk Replacer; Pedicure™ Equine Supplement, Vitamin Premixes, Mineral Premixes, Calcium Propionate, Sodium Propionate and Specialty Feed Additives. The company also offers custom manufacturing.

USDA, Agricultural Research Service
5601 Sunnyside Avenue, MS 5144
Beltsville, MD 20705-5144
Phone: (301) 504-3271; Fax: (301) 504-1740
Web Site: www.ars.usda.gov
Booth: 127

USDA/Animal Welfare Information Center
10301 Baltimore Avenue, 4th Floor
Beltsville, MD 20705
Phone: (301) 504-6212; Fax: (301) 504-7125
Web Site: www.nal.usda.gov/awic
Booth: 125

The Animal Welfare Information Center, a unit of the United States Department of Agriculture, provides information for the improved care and use of animals used in research, testing, teaching, and exhibition. The staff also assists people and institutions in complying with information requirements of the Federal Animal Welfare Act. Services provided include free publications, workshops, and custom literature searches performed on a cost-recovery basis.

Varied Industries Corporation
905 South Carolina Avenue
Mason City, IA 50401
Phone: (641) 423-1460; Fax: (641) 423-0832
Web Site: www.vi-cor.com
Booth: 309

West Central Soy
406 First Street
Ralston, IA 51459
Phone: (800) 843-4769; Fax: (712) 667-3215
Web Site: www.westcentralsoy.com
Booth: 318

Western Yeast Company
305 West Ash Street
Chillicothe, IL 61523
Phone: (309) 274-3160; Fax: (309) 274-5393
Web Site: www.westernyeast.com
Booth: 424

Western Yeast Company was founded in 1932 and uses the Newhaven process for making yeast culture. Western Yeast Culture is an active, all natural feed supplement designed specifically to improve animal nutrition. It consists of live yeast cells, plus the media on which they were grown, carefully dried to maintain the fermentation activity of the cells.

Zinpro Corporation
10400 Viking Drive, Suite 240
Eden Prairie, MN 55344
Phone: (952) 944-2736; Fax: (952) 944-2749
Web Site: www.zinpro.com
Booth: 103

Zinpro Corporation, the leader in trace mineral nutrition, serves the U.S. and international livestock and poultry industries with its trace mineral complexes, including ZINPRO® zinc methionine, 4-Plex®, CuPLEX® copper lysine, MANPRO® manganese methionine, COPRO® cobalt glucoheptonate, Availa®Mins and MiCroPlex® chromium-L-methionine.



SoyChlor®

WEST CENTRAL®



Palatability limiting intake in your close-up rations?

We have designed SoyChlor® to be the most palatable product on the market for delivering chloride to the close-up ration. SoyChlor's key ingredient is hydrochloric acid, the most palatable source of chloride available. SoyChlor offers unique flavor and odor characteristics with superior palatability preferred by close-up cows the world over.

And if that is not enough, SoyChlor offers:

- Moderate protein
- Low Potassium & Sodium
- Low Phosphorus
- High levels of Calcium & Magnesium
- Low inclusion rates for easy formulating

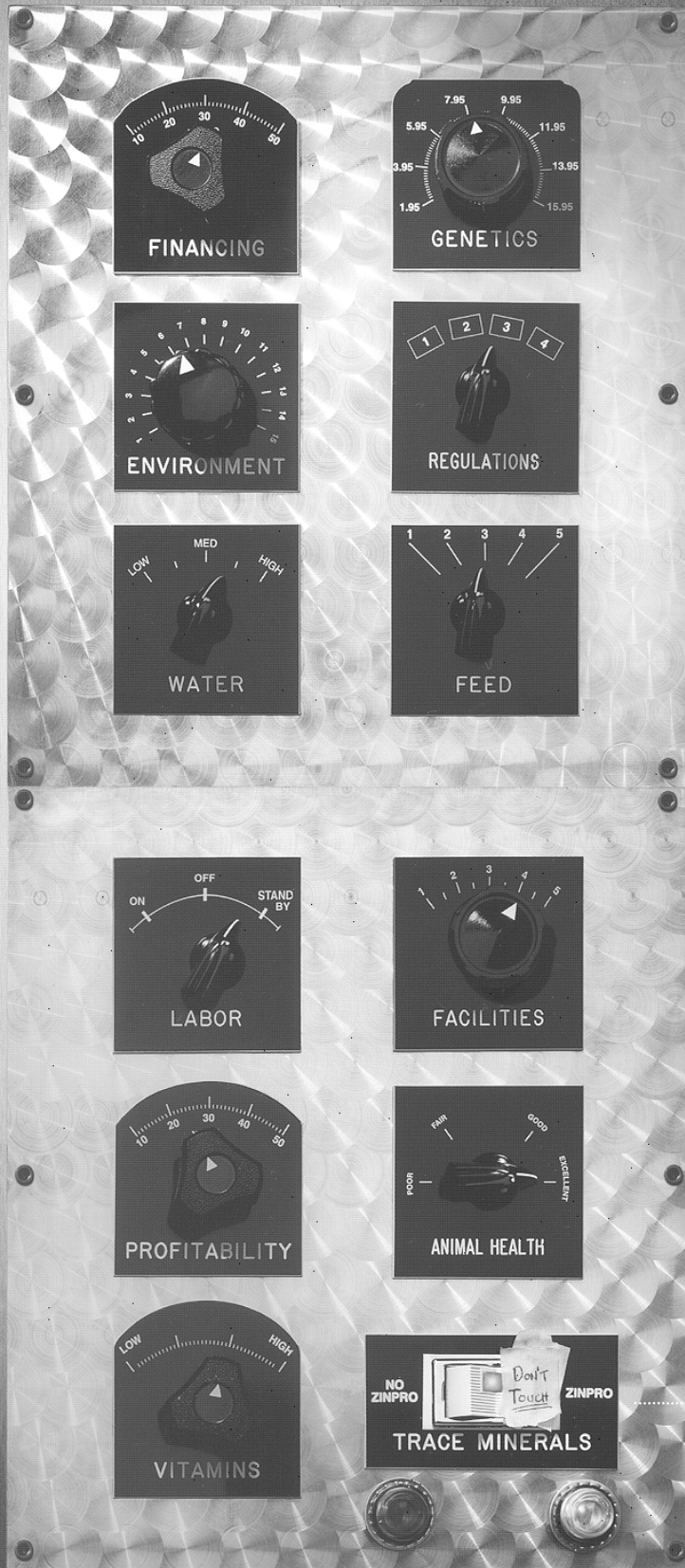
When choosing a by-pass protein, only one stands out from the herd...

- Research proven 60% by-pass protein
- Consistent quality for consistent performance
- Excellent source of intestinally available Lysine and Methionine
- High in energy - 5% oil content including partially Rumen Inert Linoleic Acid C18-2 which has been shown to enhance efficiency in dairy cattle
- Delivers Rumen Degradable Protein (RDP) Starches, sugars and soluble fibers to support Rumen Microbial growth
- All natural, chemical-free process

Call us for more information...

WEST CENTRAL

P.O. Box 68 • Ralston, Iowa 51459
 (712) 667-3200 • www.soyplus.com • www.soychlor.com



With so many variables in modern livestock production, it's nice to know there's one trace mineral company that holds more patents, does more research and produces more proven results than anyone in the business. That way, you can buy your trace minerals with confidence. And then go back to tweaking everything else.

For more information, call i-800-445-6145 or visit www.zinpro.com



Some things you fiddle with.
Some things you don't.

2004 ADSA-ASAS-PSA Corporate Sustaining/Patron Members

ADSA

Adisseo USA, Inc.
ADM Alliance Nutrition, Inc.
Agway Inc.
Akey, Inc.
Alltech, Inc.
Biovance Technologies, Inc.
BioZyme Incorporated
Cargill Animal Nutrition
Church & Dwight Co., Inc.
Custom Dairy Performance
Diamond V Mills, Inc.
DSM Food Specialties USA, Inc.
Elanco Animal Health
Fort Dodge Animal Health
IMC
Kent Feeds, Inc., Evergreen Mills, Inc.
Kraft Foods
Land O'Lakes
Land O'Lakes/Purina
Monsanto Agricultural Co.
National By-Products, Inc.
Performance Products, Inc.
Pfizer Animal Health
Pioneer Hi-Bred International, Inc.
Prince Agri Products, Inc.
Quali Tech
Quest Int'l Bioproducts Group
Rhodia, Inc.
Ridley, Inc.
West Central Soy
Westfalia Surge Inc.
Zinpro Corporation

PSA (\$1000)

ADM Specialty Feed Ingredients
Ajinomoto Heartland LLC
Cobb-Vantress Inc.
IMC
Novus International Inc.
Prince Agri Products, Inc.
Tyson Foods Inc.

ASAS

Adisseo USA Inc.
ADM Specialty Feed Ingredients
Ajinomoto Heartland LLC
Akey
Babcock Genetics, Inc.
Diamond V Mills, Inc.
Fats & Proteins Research Foundation Inc.
Global Pig Farms Inc.
Hubbard Feeds Inc.
IMC
International Ingredient Corporation
Intervet Inc.
Kent Feeds Inc.
Land O'Lakes/Purina
Monsanto Company
National By-Products, LLC
National Pork Board
Nutra-Flo Protein Products
PCS Sales
Pfizer Animal Health
PIC
Pioneer Hi-Bred Int'l, Inc.
Prince Agri Products Inc.
Zinpro Corporation

PSA (\$500)

Adisseo USA Inc.
Akey
ALPHARMA
Aviagen
Cargill Animal Nutrition
Diamond V Mills, Inc.
Foster Farms
Hy-Line International
Intervet, Inc.
ISA Babcock
Land O'Lakes/Purina
Lohmann Tierzucht GmbH
Maple Leaf Farms
Nicholas Turkey Breeding Farms
Shaver Poultry Breeding Farms Ltd.

Thank you for your support!

MONSANTO
imagine™



Imagine
innovative
agriculture
that
creates
incredible
things
today.

learn more at monsanto.com

Monsanto, imagine and the stylized plant are trademarks of Monsanto Technology, LLC.
© 2004 Monsanto Company

Schedule of Events

You may refer to the scientific program section in this program for detailed information for oral and poster presentations. Please note: all rooms and times are subject to change. Always be sure to check room signs and/or hotel marquees for any last minute room changes or cancellations.

Friday, July 23

3 pm – 5 pm	ADSA New Board Orientation	Renaissance, Hawthorne/Lucas
5:30 pm – 10 pm	ADSA Board of Directors Meeting	Renaissance, Hawthorne/Lucas

Saturday, July 24

8 am – 12 pm	ADSA Board of Directors Meeting	Renaissance, Parkview/Aubert
8 am – 5 pm	ASAS Board of Directors Meeting	Adam's Mark, St. Louis BC
8 am – 5 pm	PSA Board of Directors Meeting	Renaissance, Portland
10 am – 5 pm	Registration Open (pre-registered, badge & material pick up only)	Convention Center, Plaza Lobby North
1 pm – 3 pm	ADSA-SAD Farm Tour	Monsanto
1:30 pm – 6 pm	Dairy Foods Workshop	Convention Center, Room
7:30 pm – 9 pm	ARPAS Executive Committee Meeting	Adam's Mark, Directors Row 46

Sunday, July 25

7 am – 7 pm	Registration Open	Convention Center, Plaza Lobby North
8 am – 10 am	ADSA-ASAS-PSA Joint Board of Directors Meeting	Renaissance, Landmark 1/2
8 am – 5 pm	Triennial Growth Symposium	Convention Center, Room 124
8 am – 5 pm	Ancillary Scientist Symposium	Convention Center, Room 132
8 am – 5 pm	Informal Nutrition Conference	Convention Center, Room 131
8 am – 5 pm	Exhibit Set Up	Convention Center, Exhibit Hall 5
8 am – 5 pm	Hospitality Lounge	Convention Center, Room 120
8 am – 5 pm	ARPAS Governing Board Meeting	Adam's Mark, Directors Row 46
8:45 am – 1 pm	Dairy Foods Workshop	Convention Center, Room 225
10 am – 12 pm	ADSA-ASAS Joint Board of Directors Meeting	Renaissance, Landmark 1/2
10 am – 12 pm	WPSA-USA Meeting	Renaissance, Landmark 3
10:30 am – 5 pm	PSA Board of Directors Meeting	Renaissance, Portland
11 am – 12 pm	ADSA-SAD Officers and Advisor Meeting	Convention Center, Room 230
11 am – 12 pm	ADSA JDS Editors Meeting	Renaissance, Parkview/Aubert
12 pm – 1 pm	PSA Ancillary Scientist Luncheon	Convention Center, Room 130
12 pm – 1 pm	ADSA-SAD Midday Mixer & Pizza Party	Convention Center, Room 231/232
12 pm – 1 pm	ADSA JDS Editors and Journal Management Committee Luncheon	Renaissance, Parkview/Aubert
1 pm – 5 pm	ADSA Journal Management Committee Meeting	Renaissance, Parkview/Aubert
1 pm – 5 pm	ADSA-SAD Quiz Bowl Seating/Preliminary Rounds	Convention Center, Rooms 240-241
2 pm – 3 pm	ADSA Production Division Council Meeting	Convention Center, Room 125/126
2 pm – 3:30 pm	ADSA Foundation Board of Trustees Meeting	Renaissance, Pershing/Lindell
2 pm – 3:30 pm	ASAS Foundation Trustees Meeting	Renaissance, Westmoreland/Kingsbury
2 pm – 4 pm	ADSA Committee on Evaluation of Dairy Products	Convention Center, Room 130
3 pm – 4 pm	ADSA Production Division Nominating Committee	Convention Center, Room 125/126
3 pm – 4 pm	ADSA Production Division Resolutions Committee	Convention Center, Room 123
3 pm – 5 pm	ADSA-ASAS-PSA 2004 Program Chairs & Vice Chairs Meeting	Convention Center, Room 127
3 pm – 5 pm	ADSA ASAS 2005 Program Chairs & Vice Chairs Meeting	Convention Center, Room 127
3:30 pm – 5 pm	ADSA-ASAS Joint Foundation Board of Trustees Meeting	Renaissance, Landmark 1/2
5 pm – 6 pm	ADSA Dairy Foods Division Council Meeting	Convention Center, Room 123
6:30 pm – 7 pm	ADSA-SAD Quiz Bowl Final Round	Convention Center, Room 240
7 pm – 8:30 pm	2004 ADSA-ASAS-PSA Opening Session	Convention Center, Rooms 220-229
8:30 pm – 10 pm	2004 ADSA-ASAS-PSA Opening Reception	Convention Center, Rooms 220-229

Monday, July 26

6:30 am – 8 am	ADSA Production Division Extension Breakfast	Renaissance, Portland/Benton
6:30 am – 8 am	ADSA Journal Editorial Board Breakfast/Meeting	Renaissance, Westmoreland/Kingsbury
6:30 am – 8 am	Michigan State University Breakfast	Renaissance, Parkview/Aubert
6:30 am – 4 pm	Registration Open	Convention Center, Plaza Lobby North
7:15 am – 8:15 am	ADSA-SAD Exhibit Set up	Convention Center, Exhibit Hall 5
7:30 am – 9:30 am	PSA Foundation Breakfast and Meeting	Convention Center, Room 123
7:30 am – 9:30 am	Poster Presentations	Convention Center, Exhibit Hall 5
7:30 am – 5 pm	Commercial Exhibits & ADSA-SAD Exhibits Open	Convention Center, Exhibit Hall 5
7:30 am – 5 pm	Job Resource Center	Convention Center, Exhibit Hall 5
8 am – 5 pm	National Combined Extension Workshop	Convention Center, Room 222
8 am – 5 pm	Hospitality Lounge	Convention Center, Room 120
8:30 am – 9:15 am	ADSA-SAD Business Meeting	Convention Center, Rom 230
8:30 am – 9:30 am	ADSA 2006 Centennial Publications Committee Meeting	Convention Center, Room 229
9:30 am – 10:30 am	ADSA-SAD Judging of Yearbooks, Scrapbooks, Annual Reports	Convention Center, Room 231
9:30 am – 10:30 am	ADSA-SAD Interviews for Outstanding Student and Advisor Awards	Convention Center, Room 232
9:30 am – 10:30 am	ADSA-SAD Activities Symposium	Convention Center, Room 230
9:30 am – 5 pm	Scientific Sessions	Convention Center
10 am – 11 am	Poultry Science Section Editors' Meeting	Renaissance, Portland
10 am – 12 pm	ARPAS Exam	Convention Center, Room 229
11 am – 12 pm	Poultry Science and JAPR Editors' Luncheon	Renaissance, Portland
11 am – 12:15 pm	ADSA-SAD Undergraduate Paper Presentations	Convention Center, Room 230
11 am – 1 pm	ASAS Publications Committee Luncheon	Adam's Mark, Directors Row 44
12 pm – 1 pm	JAPR Subject Editors' Meeting	Renaissance, Portland
12 pm – 1 pm	National Extension Workshop Luncheon	Convention Center, Room 228
12 pm – 1 pm	WPSA-USA Branch Luncheon	Convention Center, Room 123
12 pm – 2 pm	ADSA Past President's Luncheon	Renaissance, Westmoreland/Kingsbury
12 pm – 2 pm	ASAS Past President's Luncheon	Adam's Mark, St. Louis B
1 pm – 5 pm	ADSA-SAD Undergraduate Paper Presentations	Convention Center, Room 230
2 pm – 3:30 pm	ADSA DISCOVER Conference Steering Committee Meeting	Convention Center, Room 123
5:15 pm – 6:30 pm	ADSA Town Hall Meeting	Convention Center, Room 260
5:30 pm – 7 pm	ASAS Award Winners Reception and Photo Session	Adam's Mark, Rose Garden Room
7 pm – 8:30 pm	ASAS Awards Program	Adam's Mark, St. Louis DE
8:30 pm – 11 pm	Iowa State Social	Adam's Mark, St. Louis F
8:30 pm – 12:30 am	Undergraduate Student Dance/Mixer	Holiday Inn Select
9 pm – 12 am	ASAS/ADSA/PSA Graduate Student Mixer	Trainwreck on the Landing

Tuesday, July 27

6:30 am	Fun Run	Off Site
6:30 am – 8 am	ADSA Dairy Foods Division Extension Breakfast	Renaissance, Benton
6:30 am – 8 am	University of Illinois Breakfast	Adam's Mark, St. Louis A
6:30 am – 8 am	Kentucky Breakfast	Renaissance, Parkview/Aubert
6:30 am – 8 am	Penn State Breakfast	Adam's Mark, St. Louis B
6:30 am – 8 am	Triennial Poultry Extension Workshop	Renaissance, Portland
6:30 am – 8:30 am	ASAS New Board Orientation Breakfast	Adam's Mark, Directors Row 41
6:30 am – 3:30 pm	Registration Open	Convention Center, Plaza Lobby North
7:30 am – 9:30 am	Poster Presentations	Convention Center, Exhibit Hall 5
7:30 am – 5 pm	Commercial Exhibits & ADSA-SAD Exhibits Open	Convention Center, Exhibit Hall 5
7:30 am – 5 pm	Job Resource Center	Convention Center, Exhibit Hall 5
8 am – 5 pm	Hospitality Lounge	Convention Center, Room 120
8:30 am – 10 am	ADSA-SAD Business Meeting – Election of Officers	Convention Center, Room 230
9:30 am – 5 pm	Scientific Sessions	Convention Center
10 am – 11:30 am	ADSA-SAD Student Careers Symposium: Leaders in Training	Convention Center, Room 230
11 am – 12 pm	ADSA Production Division Business Meeting	Convention Center, Room 224
11 am – 12 pm	ADSA Dairy Foods Division Business Meeting	Convention Center, Room 260
12 pm – 1 pm	ARPAS Business Meeting	Convention Center, Room 227
12 pm – 1 pm	National Poultry Waste Management Luncheon	Convention Center, Room 226
12 pm – 1 pm	PSA Graduate Student Luncheon	Convention Center, Room 225
12 pm – 1 pm	ADSA Dairy Foods Division Program Planning Lunch	Renaissance, Benton
12 pm – 1 pm	NE ASAS/ADSA Executive Committee Luncheon	Convention Center, Room 228
12 pm – 1:30 pm	ASAS Division/Associate Editors Luncheon	Adam's Mark, Directors Row 44

12 pm – 2 pm	ADSA-SAD Awards Luncheon	Convention Center, Room 231/232
12 pm – 2 pm	2004 Spouses' Luncheon	Gateway Arch Riverboats
1 pm – 2 pm	WPSA Lecture	Convention Center, Room 274
1 pm – 3 pm	ARPAS Exam	Convention Center, Room 229
1 pm – 5 pm	Southern Branch ADSA Symposium and Business Meeting	Convention Center, Room 124
2 pm – 3 pm	ADSA-SAD Award Photos	Convention Center, Room 231/232
2 pm – 3:30 pm	ADSA-SAD Committee Meeting – Old and New Officers & Advisors	Convention Center, Room 230
2:15 pm – 4 pm	PSA Business Meeting	Convention Center, Room 274
3:30 pm – 5:30 pm	ASAS JAS Forum (Division/Associate Editors and Authors)	Convention Center, Room 123
5 pm – 6:30 pm	ADSA Award Donor Dinner	Renaissance, Portland/Benton
5 pm – 7 pm	Informal Calf Gathering	Renaissance, Majestic G
5 pm – 7 pm	Texas A&M Poultry Science Reception	Convention Center, Room 225
6 pm – 9 pm	Korean Scientists and Students Dinner	Off Site
7 pm – 8 pm	ADSA Awards Program	Renaissance, Majestic A-D
8:30 pm – 9:30 pm	2004 ADSA-ASAS-PSA Ice Cream Social	Renaissance, Majestic A-D
8:30 pm – 9:30 pm	ADSA Foundation Auction & Raffle	Renaissance, Majestic A-D

Wednesday, July 28

6:30 am – 8 am	Purdue Breakfast	Adam's Mark, St. Louis A
6:30 am – 8 am	National Organic Animal Production and Processing Resolutions Committee Breakfast	Renaissance, Benton
7 am – 3 pm	Registration Open	Convention Center, Plaza Lobby North
7:30 am – 9:30 am	Poster Presentations	Convention Center, Exhibit Hall 5
7:30 am – 5 pm	Job Resource Center	Convention Center, Exhibit Hall 5
7:30 am – 5 pm	Commercial Exhibits & ADSA SAD Exhibits Open	Convention Center, Exhibit Hall 5
8 am – 5 pm	Hospitality Lounge	Convention Center, Room 120
9:30 am – 10 am	Joint ADSA-ASAS Business Meeting	Convention Center, Room 125/126
9:30 am – 5 pm	Scientific Sessions	Convention Center
10 am – 10:30 am	ADSA Business Meeting	Convention Center, Room 124
10 am – 10:30 am	ASAS Business Meeting	Convention Center, Room 127
11 am – 1 pm	ASAS Board of Directors Meeting	Adam's Mark, St. Louis BC
11 am – 1 pm	ADSA Board of Directors Meeting	Renaissance, Parkview/Aubert
11 am – 1 pm	NE ASAS/ADSA Business Meeting and Awards Luncheon	Convention Center, Room 123
11:30 am – 1 pm	ADSA DF Division Milk Proteins & Enzyme Committee	Renaissance, Lucas
12 pm – 1 pm	APHS Luncheon	Renaissance, Hawthorne
12 pm – 1 pm	WPSA-Canada Business Meeting	Convention Center, Room 227
12 pm – 2 pm	Block & Bridle Club Advisors Meeting	Adam's Mark, St. Louis A
1 pm – 3 pm	ARPAS Exam	Convention Center, Room 229
1 pm – 5 pm	Golf Outing	Far Oaks Golf Club
2:30 pm – 3:30 pm	2004 Retirees Social	Convention Center, Room 123
4:30 pm – 6 pm	2004 International/Closing Reception	Convention Center, Rooms 230-232
5 pm – 8 pm	Commercial Exhibits Dismantle	Convention Center, Exhibit Hall 5
6 pm – 9:30 pm	PSA Reception and Awards Banquet	Convention Center, Room 225/226

Thursday, July 29

7:30 am – 9:30 am	ADSA-ASAS-PSA Joint Executive Committee Breakfast	Adam's Mark, St. Louis BC
8 am – 10 am	Registration Open	Convention Center, Plaza Lobby North
8 am – 12 pm	Scientific Session	Convention Center

ADSA Student Affiliate Division Schedule of Events

Saturday, July 24

11:00 pm – 2:00 pm	SAD Tour	Monsanto
3:05 pm	St. Louis Cardinals vs. San Francisco Giants	Busch Stadium

Sunday, July 25

8:00 am – 5:00 pm	Student Dairy Clubs Set Up Exhibits	Convention Center, Exhibit Hall 5
11:00 am – 12:00 pm	Advisor-Officer Meeting	Convention Center, Room 230
12:00 pm – 1:00 pm	SAD Midday Mixer and Pizza Party	Convention Center, Room 231/232
1:00 pm – 5:00 pm	Dairy Quiz Bowl Seating and Preliminary Rounds	Convention Center, Rooms 240 & 241
6:30 pm – 7:00 pm	Quiz Bowl Final Round	Convention Center, Room 240
7:00 pm – 8:00 pm	ADSA-ASAS-PSA Opening Session	Convention Center, Rooms 220-229
8:30 pm – 10:30 pm	ADSA-ASAS-PSA Opening Reception	Convention Center, Ballroom Foyer

Monday, July 26

7:15 am – 8:15 am	Student Dairy Clubs Set Up Exhibits	Convention Center, Exhibit Hall 5
8:30 am – 9:15 am	Student Affiliate Division Business Meeting	Convention Center, Room 230
9:30 am – 10:30 am	Student Affiliate Judging of Yearbooks, Scrapbooks, Annual Reports	Convention Center, Room 231
9:30 am – 10:30 am	Interviews for Outstanding Student and Advisor Awards	Convention Center, Room 232
9:30 am – 10:30 am	Student Activities Symposium	Convention Center, Room 230
11:00 am – 12:15 pm	SAD Undergraduate Paper Presentations	Convention Center, Room 230
1:00 pm – 5:00 pm	SAD Undergraduate Paper Presentations	Convention Center, Room 230
8:30 pm – 12:30 am	Undergraduate Student Mixer	Holiday Inn Express

Tuesday, July 27

8:30 am – 10:00 am	Student Affiliate Division Business Meeting - Election of Officers	Convention Center, Room 230
10:00 am – 11:15 am	Student Careers Symposium: Leaders in Training	Convention Center, Room 230
12:00 pm – 2:00 pm	Student Awards Luncheon	Convention Center, Room 231/232
2:00 pm – 3:00 pm	SAD Pictures	Convention Center, Room 231/232
2:00 pm – 3:30 pm	SAD Committee Meeting: Old & New Officers and Advisors	Convention Center, Room 230
2:00 pm – 5:00 pm	Open to Attend Scientific Sessions	Convention Center
2:30 pm – 4:00 pm	Tear-down SAD Exhibits	Convention Center, Exhibit Hall 5
7:00 pm – 10:00 pm	ADSA Awards Ceremony, Ice Cream Social and Fun Auction	Renaissance, Majestic A-D

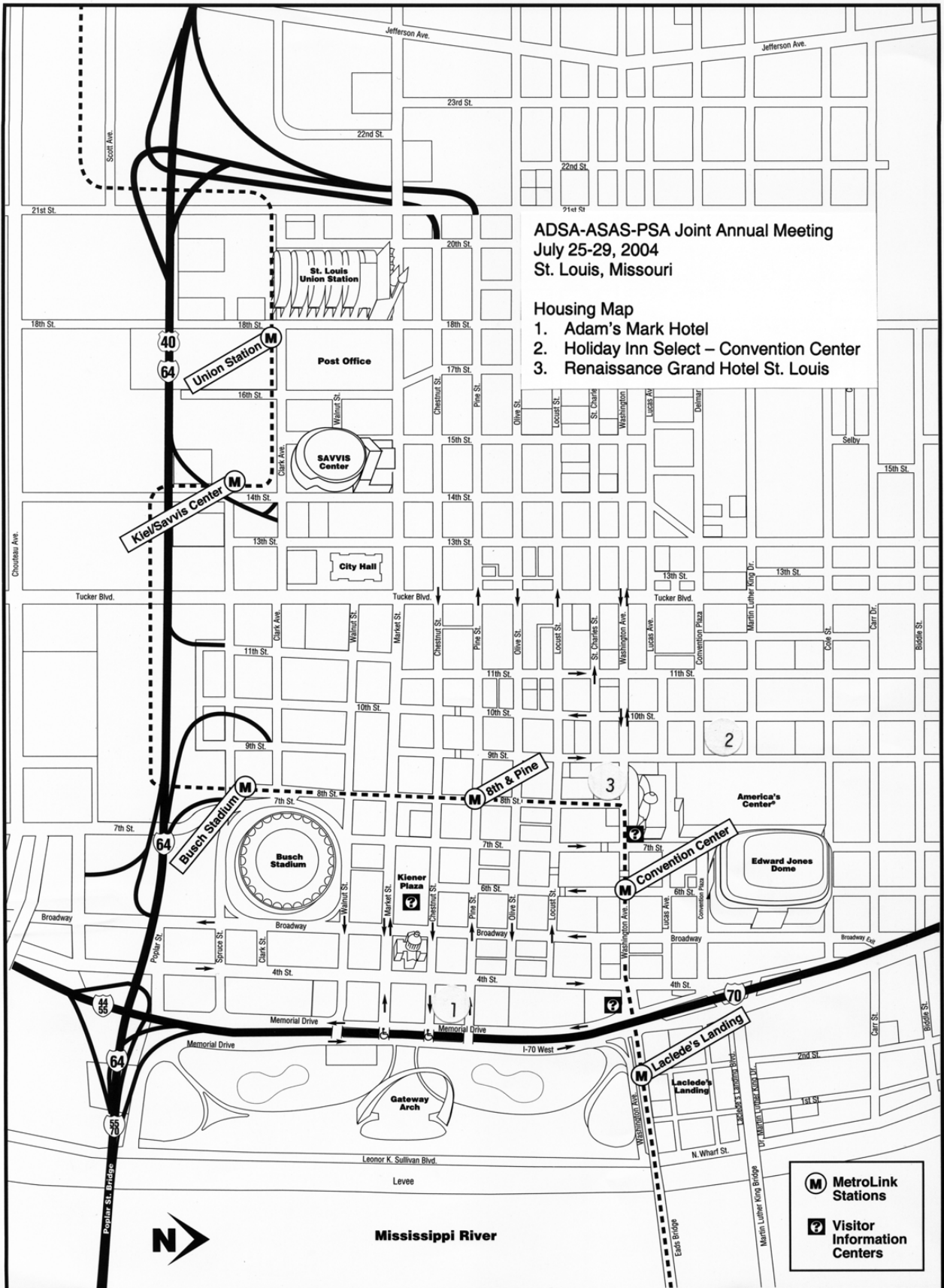
Wednesday, July 28

7:30 am – 5:00 pm	Scientific Sessions and Exhibits	Convention Center
-------------------	----------------------------------	-------------------

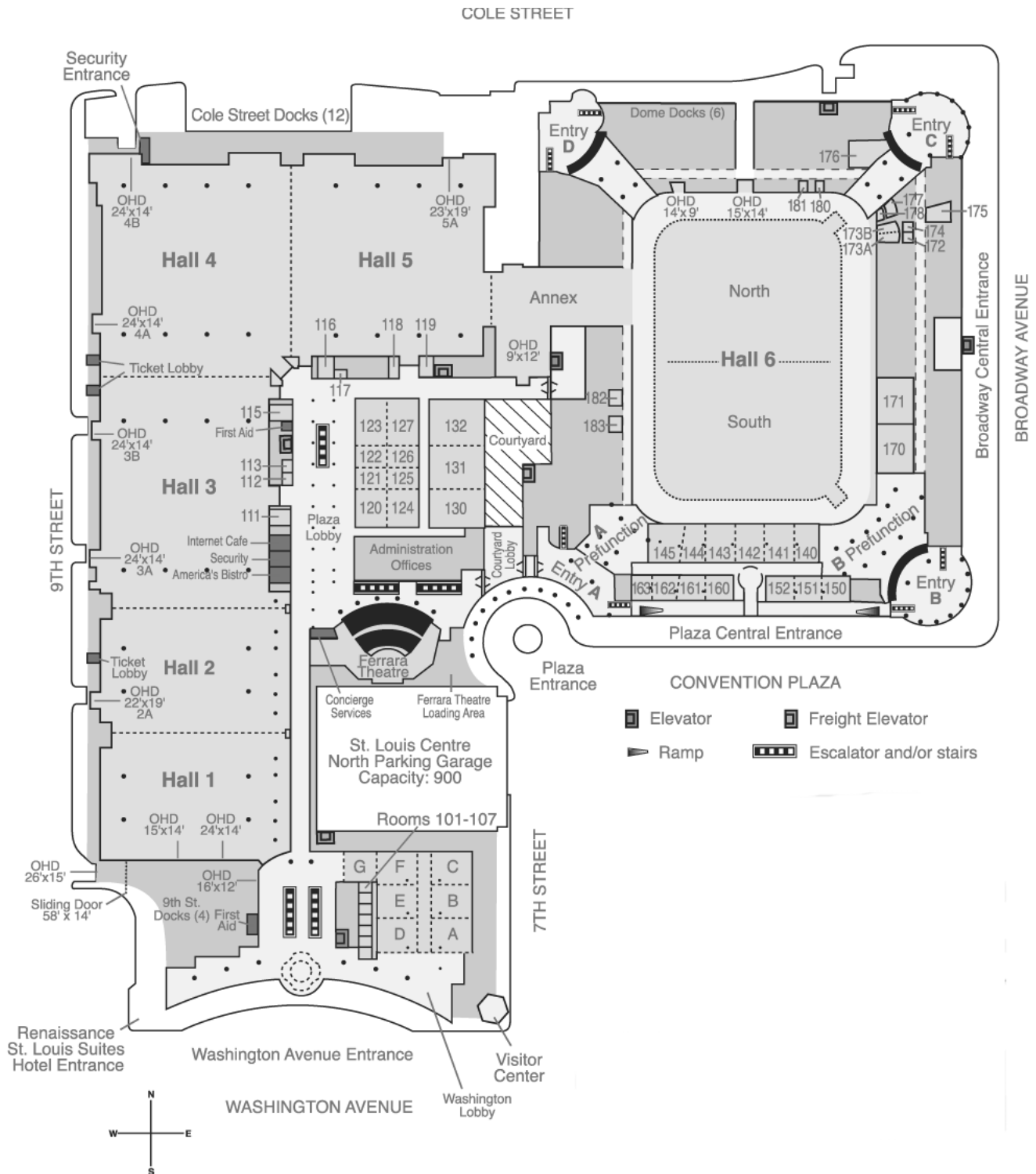
Thursday, July 29

8:00 am – 12:00 pm	Scientific Sessions	Convention Center
--------------------	---------------------	-------------------

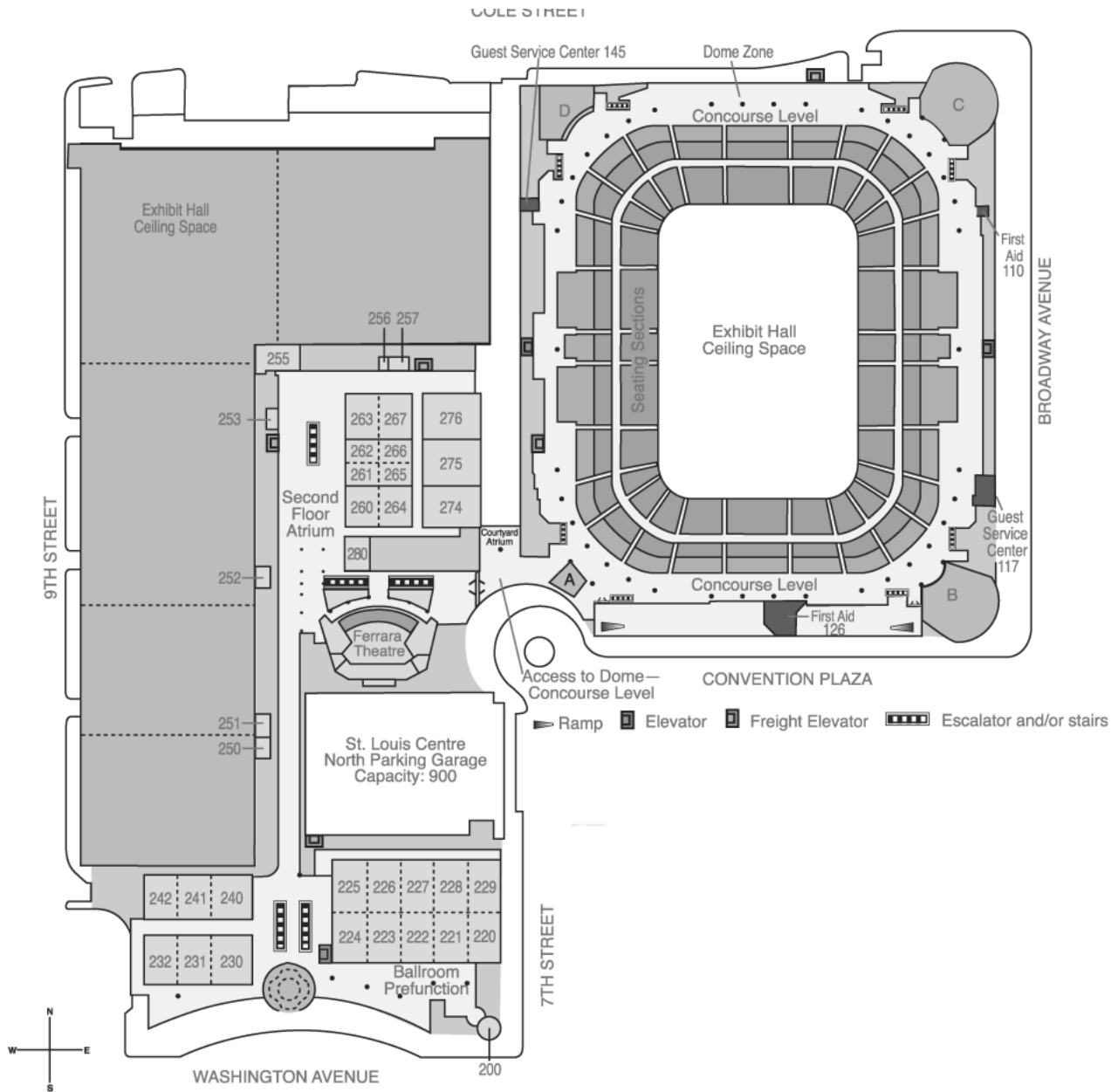
Housing Map Downtown St. Louis



America's Center Level 1 Floorplan



America's Center Level 2 Floorplan



Maps

Thank you to the 2004 ADSA-ASAS-PSA Joint Annual Meeting Sponsors!

PLATINUM

Elanco Animal Health
Pfizer Animal Health

GOLD

Alpharma Inc.
Diamond V Mills
Feedstuffs Newspaper
MetaFarms, Inc.
Monsanto Company
Nestle Purina PTC

SILVER

Arm & Hammer Animal Nutrition Group
DSM Nutritional Products, Inc.
European Association of Animal Production
Novus International, Inc.
PIC International Group
West Central Soy

BRONZE

ADM
Cargill Animal Nutrition
Chr. Hansen, Inc.
Jones-Hamilton Co.
Land O'Lakes/Purina
Midwest Poultry Services, L.P.
Milk Products, Inc.
National Pork Board
Phibro
USDA-ARS
Zymetrics

DONORS

Adisseo
ADSA Foundation
Ajinomoto Heartland LLC
Alternative Design
American Registry of Professional Animal
Scientists (ARPAS)
ASAS Foundation
Aviagen Inc.
BASF Corporation
California Dairy Research Foundation
Dairy Management Inc. (DMI)
Danbred North America (USA)
Danisco Animal Nutrition
Degussa Corporation
Embrex Inc.
Encore Technologies, LLC
Humane Society of the United States
Hybrid Turkeys
IMC
Kemin Americas, Inc.
Maple Leaf Farms
Midwest Poultry Federation
Newsham Genetics
NRCS
Southern Poultry Science Society
Tyson Foods, Inc.
Zinpro Corporation

