Winter 2007

The Jackrabbit Dairy Review

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Dairy Science Department

Faculty

Sanjeev Anand, Assistant Professor
Robert Baer, Professor
Howard Bonnemann, Instructor/Dairy Plant Manager
Alvaro Garcia, Associate Professor/Extension
Dairy Specialist
Ashraf Hassan, Assistant Professor
David Henning, Associate Professor Emeritus
Arnold Hippen, Associate Professor
Kenneth Kalscheur, Associate Professor
Lloyd Metzger, Associate Professor, Alfred Chair in Dairy Education
Vikram Mistry, Professor and Head
Rajinder Nath, Adjunct Professor
John Parsons, Professor and Head Emeritus
David Schingoethe, Distinguished Professor

Staff

Jill Anderson, Research Assistant
Ananya Biswas, Microbiologist, State Dairy Lab
Valerie Denison, Secretary
Kevin Gross, Assistant Manager
Dairy Research & Training Facility
Margaret Jensen, Word Processor
Gary Kirkham, Ag Foreperson/Lead Feed
Pete Linke, Ag Foreman/Transition/Fresh and Sick Cows/Calf Care, Interim Farm Manager
Kim Ludens, Secretary
Sachinkumar Magdum, Dairy Plant Superintendent
Jayne Raabe, Senior Secretary

Graduate Students

Dairy Production
Malek Abdelqader
Mini Bharathan
*Keith Christen
Peter Linke
Kamal Mjoun
Gaolebale Mpapho
*Colleen Mulrooney
Rosemary Nyoka

Dairy Manufacturing
Benjamin Pamp
*Sanjeewa Ranathunga

Akimoto Ichinomiya
Nirupama Nigam
*Darshan Purohit
Himanshu Somni

*Dairy Science Department, SDM 109, South Dakota State University, Brookings, SD 57007

MESSAGE FROM THE DEPARTMENT HEAD

Success for an academic department comes in the accomplishments of its students and alums and in the innovative activities of its teaching, research, and Extension programs. That was pointed out to us by the USDA-CSREES review team led by Dr. Basil Eastwood, M.S. ’60, and that included two other alums, Marv Post and Polly Vanderwal, and three faculty members from around the country. The team recommended sustained efforts at enhancing facilities and particularly noted departmental accomplishments within the constraints of given resources. Through modesty or plain ignorance we sometimes overlook these strengths, even though our faculty, students, and staff are people to be very proud of.

Read this newsletter for reports of our work and our involvement in expos, conventions, and dairy challenge. We particularly commend eight of our students who won National Dairy Board scholarships, an impressive 42% of the scholarships awarded nationwide.

We continue to be beneficiaries of the generosity of donors who collectively provided $52,000 this year in scholarships and awards. Our dairy plant remodeling project now has six partners, bringing total commitment to over $2 million. Another new industry partnership is the Heifers for State program, begun with five generous donors. The sale of these animals generated approximately $8,000 to use in our programs. Other renovation projects include remodeling of the free stalls at the Dairy Research and Training Facility and the renovation of a research lab in the Dairy Micro building.

Employment rate for our students is 100%. Our alums are making lasting and important contributions to the dairy industry around the country.

I invite you to be a partner with us in any of our projects so that we may together build the dairy industry of the future.

Vikram Mistry

Dairy Plant Update

While the Dairy Plant awaits the completion of the renovation project we carry on our teaching and research activities. Scott Schelske (B.S. ’73), state inspector, conducted a hands-on inspection tour of a commercial plant with our Field Experience class. We also gave tours to all age groups.

Approximately 20 students work part-time in the plant and dairy store every week. Our ice cream is now available at select grocery stores in Brookings, Clear Lake, Flandreau, and De Smet.
**NEW FACULTY AND STAFF**

**Dr. Sanjeev Anand** became assistant professor in dairy science in September, teaching microbiology courses and conducting research in dairy microbiology and food safety. Dr. Anand specializes in public health microbiology of milk and meat and their products. He holds Ph.D. and M.S. degrees in dairy microbiology from the National Dairy Research Institute in Karnal, India, and a B.Sc. from the D.S. College, Karnal. He has obtained advanced training in cellular signals and virulence expression markers of pathogens at the Canadian Research Institute for Food Safety, Guelph, Canada. For over 20 years, he was a scientist with the Agricultural Research Services in India. Dr. Anand is a certified auditor for food quality and safety management systems including ISO: 9001(2000) [IRCA, UK recognized], ISO: 17025 [ILAC/APLAC, USA recognized], FSMS [Standards Australia, SAI Global recognized], HACCP Implementer [DNS, The Netherlands recognized], and GLP Inspector [under OECD guidelines].

**Dr. Lloyd Metzger** is associate professor and Alfred Chair in dairy education, beginning January 2007. His expertise is in the area of structural and functional roles of components of cheese and fermented milks. At SDSU he will teach and conduct research in cheese technology. In 2005 Dr. Metzger was recognized by the American Dairy Science Association with the ADSA Foundation Scholar Award for outstanding research work. Dr. Metzger holds B.S. and M.S. degrees in dairy manufacturing from SDSU and a Ph.D. in food science from Cornell University. He was employed as research scientist at General Mills for 2 years prior to joining the Food Science and Nutrition Department at the University of Minnesota, St. Paul. While at Minnesota, Dr. Metzger served as the Director of the Midwest Dairy Foods Research Center.

**UNDERGRADUATE STUDENTS**

**Dairy Production**
Peter Beck, Princeton, MN  
*Rachel Becker, Eden Valley, MN  
Angela Bengston, Kandiyohi, MN  
Andrew Doll, New Salem, ND  
Natalie Herbert, Rock Rapids, SD  
*Joseph Kennedy, Beresford, SD  
Bradley Korver, Alton, IA  
Timothy Korver, Alton, IA  
Gerben (Gary) Landman, White, SD  
*Megan Mathews, Glencoe, MN  
Craig Niemann, Clear Lake, SD  
Thomas Norling, Beresford, SD  
Brittany Nußbaum, Garretson, SD  
*Jeff Preheim, Freeman, SD  
William Reyes, Salida, CA  
Heather Rollefson, Sibley, IA  
*Kraig Schlesner, Watertown, SD

**Dairy Manufacturing**
Kinsey Antonsen, Platte, SD  
* (SP 2007) Kirby Athey, Big Stone City, SD  
Tori Boomgaard, Pipestone, MN  
Jared DeNoble, Hills, MN  
Graissin Schmidt, Melrose, WI  
*Ashley Schroeder, Castle Rock, MN  
Eric Schultz, Rollingstone, MN  
Janora Smith, Merrill, IA  
*Brian Speltz, Plainview, MN  
*Aubree Stoll, Primghar, IA  
Ryan Tollefsrud, Murdock, MN  
Steven Vandyke, Elkont, IA  
*Samantha Wahls, Postville, IA  
Abigail Wirt, Lewiston, MN

**Dairy Prod/Manuf Double Majors**
Kimberly Allen, Page, NE  
Jessica Berg, Baltic, SD  
*Michael Dunn, Vale, SD  
Jenna Mueller, Big Stone City, SD  
*Kathryn Norling, Beresford, SD  
Alex Ode, Brandon, SD  
John Temme, Wayne, NE  
Ashley Vostad, Volga, SD

*New students in 2006

**HEIFERS FOR STATE**

Heifers for State gives us the opportunity to partner with the dairy industry in building the future of our industry. Heifers for State was inspired by Steers for State, the popular fund raising program for the SDSU rodeo team. A producer donates an animal that is then sold. Proceeds go toward enhancing dairy science programs at SDSU.

Animals donated by five generous producers were auctioned at the Central Plains Fall Sale in October. Donors included Marv and Joy Post, John and Annelise Sefrood, Wim and Nicoline Hammink, Randy and Diane Schweer, and Brad DeBoer. This partnership will continue in the spring when we expect to have the 1st annual Dairy Day on March 3. On this day faculty and students will showcase dairy science programs and will interact with attending producers.

We also expect to continue the Heifers for State program and invite you to consider becoming a donor and investor in the future of the dairy industry.
**2006 Graduates**

Congratulations to the following 2006 dairy science graduates. We wish them well in their careers.

**B.S., Manufacturing**
- Kari Gorsuch, Woonsocket, SD
- Donovan Halajian, Sunny Fresh Foods, Panora, IA
- Todd Lippert, Leprino Foods, Fort Morgan, CO
- Francisco Torres, Ecolab, Kalamazoo, MI

At the SDSU May 2006 commencement, Mr. Henry Ditterich was awarded an Honorary Bachelor of Science degree in Dairy Science. Mr. Ditterich does not have a formal education in dairy science, but over his 40-year career in the dairy industry he demonstrated outstanding accomplishments, leadership, and professionalism that qualified him for this honor. Prior to his retirement he was employed in the aseptic department of AMPI in Dawson, MN, and had been at AMPI for approximately 40 years.

**B.S., Production**
- Derek Griebel, Paullina Farmers Coop, Paullina, IA
- Daniel Fritsche
- Christopher Hulstein, home farm, Edgerton, MN.
- Kristin Kuhl, Norswiss Dairy, Castlewood, SD
- Michale Lax, Prairie Gold Dairy, Flandreau, SD
- Derek Shumaker (Double Major)

**M.S.**
- Panna Agrawal, dairy manufacturing, Morningstar Foods, Merced, CA
- Sumita Chanda, dairy manufacturing, Whitewave Foods, Rowland, CA
- Arun Sasikala, dairy production, graduate school, University of Maryland
- Milton Thomas, dairy production, graduate school, Purdue University

**Ph.D.**
- Daryl Kleinschmit, dairy production, AgriKing, Fulton, IA

**Judging Activities**

**Dairy Cattle & Production**

Our students participated in the Midwest Regional Intercollegiate Challenge in Brookings and the National Challenge in the Jerome area in Idaho. Participating were Andrew Doll, Chris Hulstein, Brad Korver, Gary Landman, Mike Lax, Heather Rollefson, Janora Smith, and Ryan Tollefsrud. Darrel Rennich and Arnold Hippen were coaches. At the Midwest Challenge Mike Lax and Janora Smith, dairy production majors, were members of teams selected as Platinum performers, the contest's highest distinction. Andrew Doll, Mike Lax, Chris Hulstein, and Ryan Tollefsrud were members of the National Challenge team and received a gold placing.

Our cattle judging team of Brad Korver, Brittany Nussbaum, Jared Schafer, and Heather Rollefson participated at the World Dairy Expo Intercollegiate Judging Contest, and another team of Brittany Nussbaum, Heather Rollefson, Jared Schafer, and Steve VanDyke participated in the The Accelerated Genetics Intercollegiate Dairy Judging Contest in Viroqua, WI. At the Expo contest our team placed 17th overall. As a team SDSU placed 13th in oral reasons. At the Accelerated Genetics contest the team placed 14th. The teams were coached by Darrel Rennich.

**Dairy Products**

The dairy products judging team placed 2nd at the Midwest Regional Contest. Team members were Kari Gorsuch, Travis Holscher, Jenna Mueller, and Darshan Purohit. The team placed first in Cheddar and cottage cheese and third in ice cream. At the National Collegiate Dairy Products Judging Contest in Chicago, the team placed 4th overall. In the graduate student contest Purohit placed 1st overall. As top judge in the graduate contest Purohit received the Genevieve Christen Award. Team rankings were 2nd in butter and yogurt, 6th in ice cream and cottage cheese, and 7th in milk. The team is coached by Dr. Bob Baer.

**Professional Activities of Faculty**

Faculty and students together presented over 60 papers, including in refereed scientific journals, book chapters, Extension publications, thesis papers, or dissertations. All are listed at [http://dairysci.sdstate.edu](http://dairysci.sdstate.edu).

Dr. **Robert Baer**, professor, and **Richard DeRouchey**, junior, were invited to participate in the Spring 2006 Management and Leadership Conference sponsored by Quality Chekd Seco (QCS) in St. Louis. The educational workshops included one on sensory evaluation of dairy products. Baer and DeRouchey were also invited to participate as guest judges in the 2006 World Championship Cheese Contest in Madison, WI, joining 17 other judges to evaluate 1,792 cheeses from 18 countries. Four of the 19 judges at this contest had SDSU affiliation.

**Howard Bonnemann** served as secretary/treasurer of the South Dakota Dairy Association. He conducted several dairy product judging clinics for South Dakota high schools.

Dr. **Alvaro Garcia** was granted tenure for his accomplishments as associate professor and Extension dairy specialist. He was also selected to receive the 2006...
**Professional Activities of Faculty (continued)**

SDSU Gamma Sigma Delta Extension award. Dr. Garcia returned to Honduras in 2006 to continue work he started on milk quality. He also once again offered a dairy Spanish class.

Dr. Ashraf Hassan was the vice chair of the Great Plains subsection of the Institute of Food Technologists. He was selected to receive the ADSA Foundation Scholar Award in recognition of his work on exopolysaccharide producing cultures in dairy products.

Dr. Dave Henning retired in June 2006. Dr. Henning joined SDSU in 1990. He was the holder of the first endowed Chair at SDSU: the Alfred Chair in Cheese Chemistry and Technology. He was recognized with the Milk Industry Foundation Teaching Award of the American Dairy Science Association and the Gamma Sigma Delta teaching award at SDSU. He advised numerous undergraduate and graduate students and mentored students who won awards including the Joseph F. Nelson undergraduate research mentorship and the Griffith student research award. He was also advisor to the SDSU Dairy Club.

Dr. Arnold Hippen was vice-chair of the physiology committee of National ASAS, chair for the NC-1009 regional research project, chair of Institutional Animal Care and Use Committee of SDSU, and chair of the undergraduate research paper contest at the Midwest ADSA conference and member of the Midwest Dairy Challenge committee.

Dr. Kenneth Kalscheur was promoted to associate professor. Dr. Kalscheur’s research program focuses on dairy cattle nutrition, especially in the area of distillers grains, and he also teaches. He was chair of the ruminant nutrition committee for Midwest ADSA and an award committee for ADSA.

Dr. Vikram Mistry continues to be U.S. editor for the French Journal of Dairy Science, Le Lait, and is on the advisory board of NCCIA. He was a member of two awards committees for the ADSA.

Darrel Rennich served as a board member for the Central Plains Dairy Expo and as president of SD Holstein Association.

Dr. Dave Schingoethe is an editor of the Journal of Dairy Science (ADSA). He was the recipient of the Distinguished Service Award of the ADSA.

**On-going or Completed Research Projects – 2006**

Dr. Robert Baer, improving the nutritional quality and texture of frozen desserts, $20,000, Wells Dairy, Inc.

Drs. Don Boggs, Robbi Pritchard, Hans Stein, Arnold Hippen, David Schingoethe, biomass research and development for the production of fuels, power, chemicals, and other economical and sustainable products, $150,000, Broin Industries.

Drs. David Galipeau, Ashraf Hassan, Michael Ropp, Xiuging Wang, Brian Logue, Jihong Cole-Dai, acquisition of a scanning electron microscope, $252,000, National Science Foundation.

Dr. Ashraf Hassan, expanding the use of whey in food and increase in food safety, $30,000, USDA-FAS, US-Egypt joint board on scientific and technological cooperation; expanding the use of whey in food and increase in food safety, $30,000, USDA-FAS, US-Egypt joint board on scientific and technological cooperation; isolation and purification of exopolysaccharides from lactic cultures, $6,000, Royal Veterinary and Agricultural University, Denmark.

Drs. Ashraf Hassan, Vikram Mistry, improvement of the texture and functionality of reduced fat Process cheese, $89,224, Midwest Dairy Foods Research Center.

Joan Hegerfeld (Family Youth Development/4-H), Dr. David Henning, Padmanaban Krishnan (Nutrition, Food Science and Hospitality), Rhoda Burrows (Horticulture, Forestry, Landscape and Parks), reduction of foodborne risks associated with direct marketed foods in South Dakota, $500,000, CSREES/USDA.

Dr. Arnold Hippen, periparturient supplementation of dairy cow diets with probiotic and/or fat, $20,000, Pestell.

**New Funds for Supporting Research and Other Programs**

Dr. Bob Baer, support for the products judging team, $2500, Food Processing Suppliers Association.

Drs. Ashraf Hassan, Chandradhar Dwivedi, chemopreventive effects of exopolysaccharides produced by yogurt cultures on tumor development, $20,000, SD Agricultural Experiment Station.

Dr. Arnold Hippen, feeding value of corn germ compared with corn distillers grains in dairy cow diets, $31,445, SD Corn Utilization Council.

Dr. Arnold Hippen, Ashraf Hassan, production of novel probiotic dairy products rich in conjugated linoleic acid, $27,000, U.S. Egypt Joint Science and Technology Center.
Drs. Arnold Hippen, Alvaro Garcia, Kenneth Kalscheur, comfort and hygiene of dairy cows lying on organic vs. inorganic bedding materials, $22,542, Ag Lime Sales Inc.
Drs. Arnold Hippen, David Schingoethe, Kenneth Kalscheur, glycerol, a coproduct of biodiesel production: effects on rumen fermentation and metabolism when fed to dairy cows, $6,000, IFFCO; new uses of distillers grain products in dairy cattle feeding, $167,000, USDA-ARS; glycerol as a feed supplement to dairy cows, $15,000, South Dakota Soybean Research and Promotion Board.
Drs. Kenneth Kalscheur, Alvaro Garcia, Arnold Hippen, David Schingoethe, preserving characteristics and digestibility of wet distillers grains with and without the addition of Silo-King, $7,069, Agri-King.
Dr. Vikram Mistry, development of a new buttermilk ingredient, $140,082, Kraft Foods; Process cheese from membrane concentrated/fractionated milk, $52,888, Midwest Dairy Foods Research Center.
Drs. Trey Patterson, Kent Tjardes, Robert Thaler, Alvaro Garcia, Cody Wright, corn distillers grains as a strategy to improve the nutritional status of livestock, $4,000, South Dakota Corn Utilization Council.
Drs. David Schingoethe, Arnold Hippen, Kenneth Kalscheur, feeding value of corn distillers solubles and distillers grains with or without solubles for lactating dairy cows, $33,925, South Dakota Corn Utilization Council.
Dr. David Schingoethe, distillers grains in dairy cattle diets, $24,000, Griffith Faculty Research Award, SDSU College of ABS; evaluation of improved dried distillers grains with solubles for dairy cattle, $40,683, Dakota Gold Research Foundation; evaluation of feeding yeast extract to lactating cows during warm weather, $30,000, Diamond V Mills, Inc.

The officers in 2006 were Janora Smith, president; Heather Rollefson, vice-president; Peter Beck, secretary; Brad Korver, treasurer; Abbie Wirt and Ashley Vostad, historians; and John Temme and Miranda Bye, activities coordinators. Advisors are Howard Bonnemann, Dr. Arnold Hippen, and Darrel Rennich. In spring, club members traveled to Madison, WI, to attend the ADSA Midwest student affiliate conference. The club helped host a dairy camp for K-12 students in June and attended the World Dairy Expo in Madison in October. Once again, club members helped host the 2006 Central Plains Fall Sale on the SDSU campus and sold cheese boxes in fall. Club members traveled to Toronto, Canada, to attend the Royal Agricultural Winter Fair and tour Canadian dairy farms.
SCHOLARSHIPS

Thanks to the generosity of many alumni and the industry, our students continue to be supported through scholarships. At the Spring 2006 banquet, 71 scholarships and awards totaling approximately $52,000 were presented. Scholarships were as follows:

- John Anderson Memorial $1000
- Associated Milk Producers, Inc. $1000
- Ross Baker Memorial $800
- Emery Bartle Memorial $2500
- Dairy Club (2 @ $250 each) $500
- Dairy Farmers of America $400
- Danisco (2 @ $1,000 each) $2000
- Davisco Foods Int’l, Inc. $750
- Dean Foods - Land O’Lakes $1000
- Durall $500
- Gilbert T. & Olga Gilbertson Memorial $750
- Clyde Helsper Memorial $400
- Land O’Lakes-Region 65 $500
- Kemps Foods $1500
- James Marvel Memorial $600
- Kirk Mears Memorial $1800
- North Central Cheese Industries Association (2 @ $1500, 1 @ $1200) $4200
- Nordica Licensing Inc. $500
- H. C. Olson $850
- T. M. Olson $1000
- Alfred Hermann Rishoi (2 @ $1000 each) $2000
- Ralph Rogers Memorial $400
- Saputo Cheese $1000
- Joe E. Schuch (2 @ $1000 each) $2000
- Shirley Seas Memorial $750
- SD State Dairy Association (4 @ $1000 each) $4000

- Valley Queen Cheese Factory $2500
- Joseph Van Treeck $1000
- Wells Family Foundation $1000
- JJ Yee Scholarship $500

Awards

- D. F. Breazeale Memorial $650
- Dairy Judging Manufacturing $150
- Dairy Judging Production $150
- Forbes Leadership $300
- Graber-Ford $125
- Alfred Tobkin Memorial (4 @ $150 each) $600
- Howard Voelker Memorial (4 @ $150 each) $600
- Dairy Challenge Award (4 @ $100 each) $400
- Dairy Challenge Award $100
- Virginia Dare $250

Incoming Students Scholarships

- Dairy Science Faculty (2 @ $700 each) $1400
- William & Marge Kallemeyn & Sons (2 @ $1000 each) $2000
- Midwest Dairy Assn/SD Division (2 @ $750) $1500
- SD Dairy Fieldmen’s Association (5 @ $750) $3750
- Clyde G. Helsper Dairy Fieldmen’s $750
- Valley Queen Cheese Factory $1000
- Royal and Helen Donor in Dairy Production $600

Dairy Science students won 8 of the 20 scholarships awarded by the National Dairy Promotion and Research Board in nationwide competition. Peter Beck, Tori Boomgarden, Richard DeRouchey, Kari Gorsuch, Jonah King, Jenna Mueller, and Abbie Wirt each received $1500 scholarships and Ryan Tollefsrud won the $2500 Loper award.

STUDENT ACCOMPLISHMENTS

Peter Beck (production junior), Wendy Weber (manufacturing junior), and Garrett Doucette (manufacturing senior) were selected as AgBio Ambassadors. Peter, Wendy, and Garrett are promoting the College of Agriculture and Biological Sciences at SDSU to prospective students. Garrett Doucette, senior dairy manufacturing major, was elected as 2006-2007 National PAS vice-president elect at the National Postsecondary Agricultural Students Organization Conference. At the National PAS Conference, Garrett received 1st place in employment interview. Earlier in the year at the state PAS conference, Garrett received 1st place in employment interview, 5th in ag mechanics and was awarded a CHS Cooperative Foundation Scholarship.

Jenna Mueller, senior dairy production and manufacturing major, was selected as the South Dakota Dairy Princess for 2006-2007. Katie Norling, freshman dairy manufacturing student, was runner-up. Other competing dairy science students included Ashley Vostad and Jessica Berg.

Benjamin Pamp was the recipient of the 2006-2007 John Brandt Memorial Foundation Scholarship. This scholarship is awarded annually on a competitive basis to students pursuing advanced studies in dairy science. Ben is working towards his Ph.D. in dairy production under the guidance of Dr. Kenneth Kalscheur.

Two dairy science students, Abigail Wirt of Lewiston, MN, and Ashley Schroeder of Castle Rock, MN, competed in 4-H dairy cattle judging contests with excellent placings. Abbie, a dairy production sophomore, competed at the North American International Livestock Expo in Louisville, KY, where 86 individuals and 22 teams from the U.S. participated. Abbie was 1st in Guernsey, tied 1st for reasons, 10th overall, and 6th in Jerseys. Ashley, a dairy production freshman, participated in the 43rd Annual All American Dairy Show in Harrisburg, PA. Her Minnesota 4-H team placed first among 15 teams from around the country. The team also placed 2nd overall out of 30 teams at the World Dairy Expo in Madison, WI. Ashley placed 3rd individual in the contest and 6th in individual reasons. Her team will now head to Edinburgh, Scotland, in June 2007 to compete in the International Dairy Judging Contest.
Visitors
In addition to seminar speakers and interviewers, the Department hosted several visitors from various parts of the country and the world. These included Cao Zhiun, Ph.D. candidate at China Agricultural University; Ingrid Ayala Hernandez, M.S. student at University of Guelph, Canada; Dr. Morsi El Soda, dean, faculty of agriculture, Alexandria University, Egypt; Dr. Karsten Qvist, principal senior scientist, Danisco, Denmark; Dr. Hussein Abd El Aal, Department of Food Science and Technology, Minia University, Egypt; and Dr. Aly Khatab, Alexandria University, Egypt.

Years of Service
Margaret Jensen, word processor, 20 years of service.

Outreach
National Holstein Convention
In June the National Holstein Convention was held in Sioux Falls. The Dairy Science department played an active role in organizing the event. Producers and other dairy personnel from around the country convened to hear numerous speakers and attend farm tours, sales, and other events.

Midwest Regional Dairy Challenge
SDSU hosted the Midwest Regional Dairy Challenge in February under the leadership of Darrel Rennich and Dr. Arnold Hippen. The contest attracted 68 students from 10 universities across the Midwest. Several local dairies generously opened their facilities for the contestants and tours.

Central Plains Dairy Expo
Faculty and alumni were involved in program planning for the March expo in Sioux Falls. Dairy Club and staff assisted with registration and other duties. Faculty provided presentations on various topics and conducted a cheese tasting contest.

K-12 Students
Dairy Science faculty designed and conducted several programs this year for educating K-12 and other students about opportunities in Dairy Science as a college major and permanent career.

Dairy Camp
The Club hosted the 4th annual Dairy Camp on June 13-15 for youth aged 8-18. This year 23 youths participated on the SDSU campus and at the SDSU Dairy Research and Training Facility. Activities included a visit to a commercial dairy, training on heifer care, reading pedigrees, judging, a visit to the SDSU dairy plant, making ice cream, clipping and showing cattle, and entertainment. Sponsorship was provided by Monsanto and Midwest Ag.

SDSU-FIS Success Academy
The Department sponsored a visit by the SDSU-FIS (Flandreau Indian School) Success Academy. This visit provided perspectives on dairy science and career opportunities available for dairy graduates. Twelve students participated, manufactured ice cream, and toured the dairy plant.

High School Visits
Recruiting students for our programs is a year-round activity and a priority. Dairy Science Ag-Bio Ambassadors visited several high schools throughout the year in South Dakota, Iowa, and Minnesota. The department head visited schools in Lamberton, Upsala, and Pipestone, MN, and in Brandon, Mitchell, and Harrisburg.

Extension
Meetings and Workshops
Aside from local workshops, Extension also participated in regional and international activities such as training in Honduras, Mexico, Minnesota, and North Dakota.

Training Courses for Hispanics
Training workshops on how to obtain hygienic milk were offered to dairy workers. A special Spanish class "Spanish for Animal Scientists" was offered to students in Fall 2006.

Dairy Science at World Dairy Expo
The Dairy Science Department and the South Dakota Department of Agriculture jointly displayed a booth at the Expo in Madison, WI. The booth highlighted dairy development efforts, education, research activities, and opportunities in South Dakota. Many interested people and alums stopped by to learn and say hello.
**Alumni Activities**

Dairy Science alumni continue to make impressive impacts in their careers. Listed here is a sampling. Additional listings are on our website.

**Tim Czmowski**, B.S.’85, and **Mark Johnson**, M.S.’76, were selected to be expert judges at the 2006 World Championship Cheese Contest in Madison, WI. Tim was assistant chief judge. Tim and Mark joined 17 other judges to evaluate 1792 cheeses from 18 countries.

**Basil Eastwood**, M.S.’60, is program leader, USDA-CSREES, Washington, D.C. Basil was also leader of the CSREES team that conducted our program review.

**Jennifer Fieber**, B.S.’98, former Dairy Princess and currently scientist at Kraft Foods, Glenview, IL, spearheaded the development of Natural Cheese Crumbles.

**Jim Field**, B.S.’77, was recognized for 25 years of service to the South Dakota County Agents Association and Cooperative Extension Service. He is sales representative for Dow AgroSciences.

**Sean Groos**, B.S.’88, is farming in Howard Lake. He currently has 170 cows.

**Lowell Kruse**, B.S.’89, returned from 9 months of service in Iraq.

**Monte McIntyre**, B.S.’90, is cheese maker/plant manager for Point Reyes Farmstead Cheese Company, Point Reyes, CA.

**Lloyd Metzger**, B.S.’92, M.S.’94, associate professor of food science at the University of Minnesota, was named to the Alfred Chair in Dairy Education at SDSU.

**Michelle Rook**, B.S.’89, was recognized as Distinguished Alum of the SDSU Journalism Department. She is managing farm director for WNAX Radio in Yankton.

**Brad Snaza**, B.S.’96, was elected vice president of the North Central Cheese Industries Association.

**Duane Spomer**, B.S.’75, is food defense advisor, Agricultural Marketing Service, USDA, Washington, D.C.

**Joe Van Tereeck**, B.S.’80, continues as president of Matanuska Maid Dairy of Anchorage, Alaska. Joe was recognized by the Alaska Pacific University chapter of Sigma Beta Delta with honorary membership and an award of excellence.

**Mike Wolkow**, B.S.’96, was selected as division manager of AMPI for Iowa and South Dakota. He became manager for Sibley/Sanborn divisions of AMPI.

Officials for the 2006 Collegiate Dairy Products Evaluation Contest, Chicago, IL, were Cheddar cheese: **Virgil Metzger** (lead judge), B.S.’69, M.S.’71, **Tim Czmowski**, B.S.’85, **Rich Holtquist**, B.S.’83; milk: **Mayur Acharya**, Ph.D.’03; yogurt: **Don Tribby** (lead judge), B.S.’83; lead computer tabulator: **Jennifer Fieber**, B.S.’98.

The 2007 Dairy Science spring seminar series will include dairy science alumni, faculty, students, and industry personnel. If you are in the area on Mondays at 4 pm in the spring you are invited to join us in SDM 100. Topics can be viewed at http://dairysci.sdstate.edu starting in January.

**Mark your calendar**

- April 2: 2007 Dairy Science scholarship banquet, 6 p.m., SDSU Student Union.

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**Alums and Students:** Please visit the Careers Section of our website for a listing of job opportunities in dairy science. You may call us for details on positions that interest you.