

A Few Words From the Department Head

There is so much happening so fast, it is hard to believe it has been two years since our last newsletter. Fortunately, our student-produced Dairy yearbook published every spring under Dr. **Leanne Berning's** supervision helps us keep in touch. Much of what we've accomplished is...academic: We've completed reports and reviews and projects. We've also installed new equipment, new parking lot, and soon, new roofs for the barn and pavilion, and new ventilation and countertops for the teaching lab, which also recently benefited from a much needed new floor. The student computer lab had been languishing with outdated equipment and software until a generous donation from **Dick Clauss** brought it back on line with 13 new computers. For the first time in recent years, our dairy farm was in the black at the end of the fiscal year.

Almost 200 friends and family enjoyed the Spring Dairy Banquet in April. Over \$30,000 in scholarships were awarded. **Jack Albright and Dan Benedetti** were made Honorary Members of the Los Lecheros Dairy Club in recognition of their many contributions. Please try to join us at this year's **Spring Banquet on April 15, 2000**.

Carolyn Podgurski has returned to Cal Poly, where she received her undergraduate degree, after gaining 15 years of experience in food formulation, clinical nutrition and institutionalized food service operations as a registered dietitian. She is working with the Dairy Ingredients Applications Program lead by Drs. **Tong, Jimenez and Farkye**, to provide technical assistance in areas such as food formulation, processing, functionality, and nutrition information for dairy ingredient applications.

We are excited to have a new cheese maker, **Emilio Medrano**. Emilio is one of Cal Poly's talented Master of Agriculture students in Dairy Products Technology. He has been working with Professor **Nana Farkye** (of controlled-melt cheese fame) in developing some fine cheeses. If you didn't receive a flyer in the mail about the holiday gift packs, check out www.calpolycheese.com. We are also fortunate in having the business and creative talents of **David Ahlem**. While Dave is helping the Creamery with marketing and a whole lot more, he is working full-time on his MBA.

Enclosed with this newsletter is a **survey sheet**. It helps us to receive feedback from the people on the front lines. We want to be responsive to what is needed now and in the future. We want to know how you think we are doing in the various ways we try to serve the needs of the students and the dairy industry. We also want to know from our customers (our students) if we provided you with what you needed (or at least made it available), and what else we can do to better prepare future students. Please take some time to tell us your thoughts on these topics.

We've struggled hard for a long time, and we want to share some of our successes, and share credit for them. Many are due to the support we receive from our students, parents, alumni and friends in the industry. More about that later. All of our efforts here are toward providing the very best education for our students. They, in turn, continue to excel and make us all proud. This newsletter highlights some of their accomplishments.

Best wishes and keep in touch! *Les Ferreira*

Upcoming Events

December 11 (9:30 a.m.)	Graduation
February 11-12	Jersey Convention
April 15	Dairy Science Banquet and
April 15-17	Cal Poly Homecoming
July 13-15	Holstein Cow Camp

Honors and Activities

Dairy Cattle Judging Team

The Cal Poly Dairy Cattle Judging Team, with its coach Dr. **Stan Henderson**, has had a busy and successful year. Starting last May, a team including **Nancy Deutsch, Andrew Genasci, Brian Soares, and Grant Ahlem** placed first in the Richmond, Utah Western Spring National Judging Contest. Individually **Nancy** took second place and **Andrew** took third.

Two teams have competed in fall contests with the junior team placing 5th out of 17 teams in the Accelerated Genetics Judging Contest in Viroqua, Wisconsin. This team was made up of **Nancy Deutsch, Jana McClelland, Becky Deniz, and Lucas Deniz**.

The highlight of the cattle judging season is the National Contest in Madison, Wisconsin. This year our senior team placed 6th, with 27 teams competing. Team members included **Ryan Matheron, Ryan Bertao, Andrew Genasci, and James Davis**. Two of these team members, **Ryan Matheron** and **Ryan Bertao**, received All American honors by placing 12th and 16th, respectively.

The last of the fall judging contests was held in Louisville, Kentucky on November 6th. The Cal Poly team, **Becky Deniz, Lucas Deniz, Andrew Genasci** and **Jana McClelland**, placed 7th of 20 teams.

Dairy Products Judging Team

The Cal Poly Dairy Products Judging Team traveled with their coach, Dr. **Will Gillis** and Dr. **Gary Reif** to compete in the National Collegiate Dairy Products Judging Contest held in Chicago on October 30, 1999. Out of 19 teams participating, Cal Poly finished 2nd overall. **Kyle Kaepernick, Mabelyn Silva, Sara Renner, Renee McLaughlin, Nancy Deutsch** and **David Ahlem** made up the team. The team placed 1st in yogurt, 2nd in milk, 4th in butter and cheddar cheese, 5th in cottage cheese, and 6th in ice cream. Individual award winners were **Nancy Deutsch** with 3rd in cheddar cheese and 3rd overall; and **Mabelyn Silva** with 1st in yogurt, 2nd in milk, and 4th overall. In the graduate student competition **David Ahlem** placed 1st in butter, 1st in yogurt, 3rd in ice cream, and 2nd overall.

On October 16th the team traveled to Chicago to participate in the Kraftco Inc. Research Laboratories contest. Cal Poly took 3rd out of 13 teams. **Kyle Kaepernick** took 1st in cheddar, 2nd in cottage cheese, 3rd in butter, and 4th overall. **David Ahlem** took 1st overall in the graduate student competition.

National Dairy Shrine Awards

Arte Marquez was selected by the National Dairy Shrine (NDS) as first place winner of the 1999 student recognition contest. Arte graduated in the spring and has returned to the family dairy. Senior **Ryan Iest** was one of the 1999 NDS/DMI Milk Marketing Scholarship winners. NDS selected **Natalie Borba** as the winner of the Marshall McCullough Scholarship for incoming college freshmen. **Brian Christiansen** was second place winner in the 1998 NDS student recognition contest.

John R. Holland's senior project work with Dr. **Ed Jaster** resulted in an article published in the September 13, 1999 issue of *Feedstuffs*, "Use of short, long staple cottonseed examined."

Norbert Duarte received first place for his paper "Carbonation – A Key to Extended Shelf Life," in the undergraduate student division of papers presented at the American Dairy Science Association in July 1998.

Dean's List

The following Dairy Science students were recognized for their academic accomplishments by making the Dean's Honors List during the 1998-99 academic year: **Jaime Barycki, Brinkley Benson, Lucky Bogatsu, Benjamin Brown, Paulo Carvalho, Nancy Deutsch, Ryan Iest, Jorge Jinenez, Lori Leach, Arthur Marquez, Michael Meisner, Chrystal Nichols, Sara Rose, Rebecca Seifert, Brian Sundberg, Richard Westra.** Those making the President's Honors list by earning a 3.5 or greater GPA during three quarters in one academic year: **Brinkley Benson and Lucky Bogatsu** for 1998; **Nancy Deutsch and Ryan Iest** for 1999.

Graduate Student Activities

When the Dairy Products Technology Center started as a single laboratory next to the Food Science Pilot Plan in 1998, graduate students studying Dairy Product Technology were non-existent. By the summer of 1995, there were already four graduate students. Today, this group has grown to 18, all pursuing their Master's degree through research. However, that is not the only area of growth. Academic activities, involvement in state and national research presentations and competitions, and diversity in research has given our graduate students national recognition.

For example, at the 1998 annual meeting of the American Dairy Science Association, 13 of the 130 research papers on dairy foods presented at the meeting were from the DPTC at Cal Poly, not counting other collaborations with other universities. In 1999, in the same national meeting, 11 of the 110 dairy foods papers originated with Dairy Science Department faculty and students.

Cal Poly has been represented by at least one graduate student each year in the national graduate student competition. This year our graduate students have been outstandingly active with two winning entries to the Dairy Management Inc. "Discoveries in Dairy Ingredients Contest." Two groups of students worked for six months in the development and marketing of original dairy products, using dairy ingredients. At the national level, the Cal Poly teams earned two first place awards, with cash and recognition attached to them. A team consisting of **Julie Angold, Stacy Fuller, and Aaron Harris** won first place in "Most Original Use of a Dairy Ingredient" for MOOFU, a dairy based tofu. This product, based on dairy ingredients, blends easily with any food. **Beth Fryksdale and Kelly Munsell** were the other winning Cal Poly team. They received first place in "Most Marketable Product" for a dry dairy mix that can easily turn to a frothy drink, for kids ages 5 to 12, by just adding water and shaking. MOOJUICE, as this product is called, is fun to make (add water and shake), has a long shelf life (sold dry at the store) and the consumer can also mix flavors such as coconut, chocolate, vanilla and strawberry. **Beth** also won a prize from the National Starch Company, and got all her travel paid to Chicago for the Annual IFT meeting. Besides the cash, these students enjoyed a tremendous experience in dairy foods technology and won national recognition that will help them throughout their careers.

The research quality has also been extraordinary during this year. At the state level, **Chi Kong Vincent Yeung** won a first place in the CSU graduate student paper competition held at Cal State Bakersfield in May. Vincent presented "Altering Milkfat Composition by Supplementing the Diet of Dairy Cows and Its Relationship to Thermal Properties of Milkfat, Butter Texture and Butter Rheology." **Po Sai Marie Yeung** won second place in the same CSU competition for her paper on "Gene-Based

Techniques for Species Identification and Strain Relatedness of Commercial Probiotic Strains." **Marie Yeung** was also selected to receive the award for Outstanding Graduate Student at the Spring 1999 Commencement. Because of their high quality work and professional and academic promise, **Marie and Vincent** received three-year paid assistantships for the food science doctoral program at Cornell University.

Annie Bienvenue participated in the graduate student paper competition at the annual meeting of the ADSA; **Maurice Pitesky** won second place in the student paper competition at the national annual meeting of the Institute of Food Technologists held in Chicago in June.

All of these achievements demonstrate the deep commitment of the students for their research in dairy products science and technology, and in some part, the guidance and motivation provided by the faculty involved in advising and research: **Dr. Phil Tong, Dr. Nana Farkye, Dr. Rafael Jiménez-Flores and Dr. Mary Ellen Sanders.**

Remembering and Giving Thanks

Gene Starkey, Secretary/Treasurer of the California Creamery Operators Association, and former Dairy Science Department Head, is working on the **Harmon Toone Memorial Fund.** Working along with **Doug Maddox** (Chairman), **Richard Cotta, Rich Denier, Marvin Nunes, Tom Nunes, Jr., and Dan Ranney,** two donation/sales have been scheduled for December 8th in Escalon, and December 10th in Hanford. Alumni and friends will be contacted for an opportunity to assist in this special project.

A memorial scholarship fund was established in honor of **Richard Tate**, Cal Poly graduate and late Chief of CDFA's Milk and Dairy Foods Control Branch, who passed away in April. It would seem that Richard's humor, sincerity, competency and caring ways made an impression on many people. Contributions to this fund have exceeded \$30,000.

The **Dairy Club** wanted to recognize the many contributions of Gene Boone. The students decided to design a sign for the entrance to the Dairy and to help pay for the installation. The Department initiated the process (which is reviewed by people all the way up to the Board of Trustees) to install a sign reading "**The Eugene and Rachel Boone Dairy Science Complex, Cal Poly.**" We're told it may be a reality by spring.

We notice that some people, whether recognizing their personal anniversaries or responding to the University's request for support, are still remembering Tyler Hammond III, Matt Ahlem, Ray Hansen, Neil and Dorothy McPherson, Sue Durrer, George Drumm, Russell Nelson, the Dairy Club and the Judging teams with specially directed donations. On behalf of the students who benefit from the scholarships and the enhanced experiences provided by the special activities these funds support, we thank all of you who, together, make these things possible.

1999 State Holstein Convention

Hundreds of dairy families, students, and faculty took part in the many activities at the 1999 State Holstein Convention held in February at Embassy Suites and at the Cal Poly Dairy. One of the highlights of the convention was the Cal Poly Classic Sale, which averaged nearly \$4,000 per animal. A special thank you to Jackie Hatch, our department secretary, who spent many hours outside of her workday to help with the details of the sale and convention.

Research, Outreach & Education Activities

Dairy Management Short Courses

The two-week long short courses that have been offered by the Dairy Science faculty for the past nine years will again be laying down the basics from January 31 – February 11, 2000 and from July 3 – July 14, 2000. Contact Les Ferreira (lsferrei@calpoly.edu) or the Department for more information.

Dairy Products Technology short courses and symposiums are on-going activities of Dr. Tong's overall program efforts. These courses are held at Cal Poly unless otherwise stated, and they usually fill quickly. For more information, contact Laurie Jacobson at 805/756-6097, ljacobso@calpoly.edu, or Phil Tong at 805/756-6102, ptong@calpoly.edu.

March 14-17, 2000 – **Cheese Short Course I**

May 2-5 – **Farmstead Cheesemaker Basics**

May 23-25 – **Cheese Short Course II**

November 2-3 – **Frozen Dairy Desserts Manufacturing** (hands-on)

Alumni Happenings

Wesley Combs (50) married Patricia Kipp from Cal Poly's AV office and completed his MS in Dairy Production at the U of Minnesota, returning to California as the first head of the Animal Husbandry Department at Cal Poly Pomona from 1952-1959. He received his PhD in Animal Husbandry at U of Wyoming and has been living abroad, working in international livestock development. Much more. He and Patricia have three children. He'd like to hear from other alumni from his era. (email wcombs@silk.net or 214-1075 Bernard Ave, Kelowna, BC V1Y 6P7).

Jack Albright (52) was elected to the inaugural Paso Robles HS Hall of Fame in Spring 98. Co-authored with C. W. Arave *The Behavior of Cattle*, CAB International, Wellingford, Oxon, UK. You also read in the 99 Yearbook that he was made an honorary member of the Cal Poly Los Lecheros Club.

Gene Starkey (52) retired from his position as Dairy Science Department head in 1991. He's enjoyed golfing and stays busy as Secretary Treasurer for the California Creamery Operators Association. He's also helping establish an endowment in memory of **Harmon Toone**.

Berend "Ben" Broersma (53) retired in 1990 from operating two small animal hospitals in Orange County. Traveled worldwide. Currently stock market day trader.

Emile "Shav" La Vigne (67) starting a new sales territory with Lusk Metals and Plastics in San Jose.

Diane wrote that her husband **Bert Zwaagstra (67)** died in a plane crash in April 98.

Ron Simmer (75) has been plant manager for Thrifty Ice Cream for 20 years and has two grown children. He remembers the TGIF parties, AGR frat, and his advisor, Gary Reif. Yes, Ron, Dr. Reif and AGR are still here, and no doubt the TGIF parties are too, just not officially.

Jon Dolieslager (89) auctioneer and cattle broker, partners with **David Macedo and Tina (89)**, Tulare Sales Yard.

Joseph Vierra (90) married Jennifer Menonides of Turlock, August 98.

Greg Swager (92) worked as a herdsman in Jerome Idaho after graduation then moved back to the family farm in Chino. In 98 they moved their cows from Chino to a new home in Portales, NM, milking 1100 cows at High Plains Dairy.

Gina Carinalli and Scott Ruby (93) married. Scott works for World Wide Sires and at the family farm in Scio, Oregon. Gina worked for four years as editor of the California Holstein Association publication. Since moving to Scio, Gina works as yearbook advisor and volleyball coach at the high school and cares for their two sons.

Aline Biscaichipy (96) married Gregory Anema in October 98. She works for Southern Counties DHIA and on the family farm.

JoAnn Carotenuti (98) took a position as appraiser for Pacific Coast Farm Credit in Salinas and married high school sweetheart Brandon Wall in Spring 99.

Cal Poly Creamery

After a short break this summer for an automations upgrade, the Cal Poly Creamery is once again up and running. This automations was made possible by the generous donations of software, hardware, and support by the following companies: Mission Controls, Intellution, Hilmar, Groupe Schneider, and Clover Stornetta. These companies worked in conjunction with a team of graduating seniors to design and implement the new system, which will usher the Creamery into the next millennium and continue to provide students with hands-on experience in dairy processing. As an added benefit to all, Mission Controls has hired two of the students who were working on the project, **David Maisonneuve and Ivan Bui**.

The Creamery recently hired **Emilio Medrano** as cheesemaker and plant superintendent. Emilio worked on various cheese projects as a Cal Poly graduate research assistant at the Dairy Products Technology Center. More than 15 students are also regularly involved in the Creamery operation.

The Creamery is continuing to work towards the goal of utilizing all of the milk produced at the University Dairy for the manufacture of dairy products. We have begun the production of various specialty cheeses for this year's holiday season and the open market. We invite you to try some of our new cheeses by logging onto our website, www.calpolycheese.com or calling (805) 756-6735 to place an order.

We are Looking for Good Students!

Even though the filing period for Fall 2000 admission to Cal Poly has passed, we want to emphasize that Dairy Science has **plenty of room** for qualified applicants!

Applicants for Summer quarter 2000 should file between **February 1-28**. Applications are accepted **June 1-30** for Winter quarter 2001. Recruitment trips were made throughout the month of November. If you would like to visit with Dairy Science faculty, we would love to come to your school. For more information or to schedule a visit, please contact our recruitment coordinator, Dr. Leanne Berning, at (805) 756-2697 or via E-mail at lberning@calpoly.edu.

Remember the following facts as decisions are made about majors and universities:

1. Cal Poly Dairy Science is the **largest undergraduate** Dairy major in the United States, enjoying a reputation that is national in scope.
2. Even though Cal Poly is a very competitive university to enter, **Cal Poly Dairy Science will make room** for you if you are qualified. This is especially true in the area of Dairy Products Technology, an area the department has targeted for enrollment growth.
3. We have lots of **scholarships** available for good students! The Dairy Science department awards over \$30,000 annually to Dairy Science majors only. This, coupled with over \$370,000 awarded by the College of Agriculture and much more by the University as a whole, means that we can help with the cost of an excellent education.
4. As a small major, Dairy Science is a good choice for the kind of **personal attention to your career goals** that is hard to find in larger majors and universities. The faculty and curriculum are flexible in order to customize your education.

You are welcome to come and visit us anytime. Let us know that you are coming and we will be glad to schedule visits to classes, dairy tours or simply a chance to sit down and discuss career options!

DPTC Activities Summary

ADSA, IDF, CMAB, DMI, USDA, CDFA, USDEC. These are just a few acronyms of organizations within California, nationally, and internationally working with Cal Poly faculty to develop and implement new ideas, products and technologies to facilitate milk and milk component utilization. See if you can match the activity with the right organization.

ACROSS

1. Organization working with researchers to identify processes for a milk composition study.
6. This academic system's 1999 graduate research paper contest was won by DPTC graduate student Vincent Yeung.
9. Cal Poly graduate student Maurice Pitesky won 2nd place in this organization's 1999 graduate student paper contest.
14. This organization provides valuable administrative assistance to facilitate the overall dairy producer-sponsored research activities in California.
21. Formerly three separate companies which continue to work with researchers to improve marketability of California milk powder.
25. Former Dairy Science Department Head is now secretary/treasurer of this organization.
31. Now an LOL family member who provides valuable industry input to ensure relevance of Cal Poly research.
35. The group that did not exist 15 years ago but is now nationally and internationally known as being a key resource to improve competitiveness of U.S. dairy industry through research and outreach.
42. Facilitated the establishment of a dairy ingredients applications program at Cal Poly in 1999.
45. Researchers work with this organization's members to promote development of the farmstead cheese industry.
51. P. Tong, on a two-week study of China in October 1999, participated with members of this organization to assess potential export opportunities for U.S. dairy products.
56. Works with Cal Poly on short courses, symposiums, and other educational programs regarding regulatory issues.
60. Cal Poly researcher is a member of this organization's board of directors and DPTC researchers presented 10% of all scientific abstracts at the annual meetings in 1998 Denver and 1999 Memphis.

DOWN

3. Provides monetary support for the annual cheese and milk short courses.
8. Sponsored Cal Poly researchers to international conference on recombinant milk products in Penang, Malaysia which included attendees from LOL, Danish Creamery Association, Dairy America, and California Milk Producers.
9. International dairy organization which DPTC researchers interact with to promote international information exchange.
18. Organizer of Dairy Expo where DPTC research was featured in DMI Booth #3574.
19. Organization utilizing DPTC expertise to aid in development of new cheese business venture.
28. Invited DPTC researchers to provide input to its membership on milk powder science and technology.
33. Sponsor of the highly successful 1999 Farmstead Cheesemaker Program at Cal Poly DPTC.
41. Researchers Raul Cano and Chris Kitts presented their scientific research on probiotic bacteria in cultured milk products at this organization's meeting.
 51. Cal Poly researchers collaborate with this university's researchers to improve milk composition and genetics of dairy cattle.

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