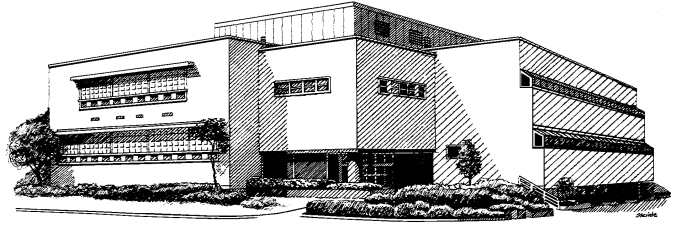


Department of Food Science

June 2000



Food Science Newsletter

FORMER STUDENTS & RESEARCHERS UPDATES

S.P. AGRAWALA is Director General of the Indian Council of Agricultural Research; since 1995 he also has served as Professor and Head of the Dairy Engineering Department and in 1998 received the Outstanding Teacher Award...

DIANE BARRETT is an Associate Extension Specialist in Fruit & Vegetable Products at the University of California, Davis; in 1997 she married Pieter Stroeve a Professor of Chemical Engineering at UC-Davis - they are parents of a daughter, Jodie...

KATHRYN BOOR earned a PhD degree in microbiology at the University of California-Davis and now is an assistant professor in the Food Science Department at Cornell University in Ithaca, NY...

ROBERT BRACKETT, formerly Professor of Food Microbiology at the University of Georgia-Griffin is now with the Office of Plant and Dairy Foods and Beverages of the Food and Drug Administration in Washington, DC...

JOAN CURRERI-LYONS has retired after 21 years of teaching cooking in a traveling cooking school; she and her husband live in San Antonio, TX where they raise llamas which they show at national livestock shows...

MICHAEL DOYLE, in 1999, was named a Fellow of the Institute of Food Technologists; in 2000 he was elected to the IFT Executive Committee...

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MESSAGE FROM THE CHAIRMAN, JAMES STEELE

Greetings from the Department of Food Science at the University of Wisconsin-Madison. Once again, it has been a busy year in the department since the last Food Science Newsletter. We have completed a successful search for an Assistant Professor/Food Processing Specialist. Dr. Carmen Hernandez-Brenes was selected from a very strong field of candidates and will be joining our faculty on or around July 1, 2000. Dr. Hernandez-Brenes recently completed her Ph.D. at the University of Arkansas where her dissertation topic was the use of heat pre-treatments to improve the quality of processed potato products. Dr. Hernandez-Brenes will have a 75% Extension appointment and will cover the food processing/engineering components of the department's extension program. Her hire will allow the department to continue to move in a more discipline-based approach to extension programming while maintaining our traditional commodity strengths in vegetable and dairy processing. Additionally, her research program will significantly strengthen the food processing and food engineering research in the department. Dr. Hernandez-Brenes' background is described in greater detail later in this issue.

I am pleased to report that the inaugural meeting of the "Babcock Associates - Industry advocates for a strong University of Wisconsin-Madison Food Science Department" held in Madison on February 16-18, 2000, was a success. The meeting provided an opportunity for faculty to discuss the challenges and opportunities that face the department with our industry partners. As a result of this meeting, we will be revising our departmental mission statement and developing strategic plans to address future personnel needs, undergraduate recruitment, and enhancement of our facilities. To facilitate ongoing communication between the Babcock Associates and the department, a web-based communication structure is being established. I would like to thank the Babcock Associates for their willingness to contribute their time and energy to the department; their insights and assistance are essential if the UW-Madison Department of Food Science is to remain among the preeminent food science programs in the U.S. The "Plan 2010 Vision", a list of the Babcock Associates, and a picture from the inaugural meeting is presented elsewhere in this issue.

Our students continue the tradition of excellence we have grown to expect both in and out of the classroom. Their academic achievements continue to be recognized in a variety of ways, the most tangible being their success in

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FATHY EL-GAZZAR, Professor of Dairy Microbiology at Assiut University, presented a paper at the 1999 IAMFES meeting in Dearborn, MI...

SHAKER EL-GENDY retired from Assiut University in November 1999, but continues as Chairman of the Department of Dairy Science until July 2000...

DAVID EVERETT recently moved to Dunedin, New Zealand where he accepted a faculty position in Food Science at the University of Otago...

SEHAM FARAG is now an associate professor and also is Chairman of the Home Economics Department in the Faculty of Specific Education at Assiut University in Egypt...

JOSEPH FRANK has been named Head of the Department of Food Science and Technology at the University of Georgia-Athens...

H. GÜNDÜZ, in 1994, retired from the Food Science and Technology Department of Thrace University in Turkey; he now operates two firms: AK Dairy Plant Ltd. which he established in 1991 and which produces several varieties of cheese and other dairy products and MAK Foreign Trade Ltd. which he established in 1997 as an export-import company which exports food products to Russia, Middle Eastern countries, North African countries, Romania, Bulgaria, Bosnia and Greece...

VERL HANNAH is retired and lives in San Jose, CA; during his career he was employed by Libby, McNeil and Libby, Corn Products Company, Seymour Foods, Inc., Castle and Cooke (Dole Division), and Continental Mills, Inc...

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receiving a variety of college, campus, and national scholarships and awards. The UW-Madison Food Science Club continues to provide a variety of professional growth opportunities for our students. The breadth of their activities was recognized by their second place finish in the IFT Student Association Chapter of the Year competition last year. This year, for the second consecutive year, they have been selected as a finalist in IFT's product development competition. Additionally, they won the Midwest College Bowl Competition and will compete as a finalist in national competition. I would like to congratulate our Product Development and College Bowl Teams and wish them continued success in Dallas at the annual IFT meeting. Additionally, the Food Science Club sponsored the 14th annual University of Wisconsin-Madison Food Science Club Symposium. The theme of this year's symposium was "Top Trends in Food Technology". This was an excellent program and yet another reflection on the quality of our students. I am both proud of our students' accomplishments and thankful for all of the assistance they have provided the department.

I would also like to thank all of our alumni, corporations, faculty, and friends for their generous financial contributions to the department. These contributions make it possible to support numerous critical departmental needs such as departmental research assistantships, scholarships, recruitment efforts, extracurricular student activities, and modernization of facilities. I would be glad to discuss opportunities for supporting the department with any current or potential donors.

(This newsletter was prepared by Elmer Marth, Yvonne Bushland, Suzanne Smith and the departmental office staff. Distribution of the newsletter is supported in part, by WALSAA, the Wisconsin Agricultural and Life Sciences Alumni Association.)

DAIRY PRODUCTS JUDGING TEAM - Bob Bradley

The Dairy Products Evaluation Team had another successful year. This year our team was composed of Tonya Bockhop, Kelly Kleinsmith and Derek Spors. Melanie Dineen was the graduate student competitor, while Derek Held, Jesse Vorwald and Kerry Kaylegian were alternates. A unique part of this year was to have

L e o r g e s Fonseca from Brazil, on a PhD program, training for the second year with us. He is looking forward to training students at his university in Brazil with the hope of bringing them to compete in the US!



The 1999 Dairy Products Evaluation Team at Kraft Technology Center. (Team jackets are a plus) back row, left to right: Heide Hromadka (assistant coach), Bob Bradley (coach), Jesse Vorwald, Tonya Bockhop, Derek Held, Derek Spors and Kelly Kleinsmith; front row, left to right: Melanie Dineen, Kerry Kaylegian, Leorges Fonseca.

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In **regional competition** at the Kraft Technology Center in Glenview, IL, the undergraduate team placed first in yogurt, Cheddar cheese and butter evaluation with an impressive first place in All Products. Individually, Tonya Bockhop placed first in butter and second in the Cheddar cheese competition with a second in All Products. Kelly Kleinsmith placed sixth in All Products among 33 competitors representing 11 teams. Within the graduate student ranks, competition was vigorous and difficult. Melanie Dineen placed second in milk and butter with a third place in yogurt and ice cream. Melanie was tied for first place in All Products and was in second after breaking the tie. "The gauntlet had been dropped" for her! Dr. Fonseca was allowed to compete representing his school in Brazil. He earned a first place in cottage cheese and milk with a fourth place in All Products.

In the **national contest** 19 teams competed including the eleven from the regional. While the top four teams from the regional shuffled positions, Wisconsin undergrads came through in stellar fashion. As a team, Wisconsin earned a second place in butter and a third place in milk and cottage cheese. When the All Products score was tied for third place, the tie breaker moved the Wisconsin team to fourth place. Individual honors went to Tonya Bockhop for a first place in butter and a second place in cottage cheese evaluation. This effort also earned her \$600 in scholarship money and the Bert Aldrich award for being the top judge in the butter category. Both Tonya and Derek Spors were in the top 10 in All Products. Melanie Dineen in the graduate student competition had an outstanding performance, capturing a first place in Cheddar cheese, cottage cheese and milk, a second place in butter, third in yogurt and fourth in ice cream yielding a first place in All Products. As a result Melanie was awarded \$700 in scholarship money and the Genevieve Christen award for her first place finish in All Products.

CARMEN HERNANDEZ-BRENES JOINS FOOD SCIENCE FACULTY

Carmen Hernandez-Brenes, a native of Mexico, will join the faculty of the Food Science Department this July. Dr. Hernandez-Brenes earned the degree Bachelor of Engineering in Food Engineering from the Monterrey (Mexico) Institute of Technology in 1994. She then moved to Texas A&M University where she earned the MS degree in Food Science and Technology in 1996. Her research for this degree was concerned with the antioxidant content and market quality of several cultivars of pepper fruit subjected to various treatments.

Dr. Hernandez-Brenes continued graduate work at Texas A&M University, but in 1997 moved to the University of Arkansas because her major professor joined the faculty at that university. In 1999, she received the PhD degree from the University of Arkansas; her research dealt with potato chip quality as affected by physiochemical properties of raw potato tubers. In 1995, she also completed training in HACCP procedures at Texas A&M University. For several months in 1993 she worked as an intern at Valley View Packing Company in San Jose, CA. Here she dealt with apricot and prune juice concentrates and dried fruit snacks.

At the University of Wisconsin-Madison, Dr. Hernandez-Brenes will hold an appointment as assistant professor with her time divided between extension (75%) and research (25%). Her work in extension will deal with the vegetable and fruit processing industries in Wisconsin.

EXTENSION/OUTREACH UPDATE - Bill Wendorff

This past year has been one of growth and revision for the Food Science Extension team. In September, Steve Ingham took over as chair of the Extension/Outreach Committee. Bill Wendorff had served as chair for the past 5 years. In September, we were also given approval to start the search for our new Extension Food Processing Specialist. This is a 75% extension/25% research position that addresses some of the food processing activities previously handled by Joe von

MARGARET HALPIN-DOHNALEK, after nearly 10 years with Ross Laboratories (a division of Abbott Laboratories) in Columbus, OH, has moved to Abbott Laboratories in Abbott Park, IL where she is Program Manager for International Nutritional Products; Margaret also has been appointed to the CALS Board of Visitors...

OBED HARIYONO is Export Head for the Herlina Group in Indonesia...

SUSAN HEFLE is Co-Director of the Food Allergy Research and Resource Program at the University of Nebraska in Lincoln, NE; she also is Research Assistant Professor in the Department of Food Science and Technology...

JIM JAVENKOSKI is working on a PhD degree in Food Science at the University of Illinois in Urbana-Champaign, IL; his research deals with molecular data visualization of model carbohydrate food systems; Jim was one of four teaching assistants at the University to earn the Advanced Graduate Teacher Certificate...

JEFFREY KORNACKI, JOSEPH FRANK, KATHRYN BOOR and ELLIOT RYSER are contributing chapters to the second edition of *Applied Dairy Microbiology* which is being published by Marcel Dekker, Inc., New York...

JEAN KOSHAK-SCHIEFFER, after 12 years as Quality Control Manager at Holsum Foods/Ventura Foods LLC in Waukesha, WI, is now the QC Manager at McCain Foods USA (formerly Ore-Ida, Clorox and Moore's) in Fort Atkinson, WI...

VERONIQUE LAGRANGE is director, Applications and Development at the US Dairy Export Council which is part of Dairy Management, Inc.; in this position she works closely with the

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UW-Center for Dairy Research on prototype development and whey research and has brought international journalists and dairy buyers to Babcock Hall...

DARYL LUND this August completes his five-year term as Dean of the College of Agricultural and Life Sciences at Cornell University; he plans to remain at Cornell for several months to work on a book and then will return to Madison, WI as Director of the North Central Regional Experiment Stations on January 1, 2001...

MICHELLE MANI-CLARK, formerly with Kraft Foods, is now in flavor applications with McCormick and Company, Inc. In Hunt Valley, MD...

JOHN PASCH is corporate branch manager for DiGiorno products which are made by Kraft Foods...

EILEEN ROSENOW, after 10 years in Quality Management first with Kraft and then with Nestle, has retired to look after her daughters Emilie (5) and Leah (2-1/2)...

GULAM RUSUL is both Dean and Professor of Food Microbiology at the Universiti Putra Malaysia in Selangor, Malaysia...

ELLIOT RYSER has been appointed editor of the food microbiology and safety section of the restructured *Journal of Food Science*...

SUSAN TESKA-RANKIN is the Purchasing Manager - Packaging (North American Consumer Products) at SC Johnson & Son, Inc. In Racine, WI...

NAN UNKELSBAY, a professor of Food Science at the University of Missouri in Columbia has been studying

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Elbe and Bob Bradley. In March, we completed the search and on July 1st, our new Extension Food Processing Specialist, Dr. Carmen Hernandez-Brenes, will be joining our faculty. Carmen finished her Ph.D. in Food Science at the University of Arkansas in April. She will be working with FDA in the next few months developing manuals on good agricultural practices for production of fruits and vegetables.

In the past, each extension specialist would develop individual annual plans of work. Cooperative Extension is now moving to program planning by issues teams. The Food Science Extension faculty will now develop their future programming as a team under the identity of Wis. FIRST (Wisconsin Food Industry Research, Service and Training) team. Our primary focus, as in the recent past, will be continuing education for food industry personnel. Steve Ingham will serve as the Wis. FIRST team captain. With recent elimination of food science technician programs at Kettle Moraine and Blackhawk Technical Colleges, we will be evaluating needs of the food industry for training of industry personnel. Further information on new programming will be coming out this next year as we finish our transitioning with extension faculty.

Brief highlights from current faculty activities find Barbara Ingham heavily involved in the FS 120 program (survey course in food science). Barb has developed an honors section that gets into a lot of laboratory activities covering various aspects of food technology. Barb works extensively with our county-based family living faculty in addressing consumer-based food concerns, and is currently revising several of the most popular home food-processing bulletins.

Steve Ingham continues to work with the meat, vegetable and fruit processing industries in addressing HACCP training requirements and other food safety issues. We never seem to run out of food safety issues. He has also produced several bilingual training videos for food industry employees. Bill Wendorff and Bob Bradley maintain an active program in dairy foods extension. Bob continues to work with the International Dairy Federation and AOAC on analytical procedures for dairy products. Bill continues to concentrate on environmental concerns of the dairy industry, most recently chlorides and ammonia nitrogen. In the past several years, Bill has also been involved in processing issues relating to the emerging dairy sheep industry. Food Science extension faculty, along with outreach specialists from CDR, will be reviewing our structure for service to the dairy industry as we anticipate Bob's Bradley's retirement this next year.

In 1999, we conducted 19 short courses and workshops that trained a total of 714 students. As our programming in Wis. FIRST develops, we will continue to see increased activity in continuing education in the years to come. If you have specific areas of need that you feel we should be addressing, please let us know.

FOOD SCIENCE CLUB

Once again, the Food Science Club is in the midst of a busy year. We have been busy with a multitude of companies coming in to give recruiting presentations for both internships as well as permanent positions. The club sponsors a monthly social and service event. Social events range from picnics and haunted houses to bowling and tours. We recently held our Second Annual Wine and Cheese Departmental Mixer, which is always a huge success. Service activities include the Adopt-A-Block program surrounding Babcock Hall as well as giving blood and volunteering at the Salvation Army serving dinner. The College Bowl team is in full swing practicing two or three times a week. The regional competition was April 8th, this year at Purdue. Product Development is also shining again. This year's product is Chomp!, a ready to eat cereal bar with milk in a hand held form. This product has been selected as one of the six finalists for IFT out of 22 entries. It has also already earned an Honorable Mention in the DMI Dairy Ingredients Product Development Competition.

WHAT'S NEW WITH THE DAIRY PLANT? - Tom Blattner

The Babcock Hall Dairy Plant completed installation of a new refrigeration system in November 1999. Equipment for the system required new construction on the west and north sides of the building. The footprint of Babcock Hall continues to grow and the image of the building presents an impressive view to an observer from the outside. The new Freon system replaces the ammonia-based system that was installed when the building was constructed in 1950. This project allowed us to replace the ice cream making freezer in the Dairy Plant. The new WCB freezer processes 125 gallons of mix per hour. The finished product is remarkably smooth, adding another level of quality to your favorite ice cream.

In July of 2001, alumni, students and the entire University community will have a new place to purchase and enjoy Babcock Hall ice cream and cheese. Thanks to a generous gift from John Hasen, the founder of Kwik Trip and an alumnus of the College, the Babcock Hall Dairy Store will be completely renovated. A Milwaukee-based architectural firm has been selected for the project. Construction is slated to begin in January. The Dairy Store will be housed in a temporary location during construction so our customers will still be able to get ice cream and cheese.

Stop and visit when you are in Madison and sample some even better Babcock Hall ice cream.

AQUACULTURE PROGRAM - Jim Held and Jeff Malison

After several seasons of planning and construction, the finishing touches are being applied to our new series of experimental ponds at the Aquaculture Program's main wet laboratory facilities on the grounds of the Lake Mills State Fish Hatchery. The ten small (0.1-0.2 acre) ponds will be in full use beginning this spring, and will provide us with the number of replicates needed to conduct statistically meaningful research into questions about pond-based aquaculture. Pond aquaculture is responsible for over 60% of the total aquaculture production both worldwide and in Wisconsin, and is currently the fastest growing segment of aquaculture in the state.


We are both happy and sad to report the retirement of Tom Kuczynski from the Aquaculture Program. Tom had worked for the Program since 1974, first as a research specialist and later as a Program Manager. He plans to spend his retirement fishing and boating (as soon as he's done wiring the new ponds, and then there's that plumbing he wanted to finish up, and maybe he'll put the finishing touches on that new fish feeder system, and...). Seriously, we will miss Tom greatly, as his hard work and dedication have been a huge part of making this Program so successful for the past 25 years.


This past January over 50 yellow perch producers, scientists and extension specialists from 10 states met in Hudson, WI to attend the first "Yellow Perch Producers Forum." The forum was sponsored by the North Central Regional Aquaculture Center and was organized with additional help from the Aquaculture Program and Minnesota Sea Grant. Jeff Malison, Terry Barry and Jim Held from the Aquaculture Program all attended the meeting. It was unlike most other meetings of this type because it consisted primarily of discussion and participation by producers, rather than of the more typical formal presentations by experts. Producers were asked to describe their successes and most important constraints to profitably raising yellow perch. The primary purposes of the meeting were to share information and to help direct future research and extension efforts. By all accounts, the meeting was extremely informative and worthwhile, and almost all of the attendees voted to make it an annual event.

use of an accelerator that produces a beam of high speed electrons to inactivate *Escherichia coli* 0157:H7 in ground beef...

SCOTT WELLS is the Regional Sales Manager for Kalsec, Inc. in Lake Mills, WI; the firm manufactures and supplies the food industry with natural color extracts, extracts of herbs and spices, and oxidation management products...

M. WIRAKARTAKUSUMAH (AMAN) is now the rector (president) of the Institut Pertanian Bogor (Indonesia) and also is a professor of Food Science and Technology...

.....
 Current students **ELIZABETH BEHRINGER** and **JENNIFER GODIN** received CALS and IFT scholarships, respectively.

 **ROBERT BRADLEY** is head coach of the UW Sports Fishing Team...

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CORNELIUS D. STACK died on March 22, 1996 at the age of 59 years. He worked for Gerber Baby Foods from 1961 to 1994 when he retired. Stack received the MS degree in Dairy and Food Industries at UW-Madison in 1960.

MILTON R. WAHL, long-time manager of the UW Dairy Plant, died on July 5, 1999. He was born in Spring Green, WI on December 29, 1914. Milt married Mildred Neuhart. Wahl is survived by his wife; a sister, Lucille; and a niece and nephew. A private burial service was held at Forest Hill Cemetery in Madison.

IRA L. BALDWIN
1895-1999

Emeritus professor of Bacteriology, Ira also served as chairman of the Department of Agricultural Bacteriology, dean of the Graduate School, dean of the College of Agriculture, vice president of academic affairs, and special assistant to the president. After his retirement in 1966, Baldwin continued to work in international agriculture until 1971. He received BS and MS degrees from Purdue University and the PhD in 1926 in agricultural bacteriology from UW-Madison. After briefly teaching at Purdue, Baldwin returned to UW-Madison in 1927 and remained here through his entire career except for a period during World War II when he was in Washington, DC.

GEORGE W. SLEDGE
1928-1999

Many of our readers will remember Dr. George Sledge who, from 1965 to 1993, served as Associate Dean and Director, Academic Affairs in the College of Agricultural and Life Sciences (CALs). Sledge earned BS (1949) and MS (1951) degrees from North Carolina State University and the PhD degree (1954) from Michigan State University. In 1954 he was appointed assistant professor of Agricultural and Extension Education at UW-Madison. He was promoted to associate professor in 1957 and to professor in 1960 when he also was named Assistant Dean and Director of CALs.

The 2000 Wisconsin Aquaculture Convention was held on March 10-11 in Oshkosh. Guest speakers included Governor Tommy Thompson, State Senator Dale Shultz, and DATCP Secretary Ben Brancel. The convention was attended by more than 370 interested aquaculturists, students and researchers.

TEACHING EXCELLENCE APPLICATION - Rich Hartel

Earlier this year, the Chancellor announced a new award to recognize excellence in teaching within a department (not for individuals). Two awards were announced (one each for small and large departments), with each department to be awarded \$50,000. With the encouragement of our Dean of Academic Student Affairs (Dick Barrows), we decided to prepare the three-page pre-proposal that was required for entry into this competition. With the input of numerous faculty members, it was apparent that our faculty are quite active in instructional improvement. Rather than simply compiling all the activities, we chose to solicit a student to write our pre-proposal with a unique slant. Heide Hromadka, current President of the Food Science Club, wrote about her learning experience from the student's perspective. The result was a pre-proposal that reflected all the educational activities of the faculty and staff, and also developed the idea that our department provides an environment conducive to student learning. Faculty in our department generally have a genuine interest that students are learning and will be successful in their careers. Although it was a valuable experience for the faculty and staff to share their activities, we were not selected as one of three semi-finalists for this distinction. Dean Barrows congratulated us on putting together an innovative pre-proposal and encouraged us to continue with our instructional improvement activities.

EVERT WALLENFELDT, 1904-1999

Evert Wallenfeldt, age 95, emeritus professor of food science and dairy foods extension specialist, died at a Madison hospital on October 2, 1999. He was the son of Axel and Emma (Anderson) Wallenfeldt, and was born on June 26, 1904 in Stanton, Iowa. The Wallenfeldt family moved to Illinois where Evert was raised on a dairy and beef cattle farm. It was also here where he received his elementary (in a one-room rural school) and secondary education. Wallenfeldt attended Iowa State University and graduated in 1926 with the BS degree in agriculture. From 1926 to 1928, Wallenfeldt taught agriculture and chemistry in the Bloomer (Wisconsin) High School. Here he met Ilma Zempel, a native of Fall Creek, Wisconsin, who was principal of the elementary school. Evert and Ilma were married on June 16, 1928. Later that year Evert enrolled in the graduate program at Cornell University, receiving the MS degree in dairy industry in 1929. He then joined the Borden Company in Chicago where he remained until 1937 when he moved to the Borden research laboratory in Syracuse, New York and worked as a research bacteriologist.

In 1938, Wallenfeldt was appointed as an assistant professor and dairy foods extension specialist in the Department of Dairy Industry at the University of Wisconsin-Madison. Evert was promoted to professor in 1948. When Wallenfeldt came to the University of Wisconsin, much work was needed to improve the quality of Wisconsin's milk and milk products. Evert played a major and often leadership role in upgrading quality and safety of these foods so that when he retired in 1970 they were among the best in the nation. In addition to his extension work, for years Evert taught a course on dairy products technology in the Farm Short Course.

The excellence of Evert's contributions was recognized by a series of awards including: (a) Sanitarian of-the-Year Award, Wisconsin Association of Milk and Food Sanitarians (1957), (b) citation for outstanding leadership, Wisconsin Council of Agricultural Cooperatives (1965), (c) citation for significant contributions, Wisconsin Extension Workers' Association (1965), (d) Sanitarians Achievement Award,

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Extension Workers' Association (1965), (e) Dairy Cowbell Award, Wisconsin Dairy Plant Fieldmen's Association (1969), (f) Honorary Life Member, International Association of Milk, Food and Environmental Sanitarians (1972), and (g) Life Member, National Environmental Health Association (1973). Wallenfeldt also was a long-time member of the American Dairy Science Association and for 12 years served on the editorial board of the association's *Journal of Dairy Science*.

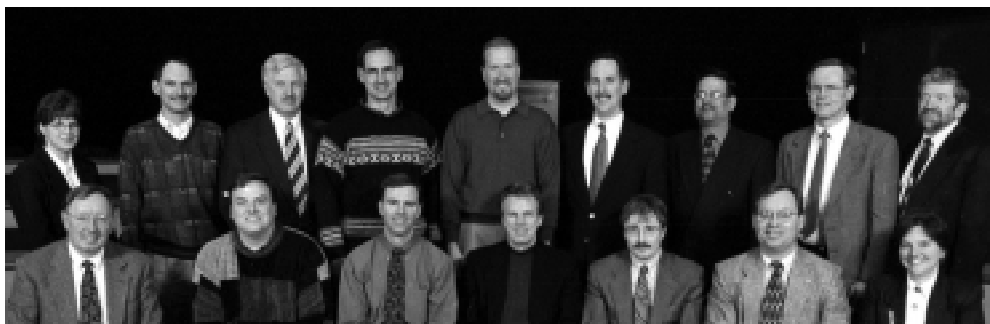
Professor Wallenfeldt is survived by his son, Evert C., of West Melbourne, Florida; a daughter, Jean Wallberg, of Salt Lake City, Utah; a daughter-in-law, three grandsons, one granddaughter, two great-grandsons and two great-granddaughters. He was preceded in death on June 26, 1998, by Ilma, his wife of 70 years, and at other times by one brother and four sisters. Memorial services for Evert were held on October 9, 1999 in the Resurrection Chapel of the Oakwood Village Nursing Home in Madison.

BABCOCK ASSOCIATES FORMED IN FEBRUARY - *Bob Lindsay*

An industry group designated as "Babcock Associates" was established and had an inaugural meeting in February. It is envisioned that the group will play a far more active role in departmental affairs than was true of previous advisory committees.

The Babcock Associates have been characterized as a pro-active support group that will assist the Department of Food Science at the University of Wisconsin-Madison in maintaining its preeminent position as a leading food science program in the U.S. Although not restricted to activities listed, several challenges have been set-forth for the long-term involvement of the Babcock Associates. Specifically, it is envisioned that by 2010 the Babcock Associate will have aided in:

Attendees of the first meeting of the Babcock Associates:



Front row, left to right: Scott Rambo, Tom Kwak, Mike Liewen, Tom Everson, Joe Kiely, Dean Sommer, Carol Karahadian. Back row: Margaret Dohnalek, Bill Racicot, Jim Doncheck, Dave Josephson, Dave Burrington, Randall McIntyre, Arun Kilara, Jeff Kornacki, John Finley. Not shown: Hans Zoerb.

- Developing means and programs to ensure that both student numbers and quality are adequately enhanced to meet the needs of society and industry.
- Effectively communicating the needs of the Department of Food Science to CALS and to the UW Administration.
- Establishing means for upgrading pilot plant food processing equipment to keep pace with current technologies.
- Developing a unified, enhanced national identity for Food Science on the UW-Madison campus.
- Accomplishing Phase II remodeling of Babcock Hall.
- Expanding and strengthening Food Science continuing education and outreach.
- Increasing the Department of Food Science UW Foundation resources to assist monetarily in recruiting quality undergraduate and graduate students, faculty and staff.

Babcock Associates 2000

David Burrington-Chr. Hansen, Inc., Dean Sommer - Alto Dairy Cooperative, Randall McIntyre-Kerry Ingredients, Hans Zoerb-The Pillsbury Co., Mike Liewen-General Mills, Bill Racicot-Quaker Oats Co., Carol Karahadian-Firmenich Inc., John Finley-Kraft Foods Inc., Scott Rambo-Dean Foods Co., Jeff Kornacki-Silliker Labs, Dave Josephson - Givaudan-Roure Corp., Arun Kilara-Monsanto Co., Margaret Dohnalek-

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Abbott Labs, Joe Kiely-Wyeth Nutritionals, C. Scott Bush-Rhodia, Jim Doncheck-DCV Food Ingredients, Thomas Kwak-Chiquita Processed Foods, Tom Everson-Grande Cheese Co., Bill Aimutis-Land O'Lakes, Inc., Debra Van Dyke-Schreiber Foods, Charles Duncan-Hershey Food Corp., Tom Leitzke-WDATCP, Food Division, Jeff Kester-Procter & Gamble Co.

The Department is very appreciative of the time and efforts provided by the Babcock Associates and their employers in support of building a bright future for Food Science at the UW-Mdison. Look for reports of these efforts in upcoming communications.

NEWS FROM THE CENTER FOR DAIRY RESEARCH - Mary Thompson

1. **“Functional Fractions,”** an article in the August 1999, *Dairy Field* magazine features milkfat applications work done by Kerry Kaylegian, a researcher at the Wisconsin Center for Dairy Research.
2. An article, **“Dairy Ingredients for Health”**, written by Kimberlee J. Burrington, appears as the cover story in *Food Product Design*, October 1999 issue. The article explores the components and derivatives of milk and tells why it does a body good.
3. Juan Romero, Associate Researcher at the Wisconsin Center for Dairy Research was issued a patent for an “Oil produced from the *Brassica napus*”. This oil combines oxidative stability sufficient for industrial applications and a desirable dietary fatty acid profile.
4. Marianne Smukowski, Dairy Safety Applications Coordinator, was lead butter judge for the 78th Collegiate Dairy Products Evaluation Contest held during World Wide Food Expo.
5. Karen Smith, at IDFA’s 2nd annual Plant Operations Conference in Chicago, presented **“Maximizing Milk Component Technologies”**.
6. Kathy Nelson, Research Scientist, is working at the Center in the Applications area. She enjoys working at CDR, a setting that provides an ideal combination of science and culinary skill. Kathy earned a Masters’ degree in Food Science at UW-Madison.
7. Rani Govindasamy-Lucey recently joined the cheese group at the Center. Rani earned her Ph.D. at the National University of Singapore. During Rani’s employment with the Dairy Research Institute, New Zealand, she did research focusing on bacteria and cheese making.
8. Under development by Brian Gould is an on-line help system for **EACY®**. The program EACY® (Economics Analysis of Cheese Yield) is a Windows-based program cheesemakers could use to analyze alternative milk standardization procedures.
9. Matt Zimbric, Amy Dikkeboom and Carol Chen presented papers at the American Dairy Science Association meeting in Memphis Tennessee.
10. **“World Cheese Exchange”** made its debut on CDR’s web page; <http://www.cdr.wisc.edu> Jim Path developed the database that identifies over 1400 varieties of cheeses throughout the world. Jim works with regional editors to assist with edits and additions to the Exchange.
11. The Southwestern Cheesemakers Association (SCA) made a donation to the Wisconsin Center for Dairy Research for future research and technical support. In accepting the donation, Rusty Bishop, Director of the CDR stated, “This contribution shows a strength in the partnership that the SCA and the Center for Dairy Research have built over the years. We appreciate this contribution and the commitment these companies have made to the Center.”
12. The Center cooperates with the Department of Food Science to sponsor short courses, workshops and seminars. Center staff presenting lectures include: K.J. Burrington, Carol Chen, John Jaeggi, Mark Johnson, Kerry Kaylegian, Jim Path, Juan Romero, Karen Smith, Marianne Smukowski and Tom Szalkucki. Center staff providing laboratory experiences for these events includes Kristen Houck, John Jaeggi, Gene Barmore, Amy Dikkeboom, and Bill Hosely. Center staff assisting in the success of these events includes Tim Hogensen, Joanne Gauthier, Karen Paulus, Curtis Blevins, Carmen Huston, Jackie Utter, Lisa Lokken and Joe Bissonette.

FACULTY NOTES

FUN SUN CHU, Professor of Food Microbiology and Toxicology and of Food Science, retired in January 2000 and moved to California; he is renowned nationally and internationally for developing immunological methods to detect mycotoxins and other toxic agents; Dr. Chu was one of four faculty members who came to UW-Madison when the Food Research Institute moved here from the University of Chicago - Chu is the last of the group to retire... **OWEN FENNEMA** is Editor-in-Chief of IFT scientific journals; he also serves on several FDA committees, a committee of the Life Sciences Research Office, advisory committees of the Pillsbury Company and DMV Nutritional International, and is chairman of the International Academy of Food Science and Technology; Owen gave invited lectures in San Jose, Costa Rica; Beijing, China; Doha, Qatar; Rafael, Argentina; and Guelph, Ontario, Canada... **JOHN LUCHANSKY**, formerly Associate Professor of Food Microbiology and Toxicology and of Food Science, in July 1999, joined the Eastern Regional Research Center of the USA Department of Agriculture where he is a research leader... **ELMER MARTH** and **JAMES STEELE** are editors of the second edition of *Applied Dairy Microbiology* which will be published by Marcel Dekker, Inc. in 2000 or 2001... **JOACHIM VON ELBE** is back on the payroll - he's working part time for the College Administration and the University Foundation... The library and conference room of the Center for Dairy Research is now the **NORM OLSON** Library/Conference Room... **SRINIVASAN DAMODARAN** has been named the Winder-Bascom Professor of Food Science; the professorship honors the late Professor William Winder who provided some of the funds needed to establish this named "chair" in Food Science... **MONICA THEIS** received the 2000 Foodservice Management Educators Council Grant which enables her to work on a new food program at Meriter Hospital.

FOOD SCIENTISTS CONTINUE TO GARNER AWARDS

Elmer H. Marth, emeritus professor of Food Science, Bacteriology, and Food Microbiology and Toxicology, has been chosen by the International Association for Food Protection as the recipient of the 2000 NFPA Food Safety Award. Marth was selected for the award on the basis of long-term excellence in his contributions to food safety through research, teaching, and public service. Research on food safety in Dr. Marth's laboratory included studies on aflatoxin, aflatoxin M₁, patulin, rubratoxin, *Escherichia coli*, *Listeria monocytogenes*, *Salmonella*, *Staphylococcus aureus*, and degradation of sorbic acid. A native of Jackson, Wisconsin, he earned BS (1950), MS (1952), and PhD (1954) degrees, all in bacteriology, from the UW-Madison. After post-doctoral work at UW-Madison, followed by nearly 9 years at the R&D Division of Kraft Foods, Marth returned to UW-Madison in 1966 as associate professor. He was promoted to professor in 1971 and was named emeritus professor when he retired in 1990.

Edwin M. Foster, emeritus professor of Food Microbiology and Toxicology and of Bacteriology, was inducted into the Wisconsin Meat Industry Hall of Fame on May 4, 2000. Foster, a former president of the American Society for Microbiology and Charter Fellow of the Institute of Food Technologists, was honored for his contributions to food safety which have benefited the meat and poultry industries. Included is research which made possible an understanding of the microbiological impact of vacuum packaging on ready-to-eat products. Dr. Foster, a native of Alba, Texas, earned BA (1936) and MA (1937) degrees at North Texas State College and the PhD (1940) degree in bacteriology at UW-Madison. He then was an instructor at UW-Madison and at the University of Texas and served in the US Army before returning to UW-Madison in 1945 as an assistant professor of bacteriology. He was promoted to associate professor in 1946 and to professor in 1952. From 1966 to 1986 he was director of the Food Research Institute and from 1975 to 1982 he also was chairman of the Department of Food Microbiology and Toxicology. In 1987, Foster retired and was named emeritus professor.

Eric A. Johnson, professor of Food Microbiology and Toxicology and of Bacteriology, received the 1999 Educator Award from the International Association for Food Protection. Johnson, a nationally and internationally renowned researcher on *Clostridium botulinum*, *Listeria monocytogenes* and antimicrobials, was honored for the excellence of his contributions in teaching, research and public service in his field of food safety. A native of California, Johnson received BS (1976-fermentation science), and MS (1978- food science) degrees from the University of California, Davis and the Sc.D. (1983-food microbiology) degree from the Massachusetts Institute of Technology. After postdoctoral training at the Harvard Medical School, Johnson came to UW-Madison in 1985 as assistant professor; he was promoted to associate professor in 1990 and to professor in 1996. Other UW faculty who received this award include Kenneth G. Weckel (Food Science, 1975) and Elmer H. Marth (Food Science, 1977).

Continued on Page 10

Charles W. Kaspar, associate professor of Food Microbiology and Toxicology and associate director of the Environmental Toxicology Center, recently received the Pound Award for Research. This award is given annually by CALS to a mid-career faculty member for excellence in research. Kaspar was honored for his work with *Escherichia coli* 0157:H7; he has tracked the spread of the bacterium among dairy cattle on Wisconsin farms and has contributed to our understanding of survival of the bacterium under acidic conditions. Dr. Kaspar earned the BS (biology-1980) degree at the University of Nebraska-Omaha and MS (1983) and PhD (1986) degrees, both in microbiology, at Iowa State University. After post-doctoral work at the University of Maryland and employment with the FDA and the Cargill Company, Kaspar joined the Food Research Institute in 1992 as an assistant professor. He was promoted to associate professor in 1998.

John B. Luchansky, formerly associate professor of Food Microbiology and Toxicology and of Food Science was chosen to receive the 2000 IFT Research and Development Award. The award is based on research completed by Luchansky while he was at the Food Research Institute. Dr. Luchansky was honored for his contributions to methodology to differentiate among species and serotypes of *Listeria* and between virulent and avirulent strains of *Listeria monocytogenes*. He also contributed to our knowledge of bacteriocins and behavior of *Escherichia coli* 0157:H7 in several varieties of sausage. Luchansky received the BS degree (1980) from the Pennsylvania State University and the MS (1983) and PhD (1987) degrees, from Iowa State University; all degrees are in microbiology. After postdoctoral work at North Carolina State University he came to UW Madison in 1989 as an assistant professor; he was promoted to associate professor in 1995. In 1999 John joined the Eastern Regional Research Center of the US Department of Agriculture where is a research leader.

NEWS FROM THE FOOD RESEARCH INSTITUTE - -Ellin Doyle

Meetings. Our 1999 Annual Meeting was held last May and the 2000 meeting will be held May 31-June 1. These meetings bring together scientists from government, universities, and industry to discuss current food safety issues. In December 1999, FRI cosponsored, along with Georgetown University, a CERES Forum on Biotechnology and Sustainability of Agriculture.

Research. Our mainstay research on the anticarcinogen, conjugated linoleic acid, and various important foodborne pathogens continues in earnest. *Listeria monocytogenes*, in particular, has been the focus of much attention including short course and national meeting presentations and reports to industry sponsors on methods to identify and control this organism in ready-to-eat foods. In addition, researchers at FRI are pursuing some new and innovative lines of research. Dr. Wong's laboratory has always been interested in the challenge presented by bacterial biofilms and is now collaborating with researchers in the College of Engineering to use cold-plasma-enhanced processes to modify surfaces of stainless steel to inhibit biofilm development. Work on bacteriocins, potentially useful in food preservation, also is being done. Dr. Johnson's laboratory has purified a new bacteriocin from a strain of *Clostridium botulinum* which may be useful in understanding and controlling growth of this pathogen in various environments. Dr. Kaspar's laboratory is collaborating with other scientists on campus in a study of microbes which thrive in acidic environments, such as the metal-rich, acidic (pH 0-2) drainage from iron mines. Knowledge of the membrane structure of these bacteria may help us understand how some foodborne organisms can survive acidic conditions.

Personnel Changes. Our longtime mycotoxin expert, Dr. F.S. Chu, has retired and moved to California near his children and grandchildren. However, he maintains his interest in food safety and mycotoxins and keeps in contact via e-mail. Dr. Jae Hyuk Yu, another mycotoxin expert, will join FRI this summer and continue research in this area. Three other new faculty members, some with interests in mycotoxins, will also be hired this year. Dr. John Luchansky has left FRI to work at a USDA laboratory in PA.

Questionnaire

Name _____

Home Address _____

Employer and address _____

Degree(s) earned at U.W. and year(s) _____

Information for future Newsletter _____

Return questionnaire to:

Dr. Elmer H. Marth, Department of Food Science
University of Wisconsin, 1605 Linden Drive
Madison, WI 53706

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MISSING

Al-Eyd, Kadim
Al-Rubaie, Nasir
Al-Shaikhli, Jawdat
Andrews, Gigi
Aschbacher, Thomas
Au, Malcolm
Austin, Jean

Bauman, David
Bogan, Frances
Bond, William
Buazzi, Mahmoud
Buyens, Harold

Christopherson, Tracy
Chung, Hong Kyoan
Cushman, Robert

D'souza, Stanley
Fan, Warren
Finol, Maria

Garcia-Lopez, Jesus Salvador
Gruetzmacher, Jean

Hallstrom, Bengt
Hanson, Donald
He, Wen
Heinen, Jennifer
Hekmati, Majid
Hildebrand, Roger
Huh, Hyung Tack

Ishino, Katsuhiko

Kim, Myung Ki
Kinyungu, Matheka

Lameka, Ann
Lin, Jia-Rong Iris

Malik, Ashok
McKnight, Olen

Navis, James
Nelson, Joan

Parker, Deborah
Patel, Surendra
Payne, R. Edward

Rabensdorf, Laurie
Redman, Herbert
Rehfeld, Betty
Rengipat, Sirirat
Ruck, John

Sousa, Darlene
Suprise, Lyle
Swartz, Darl

Treis, Steven
Tse, Nick

Varady, Tina
Wang, Lih-Ling



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