

University of California
College of Agricultural and
Environmental Sciences
Department of Food Science
and Technology

December 22, 1986

Dear Alumni and Friends:

I'm joining with members of our faculty (Martin Miller, Rose Marie Pangborn, Gary Smith, Lloyd Smith, George York) as well as Karen Wilkens, President of the Food Tech Club, in extending our special Seasons Greetings to all of you. We trust you will find the summary of the events described by our faculty as well as Karen to be of interest to you.

Firstly, I am pleased to advise you that four of our faculty were promoted as of July 1, 1986, namely Dr. Everett Bandman to Associate Professor with tenure, and Drs. Reid, Russell, and Schneeman to the Full Professorship. This is significant recognition of their achievements by any standard!

We have also added two new faculty members and anticipate adding two more during 1987. Dr. Norman Haard, a distinguished Food Scientist, came with us as Professor of Marine Food Science to assume primary responsibility for the chemistry-biochemistry studies of marine food products in June of 1986, and Dr. Michael McCarthy joined our faculty in November of 1986 as an Assistant Professor of Food Engineering after completing his Ph.D. degree in Chemical Engineering at the University of California at Berkeley. Dr. Rebouillat, from France (Ph.D. from National Polytechnic Institute of Lorraine) is expected to join us as an Assistant Professor of Food Engineering (visa clearance permitting in early 1987).

We are currently recruiting for a Lipid Chemist to join our faculty when Professor Lloyd Smith reaches mandatory retirement age as of June 30, 1987. The Faculty Search Committee under the leadership of Professor Reid is now reviewing the applications we have received for this important faculty position. We also have requested a new faculty position in Food Microbiology and we should know if this has received campus approval sometime in March of 1987.

Professor E. B. Collins will be retiring as of December 31, 1986, but we are calling him back to handle the teaching responsibilities for FST 104 (Food Microbiology) for the Winter Quarter of 1987, as Professor Ericka Barrett will be on sabbatical leave during that period and will be teaching this course in future years.

Professor Miller has requested to be appointed 35% time as of January 15, 1988, and this is now being reviewed for implementation in accordance with his request. He still will be active in the department in teaching and research.

I will be completing my term as Chairman of this department after seventeen years as of June 30, 1987. The Dean of the College, Dr. Charles Hess, has been conferring with faculty, staff and students and will be initiating a national search for a new Chairman with local candidates also being considered. It is anticipated that this change in the Chairmanship will occur sometime in the period of July 1 to October 1, 1987. I will be continuing on full time as a faculty member in the department with teaching activities and coordinating the food irradiation programs on campus and other professional activities.

Two of our faculty, Professors John Whitaker and Barbara Schneeman, have been appointed Associate Deans in the College of Agriculture and Environmental Sciences as of July 1, 1986, so they are even busier than ever with these new challenges along with teaching, research and public service in the departmental programs. We also are pleased to advise you that Professor Thomas Richardson has been designated by Dean Hess as Director of the Dairy Food Science Research Program on campus and has been very active in developing a major national research proposal on dairy foods research with participation of several other faculty members from this and other departments, as well as by faculty located at California Polytechnic University at San Luis Obispo.

Faculty and staff received several prestigious awards and recognition of their leadership again this year. Specifically, Dr. B. S. Luh was elected a Fellow of the Institute of Food Technologists at the June meeting of IFT; Dr. John Bruhn of our Cooperative Extension faculty received an important award from the American Dairy Science Association; and Special Performance Awards were made to four of our staff, Bill Felver (Shop), Julie Heil (Research Staff with Professor Merson), RoseMarie Hendrickx (Business Office), and Teri Wolcott (Research Staff with Professor Merson).

Professor David Ogrydziak spent a valuable sabbatical leave program emphasizing microbial genetics at the Institut National Agronomique in Paris and Professor Lloyd Smith is just completing his sabbatical leave which includes serving a Fullbright Fellowship in Brazil (see his letter). As noted above, Professor Ericka Barrett will be on sabbatical leave for a six month period beginning January 1, 1987, in which she will be emphasizing updating her knowledge in microbial genetics, completing scientific papers for publication, and visiting several other research centers. Dr. John Bruhn of our Cooperative Extension faculty will also be on sabbatical leave for a six month period beginning January 1, 1987, and he will be visiting dairy food science research centers in Australia updating his knowledge in dairy food processing and completing a series of scientific papers for publication.



We have a change after long and distinguished service as Master Advisor of the Food Science Major with the retirement of Professor Collins at the end of December, and Professor R. L. Merson has been appointed to this important position to succeed Professor Collins.

Professor Barrett has been elected Chairman of the Executive Committee of the Graduate Group in Food Science and Professor David Reid has been elected Chairman of the Executive Committee of the Graduate Group in Agricultural and Environmental Chemistry as of July 1, 1986.

Our distinguished emeritus colleague in Dairy Food Science, Dr. Eugene Jack, passed away on March 27, 1986, at the age of 86. A memorial student fund has been established in the department and anyone wishing to contribute to this fund may send a check to me made out to the Regents of the University of California.

As you can see, we have had a busy year. We have many opportunities for challenge and continuing to provide leadership for the approximately 150 undergraduate majors we have, the 80-100 graduate students that are working with our faculty, and the 10-20 Visiting Scientists that we have associated with the faculty research programs in the department this year.

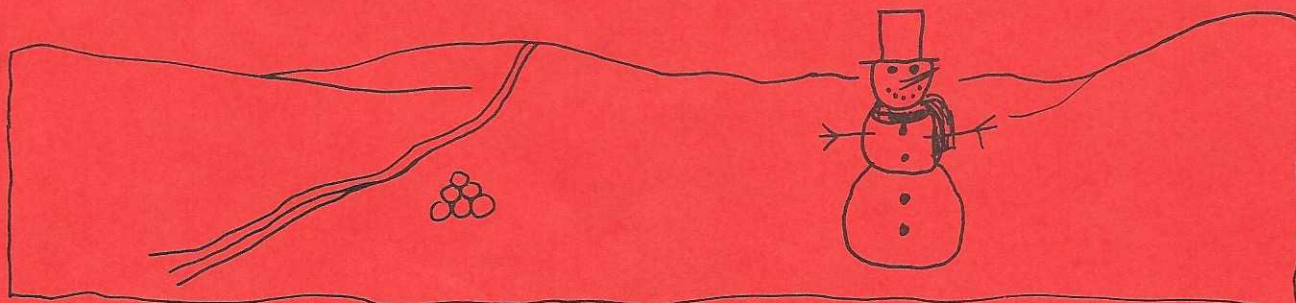
It is an exciting time in Food Science with it being clearly evident that diet and health issues will continue to be a major importance to consumers including studies on the physical, chemical, microbiological, nutritional, sensory and toxicological properties of food and food constituents. The latter areas form an important base for new product development of food and allied industry companies located in California and elsewhere.

With our special good wishes for the holiday season.

Bernie Schweigert

Happy Holidays and Greetings to All of You!! For many years, it has been such a pleasure to receive and send cards and greetings to those of you who left for the "outside" to make your mark on the world.

This year I have the opportunity to send greetings to all of you from Vicky Crampton who still presides over activities in Room 138, Cruess Hall and from me. As most of you know, I took on responsibilities for olive research when Professor Vaughn retired. Recent efforts have dealt with hyperfiltration of plant processing waters in an effort to reduce a perennial problem of water disposal. Modification of traditional processes is also being investigated for the same reason. Needless-to-say, Vicky's considerable talents have been put to full use in finding ways to conserve water in olive processing.



For the last couple of years, we have entered a new (to us) research program involving heat-resistant fungi which can cause spoilage of fruits and juices. The problem has been known for 50+ years but it has been in just the past few years that it seems to have become serious for a wider variety of food processors.

My interests in the yeasts and fruit dehydration still continue unabated. Spoilage problems by yeasts seem to be on the increase as fruits/concentrates are being incorporated into more products and beverages.

Mr. Gao Hong-to from Beijing China joined our laboratory about eighteen months ago and has been conducting research on producing Saccharomyces mutants which overproduce sulfur-containing amino acids. Single Cell Protein (SCP) from plant sources are quite deficient in these essential compounds.

This fall the yeast course that Professor Phaff and I had taught for so many years (until he reached mandatory retirement age) was revived by Professors Linda Bisson, Department of Viticulture and Enology, Chet Price and myself from this department (as a junior partner). Linda and Chet bring much new material and I feel the new version of the course will be very successful in meeting the needs of new graduates in microbiology. I continue teaching FS&T 111 (Introduction to Food Processing) and 235 (Mycology of Food and Food Products) and still advise graduates in microbiology so all in all we are fully occupied per usual.

We hope this finds all of you and yours in the best of health and that the New Year brings you further successes in life.

Marty Miller

I am happy that Professor Schweigert has given me the opportunity to extend our good wishes for the holidays from my family and from the members of my laboratory to the alumni and friends of the department.

It has been a productive and exciting year. In the lab, we have made new inroads into the study of protein structure and dynamics using ^{15}N -NMR; Liping has refined his NMR skills (and passed his orals for his Ph.D. degree); Dave Domingues has learned a dozen informative ways to kill enzymes; Tony Franke is becoming a part-time microbiologist. The collaborative project on the ripening of avocados, studied by ^{31}P -NMR and gas chromatography, has been finished (so there will be no guacamole for lunch). In other collaborative work, Dr. Linda Smith of the Plant Growth Lab. (my wife) and I have collaborated on the production of a new baby girl, born November 4, and are devoting considerable time to her care and feeding.



At the year's end, it is natural to try to summarize the things we have accomplished during the year, especially in the format of a newsletter. The holidays are certainly a time for sharing our news. But the holidays are really a time for celebrations of religious events, the traditions of the season, personal relationships, small (or large) joys, or just having survived another year.

We hope you have many things to celebrate. Merry Christmas, happy Hanakkah.

Gary Smith

Season's greetings from the Sensory Science Laboratory in Chemistry Annex. where we are gearing up for the bright eyes, sharp tongues, and keen noses of the next group of FS&T 107 students. Sharon Rine, the T.A. for Winter Quarter and I are looking forward to demonstrating our new computerized data collection system. It consists of a compact PC and printer with six small satellites, one for each booth, for judges to enter data directly by simple touch control. Immediately after entry of sensory responses the stored data can be printed out as matrices of ranges, means standard deviations, etc. The system can be interfaced with statistical programs for data analysis as well as with printers for computer graphics. Our laboratory, as well as labs in Norway and England were selected to pretest the system for six months.

Throughout the year, several industrious students have been coordinating test panels, analyzing data, and assuring Jill and Yvonne of mountains of glassware. Debbi Froehlich completed the Ph.D. in Nutrition, conducting research on the influence of starch, taste and masticatory stimuli on salivary flow and amylase activity, in collaboration with Professor Whitaker with valuable assistance from Geracimo Bracho. Debbi has returned to her position at Agriculture Canada.

Hildegarde Heymann completed her Ph.D. in Ag. and Environmental Chemistry in Professor Noble's lab and is now an Assistant Professor in Food Science at the University of Missouri, Columbia, where she teaches sensory analysis and enology. We often hear from Ann Noble who is enjoying her sabbatic leave at the Australian Wine Institute in Adelaide until April, 1987.

Andrea Kaye submitted an M.S thesis in Nutrition based on research on degree of liking for fat, sucrose, and salt in dairy products by lean, obese, and reduced obese women. She had a poster presentation at the International Obesity Congress in Jerusalem in August, and is now continuing sensory research at Pepsico in Valhalla, NY. While in Europe, Andrea visited former sensory alumni, Judith Bloks in The Netherlands and Olivier Eymery in France.



Wilhelmina Marum finished her M.S. thesis in Food Science on acid-modification of perceived saltiness in model systems and in pea soup. She expects her first child in January. Her husband, Dr. Preston Marx, has received much recognition for his research on simian AIDS at the UCD Primate Center. He and Wilhelmina were guests of the Pasteur Institute in Paris for an international AIDS conference.

Soon Caroline Wang will complete her M.S. thesis in Nutrition and join her fiance in Indiana. Her research is concerned with sensory responses and caloric estimation of fat and sugar in milk by American and Taiwanese judges. Olivier Eymery, an exchange student from Dijon, completed his research on saltiness and firmness of cheese and returned to France.

The "Salivation Army" has been recruited anew to participate in the pungent research of Chris Nasrawi, Ph.D. candidate in Nutrition, who is measuring sensory and salivary responses to capsiacin. Sharon Rine's M.S. research consists of using our new Zenith PC to quantify temporal changes in sweetness, adhesiveness and cohesiveness of peanut butter. Last Spring, Sharon and undergraduate Mary Bills (currently in sensory analysis at Millers in Milwaukee) did descriptive analysis of birch syrup with visiting scientist, Dr. Heikki Kallio of the University of Turku, Finland. Our manuscript has just been accepted for publication in the British journal, Food Chemistry.

The M.S. research of Jean-Xavier Guinard on time-intensity of bitterness in beer and of astringency of wine has been published in the J. American Society Brewing Chemists and the American J. Enology & Viticulture, respectively. ~~Now he is conducting research on yeast genetics with Professor M. J. Lewis in the Ph.D. program in Microbiology at UCD.~~

During Spring Quarter, Dr. Clyde Young, Professor of Food Science at North Carolina State University, spent four months on sabbatic leave with us. He assisted with FS&T 207 and presented seminars on his work on peanuts and peanut butter. We are happy to welcome Dr. Hely Tuorila of the University of Helsinki who arrived in July to conduct post-doctoral research for a year. She's doing survey research on beliefs related to consumer attitudes, liking, and consumption of sweet, salty, and fatty foods. Several other international scientists have inquired about post-doctoral opportunities in sensory science.

Christina Blais brought 9 month old Alexander to visit us before she returned to Canada where she will teach sensory analysis at McDonald College, near Montreal. We've had many requests for her article on salt taste responses of subjects on low-sodium diets, which was published in the American J. Clinical Nutrition in August. Carol Kelson completed a productive year in sensory research at ENS.BANA in Dijon, France and is presently conducting research on water activity with Professor Marcus Karel at MIT. Maisie Wong writes from Richardson-Vicks in Connecticut of her adventures with sensory analysis of cosmetics, while Alice Liu is busy measuring sensory properties of

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tobacco products at R. J. Reynolds. Closer to home, Sharlene Vite enjoys her consumer testing activities at the National Food Laboratories in Dublin, CA.

Sensory scientists from the three UCD sensory laboratories - Mike O'Mahony's, Ann Noble's and mine, presented papers at Chemical Senses Day IV on October 11 at the Western Regional Lab. Alumnus, Dr. Robert Hyde will host CSD V at San Jose State University in 1987.

We extend to each of you, best wishes for many pleasant sensory stimuli during the new year.

Rose Marie Pangborn

The 1986 holiday season marks the close of a special year for me at UCD. I was honored by being selected for a grant to participate in the Fullbright program of educations exchange between the United States and Brazil. My wife, Edythe, and I spent July to late October in Sao Paulo, where I was affiliated with the University of Sao Paulo (U.S.P.). In addition to presenting a graduate course on food lipids and advising on food research at USP, I was invited to present seminars at other universities located at Campinas, Rio de Janeiro, Belo Horizonte, Ribeirao Preto, Vicosia and Joao Pessoa. I met several former students and colleagues who had spent time at UCD. We made many new friends and found the people to be warm and most anxious to be helpful. It was a special treat to visit in Rio de Janeiro with Dr. Leopold Hartman whom we first met on my previous Fullbright Fellowship to New Zealand in 1960-61, and who is still an active researcher in fats and oils.

Brazil is changing rapidly from a rural society to an industrial power. The introduction of the Cruzado plan has reduced sharply the previous runaway inflation, but many other problems remain to be solved by the newly elected Sarney coalition government. We were fortunate to be in Brazil at a time of historic changes.

Food science and its role in meeting the nutritional needs of Brazilians are receiving more recognition. There was great interest in our work on deep-fat frying and in the edible oil field in general. Edythe and I are especially grateful to Professors Franco Lajolo and Jorge Mancini at USP for all their assistance in connection with our stay in Brazil.

We arranged to spend a few days in both Panama and Costa Rica on our return from Brazil to California. I presented seminars on food lipids at universities in both countries besides enjoying the tourist sights. Professors Enrique Murillo and Hugo Hansell of the University of Panama were our charming hosts. A former colleague at UCD, Professor Armando Acuna-Bonilla showed us the sights in Costa Rica. Unfortunately, we were unable to

explain current U.S. Central American foreign policy to our colleagues in Panama and Costa Rica! Edythe and I consider our stay in Brazil, Panama and Costa Rica to be an invaluable experience both personally and professionally. We believe our visit will continue to strengthen the already excellent research collaboration between USP, the agricultural institutions at Campinas and the University of California.

During 1986, the course FS&T 130 (Chemistry of Milk and Dairy Products) which I had taught for many years, was revised and combined with FS&T 119 in a new 4-credit course. This new FS&T 119 was presented by Professors Tom Richardson, Gary Smith and myself during the 1986 Spring Quarter. I continue to teach 211 (Chemistry of Food Lipids). I have also continued by collaboration with Professor Andrew Clifford, Nutrition Department, on the effects of dietary fats on the lipid of blood and various tissues, in addition to our current research on the chemistry of deep-fat frying. Dick Creveling provides invaluable assistance in both research areas.

On July 1, 1987, I will be joining the ranks of the emeritus professors of the Department after being associated with the University for over 36 years. I will have an office in the Chemistry Building while I complete my research and writing activities.

Edythe and I extend our best wishes to all for a happy holiday season and good health during 1987.

Lloyd Smith

Holiday Greetings from the Cooperative Extension group in Food Science and Technology: Extension Specialists, Wade Brant, John Bruhn, Bob Pearl, Bob Price, George York and Gideon Zeidler; Staff Research Associates, Kathryn Boor and Pam Tom; Secretaries, Sharen Chaffin and Emily Ohrwall; Program Assistants, Shirley Rexroat and Ann Sandoval.

Our office and research staff, Ann, Sharen, Shirley, Emily, Kathryn and Pam continue to do a fantastic job of keeping everything running smoothly. We would like to extend a big welcome to Emily Ohrwall who replaced Angela Cox as Bob Price's secretary. Angela moved to Bishop, California.

Wade Brant is fully retired now but continues to be active in his professional societies. We've just welcomed him back from a trip to Malaysia.

John Bruhn is continuing his hectic schedule of conducting problem solving research and extension activities with the dairy industry. John will be starting a six-month sabbatical in mid-December which will include some time in Australia.



Bob Pearl is remaining as active as ever. Bob continues to keep himself busy with IFT activities, the UC Academic Staff Organization Executive Council, and the Marketing Task Force, among other activities, as well as programs with fruit and vegetable processors. A new project is the New Product Development Study Group. This group's goal is to aid the industry in expanding markets for California products, nationally and internationally.

Rebecca Woolf-Robinson, former Program Assistant, transferred to the Veterinary Medical School Diagnostic Lab and is doing an excellent job. Ann Sandoval, formerly with Pomology Extension, is Rebecca's replacement. Ann and Bob compliment each other very well.

Bob Price continues to maintain a heavy schedule of adaptive research and educational programs for the seafood industry, as well as administering the Sea Grant Marine Advisory Program. On January 1, 1987, Bob will retire from his administrative duties and return to working full time as a Seafood Technology Specialist. Bob remains active in professional societies. He serves on the Institute of Food Technologists 50th Anniversary Committee, Subcommittee on Membership Affairs, the IFT Northern California Section Nominating Committee, and as Secretary/Treasurer of the Pacific Fisheries Technologists. Between he and Pam Tom, their program area keeps busy.

Gideon Zeidler is our new addition to the FS&T Cooperative Extension team. His major focus is creative problem solving research with the meat and poultry industries. Welcome, Gideon!

Finally, I continue to be busier than ever. An important activity is chairing the Food Quality and Safety Study Group. This is part of the Agricultural Issues Center study that Bob Pearl's Product Development Study Group is working under. Like Bob's group, the overall goal of all these subgroup studies is to expand the markets for California specialty crops in a national and world economy.

Another major activity of mine is the training of volunteers in how to teach home food preservation techniques. This is part of the Master Food Preserver Program which is now offered in twenty-six counties throughout the state. I've assisted a number of people who want to market food products which they have made at home on a small scale.

Paulette DeJong, my former Staff Research Associate, married Dr. James Kirk and now lives happily in New Jersey. Her position has been capably filled by Kathryn Boor, who is busy revising the Master Food Preserver Training Manual, organizing both the Northern and Southern California Food Processors Sanitation Workshops, and working towards her Ph.D. in Microbiology. My former secretary, Kendyl Goldston, moved to San Diego County and Sharen Chaffin, receptionist in the Food Science and Technology main office, "moved up" to fill her shoes.

In closing, we all wish you the very best for the holiday season and look forward to working with you during the year ahead.

George York

Happy Holidays, from the Food Technology Club

Last Spring, Davis was fortunate to represent the western area division of IFT in the Student College Bowl. After winning the regional competition, held during the Western Food Industry Conference at Davis, we went on to place third at the national competition. It was exciting to compete against other schools, and we hope to do even better in the coming year.

The Club wrapped up Spring Quarter with a student-staff-faculty luau held at the Rec Pool Lodge. High attendance, great food, and a second annual appearance from the Food Science Hawaiian Dancers made the evening a success.

The Club's emphasis this year is increased membership with greater representation by the students. The means for achieving this goal have been greater publicity of club activities and short meetings with interesting programs. Helping me with the work load is an excellent group of officers: Sharon Maxon, Vice-President; Lily Wu, Treasurer; Ruth Yost, Secretary; Leslie Evans and Pepipa Yue NCIFT Representatives; Joan Rosen and Jo Ellen Wayne, Graduate Student Representatives. Dr. Tom Richardson and Dr. Mendel Mazelis are our honored advisors this year.

I wish to express the Club's appreciation for the tremendous support we receive from the department, members of industry, and especially the alumni.

Karen Wilkens, President
Food Technology Club

