

There is new life occurring in the undergraduate program in Dairy Science. Thanks to the results of James Umphrey's labors, the number of U.S.-born undergraduates is reaching an all-time high. The increased number of students add vitality to the activities of the Dairy Science Club. Its judging team competed successfully at the national contest and the club is represented at shows ranging from PDCA to the state fair. To encourage further interest in shows, the department has invested in several animals which will allow our college showmen to end up somewhere other than on the bottom of the class. We know losing builds character; we have enough character, now we need confidence. These activities supplement the classroom learning scene.

The undergraduate program has also received a face-lift. A new course in computer management techniques, taught by Dr. DeLorenzo, will introduce students to software programs which can fine-tune dairy management techniques. With the able expertise of Drs. Shearer and Bachman, a techniques course also was introduced to provide hands-on experience in doing some of the routine jobs ranging from dehorning to testing for mastitis. This fall we will introduce a course on labor management which will include discussions of incentives, position advertising and job descriptions. In the spring, a seminar course will be offered on current topics and will provide insight into the infrastructure of the dairy industry. The reorganization of courses corresponds to the Veterinary College initiative to provide more technical management experience for their students.

The DHI program continues to grow and mature in Florida. In response, their Board of Directors adopted an organizational plan which will relieve Dr. Webb of many of the day-to-day managerial duties and allow him to concentrate on educational programs which can help all Florida dairymen. An area of the Dairy Science building has been renovated to provide a separate office area for the DHI program and its staff.

A parallel to the increased activity in the undergraduate program is evident in research. During the year we have had five Post-Doctoral Fellows, four Visiting Professors and various short-term scientists come to work in our laboratories. The building is literally bursting at the seams. The increased manpower and brain power has increased the research output to an all-time high. The number of top quality applicants for enrollment in our graduate program this fall is encouraging evidence of better things to come.

All these positive signs in spite of a very bleak state budget picture. Why? People and support--the two are tied together. Productive people want to work where finances are available and good people produce results.

This transformation can be traced to the decision made by our Florida dairymen to provide financial support for dairy related research, extension and education projects. In addition, this income has been matched by some state funds for the purchase of equipment. The Milk Check-Off has also allowed us to purchase animals from these milk income funds. The milk income and the sale of these animals is returned to the grant. Cost of research grants is held to a minimum and the Milk Check-Off Grant will soon own the entire herd. To demonstrate the significance, present state budgets would support a herd of about 50 cows. We presently have more than 300 cows involved in active research projects.

The Milk Check-Off program provided about \$250,000 to research programs in 1990. With the state matching funds and milk income, the total exceeds \$500,000. At this conference, papers on the results of several major studies will be presented. If Florida dairymen will utilize the knowledge gained from those projects, the returns will exceed five times the investment each dairyman made with the one-cent per cwt investment and that return will continue through the years.

In 1990, we reported that the Dairy Research Facility was in the process of being renovated to comply with DER and the Water Management District guidelines. Construction is near completion. The final stage, a building of a 200-cow free stall barn, will be completed in a month or so. The manure will be disposed of through a dual irrigation system that will allow us to test many alternatives for the use of dairy waste in crop production.

Responses to the second and third Cow Colleges, held this year, and the herdsman's schools (one-week courses in Gainesville designed to train herdsman and crew chiefs in proper dairy management) have been excellent. The Cow College is designed for the special people in your organization who could use intensive training in a specific subject matter area. Upon completion of four or six of these Cow Colleges, the enrollees will have the equivalent dairy science training of an undergraduate degree. This is an excellent opportunity for Florida dairy owners to recognize their competent and loyal staff while, at the same time, the students are obtaining valuable information which can put to profitable use when they return to the dairy. To supplement the herdsman's school in supplying trained labor for the industry, our department has agreed to cooperate with Pride. This program is designed to provide on-the-job-training for inmates who are serving prison time for non-violent crimes. The training they receive should allow them to accept a position on a dairy farm and be a valuable employee with little or no additional training. The people doing the training will have attended our herdsman's seminars and Cow Colleges.

The faculty again received a lot of national and international recognition. Dr. Thatcher represented the U.S. scientific community in a special series of seminars in New Zealand and Australia. A large number of faculty presented papers on their research and other areas of the

country are relying on our faculty to update them on the latest in dairy research.

A special thanks to all the dairymen in Florida for their financial assistance and to those dairymen who give unselfishly of their time to serve on our advisory committee (1) and the Milk Check-Off Committee. The following is a list of hard working assistants: Bill Bassett, William Berman, Bart Bongers, Rick Dressel, Gerald Fieser, James Henderson, Tommy Rucks Jr., Steve Mattox, Kenneth Smith, Ron St. Johns, Kelly Walker, Carroll L. Ward Jr., Tommy Watkins, Steve Yoder, David Kelbert (1), Jay Boosinger (1), and David Solger (1). Many of the changes reported are a direct result of their advice and encouragement. Membership on this committee is on a rotating basis. Your input can be made when new members are elected by your cooperative board.

A special thanks to those who have provided additional support through direct gifts to the 4-H and other programs. These include: C.W. Reaves, The Dale Vincent family, the George and Ena Bush family, Florida Jersey Cattle Club, Purina Mills Inc., Lakeland Cash Feed Inc., Pine Valley Dairy Inc., Bassetts Dairy Inc., Central Florida Police Benevolent Association, Platt Farms, National Jersey Cattle Club, Maiden Hill Dairy, Florida Brown Swiss Cattle Club, Laylaine Guernsey Farm, Florida Holstein Association, Florida Farm Bureau Federation, Carey Cattle Company, Central Florida Fair, T.G. Lee Foods, McArthur Farms Inc., Dairy Farmers Inc., Florida Department of Agriculture and Consumer Services, Florida State Fair Association, Mr. and Mrs. Joe Buckler, American Breeders Service, Virginia-North Carolina Select Sires, Federated Genetics, Marriage Construction, Duval DHIA, Con Agra, Farm Credit of North Florida, Mr. and Mrs. Fred Smith, Newar Building Corporation, Southeastern Genetics, NOBA and Sire Power, and Landmark Genetics.

Finally, you may recall that several years ago we introduced a program which encouraged dairymen or industry representatives to pledge \$500 per year for five years or a one-time payment of \$2500 for the milk bottle fund. The money is to be used for scholarships and/or graduate student support. The following people or organizations have completed their pledge to date: Imagination Farms Inc., Dairy Farmers Inc., Larson Dairy Inc., Ray Melear Inc., Roger and Karen Natzke, Pine Grove Dairy, Pine Valley Dairy Inc., Butler's Dairy Inc., McArthur Farms Inc., Louie E. Larson Jr., Charles McArthur Foundation Inc., and Dan Smith Dairy Inc. Those who made a pledge were given a plaque which contained a milk bottle from the University of Florida Dairy Plant. Upon completion of the pledge, the donor's name is added to a plaque which is proudly displayed in the Dairy Science Conference room. We still have bottles left. If your dairy or one of the industry people with whom you do business would like to be part of this worthwhile venture, please contact Mrs. Melda Bassett in the Share Office (904-392-1975). All money received is placed in an endowment, the interest of which is used to sponsor scholarships within the department.

Thanks for all the support this year.

Milk Check-Off Projects 1991

Braun - Scholarships.	\$1,000
Umphrey - Florida 4-H Dairy Sci.Programs.	\$23,000
Drost, Bray, Fields - Teaching Display: Reproductive Physiology.	\$4,157
Bray, Shearer, Drost - Teaching Materials for Adult Education.	\$8,000
Bray, Thomas - Milking Parlor Personnel Training.	\$7,250
Frank - A New Insect-Parasitic Nematode as a Biocontrol Agent for House Flies.	\$15,000
Natzke - Milk Check Off Cost Recovery.	\$1,000
Bates, Preston, Staples - Microbial Pectinases for Enhancing the Ensiling of Bermudagrass.	\$6,500
Schank, Sollenberger, Staples - Establishment, Ensiling Characteristics, and Stand Survival of Seeded Elephantgrass-Pearlmillet Hybrid Lines.	\$9,000
Smith, Harris, VanHorn - Is Alfalfa Hay Necessary to Optimize the Feeding of Fat to Lactating Dairy Cows?	\$12,000
Graetz - Fate and Transport of Nutrients in Dairy Lagoon/Land Application System.	\$21,700
Courtney, Shearer - Seasonal Transmission of Gastrointestinal Nematodes of Dairy Replacement Heifers in Florida.	\$4,880
Staples, Thatcher, Drost, Risco, Garcia - The Effect of Dietary Energy Intake, Energy Balance, and Intake of Undegradable Protein on the Growth and Development of Ovarian Follicles, CL Function, and Embryo Development in Lactating Dairy Cows.	\$22,400
Beede, Thatcher, Risco, Donovan - Influence of Prepartum Dietary Cation-Anion Difference on Postpartum Calcium Metabolism, Uterine Involution, Ovarian Function, and Reproductive and Lactational Performance.	\$27,500
Heath, Archbald, Barker, Beede, Risco, Tran - The Effect of Oral Selenium Supplementation to Third Trimester Pregnant Cows and Heifers.	\$8,820
Chen, Hansen, Thatcher - Establishment of Bovine Trophoblast Cell Line for the Production of bTP-1 and for the Study of Gene Regulation of BTP-1.	\$10,000