

# ANIMAL SCIENCE NEWSLETTER

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## CALENDAR OF EVENTS

- October 15 - CBCIA Angus Breeders' and farm advisors' meeting on department's double muscle research, Davis.  
November 6 - Tenth Annual California Feeders' Day, Davis.  
August 1-5, 1971 - American Society of Animal Science, Davis.

## DEPARTMENTAL ACTIVITIES

Perry Cupps will be principal speaker at a series of Farm Advisor Conferences to be held during the month of October. His subject will be "Fertility of the Beef Cow".

Hubert Heitman has been appointed chairman of the following Chancellor's Committees: Business Services Advisory Committee and Intercollegiate Athletic Advisory Board.

Clem Pelissier will leave shortly for a three week-barring hijacking period in Algiers where he will make a Livestock Feasibility Study for the Bechtel Corp.

The first annual CBCIA bull sale for members of this organization held September 12th in McArthur was a huge success. Perry Cupps, Floyd Carroll and Wade Rollins participated in this event. Plans are being developed to hold a similar feed test and sale in 1971.

Jim Morris published a paper entitled "The survival feeding of pregnant and lactating beef cows on all sorghum grain rations: effect of two levels of grain and early weaning of the calves. J. Agric. Sci. (Cambridge) 75:444.

The department expects 8 new MS students for the new quarter. Three are UCD graduates and the others are from Sacramento State College, Kentucky, Pennsylvania, Argentina and Ireland. There will be 3 new Ph.D. students and - one returning - Lane Ely back from 2 years in the service. The new ones are from Texas A&M University, Colorado State University, and a graduate of UCD.

Remember reports for the Animal Science Advisory Committee are due into Dr. Ronning by October 15.

Mag Ronning made a quick trip to Chile in conjunction with the Ford Foundation Funded exchange between the University of California and University of Chile. He reports Bill, Betty and Tim Weir are well settled and adjusted to their 12 to 18 month stay there. Bill has hit the ground hard with both feet and the program is developing well. Chileans who have been at Davis all send their greetings. Sergio Oyarzun (MS '69) and Edvardo Chavez MS '67) have initiated a new Principles of Nutrition course in the Faculty of Agriculture; Raul Cabrera (MS '68) has assumed major responsibility in teaching Physiology in the Veterinary School; Alejandro Lopez (MS '70) is initiating his Ph.D. thesis research and has introduced new concepts into the Nutrition course in his faculty; Juan Bidegain (MS '70) has initiated a long term research program in baby calf nutrition; Chris Crempien is in full swing doing extension work for the government along with part time teaching in the Vet School. These activities along with plans now being made for a Master of Science graduate program to begin next year show significant positive results from the program.

#### NEWS OF PERSONNEL

Patti Shaw has moved to Fresno and has taken a job at the Kearney Field Station at Parlier. Her husband, John, in bank administration, has been transferred to Parlier.

The A.E.S. Office has been moved from Room 150 to Room 147, Animal Science, where all the AES secretaries are all being "squeezed"!

Beverly Birzele has now returned to the A.E.S. offices where the Livestock Specialists have received her with "open arms". She will be working with Glen Spurlock and Jim Elings.

Ed Brown is the new technician for the A.E.S. Livestock Specialist. His wife Mary is teaching in Esparto.

#### ANNOUNCEMENTS

Recently received is the announcement of the seventh nation-wide competition for White House Fellows. All applications must be forwarded through the appropriate dean to reach the Academic Affairs Office no later than November 23, 1970.

National Science Foundation Fellowships, Graduate and Postdoctoral, are offered again this year (1971-72) for advanced study in the basic and applied sciences, certain social sciences and in the history and/or philosophy of science.

Please check with Dr. Ronning before using state funds for per diem expenses as a supplement to a research travel grant.

#### SPECIAL FEATURE - By Bob Laben

This summer I visited the University of Alaska, specifically its Institute of Arctic Biology as a guest of Dr. Jack Luick. The Institute occupies an impressive new building and appears very well equipped and managed. Dr. Luick's project on Nutrition and Metabolism of Reindeer and Caribou is one of the important projects of the Institute. The activity of this project is well described in his project report, copies of which

have been sent to several of us, namely, Dr. Boda, Black, Kleiber, Kaneko, Parker, Ronning and myself. Anyone interested in the research on these animals should look at this report. The Institute would welcome any scientist who might propose a project within its scope and who would come there to work on it for 6 months or longer. Support funds there seem quite good and the apparent attitude of the state toward research, even with large animals, appears enthusiastic.

The Experiment Station has a dairy herd, which even to a "lower states" dairyman looks a bit questionable when you observe the feed and forage situation. The Fairbanks area has a pleasant summer and some tillable land but a forage crop investment is a risky venture. I would defend the use of some dairy cattle in comparisons with all the other large ruminants of the Arctic.

The most interesting cattle of the station are the Musk Oxen. This herd was established at the University of Alaska station in 1964 by John J. Teal Jr. with 33 calves captured on Nunivak Island. The herd now has 63 animals and over 25 cows were due to calve this summer. These are extremely interesting beasts that evidently submit to man's management without great difficulty. The herd, incidentally, is supported largely by Kellogg funds. The interest of those presently in charge of the Musk Oxen is the fine underwool or "quiviut". Garments made of this "wool" are light, silky and warm - and expensive. Jack told me that scarfs they make, measuring about 16 x 48 inches, weigh about an ounce and sell for about \$100. I didn't price sweaters! The present objectives is to breed and select for better "wool" production and to establish an industry for the natives of the Arctic region. The Musk Ox is native to Northern Canada and Greenland and was re-established in Alaska in the 1930's. A very interesting article on them was published in the June 1970 National Geographic Magazine.

Dr. Bob Dietrich and Dr. Luick have been allowed to obtain blood and rumen samples of the Musk Ox for research. Here seems a great opportunity for comparative studies of adaptive mechanisms in large ruminants. At present I found this entails some "personality and political" problems as currently you just don't do research on a Musk Ox as you can on one of our cows! They didn't offer to let me milk one of the cows, that would be a test of how domesticated they really are. Incidentally, there are very few reports on the milk composition of musk oxen, and none on variability of milk composition. There may be reasons for this.

I spent most of my time in the mountains near the reindeer research station which is some 300 miles south of Fairbanks at the edge of McKinley National Park and in sight of Mt. McKinley. It was a great thrill to study the plants and animals of this tundra and mountain region. I had the good fortune to observe most of the large animals in their natural habitat including the wolverine, a particularly elusive beast. We collected rumen samples of caribou and moose on native feed. These were for a team of biochemists and bacteriologists at the Institute. One of the bacteriologists, a visiting scientist from Illinois, was flown out by Dr. Dietrich. He collected his samples from a moose, that had been immobilized, and was flown back to the laboratory with the samples only a few hours old. He had a special ice pack and did some of his work immediately. He was excited at having previously found several new bacterial species in such samples.

Dr. Dietrich, who many of you know, is a respected veterinarian and an able scientist at the University. He is also fast becoming an experienced Alaskan bush pilot. My observations of this interesting class of men is that their survival depends on common sense and unusual good judgement, plus flying skill, and plus an unspecified measure of good luck. Failure of any of these elements tends to affect survival negatively.

The country is such that in a few moments by plane one can return to civilization, which on foot would be a very difficult task. Many of the level regions between mountain ranges are practically impossible swamps. The state is one of great national beauty and the people, from native Indians to recent arrivals, I found to be warm and friendly.

Roads are being built rapidly and this will destroy the small but thrilling bit of pioneer feeling and attitude of large areas of this state. I highly recommend the trip, be it for scientific curiosity, work, or just vacation. It would be particularly enjoyable if you can get into the back country with a fellow scientist who is as fine a host and skillful outdoorsman as Dr. Luick.