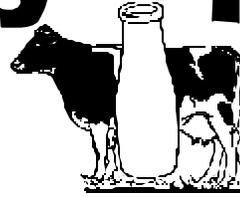




Dairy Update



Quarterly Newsletter

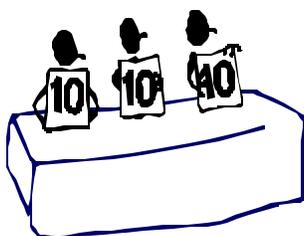
Winter 2002

DR. JACK VAN HORN RETIRES

Professor H. H. "Jack" Van Horn had the poor taste to retire on January 3, 2002 after 32 years of service to the University of Florida. Jack joined the Department of Dairy Science in 1970, and served as its chairman and as a professor of dairy cattle nutrition, giving particular emphasis to working for the dairy farmers of Florida on protein and nutrient management issues. Jack has been the point man in our department on nutrient management issues, especially in sorting out phosphorous and nitrogen mass balances for farms as they set up their nutrient programs. He also served for 3 years as the assistant director of International Programs here at the university.

Anyone who's worked with Jack knows well his earnest, easy going attitude, his ready Kansan smile, and his very direct intent of doing research and extension work to best serve the dairy farmers of Florida. Dr. Van Horn will be missed very much.

Anyone interested in sending letters for his retirement can send



them to him at PO Box 110910, Gainesville, FL 32611-0910.

INTRODUCING ALBERT DE VRIES

Hi, I am the new faculty member in what people here call the Mike DeLorenzo position. I want to say a few things on how I got here and what I plan to do. I was born in the Netherlands, grew up on a small dairy and swine farm. I obtained a BS and MS in animal and dairy sciences, with a minor in farm management, at Wageningen University.

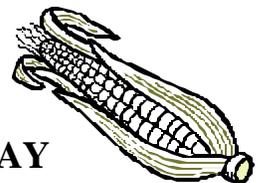
In March of this year I graduated with a Ph.D. in animal production systems from the University of Minnesota. My work focused on quality control methods applied to dairy reproduction and course work focused on applied economics, operations research, and statistics. In June 2002, I joined the faculty at UF to work on dairy systems management and economics. My appointment is 10% teaching, 40% extension, and 50% research.

I am especially interested in the most economic culling and replacement policies, dairy health and reproduction economics, and how to best deal with price and production risks. All these topics are related and aim to reduce the cost of production.

I have been involved in the Dairy Business Analysis Program,

which has helped me a great deal as I learn about the dairy industry in Florida. I am also putting together a bio-economic computer model of a dairy herd, which will help to better evaluate questions about expansion, replacement cost, cow and cash flow, and reproductive strategies. This model can also mimic your herd situation, production constraints, and objectives in order to get the best farm-specific information. Other topics will come up when I learn more about the challenges of our dairy industry.

Feel free to contact me with questions, comments or suggestions you may have. at (352) 392 - 7652, or devries@animal.ufl.edu



CORN FIELD DAY

Ok, so it's a bit early in the season for corn, but not too early to be thinking about what to do about corn harvest. Mark your calendars for Thursday, June 6 for a corn field day at the University of Florida Dairy Research Unit in Hague. There will be field plot demonstrations on varieties and weed control, discussions on inoculants, processing, and more. We'll be sending out an agenda with more details in the coming weeks.

MILK CHECK-OFF REPORTS



SHOULD THE RUBBER MEET THE ROAD

D.R. Bray, R. Giesy, R. Bucklin

A completed check-off project is the use of thick rubber matting in a Florida feed barn to alleviate the stresses of concrete on cows. These mats (J&D Manufacturing; www.jdmfg.com) were 2" thick x 4' x 6' and cost about \$3.10/sq ft, quite a bit more expensive than rubber belting, but so much softer to my young legs and feet.

In this experiment one half of a feed barn was covered in the loafing area with these mats, the other side of the barn stayed concrete.

Equal number of cows were on each side, all foot episodes were recorded on PCDart for one year.

Total incidences of foot health episodes totaled 98 from May 1999 thru April 2000. Note that this is not the number of cows treated, but rather the number of foot episodes since some cows had multiple episodes. Of that total, 38 (38.8%) of incidences were on the side with mats, while 60 (61.2%) were on the control side, a difference of 24%. Further, the severity of each problem was recorded. Of cows on the control side of the barn, 27% of cows required antibiotic therapy, while only 21% of

episodes on the mat side received that level of treatment.

Total cost of the foot health episodes was calculated using Dr. Shearer's estimated cost per episode. Treatment costs were \$18,000 on the control side of the barn and \$11,400 on the mat side. The \$6,600 difference was felt to be conservative given that greater labor and medicinal cost occurred on the control side.

According to Russ Giesy's math, the initial cost of the mats was \$10,000. No installation or interest costs were applied. The payback period was estimated at 1.52 years. This rate of return is considered desirable.

Durability of the mats was questioned due to the much greater price. After one year, some deterioration was noted, but no failure was evident. This project will continue into the future to test this durability issue. The mats seemed to be preferred by cows as the producers perceived cows on the mat side spent more time at rest. At the end of the twelve month study period, the producers placed this mat on the control side of the barn, feeling that the expenditure will be a wise one if the mats last 3-4 years as they expect.

The company has changed the composition of these mats, the new ones seem more durable than the old mats. This is one of several check-off projects working on feet and floor covering, more exciting results are in the future.

There is a question of where rubber mats are needed, where they stand to eat, or where they walk, especially if cows have to walk long distances to the parlor on concrete. The force of walking bothers me more that standing on concrete, I think that these forces

exerted on outside claws of cows who do not get their feet trimmed several times a year is the biggest problem.

What's being done in the state –

1. Belting that's been grooved covering the entire walking surfaces of barns, two wide belts custom cut and installed seem to stay in place, while not as soft as thicker mats, they are better than concrete and prevent that "green concrete" problem for new concrete less than a year old.
2. Virgin rubber mats are going to be used soon. I have tried and will continue to try different surfaces.
3. Dr. Bucklin and Dr. Shearer are using a computerized pressure device type mat that will measure forces on surfaces and how they are distributed on surfaces.

Since I don't know where this newsletter goes, I will not list the names of dairies with these surfaces, if you want to know, call me or Russ Giesy, and we will let you know.

A 40-DAY DRY PERIOD RIGHT NOW!

K. C. Bachman

Why consider using a 40-day dry period management strategy on your dairy? Because a 40-day dry period may be more profitable than your current dry period length. The average dry period is approximately 68 days long, based on DHI records processed at the North Carolina Regional Data Processing Center. Dairy herds may be forfeiting 28 days of

milk income needlessly. **If you know the conception dates of your cows, read on.**

The current industry recommendation is for a 51 to 60 day dry period length. This standard has not changed or been challenged with planned cow experiments for decades. Why? In fact, this recommendation was never based on planned cow experiments in which dry periods of different lengths were assigned to cows at random to determine their effect on subsequent milk production. Instead, the recommendations came largely from analysis of accumulated production records. It is important to realize that most cows that had short dry periods within those records were not assigned at random to have short dry periods. Instead, the short dry period category is comprised primarily of a self-selected population of cows that freshened earlier than expected, for whatever reason.

Milk production subsequent to unplanned short dry periods likely is less than that which follows planned short dry periods. When it's planned, the dairy farmer manages the cow to best prepare her to transition into a profitable lactation by monitoring her body condition and providing a close-up ration to meet her requirements. Without planned experiments to test short vs. current dry periods, we don't have a sound basis to say that the current recommendations are best. As we wrote in the Fall 2001 issue of Dairy Update, we have conducted two such experiments that used modern, high-producing cows and current management practices. The studies were small, but telling. The study conducted on a Florida dairy indicated that

15 cows that had 34-day dry periods produced 20,077 lbs 305d ME while their 19 herdmates with 57-day dry periods produced 19,771 lbs. Ten cows in the UF/IFAS Dairy Research Unit herd produced 24,268 lbs after 32 days dry while 9 herdmates with 61 days dry produced 23,212 lbs. The short dry periods included no special treatment or medications. One more thing to consider if you'd like to try 40-day dry periods on your dairy: Based on the evaluation of milk production records, the negative impact of a 31 to 40 day versus a 51 to 60 day dry period on actual 305 d lactation production has been estimated to be about a 4 % decrease in subsequent milk yield. Assuming that this 4 % value is correct for a present-day cow and management scenario that supports 22,000 lbs of milk production, the total milk production for two consecutive lactations would be unchanged if cows were kept in milk for an additional 20 days to produce the 880 lbs of saleable milk that will be lost in the ensuing lactation as a result of decreasing the preceding dry period by 20 days. Either with or without the use of bST, this level of production in late lactation, ie. 44 lbs/day, is achievable by cows that produce 22,000 lbs milk during a 305 d lactation. Therefore, when parlor pressure does not exist, shorter dry periods can be profitable if milk income per day of continued milking exceeds the difference in the daily variable costs assigned to a cow when she is being managed in the lactating herd instead of the non-lactating herd. Again, accurate diagnosis of pregnancy is needed to calculate the expected calving date.

DAIRY BUSINESS ANALYSIS PROJECT UPDATE

A. de Vries

The DBAP reports for 2000 have been completed. We are currently returning them to the participating dairies. Our goal is to have all reports returned before the end of this year. We are also preparing a summary analysis across participating dairies. Those results will soon appear in Hoofprints in the Sand and as a Florida Cooperative Extension Publication. We think the farm reports and the summary analysis contain again a lot of valuable information that will help to improve the profitability of participating and other dairies.

Here are some observations from me as a relative newcomer to DBAP. First, I hope we can start collecting 2001 data early in 2002 and return those reports quite a bit faster than we did this year. Secondly, I think we can benefit from some improvements in the quality of the collected data. Not that the data are wrong, but sometimes data are just missing without it being obvious. To do that, we plan to make some changes in the data collection sheets. That should also reduce the amount of time and expertise needed to collect the data. Finally, I wish we can get the number of participating dairies up again. That will improve the comparisons with your peers and allows us to do more meaningful summary analyses. Hopefully these changes will improve the value of DBAP and generate renewed enthusiasm for participation.