

MURPHY WHITE FAMILY NAMED DAIRY FARM FAMILY OF THE YEAR 2005

James Umphrey

A highlight of the 42nd Florida Dairy Production Conference, held in Gainesville on May 3rd, 2005, was the recognition of the Paul "Murphy" White Family as the Florida Farm Bureau Dairy Farm Family of the Year. Murphy White was born to Louis and Nonie Melear White on May 27, 1938 in the small rural town of Addison, AL. Louis and Nonie moved their family to Boynton Beach, FL in 1947. At this time Murphy, even as a youngster, was very involved in the dairy business. He worked for his father who had established a dairy called White's Dairy in Boynton Beach. Murphy developed a love of 4-H and he carried this appreciation throughout his life. As a kid he showed registered Guernsey cattle and was very active in judging.

In 1958 at the age of 20, Murphy married Dawn Kelly. Murphy and Dawn started a family shortly thereafter. They had three children, Leslie Beth White, Janet Bishop and Paul Murphy White II.

In 1964 Murphy and Bob Curly formed Palm Beach Cattle Company. A year later Murphy had an opportunity to rent a small farm from one of his uncles in Boynton Beach known as Murphy White Dairy. In 1967, Murphy opened a second Murphy White Dairy in Okeechobee County on highway 710. In 1977, Murphy married his second wife, Sharon. Sharon and her two children, Ted and Kris were welcomed into Murphy's heart. Sharon and Murphy had one son, Steven. In 1979, Murphy and Sharon purchased a second farm named White Farms. In 1991, having closed both farms in Okeechobee County, the operations were moved to Sumter County. Murphy White Dairy was located in Center Hill and White Farms was located in Webster. In 1993, the Center Hill farm was closed due to hurricane floods and all cows were moved to the Webster location.

Murphy was very active with his milk cooperatives. He served as a member of the Board of Directors for every coop he sold milk through. He was a member of IDFA, FDFA and SMI. He served 30 years as a trucking committee member for these coops. In addition, he served as a board member with DFI and attended the NMPF Annual meetings on a regular basis. Murphy was also active in his local community.

The State of Florida lost a founding member of the dairy community when Murphy passed away on February 4, 2004. The rich tradition he established is being carried on through his children. Janet and her husband Perry own and operate P.W. Bishop Dairy in Okeechobee along with their four children. Kris is married to Sutton Rucks. They own and operate the former Dry Lake II dairy now known as Milking R, Inc. All of Janet and Kris's children are heavily involved

in the dairy industry and very active in 4-H, the love for which they no doubt got from their grandfather. There is no question that Murphy White had the ability and willingness to give of himself to others. He gave to his family, the dairy industry, and to anyone that he came in contact with.



Carolee Howe presented the 2005 Florida Farm Bureau Dairy Farm Family Award to the Paul "Murphy" White Family

READING THE BODY LANGUAGE OF COWS – STANDING STATEMENTS

Charlie Staples

When given the choice of lying down or eating when they had been deprived of both for 3 hours, cows chose to lie down. Cows that spend more time lying down in free stalls are less likely to develop claw problems because standing on concrete is thought to predispose cows to lameness and claw lesions. Lactating cows managed in freestalls filled with 7.8 inches of sand spent more time lying down (about 1.2 hours per day more) than those with only 5.3 inches of sand in their freestalls (Journal of Dairy Science 88:2381). Closeup cows that spend more time standing also are making a statement. An unusual amount of standing by closeup dry cows can be a sign that calving is not far away. Cows that were within 1 day of calving spent an extra 2 hours a day standing on her feet compared to closeup cows not near parturition (14.4 compared to 12.3 hours per day). In addition, cows within 1 day of calving lied down and got up 17.3 times per day compared to only 11.7 times per day for the average closeup dry cow (Journal of Dairy Science 88:2454).

1990 – 2005 FLORIDA DAIRY PRODUCTION CONFERENCE PROCEEDINGS NOW ON-LINE

Albert de Vries and Jose Aparicio

The 42nd annual Florida Dairy Production Conference was held in Gainesville on May 3rd, 2005. Over 100 attendees

received updates on frequent milking in early lactation, crossbreeding, how to make the most of a multicultural workforce, reducing variability in your breeding program using a systematic approach, photoperiod management of cows for production and health, and barn cooling. The proceedings are now on-line at the UF/IFAS Florida Dairy Extension website <http://dairy.ifas.ufl.edu>.

We also put on <http://dairy.ifas.ufl.edu> all proceedings of the Florida Dairy Production Conferences held since 1990. These older proceedings also contain a wealth of still relevant information for today's dairy industry. Questions? Contact Albert de Vries (devries@animal.ufl.edu, (352) 392-7563).

ARE OUR COWS EATING ENOUGH MANGANESE?

Charlie Staples

Manganese (abbreviated "Mn") is a mineral required in small amounts daily and is, therefore, classified as a "trace" mineral. Work published this summer from The Ohio State University (Journal of Dairy Science 88:2517) suggests that the current feeding recommendations for Mn may be too low.

A deficiency of Mn in the diet can cause skeletal abnormalities and depressed reproduction. Using information from 160 dairy cows assigned to 39 different dietary treatments in the past, they determined that the amount of Mn required is 580 mg per day both in the dry period and during lactation. This translates to a minimum dietary concentration for Mn of 49 parts per million (ppm) for a dry cow eating 26 pounds of dry matter daily or of 28 ppm of Mn for a lactating cow eating 46 pounds of dry matter daily. These dietary Mn concentrations are at least 1.6 times greater than the currently recommended daily allowance. Supplemental Mn fed as manganese sulfate or as manganese-methionine was equally available to the animals.

SPANISH HERDSMAN SEMINAR ON OBSTETRICS AND CALVING PROBLEMS: AUGUST 17 & 18, 2005

A Spanish language training program in Management of Obstetrics and Problems Associated with Calving will be held on August 17-18, 2005 at the Cabot Lodge and the College of Veterinary Medicine in Gainesville, FL. The purpose of this training program is to enable dairy health technicians to review the principles of appropriate care and management of calving-related disorders. A directed approach to the intervention of dystocia will be presented. Monitoring strategies of periparturient cows to insure timely intervention will also be presented.

Internationally recognized speakers include Carlos Risco, DVM (University of Florida, College of Veterinary Medicine), Pedro Melendez, DVM (University of Florida, College of Veterinary Medicine) and Jan K. Shearer, DVM (University of Florida, College of Veterinary Medicine).

Interested persons will have the option to receive a "Certificate of Attendance" following their participation in the course and laboratory on obstetrics.

For further information about the program, please visit <http://www.vetmed.ufl.edu/lacs/SpanishHerdsman/> or contact Dr. Jan K. Shearer, (Dairy Extension Veterinarian) or Leslie Shearer (Veterinary Extension Dairy Program Coordinator) at (352) 392-4700 ext. 4112 or at jks@ifas.ufl.edu. For

registration information, please contact Gail Crawford at (352) 392-4700 ext. 4064 or at crawfordg@mail.vetmed.ufl.edu.

2005 FLORIDA RUMINANT NUTRITION SYMPOSIUM PROCEEDINGS ON-LINE

The proceedings of the 16th Florida Ruminant Nutrition Symposium, held on February 1+2, 2005 in Gainesville, are now available at <http://dairy.ifas.ufl.edu>. We are currently working to make all previous proceedings (back to the first symposium in 1990) available on this website. There is a wealth of relevant nutrition information in these proceedings so check it out! (Albert de Vries, devries@animal.ufl.edu)

FLORIDA DAIRY STUDENTS PARTICIPATED IN THE 4th NORTH AMERICAN INTERCOLLEGIATE DAIRY CHALLENGE

Albert de Vries

A team of UF dairy science students participated in the 4th North American Intercollegiate Dairy Challenge (NAIDC) in State College, PA, on April 8 and 9, 2005. The NAIDC was established as a management contest to incorporate all phases of a specific dairy business. It strives to incorporate a higher-learning atmosphere with practical application to help prepare students for careers in the dairy industry.

This year's contest was hosted by Penn State University. The UF team consisted of Ilana Stover, Jessica Murphy, Sanita Bromfield, and Josh Churchwell. Coach was Albert de Vries.

The event attracted 27 teams from the United States and Canada, challenging them to put their textbook and practical knowledge to the ultimate test – analyzing dairies. Day One of NAIDC began with each team receiving information about a working dairy, including production and farm management data. After an in-person inspection of one of three designated dairies, participants interviewed the herd managers. Then each team developed a farm analysis and presentation materials, including recommendations for nutrition, reproduction, milking procedures, animal health, housing and financial management. Day Two was presentation day. Team members presented recommendations to a panel of judges and then fielded questions from the judges. Presentations were evaluated, based on the analysis and recommendations. The evening concluded with a reception and awards banquet. The Florida team did fine and obtained a silver award.

In addition to the learning experience, the NAIDC gives students and sponsors plenty of opportunity to interact and many students are recruited for internships or jobs. It is also a great way to see how our UF undergraduate dairy program compares with all the major dairy programs in North America. Experiences from the NAIDC are used to improve the UF undergraduate dairy program to help prepare our students as well as we can for a career in the dairy industry.

Generous support from corporate sponsors makes NAIDC possible. This year's Platinum sponsors include ABS Global Inc., Ag Enhance Program of NE Farm Credit, Agrway Foundation Inc., Alltech, Arm & Hammer Animal Nutrition Group, Bioproducts Inc., Cargill Animal Nutrition, Dairy Herd Management, Dairy One, Dairy Records Management Systems, DairyBusiness Communications, Diamond V Mills, Elanco Animal Health, Farm Credit System Foundation, Genex Cooperative Inc., Monsanto Dairy Business, Northeast

Dairy Producers Association, Pfizer Animal Health, Select Sires Inc., Soy Best and West Central Soy. Southeast Milk, Inc., supported the Florida team by a check-off grant to help with travel costs. Thank you all for your support!

In 2006, the NAIDC will be held April 7 + 8 in the Twin Falls, Idaho area. The University of Idaho and Washington State University are co-hosting the event. For more information about NAIDC, log on to www.dairychallenge.org.



The 2005 University of Florida Dairy Challenge team.

ALL WASHED UP

David R. Bray

We're in the summer season with an abundance of heat, humidity and rainfall. Which also means mastitis season? Milking clean, dry udders is a major way to reduce mastitis and lower your cell count. Those of you without well bedded free stall barns can't control the weather. Those of you with poorly bedded free stall barns can't control your labor and are paying a big price for these management practices. You not only enjoy the higher mastitis losses of cows that are out in the mud, but you also get to pay for the barns.

One of the easiest ways to milk clean dry udders from whatever you started with is a good cow wash pen, designed with enough wash space for each group (14 sq. ft. per cow) and the same sized drip-dry area for each group. Have enough water available to wash the cows, booster pump(s), and rain bird type sprinklers on 4'-5' centers. A timer is needed to regulate the length and number of wash cycles; this saves water and does a better job of cleaning teats, udders and underside of the cow. You can inject "a sanitizing Quat" type product with a surfactant that helps clean and dry the cows. Also you can inject a mild soap into the wash cycle(s) that will also speed up the cleaning and drying of the cows.

These products are available at all dairy suppliers; they are not cheap but save time and labor.

If your wash pen is too small, water pressure too low, and half of the sprinklers don't work, you will waste water and milk wet dirty teats. This scenario leads to your milkers having to pre-dip, strip and wipe filthy udders and teats, reaching through filthy legs and tails. Your mastitis rate and somatic cell count is now out of your control.

In summary, whatever management can do to prevent mastitis before the cows come into the parlor will make you money and prevent mastitis. If you expect your milkers to try to clean and dry wet filthy udders, apply milking machines with malfunctioning pulsators and ATOs that haven't worked in three years to control mastitis - it's going to be a l-o-n-g hot summer. Dave Bray, (352) 392-5594.

COMPLIANCE – THE ACHILLES HEEL OF REPRODUCTIVE TECHNOLOGIES

Peter J. Hansen

"You Americans have replaced the hypothalamus with the syringe", European veterinarian to an American veterinarian at a recent conference on dairy cattle reproduction.

Not surprisingly, as the fertility of dairy cows has declined, there has been a corresponding increase in the interventions that the dairy farmer is willing to engage in to get the cow pregnant. The ultimate intervention is timed artificial insemination – the use of hormones to program when the cow ovulates so that breeding can take place at a fixed time without the need for heat detection.

There is a need for these programs – the modern dairy cow is only in heat for 8-9 hours every 21 to 23 days and the total amount of time the cows spends actually being mounted is only 24 seconds or so. Heat detection is highly dependent on the amount of labor, which is often a limiting factor on dairies.

In the long run, we need to replace the infertile dairy cow of today with a cow having different genetics that supports fertility. In the meantime, programs like OvSynch, PreSynch-OvSynch, and other timed artificial insemination protocols can make it possible to inseminate cows that would otherwise not be detected in heat in a timely manner.

The simplest timed AI system is the OvSynch protocol. For OvSynch to work, four things need to happen. All the cows beginning OvSynch receive an intramuscular injection of 100 micrograms (typically 2 cc) of GnRH. Then seven days later, cows receive an injection of 25 milligrams of prostaglandin F2 α , which represents an injection volume of 5 cc. Cows then receive another 2 cc injection of GnRH at 48 hours after the prostaglandin and all cows are then bred the next day. The optimal time of insemination is 16 hours after the GnRH injection but good fertility is obtained when insemination is done anytime on the day after the second GnRH injection.

While this protocol sounds simple, there are many opportunities for errors. Some cows may not be found on the day that a shot is scheduled. This is especially true on large dairies with hundreds or thousands of cows. The ability to find a cow probably depends upon who is doing the looking – while the owner might be very motivated to find a cow scheduled to receive an injection for OvSynch, a hired hand might not be so willing to look for a missing cow. Secondly, ear tags are often misread – maybe Cow # 3357 gets the GnRH injection that cow #8357 was scheduled to receive. Another problem is that dairy personnel might be busy and delay injections because of other tasks. Also, not everyone on the dairy is necessarily concerned that the job gets done right. Maybe the person assigned to give prostaglandin injections will decide he doesn't want to do it but he isn't planning on telling you.

Paul Fricke at the University of Wisconsin has made some calculations to illustrate the effect of poor compliance on the success of timed AI protocols. Let's consider OvSynch, the simplest of the timed AI protocols. A 90% compliance for each injection sounds pretty impressive. Consider, however, that cows need three injections to complete the OvSynch program. So, if 90% of the cows on any given day receive the correct injection at the correct time and at the correct dose, the percentage of cows that receive all three injections correctly is only 73% (0.9 x 0.9 x 0.9). As a result, 27% of cows that

receive a timed AI breeding have a poor chance to get pregnant (the actual effect of a missed injection depends on which injection is missed). Such poor compliance severely reduces the pregnancy rate that can be achieved with OvSynch.

The take home message is that a successful timed AI program requires a very high level of management. Although 90% compliance sounds good, a lot of semen is being thrown away under this scenario. Attention to detail, good record keeping and data management, and involvement of dedicated personnel are keys to a successful timed artificial insemination program. (Peter Hansen's columns are at www.farms.com/dairy/)

COW REPLACEMENT IN THE SUMMER SHOULD YOU DELAY?

Albert de Vries

Summer is here again and we already had plenty of hot and humid days. Dairy cattle are not particularly fond of this weather. The cows show that by producing less milk and it is more difficult to get open cows pregnant. Seasonal effects on cow performance are a fact of life in the Southeast, even when we provide plenty of shade and cooling to alleviate the worst effects.

Most Florida dairy producers recognize these problems and many manage their herds to be somewhat seasonal. This typically means that more heifers and cows are planned to calve in the fall so their peak milk production and breeding takes place in the cooler season. This makes sense and in general improves profit per slot per year (a "slot" is potential place for a cow on the dairy, like a stall in a tie-stall).

Cows are culled throughout the year, however. When culling occurs in the summer, the dairy producer who is willing to purchase heifers needs to decide when to replace those culled cows. He/she can either fill the open slots as quickly as possible, with heifers that calve in the summer, or leave the slots open for a while and wait until the fall to bring in new heifers.

Heifers that calve in the summer will peak lower and will take longer to get pregnant than those that calve in the fall. This reduces the expected profit from these heifers compared to heifers that calve in the fall. On the other hand, waiting until the fall to replace animals culled in the summer causes the open slots not to generate any revenue for the dairy for some time. So should you delay purchasing heifers or not?

The best decision is found by comparing the predicted discounted future cash flows for both scenarios and choosing the one that maximizes profit per slot per year.

Although milk prices are above average this year, profit per cow remains marginal on many dairies (less than \$1/cwt while total costs may be \$17/cwt). At first sight, it appears that an open slot is not that costly and waiting to purchase heifers until the fall may seem attractive.

However, it is important to keep in mind which revenues and costs are variable (= depend on having a cow in the slot) and which are fixed (= independent on having a cow in the slot). Virtually all revenues on dairies are variable; milk production, calf sales, and ultimately cow cull sales. An open

slot means no revenues at all. On the other hand, many costs are fixed, at least in the short run, such as loan payments, labor cost, depreciation, and most utilities. Feed cost is the only major cost that is variable. Analysis of DBAP data suggests that anywhere between 30% and 50% of the cost to produce milk in Florida are fixed, at least during the time a delay in heifer replacement is considered. This means that each additional cow is very profitable for the dairy. For example, the profit from one extra cwt milk produced on the dairy may be around \$9.50 (assuming \$18/cwt milk price - 50% of \$17/cwt total cost).

The bottom line is that it generally does not pay to leave a slot open until the fall when a cow is culled in the summer. So as a rule, replace those culled cows as quickly as possible. This is especially the case when milk prices are average or higher than average, seasonality of cow performance is low, and a fair number of production costs are fixed. Under average assumptions for Florida, milk prices need to drop below \$14/cwt before delay may become advantageous. (Note that cow culling strategy affects when slots become open but that is a topic for another time).

Although immediate replacement is almost always economically advantageous, this does not mean that seasonal production is not a good idea. Seasonal production implies that the number of milking/dry and pregnant/open cows (the "cow flow") changes throughout the year. Just how seasonal a dairy should be depends on constraints such as the available housing facilities, parlor capacity, availability of labor and forages, and whether replacement heifers are home-raised or (also) purchased. Every dairy has different constraints.

I have recently completed some programs that can be used to help dairy producers plan the optimal "cow flow" throughout the year. A paper in *Journal of Dairy Science* 87: 2947, and other talks and papers about these topics can be found on my website at <http://www.animal.ufl.edu/devries/>.



**Southeast Milk, Inc.
Dairy Check-Off**

A new Southeast Milk Inc Dairy Check-Off logo was approved at the proposals review committee meeting on March 23, 2005. Its purpose is to help identify projects supported by the SMI Dairy Check-Off.

2005 FLORIDA DAIRY BUSINESS CONFERENCE: WEDNESDAY, SEPTEMBER 14

The 2005 Florida Dairy Business Conference will be held at the Marion County Extension Office in Ocala, FL, on Wednesday, September 14. Keynote speaker will be Pete Blodgett who was recognized at the 2004 World Dairy Expo in Madison as Industry Person of the Year. He'll be discussing opportunities to breed dairy cattle that may stay in our herds longer, thereby reducing herd replacement costs. For more information, contact Russ Giesy, email giesyr@aol.com, or phone (352) 793-2728.