

NATIONAL ANIMAL IDENTIFICATION SYSTEM (NAIS) AND PREMISES REGISTRATION

Dan W. Webb

USDA and the various livestock industry groups have forged a plan for comprehensive animal identification known as The National Animal Identification System (NAIS). This plan when implemented will replace the old standard series eartag number system used in DHIA, disease eradication, health testing and other applications. It would provide for 24-hour trace back when needed to quickly locate the source of a disease outbreak such as the foot-and-mouth situation in England a few years ago. All states have implemented systems for cattle owners to register their premises.

There are two cornerstones to this NAIS plan, 1. Premises registration, and 2. Animal identity. The RFID tags that we have discussed previously are one means to supply the animal identity. The premises (location of farm) registration is to be done by each state's respective Veterinary Division. This registration is very important to the success of NAIS and is required by the end of next year. All cattle owners are encouraged to register. Florida livestock producers can obtain an application for premises registration at: http://www.doacs.state.fl.us/ai/pdf/nais_app.pdf. There is a similar site in Georgia. All herds are being encouraged to register their farm's premises.

We think that this new technology along with the discussions about national Animal ID present a unique opportunity to develop and expand the use of automatic ID for management as well as disease inquiry. Collection of other management data can be automated to improve effectiveness and efficiency, thus helping justify the cost of electronic ID. This electronic identification can reduce labor required for record keeping and improve accuracy of records.

For more information, contact Dan Webb, dwwebb@ufl.edu, (352) 392-5592.



THE "GOLD STANDARD" OR "FOOL'S GOLD"?

David R. Bray

In the farm press and meetings this seems to be the "buzz word". The problem with gold is that it's expensive and can turn into lead if not managed properly. How a dairy is managed depends on many factors, the first being the goals of management. The 6 "P's of dairy farm management styles:

1. Profit - like to make money, profit motivated.
2. Paint - likes things, barns, and equipment; he who has the most toys at the end wins.
3. People - like people, managing, training, seeing them succeed.
4. Pleasure - likes cows, golf, and the dairy business.
5. Publicity - proud of his operation and likes people to see it.
6. Pride - comfortable with his operation, self satisfaction.

There are interactions between these styles, but the idea here is that people have different reasons for doing things, and there is no one correct way to run a dairy. Do only what you can do well to fit your goals. It has been said that if you followed every recommendation that came out of a land-grant college, you would go broke. You must pick and choose what fits your goals.

Gold standards:

1. Sand bedding, it is the gold standard if you can afford to manage it. You must be able to recycle most of the sand, gravity settling in flush systems, if not forget it. If not groomed and bedded often, bacterial numbers will be as high as mud. If you have mud in stalls, you should not have built the barn, and Mother Nature can give you that outside free. Thanks to the SMI Dairy Check Off we have added a variety of stall surface materials for you to observe at the Dairy Research Unit - come visit us.
2. NOT - Florida feed barns, roof over a feed lane and concrete to stand on. No one should build a new one. If you can't build a free-stall barn, keep cows outside with ponds.

3. Four row free-stall barns, provide shade feed and water and manure management in one area. In the future probably most cows will live in one. There is no excuse to build a poor one with lots of good ones to copy.
4. Six row free-stall barn, you made the decision to overcrowd a barn when you built it. Don't over crowd more, and it will work with excellent management.
5. Tunnel free-stall barn, the ideal place for a six row barn, or transition cows if it has fogger cooling. If cooling is done by sprinklers, there is not a big advantage. Tunnel barns are expensive to build and maintain; no fresh air comes in unless by a fan. If you can't shave and comb your hair in the same day, you don't want this.
6. Transition cow barn, maybe the best barn value you can build, especially in the summer. With free stalls for semi-close ups, pack bedding for calving, recovery and sick cows. It sure beats calving in a mud hole in the sun with buzzards as a sentry.
7. Timed AI, these schemes are well thought out and must be carried out as planned. Much of this work was done at UF, but if you can't get cows pregnant because you can't get semen handling done correctly (which hind pocket do we thaw the straws in?) or can't get to the cows to breed on time or you think you or your Booger Boy know a better time to breed them than Dr. Thatcher, this may not be your answer to your reproductive problem.
8. 3X milking, in Florida during hot weather this may not be the cows' best friend. We wear down the feet on the sand-covered floors, decrease time available to eat and lay down, and reduce the energy to show estrus. If you average less than 80 pounds a cow/day in the summer, I think 3X is a forced exercise program for your cows. Less exercise might lead to longer productive life for our cows. Data out of central California on 2000+ cow herds show that 12 out of the 18 herds milked 2X.

The six P's of dairy management: Proper Planning Prevents P--s Poor Performance! Dave Bray at bray@animal.ufl.edu, phone (352) 392-5594.

WHAT IS A PREGNANCY WORTH?

Albert de Vries

The objective of this study was to estimate the value of pregnancy for dairy cows. Effects of the stage of gestation, stage of lactation, lactation number, milk yield, milk price, replacement heifer cost, probability of pregnancy, probability of involuntary culling, and breeding decisions were studied. A bioeconomic model was used, and breeding and replacement decisions were optimized. A general Holstein herd in the United States was modeled. The average value of a new pregnancy

was \$278. The value of a new pregnancy increased with days in milk early in lactation but typically decreased later in lactation. Relatively high-producing cows and first-lactation cows reached greater values, and their values peaked later in lactation. The average cost of a pregnancy loss (abortion) was \$555. The cost of a pregnancy loss typically increased with gestation length. Sensitivity analyses showed that an increased probability of pregnancy, an increased persistency of milk yield, and a smaller replacement heifer cost greatly reduced the average value of a pregnancy. The value of a new pregnancy was negative for relatively high-producing first-lactation cows when persistency of lactation and the probability of pregnancy were increased. Breeding was delayed when the value of pregnancy was negative. Changes in milk price, absolute milk yield, and probability of involuntary culling had less effect on the value of pregnancy. The value of pregnancy and optimal breeding decisions for individual cows were greatly dependent on the predicted daily milk yield for the remaining period of lactation. An improved understanding of the value of pregnancy may support decision making in reproductive management when resources are limited.

The full paper can be found in Journal of Dairy Science (2006) 89:3876-3885. A copy is available at <http://www.animal.ufl.edu/devries/publications.html>. For more information, contact Albert de Vries, devries@ufl.edu, (352) 392-7563.

SIXTH MID-ATLANTIC DAIRY GRAZING CONFERENCE: OCTOBER 31 - NOVEMBER 1

The 2006 Mid-Atlantic Dairy Grazing Conference will provide dairy graziers throughout the Southeast again with opportunities to learn about the latest grazing research underway in the Southeast. The conference will also feature talks and discussions led by successful dairy graziers from throughout the United States. The two-day conference will take place in Goldsboro, North Carolina. The conference presentations kick off at the Center for Environmental Farming Systems (CEFS) at 1:30 PM on Tuesday, October 31. Information on production, reproduction, breed selection, economics, parasite control, indicators of health and immune function, milk flavor differences from pastured cows, and other topics will be presented throughout the conference. On Wednesday, November 1, the conference activities will move to the nearby Wayne County Agriculture Center in Goldsboro for more presentations and discussion. Topics including facilitating smooth dairy farm transitions to the next generation, management of dairy grazing systems, organic dairy production, and discussions featuring experienced dairy graziers from several states. For more information, contact Dr. Steve Washburn at steve_washburn@ncsu.edu or visit <http://www.cefs.ncsu.edu/dairygrazingmain.htm>.

ECONOMIC COMPARISON OF EXOGENOUS PROGESTERONE (CIDR) AND TIMED ARTIFICIAL INSEMINATION (OVSYNCH) AS TREATMENTS FOR OVARIAN CYSTS

Albert de Vries, Bronwyn Crane, Julian Bartolome, Pedro Melendez, Carlos Risco, and Louis Archbald

The objective of this study was to compare the economic benefits of timed artificial insemination (AI) and a progesterone insert as therapeutic treatments for cows diagnosed with cystic ovarian disease (COD). A secondary objective was to illustrate the use of a stochastic dynamic simulation model to fully account for all changes in revenues and costs affected by differences in treatments. First, 4 herds of 1,000 cows each were simulated until steady state. These cows were free from COD and inseminated based on estrus only. Herds differed by probability of estrus detection (46 or 70%)



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and days in milk (DIM) when nonpregnant cows were culled (330 or 400 d). Second, 3 herds were created with 1,000 nonpregnant cows at 90, 170, or 250 DIM. These cows were considered diagnosed with COD at the start of the simulation (d 0); no new cases of COD developed after d 0. Cows spontaneously recovered or were treated. Treatments were either timed AI or intravaginal device containing progesterone followed by PGF2 α and then AI if estrus was detected. Effects of treatments were evaluated in 48 scenarios based on compliance of timed AI (82 or 100%), probability of estrus detection (46 or 70%), and DIM when nonpregnant cows were culled (330 or 400 d). As cows became pregnant or were replaced, the herd evolved into the associated steady state herd. Seven scenarios resulted in less than 50% of cows conceiving before they were culled. The percentage of cows diagnosed with COD that calved again ranged from 14.0 to 74.4% and was significantly reduced when COD was diagnosed later in lactation. Treatments in all cases were more valuable than waiting for spontaneous recovery. The average values of timed AI (82 or 100% compliance) and the progesterone insert were \$83.29, \$86.83, and \$71.89, respectively, compared with waiting for spontaneous recovery. Treatments were least beneficial at 90 DIM. The benefits of timed AI (82 or 100% compliance) compared with the progesterone insert, adjusted for DIM and days to culling, were \$14.98 and \$21.53 when the probability of estrus detection was 46%. At 70% probability of estrus detection, the benefits were \$7.81 and \$8.34, respectively. Overall benefit of treatment by timed AI was \$11.39 greater than by progesterone insert.

The full paper can be found in *Journal of Dairy Science* (2006) 89:3028-3037. A copy is available at <http://www.animal.ufl.edu/devries/publications.html>.

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SOUTHEAST DAIRY HERD MANAGEMENT CONFERENCE: NOVEMBER 14 - 15, 2006

The 20th annual Southeast Dairy Management Conference will be held at the Georgia Farm Bureau Building in Macon, Georgia on November 14 and 15. Speakers include Mike Hutjens, Bill Crist, Bennet Cassell, Mike Overton, Bradley Mills, Steve Nickerson, Limin Kung, Mike McCormick, Albert de Vries, Dan Webb, and Tim Quaife. Contact Dr. Lane Ely, laneely@uga.edu, (706) 542-9107 for more information.

2007 DAIRY MEETINGS

The 44th **Florida Dairy Production Conference** is scheduled for Tuesday, May 1st, 2007 in Gainesville.

The 4th annual **Dairy Road Show** is planned to be held in the Fall of 2007. This is a change from previous years when the Dairy Road Show was held in February and March.

DR. GEOFFREY DAHL APPOINTED CHAIRMAN

Bovine reproductive endocrinologist Dr. Geoffrey Dahl has been appointed chairman of the University of Florida's Department of Animal Sciences effective July 28. Geoff Dahl succeeds Dr. Glen Hembry. As chairman, Dahl will initially focus his energies on enhancing the department's teaching, research and extension programs in beef cattle, dairy cattle and equine production.

"One of the things that will be a help to me is, I have experience in all three mission areas of the department – research, teaching and extension," Dahl said. "We're already recognized as one of the top 10 (animal sciences) departments in the country, but there's a real opportunity for us to be recognized as the best in the country." Jimmy Cheek, UF senior vice president for agriculture and natural resources, said he was impressed by Dahl's experience and vision.



“We believe that through his leadership we will build on our strengths and achieve even greater successes in the future,” Cheek said. “Dr. Dahl will help this become one of the best departments in the world.” Dahl is perhaps best known for his work on the effects of photoperiod – the amount of daylight in a 24-hour day – on milk production, growth and health in dairy cattle. His other interests include food security, the effect of milking frequency on lactation, and mastitis.

Prior to his UF appointment, Dahl was a faculty member with the University of Illinois, Urbana-Champaign’s animal sciences department from 2000 to mid-2006. From 1994 to 2000 he was a faculty member with the University of Maryland’s animal and avian sciences department, and also served as the department’s undergraduate coordinator. He began his professional career as a research fellow with the University of Michigan’s reproductive sciences program, from 1991 to 1994. Dahl received a bachelor’s degree in animal science from the University of Massachusetts in 1985, a master’s degree in dairy science from Virginia Polytechnic Institute in 1987 and a doctorate in animal science from Michigan State University in 1991.

SUPPORT FOR ANIMAL SCIENCES

Editor’s note: the following is a letter from Dr. Jimmy Cheek, UF/IFAS Senior Vice President for Agriculture and Natural Resources, to Dr. Hal Phillips, president of the Florida Cattlemen’s Association. The letter was published in The Florida Cattleman, September 2006.

August 9, 2006

Dear Hal:

I appreciate your letter of July 1, 2006, our recent conversation at the CARES meeting, and our lunch meeting on August 4th with Woody Larson and Larry Arrington. Your interest in and support of IFAS and its programs, particularly those related to the animal sciences is also appreciated.

First, let me assure you of IFAS’ and my personal commitment to making the Animal Sciences programs at the University of Florida one of the premier programs in the nation. It should be one that serves the research and educational needs of the animal industries of Florida, while building a strong national reputation of excellence. In order to accomplish this vision, additional resources must be added to our animal science programs over the next several years and there must be a renewed commitment from all parties interested in accomplishing this objective. The questions are, how do we get there and what commitments do we currently have in place to make progress on the goal?

The animal industries in Florida are very important to the economy and the environment of this state. IFAS

has an important role in helping to maintain and enhance their economic and environmental sustainability and we are fully committed to that mission.

We have just conducted a national search for the chair of the Animal Sciences Department. Individuals representing the animal industries were fully engaged in this process. I am pleased to report that we have hired Dr. Geoffrey Dahl based on extraordinary support of the search and screen committee and extraordinarily strong support of the faculty, industry representatives, and administrators. This appointment is an important first step.

We have also released two positions to the department for immediate filling. These were vacated by Tim Marshall and James Umphrey. In addition, we will release two additional faculty positions in this fiscal year and two additional faculty have recently been added to the department. As retirements occur in the next 3 years, they will be reallocated back to the department for re-filling.

With full support of the Florida Cattlemen’s Executive Committee, we will develop an IFAS Legislative Budget Request for the animal sciences during the next 10 months for the 2008 legislative session. This initiative will identify critical needs and essential faculty and other resources that are needed to strengthen our capacity to serve the animal industries. Planning for this LBR will be done in conjunction with representatives of the Florida Cattlemen’s Association, and representatives of the dairy and equine industries. A meeting is currently being planned for September 18th at the Florida Cattleman’s Association headquarters. During the 2008 legislative session your support will be critical in drafting and getting this initiative funded.

Recently, we have received significant private gifts for the department. For example, the dairy science building was recently named for Red Larson and an endowment has been established to support research and educational programs in dairy science. Others gifts are currently being discussed and will be forthcoming.

The department and our faculty at Research and Education Centers are in the beginning stages of formulating a strategic plan for the animal sciences.

Hal, this is our current plan to significantly strengthen the animal sciences department. It is ambitious, but achievable. I look forward to working with you and all those involved in the animal industries in Florida to help strengthen our programs and be more responsive to industry needs.

Sincerely,

Jimmy G. Cheek Senior Vice President

