

# *North Carolina Dairy News*

## *Fall, 2008*

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### **NC Dairy Producers Association Update Report**

by Norman Jordan, Jr., NCDPA President

Over the years I've heard dairy farmers express concern that the various segments of the dairy industry are working independently of one another to meet their own self interest at the expense of the whole industry, in affect, killing the goose that laid the golden egg, in this case the dairy cow. When you look at what has happened in NC it makes you wonder because the number of dairy farms, dairy cows and total pounds of milk produced have all declined even as demand and the state's population has increased. Milk will come to NC to meet the growing demand of a growing population. The needed milk will come from existing or new NC dairies; be shipped in from outside the state to be processed and packaged; or be shipped in already packaged and ready to go straight to the store shelf.

In NC there are two important initiatives that have the entire dairy industry working together for the good of the whole industry. You should be aware of them already and learn more about them in the future. The first is **NC's Dairy Biosecurity/business Continuity**. The Dairy Biosecurity committee, made up of a cross section of the dairy industry, held farm biosecurity training meetings that many of you attended. The goal is to have every NC dairy producer trained in farm biosecurity protocols, to impress upon USDA that milk should be allowed to move to market if we can prevent the spread of a foreign animal disease, such as Foot and Mouth Disease. Remember, if you can't move your milk to market you have lost your income but not your expenses.

The second area that has received industry wide support is **Dairy Advantage**. The NC Association for Dairy Stabilization and Growth, Inc. has a board of directors representing producers and allied dairy industries. The Board is responsible for the continued implementation and future development of the strategic plan. Because of the efforts of the entire industry, two new state wide dairy extension positions have been created and funded by the General Assembly, and plans to hire a Dairy Development Coordinator are underway.

Other states and commodity groups are aware of these two initiatives and have expressed interest and admiration for our dairy industry's efforts. The **Dairy Biosecurity** and **Dairy Advantage** programs can have a positive impact on the future of NC's dairy industry. Everyone involved in the dairy industry should be proud of the work being done collectively for the ultimate good of our industry, and we can hope that these collaborative efforts will continue in the future.

In the future, however, we will be missing **Dr. Don Pritchard**. Dr. Pritchard is a member of the Dairy Biosecurity Committee and the steering committee for the Dairy Advantage Program. Dr. Pritchard will be retiring soon and we will miss the time, energy and guidance that he has provided the state's dairy industry. On behalf of NC's dairy farmers I would like to thank him for his years of work and support and wish him and his family well.

### **North Carolina Association for Dairy Stabilization and Growth, Inc. Report**

by Billy Johnston, NCADSG President  
Jim Howie, NCADSG Steering Committee Chairman

The North Carolina Association for Dairy Stabilization and Growth has as its current main focus overseeing the implementation of the **Dairy Advantage** program. This program is the product of the strategic planning effort conducted by dairy industry representatives to chart a course for insuring the continuation of a viable dairy industry in the state. A report on the Dairy Advantage program was given at the 2008 NC Dairy Conference and in a previous issue of this newsletter. Below is an update of what the Association and the Dairy Advantage program has been doing the last few months.

- **The NC Association for Dairy Stabilization and Growth, Inc.** was officially incorporated on May 14, 2008. This is a new 501 (c) 3 tax exempt organization, with a Board of Directors representing all segments of North Carolina's dairy industry, including NCSU and Extension. *An article on the new association and the composition of its board of directors was presented in the last issue of this newsletter.* Billy Johnston of Taproot Dairy is President of the Association. A steering committee appointed by the Board continues to work on the day to day business of the Association. Jim Howie is Chair of this committee. This Association was patterned after similar associations in Wisconsin and Pennsylvania which have proven to be very successful for dairy farmers there. We anticipate similar results from this Association in North Carolina.
- **The Dairy Advantage Dairy Farm Assessment and Profit Team Pilot Programs** have been initiated. Extension dairy specialist teams are working with 11 dairy farm families to do dairy farm assessments. All 11 farms have been visited, but assessments have only been completed on four of these because of scheduling difficulties and other work commitments. One profit team has been created and is operational.
- The Association has been engaged in the process of hiring a **Dairy Development Coordinator** to oversee the activities and programs of the Dairy Advantage program, and be the point person for ongoing Association activities. This position will be entirely grant funded, with funding having already been obtained for at least the first 18-24 months. Funds have been secured from the NC Ag Foundation, NC Dairy Foundation, NC Dairy Producers Association, Golden Leaf Foundation, and the Agricultural Development and Farmland Preservation Trust Fund. The Coordinator will help develop and sustain a program for retention, expansion, relocation, and recruitment of dairies throughout North Carolina. This effort will include working with the existing Dairy Farm Assessment and Profit Team programs, and the development of an assistance program for farm expansion, relocation, and recruitment. The goal is to have someone hired and working by January.
- The Association spearheaded a campaign with the NC legislature to **create two new 100% state funded dairy extension positions**. The people hired for these positions will work throughout the state and serve all existing dairy producers more equitably, including those producers living in counties that do not contribute to a specialized dairy agent position. These new dairy extension personnel will also have the flexibility to work in counties that do not currently have any dairy farms, should there be interest in relocating dairies or in locating new

dairies there. The Steering Committee and the Association is working with NCSU CALS and Extension Administration to look at the total dairy extension staffing arrangement and support provided from NCSU. We will be making recommendations on what we think that support structure should be that will be the most beneficial to the dairy industry, while being as efficient as possible.

### **NCSU Animal Science Department Head Change**

Effective July 1, 2008, Dr. Todd See assumed the position of Interim Head of the Department of Animal Science at North Carolina State University for one year. Dr. See has been a professor in the department for 16 years, serving as a swine extension specialist and researcher in swine breeding and genetics. He is nationally recognized for his work with the North Carolina and U.S. swine industries. Dr. See takes over as interim head from Dr. Roger McCraw, who decided after seven years as department head to resume his position as a beef cattle extension specialist and resident teaching professor. Congratulations to both of these outstanding professors for the new roles they now have in the department, and for the contributions they will make.

### **Scheduled Grazing Program**

The **Mid-Atlantic Dairy Grazing Conference and Organic Field Day** is scheduled for Wednesday and Thursday, October 8-9 at the Shenandoah Valley in VA. To obtain a copy of the program brochure which contains registration information go to this web address: <http://www.wvu.edu/~agexten/upevent.htm>, or contact Becky Casteel by phone at 304-293-6131, ext 4231, or by e-mail at [Becky.Casteel@mail.wvu.edu](mailto:Becky.Casteel@mail.wvu.edu). You can also contact Dr. Steve Washburn for more information (919-515-7726).

### **United States Dairy Farm Opportunities Still in the News in New Zealand - Kiwis Possibly Interested in North Carolina**

Dr. Steve Washburn, NCSU Extension Dairy Specialist

In the last issue of Dairy Extension News, I reported that the New Zealand Dairy Exporter magazine had a feature story about pasture-based dairy farms being set up in Missouri by New Zealand investors. There are four different New Zealand groups investing in pasture-based dairy farms in Missouri and a couple more New Zealand groups in Georgia.

On July 14<sup>th</sup>, Andy Meier and I hosted a visit from David Stone and his wife, Linda, at the Center for Environmental Farming Systems (CEFS) in Goldsboro. David is the Business Development Manager for Grasslands Consultants, LLC which have established 9 pasture-based dairy farms and within 3 years will have 20 such farms with approximately 500 cows each in Southwestern Missouri.

After David Stone's visit, he e-mailed the following message: "The genetic and forage production constraints which you are researching (amongst many other issues) are of considerable relevance to us. Clearly there are very good opportunities to establish grazing dairies in North Carolina." David and his wife had traveled through several states in the Southeast on a working vacation to scout out potential areas of expansion and they seemed genuinely interested and pleased with our work at CEFS.

The August, 2008 issue of the New Zealand Dairy Exporter had another article about dairy grazing in the US – this time in Southeastern Missouri where two pasture-based dairy units of about 700 cows each have been set up by Tiller Management on a total of 988 acres. In the article "Missouri – home

away from home” it was noted that the Tiller Management group has plans for 10 more dairies of about 700 cows each on about 500 acres of land. Of particular interest in the article, they were looking to New Zealand investors to raise 20 million US dollars to fund the venture.

The financial figures they were used in planning included about 500 acres of land at about \$3,000 to \$3,500 per acre which is higher than land for the initial pasture-based dairy farms that were set up. Financial estimates also included costs of converting land to pasture, development of lanes, fencing, and water systems, milking system, livestock including initial replacements needed, and appropriate equipment and machinery. Equipment would include capability to irrigate. The total investment for setting up such pasture-based dairy farms was about \$11,000 per acre, \$7,714 per cow or about \$5,500,000 US dollars (5.5 million \$)for a 700-cow unit.

Milking systems on most of the new pasture-based dairy farms in the US are set up as “Swing” systems with the milk units overhead in the center of the pit. In herds of 500 to 700 cows, such systems have about 40 to 45 units so that cows can be milked in about 2 hours at each milking. Farms that plan to have many more than 700 cows often opt for a rotary-type milking system.

Cow stocking rates for the Tiller Management venture would be at about 1.75 cows per acre on 400 acres as the primary grazing area for lactating cows with additional acreage for support of heifers and dry cows of about 100 additional acres per unit. Setting the units up with the capability to irrigate and use of moderate amounts of supplemental feed allows for the relatively high stocking rates.

By year 4, the Tiller Management venture is projecting a milk price of \$18.50 per cwt and an annual production per cow of about 14,000 to 15,000 pounds. Production would be at 24,500 to 26,250 pounds per acre for the primary grazing area or at 19,600 to 21,000 pounds per acre across the total land area. Those projections lead to a projected annual gross income by year 4 of about \$2,000,000.



A “Swing-40” milking system at one of Grasslands’ kiwi-owned farms in Missouri. Milk “sheds” are designed to allow all cows to be milked in about 2 hours each milking.

With projected major costs of feed at \$275,000, staff at \$174,000, and milk hauling at \$98,000, total costs including interest would be just under \$1,000,000 for each 700 to 800-cow unit. Tiller Management is projecting an annual cash return from operations of about \$940,000 before tax and capital expenditures.

An association with the University of Missouri has been developed and the Dean of the College of Agriculture and Natural Resources has accompanied faculty from the University of Missouri to

establish those connections. Also, a New Zealand/US government initiative which provides opportunities for young people from New Zealand to work for 12 months helps have people on site with pasture-based skills to work with local US staff to facilitate learning the system.



Moderate levels of grain feeding are typical in kiwi-owned pasture-based dairy farms in the US.

It is my opinion that we in North Carolina need to look hard at the models being established in Missouri and Georgia and figure out strategies to include pasture-based dairy investments as a viable part of North Carolina's dairy future. As we move below 300 commercial dairy farms, keeping on doing what we have also done may get us the same results. That is not to say that we do not have excellent examples of very profitable, well-managed dairy farms in free stall, confinement systems. But we continue to lose market share in the dairy industry. Fuel, feed, and fertilizer prices continue to climb and shipping milk longer and longer distances to supply our local needs becomes less sustainable.

If you never think outside the box, then you may always be boxed in. Happy dairying.

### **Monitoring Subclinical Mastitis Level**

Dr. Donald E. Pritchard, NCS Extension Dairy Specialist

Knowing when a cow has clinical mastitis is usually an easy task – you see and feel the swollen, hot quarter, or see the abnormal milk that is expressed from a teat when the cow is being prepped for milking. But how do you monitor/detect subclinical mastitis infections, the kind that you don't see the visible signs of but that could be "robbing" you of hundreds of pounds of milk yearly from each infected cow in your herd?

Unfortunately, many producers don't give enough attention to monitoring/detecting subclinical infections, and choose to deal only with the clinical cases when non-saleable milk is produced. I would suggest that producers should give more attention to the detection of subclinical infections, and treat those cases when appropriate, plus change management practices and improve facilities/equipment as needed to reduce the incidence of both subclinical and clinical cases in the herd.

Monitoring the subclinical mastitis status in a herd should be done at both the herd and individual cow level. At the herd level simply reviewing the bulk tank milk somatic cell count score received monthly or more frequently is the first step in knowing how much subclinical infection is in the herd. Scores over 200,000 cells/ml of milk often suggests a significant prevalence of subclinical mastitis in the herd. There are times when only a few highly infected cows can be shedding millions of somatic cells in response to the infections they have and run the bulk tank milk SCC score up. However, if there are only a few mild clinical cases and the bulk tank SCC is high, then there are probably many subclinical infections in the herd that should be dealt with.

Individual cow monitoring for subclinical mastitis infection should also be done. There are several ways of getting SCC or infection data on each cow. Having somatic cell counts run monthly on each cow through the DHIA program is one approach. Doing cow-side SCC monitoring monthly or more frequently is another approach. The long-time used California Mastitis Test kit is an acceptable first line method to use. Several cow-side electronic testing devices are another method that can be used effectively. Some milking systems have the capability to measure electrical conductivity of milk as a way of detecting subclinical infections. And certainly doing milk culturing of individual cows to detect not only infection status but also to know the type of organism causing the infection is another method that some producers use on at least selected or suspected infected cows.

I think producers should be monitoring/determining the subclinical infection status of all cows within the first few days after each freshening. Knowing which cows are infected and the extent or degree of the infection by quarter at the very beginning of each lactation gives the producer the ability to treat infections early in the lactation when appropriate, and hopefully reduce or eliminate the milk loss associated with an udder infection that lactation. Culturing the milk of infected fresh cows to determine if antibiotic treatment is appropriate should be part of the detection practice.

Producers should discuss early subclinical mastitis detection practices with their veterinarian or other qualified consultant, and implement an early detection program to increase the profitability of the herd.

### **Farewell**

Shortly after you receive this newsletter I will be retiring as an Extension Dairy Specialist with the North Carolina Cooperative Extension. Being able to work with many wonderful, dedicated people in the NC dairy industry for the last 13 years has been most enjoyable and rewarding to me. I shall miss the frequent contact with many of you. I believe the dairy industry in the state is poised to continue being a significant contributor to the state's agricultural economy through the Dairy Advantage programs and the many people that will be working with them.

I urge all dairy producers and personnel with the various dairy industries to strongly support the Dairy Advantage program and be involved in stabilizing and growing the North Carolina dairy industry. While the NC dairy industry is not large in numbers of producers or volume of milk produced compared to many states, I believe we are leading the nation in our efforts to stabilize and grow our industry, and in the dairy biosecurity and business continuity efforts we are conducting. I urge you to keep those programs moving forward with enthusiasm. My best wishes for success to all of you. Don Pritchard, NCSU Extension Dairy Specialist.

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**Dr. Steve Washburn** - 919/515-7726  
- reproduction and farm systems  
**Dr. Lon Whitlow** - 919/515-7602  
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### ***Specialized Area Ext. Agents***

(Each of the area agents serve several counties. Their home county is listed after the phone number.)

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**Elizabeth Moretz** – 336-679-2061 – Yadkin  
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### ***NCSU Dairy Extension Web Page Address***

[http://www.cals.ncsu.edu/an\\_sci/extension/dairy/Dairyh~1.htm](http://www.cals.ncsu.edu/an_sci/extension/dairy/Dairyh~1.htm)



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