New Year’s Resolutions IV

David R. Bray

Happy New Year to you all! It’s time again to plan for a successful new year on your dairy, which means we should repeat the successful things we did last year and not repeat last year’s screw-ups. This time of year is a good time for planning, not only for this year but the future as well; this means how do we continue to improve the things we do well and how do we change or eliminate those things we don’t do well.

1- Know your cost of production. Dr. De Vries has a “Cost of Production Calculator” spreadsheet. Contact him or Dr. Ely in Georgia, or your County Extension Agent to get it. They are happy to help.

2- Set goals for all the enterprises or areas of your dairy. These should have employee input also because this is the road map for success. These goals will then set the goals for your employees to strive to make the whole dairy’s performance better. Include safety goals.

3- These performance goals then are translated to employee job descriptions and compensation for their part of meeting the dairy’s goals; these are explained at the employee performance review.

4- Implement some sort of employee training program to insure they understand their responsibilities in this quest for excellence.

5- Do only what you can do well. If you can’t raise calves, use a calf raiser or buy replacements. If you can’t grow crops, buy them or have them custom grown and or harvested.

6- Go visit other dairies in the Southeast. You see these people at meetings; see what other people are doing. Some of the most innovative dairymen in the world live here. Go elsewhere in the country and see what’s new there; this can help in the future planning process.

7- Replace out-dated worn out milking equipment. It’s hard to preach great milking practices when nothing works half of the time.

8- Milk clean dry udders and post dip.

9- Keep cows as clean, cool and comfortable as possible.

10- Inventory your blind quarters, replace missing leg bands, apply new bands to new found blind quarters, and cull those 2 quartered beauties.

11- Hire help with more teeth than tattoos.

12- If you get out of breath tying your shoes, lose weight or wear boots.

13- Keep a smile on your face, people will wonder what you are up to.

Contact Dave Bray at drbray@ufl.edu or call (352) 392-5594.

Producing Penalty Free Milk

David R. Bray

With the changing economy, what our consumers (which include processors as well as the housewives) want is a high quality product with a long shelf life. Most of you are producing milk that meets these standards now and this will have little effect on you. Those of you that are not meetings these standards now need to begin to strive to meet these elementary goals before any penalties begin. The goals listed here should be reached in the next couple years.

What do I have to do to produce penalty free milk? Nothing more than you should have been doing now. Consider this:

Components of Penalty Free Milk:

Somatic Cell Count
1. This time of year it should be 300,000 or below in the Southeast United States.
2. To obtain low SCC post teat dip with a cup, dry treat all cows going dry.
3. Milk clean dry udders.
4. Keep milking equipment in good working order.
5. Cull chronic cows.
6. Find all blind quarters, marking them in your records. Band new ones and reapply bands to lost ones. This can lower SCC by 100,000 in some herds.
7. Keep cows in a cool clean place.
8. Cull junk Cows.
9. Don’t make more junk cows.

**Standard Plate Count** (bacteria count)
1. Adequate hot water for cleaning 160° in vat at start of washing – dump at 120°.
2. Proper concentration of chemicals – less expensive chemicals use more product than more expensive and more concentrated products. Your dealer should give you a minimum amount of chemicals to use.
3. Replace liners at 1200 cow milking or as directions
4. Replace all rubber components every 6 months; clean vacuum and pipe lines at this time also.
5. Adjust air injectors.
6. Milk clean dry udders.
7. Chronic high SPC: disassemble the plate cooler, clean and replace gaskets.
8. Proper milk cooling temperature and times – prevent freezing and make sure milk is agitated properly. The faster the cooling the less bacteria growth happens.
10. Cull the rest of the junk cows.

**Other Quality Tests**
There are other tests that are done to your milk but if you just take care of your cows and equipment you don’t have to worry about what they test.

If you do not wish to produce high quality milk, someone else will be happy to do it for you especially at $2.50/gallon diesel. Contact Dave Bray at drbray@ufl.edu or call (352) 392-5594.

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**Feeding Fats to Improve Immunity and Fertility of Dairy Cows**

L. Badinga, C. Caldari-Torres, C. Risco, and C.R. Staples

Modern dairy cows experience varying degrees of immunological dysfunction from approximately 3 weeks before calving to 3 weeks after calving, which may have practical implications for health and reproductive management. Inadequate nutrition during the transition to lactation will affect the amount of milk produced per cow per day of herd life, breeding costs, rates of voluntary and involuntary culling, and the rate of genetic progress for traits of economic importance. Dairy simulation studies predict that a 1-day increase in the average calving interval would cause a net revenue loss of over $27 million to the US dairy industry.

One of the factors contributing to low breeding efficiency in high producing cows is the high energy deficit of early lactation, which delays return to estrus and impairs reproductive performance after calving.

With the support of the Florida Milk Check-Off and Nutriscience Technologies, Inc., we conducted a feeding trial to examine the effect of feeding calcium salts of \textit{trans} fatty acids (TFA) or omega-6 fatty acids (n-6FA) on immunity and reproductive efficiency of lactating Holstein cows. Preliminary analyses with a limited number of cows indicate that dietary \textit{trans} and omega 6 fatty acids decrease the incidence of uterine infections (figure 1) and tend to improve fertility responses in early postpartum dairy cows (figure 2). If repeated on commercials dairies, results of this research could save millions of dollars to the US dairy industry by reducing nonspecific uterine bacterial infections after calving and decreasing the interval from calving to conception.

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**Effect of Rust Infestation on Silage Quality**

A.T. Adesogan, O.C.M. Queiroz, and S.C. Kim

Southern rust is an aggressive disease caused by \textit{Puccinia polysora} fungi that can destroy a corn field in a few days. It is dispersed by airborne spores that form orange, circular pustules mainly on the upper leaf surface. The fungus diverts nutrients away from the plant causing leaf death. Few corn hybrids are resistant to southern rust and some of such varieties lack the combination of agronomic and nutritional traits desirable for silage production. Certain fungicides can control the disease, but their effectiveness is limited when applied late in the season, particularly under hot, humid conditions (Raid and Kucharek, 2005). In addition to causing crop losses, this disease can predispose the
This project aimed to determine the effect of the level of southern rust infestation of a corn hybrid on silage fermentation, nutritive value and bunk life, and to determine how inoculant application affects these measures of forage quality. A corn hybrid (Pioneer 33V16) grown on a 130-acre field on July 6, 2007 at the Dairy Unit was infested by southern rust after taselling. Aerial application of a fungicide resulted in areas with different levels of infestation in the field. Representative samples (220 lb each) were taken from areas classified as having no rust (clean), medium rust (all leaves in the bottom half of the plant were infested), and high rust (all leaves were infested). Each of these was ensiled without treatment (Control) or after applying Buchneri 500 inoculant (Lallemand Animal Nutrition, Milwaukee, WI) at a rate that supplied 4.99 x 10^10 colony forming units of Pediococcus pentosaceus and Lactobacillus buchneri in each gram of forage. Each treatment was ensiled in four replicate 5-gallon mini silos for 97 days.

Concentrations of dry matter (DM) and fiber fractions increased with the level of rust infestation, whereas DM digestibility decreased by up to 13%. These results indicate that the rust dried the silages and reduced their nutritive value. The DM concentration of the high-rust corn silage (58%) was high enough to reduce the effectiveness of packing in a farm-scale silo. High rust silages also had lower neutral detergent fiber digestibility (NDF) than medium rust or clean silages. This effect was greater in inoculated silages because inoculation increased the NDF digestibility of clean and medium-rust silages. Silage pH increased with rust infestation, however, all pH values were below 4. Concentrations of lactate, total volatile fatty acids, and most individual volatile fatty acids decreased with increasing rust infestation in control silages, but such trends were largely absent in inoculated silages. This shows that rust infestation reduced the fermentation but inoculant application reduced this negative effect. Only, high-rust silages contained butyric acid, which is an indicator of undesirable clostridial secondary fermentation. Mold counts of clean and medium-rust silages were relatively high, but high-rust silages had fewer molds, perhaps because they were drier. Aerobic stability was greater in high-rust silages than silages with less rust infestation.

Inoculant treatment reduced mold counts in high rust silages 80-fold and increased their aerobic stability by about 75%. Aflatoxin was only detected in uninoculated, high-rust silages and the levels exceeded the FDA action level (20 ppb), indicating that this silage should not be fed due to the risk of aflatoxin transmission to milk. Surprisingly, zearalenone was only detected in silages with no rust infestation and the levels exceeded those that have caused reproductive problems in dairy cows.

In conclusion, rust infestation reduced the nutritive value and fermentation of corn silage, and resulted in high levels of aflatoxin that made the silage unsafe to feed. Inoculant application reduced adverse effects of rust infestation on the fermentation and increased NDF digestibility of clean and medium rust silages. In high-rust silages, inoculant application also decreased mold growth, increased aerobic stability, and prevented aflatoxin production. Silages with no rust infestation had high levels of zearalenone, suggesting that mycotoxin binders may be needed when late-harvested summer corn silages are fed to dairy cows in Florida.


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Biogenergy from Manure

Ann C. Wilkie

Interest in manure digesters and associated energy production is increasing, and new issues are arising every day – new technologies, regulatory hurdles, financial incentives. The AgSTAR Program will hold its next national two-day conference at the Baltimore Hilton, in Baltimore, Maryland, on February 24-25, 2009. This conference is recommended for livestock producers and others interested or involved in the design, financing, operation, or regulatory oversight of animal waste management systems, or in the development of alternative sources of energy.

This year's conference will feature technical, policy and financial presentations, poster sessions, networking opportunities, and exhibits of the latest technologies and services. For the latest agenda, hotel information and to register online, visit the AgSTAR Conference web page at http://www.epa.gov/agstar/conference09.html Registration for the conference is free of charge. However, there is an optional meals fee of $250. The AgSTAR Program is a voluntary effort jointly sponsored by the U.S. Environmental Protection Agency
There should be a website (EPA), everyone wants to look at the rolling herd average or the herd’s pregnancy rate. However, we took a more comprehensive approach for this article and chose the top 20 items as key indicators of herd response to management.

Top 20 Indicators of Herd Response to Management from 8 DHIA herds.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Cows</td>
<td>389</td>
<td>237</td>
<td>893</td>
<td>2385</td>
<td>1184</td>
<td>1187</td>
<td>2789</td>
<td>694</td>
</tr>
<tr>
<td>RHA Milk</td>
<td>21,883</td>
<td>20,296</td>
<td>25,059</td>
<td>22,463</td>
<td>17,530</td>
<td>17,722</td>
<td>21,067</td>
<td>22,140</td>
</tr>
<tr>
<td>TD Milk lbs milk/ day</td>
<td>72</td>
<td>69.7</td>
<td>75.6</td>
<td>73.3</td>
<td>58.6</td>
<td>63.1</td>
<td>72.7</td>
<td>72.4</td>
</tr>
<tr>
<td>1st Lact &lt;40 DIM lbs milk / day</td>
<td>58</td>
<td>60</td>
<td>70</td>
<td>56</td>
<td>57</td>
<td>60</td>
<td>53</td>
<td>59</td>
</tr>
<tr>
<td>1st Lact 40-100 DIM lbs milk / day</td>
<td>67</td>
<td>72</td>
<td>78</td>
<td>73</td>
<td>62</td>
<td>64</td>
<td>68</td>
<td>74</td>
</tr>
<tr>
<td>All 1st Lact lbs milk / day</td>
<td>64</td>
<td>60</td>
<td>70</td>
<td>65</td>
<td>52</td>
<td>55</td>
<td>63</td>
<td>66</td>
</tr>
<tr>
<td>%Left Herd</td>
<td>43</td>
<td>33</td>
<td>32</td>
<td>38</td>
<td>34</td>
<td>30</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>Number Cows Died</td>
<td>12</td>
<td>15</td>
<td>54</td>
<td>197</td>
<td>29</td>
<td>64</td>
<td>211</td>
<td>43</td>
</tr>
<tr>
<td>Current weighted avg SCC</td>
<td>532,000</td>
<td>154,000</td>
<td>133,000</td>
<td>371,000</td>
<td>374,000</td>
<td>368,000</td>
<td>294,000</td>
<td>378,000</td>
</tr>
<tr>
<td>% Cows less than 142,000 SCC</td>
<td>45</td>
<td>77</td>
<td>77</td>
<td>52</td>
<td>49</td>
<td>53</td>
<td>60</td>
<td>54</td>
</tr>
<tr>
<td>Avg Days to 1st Service</td>
<td>73</td>
<td>101</td>
<td>77</td>
<td>91</td>
<td>73</td>
<td>78</td>
<td>77</td>
<td>85</td>
</tr>
<tr>
<td>Avg Pregnancy Rate</td>
<td>18</td>
<td>12</td>
<td>18</td>
<td>12</td>
<td>14</td>
<td>15</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Services Successful last 12 months%</td>
<td>28</td>
<td>35</td>
<td>27</td>
<td>30</td>
<td>23</td>
<td>23</td>
<td>37</td>
<td>33</td>
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<tr>
<td>Male Calves Born Alive</td>
<td>183</td>
<td>98</td>
<td>.</td>
<td>1041</td>
<td>560</td>
<td>562</td>
<td>1324</td>
<td>304</td>
</tr>
<tr>
<td>Male Calves Born Dead</td>
<td>24</td>
<td>10</td>
<td>.</td>
<td>144</td>
<td>.</td>
<td>.</td>
<td>137</td>
<td>28</td>
</tr>
<tr>
<td>Female Calves Born Alive</td>
<td>225</td>
<td>100</td>
<td>442</td>
<td>1011</td>
<td>477</td>
<td>449</td>
<td>1263</td>
<td>351</td>
</tr>
<tr>
<td>Female Calves Born Dead</td>
<td>15</td>
<td>12</td>
<td>54</td>
<td>97</td>
<td>63</td>
<td>63</td>
<td>100</td>
<td>38</td>
</tr>
<tr>
<td>% Difficult Births (4+5)</td>
<td>7</td>
<td>.</td>
<td>3</td>
<td>36</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Avg Genetic Merit $ Sires of Cows</td>
<td>274</td>
<td>125</td>
<td>149</td>
<td>170</td>
<td>155</td>
<td>147</td>
<td>235</td>
<td>161</td>
</tr>
<tr>
<td>Avg Genetic Merit $ Sires of Heifers</td>
<td>360</td>
<td>168</td>
<td>289</td>
<td>302</td>
<td>357</td>
<td>379</td>
<td>344</td>
<td>282</td>
</tr>
<tr>
<td>Avg Genetic Merit $ of Service Sires</td>
<td>438</td>
<td>115</td>
<td>353</td>
<td>308</td>
<td>393</td>
<td>388</td>
<td>366</td>
<td>336</td>
</tr>
</tbody>
</table>

We chose 8 herds from DHIA herds in Florida and Georgia as examples to demonstrate the information provided by these 20 indicators and to stimulate herd owners to take a look at their own DHIA herd summary for similar numbers.

The first 6 indicators indicate herd size and milk production. Milk per day of first-calf heifers in the first 40 days and then in the next 60 days are good measures of replacement program. The average weighted SCC should be close to the bulk tank SCC average on test day. Many veterinarians like to see 65% of the herd below 150,000 SCC. Two of the herds in this table are above this level. Pregnancy rate is one good indicator of overall herd reproductive performance. Herds should be above 15% for the year. Keeping track of the sex and livability of newborn calves is the foundation of a replacement program. Look at the numbers for these herds. Most of the herds in this example are using service sires of better genetic merit than either that of cows or replacement heifers.

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For questions or information about manure bioenergy, contact Dr. Ann C. Wilkie at acwilkie@ufl.edu, (352) 392-8699, or visit the website http://biogas.ifas.ufl.edu. Ann Wilkie is in the UF/IFAS Soil and Water Science Department.

What Can DHIA Records Tell Us?

Daniel W. Webb

These questions or information bioenergy, contact Dr. Ann C. Wilkie at acwilkie@ufl.edu, (352) 392-8699, or visit the website http://biogas.ifas.ufl.edu. Ann Wilkie is in the UF/IFAS Soil and Water Science Department.
Florida Students Participated in 3rd Southern Regional Dairy Challenge

Albert De Vries and Mary Sowerby

A total of 54 students from 12 southern colleges and universities participated in the third annual Southern Regional Dairy Challenge, November 20-22, 2008 in Statesville, N.C. North Carolina State University hosted the 2008 contest, drawing participants from Alabama A&M University, Berry College, Clemson University, Ferrum College, University of Florida, University of Kentucky, Louisiana State University, Mississippi State University, North Carolina State University, Virginia Tech, West Virginia University, and Western Kentucky University.

The Southern Regional Dairy Challenge is an innovative two-day event designed by professionals from allied industry and university educators to bring classroom training to life in the real world for students preparing for dairy careers. “The regional Dairy Challenge, while offering a competitive format, is more about educating students about dairy farm evaluation and working with students from other universities,” says contest planning committee chair Dave Winston of Virginia Tech. “Students learn a great deal in the process.” A key objective is to present students with a real-life situation that stresses the importance of teamwork and professionalism.

Students arrived at the Holiday Inn conference center on the afternoon of November 20. After check-in and registration, participants were split into mixed-university teams. Teams got to know each other over dinner and then participated in team-building exercises led by Dave Winston. Winston worked with students to discover their teams’ strengths and capabilities, examine ingredients of effective teams, and evaluate team members’ personality styles. “I was impressed with the camaraderie that developed among students from different institutions after only being together for such a short period of time,” comments Winston. The next morning, teams received detailed production, financial, nutrition and reproduction records, and left for their farm visit to evaluate cows, facilities and management practices. After a two-hour farm visit, teams returned to the hotel to analyze their data and develop recommendations for improvement. Each team prepared a 20-minute presentation that detailed their observations and suggestions. The evening concluded with dinner at the Iredell County Ag Center, following by bowling at Statesville’s Plamor Lanes.

On the program’s final day, each team presented its evaluation and recommendations to a panel of industry judges. Teams were ranked as platinum, gold or silver, based on how well they worked as a team and how effectively their presentations of strengths and opportunities for the dairy operation matched the judges’ evaluations. When teams were not presenting, they toured the farm they had not evaluated for the competition. The Dairy Challenge ended with dinner, entertainment and an awards ceremony at Stamey Farms in Statesville. Participants and coaches were welcomed by Dr. Todd See, head of the Animal Science Department at North Carolina State University, who congratulated them on their excellent performance throughout the event. Afterwards, most students echoed the comments of one individual who said, “This was a great program overall and had great experiences that will benefit me in the future.”

Major sponsors of the event were Select Sire Power, American Dairy Science Association, Southern States Cooperative, Genex, Dairy Farmers of America, ABS Global, New Frontier Bank, Zinpro Performance Minerals, Southeast DHIA, Agway Foundation, Merial Ltd. and Dairy Production Systems of High Springs, Florida. Contributing sponsors are recognized on the Dairy Challenge web site http://dairychallenge.org, as well as in programs and news stories issued nationally throughout the year.

Four University of Florida students with an interest in dairy science participated: Candy Munz, Ashley Massagee, Stephanie Croyle, and C.J. Middleton. They prepared several afternoons during the fall of 2008 with Albert De Vries. Mary Sowerby coached the students in Statesville. The students did an excellent job and greatly appreciated the event.

From left: Stephanie Croyle, Ashley Massagee, Candy Munz, C.J. Middleton, and Mary Sowerby at the third Southern Regional Dairy Challenge. Contact Albert De Vries at devries@ufl.edu or call (352) 392-5594.
The Dairy Business Analysis Project (DBAP) was majorly impacted in 2008 when Russ Giesy retired from UF/IFAS in September. Russ had been working with DBAP since its inception in 1996 when UF started collecting 1995 data. He has remained the driving force ever since. Russ now runs Diamond Rule Dairy Management Consulting Service and he remains interested in dairy business analysis. Also, Dr. Lane Ely retired from the University of Georgia in December 2008, but he has been hired back part time. Part of Lane Ely’s responsibilities will be to continue DBAP for dairy producers in Georgia. Although there is a commitment from the UF Deans to fill the now vacant multi-county Dairy Extension position in Central and South Florida, to our knowledge no action has been taken.

What does this mean for DBAP in 2009? Mary Sowerby will remain the primary contact person for DBAP in North Central Florida. Lane Ely will remain responsible for DBAP in Georgia. For the remainder of the dairies, we contracted with Russ Giesy who will work on data collection and reporting if the dairy producer agrees. Producers may contact Russ directly to have their data collected. UF/IFAS will get a copy of the data once completed. Russ will have the full use of the data he collects to the extent the producer agrees. Because DBAP is a confidential program, we can no longer grant access to the individual farm data Russ did not collect, unless that particular producer agrees to share it. Summary statistics such as averages calculated by UF will be still available to anyone as in the past. The contract with Russ includes a payment structure that is in part made possible by a grant obtained by UF/UGA last year from the Southeast Milk Check-off program.

Participation in DBAP allows dairy producers to investigate their individual cost of production and profitability, as well as identify strengths and weaknesses. For 2009, we will focus more on the results for the individual dairy producer, including comparison with past results of the dairy. The focus on the individual dairy producer means that a dairy producer’s report is ready as soon as his/her data collection is completed. This individual cost of production analysis could be performed multiple times per year and serve as a basis for peer group discussions. We will still collect 2008 annual data for benchmarking and our annual summary report.

For more information about DBAP, contact Mary Sowerby (meso@ufl.edu, 386-362-2771), Lane Ely (laneely@uga.edu, 706-542-9107), Russ Giesy (giesyr@aol.com, 352-669-0180), or Albert De Vries (devries@ufl.edu, 352-392-5594).

How Well Can We Predict Future Milk Prices in Florida?

Albert De Vries and Shiferaw Feleke

“Prediction is very difficult, especially about the future.” Dairy producers take great interest in what milk prices are going to be. For this first half of 2009, all indications are that it is not going to be pretty. Low milk prices strain cash flows and profitability.

Future milk prices are routinely predicted by USDA, university professors, and CEOs. Nobody claims their predictions are accurate and many realize their predictions can be quite off from what the actual prices are going to be.

Another source of information about future prices is the milk futures market. Class III and Class IV milk futures are traded daily at the Chicago Mercantile Exchange for up to 24 months into the future. Contract prices settle at the corresponding Class III and Class IV cash prices announced monthly by USDA. The Class III futures price reflects the market’s expectation for the Class III whole milk price for the month of production. Another way to think about this is that traders try to estimate what the Class III and Class IV cash milk prices are going to be that will be announced by USDA a number of months into the future. These traders are typically well informed about supply and demand of milk products, dairy expansions, fuel costs and everything else that may affect future milk prices. The announced Class III or Class IV cash milk prices by USDA are directly linked to the calculation of the uniform price in the Federal Milk Marketing Order 6 (Florida). Thus, how well the futures markets predict future milk prices is directly an indication of how well we can predict milk prices in Florida.

Research by dairy economists has shown that the milk prices predicted on the futures markets are on average at least as accurate as milk prices predicted by experts. But information about how accurate the milk futures markets actually are is scarce. We decided to look at the data.

Our study assessed the accuracy of 3 methods that predict the uniform milk price in Federal Milk Marketing Order 6. Predictions were made for 1 to 12 months into the future. Data were from January 2003 to May 2007. The CURRENT method assumed that future uniform milk prices were equal to the last announced uniform milk price. This is a native prediction method. The F+BASIS and F+UTIL methods were based on the milk futures markets because the futures prices reflect the market’s expectation of the Class III and Class IV cash prices that are announced monthly by USDA. The F+BASIS method added an exponentially weighted moving average of the difference between the Class III
cash price and the historical uniform milk price (also known as basis) to the Class III futures price. The F+UTIL method used the Class III and Class IV futures prices, the most recently announced butter price, and historical utilizations to predict the skim milk prices, butter fat prices and utilizations in all 4 classes. Predictions of future utilizations were made with a Holt-Winters smoothing method (a useful method to predict trends over time). Federal Milk Marketing Order 6 had high Class I utilization (85 ± 4.8%). Mean ± standard deviation (a measure of variation around the mean) of the Class III and Class IV cash prices were $13.39 ± 2.40/cwt and $12.06 ± 1.80/cwt, respectively. The actual uniform price in Tampa, Florida, was $16.62 ± 2.16/cwt. The basis was $3.23 ± 1.23/cwt. The F+BASIS and F+UTIL predictions were generally too low during the time period considered because the Class III cash prices were higher than the corresponding Class III futures prices. Figure 1 shows the Class III futures markets and the actual announced Class III price by USDA for the same month of production. For the 1- to 6-months ahead predictions, the root of the mean squared prediction errors (RMSE, a standard measure of accuracy) from the F+BASIS method were $1.12, $1.20, $1.55, $1.91, $2.16, and $2.34/cwt, respectively. The RMSE ranged from $2.50 to $2.73/cwt for predictions up to 12 months ahead. Results from the F+UTIL method were similar (Figure 2). The accuracy for the F+BASIS and F+UTIL methods for all 12 forecast horizons were not significantly different (they could be the same). No method included all the information contained in the other methods.

So what does this mean? In conclusion, both F+BASIS and F+UTIL methods tended to more accurately predict the future uniform milk prices than the CURRENT method, but prediction errors could be substantial even a few months into the future. “Substantial” means that we can be only 68% confident that the actual uniform price is within the predicted price plus or minus $2/cwt, even only 5 months into the future. We can be 95% confident that the actual price is within plus or minus $4/cwt from the predicted price even only 5 months into the future. Of course, these are very large ranges; hence “prediction is very difficult especially about the future”. One might as well use the long term average uniform milk price to predict milk prices more than 6 months into the future (perhaps adjusted for inflation). For predictions less than 5 months into the future, the uncertainty was less. The majority of the prediction error (70%) was caused by the inefficiency of the futures markets to predict the Class III cash prices. Other sources of prediction error were uncertainty about future utilizations and butter fat prices. Unfortunately, none of this means that we cannot have low milk prices the first half of 2009.

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Figure 1. Class III futures prices for contracts (•) 1-month ahead, (○) 3-months ahead; (▲) 6-months ahead, and (◊) 12-months ahead, (■) Class III prices announced by USDA. Average monthly prices from January 2003 to May 2007 (De Vries and Feleke, 2008).
Figure 2. Predicted uniform milk prices for Federal Order #6 (Florida) based on the Class III and IV futures prices, and predictions for butterfat prices and utilization (F+UTIL method): (□) 1-month ahead, (○) 3-months ahead; (△) 6-months ahead, and (◊) 12-months ahead, (■) actual uniform milk price in Federal Order #6. Average monthly prices from January 2003 to May 2007 (De Vries and Feleke, 2008).

Upcoming Dairy Meetings

- January 28-29, 2009: 35th Annual Southern Dairy Conference in Atlanta, Georgia. Further information: call 706-583-0347 or email carlam@uga.edu.
- Dairy Road Show, TBA. Probably early March.
- April 28, 2009: 46th Florida Dairy Production Conference in Gainesville, Florida.

For more information and registration, visit http://dairy.ifas.ufl.edu or contact Albert De Vries, devries@ufl.edu.