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## **Kentucky Dairy Notes**

**June 2009**

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## **Dealing With Change**

If anybody should know what change is like it should be our dairy farm families. In just three short years dairy farmers have seen their milk price go from \$13 to \$21 and back down again. Accompanying this has been a rise and fall of feed prices like corn going from \$2.25 a bushel to over \$6 and now back down to \$4 and soybeans about doubling in price from \$6 a bushel up to \$12 and now about a dollar lower. Whew!!! What a ride! As business managers, are we wired to handle such change? Can we adapt?

A speaker I heard recently, Alan Roxburgh, talked to a group about what he called “transformative change”. I believe he was talking about how the change going on around us can cause us to change. Much of the change going on around us is change over which we have had little or no control – it is change which has happened *to us*. The key to our future is how we respond to that change.

Roxburgh described the transformative change process as having 5 stages:

- Awareness
- Understanding
- Evaluation
- Experimentation
- Adoption

*Awareness* is recognition that change has taken place and might cause us to try to gain some knowledge about the change that has taken place. It could be very useful to know not only what has changed but also about why the change might have happened. The old adage that “knowledge is power” might have some truth in it for our situation.

*Understanding* is the stage where we have an opportunity to reflect on the knowledge we have gained. It is the time we have to make this knowledge ours. It is at this stage that we can accurately describe the situation to someone else. Hopefully, it means we have a good grasp of the situation.

*Evaluation* is the stage where we ask ourselves “What does all this mean?” It is a time for discernment – for sorting things out. It is a time for coming up with options. It is a time for making decisions.

*Experimentation* is an action phase. What are we going to do now? This may involve trying to do some different things. It may also

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involve doing some things we are already doing but doing them a little bit differently. The “up” side of experimentation is that some experiments will succeed. The “down” side of experimentation is that some things will fail. The key to action-oriented experimentation is to observe and evaluate what seems to work better and what doesn’t seem to work.

*Adoption* is the stage where we implement new habits that work. Adaptive change is really about learning new habits.

What does “transformative change” have to do with the current state of the dairy industry or the individual situations of dairy farmers? It has to do with how we respond to the change that has already taken place. It also has to do with us pursuing a course of action which hopefully will put us in a better place than where we are now. Many dairy farmers are considering strategies to reduce costs which don’t negatively affect returns or seek better returns for the money they are spending. Family spending habits in the current economy seem to be changing as consumers are eating fewer meals away from home and are buying more store brand items and spending less on discretionary items.

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## **Heat Stress – Thief of Summer Milk Income**

Dairy cattle generally are the most comfortable when the outside temperatures are between 40 and 70°F. As the temperature and humidity rise, milking and dry dairy cows alike are subjected to heat stress. Heat stressed cattle eat less and do not milk or grow as well. All of us have heard stories of milk cows dropping 5 to 10 lbs of milk during the summer heat spells. By altering management practices, the amount of heat stress and its effects on milk production can be reduced. Now is the perfect time to review your management practices and see what changes can help your dairy cows cope better with this summer's heat and humidity.

### **Ways to reduce heat stress for the milking herd:**

1. **Rations should be rebalanced** for summertime feeding. Dry matter intakes decrease with hotter temperatures and humidity. In addition, mineral concentrations of potassium, sodium and magnesium may need to be tweaked for summertime feeding. For example, sweating results in loss of potassium. Thus, the diet should contain greater than 1.5% potassium (DM of the total diet) during the summer. Rations should provide adequate nutrients to support milk production, but, at the same time, contain adequate amounts of effective fiber or chew factor.
2. **Feedbunk management** is most critical during the summer months. First, cows need to be fed earlier in the day so that the heat of digestion does not peak during the hottest part of the day. The heat load from digesting feed peaks 4 hours post feeding. Secondly, feed bunks need to be cleaned out daily to prevent feed from heating up and discouraging intake. Third, feeding cows more times a day helps stimulate feed intake because it helps prevent feed from heating in the feedbunk. Thus, the recommendation that feed be mixed at least twice daily and fed at least twice daily. Additives can be used to extend the bunk life of the TMR or forages by reducing heating.
3. **Fans and sprinklers**, which wet the cows' coat, decrease heat stress on cattle through evaporative cooling. These systems should be used when the temperatures climb above 70-75°F. These systems, placed over the cows at the feedbunk, can help encourage cows to eat more feed. Additional fans placed in the freestall area will encourage cows to lie down and ruminate or

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rechew their cuds. Sprinklers generally run in a 12-14 minute cycle where they are on for 2 minutes and off for 10-12 minutes; fans should run continuously.

4. **Fans and sprinklers should be located in the holding pen** to cool cows waiting to be milked and upon exit from the parlor.

5. **Water intake** increases as the temperature and humidity outside increases. For example, researchers have shown that water intake increased 29% when the environmental temperature increased from 64°F to 86°F. Routine cleaning of waterers is important to maintain and encourage water intake. Remember that milk is 87% water and that water intake governs feed intake which directly governs milk production.

### **Ways to reduce heat stress on dry cows and cows just before calving:**

**Importance:** Heat stress in dry cows has been shown to decrease the quality of colostrum, birth weight of calves, and subsequent milk production and to increase the incidence of retained placentas, displaced abomasums and hoof problems in early lactation. By providing shade over the feeding and resting areas, preventing overcrowding, and running fans and sprinklers, the amount of heat stress can be reduced.

1. **Reducing heat stress in close-up dry cows** is very important and is often times overlooked but will definitely pay financial rewards this next lactation.

2. **Shade** is very important for dry cows to reduce heat stress. Close-up dry cows (cows within 3 weeks of calving) especially need adequate shade. Rotation of shade trees helps decrease the chances of mastitis especially in cows within a couple of weeks of freshening. Cows should not be allowed access to ponds to prevent future mastitis infections.

3. **Water** consumption increases dramatically with increases in temperature and humidity. Without shade, cows will drink 18% more water. Water intake also governs how much feed a dry cow eats. In addition, cows and heifers drink less water when the water's temperature is above 80 °F. Thus, shading waterers or using insulated waterers is important to maintain water intake and thus feed intake.

4. **Shade cloth covering feeding areas--** Feed troughs located in the sun are not used during the heat of the day and will limit

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feed intake especially for the close-up dry cow group. You may want to consider using shade cloth over these feedbunks but not allowing an area large enough that cows lie down, creating a pathogen-enhanced environment which leads to an increased incidence of mastitis.

5. If you use **pasture** for your dry cows and heifers, make sure they have adequate pasture for them to eat. Cool season grasses, such as fescue, bluegrass, and orchardgrass, do not grow much in the heat of the summer. When forage availability becomes limiting, hay or other stored forages need to be fed or the cows need to be moved to a pasture crop that is actively growing.

6. **Maintain good body condition.** Do not allow dry cows to lose weight or body condition. Proper amounts of body condition are important for these cows to milk well and rebred quickly after they calve.

Take a few minutes to review your milking herd and dry cow management programs to make sure heat stress does not rob you of potential milk income.

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## **Dairy Sector Continues to Struggle**

The dairy sector continues to struggle through perhaps the most challenging financial time in its history. The US All Milk price from February through April of 2009 was the lowest since 2003, when production costs were much less. At the time of this writing, milk futures remained very low through summer, showing some improvement in the fall and winter contracts.

While milk is generally considered a staple, and somewhat buffered from macroeconomic effects, it appears obvious that the dairy sector has been affected by the recent economic challenges in the US, and across the globe. Retail milk prices are down significantly from last summer, which is clearly affecting the value of milk at the farm level. It is also important to remember that fluid milk is only one factor that affects the price of milk at the farm level.

Milk price formulas are greatly affected by the prices of the components: cheese, butter, non-fat dry milk, and dry whey. The prices of all four of these components are lower than they were in 2008, which is pulling down milk prices at the farm level. A large portion of this downturn can be attributed to weak export markets in the face of the current economic situation faced by many of our trading partners. The chart below shows the US All Milk Price. Note the considerable difference between 2009 (dotted line) and 2008 (solid black line).

In the face of these challenges, dairy producers will likely respond by reducing the size of the US dairy herd. Cooperative Working Together (CWT) recently announced that it had accepted bids to remove 103,000 dairy cows from the herd this summer. This will be the largest buyout in the history of CWT. However, it is likely that considerably more dairy cows will be culled across the US through the end of this year given the situation that dairy producers are facing. The USDA ERS is forecasting US dairy cow numbers to fall below 9 million by the end of 2010. This would be more than a 3% decrease from January 2009.

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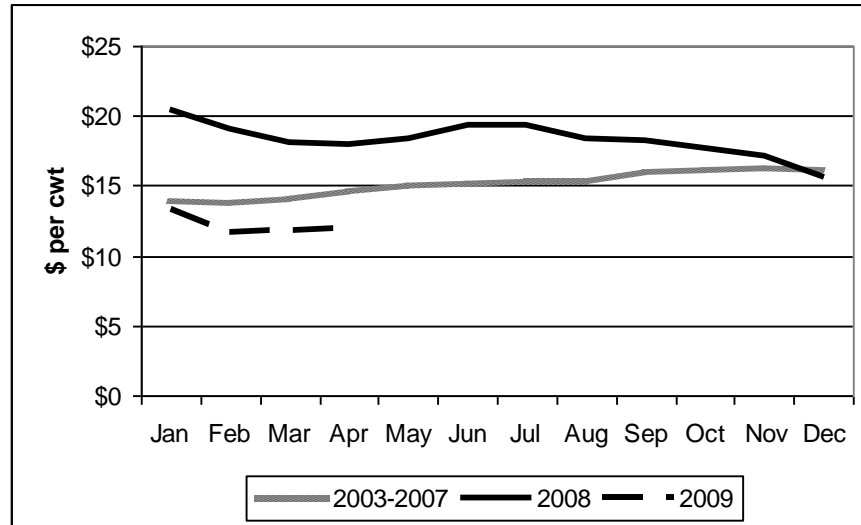
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US All Milk Price



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