

Kentucky Dairy Notes

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Should I Quit Dairying Because of the Drought?

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The decision to leave the dairy industry is never an easy choice. Certainly, drought conditions and feed shortages cause dairy farmers to wonder about continuing. There are many factors that make the decision especially difficult. For many families, dairying has been part of the family heritage for many generations. Also, the dairy farm may be the only job an aging farmer has ever known. Make no mistake, these are gut-wrenching decisions. Yet the decision often must be looked at purely from a business point of view. The worst case is when the family continues to operate the dairy farm at a loss and erodes equity that has been built up over a lifetime. If carefully examined, the decision to exit sooner may preserve assets and wealth earned by the operators.

Unfortunately, only the individual dairy farmer – hopefully after much discussion with their spouse and other family members, with input from lenders and other key advisors – can make the decision to exit. But that decision should be made while carefully examining options. Even with low feed supplies and high feed prices, some farms are making a profit – especially farms that have retired most debt and are operating with low input costs. Typically, widespread droughts are accompanied by at least some gains in milk prices, though this might not occur when drought conditions cover only a local area. Profitability must never be assumed. Consider your farm-specific costs of production or seek help in calculating them. Such help can come from dairy industry consultants and county Extension offices.

There are many reasons why dairy farms make the decision to exit the dairy industry:

- *Retirement.* Many farms go out of business when the father retires or slows down and no family member chooses, or is able, to continue the dairy enterprise.
- *Lifestyle.* When labor is scarce some dairy farmers choose to alter their lifestyle so they no longer must feel "married" to the farm.
- *Excess debt.* Especially in times of low milk prices and/or high feed costs, farms may not be able to generate enough income to repay loans, and so are forced out of business.
- *Health problems.* Sometimes even minor injuries or illnesses can force operators out of business, especially in the case of small farms where there may be too few cows to allow employment of non-family labor.
- *Urban pressures.* These can force dairy farm exits either through pressures from encroaching residential neighborhood, or through land price offers that are too good to turn down.
- *Poor profitability.* If any business is not profitable, it ultimately will fail. Many dairy enterprises continue to operate at the expense of other, more profitable, enterprises on the farm.
- *Lack of infrastructure.* If there are few dairies nearby, milk hauling costs and prices paid for supplies might rise to the point that the dairy enterprise is no longer profitable.
- *Lack of proper estate planning.* Though wills are in place, the death of a dairy farm owner/manager may force the sale of the unit to generate the price of inheritance taxes. Further, farm assets may be split equally among all siblings in probate court if no will is present.
- *Expensive or inadequate feed.* Feeds, especially forages, may be in short supply and expensive for long periods of time. As in 2002 and 2003, if forage supplies are scarce and expensive and milk prices are low, it might not be possible to access loans to purchase additional feed inventories to keep dairy cows in production.
- *Lack of access to capital.* When access to capital to purchase additional inputs (for example, feed) is limited, oftentimes a hard look at the present financial state of the farm and of the industry is warranted, to determine if seeking alternative sources of capital is a wise business decision.

If the costs of production are higher than milk revenue, margins are small even when feed supply is adequate, price increases are not imminent and equity is not able to withstand operational losses for an extended time, perhaps it is time to exit. Even if equity is able to withstand anticipated short-term losses, the question of whether operating at a loss is the best option for the family and business, even in the short term, must be considered.

Alternatively, if milk prices allow margins to remain strong, feed is available at an affordable price and costs of production are typically low, then the decision may be postponed. Either decision involves some risk, but those risks can best be reduced by fully understanding costs of production. If based on sound information, there is no shame in exiting the dairy industry; it is simply a business decision. Nearly all non-agricultural businesses of substantial size have exit strategies that were initiated as part of the startup business plan. Those strategies include description of the signals that warn of lost profits and eroded equity, and outline the process to sell or shut down the business.

When making the decision to exit the dairy industry, the key source of income will be generated from the sale of cattle. There may be additional revenue generated from the sale of machinery and equipment and remaining feed inventories. On the other hand, if market conditions are part of the reason to consider exiting, others may be doing so as well. Therefore, it is easy to over-assess the value of cattle, machinery and equipment. Be sure to value assets at a reasonable level. Work with a tax planner to be sure that generated revenues can be used to full advantage. Often it may be possible to maintain ownership of some assets until the subsequent year, to spread income over multiple tax years and lower the associated tax implications. Financial consultants can advise on investments and the suitability of tax-deferred savings plans. A Cornell study found that deferred taxes on the sale of farm assets can erode 20-40 percent of the farm's equity.

Remember to consider costs of living when deciding whether the farm remains profitable. In 2011, average family cost of living in the U.S. was \$43,000 per year, requiring around \$48,000 before income taxes. While it is tempting to dip into household income to remain viable in the dairy business, this is not a sustainable business decision in the long term. Cash infusions into the dairy from household income – or even off-farm income – could sustain the business for a while longer, but careful consideration should be given as to whether a dire situation is being prolonged, or the farm is being helped through a one-time challenge.

There are likely to be other alternatives for income, including:

- Focusing on an alternative agricultural enterprise such as raising heifers, producing forages, managing dry cows or concentrating on grain production.
- Conducting in-home business.
- Seeking employment off the farm. Agricultural employment rates have remained very strong even during recent economic downturns.
- Leasing facilities to others to generate some income. In many cases, opportunities for aging facilities might be limited and return little more than the costs of utilities and maintenance.

The availability of an alternative source of income to support the family is a key consideration in when to sell. David Kohl of Virginia Tech lists other important considerations:

- Spouse's employment status. Is the spouse employed and able to at least provide fringe benefits such as health insurance? Also, what is the stability of the employment and the long-term outlook for continued employment?
- What point of your life cycle are you in? Can you easily seek other employment and possibly even go through retraining to learn new skills?
- Contact creditors to obtain releases of security agreements and find out about payback arrangements.
- Are you close enough to retirement? If so, do you have adequate savings to supplement Social Security payments for a comfortable living? Contact your local Social Security office to learn about your expected benefits. If the dairy enterprise has not been profitable, you may not have contributed substantially to Social Security. Lifestyle will partly dictate the amount of retirement savings required. To maintain a \$30,000 per year income, a person retiring at age 60 and having a 20-year life expectancy would require the availability of \$600,000 from Social Security and retirement savings.
- Consider the costs of sale. Auction managers and clerks typically will charge 5-10 percent to manage sales. There also will be costs associated with assuring the health of dairy cattle (Johne's, mycoplasma, *Staph aureus*, brucellosis, etc.) Be conservative in estimating which animals will sell. If selling the entire herd, the buyer may reserve the right to refuse some animals, which then will bring little, if any, more than cull prices.
- Where will the family live? If the farm is sold as part of the exit strategy, a move to alternative housing may be needed. In that case a down payment of as much as \$40,000-\$50,000 may be needed to purchase a house. Moving costs also must be considered.

Other issues that must be thought through include the expenses of emptying and potentially filling in manure storage pits and lagoons, and examining lease arrangements and other long-term contracts.

The decision about when to leave the dairy business, or any other family business, is difficult and one that must be made based on one's own situation. It can be a very lonely time. Please seek advice and find other ways

to remain connected and active, and maintain a positive outlook. The personal impact that leaving the dairy industry can have on one who has been involved in the industry for a lifetime is very great indeed.

Further Reading:

Loren Tauer and Jonathan Dressler, 2010. *When to Exit Dairy Farming: The Value of Waiting*.
http://dyson.cornell.edu/outreach/extensionpdf/2010/Cornell_AEM_eb1001.pdf

2012 Kentuckiana Dairy Exchange Summary

By Barbara Wadsworth, Karmella Dolecheck, Elizabeth Eckelkamp, Di Liang, and Amanda Sterrett

As graduate students, we always appreciate the opportunity to learn from leading dairy producers, like the 2012 Kentuckiana Dairy Exchange farm hosts. Because we come from different parts of the world (Maine, Idaho, Louisiana, China, and Pennsylvania), it is always nice to tour different farms in Kentucky. We always take a few lessons away from every Kentucky farmer we meet.

Our first stop was Kalmey Dairy in Shelbyville, KY owned by John E., John C., and Ann Kalmey. One aspect of this farm that impressed us was consistent use of DHIA records since 1924. With a rolling herd average of 21,270, this impressive lineup of 268 registered Holstein cows has a BAA of 106.8%. Cows are housed on sand bedded freestalls and milked in a double six herringbone parlor. Mr. Kalmey described how renovating his existing freestall barn (increased neck rail height and length, provided cows with adequate lunge space) a couple years ago was one of the best moves he had ever made. They had also recently installed Dairy Rhythms™ Herd Management Software.

The next stop was Harvest Home Dairy (Owners, Bob and Angie Klingenfus) in Crestwood, KY. They had 115 cows in the milking herd with a rolling herd average of 20,000 pounds. Over time, they would like to increase to 22,000 pounds. They were the only farm on the tour using a compost bedded pack barn as the sole confinement facility. Bob and Angie were very interested in agritourism to improve neighbor relations and were in the process of remodeling their parlor. Bob and Angie have also been very involved with research, collaborating with University of Kentucky graduate students and faculty on a number of projects. Currently, they are testing a new animal location system on their farm. Bob and Angie are also very concerned with cow comfort and well-being, which they said was a consideration in building a compost bedded pack barn.

Eddie Klingenfus Farm, owned by Eddie and Debbie Klingenfus, was the third farm in the Kentuckiana farm tour this year. Eddie milked 112 cows with a rolling herd average of 25,000 pounds. He also had 387 planting acres. Eddie's farm was different from the other farms because he uses a high proportion of alternative feeds, including distillers' grains and high moisture earlage. His silage pads and silage impressed us. He works very closely with his nutritionist. He also talked a lot about paying attention to details on farm and he enjoyed the benefits from sand freestalls.

Owned and operated by Larry and Doyle Embry, Longview Dairy in Leitchfield, KY was our fourth stop. They are milking approximately 200 Holsteins with a rolling herd average of 21,000 pounds while also managing 750 acres of crops. It was interesting to hear how much the farm enjoyed using their new automatic heat detection system, Afimilk® PedometerPlus™. Additionally, we were all impressed to learn that the farm was the breeder of the high net merit sire E-Longview CM. When asked what the farm wanted to focus on next the answer was facilities—they are working on replacing a calf barn that recently burned down and are considering investing in a compost bedded pack barn to improve cow comfort.

The Dick Davis Dairy in Brownsville, KY consisted of 70 Holstein cows with a bulk tank average of 77 pounds. The family gave considerable attention to improving soil quality, thus improving forage yield and quality. It was obvious when listening to Dick that the Davis family cared both about their cows and about milk quality. Their cows were able to spend part of their day in freestalls, provided pasture for several hours, and finally allowed to relax in a compost bedded pack barn. We have never seen a farm that used so many different housing systems together—and it really seemed to work for them! A Lone Star Milk Quality Award Winner, this herd maintained a SCC of 150,000 cells per ml or less this year. Though Dick humbly explained that he did not know the source of the low SCC, the reasons were apparent to the group: his family and employees paid attention to the small details and made sure the cows were as clean as possible.

From the above reviews of each farm, you can certainly see why each of us had such a great time. We are constantly engaged in our projects and our classes, so being able to tour different dairy farms and talk to different producers is one of our favorite parts of being a graduate student. Thank you to all who made it an awesome trip!



Left to Right: Barbara Wadsworth, Amanda Sterrett, Di Liang, Liz Eckelkamp, Karmella Dolecheck

Checklist for the Top 5 Priorities for Fall/Winter Dairy Feeding Programs

Donna Amaral-Phillips, Maurice Eastridge, and Bill Weiss,
Dairy Nutritionists at the University of Kentucky and The Ohio State University

1. Develop a Plan

Develop a plan for using homegrown forages and determine whether you need to purchase other forages.

To devise this plan, **sample all forages and submit representative samples to a forage testing laboratory** to determine their nutrient content. Forage samples taken at the beginning of the feeding season can serve as a starting place for balancing rations. Throughout the feeding season, take numerous samples (three to four samples) and combine their results to better describe the nutrient content of forages being fed. Single samples often do not accurately represent the nutrient content of feeds sampled.

Concurrently, **take an inventory of each forage and commodity in storage.** With this information, you can allocate forages stored separately to the various groups of animals and determine shortfalls so that forages can be purchased or other feedstuffs can be added to rations being fed. For example, if you have corn silage from three different hybrids but the hybrids are stored in a single bunker silo, you need to know you have 900 tons of corn silage instead of 300 tons of each hybrid. If each hybrid is stored in a separate bag, they can be considered separate feeds with 300 tons of each. Reserve the highest-quality forages (usually hay) for heifers less than 4 months of age and fresh, early-lactation, or high-production groups of cows. This information then can be used to balance rations for the milking herd, dry cows, and heifers raised on the dairy operation.

2. Balance rations

Balance rations for all groups of cattle on the dairy operation using the inventory and forage analyses.

Dairy cattle need nutrients, not ingredients, to support body maintenance, milk production, and growth. Rations also are balanced to provide these nutrients at the least cost. Various combinations of forages and other commodities can meet nutrient needs and may result in a cost savings. In the current economic climate, small savings for not only the dairy milking herd but also dry cows and replacement heifers can definitely affect cash flow. For example, substituting other forages and/or commodities for dry cows and/or heifers may decrease feed costs.

Because of increased volatility in commodity prices, dairy farmers should follow ingredient prices and reevaluate feeding programs frequently. In addition, changes in the amount of starch and protein provided in rations have been reevaluated, and some nutritionists have revised their nutrient parameters when balancing rations. These changes, if incorporated correctly, may decrease feed costs with higher corn and soybean meal prices and could have a positive impact on the environment.

Diets for lactating dairy cows, heifers, and dry cows are balanced to provide a certain amount of each nutrient delivered through a certain amount of dry matter of each feedstuff. The dry matter (or moisture) content of each feed should be used to determine the amount of each ingredient to be added to the TMR mixer or fed to an individual cow. For wet feeds, such as silages and wet commodities, dry matter contents can vary tremendously within storage structures, loads, and storage time of various feeds. To account for this variation, dry matter contents of these feeds should be measured at least weekly, if not more often, and changes made when necessary (2% to 5% change in dry matter or 1 percentage unit) to the amount added to the TMR mixer.

3. Review Feeding Practices

Review feeding practices with the person feeding the dairy's lactating cows, heifers, and dry cows. Practices to review for the lactating herd include but are not limited to:

- Lactating cows should have access to the feed bunk at least 20 hrs daily, but preferably 22 hrs daily (i.e., in holding pen for no more than 2 hrs daily). Minimizing the time away from feed allows cows to eat multiple meals for optimum intake. This is especially important for fresh, early-lactation, and high-producing dairy cows.
- Cows should be fed a consistent ration at a consistent time each day.
- Feed should not be heating in the feed bunk.
- Uneaten feed should be routinely removed (usually daily) from the feed bunk. Milking cows should be fed for 1% to 2% of their daily intake left after a 24-hr feeding period. If a farmer is feeding for a slick bunk at the time of feeding, the bunks have to be monitored throughout the day and feeding time adjusted rather than feeding at the same time every day.
- Feed should be provided within the entire feed bunk at each feeding for the lactating herd.
- Waterers should be cleaned out multiple times weekly and scrubbed once weekly with a brush and a weak chlorinated solution (1 cup of household bleach to 5 gallons of water). Rinse the chlorinated solution out after cleaning.
- Adequate bunk and freestall (or resting) space should be provided such that groups are not overcrowded. Ideally, 24 inches of bunk space should be provided to the milking herd (six-row barns may provide 18 inches per cow, less than ideal). For fresh and close-up dry cow groups, the recommendation is 36 inches per cow and one freestall or 100 square feet per cow.
- Fans should be turned on when temperatures are above 65° to 70°F depending on humidity. High-producing cows should be in an environment with a temperature-humidity index below 68.
- TMR mixers need to be serviced and adjusted for the feeds being added. Check to make sure the TMR mixer is not overfilled, TMR mixtures are not over- or under-mixed, and ingredients are being added at the correct amounts and order for the mixer. The mixing quality of the TMR should be evaluated occasionally. Does the mix look the same over the length of the feed bunk? Has the forage particle size decreased too much by the mixer wagon? The use of the Penn State Particle Size box can be a useful on-farm tool to evaluate mixes.
- Clean faces on bunkers and maintain other silage storage structures to prevent heating and ensure that a high-quality feed is being fed.
- Dairy cows should be consuming a similar amount of feed as suggested in balanced rations. If not, discuss this observation with the nutritionist, who may wish to make adjustments in the diet, if large differences are detected. Daily or weekly refusals will need to be weighed to assess the consumption by the group of cows.

4. Work Closely with Consultants

Work closely with your nutritionist and other consultants to develop and modify the feeding and overall management program throughout the feeding season. Constantly work on developing an ongoing relationship that results in two-way dialog among all parties. It can help to improve your bottom line to discuss different ways to group, feed, and/or manage your herd. Sometimes, producers incorrectly believe that they do not need to oversee and/or understand feeding and nutritional concepts. Understanding these concepts is critical for this dialog and to understand when and how to make minor adjustments or temporary changes before they become disasters.

5. Start Making Plans

Start making plans for the next cropping season. Now is the time to evaluate whether to make changes to your cropping system or forage purchasing plans for next year. In the United States, various universities and agronomic companies conduct variety trials to see how new varieties of alfalfa, corn for silage, and other crops yield in different environments and growing conditions. These results can be used to help select varieties that incorporate new genetic material into crops that best fit your dairy operation.

Using your forage analyses, review whether your harvesting (or forage harvesters) techniques have resulted in the highest-quality forages needed to feed high-producing dairy cows and whether you need to make changes. Then, complete a plan to incorporate these changes into next year's cropping season.

Areas to evaluate include, but are not limited to:

- varieties planted,
- timeliness of harvest (i.e., whether the crop was harvested at the proper stage of maturity and at the proper moisture concentration),
- methods used to harvest (i.e., whether the tedder was used properly and at the proper time of day to retain leaves), and
- whether fertility was inappropriate for the planted crop.

Fall planted forages which can provide hay, silage, or pasture next spring or grazing this fall.

C.D. Lee, S.R. Smith, G.D. Lacefield, and J.H. Herbek, Department of Plant and Soil Sciences

Web sites for more information: www.uky.edu/Ag/Forage and <http://www.uky.edu/Ag/GrainCrops/>

Species	Seeding rate per acre	Seeding depth (inches)	Seeding date	Approximate time of first harvest	Approximate annual yield tons (T)	Comments
Barley	2 to 3 bu (forage)	1 to 2	Sept 15 to 30	Apr 25 to May 15	5 to 8 T @ 35% DM	Control loose smut with proper seed treatment. Earliest small grain for double cropping. Very sensitive to acid soils. Not as winter hardy as wheat.
Oats, Spring	2.5 to 3 bu (forage)	1 to 2	Mar 1 to Apr 1, Sept 15 to 30	May 20 to June 10	4 to 9 T @ 35% DM	Spring oats only recommended as grain crop or as emergency hay or silage. Fall planting of spring oats is for grazing only. Spring oats will not survive the winter.
Oats, Winter	2.5 to 3 bu (forage)	1 to 2	Sept 15 to 30	May 20 to June 10	4 to 8 T @ 35% DM	Winter oats are least winter hardy of small grains and as such have lower success rate. Used mainly as companion crop.
Rye	1.5 to 2.5 bu (forage)	1 to 2	Sept 1 to Oct 15	Apr 1 to 20	5 to 10 T @ 35% DM	Cut for silage in boot stage. Excellent for grazing and no-till mulch.
Ryegrass, Annual	20-30 lb.	¼ to 1/2	Aug 15 to Oct 1	Mar 15 to May 15	1 ½ to 3 T	Used mainly as cover or grazing crop. Do not use if wheat will be used in successive crops because it will become a weed issue in wheat.
Turnips	3 to 6 lb	1/4	Apr 1 to June 1 ----- Aug 1 to Sept 1	June 15 ----- Nov 15	2 to 4 T	<u>Pasture use only.</u> Does not regrow after grazing or frost. Often dry hay fed when grazing or seeded in mixtures with small grains. Graze tops on first grazing; utilize stem bases and roots in second grazing.
Wheat	2 to 2.5 bu (forage)	1 to 2	Oct 1 to 15 (Hessian fly-free date Oct 6 to 15)	May 10 to June 1	6 to 10 T @ 35% DM	Excellent quality silage or feed grain. Cut for silage at late boot or for a second harvest window shortly after heading. Plant 1 week before frost free date to avoid Hessian Fly. Hessian fly can destroy wheat crop used for forage.

- Source: **AGR-18 Grain and Forage Crop Guide for Kentucky**



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In This Issue

**Should I Quit Dairying
Because of the Drought?**

2012 Kentuckiana Dairy Exchange Trip

**Checklist of the Top 5 Priorities for
Fall/Winter Dairy Feeding Programs**

**Fall Planted Forages Which Can Provide
Hay, Silage, or Pasture Next Spring
Or Grazing this Fall**



September 11-12
Kentucky Grazing School
Woodford Co. Extension Office

October 2-6
World Dairy Expo

October 20
Dare to Dairy
UK Coldstream Dairy
Registration Deadline: October 1st Cost: \$12/person

December 3
UK Precision Dairy Showcase
Lexington, KY

December 13
Compost Bedded Pack Dairy Barns, Christian County