

# Dairy Digest

## Newsletter of the Arkansas Dairy Improvement Program

### Quality Forages – More Important Than Ever

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Feed cost represents the largest single expense for a dairy herd. With the extremely high costs of grain and protein supplement, quality forages are the single most important ingredient in helping reduce the costs of feeding the high-producing milk cow. High-quality forages can be grown on most dairy farms in the state, thus eliminating the need for expensive fuel to transport from distant locations.

High-quality forages are the most economical source of nutrients for dairy cows. To produce these types of forages economically, a dairy producer will probably need to use some combination of high-quality permanent forages and winter and/or summer annuals for supplemental grazing. The permanent or annual forage programs will vary due to numerous variables affecting forage production as well as differences in management philosophies and skills of each dairy producer. **Timing of harvest is one critical factor affecting forage quality as stage of maturity affects fiber content of the forage.** Fiber content in the forage is most correlated with how much the cows eat and thus how much milk is produced.

On pasture, most dairy cows will have an increase in milk production during the lush spring growth of permanent pastures. It is difficult to maintain this high production during summer months as permanent pastures

mature and quality declines. Options for extending the period of quality forages available for summer could include, but would not be limited to, (1) using summer annuals, such as sorghum-sudan grass, sudan grass or millet, (2) over-seeding “thin” stands or drilled Endophyte-infected fescue with an annual lespedeza, (3) using one of the new dual-purpose grazing-type alfalfa, (4) using a forage-type soybean for grazing and/or (5) purchasing high-quality forages.

The last option of purchasing high quality forages may be economical at times – especially if forages are limited because of the dry weather or army-worms – but should be studied carefully before the purchase is completed. Generally, if the high-quality forage purchased increases milk production by enough to pay for the forage, the purchase is economical. High-quality forages usually allow for a reduction in the amount of grain fed without decreasing milk production. To determine if the purchase of hay or silage is economical, obtain an analysis of the forage and compare the income over feed costs that you can get with or without it in the ration. Your county agent can help with the ration formulations.

Most herds will be grazing at least part of the summer. When a herd is grazing on bermuda, the grass should

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be fertilized according to soil test recommendations to provide tender, lush forage. If the bermuda is harvested as hay and rain is sufficient, it should also be fertilized and cut every 21 to 28 days to keep the fiber levels from rising to the point they limit intake and milk production. When a herd is grazing on fescue, the

forage quality will be excellent in spring, but both quality and quantity of the forage may be limited by early summer. Over-seeding fescue with cool grass can provide high-quality forage as well as add to the quantity of forage available. For more information, contact your local Extension office.

## Short Notes

1) President Bush agreed to a one-month extension of the current farm bill until April 18 and does not want an additional extension. MILC payments are included in the bill but are still to be finalized. Agriculture Secretary Ed Schafer said that the administration would favor a two-year extension of the current bill if a new one meeting the President's spending and program reform parameters cannot pass soon.

2) The U.S. Department of Agriculture announced in late February that producers in the Southeast, Florida and Appalachian marketing areas have

approved the Class I differential increases issued as a tentative decision by the department. The increases in Class I differentials (10 cents in Arkansas) will apply beginning May 1. All other provisions in the tentative final rule, which included changes to the diversion limits, touch-base provisions and transportation credits, became effective March 18. Estimates vary, but milk prices in Arkansas should increase slightly. In the past few months, the pay price for milk in Arkansas has increased significantly compared to the Class III price.

## Arkansas Milk Stabilization Board

The Arkansas Milk Stabilization Board continues to meet on the second Thursday of each month in Little Rock. The Board is trying to formulate a plan **(1) to ensure an adequate supply of fluid milk for the population of the state, especially in the case of natural disaster, acts of terrorism or similar events that might restrict the flow of milk into the state and (2) to stabilize and/or grow the dairy industry so that it provides an adequate supply of local milk in the event of restricted flow of milk and not enough to supply fluid milk needs of the state.**

For the general population, the goals of the board mean that an adequate supply of fluid milk would be available in cases of short-term shut-down of milk from out of state. A hypothetical example of a shut-down of the milk supply could be from an act of terrorism which results in the interstate highway system being closed. We now produce less than 25 percent of the milk needed by processors in the

state. For dairy producers, the goals of the board mean an economic incentive to produce milk and stay in business.

The primary methods that the Board has reviewed from other states that might stabilize the dairy industry include:

- (1) A tax credit based on the amount of milk produced, similar to tax credits adopted in South Carolina and Louisiana. The tax credit is not dependent on you paying state income taxes. Most dairy producers pay numerous property, sales and other taxes.
- (2) Establishing a milk marketing board for Arkansas only which would set the minimum price of milk paid on the farm, by the processor and/or by the consumer. Several states have similar boards.
- (3) Other incentives such as investment tax credits for facilities and/or livestock purchases, quality and quantity incentives for milk production and no or low-interest loans.

## USDA Forecasts More Milk With Higher Feed Costs in 2008

The USDA's most recent monthly Livestock, Dairy and Poultry Outlook Report confirms that milk prices this year are expected to be high by historical standards, but operating margins for dairy farmers will

continue to be challenged by high feed and fuel prices. The good news, however, is that demand, both domestically and on the export market, will continue to grow in spite of the slowdown in the economy. Exports last

year accounted for about 10 percent of production, compared to most years when we are a net importer of dairy products. Much of this change has resulted from the decreased value of the dollar versus other currencies.

The Department predicts that milk production will increase in 2008 versus 2007 by 2.7 percent to 190.7 billion pounds. Cow numbers in the national dairy herd are expected to average 1 percent above last year. A little troubling given the fact that the Canadian border is now open for importing replacements is that cow slaughter in January was the same as year-ago levels.

A fact that every dairy farmer could confirm is that the milk-to-feed ratio is weaker in 2008. The Department predicts that and increasing difficulty with environmental compliance in some parts of the country could lead to a contraction in the national herd later in the year. Expansion in the west is likely to slow considerably. Plans for new dairies and more cows on existing dairies in the pipeline will likely be finished, but difficulty getting zoning and environmental permits and continued high feed prices are making it far less attractive to dairy in the west.

On the demand side, commercial use is predicted to increase by 3 percent, well above the trend of the past few years. The increase in milk production, however, means that cheese prices have likely hit their high for the year. Cheese is expected to average \$1.745 to \$1.805 per pound for 2008. Butter is projected to average \$1.225 to \$1.315 per pound, down from last year's average mainly due to the effects of a weak economy on demand in the restaurant sector.

The Department predicts prices for nonfat dry milk will increase in the second half of the year and end up averaging \$1.35 to \$1.40 per pound for the year. Whey prices are projected to average between 26.5 and 29.5 cents per pound in 2008.

Finally, the report says the USDA predicts the Class IV milk price will average between \$14.95 and \$15.65/cwt, down from an average \$18.36/cwt in 2007. Class III is projected to average \$16.15 to \$16.75/cwt. That compares to the average in 2007 of \$18.04/cwt. The all-milk price is projected to average \$17.30 to \$17.90/cwt, down from \$19.13/cwt last year.

*(Adapted from an article by Charlie Garrison, South East Dairy Farmers Association)*

## Genomic Prediction – Changes to Evaluation System (April 2008)

*Paul VanRaden, George Wiggans and Leigh Walton, Animal Improvement Programs Laboratory  
Curt Van Tassell and Tad Sonstegard, Bovine Functional Genomics Laboratory*

Genomic predictions of genetic merit are being released for the first time. Those predictions are based on genotypes derived from blood samples (or other DNA) provided by animal owners.

Breeders can now determine which genes each animal inherited and include this completely new source of information in genetic evaluations. Predicted transmitting abilities (PTAs) have used pedigrees to calculate probabilities that relatives share genes. A new DNA chip developed by Illumina (San Diego, CA), USDA's Bovine Functional Genomics Laboratory (Beltsville, MD) and other research partners can read more than 50,000 single nucleotide polymorphisms (SNPs) evenly distributed across all 30 chromosomes to determine which alleles are shared.

Genetic effects for each SNP were estimated using DNA of 3,119 proven Holstein bulls contributed by members of the National Association of Animal Breeders (Columbia, MO) and of Semex Alliance (Guelph, ON, Canada). The sum of those genetic effects was used to adjust an animal's PTA or parent average for each trait as well as its net merit index. Reliability averaged 30 percent for parent

average but increased to 48 percent when genomic information was included for young bulls. Two different evaluations predict the merit of an animal's daughters and sons separately. The difference is the sum of genetic effects on the X chromosome.

**Genomic predictions should not be used in advertising.** More research and education is needed before they can replace official PTAs, and methods to incorporate genomic information into evaluations of relatives that have not been genotyped are being developed. Statistical methods and results from both simulated and real genomic data have been reported by several researchers (P.M. VanRaden, M.E. Tooker, N. Gengler and G.R. Wiggans et al.).

Genomic predictions for about 800 bulls and cows (mostly calves) are being distributed to owners and to the organizations that paid for genotyping to aid in selection decisions. The artificial-insemination organizations that contributed to this research have a five-year period of exclusive rights to obtain genomic evaluations of males. Evaluations of females will be available to anyone who provides a genotype through a cooperating organization. (References available on request.)

## Upcoming Events

Contact your local county agent for information on these events.

**May 2** – Arkansas Dairy Princess Contest, Arkansas State Fairgrounds, Little Rock

**May 3** – Arkansas Spring Dairy Show, Arkansas State Fairgrounds, Little Rock

**May 6-8** – DRMS DHIA Spring Workshop, Raleigh, NC

**June 12-13** – Arkansas 4-H Dairy Camp (\$25 registration), Benton County Fairgrounds, Bentonville, AR

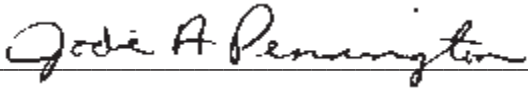
**June 13-14** – Four-State Dairy Days, Benton County Fairgrounds, Bentonville, AR

**June 23-26** – Youth trip to National Holstein Convention, Wisconsin Dells, WI

**July 7-10** – National Dairy Science Meetings, Indianapolis, IN

Anyone interested in a one-day tour of the New Zealand-type dairies in southern Missouri should contact their county Extension agent. Details of the trip are not finalized.

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