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How did the 2009 economic crisis affect Idaho dairy practices?

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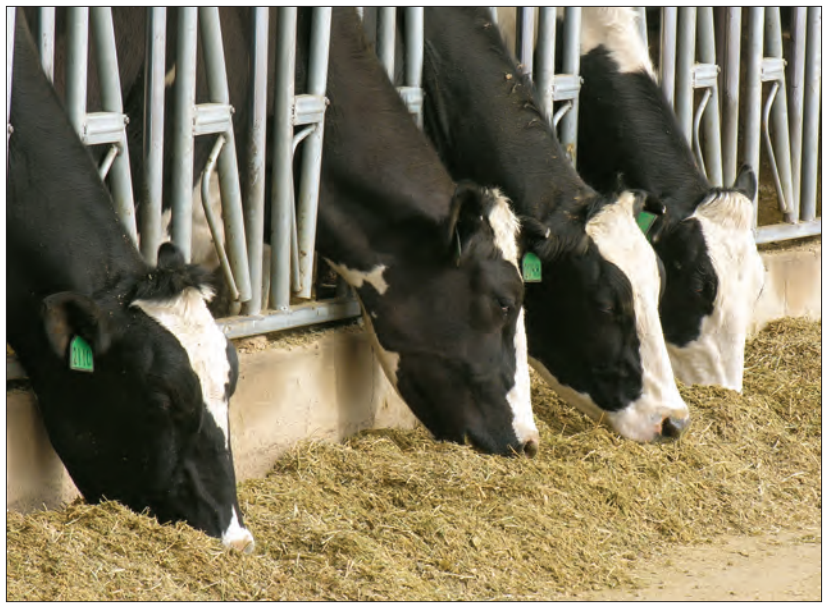

The dairy industry experienced a severe collapse in milk prices during 2009. Prices fell to their lowest levels in 30 years, while cost of production remained at historic high levels, creating a very challenging financial situation for dairy producers. On average, dairy producers received $11.36 per hundredweight of Class III milk sold in 2009, compared to $17.44 in 2008. Most dairy owners continue to struggle to keep their businesses afloat in 2010.

In order to evaluate the impact of the current economic crisis on the Idaho dairy industry, and to identify trends in the use of forages in dairy cow rations, a survey was designed and distributed to Idaho dairy producers. University of Idaho personnel and Extension specialists reviewed a draft questionnaire and feedback was incorporated into the final version. The questionnaire was mailed by first class postage to all individual dairy producers in the state of Idaho (n = 518).

Survey methodology

Questions on the survey were a mix of open- and close-ended, with multiple choices where applicable. An initial survey, cover letter, and postage-paid return envelope were mailed to dairies. A postcard reminder was sent two weeks afterward. One month later a reminder letter and a second survey was sent. Some participants chose to not answer all of the questions. Thus, the reported percentage was the percentage response to the individual question. Some questions allowed several answers, thus data might not add to 100 percent. Of the 518 surveys mailed 98 were returned, for a response rate of 19 percent.

To obtain basic information about Idaho dairies the survey included questions about operation leadership, milking herd size, and location. Dairies were categorized based on current herd size: small (less than 201 lactating cows), medium (201 to 1,000 lactating cows), and large (more than 1,000 lactating cows).

All of the individuals completing and returning surveys were dairy owners. The largest number of participants represented small dairies (48.8 percent), followed by medium-sized (30.2 percent) and large (21.0 percent) dairies. Small dairies averaged 87 cows, medium dairies averaged 518 cows, and large dairies averaged 1,697 cows. Responding dairy operations were open lot dairies (30.8 percent), free stall dairies (21.3 percent), and a hybrid system of open lots and free stalls (21.3 percent).

Impact of the crisis

Questions were included to assess the effect of the economic situation on the use of forages and compilation of rations on dairies. Thirty-five percent of respondents indicated that since the crisis started they have reduced the amount of alfalfa hay stored on their dairy. Several reported purchasing just a single truckload at a time. Those results coincide with our personal observation that, contrary to normal practices, hay sheds on several large dairies were almost empty.

Generally, however, the amount of alfalfa hay used in rations did not appear to have changed. Seventy percent of respondents indicated they did not change the amount of alfalfa hay included in their ration, compared to 16 percent who increased the amount and 14 percent who decreased the amount. Forty-four percent of respondents indicated they decreased the use of supplementatal minerals, vitamins, and additives in the ration.

Grain and protein supplements were also significantly reduced in 37 and 26 percent of the dairies, respectively. This pattern may indicate that dairy producers consider alfalfa hay to be a cheaper source of

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protein and digestible fiber than other components of the ration.

Dairies reported evaluating every expense item on their dairy to find places to reduce operating costs. The majority of respondents (67 percent) reported implementing at least one management cost reduction. Most stopped purchasing new equipment and paid more attention to herd health so they could lower medication and veterinary costs. Some dairies resorted to using less expensive semen and teat dips. While reducing costs in the short run, strategies such as using less expensive semen and teat dips could have a negative effect on long-term milk production and milk quality, and could negatively impact the long-term success of the dairy.

Labor and feed costs cut too

Fifty-four percent of respondents also reported implementing at least one cost reduction in labor management. Dairies froze salaries and hourly rates. They eliminated positions, reduced hours, and asked employees to work more hours for the same amount of money, or work the same amount of hours for less money. Some dairies even eliminated perks such as pickup usage, housing, and sharing beef with employees in order to control costs.

Feed costs represented between 50 and 60 percent of total production cost. This is why it was not surprising to see that dairies attempted to reduce feed cost by using more forages and less concentrates in the ration. In addition, they replaced some feed items with lower cost alternatives, fed more straw to heifers, and cut back on commodities. Some dairies reported putting some of their cows on pasture and changing nutritionists. This is in addition to the feeding of less minerals, vitamins, and additives that has already been discussed.

We asked dairy producers how long it would take to eliminate the debt they had accumulated since the beginning of the crisis. The answers varied from six months to five years. On average, they reported it would take 23 months. One producer indicated that most dairies have depleted equity and is worried that another crisis in the next two years will lead to an exodus from the industry.

Dairy producers were asked what measures they would prefer to see implemented either by the government, by industry initiative, or by individuals to reduce the risk of volatile milk prices in the future. Response to this question was variable. Some favor a quota system; others want the government completely out of the picture. Avoiding programs that jeopardized exports and controlling imports were also mentioned as tools that could reduce the risk of milk price volatility. Several producers expressed concerns about the use of sexed semen on dairies.

One objective of the survey was to identify trends in forage use on dairies. All respondents used alfalfa hay in their lactating cows' ration, with an inclusion rate in the forage base varying between 10 and 100 percent. As expected, large and medium size dairies purchased most of their alfalfa hay (73 and 62 percent, respectively), while small dairies purchased only 33 percent of their alfalfa hay.

Respondents were asked what limited their use of alfalfa hay in the ration. The answer to this question was open ended, and 26 percent indicated that price and/or cost was a limiting factor. Nineteen percent said nothing limited the amount of alfalfa hay in their ration. A smaller percentage cited quality (14 percent), constraints from nutritionists (14 percent), and supply (nine percent) as limiting factors. Only two respondents indicated that price of other forages affected the use of alfalfa hay in their rations. This wide range of responses demonstrates that alfalfa is still a very important part of the western dairy ration.

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Producers were also asked what limited the use of corn silage in their rations. The vast majority (63 percent) said availability of corn silage was the major factor, and 25 percent indicated quality was the limiting factor. This could explain the relatively recent trend in the U.S. to include more corn silage in the ration. Dairy producers in Idaho would use more corn silage in their rations if more were available.

Forage usage priorities

The survey asked participants to rate from 1 (highest) to 9 (lowest) the importance of several issues related to the use of forages in lactating dairy cow rations. Results are summarized in Table 1. Answers to this question were highly variable, with every issue being rated 1 or 8 at least once. Price per unit of energy, consistency of forage quality, and price per unit of protein were ranked most important, while ease of storage and transportability were ranked least important.

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Table 1: Importance of several issues associated with forages in lactating dairy cows:

issue	importance (1 = highest; 9 = lowest) ± SE
price per unit of energy	3.5 ± 0.5
consistency of forage quality	3.6 ± 0.4
price per unit of protein	3.8 ± 0.4
fiber (NDF) value	4.0 ± 0.4
availability	4.4 ± 0.5
forage quality laboratory test	4.6 ± 0.6
forage dry matter	5.0 ± 0.5
ease of storage	5.8 ± 0.5
transportability	6.6 ± 0.5

Survey participants were asked about the levels of ADF, NDF, CP, RFV, NDFD, RFQ and TDN they seek in forage analyses for alfalfa and corn silage. Table 2 includes the summarized values for CP, ADF, NDF and RFV for alfalfa.

Fifty-eight percent of respondents listed an RFV value for alfalfa, compared to only 11.6 percent that listed a value for both RFV and RFQ – indicating that the majority of dairy producers are still more familiar with RFV than with RFQ. CP, ADF and NDF are also commonly used to evaluate quality of alfalfa hay. Most respondents failed to provide values for NDFD and TDN, which is why they are not reported. On average, dairy producers in Idaho seek alfalfa hay that has a minimum of 177 RFV, 20 percent CP, and a maximum ADF of 29 percent. Those numbers reflect excellent quality alfalfa hay.

Table 2: Idaho dairy producers seek the following values in forage analyses for alfalfa hay:

component	value ± SE	minimum	maximum
CP, %	20.4 ± 1.9	18.0	24.0
ADF, %	29.1 ± 0.4	25.0	32.0
NDF, %	34.3 ± 1.1	29.0	40.0
RFV	> 177.4 ± 2.5	150.0	200.0

Table 3: Idaho dairy producers seek the following values in forage analyses for corn silage:

component	value ± SE	minimum	maximum
CP, %	8.5 ± 0.3	7.8	10.0
ADF, %	27.7 ± 1.3	24.0	34.0
NDF, %	40.3 ± 2.8	35.0	50.0

Even though direct comparison of alfalfa hay and corn silage is impossible, our impression is that dairy producers had a lower expectation for corn silage quality (Table 3). This might be due to the fact that the amount of alfalfa hay purchased by dairy producers is significantly greater than the amount of corn silage purchased. People tend to demand greater quality for goods they purchase than for goods they produce themselves.

Summary

The impact of the financial crisis on the Idaho dairy industry has been severe. We conclude that during the crisis dairy producers reduced the inventory of alfalfa hay stored on their facilities, but did not reduce the amount included in the ration. However, other components of the ration were reduced. In fact, the only component of the diet that was not reduced was forage. Dairy producers implemented a wide range of cost savings techniques, and most are still worried about the future of the industry.