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# NebFact



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## Controlling Feed Costs on Your Dairy Farm

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### Introduction

Feed cost is a variable and substantial component (50 to 60 percent) of the total operating expenses on most dairy farms. As amount of purchased feed increases, it usually requires more efficient milk production to maintain the same net income per cow. For example, when all feed is purchased, the number of cows and pounds of milk produced per full-time employee must double, in most cases, compared with a farm where only 25 percent of feed is purchased. This NebFact is intended to provide you with some guidelines when trying to minimize feed costs. For more specific information, consult Extension guides available on specific topics related to feeding management available at all Extension offices.

### Properly Allocate Forages According to Production Level

Demonstration herd programs at the University of Nebraska showed that improving forage quality fed to milk cows *decreased feed costs by 43 percent* compared with herds that did not improve forage quality. Furthermore, herds that properly allocated forage to specific groups of cows had yearly milk production *increases of 3.7 percent* compared with only 1.5 percent for all Nebraska DHIA herds during the same time period. These herds made extensive use of forage testing, kept accurate forage inventories, and carefully targeted forage lots with differing quality to the groups of cattle that could most effectively use it. These same herds had greater net farm income, less cash cost per cwt milk, and fed less pounds of feed per cwt milk – i.e. *they were more efficient at using their feed resources to produce milk*. NebGuide G92-1118 *Forage Allocation System for Dairy Producers – Using a Forage Inventory and Allocation Worksheet* allows dairy producers to keep careful inventory of all of their harvested and purchased forages.

### Higher Concentrate Feeding Does NOT Guarantee High Production or Profits!!!

Excessive grain feeding (usually > 30 to 35 pounds per cow daily) results in acidosis that leads to chronic off-feed problems, "roller coaster" feed intake patterns, lower milk production, depressed milk fat test, low body condition score, lameness, and increased risk of other metabolic disorders. *Always*

match concentrate intake to a cow's milk production level, age, and body condition score. NebGuide G95-1265, *Guidelines for Using Computerized Concentrate Feeders for Dairy Herds*, has a table that allows you to determine the proper amount of grain to feed for a given milk production level and quality of forage.

## Ways to Control Feed Costs

1. *Efficiently use your existing feeding system*, whether it's a total mixed ration, computer feeder, or some other combination. Make sure all scales and meters are properly calibrated to avoid over- or underfeeding any feed ingredients.
2. *Minimize feed wastage and refused feed*. Avoid excessive dry matter losses at the silo, during feed mixing, and when feeding. Dry matter losses can approach 20 to 25 percent with poor feedout practices! Good bunk management can substantially reduce feed wastage. Aim for only 5 to 8 percent feed refusal each day.
3. *Feed only properly formulated rations that don't over- or underfeed any required nutrient*. This seems obvious, but many producers still do not formulate rations for all classes of livestock. Consider all cattle on the farm. Poorly formulated heifer and dry cow rations will bleed money away due to poor subsequent performance and(or) excessive cost if overfeeding is occurring.
4. *Properly group cows*. When cows are grouped as homogeneously as possible, less overfeeding will occur. When possible, try to group by production level and keep older cows separate from first-calf heifers. Computer feeders will help minimize grain wastage on farms where this is a major problem. In many instances, considerable savings can be realized by splitting the herd and feeding a high and a low or medium production ration, rather than feeding all the cows a high production ration. Many of the expensive ingredients such as supplemental fats, escape proteins, and niacin will have their greatest potential impact during early lactation, and so they often can be removed from the grain mix for mid and late lactation.
5. *Compare feed costs for at least three feed suppliers, if available*. Consider cost of ingredients, but also convenience, credit, service, and overall ability of the feed supplier to meet your farm's needs.
6. *Shop around for commodities*. Considerable spread in price per ton exists for the same feed. A 10 to 40 percent spread in price is common for many grains from different suppliers.
7. *Consider use of alternative feeds to reduce feed costs*. Products such as wet gluten feed, hominy, distillers grains, and soyhulls can cheapen a ration. These products work best when feeding a total mixed ration. There is a NebFact available that allows you to calculate the relative dollar value of various alternative feeds relative to corn and soybean meal (NF94-204, *Computing the Dollar Value of Concentrates and Byproduct Feeds for Dairy Cattle*). Use of this NebFact will allow you to determine when a particular feed is a "good buy", and will substantially reduce the daily cost of your ration.
8. Take advantage of any discounts for quantity of feed purchased, bulk delivery, meal vs pelleted, and other similar situations where price of feed may be discounted.

## Adjust Crude Protein Levels in Ration

Be sure that crude protein and escape protein needs are met, but not exceeded. Some dairy rations contain substantially more protein than required by the cow. Ideally, the cow's protein requirements should be met by a carefully formulated ration that considers crude protein, escape protein, and degradable protein. If you suspect that excessive protein is being fed, *reduce crude protein by .5 percent at a time in the total ration (or 1 percent in grain mix)*. Readjust crude protein up or down after 1 to 2 weeks depending on cow milk production response. Monitor dry matter intake, especially when reducing ration crude protein to reduce feed costs. Intake will usually drop before milk production if

dietary crude or escape protein becomes inadequate. NebGuide G91-1027 *Protein and Carbohydrate Nutrition of High Producing Dairy Cows* discusses the proper methods of feeding protein supplements to the dairy herd.

## **Don't Overfeed, or Improperly Feed, Supplemental Fat, Minerals, and Vitamins**

When excessive fat is fed, production and herd health invariably suffer, along with the pocketbook. Most rations require no more than six percent fat, even for high levels of milk production. Take a close look at mineral levels — are they grossly in excess? Farmers often feed excessive levels of minerals hoping to improve reproductive performance. If the problem does not exist in a herd, however, mineral levels should be reduced to recommended levels. Phosphorus is probably the most commonly overfed mineral. Recommended requirements for minerals and vitamins are described in NebGuide G92-1111 *Mineral and Vitamin Requirements for Dairy Cattle*.

*Use feed additives sparingly and wisely.* Buffers, yeast, mineral chelates, and niacin all have fairly high benefit to cost ratios and have sound research data to show their efficacy. Most additives will be most economical during early lactation. When trying to cut feed costs, and especially when multiple additives are used, remove them one at a time to determine cow response and profitability.

## **Summary**

To minimize feed costs, the dairy producer, nutritionist, veterinarian, and other consultants should evaluate the feeding program and agree on the basic rations to be fed and the best feeding strategies to promote maximum feed intake. Questions regarding whether the herd should be split into production groups, use of body condition scoring as a tool to move cows from group to group, and use of feed additives should be decided as a group and then adhered to so that a consistent feeding program is achieved and maintained.

Consideration of the factors discussed in this NebFact should help you to minimize your dairy's feed costs and still maintain high levels of milk production.

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