Pricing & Using Alternative Forages for Your Farm

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The 2014 corn silage harvest will soon begin, which will represent the harvest and storage of a farm's major forage source for the next 12 months. If you could be short of forage this year due to late planting or prevented planting, some alternative forage supplies may be of benefit to your farming operation. All livestock farms should have a plan in place to ensure an adequate supply of forages for the fall of 2014 through the fall of 2015. Performing an inventory now would be a good starting point in planning out your needs for the feeding year.

The next step is to build a feed and forage 'needs budget' to estimate your needs. Once you have a reasonable feed needs budget estimate you can calculate any additional needs to quickly identify and secure potential sources of forage or feed alternatives that would work for your farm's livestock needs. For dairy, allocate your highest quality forage for the milking herd and youngest heifers. For beef cows, you may choose to save some for calving time.

With the reduction in corn grain market prices some farms may find an opportunity to purchase late-planted corn to add to their supply of corn silage. You might consider purchasing from crop producers who are looking to reduce risk if these fields do not mature before this year's killing frost. In some cases, farms may have planted beyond the crop insurance planting date requirements leaving these fields exposed to a huge risk. The correct way to price such a crop is always a question that needs to be answered before harvest begins (e.g., a post-harvest forage test).

There are a number of ways to estimate the amount of silage one can expect. Silos and bags are easier to calculate than a pile but each can be done. It is easiest to determine wet tons of silage using 65% moisture as the starting point and adjusting from there. If you're using a post-harvest test it's best to establish a minimum price in order to cover the value of fertility and organic matter. Another factor to consider is who will complete the harvesting.Harvest costs can be estimated at ~$100/ac whether it is harvested as silage or grain. If we account for the value of the corn grain per ton of silage, the average corn silage has 7-8 bushels of corn per wet ton of silage. If the corn was planted late, it could be lower. The value of the feed is usually based on some alternative forage such as straw or stover. But that may not be the best comparison because the corn plant is much more digestible if harvested at 65% moisture than dry straw or stover. Comparing that portion to high quality grass forage would be a better estimate of forage value and a better pricing guide. There are several spreadsheets available to help calculate values. For examples, go to UM Extension's website at www.extension.umn.edu/dairy.

Sweet corn silage or cannery waste, available in certain areas of Minnesota and the Upper Midwest, can also be a viable, low cost forage alternative. Sweet corn silage compares favorably with regular corn silage in feeding value; it is lower in starch, however, as many of these other forages can be (Table 1).

With these alternative forages, it's a good idea to determine digestibility rates and estimations for NDF and undigested NDF. The energy content of forages can potentially be overestimated if the NDF of the forage digests slower than expected.

Table 1. Alternative forages and estimations for CP, NDF, and TDN.

Item	Corn Silage	Sweet Corn Silage	Small Grain Forage	BMR Sorghum/ Sudan	Corn Stover
	---------%---------				
CP	8.0	9	16	14	5
NDF	45	55	50	55	65
TDN	70	67	65	70	45

Some emergency crops such as oats, turnips, or peas may still be planted on fallow ground for a fall harvest. Other alternative forages include cover crops that were planted on prevented plant acres which would be available for harvest after November 1st. While these can be risky to rely on, their forage value as either harvested or grazed forage can be relatively high. Pricing these, however, is difficult. The price for these alternatives will usually be based on alfalfa haylage (as a starting point) and small grain silages. In many cases, depending on maturity, they will compare favorably with either forage. Forage tests and estimated yields are critical. For many of these different types of cover crop and alternative forages, a wet chemistry forage test is highly recommended to obtain a more accurate forage analysis.

Contact your extension educator to assist you with questions.