Additional production days in the fall

Bank on stable silage to capitalize on fall milk

It is often said that "cows really only start milking after Christmas." Anyone would think that the cows wait until the end of the fall incentive period to start producing the way you would like them to! But René Roy, our agroeconomist, suggests that the drop in production in the fall is in some measure due to unstable forages in the ration.

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It isn't always easy to maintain a stable ration, and it is particularly difficult during the harvest period. On the one hand, corn silage needs time to mature, which means that silage properties vary from one week to the next. On the other hand, our storage systems often force us to move from one haylage crop to the next within a short time. In the "Forage Challenge" training course, we even recommended that you mow every 30-35 days. That's not likely to ensure stable silages in your ration! Nonetheless, a few changes to the way you do things could help increase fall production, as early as this year no less.

Corn silage continues to mature over many weeks

When conditions are right, fermentation in corn silage lasts only a few days. Once fermentation is complete, however, the silage continues to mature over a period of many weeks, if not months. Figure 1 shows the changes in starch digestibility and protein solubility in corn silage in relation to storage time. Starch digestibility increases from the time of harvest, reaching a plateau in late December, after 15 to 18 weeks of storage. Ideally, starch digestibility should be as high as possible so as to provide a well-balanced ration with a lower concentrate content, which will help maintain acceptable butterfat levels.

Protein solubility increases markedly at the start of the storage period and then continues to increase at a slower rate, stabilizing after about 20 weeks in storage.

So corn silage continues to change for many weeks after ensiling. To ensure the ration remains consistent, especially in the fall, it is better to use forages that have become chemically stable. Hence it's best to avoid using recently ensiled forages.

Use corn silage harvested the previous year

It is perhaps easier to say than do, but Quebec dairy producers have already caught on and are putting this advice into practice. You'll need to have a 15-month stock of corn silage in order to be able to wait until January 2014 before starting to use the corn silage harvested in fall 2013. You'll really have to put your imagination to work to figure out how to do this.

One Vermont dairy producer uses a bunker silo open at both ends. Another has one large bunker silo and one smaller one. Before filling the large silo, he transfers the corn silage left in it into the small silo to get him to December. Could a bag silo (e.g. Ag-Bag) be an option? It's definitely worth thinking about.

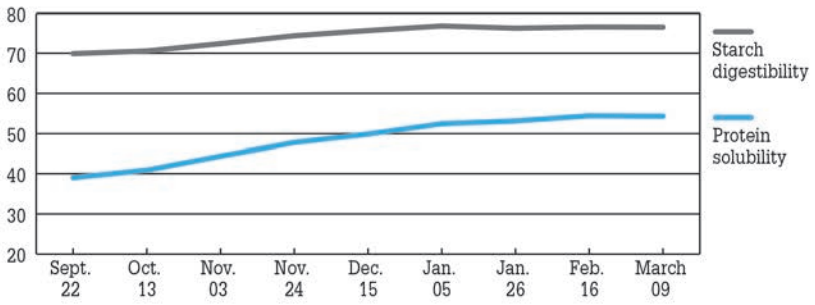
What about haylage?

Haylage, contrary to corn silage, doesn't need time to mature. Once fermentation is complete, the cows can make the most of it. But it isn't always possible to close the silo and let the silage ferment before feed-out. Going from the first cut to the second, and third (or sometimes even the fourth) within a few weeks will certainly have an effect on your cows' performance. Managing your silage stock in such a way as to be able to use first- or second-cut silage from the previous year could be a profitable alternative. Another idea is to ensile the different cuts using different systems: first cut in the tower silo, second in large round bales, etc. This way, you aren't forced to use newly fermented silage from the most recent cut in your ration.

Make sure your cows start milking before Christmas this year!

Fall milk production incentives are there for a good reason: it's not easy to get good yields at that time of year. Nonetheless, some of you do manage it, and silage stability is often a contributing factor. So this is a challenge that could pay off, depending on the solutions you implement. It is certainly worth your while to tackle the issue right now, so that your cows start milking before Christmas this year! Speak to your dairy production advisor about it; he or she will know how to help you explore the avenues best suited to your situation.

Figure 1: *Evolution of starch digestibility and protein solubility in relation to storage time.*



Data for corn silage analyses conducted by Cumberland Valley Analytical Services at three-week intervals over the past five years.