

June 17, 2002

ALTERNATIVE CROPS TO CORN SILAGE

By: David DeGolyer

Across western New York, approximately 30 percent of the planned corn acres have not been planted. The question that arises is 'what is the best strategy for dealing with the remaining acreage?' A short season variety could still be planted this week, and, with favorable weather conditions, it will mature for corn silage harvest. After this week, especially in the southern tier and western Wyoming County, alternatives should be sought. If your farm is in one of the warmer regions, for example Ontario County or northern Livingston County, you have another two weeks to plant an 80-90 day corn variety.

If conditions remain wet and there is no possible way to plant the corn within the recommended time frame, a new plan will need to be developed. To determine the best plan of action, you must first take inventory of the existing corn silage in the bunk and compare it to the feeding rate to gauge the number of days' supply on hand. Next, conservatively estimate the corn yield of the planted acreage. If the remaining inventory and the anticipated corn yield will meet the needs for the coming year, that is fall 2002 through late fall 2003, the remaining acres should be summer seeded in late July. If the calculation comes up short, an alternative crop to corn silage should be considered.

A crop that has been getting some press is *BMR sorghum sudangrass*. Under university research, BMR sorghum sudangrass has shown high quality fiber digestibility (dndf approximately 75 percent, ivtd 85 percent and crude protein 18 %, when harvested at 34 inches tall). In other words, this crop has nearly the same NEL as corn silage and a higher protein if managed right. The yield, if soil conditions are relatively dry, is 3.5 – 4.5 tons DM/acre (about 10 to 13 tons at 35 % DM) for the year. However, if we continue to stay wet, the crop suffers. In 2000, our most recent wet year, several members tried BMR sorghum sudangrass, most of which was planted on marginal fields. With the subsequent wet summer, the BMR yield was very poor, but, within the gravel areas of the field, the yield was excellent.

After discussions within our staff and consulting other experts, we are recommending a combination of BMR sorghum sudangrass and annual Italian rye grass. Italian Ryegrass is a winter annual grass. When seeded at this time of year, it acts as a biennial. In other words, it will stay vegetative this summer and fall and the plants that survive the winter will head out next spring. The theory is the same as planting an alfalfa and grass mixture. In a wet year, the grass will yield well while the alfalfa, especially in wet spots, will die. During a dry year, the grass will go dormant and alfalfa will grow. With the seed mix of BMR sorghum sudangrass and Italian ryegrass, we will hedge the bet. If it stays wet, Italian ryegrass will aggressively grow, but, if conditions change and we have a dryer summer, BMR will do well. If you are interested in this approach, the following excerpts from "Successfully Growing Brown Mid-Rib Sorghum-Sudan for Dairy Cows in the North East" by Tom Kilcer, Cornell Cooperative Extension in Renesselar County, may be helpful:

Seeding Rate: 50-60 lbs/acre of BMR Sorghum Sudangrass if clear seeded, 15-20 lbs/acre of Italian Ryegrass if clear seeded. Our recommendation for the combination is 45 lbs BMR and 12 lbs Italian rye grass.

Seeding Depth: Shallow for both crops. Treat it like a seeding.

Planting Method: Cultipack seeders do an excellent job. Airflow requires a firm seedbed and rolling the field after seeding. Rolling with the teeth down or light disking incorporation has resulted in stand failure.

Chemicals: No chemicals are needed. With the high rate of seeding, rapid growth will crowd out the weeds.

Fertilizer: P & K similar to corn silage. 100 lbs either through manure or chemicals will grow the first crop. The second cutting will require another 100 lbs of N. Manure can be top dressed for the N needs, providing a good place to apply manure during the summer.

Harvest: For energy similar to corn silage, harvest the BMR at 36 inches tall. (The rye grass will not head out this year.) At this stage, the BMR crude protein is at 15 –16 %. If the feed is properly fermented, the prussic acid from any harvest is not a problem. A simple forage test will indicate if there is a problem. When cut, the crop is 85% percent water. It must be dried to 70 % moisture for proper fermentation. Wet slop will continue to ferment until the energy drops from .72 to .35 NEL (about equal to sawdust). Harvesting at 36 inches will speed drying. Cut it high (4-6 inches) to avoid rocks and speed the drying process. Wide swathing and then double raking will greatly speed drying and harvest. The quicker it can dry from 85 percent to 70 percent and be harvested, the higher the forage quality.

As you are considering planting corn on heavy ground, keep one thing in mind: even though it feels like May 17, it is June 17. Realistically, unless we receive a lot of heat you will likely be harvesting this corn in October. You will also likely be counting on a killing frost to get this corn dry enough for a good fermentation. The input cost for this corn silage will be the same as what they were a month ago and the yield potential might be two-thirds of what it would have been. With an alternative crop you have less input per acre, a better chance of getting good quality under the dry conditions of August, and nearly the same yield potential.

If you are seriously considering alternative crops, which you should be, please contact your CMA consultant for additional information.

Wet Weather and PSNTs

By: Ryan Akin

I answered the phone in the office today with, “Western New York Crop Management, can I help you?” The grower on the other line said, “Yeah Ryan, if you can make the rain stop.” That statement seemed to echo the sentiment of every grower in Western New York this spring. It is no secret that this spring has been unusually rainy, making it difficult to plant corn, and chop first cutting haylage. So what does this wet weather mean for the rest of the growing season? The main concern for the upcoming weeks is the loss of nitrogen. Whether nitrogen was applied in the band, or supplied through manure applications, the excessive rainfall after planting has certainly caused a loss of nitrogen.

It will be crucial to take many PSNTs (Pre-Sidedress Nitrate Tests) in the coming weeks, to assess the need for additional nitrogen fertilizer. Although it won't be necessary to test every field, it is important to test a variety of fields, involving many different situations. A typical sampling plan should include a number of fields where nitrogen was supplied by manure applications, a few fields where nitrogen was placed in the band, or preplant broadcast applied, and a few fields coming from sod. As in most years, the most critical fields to sample will be those fields relying on nitrogen from manure applications. Manure nitrogen can be variable under the best of conditions. Wet conditions in particular have a profound effect on nitrogen fertilizer availability. So by taking a good cross section of fields we can better assess the nitrogen needs to keep the corn crop healthy, and maximize yield despite these adverse conditions this spring. Please contact your CMA consultant to discuss a sampling plan.