ADVANCED AG SYSTEMS'S

Crop Soil News

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"It is the crops that feed the cows that make the milk which creates the money."

Advanced Ag Systems
Research, Education, Consulting

How soon can I grow more forage?

The season of 2011 has drastically reduced the forage supply. The shortage will rebound-impact the forage supplies of next year and the year after. Here are steps you can take to quickly get more forage on the acres you work, starting with the earliest return of forage:

Nitrogen on >50% grass fields. Applying 75 – 80 lbs of nitrogen (plus sulfur – 40-0-0-4S -if no manure the past year) can easily double the first cutting yield off of these traditionally marginally managed fields. Harvested a week to 10 days earlier than alfalfa, they can give you forage to support the highest levels of milk production and protein to reduce soy cost.

Oats with new seedings. An old practice, oats planted with the legume seeding and harvested at flag leaf stage, will give several tons of very high quality forage by mid – late June. Allowed to go to early soft dough, it will produce excellent forage for heifers or, if no manure was used, for dry cows.

Winter grains as forage. An increasing number of farms last fall grew winter forage, especially triticale. Applying nitrogen and harvesting at flag leaf stage, can give 8 silage tons/a of the highest quality forage possible in the Northeast at the same time as early grass. A short season, high energy forage crop can be grown immediately after it. A similar double crop option can be used for fields of run out haycrop. Apply nitrogen, take an early haycrop harvest, and then follow with shorter season energy forage.

Short season energy forages can be short season corn**,** the new short season bmr sorghums, bmr sorghum-Sudans, bmr Sudangrass or teff. Both teff and the sorghums require warm soils and weather for successful stand establishment and growth. They are not a cool season crop.

Teff will produce a cutting 47 days after planting. Requiring only 50 lbs of nitrogen/cutting, it produces forages equal to high quality cool season grasses. A critical step is to move the cutter bar up to 3 – 4 inches as the next cutting has to be grown from the remaining leaf tissue. Using this system, 2.75 tons of dry matter has been produced in as short as 17 days after the first cutting.

The next earliest forage supply is **BMR6 Sudan grasses** at 45 days. BMR Sudangrass is faster emerging, and higher quality than Sorghum Sudan and yields just as much. The smaller stem makes it **easier to dry**. Both Sudangrass and sorghum-Sudangrass work well in rotational grazing. The down side is the new BMR6 Sudangrass seed is in limited supply.

BMR6 sorghum-Sudan is taller and first harvest is the middle of July. Sorghum-Sudan is only for managers who pay attention to details. It needs to be harvested at about 3 feet in height. Taller crops maintain their quality, but there is a dramatic increase in dry mat-

ter yield and the amount of water to remove. This crop grows 3 inches a day, thus the necessity of watching it closely. Higher cutting height will speed re-growth of sorghum-Sudan. Intermeshing rollers are far superior to flails in drying this crop for silage. It will produce 2 – 3 cuts a year. Harvested correctly, Miner Institute research has found it to produce the same amount of milk as good quality corn silage in a high forage diet.

Short season corn (**< 85 day** in Albany, NY area) ***planted as the first corn in the spring***; barring any prolonged dry spell or excessive cloudy weather that delay maturity; produces mature corn silage by the beginning of August. Short season corn produces a shorter plant and so less potential silage yield. We have found that much of the yield loss can be off-set by *planting at much higher plant populations* (40,000 plants/a produced 19.6 tons/a in 2011). A major concern is many short season corns are bred from flint type endosperm. This produces very hard kernels that may forage test well, but a significant portion of the energy is undigested in the manure. This can be offset by planting short season varieties that have floury or soft endosperm. Thus, whether processed or not, the cows will get a greater portion of the energy the grain contains. Several companies produce these silage varieties. If the harvest is early enough, a fall crop of spring oats could be sequentially grown (see below).

A potential new crop is **83 day BMR dwarf sorghum** discussed in the last Crop Soil News. It only requires one cutting and harvested at soft dough, can be direct chopped without the necessity of drying like sorghum-Sudans. Note: This is not a crop for cool seasons. Sorghum likes heat. It is critical that your drill or corn planter be able to plant only 8 – 10 lbs of seed/acre. Higher populations, like excessive high populations in corn, will lodge. More research on this crop is being conducted at the Cornell Valatie Research farm. If you try some only do a small acreage until you get experience with this crop.

Double crop winter forage. All of the above high energy crops can be planted after harvesting winter forage such as triticale. They can then allow subsequent winter forage be planted again after the short season energy crop, continuing the high yield rotation. Most of the corn last season yielded 12 – 20 tons/acre. High population short season corn yielded 19.6 ton/acre and the sorghum 19.3 tons/acre. Adding 8 tons of silage/acre from the winter triticale, gave us ***27 total tons*** from the same acreage in one lousy year. The double crop reduces the risk from one crop getting decimated; spreads the work load, and protects the soil on HEL land by profitable forage cover crop, and opens opportunities to spread manure.

August Oats: Planting grain type oats at 4-5 bu/a at the beginning of August will give 2 – 4 tons of dry matter at the end of September. This forage has tested at over 4,000 lbs of milk/ton – a very highly digestible energy and protein source. In our research, the yield and protein levels justified 12,000 gallons of manure/acre, immediately incorporated, to meet the nitrogen needs. (low P soil test). With short days, cool temperatures, and very high yields, it will need to be tedded in order to drop the moisture to ensiling levels.

August Oats Plus: In the above fall oat research, we simultaneous planted 80 to 100 lbs of winter triticale with the oats. By harvesting the oats at greater than 3 inch cutting height, the winter triticale was able to re-grow before winter and thus give another early very high quality forage harvest the next spring.

Each of these crops can give you a forage boost. They take some planning and effort but the reward of increased profitability from high (>60%) forage diets is well known.

Fall oats can give 2—4 tons/a of very highly digestible forage at flag leaf stage.

Sincerely,

Thomas F Kilcer

Thomas Kilcer,
Certified Crop Advisor

172 Sunnyside Rd
Kinderhook, NY
12106

Tel: 518-421-2132

tfk1@cornell.edu

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