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

Plagues, Heat, Drought, What is Next?

Ok we had record high temperature, followed a day or two later by record low temperature; army worm, black cut worm, drought, and now potato leafhopper. What is next? You know the end is near when an outbreak of retired agronomists appear in your field.

The potato leafhoppers have arrived and with the very dry weather have been reproducing at tremendous numbers. Based on reports, this is across a wide area of the Northeast US and Canada. If the alfalfa is 8 or more inches and has yellowed due to PLH damage Dr. Shields at Cornell recommends harvesting the damaged alfalfa then to spray the crop. Just spraying will not improve the yellow forage that is there. Clipping allows a greater nymph kill, and the regrowth would be quality forage. Don't forget to scout the regrowth so you don't get hit a second time. You can get monitoring protocol at http://www.nysipm.cornell.edu/publications/plh_mgmt/files/plh.pdf. The long term step is to plant PLH resistant alfalfa to reduce the threat. The level of resistance is now as high as 70%; yet yield and quality of the resistant alfalfa are far better in years when we have PLH issues. In non-threat years they are similar to susceptible alfalfa quality and yield.

Ok it is early July and we are supposed to be making up for the forage shortage of last year. The corn not eaten by army worms is rolled and not growing in the heat and dry conditions. The second/third cut alfalfas and new seeding's are getting hammered by potato leaf hopper. What are our forage production choices at this point?

There are a number of rabbit-out-of-the-hat tricks you can still use.

Sorghum Species: Sorghum in my plots, with no rain for three weeks, is still growing; while the corn, planted at nearly the same time, is rolled tight from the lack of water. Sorghum will produce a ton of dry matter on half the water it takes corn to produce that ton. Sorghum can also grow at much higher temperatures while corn shuts down above 86F. Sorghum species do not like cool weather.

The narrowest rows (either side of center which is 18 inch spacing) possible are critical on late planted BMR sorghum to maximize sunlight interception in order to produce maximum yield.

Short Season BMR sorghum

For around the Albany NY area you can still plant the 83 day bmr sorghum until the middle of July and have it mature by early to mid-October. North of here it is to late. Of

course, the later you plant the less the yield potential and the later it matures. The big advantage is that it will probably capture more dry matter yield than any other summer crop. The main reason is that with the multi-cut crops discussed below, each time you cut, your yield increase/day goes nearly to zero. The sorghum keeps growing and then is harvested once. A key factor in potential yield is to plant it in the **narrowest rows possible** to quickly maximize sunlight interception. **REMEMBER; ONLY PLANT 10 LBS OF SEED/ ACRE.** If your drill cannot go that low without making sorghum flour, then plug every other hole and set the planter to 20 lbs/acre; it will then plant 10 but not grind the seeds. If the seed is herbicide safened, then the appropriate herbicide can be used. Harvest occurs when the lower seeds in the head start to reach soft dough (mush) stage. The down side is if we get a wet fall like last year, the ability to take up and hold water slows the crops drying rate. Some of this is compensated for by the high forage sugar content (14.5%, last year's fresh sample) which accelerates fermentation even at slightly higher than optimum moisture levels. Some is also compensated by a dry stalk gene that reduces the crop moisture.

The next choice most farmers think of is the sorghum-Sudans. Actually there is a better choice in the **new BMR 6 Sudangrass**. This has smaller stems and higher leaf to stem ratio for faster dry down. It emerges from the ground very fast and out-competes the weeds. It is about 45 days until the first cut when 50% of the plants are at flag leaf. At this late stage you are realistically looking at one cut in our area and two cuts in warmer, more southern locations. After harvest, winter triticale could then be planted for an early, very high quality forage next spring. Letting Sudangrass go to early head may give you a forage that can be directly chopped and ensiled, but you will need an any- direction type corn head as it will probably start to lodge but at a high enough level to get the cutter under most of it.

The third sorghum species choice is **BMR 6 sorghum-Sudan**. It can give high yields in a very short time frame. Most species need to be mowed at 6 inch height if you want to have rapid regrowth for a second cutting. It needs to be mowed at 36 – 40 inches to avoid having to remove to large amount of moisture in order to ensile it. Wide swath and tedding is critical. Sudan grass would be a better choice
For rotational grazing, sorghum-Sudan or Sudangrass could be used.

Fall Spring Oats: Spring oats in early August (for Albany, NY area) produces tremendous growth with forage quality so high we called it **"green grain"**! For more northern areas, planting the end of July or the first of August is possible. For the Albany NY area we target about the 5 – 10th of August; while further south, they plant later. The reason for the delay is to wait for the cool nights of August to reduce the aphid population. We planted oats once the end of July and by the end of August all the oats were dead as aphids brought in Barley Yellow Dwarf Virus. The best virus resistant oats that are currently available are Spurs, Rodeo or Blaze. Cool nights with heavy dew seems to knock the aphids and reduce the potential for loss. Plant **four to five bu/a of grain type oats**. You are maximizing the capture of rapidly decreasing sunlight and the higher population is critical to doing that sooner. Grain oats will go through its life cycle quicker and so be ready in September when you still have some heat to dry it for silage. If you are not going to be able to plant until later or have to harvest or graze later, then the slower forage oat type would be the better recommendation. For our area, oats for forage past the end of August is a wasted investment. Be liberal with the manure and immediately incorporate it to capture the ammonia nitrogen. In a recent 2010 study we had a relatively low yield of 2 tons/acre due to extremely dry weather. In spite of the low yields, we removed 120 lbs of nitrogen/acre as protein. Because much of this nitrogen has to be the rapidly available fraction, high manure application rates (our case, 10-12,000 gal/a immediately incorporated on low P & K) are justi-

The cool nights of Autumn produces very highly digestible, high yielding forage by the end of September in most areas.

fied. If you applied manure before planting, it is **NOT** recommended that you feed this to dry cows

For high producing dairy cows, mow as soon as the flag leaf is out. This forage will help to offset some of the poorer quality we harvested this spring. Do not wait for the traditional "boot" stage unless you need more volume of lower quality forage. "Lower quality" is a relative term as it still is very good forage at boot stage. The reason for this is because the very cool night temperatures inhibit respiration of the most digestible parts, and they accumulate in the plant. Frost only hits the tops and the rest of the plant keeps growing. We often have green oats in early November or until the first snow.

As soon as it hits flag leaf, **mow wide swath, and TEDD** after a couple of hours of drying. Yield is 2 – 3 times more tons of dry matter than a heavy first cutting alfalfa. Even with wide swath, only the top will dry. As soon as the top has a light grey cast tedd to spread and dry. **It is critical that it be ensiled the same day you mow** because of the very high sugar levels. Leaving it over night burns off the sugars and produces higher populations of Clostridia and higher levels of butyric acid. With same day haylage these potential problems are reduced or eliminated even at higher moisture conditions. On the flip side, the very high sugar levels, if preserved until you ensile the crop; will speed the process and produce an excellent fermented forage.

Fall Spring Oats plus Winter Triticale. In a forage tight time this has huge potential and worked very well for us in the past. Oats (3 to 5 bu/a) and winter triticale (80—100 lb/a) is planted at the same time with one drill pass. After the oat harvest (2 - 4 tons dry matter 5 - 11 tons of silage), the triticale continued to grow and produced an excellent forage the next year. It is **CRITICAL** that you mow the oats at a **minimum of 3.5 inches** so the triticale can survive and grow. We fertilized the triticale as normal the next spring and had an excellent harvest (2 - 4 tons dry matter 5 - 11 tons of silage). This can give you two very high quality forage crops in one planting. It can then be followed by a shorter season corn or BMR Sorghum.

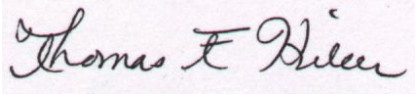
Mowing oats at 3.5 inches gave full growth to the winter triticale the next spring

Late Nitrogen on Perennial Grasses

An application of nitrogen will stiumulate late season growth of cool season grasses. Harvesting in mid October can give you several tons/a of very high quality silage and actually increase the tillering for next year. Yes, nitrogen cost is high, but in most cases it is still less than buying forage.

Arrange for Purchase Forage NOW! Avoid the rush, especially next spring when farms find empty bunks much sooner than they expected. In most cases, the nutrients in forage are much less expensive than the same nutrients from grain.

Sincerely,



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