



ADVANCED AG SYSTEMS'S

Crop Soil News

<http://www.advancedagsys.com/>

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

Last Chance Forage

For those south of my Albany, NY location, you can still plant spring oats **now** at 3 - 5 bu/a of grain type oats for a harvest by early October. If you are planting on program acres that do not allow a harvest until November 1, then a forage type oat that matures later is better. A grain type oat is preferred for dairy farms as it will get to heading sooner and so drop the moisture level closer to what you need for ensiling. Excellent research by Dr. Coblenz of the Dairy Forage and Research Center has looked at multiple aspects of planting and managing this crop. <http://www.uwex.edu/ces/crops/uwforage/FallOatYield-FOF.pdf>

The seeding rate is still up for discussion. Work from the 1980's, research plots from California, and our work last year found higher seeding rate gave higher yields of finer stems. Ours was a one year/location study in extremely dry conditions that suppressed yields. In replicated plots, there was a 0.3 ton of dry matter/a increase with the higher (5 bu. /a vs. 3 bu./a) seeding rate (at about \$12 more/acre cost). We are repeating the study this year with replicated plots of 80, 100, 120, 140, 160 lbs. of oats/acre. If the check book is tight and the seed supply tight, then go with the 3 bu. /acre rate but **get it planted NOW**. Yields fall off rapidly as you delay through August and it is probably to late for our northern and Canadian friends.

Nitrogen is critical for high yields. A two ton dry matter crop at 16% crude protein will contain 100 lbs of nitrogen while a 3 ton will be 150 lbs. of N. The crop needs to be fed and applying manure and immediately incorporating to capture the volatile nitrogen will meet the crops need and save you a pile of money by not having to purchase the nitrogen.

Heavy yielding fall oats can be wet depending on maturity. **Mow wide swath, and TEDD** after an hour or so of drying. **It is critical that it be ensiled the same day you mow** because of the very high sugar levels. Leaving it overnight burns off the sugars (less under cold night temperatures) and produces higher populations of Clostridia and higher levels of butyric acid. Same day haylage (read the October 2012 newsletter on wet forage) because of the very high sugar levels, will speed the process and produce an excellent fermented forage.

Last, Last Chance Forage For farms with acreages of grass or > 50% grass in the stand, an application of nitrogen (plus sulfur to boost protein) now can give you very good yields of very high quality forage (for the top producers) this fall. As with the oats above, the cool night temperatures reduce lignin and conserve the sugars as the plant grows, and so you end up with a very highly digestible forage. As we move into the cooler temperatures of fall and if moisture stays adequate, it is perfect conditions to grow high yields of high quality cool season grass. It has the kind of digestibility in a forage you want for your peak producers.

Winter Forage:

For farms down on both forage quality and quantity, the winter forage such as winter triticale continues to provide an early harvest of extremely high quality forage. Some farms were shocked to find that it also produce high quantity of forage. They didn't realize how much they needed to chop to get it into storage. The cows loved it.

Advanced Ag Systems
Research, Education, Consulting

We are continuing to research the management aspects of triticale winter forage. As more farmers grow the crop, and give me feedback (good, bad, and ugly) from their experiences and our research results, we can develop a more comprehensive management approach that increases both yields and chances for success. A number of things we learned or had reinforced this year:

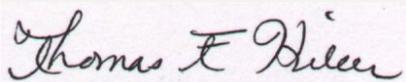
We suggested planting triticale 1.25 inches deep as a minimum. Some farms ignored this and got away with it. Not so last winter where they lost their crop to winter kill while nearby farms that planted deep enough did not have that problem. Triticale is winter hardy if planted correctly. That being said, for farmers who plant earlier (the first half of September in our area), and have tilled in manure so the soil is less dense, we are finding successful over wintering in spite of not planting it at optimum depth. This is due to two factors. First, they are planting it **early** so they are getting much more top growth to reduce the freeze/thaw heaving that occurs in March and kills the plant. The added bonus is that plantings at September 10 yielded 35% higher than plantings October 5. The October 5 still gave a good crop but not as high yielding as it could be. Second, the minimum tillage such as deep zone (ideal time to remove compaction), chisel, or aeration tillage to incorporate the manure is allowing tremendous proliferation of the root system. This provides an anchor in the spring freeze/thaw cycle. We are looking into this further as it allows for large acreage to be planted and rolled quickly.

In preliminary work, I have found that if we plant on time (first half of September for Albany, NY) we can pre-prime the plant with a significant amount of nitrogen. The nitrogen is safely stored in the plant material for the winter and used in early spring growth. The increased fall nitrogen also increases the fall tillering which increases the potential for spring yield, and it appears support this increased yield without the need for increased spring nitrogen. This is all preliminary, and we are looking at this more intensely this fall and next spring as it has major implications for CAFO farms and manure applications. A concern with early planting and increased fall nitrogen is too much lush growth that will get disease such as snow mold. We had an extensive outbreak of snow mold at the research farm in 2013. This is a mold that occurs over the winter, growing under the snow. A few inbred varieties had significant dieback. All of the commercially available varieties came through with flying colors. They showed minor damage but quickly grew out with the warmer weather. We have NOT yet seen correlation of snow mold with early planting or high nitrogen in our trials.

A number of farms are still using rye, for earlier harvest. Dr. Cherney at Cornell states “the stage of harvest is more important to forage quality than the species harvested”. Rye harvested at correct stage can produce good forage. That being said, there still are differences. The past 15 years in NY, we tested triticale varieties for increased yield and forage quality – breeding that is not in rye. In side by side tests, nitrogen over 50 lbs/a lodged the rye; while the triticale kept standing at nitrogen rates over 100 lbs/acre. In those same tests the triticale was 12 – 14 inches shorter but out yielded the rye by 25 – 35%. What the triticale lacked in height it made up for in tiller density. There are earlier triticale hybrids that will soon be released for farms in northern or high elevations.

Finally, the winter triticale continues to produce very high forage quality. IVTD averaged 86 and NDFD 24 averaged 74 at flag leaf. Sugars of fresh samples were over 20% of dry matter. We found that even after the heads started to emerge, the IVTD was still 83 and the NDFD 24 was 74. Of course this will vary some with the weather near harvest as cooler temperature normally produces higher quality

Sincerely,



Thomas Kilcer,
Certified Crop Advisor

172 Sunnyside Rd
Kinderhook, NY
12106

Tel: 518-421-2132

tfk1@cornell.edu

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Hand
to Better
Agriculture**

