ADVANCED AG SYSTEMS'

Crop Soil News

http://www.advancedagsys.com/

August 2014

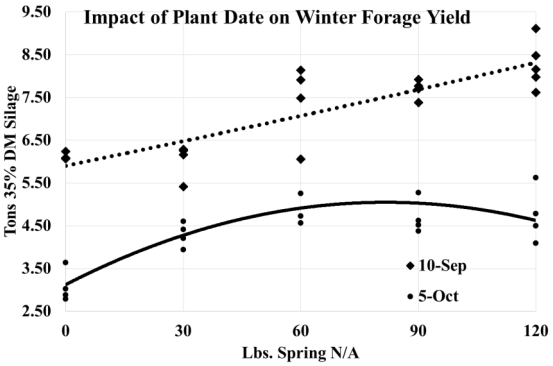
"It is the crops that feed the cows that make the milk which creates the money."

Advanced Ag Systems
Research, Education, Consulting

Winter Forage: Suggestions for a great crop based on what we know

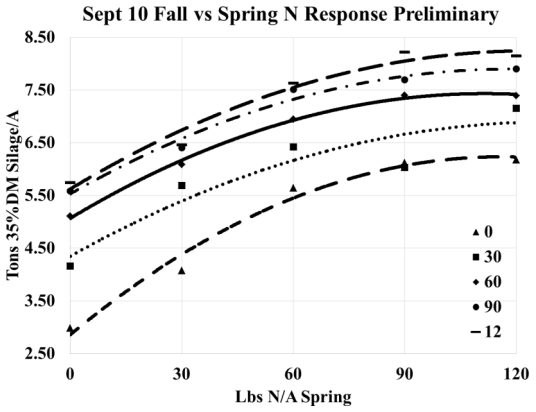
We are continuing to lead research in the management aspects of triticale winter forage. As more farmers grow the crop, their feedback along with our, and other researcher's replicated results have been used to develop management approaches that increase yields and chance for success. There are key steps to establishing this crop:

Use certified seed. Some farmers try to go cheap and use bin run seed. This creates several yield limiting disadvantages. First, you don't know what you are getting. Considerable effort is made to keep the lines genetically pure. Second you don't know if it will germinate. You wouldn't buy a steer to breed your cows, why buy seed that may not germinate. Combining and throwing it in a bin where it heats, or high temperature drying will kill the germ. Thus you are buying seed that will not sprout (a steer). I have also seen a number of fields of bin run seed with weeds such as downy brome, annual ryegrass and other species that cannot easily be cleaned from the good seed. Spend slightly more and plant good seed. Companies soon will be offering treated seed for winter triticale forage. In our replicated trials this has been a significant advantage in both fall growth (more tillering potential), and in spring yield. 100 lbs of seed/acre is suggested for on time planting.



Earlier planting gives higher yields. For our area (Albany, NY) Sept 10 is a target date for high yields yet maximum mature yield of summer forage (corn or BMR sorghum). By planting winter forage earlier the plant has more time to generate tillers. The more tillers, the more forage yield (if you are growing for grain, you want to limit the number of tillers). Plantings September 10 in a replicated trial yielded 30% higher dry matter yield than plantings October 5 (see graph at right). The October 5 still gave a good crop but not as high yielding as it could be. This is something we have repeatedly seen in our trials. Planting earlier gives more top and root growth. The root growth reduces winter heaving injury. The top growth protects the crown from cold desiccation, and gets more of the leaves above spring melt water that causes snowmold injury (more information on snow mold below). We are experimenting with very early planting in order to store more manure nitrogen in the plant and possibly have an additional harvest in the end of October for our region. I do not suggest you try this as we haven't completed the research yet to determine the pitfalls and potential stand injury from this practice – it is ongoing work. A second advantage of early planting, especially with incorpo-

rated manure, is that the crop gets growing so fast that it out competes the weeds and no herbicide is needed. This is especially true for that planted with a modern drill that places the seed exactly and firms the soil around the seed for rapid germination.



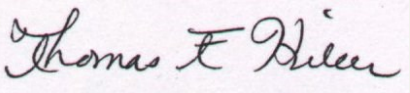
Higher fall nitrogen gives higher yields. For those planting on time or early, additional nitrogen increases the number of tillers which increases the yield across all spring nitrogen levels (see graph at right). Manure applied and worked in to capture the ammonia is an excellent source. Our experience has been that winter triticale and other winter grains for forage do very well on ground that was manured before planting. We are exploring pre-priming the crop with nitrogen from manure to store it over winter in living tissue for use in the spring to reduce spring nitrogen needs. The effectiveness of this is very dependent on planting date for your area. This is on-going research that we haven't completed yet. The numbers are impressive but the pitfalls are unknown. At this point we suggest 40 to 60 lbs./a of starter nitrogen for early planting.

Drill triticale 1.25 inches deep . Some farms ignored this and got away with it. The past two years a number lost their crop to winter kill while farms that planted deep enough did not have that problem. The deeper planting allows the roots to have a firm grasp to resist early spring heaving. The smaller the plant (late planting) the more critical this is to survival. Triticale is winter hardy if planted correctly. The newer drills do a far superior job with this. **Remember you are NOT planting a cover crop.** You are planting a high yield crop that with proper management produces the highest quality forage you can grow and feed.

Geography affects spring yield through the **impact of snow mold**. We had an extensive outbreak of snow mold at the research farm again this year. This is a mold that occurs over the winter, growing under the snow. Snow mold affects all winter grains and lawn grasses. It apparently occurs wherever the spring thaw water collects on the surface of the frozen ground. You can have piles of snow and no mold if the water from the thaw leaves the field immediately. It occurred in the slight depressions on an otherwise flat field. Soil texture does not affect an outbreak of snow mold. It only is where spring runoff collects on frozen ground. There is a varietal difference. All of the commercially available varieties have a significant degree of resistance but with the extensive snow last winter the slight depressions in our variety trial were still wiped out. After two years, we have found NO correlation of snow mold with early planting or high nitrogen in our trials. In fact early planting had less disease as more of the leaves were above the water level in temporary pools of spring thaw runoff. We are looking into ways to control it but have no answer except to suggest planting earlier on slightly sloping fields if you are concerned.

Finally when you select your corn seed this fall, adjust for a shorter season crop to allow maximum yield of both the corn and the winter forage crop. You can drop 20 days in maturity and may only lose 3 tons of corn silage/acre (some shorter season varieties do not lose yield but equal the yield of longer ones). It is replaced with 5.5 - 10 tons of higher milk producing winter forage.

Sincerely,



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The Helping Hand to Better Agriculture

Valatie Research Farm Field Day

New Tools – New Rotations

Drying Red Clover – New BMR Sorghum – Maximize Winter Forage

Walking Tour Sponsored by Cornell University & Cornell Cooperative Extension

Tuesday August 19, 2014

12:15 – 3:30,

128 State Farm Road, Valatie, NY 12184

BMR Sorghum:

What we know, why we are interested.

- See the new brachytic dwarf type with superior standability and yield.
- Sorghum for grass fed beef – same winter gains as grain fed.
- Nitrogen for new sorghums, high yield with superior nutrient gathering root system.
- First look at sorghum grain for gluten free flour production and/or beer making.

Potassium & Sulfur for Maximizing Alfalfa:

These nutrients could be holding your yields back. Learn when and where it could be critical for your crop and why.

Haylage-in-a-day Red Clover:

- higher digestibility than alfalfa and the protein is protected as true protein.
- Red Clover is moving in as premier dairy/livestock forage and protein source.
- NY Farm Viability developed critical steps to drying red clover for same day silage.
- How to profit from Red Clover in rotations; disease and insects management.

Winter Forage Double Crop: A special presentation on the most rapidly increasing crop in NY.

Farms have moved from cover crops to profitable winter forage for a direct 25% yield increase/A. To get these yields you need to utilize the full spectrum of management.

- Varieties: from 15 years of NY testing.
- Planting date/fall nitrogen—the secret to high yields
- Extending the fall grazing season for grass fed beef and dairy– A new window of opportunity
- Disease, insects, weed control—Steps for top management
- Spring Nitrogen: What we know so far to maximize yield and quality
- Harvest for peak quality
- Winter forage for better seedings—Top seedings with few weeds after winter forage
- Rotations and use /benefit of alleopathy

Contact Steve Hadcock, 518-828-3346, Cornell Cooperative Extension in Columbia County for further information. No Pre-registration required. Will be held rain or shine (hopefully shine)