



ADVANCED AG SYSTEMS'

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

What You Do This Fall Can:

- **Increase** dry matter harvested/acre by **25 – 35%**
- Harvest 6 to 10 tons/acre of high quality silage before spring grasses or legumes are ready.
- **Increase corn yields** in tilled ground the next year by 7.2% to 12.3% and in no-tilled ground by **8.5% to 16.8%** (Van Es et al 2016).
- Produce **forage** that supports the very specific diet of the **high and fresh cows**.
- Have forage that farmers and nutritionists report **keeps the cows milking in hot weather**.
- **Reduce** winter and perennial **weeds** pressure by competition
- **Capture \$30 to \$50/acre** of leftover soil nitrogen that would have been lost to the environment and **convert this to useable protein** for your animals (NYFVI research).
- **Improved soil health** for long term yield increases and the ability to **produce in adverse weather**.

Each of the above is a measured result from covering your ground with winter forage. With many acres of drought stressed crops harvested early, this is an ideal time to plant winter triticale with its higher yields than rye, better standability under high nitrogen, and bred for high forage quality. We are NOT talking minimally managed cover crops, but a crop that responds to management and fertilizer.

Winter Forage Steps for Success

Use only quality seed. You don't know what you are getting with bin run seed. What is the germination percentage (depends on how it was dried)? Like buying a steer to breed your cows, buying bin run may not even get out of the ground. I have looked at many a bin run field that was more downy brome and annual ryegrass than the grain the farmer paid for. Even worse, if it is a mix of rye grain and triticale grain do you cut when the rye is peak quality and take a 35% yield hit on the triticale, or cut when the triticale is optimum yield and quality but has 20 – 30% of the dry matter over mature rye straw? Spend slightly more and plant good seed. **100 lbs of seed/acre** is suggested for planting.

Earlier planting gives higher potential yield. The Best Management Practice we found in NYFVI supported research is to **plant winter triticale forage 10 days to two weeks before your LOCAL wheat planting date.** It is more critical as you go further north where winter comes swiftly. Early planting is critical to maximize tillering. The more tillers the more poten-



Early planted on left smothers weeds, resists spring heaving, yields more than later planted on the right. Both give high quality forage.

tial mature stems next spring which means more potential forage yield. Southern areas have a fall with long periods of temperatures in the range for optimum tillering of winter grains – thus their higher yields. In our replicated trials, planting September 10 **yielded 32% more** than October 5. If your corn is delayed you can still plant into October, but you just have to recognize that yields will be down compared to timely planting. This is something we have repeatedly found in our trials. **Planting late with more seed does NOT work.** Last year I repeated a test at the Valatie research farm and found what the same as 8 years ago; planting late with increased seed rate gave no significant yield increase.

Early planting establishes both increased top to protect the crown (photo previous page), and increased roots to resist heaving (photo this page) that often damages stands not planted correctly. My trials also found that early planting was more resistant to snow mold as the early spring standing water covers less of the plant. Even more important, the **earlier planting** with ground covering crown of leaves may **completely eliminate any need for a fall herbicide program** in the crop.

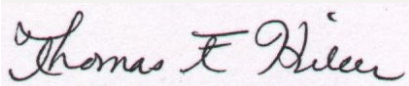
Finally, earlier winter forage takes up more nutrients. This crop will allow environmentally sound, manure incorporated, applications in early fall that minimize ground and surface water losses. Dr. Ketterings of Cornell and I have documented earlier fall planting with more vegetative growth will take up and store more nitrogen (residual or manure). This has the bonus of both increasing the number of fall tillers, and potentially reducing the amount of nitrogen need to grow the crop the next spring. Without fall manure we suggest 40 – 60 lbs. N/A for early planting. Late planting (wheat date or later) needs none. We are testing a different system that may allow all the nitrogen needs to be met by incorporated manure application. Keep watch on this newsletter next spring.

Drill triticale 1.25 inches deep. First, a drill will do a more accurate seed placement to maximize the yield potential of the seed you bought. Broadcast and disk in has seeds haphazardly placed in the soil. Some grew some didn't. A friend of mine switched from broadcast to drill and was amazed by the yield change the next spring from the uniform, solid stand. Seed depth is critical as we move further north and on wetter soils because of heaving the next spring. In the past a number lost their crops to winter kill while neighbor 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.

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.

NOTE: for those who planted oats plus triticale the beginning of August, it is VITAL that you set the mower height to 3.5 – 4 inches. Cutting shorter than that will wipe out the triticale. I know, I did it.

Sincerely,



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**The Helping
Hand
to Better
Agriculture**



Shallow planting allows spring heaving to push the plants up so the roots dry and the plant dies. Picture below was planted correctly in the same field and had no heaving.

