

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.”

Advanced Ag Systems
Research, Education, Consulting

Maximizing Winter Forage And Harvesting Immature Corn Silage

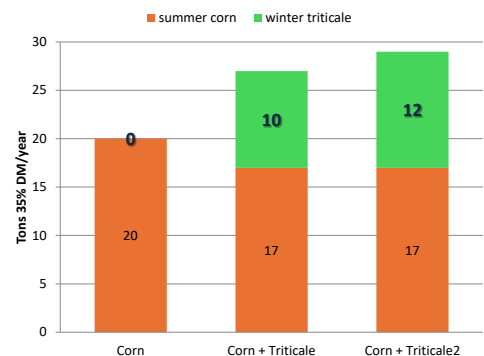
This has been the season of extremes. First, we had very little rain, then it has not stopped raining. In some areas, it has rained all summer, and the corn is 1 – 4 feet high and very uneven. Interestingly, in the wet areas, especially with heavy soils, driving down the road at 55 mph I could look at a field and know if it was planted into winter forage triticale stubble, or into typical bare soil over winter. The field planted with typical bare all winter and spring tilled was a mess. Rows started 1 foot tall and as we went down the row, they got taller and tasseling, then continued to drop to 1 foot tall and had nothing growing in the wet spots. Directly across the road, the corn no-till planted in triticale stubble was tall, uniformly growing, and tasseling. With winter forage, in addition to providing 3.5 – 4 tons of dry matter with more milk-producing ability than corn silage, the improved soil health and no-till planting into the massive root system of the stubble allowed the corn to survive and grow in marginal weather conditions. You can gain yield in crops if they follow winter triticale forage. Planted in sequence with corn silage the total **yield from that acre is boosted 25-35% when you count the triticale.**



Preparation for winter forage begins **NOW**. Over 30 years of our research, we have developed the crop from a 1.5 – 2 ton afterthought to a key forage crop of 4 – 5 – 6 ton dry matter high-quality crop as we move from the NY region to Ohio, to Tennessee. The key has been critical steps **you** need to take as a manager. These are:

PLANT EARLY. This is the biggest factor in moving NY from 2 tons DM/A to 4 tons DM/A yields. The earlier you plant the more tillers. The **more tillers the more yield** potential next spring. It should go into the winter 8 to 12 inches tall. This means shortening the season length of the corn silage you plant. As you can see in the graph at right, going from 105-day corn to 85-day corn will reduce silage by an average of 3 tons of silage (1.05 DM ton). You

Directly Increases Total Yield 25 – 35%



are replacing that with 6 to 12 tons (3.5– 4.2 DM tons) of flag leaf winter triticale forage that has more milk-producing ability than the corn you gave up. We have been finding that the shorter season corn yields are rivaling the longer season corn because of the greatly improved soil health and structure.

Seed: We do not suggest rye as the nitrogen necessary to get 18% crude protein will mean the rye crop is flat on the ground. Winter triticale was still standing in our replicated research. Do **NOT** plant a mix of rye and winter triticale. The rye will be ready before the triticale so you lose tremendous yield harvesting rye on time and triticale too early. If you wait for the triticale to reach flag leaf you have high-quality triticale mixed with rye straw. Not a good move. There are now triticale varieties that are ready almost as soon as rye in the spring.

Seed Rate: Replicated research has found that 1.2 million seeds/acre or about 100 pounds/acre will optimize yield. Contrary to old farmer tales, more seeds do not make up for later planting. It only increases your seed cost. A definite money-making move is to get **seed treated with a 3-way treatment** such as Dividend Extreme. High-yield wheat growers use this all the time. Our replicated research on winter triticale found a **15% yield increase** from treating the seed if planted on time, and a **28% increase** compared to none if you planted late. This more than pays for the slight increase in seed cost.



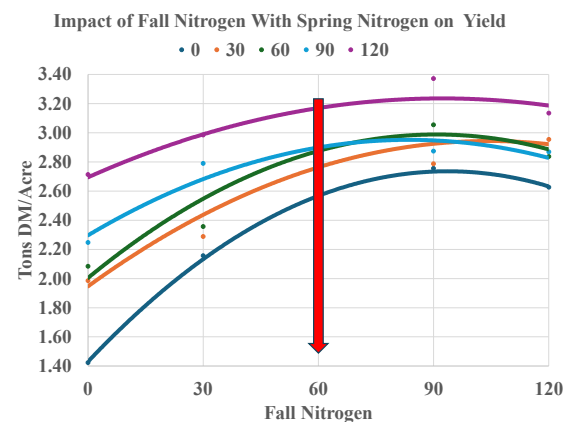
Seed treatment with on time planting yielded **15% more** than not treated seed at right

Late plantings yielded up to **28% more** with seed treatments compared to none.

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Fall Nitrogen at Planting: Plant with a **minimum of 60 lbs. of nitrogen plus sulfur at planting time**. Our research (graph at right) found that this will significantly increase the number of tillers which sets the yield potential for next spring. Do **NOT** delay planting to apply manure. You lose more yield than you gain with manure fertilizer savings. Every day is critical in the fall to maximize the crop through tillering.

Finally, we have found that **injecting manure** in November, December, or January, while the soil is cold can unload a lot of manure storage in an environmentally sound manner. It can meet all the nitrogen and sulfur needs the next spring for a high-protein crop. The ammonia in the manure stays in that form as long as the soil is below 50 F. and is not lost. In the spring, the triticale starts growing at 40 F and immediately takes up the nitrogen as the manure releases it. We have successfully used a rolling coultter applicator. It slices and lifts the soil and injects the manure. The closing coultter then pushes the lifted sod back down. It is better than knife injectors that tear the sod and bring up stones. It is better than units that lay the manure on in narrow strips which are still vulnerable to volatilization and erosion loss. **Do NOT spread manure on top of the crop anytime**. You will harvest manure and high-quality forage that **can kill cows** (don't ask how I know).



Adjustments for Immature Corn

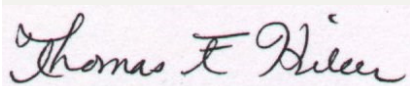
Where corn is not going to make an ear and may only reach the tassel stage by the end of September, adjustments in management are critical. Cutting high does not increase the feed value of immature corn. You need all the forage you can get so drop the head to cut as low as possible. As there are no ears or only milk stage, processing is a waste of fuel and time. In addition, I would not suggest cranking the processor down like with normal corn silage or you may turn it all to applesauce. Immature corn silage (pre tassel) can have low NDF, but with very high NDF digestibility. Thus it is a lot like an immature or male sterile sorghum but with a lot of feed value except lower yield. **Working with Immature Corn Silage by Kitty O'Neil** covers most of the bases as they dealt with this in 2019 (click [here](#))

Harvesting immature wet silage has some adjustments. Sorghum Sudan, Sudan, and immature or tassel corn will be wetter and have higher sugar. As the digestibility of the fiber is higher, the length of cut can be longer. This has two effects. First, the peNDF will assure the extent of digestion needed with your limited forage and will also keep the rumen pH and health where it is supposed to be. Second, with fewer cuts per inch, both my research and farmer experience found that the length of cut be 1 inch to reduce/eliminate leachate from packing yet maintain peNDF. A farmer reported that he had a BMR sorghum bunk and a corn silage bunk. He had cut the wetter sorghum at the suggested 1 inch and the corn at ¾ inch. Both looked the same. Both had no leachate. When he sampled, the corn silage was 35% DM while the sorghum was 23%DM. Without the ear and for crops that don't have an ear, the wetter, high-sugar forage **must have a homolactic inoculant**. Do not use a buchneri type inoculant. In one of my sorghum trials, the **inoculated treatment** had higher NDFd 30 digestibility **equal to 2.3 more pounds of milk/cow/day** compared to no inoculant. If you are short on forage, taking all the steps to maximize the use in the rumen is critical.



Inoculated on left and right, control in the middle clearly shows the inoculation quickly fermented and preserved energy. The uninoculated control produces lots of gas indicating significant energy loss from the forage.

Sincerely,



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Hand
to Better
Agriculture**

