



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."

Advanced Ag Systems
Research, Education, Consulting

Double Crop for Forage Better than BMR Corn.

Most farms look at maximizing yield by growing the longest season corn possible. Data presented in the November 2009 Crop Soil News showed that there often isn't a significant yield difference between very long and moderate full season (eg 110 and 95 day corn) grown properly. Longer means in increasing risk from weather as full season may not have enough summer to properly mature (2009) or get caught with increasingly wet soils September into October (2006). This year looks like not only will it mature, but possibly be early.

This opens an opportunity for you to try a new cropping system that not only reduces risk, but can give you increased total crop yields (20 -25%) from that same acre. This is forage that has a greater milk potential (4,000 – 4,200 pounds of potential milk/ton) than BMR corn silage (3,800 – 4,000 pounds of potential milk/ton) or cream puff alfalfa. It is a corn replacement or haycrop replacement? Neither – it is a high energy moderate (16%) protein, high sugar, forage with very high kd/hr digestibility (3 to 6 or more). This is the forage for high producing cows that have limited rumen space to meet their production needs.

What has us excited is the very adaptability of the crop to various cropping systems depending on the needs of the farm.

Make HEL land more productive

HEL (Highly Erosive Land) is a problem to manage. If you are to be in compliance with Federal programs, you must keep the erosion to a minimal level. Many of those rotations though, save the soil but lose the farm because they do not produce a level of crop production for today's economy. Ignoring the HEL and you cause permanent long term yield loss to your soil and to your farm's future. CAFO often requires a cover crop expense - turn it into income. Keeping the soil covered with living material not only solves many of the soil loss issues, but research has found it to significantly increase the soil health, soil structure (critical for high yields), protecting expensive fertilizer nutrients from loss, all while producing very high yielding high quality forage. In a double crop scenario of short season corn planted the end of May, harvested late August followed by Winter Triticale harvested by late May, leaves you soil expose for only two weeks or so in the whole year cycle. Each tillage step can be one pass minimum tillage or zone tillage corn plus no tillage triticale.

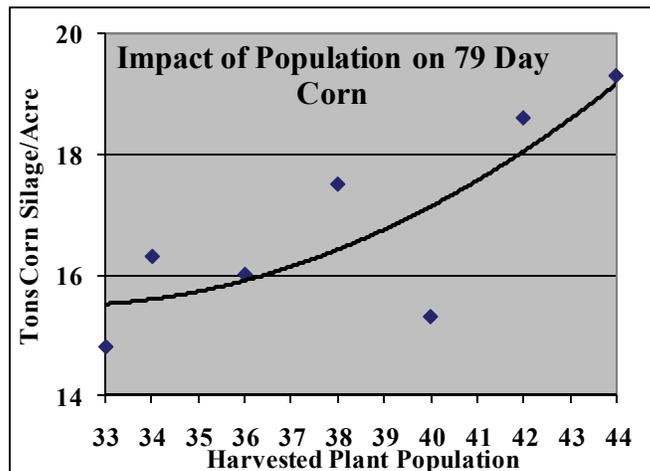


HEL land does not condemn you to marginal yields of marginal crops. Winter triticale is the highest quality forage yet protects the soil in off cycle cropping systems.

Double crop with summer annual to increase total yield 20 – 25%

Short season corn is made by shortening the vegetative stage of the plant. This reduces size and hence silage yield. Late planting corn in the end of May can reduce your yields 10—15%. By selecting the correct type of corn you may not decrease your corn silage quality at all. By shortening the number of days to maturity it can be ready for another triticale planting before Sept 1. Purdue data indicates that by adjusting population you can offset much of the yield drop from the shorter season.

With the help of Jerry Looney, the DeKalb seed dealer in Rensselaer County, we planted a 79 day DeKalb silage corn DKC29-97 RR after winter triticale harvest in the spring of 2009. Populations ranged from 35,000 to 44,000. The season was very warm and early and so triticale was off by May 13 and the corn planted immediately after. As we had no funding for this research we used up any available fertilizer for planting. Thus, instead of getting its normal 120 lbs of N/a sidedressed, it only received 75. The summer was very cold and wet. Most corn was extremely delayed in harvest well into October. The DK29-97 was ready in spite of the cold weather and was harvested August 26. Data in graph #1 at the right shows that the concept works. By increasing the population 30%, the yields were increased 27%. Yes, it yielded less than the full season corn next to it (21% less) which had its full 120 lbs of N sidedressed. Adding the short season corn's 19 tons/a plus the triticale's 7.1 tons/a of silage (triticale was late planted so it lost 20% of its yield potential) we still had **26.1 tons of silage/a** harvested that year. In spite of these limits, the double crop produced the same milk/acre as the full crop. With proper nitrogen for the corn, and earlier planting date for the triticale, these yields can climb even more. A large part is the off season sunlight the triticale captures.



Double crop with legumes to reduce spring work load.

Winter triticale can reduce the spring work load. By planting it early enough in the fall, you can seed red clover with it. Farmers have found that harvesting the triticale at flag leaf allows the clover to put on tremendous growth (assuming normal moisture) to give you two more cuttings. Recent research I conducted with red clover vs alfalfa in comparing drying rates found they dry initially at the same rate to 75% moisture. After that the alfalfa continues to dry as the leaves curl and expose lower layers. Clover does not. **Tedding the clover dramatically dropped the moisture level** to below optimum for silage in 4.5 hours after mowing. This was wide swath cut with no conditioning.

Bottom Line: As with any crop, there is a learning curve. Attached is a information sheet on what we have discovered so far in growing this crop. We make the mistakes so you don't have to. There is more to be learned as we push yields from the 2.5 – 3 tons of dry matter that we have so far, to the 4 – 5 tons of dry matter winter triticale they harvest in Pennsylvania. We are continually looking for highly digestible, floury endosperm short season corns. We are testing a new 83 day forage sorghum that you plant and harvest – no drying like sorghum-Sudan needed. We are testing other combinations to continually push forage quality and yield at economical cost for high forage diets.

Sincerely,

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Hand
to Better
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