



Planning to Multicrop for the Northeast

By David Hunsberger, King's Regional Coordinator

The basis for a successful double crop rotation is similar to any other scenario; plan first, and then execute. Success hinges on the foundation of soil testing, weed and pest control, scouting, appropriate seeding rates, seed selections and fertility applications. In planning ahead to multi-crop, a few questions must be addressed; *Which fields will we attempt to multi-crop? What are the crops following and in the next year? What rotation do we wish to establish moving forward?*

To set up the rotation, consider the seeding date for the winter annual crop following the corn crop. Now, take into account the growing degree days required to grow your corn crop. This is where the decision on the relative maturity (RM) of the current corn crop is made.

Growth performance of the winter annual crops hinges upon timely seeding. Timely seeding hinges upon the RM of your corn hybrid.

With the RM of your corn hybrid considered, let's evaluate what adding a winter annual to the rotation does to overall yield; assuming that we are using an appropriate RM corn to allow for timely winter annual seeding. Properly-timed winter forage (i.e. Triticale, Triticale Plus, etc.) along with manure pre-plant and 75-100 lbs of top-dressed nitrogen at green up, can yield over 3.5 tons of DM.

Dr. Cox and Dr. Cherney of Cornell University have documented that, on average, there is a 0.75 ton decrease in 35% dry matter (0.26 ton DM) silage yield for each 5-day RM reduction of hybrid choice. This is an average so some years are less, some more. Tom Kilcer of Advanced Ag Systems in Kinderhook, NY has calculated and published a report on this topic. According to Kilcer: dropping from a 105-day corn to an 85-day corn resulted in a 1.05 ton of DM loss/acre.

Given these figures, the decrease in yield from shorter season hybrids is insignificant compared to the potential net gain derived from the yield of the corn silage coupled with the winter annual forage.

In summary, a lower RM corn plus a properly-timed winter forage can yield more total DM for the season than a longer RM with no winter annual forage.

Potential Short Rotation Scenarios?

- Seed red clover (autumn) or frost seed (winter) into your triticale. Harvest two times that season and the year following.
- Spring-seeded Green Spirit Italian ryegrass will not form reproductive seed heads in the seeding year. You might harvest every 28-35 days (fertilizing with 50lbs of N each cut), with one big harvest the following spring, then return to corn or other summer annual.
- If you desire to return a field to a perennial hay crop, you could late spring seed BMR sudangrass or BMR sorghum-sudangrass, taking two cuts, or late spring seed BMR Forage Sorghum for a boot stage harvest. Seed perennial crop in August, following summer annual harvest. The following year, the yield of that seeding will be equivalent to an established stand without the loss of seeding year tons of forage and without the broadleaf weed pressure of spring forage seeding.
- Are you short of corn silage coming into spring? Have you seeded barley or triticale acres in the fall? You could consider a soft dough barley harvest, followed by a boot stage Forage Sorghum or short season corn.

In summary, the keys to multi-cropping are planning the rotation of crops first, soil testing and nutrient application as needed, and then planting the initial crop while always keeping in mind the next crop.