

Top 5 cropping strategies to help your bottom line

Brian Boerman, Patty Ristow, Tom Eaton - Agricultural Consulting Services, Inc. (ACS)

1. **Manure Injection**

Injecting manure directly into corn or sod will allow nutrients to work more efficiently, conserve nitrogen, prevent run-off and increase yields.

In Cornell test plots during the 2010 and 2011 growing season, injected manure showed a yield advantage of 4 Tons of Corn Silage over broadcast and incorporation resulting in a value of \$200/Acre. In sod and corn, Nitrogen conservation with in season incorporation yielded \$53/acre more N.



2. **Tile Drainage**

Ever increasing competition for land has led to higher and higher prices, so consider making the most of the land you do have. Drainage benefits include earlier and later access to fields, deeper root systems leading to reduced sensitivity to extreme wet or dry conditions, increased crop yield, improved forage quality, and a reduction in overland flow leading to a loss of soil and nutrients.

Current research on tiling is hard to come by, however a study was conducted at Minor Institute in the Champlain Valley in the late 70's and early '80's. That research looked at 3 fields, with 2 or 3 of the same soil types common to all the fields. They compared no drainage, surface drainage and tile drainage at 50' and 100' spacing. Their conclusions were significant in terms of yield dollars. In fact, in 5 years the value of crop yield alone would be more than enough to pay for tile draining at 50' spacing. Taking crop quality into account (although this wasn't measured), tile drainage would pay for itself in 4 years or less.

If you do consider this option, remember to be mindful of areas designated as wetlands and consult with your local NRCS office.



3. **Plant the right seed**

Advances in seed genetics are being made every year so do your homework to maximize yields. NY grain yields from 2002-2006 were 119 bushels/acre while 2007-2011 they rose to 138 bushels/acre. Although some seeds may perform better in test plots, keep in mind soil type varies widely throughout the region. If you don't know your soil type, you can contact your local NRCS or use the NRCS Web Soil Survey site: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. You can also look to university variety trials and test varieties on your own farm.

In addition to selecting the right seed some other very important information on alfalfa, is the seedbag. The coating on the alfalfa seed tag below makes it heavier than uncoated seed, which decreases the number of seeds per pound. Combined with a germination rate of 70%, you might want to consider planting more pounds of seed in the ground per acre. For example, if your target rate is 14 pounds of alfalfa per acre, consider planting this seed at 30 lbs per acre for best results.

INGREDIENTS	
65.84%	PURE SEED
.04%	OTHER CROP
34.09%	INERT MATTER**
.03%	WEED SEEDS
	GERMINATION 70%
	HARD SEED 20%
TOTAL GERMINATION & HARD SEED 90%	
NOXIOUS WEED SEEDS: NONE FOUND	
**34.00%	COATING MATERIAL
**	.09% INERT MATTER

4. **Data Driven Nutrient Management**

“Data driven” means using tools and information at your disposal to make better decisions. It starts with taking soil and manure samples. Once you begin collecting data then, like other facets of your farm business, good record keeping becomes the key to continued progress.

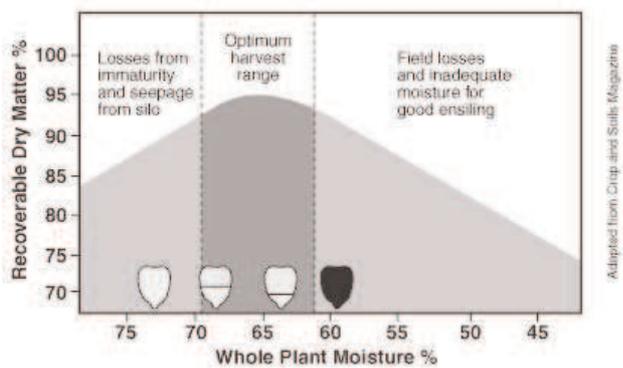
Soil testing will help in structuring starter fertilizer decisions - for example, which fields may not need additional phosphorous? Testing pH can help narrow down the fields that would benefit most from additional lime. Low pH results in reduced root growth, reduced nutrient availability, reduced crop protectant activity (herbicides, insecticides), and reduced yield.

Nitrogen Management Toolbox

- **Manure spreading record keeping**
- **Pre-Sidedress Nitrogen Test: PSNT**
Measures plant available soil Nitrate from manure at the time of sampling
- **Illinois Soil Nitrogen Test: ISNT**
Estimate of soils ability to produce Nitrate during the growing season good for 4 years.
- **Corn Stalk Nitrogen Test: CSNT**
Measure plant Nitrate prior to harvest.

5. **Harvest High Quality Forage**

The number one factor affecting forage quality is the maturity or growth stage at harvest. Harvest corn silage between 30-35% dry matter. Too wet means low starch, low energy and low protein. Too dry and you risk poor fermentation.



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