Capital Area Ag Report
November 16, 2018

Announcements

Stored Grain Evaluation Program—Call to arrange a visit for me to evaluate your stored grain for moisture, temperature, and insects. Whether you have grain in super sacks or large bins, it must be in the proper condition to maintain its quality. Aaron Gabriel 518-380-1496, adg12@cornell.edu.

December 12 & 13, 2018, Empire State Barley and Malt Summit—Holiday Inn, 441 Electronics Pkwy, Liverpool, NY 13088. $150. Contact Cheryl Thayer with any questions about registration.
Register online: https://tinyurl.com/y8l2e4mk
Program Agenda: https://tinyurl.com/yb2tfevl

We are thrilled to announce that we’re going to host our 2nd Empire State Barley and Malt Summit this December 2018! The Summit will bring together leaders in the New York State malting barley supply chain to provide:
Research-based technical updates
Best practices for success
Supply-chain networking opportunities

The event will kick off Wednesday, December 12th, with updates from government, economic educators, and hops, malting, and brewing sectors. The day will be capped with a tasting, featuring several breweries and distilleries pouring samples of craft beer and spirits which highlight the use of New York State grown hops, barley, and grains as well as a NYS-inspired buffet dinner. Day two will be a se-
eries of educational sessions featuring researchers, extension specialists and industry experts, as well as ample networking opportunities.

**January 26, 2019, 8:00 AM - 4:00 PM — Eleventh Annual Winter Green-Up Grazing Conference**— The Century House, 997 New Loudon Road, Latham, NY 12110. $75.00 per person. To register online: [https://tinyurl.com/WGUregistration](https://tinyurl.com/WGUregistration). To register by phone/email: (518)765-3518/cce-caahp@cornell.edu. For a printable brochure and mail-in registration form: [https://tinyurl.com/WGU2019reg-form](https://tinyurl.com/WGU2019reg-form)

Come join us at our eleventh Winter Green-Up, the Capital District’s original grazing conference! Hear talks from grazing experts, get to know other farmers and enjoy the traditional Winter Green-Up buffet luncheon, featuring grass-fed locally grown meats and other local products

**FYI**

View the latest ProDairy E-Leader newsletter at [https://prodairy.cals.cornell.edu/about-us/e-leader-newsletter/](https://prodairy.cals.cornell.edu/about-us/e-leader-newsletter/)

Nut milking exposed (a must-see video for a laugh): [https://www.facebook.com/9gag/videos/736165103413430/UzpfSTY4NDE5OTA2NjoxMDE1NjAzODMwNzI2OTA2Nw/](https://www.facebook.com/9gag/videos/736165103413430/UzpfSTY4NDE5OTA2NjoxMDE1NjAzODMwNzI2OTA2Nw/)

New York State New Farmers Grant Program, [https://esd.ny.gov/new-farmers-grant-fund-program](https://esd.ny.gov/new-farmers-grant-fund-program)

**USDA Redesigns Soil Tools Web Page**

The Soil Tools Web page managed by USDA Natural Resources Conservation Service has been redesigned to serve as a one-stop source for new, leading-edge tools and technologies to help farmers, ranchers, and other land users understand, evaluate, and conserve soils. The Web page offers access to soil data and maps, soil databases, digital soil applications, climate data, descriptions of soils, ecological sites, statistical packages, and soil-property calculators.

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Agronomy—Aaron Gabriel

We are in another difficult economic period for agriculture. I have included three previous articles (of not long ago). The strategies to manage crops on a shoe-string have not changed.

**Here are two mistakes I often see:**

- Purchasing genetically modified corn seed to control corn rootworms and using it for first-year corn (planting it after sod or another crop). In New York (unlike the Midwest), you will not have corn rootworm in first year corn. Pay for the traited corn only when you need to.

- First year corn after sod, is the most likely to have seed corn maggot, wire worm, and white grubs. Early planted corn especially susceptible and I have seen several times when the low dose (250 mg) of seed-applied insecticides have not controlled these corn seedling insects (nor black cutworm). You need the high dose (1250 mg) for these seedling insects in early
planted first year corn. The high dose will only suppress black cutworm, not control it. For the black cutworm, you need to scout, even if you have genetically modified corn for corn borer, and spray as needed.

A Checklist For Managing Crops When Prices Are Low

Aaron Gabriel
Capital Area Agriculture and Horticulture Program

With the recent tumbling of crop prices we get the notion that we have to manage crops differently to stay profitable. Really, we should always manage crops as if the prices were heading down. In years of high prices, you cannot squander income, since it will be needed when times get tough. So, I actually have two lists. One is a foundation for profitable crop production. The other is a list of management decisions necessary to be profitable. The non-agronomic management decisions are key to profitability (landowner relations, communication), as many know by experience.

The Foundation of Profitable Crop Production

- Build soil health – nutritional, physical, and biological aspects of soil health.
- Manage Meticulously – pay attention to all the details of crop production, so that every dollar & hour spent will provide a short or long-term return.
- Know your strengths and get help or hire out for your weaknesses.
- Keep records to make future decisions. “A short pencil is better than a long memory.”
- Do on-farm trials to tailor practices to you and your farm.

Managing Crops Profitably (not in any order of importance, except maybe soil health)

- Build soil health - It’s your best insurance for extreme environmental conditions and to stabilize crop yields. FEED ORGANIC MATTER TO YOUR SOIL with manure, crop residues, cover crops, etc.
- Develop an annual crop plan by late-winter/early spring.
- Soil test every 3 years. Sample in the fall. Use the info to maintain reasonable soil nutrient levels, not very high levels. Fertilize to feed the plant what it needs to give good yields. Feed the soil with organic matter to build a foundation of soil fertility.
- Soil test and keep track of minor nutrients (boron, zinc, sulfur).
- Maintain soil pH within 0.5 points of what is needed for the most sensitive crop. Then it will take only a little lime before planting the most sensitive crop in the rotation.
- Use manure wisely. Do a cost analysis to determine how far it can be transported to distant fields. Spread manure where it will help the most.
- Make wise purchases and take advantages of discounts.
- Invest in lime before investing in fertilizer.
- Be patient and wait for the soil to dry out properly for tillage, planting, and harvest.
- Use seed technology wisely - Do not pay for traits that are unnecessary (ie. You do not need corn rootworm resistance in corn seed for first year corn).
- Pay custom operators promptly so they are glad to provide you timely service. Talk to them if you can’t pay on time.
- Tune up machinery and replace parts as needed. Break-downs and poor performance are very costly.
- Evaluate each field and set reasonable yield goals. Prioritize which fields will use inputs the most efficiently and profitably. Do not plant fields that will not yield, until you can improve them so that they are profitable.
- Rotate crops. ROTATE, ROTATE, ROTATE!!! It is a time proven principle and it is prof-
itable.
- Manage pesticides and genetic seed traits wisely so that you do not get pest resistance.
- Do not skimp on critical management points: use inoculant when necessary; do not skimp on baleage wrap; etc
- Do a thorough job to reduce the cost of poor performance. With good seedbed preparation and a good planter, you only need 12 – 15 lbs/ac of alfalfa seed.
- Evaluate the potential return on each input and decide if it is reasonable. Record results for future decisions.
- Scrutinize crop varieties. Ask questions and get data from your seed rep.
- Know which diseases are prevalent on your farm and pick resistant varieties.
- Know which fields are prone to particular insect pests (leafhopper, armyworm) and then choose appropriate varieties and scout fields.
- Map weeds in each field to manage with appropriate rotations, tillage, planting dates, and herbicide selection.
- Scout your fields so that you do not get surprises and to make better decisions next year. You cannot always blame missing corn plants on rocks.
- Keep a record or fuel usage and become more efficient.
- Do not manage more acres than you are able. Farm intensively rather than extensively.
- Develop good landlord relations: communicate; use written contracts; respect their wishes; explain your operations; make necessary notifications.
- Communicate well with others working with you on crops to avoid mistakes.
- Stop the machinery and check its performance – is the corn planted at the correct depth (was the planter properly switched from conventional to no-till mode?)
- For custom work, have a plan B in place in case things go wrong for whatever reason.
- Repair and prepare crop storage structures and then store crops properly so that you do not waste the harvest.

Ten ways to reduce fertilizer costs & get the most from dairy manure
Karl Czymmek and Quirine Ketterings
Department of Animal Science, Cornell University
February 2009

• Rotate from sod to corn. Rotation breaks will give the first year corn crop a yield boost without requiring extra inputs.

• Eliminate sidedress and manure N on first year corn after alfalfa or grass sods.

• Test your soils. Take soil samples before manure application to see where P and K are needed most. Then, prioritize fields that need N AND are low to medium in P and K to take advantage of all three macronutrients in manure.

• Eliminate starter P from corn fields that are high (that get manure) or very high (manure or not) in soil test P.

• Know the fertilizer value of your manure. Get it tested.

• Apply manure based on crop need. Because most sod N is released to the following corn crop in the first two years, third and fourth year corn needs the most N from other sources. Make sure you apply enough manure to these fields to satisfy N needs, and only buy fertilizer N if you are sure it is needed.
• **Follow Cornell guidelines for potassium.** Cornell guidelines for potash are based on crop response trials and they show that most of our soils have tremendous K supplying capacity. Limited testing of K needs for alfalfa in recent years confirms a lack of a yield response if fields are high or very high in K.

• **Spring incorporate** manure on the day of application to double the N value.

• **Request an ISNT test for your soil samples to prioritize manure and fertilizer use.** The Illinois Soil N Test can help identify fields that do not need manure or sidedress N.

• **Reduce or eliminate starter fertilizer** on corn fields that receive generous amounts of manure.

If you need proof that these practices work on your farm, try some test strips in your fields to see for yourself! For more information, see the Agronomy Factsheet Series on the Nutrient Management Spear Program website: [http://nmsp.css.cornell.edu/publications/factsheets.asp](http://nmsp.css.cornell.edu/publications/factsheets.asp).

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**Key Opportunities to Optimize 2018 Crop Production Efficiency**  
(March 2018)

Joe Lawrence, Kitty O’Neil, Karl Czymmek and Mike Hunter

Most farms routinely concern themselves with minimizing expenses and optimizing profits from both the animal and cropping sides of the operation. To assure that cost control strategies don’t undermine productivity; i.e. cost more than they save, it is a good idea to avoid risky choices and to use sound, science-based information when planning management options.

1) **Use your acres efficiently**

There are many fixed costs to farming an acre of land, regardless of the yield or quality harvested from it. Achieving higher yields and higher quality per acre will help control the overall cost of forage production. Focusing on meeting your forage needs on fewer acres may allow you to shed the cost of farming extra acres, or to add diversity with those extra acres with crop alternatives that will provide a better return. When developing a cropping plan, it is important to remember that each acre has inherent limitations to its yield potential based in soil type, location, drainage, etc. Spending money on extra inputs to try to push an acre or a field beyond its production potential can be as costly as managing below its potential.

2) **Carefully consider crop varieties and seeding rates**

Numerous advancements in a crops production potential; yield, quality, water and nutrient use efficiency and pest protection traits, have led to increased seed cost. Using available information to make accurate and efficient seed choices is a far better approach to seed cost control than evaluating seed price alone. • Use only genetic traits that are needed on each field. The cost of weed or insect control traits in the seed, particularly with corn seed, contribute more to overall seed cost per acre than seeding rate or other factors. Corn Borer is not a big pest in NYS and is of particularly little concern on silage acres, so traits that control it are not likely to pay for themselves. Likewise, don’t bother with Corn Rootworm protection on first year corn, but instead use it on 2nd year corn and beyond. • Glyphosate-tolerant (or Roundup Ready) varieties are a worthwhile investment for fields with hard-to-control weeds, such as annual grasses, or in systems with cover crops or reduced/no tillage. But in other fields where weed populations are stable and may be routinely controlled
with pre-emergence herbicide options, the odds of seeing a return on an investment in glyphosate-tolerant genetics is unlikely. A good understanding of weed populations and a good pre-emergence herbicide program can help reduce this cost.

- Choose corn varieties with realistic maturity ranges. Longer-season varieties are expected to yield slightly more, but only if maturity is reached. The gamble on additional yield from a long season variety should be minimized.
- Double-check seeding rates and calibrate your planters. In many instances feedback suggest that alfalfa is seeded at rates much higher than the recommended 15 pounds per acre, with most alfalfa costing more than $4 to $5 per pound, each pound above 15 adds significant cost per acre.
- Recommended corn planting rates vary with soil yield potential and range from 27,750 to 32,250 per acre for grain and 31,000 to 37,750 per acre for silage. Follow company guidelines for specific hybrids. Many corn growers may be reluctant to change corn planting rates based on a particular hybrid and/or soil type because of the extra hassle it requires to make these planter adjustments. Any situation that allows a corn grower to reduce corn planting rates by 3000 seeds per acre will reduce their seed cost by approximately $10 per acre.

3) Manage tillage and equipment passes across the field
Each tractor or truck trip across the field has a cost, in terms of fuel, time and soil compaction, and some are more justifiable than others. Look for opportunities to reduce trips across the field without giving up production. Since a large percentage of the damage done by heavy equipment is done in its first pass over the soil, controlling traffic patterns can limit damage to laneways and headlands and help keep the rest of the field in better conditions. Reduced and no-tillage methods can provide significant cost savings on top of tremendous benefits to soil health; however, quitting tillage ‘cold turkey’ can result in poor crop performance in that first growing season. Understanding the current conditions of your soils is critical to a successful transition. Attempting no-till on soils with poor structure and compaction issues will often produce less than desirable results as it will inhibit seed placement and root development until soil structure recovers. Tillage can be a band-aid for imprecisely adjusted planting equipment and/or less than ideal soil conditions. In other words, a properly set up and operated planter that is designed for the field conditions you have will do its job placing seed correctly with less or no tillage. Common advice from no-till farmers is to exercise patience and wait until conditions are correct to plant. While it may feel awkward to be sitting home while neighbors are working land, the time you save in not working land will permit you to plant faster and better when soil conditions are right.

4) Optimally capture manure and soil nutrients to reduce fertilizer needs
An up-to-date soil test is cheap and valuable information. Soil fertility information allows you to focus nutrient inputs on acres where they’re needed and where yield benefits and return per acre may be maximized. Accurately reduce fertilizer applications (take a credit) wherever it’s possible.
- Take N credits for grass-legume sods and for soybeans in 1st year corn fields.
- Prioritize manure applications to 2nd and more year corn fields where N is most needed. Credit N fertilizer applications appropriately.
- Apply lime where the soil test says it’s most needed and where yield potential is highest. Correcting pH with lime takes time but pays big dividends in providing an optimal soil environment for the crop and making soil nutrients most available.

5) Evaluate real pest management needs
Don’t rely on one chemical control and definitely don’t reduce application rates to save costs on pest management. Like any other year, it is critical to employ a pest control program that minimizes the risk of developing pest resistance, so repeatedly using a single mode of action or reducing rates below label is not advised. Instead, reduce pest management costs through scouting
and integrated pest management (IPM) to assure that only proper ingredients and controls are used. Knowing the pest, its population and the science of IPM will help to reduce unnecessary applications and unnecessary ingredients. Before spending extra for insect control and herbicide tolerance traits in seed, be sure you have a reasonable expectation of a return on that additional cost. See the above discussion of seed and varieties.

6) **Focus on timely and flexible forage harvest and storage**

Good management of end-of-season harvest is key to capitalizing on your cumulative, season-long efforts. Creating a specific harvest plan maximizes the likelihood of harvesting each feed at the desired quality, regardless of what the growing season throws at you. First cutting hay or haylage provides a huge opportunity for good yields of high quality feed but does not need to make or break your year. Consider each acre of hay land, and each cutting, as an opportunity to harvest the highest quality feed you need on your farm. Beginning with first cutting, be prepared to harvest each acre at a high quality stage if weather and circumstances allow. When inventory of lactating quality feed is sufficient, turn your attention to meeting the quality needs of other animal groups on the farm. Using this approach, high quality feed requirements are more likely to be met, leaving lower quality forages to be harvested when unforeseen weather and equipment challenges force delayed harvest. Evaluate flexibility and potential to store forages in a way to allow access to forage lots at the right times for the right animal groups. If the ideal forage is buried at the back of the storage when you need to feed it, it has little value. And being forced to feed a low quality forage to a highly productive group of animals because it is the only one accessible can be costly. Forage shrink can be very costly. Reduce shrink at the bunk by optimizing packing, matching forage delivery rate and packing tractor weights on bunks and driver over piles, selecting the proper inoculant for each forage and proper coverage to exclude oxygen. Proper face management at feed out will also aid in minimizing losses.

**Additional resources:**


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