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Farm Business Management

Aaron Gabriel
Crops and Soils

Tom Gallagher
Livestock Production & Marketing

Steve Hadcock
New Farmer / Market Development

Chuck Schmitt
Commercial Horticulture (Greenhouse, Nursery, Landscape)

Regional Fruit Specialist
Kevin Iungerman

Capital District Vegetable and Small Fruit Program
Chuck Bornt
Laura McDermott
Crystal Stewart

The “Ag Report” is prepared by Aaron Gabriel

Capital Area Ag Report
July 11, 2013

“The difference is in the details.” - Fred Barringer

Announcements

2013 DAIRY TOURS

Landview Farm
– Rody & Jane Walker, Randy Walker, Mark Anderson
Wednesday, July 24, 1 to 3 pm
On County Rte 68, White Creek, Washington County
(at the intersection of Co Rte 68 and Cobble Hill Rd.)
Family & non-family partners and a satellite farm
Soil health, winter forages, one-pass corn planting
Very efficient heifer barn

Dutch Hollow Jerseys— Chittenden family
Wednesday, August 14, 1 to 3 pm
101 Running Creek Rd., town of Kinderhook
High-quality milk marketed in unique ways.
Family partners in a Jersey herd focused on breeding
Market high-quality milk to local name-brand processors
Experience at fostering good neighbor relations

PLEASE BE PROMPT
Please RSVP so we have enough materials & refreshments for you. Contact Katie Close (kec98@cornell.edu, 518-925-5806) or Aaron Gabriel (adg12@cornell.edu, 518-380-1496).
### Weather Data—July 11, 2013

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The rainfall for Guilderland looks very suspicious. I have finally emailed the Northeast Weather Association to ask about it.  
AG
Soybean Integrated Pest Management Field Meeting Series

*Insects, Weeds, and Disease*

*Learn to identify and control soybean pests from planting to harvest.*

**Thursday, July 18**, 1 – 3 pm, Lo-nan Farms, *Field is at 425 Tishauer Rd., Claverack.* Mid-season IPM.

**Friday, August 9**, 1 – 3 pm, at Langdonhurst Farms, 1601 Route 7A, Copake. Late-season IPM.

**Tuesday, September 10**, 1 – 3 pm, at Stone House Farm, 3169 Route 9, Hudson. Pre-harvest IPM.

Lead by Ken Wise, CCE IPM Specialist & Aaron Gabriel, CCE Agronomist. 2 pesticide re-certification credits.

No charge, but please call for a head count, Aaron Gabriel, 518-380-1496, adg12@cornell.edu.

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**Wednesday, July 24, 6 - 8:30 pm** - Soybean Marketing 101 - at the Carolina House, 59 Broad St. (Route 9), Kinderhook. Put on by the NY Corn & Soybean Growers Association, Karen Thorp, of DeLong Grain Company and Jeremy Forrett of Crop Growers, Farm Credit East. Karen will cover the benefits of grain contracting and how it can improve a farm operation’s bottom line, while Jeremy present how forward contracting and crop insurance work together. Attendance at this workshop will include a complimentary dinner, a chance win an Ipad mini, and a complimentary ticket to the NYCSGA Summer Crop Tour on Tuesday Aug. 13. Attendees must RSVP by Friday, July 19th to Julia Robbins, juliacrobbins@gmail.com or 315-583-5296.

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**Forage Yield Monitor Field Days**


**Alfalfa Field Day**

Monday, July 15th
10am-12pm
Gary Swede Farms
1054 Peoria Rd., Pavilion

**Corn Silage Field Day**

Thursday, August 22nd
10am-12pm
O’Hara Machinery
1289 Chamberlain Rd., Auburn

*Interested in purchasing a new forage harvester with yield monitoring capabilities, but don’t know what the benefits are? Already own the equipment, but want to understand how to use the data? Attend one of these field days to get your questions answered!*

**Program will include:**

- Importance of yield monitoring
- Overview of harvester components involved in yield monitoring
- Information on calibration
- Farmer experiences

Brought to you by the Cornell Nutrient Management Spear Program (NMSP), Agrinetix (ANX), Agricultural Consulting Service (ACS), Gary Swede Farm and other participating farms, John Deer Dealers Z&M Ag and Turf and O’Hara Machinery, with sponsorship from Northeast Sustainable Agriculture Research and Extension (NESARE) and USDA-NRCS (Conservation Innovation Grant).

No registration fee. No pre-registration required.
I hope to see you at our next dairy tour, July 24 at Landview Farm.

Landview Farm with partners Rody & Jane Walker, Randy Walker, and Mark Anderson is a very well-managed 1225-cow dairy. Young stock is home-grown in their very efficient heifer barn. They also have a satellite farm in nearby Cambridge. Land and facilities are spread out over a wide area, which increases the challenges of manure, crops, and labor. Plus, they haul their own milk to Connecticut. Every farm operation is well-planned. Manure is direct loaded from tankers and incorporated behind the spreaders with an Aerway. Rye seed is applied with the manure in the fall. The corn planter follows a 6-row zone-builder for one-pass planting. Soil health is part of their philosophy. Forage quality is prime importance as they feed as high a forage diet as possible. They manage for high-quality milk and high milk components. Milk has been forward contracted and Landview has also participated in the Livestock Gross Margin – Dairy program – experience they can share. With a large and busy farm, Landview Farm also has good experience to share about labor management.

We had a very interesting dairy tour with Fred and Donna Barringer at Hill-Over Holsteins. Retailing your own milk is a big challenge, but they are committed to getting a retail price and seeing profitability after one year. Look for a full article in the “Agricultural News”.

Corn: There are no pest issues to report. Some of the crop looks good, and some does not. Even if the crop turns around, yield potential has been reduced from early season stress. If you look at the plants, you can see that the stalks are more skinny than usual. Early season weeds change the quality of light, making the corn perceive competition even if enough water and nutrients are present. The plants then grow tall and skinny to stay in the light. On top of that, the number of kernels are established long before tasseling. It is not good news, but at least you can plan for a whimpy crop.

Skinny corn from early-season stress.
**Alfalfa:** Lots of second cutting is being harvested. Monitor potato leafhoppers. They are numerous. When you mow a field, the adults will fly to another. This is especially dangerous for nearby new seedings. Nymphs cannot fly and will die if they have no plant leaves to feed on; or they will be drowned in a good downpour.

**Pasture:** Boost production with fertilizer as needed. Protein will be high in the summer, but energy will be lower than in the spring. So, take a pasture sample, get a forage analysis, and supplement livestock accordingly.

**Fescue foot** is not common but does occur when you have native tall fescue in pastures. I have heard of one incidence this season—the third I am familiar with in our area, since I have worked for CCE in the past 17 years. The hot weather makes this condition more prominent. Chemicals from a fungus that lives inside of native tall fescue disrupts water regulation in the body causing a collection of fluid (edema). It can cause abortions as well. Once you see tall fescue it is easy to identify. It has a strong clump growth habit. The leaves are shiny underneath and almost ribbed on the top. The leaf coming out of the sheath is rolled (whereas it is folded in ryegrass). A short fact-sheet from Oklahoma on Fescue Foot is at [http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1982/ANSI-3357.pdf](http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1982/ANSI-3357.pdf)

**Grasses:** With the shortage of feed, especially good feed, fertilizing grasses is important. It takes 50 lbs of nitrogen to grow one ton of dry matter. That is a worthwhile investment. If it continues to rain moderately, the N should be utilized well on good soils. Apply 50 to 75 lbs of N per acre for healthy grass stands.

**Soybeans:** Keep an eye out for soybean aphids. Beans in the vegetative stage can take a lot of defoliation (40% or so). Once they reach the reproductive stage, they are more sensitive to defoliation ((25% is the threshold).
June 2013

Northeast Buckwheat
Growers Newsletter

Thomas Björkman, Editor Horticulture Dept., Cornell-NYSAES, Geneva NY

2013 Buckwheat Field Day

The 2013 Northeast Buckwheat Field Day will be held at the farm of Rg Bell in Kendall, NY. Kendall is close to Lake Ontario, about 25 miles west of Rochester. The field they will again be cosponsored by NOFA-NY. We anticipate presentations about buckwheat production and harvesting. The field day will be on Wednesday, August 28 from 1:00 to 4:00 PM.

There is no charge, and preregistration is not required. The field day usually attracts about 30 growers with widely varied experience and different ways that buckwheat makes sense for their farm. Everyone has something special to add, and something in common with the rest. We have good discussions that help growers come away with several new ideas, and perhaps a good story or two.

Herbicide for buckwheat control

EPA recently added control of volunteer buckwheat to the registration of Audit herbicide. It has been registered in New York for use on fallow ground or on small grains. Audit is a halosulfuron herbicide.

If your combine adjustment as resulted in some of the grain going on the ground rather than in the bin, then buckwheat volunteers can be a problem. Buckwheat seedlings can inhibit the fall growth of small grains. Audit can be applied at an ultra-low rate when the small grain is in the two-leaf stage if buckwheat seedlings are emerging at the same time. On fallow ground, many herbicides will control buckwheat, as will cultivation. Audit may have less value in this application, unless it is also used to control some of the other weeds for which it has been registered.

Buckwheat Research and Extension

Extension support for buckwheat is very limited in the US. A recent addition is Dr. Hans Kandel at North Dakota State. He has been on the agronomy faculty for many years, and has recently taken over buckwheat in addition to his responsibilities with soybeans and dry beans. Clayton Campbell, whose long career as a buckwheat breeder has produced almost all the varieties we grow in North America today, is now the research leader for McKay Seeds in Moses Lake, Washington. McKay raises several thousand acres of buckwheat for sale to Asia, as well as small grains and other crops suited to the inland Northwest.
Buckwheat and health—better than fiction

Larry Eisenberg foresaw the value of buckwheat in combatting obesity in a short piece of satirical fiction published over five decades ago. He wrote, “Kasha oil, when taken at meal time forms an unbreachable oily film about the food. Consequently, whatever has been eaten will not be absorbed by the body.” The reality turns out to be even better, if somewhat opposite. Kasha protein binds to an oil (cholesterol) so that it is not absorbed by the body.

This is one of the properties of buckwheat that make it part of a healthy modern diet, especially with the prevalence of metabolic syndrome. Eisenberg had a long career as a research scientist, and as a science fiction author. He is now known for the limericks he offers in the comment section of the New York Times website.


Seed shattering at harvest is a significant challenge for Northeast growers, but it is even more challenging elsewhere where seed ripening is less uniform so that ripe seed shatters even before the last grain is ripe. There has been some progress in breeding for shatter resistance by creating a thicker pedicel (the stem of each kernel). The goal is to produce a buckwheat plant that will hold on to the grain until the leaves have dropped, and with a stem that will be strong enough to hold the grain clusters even after the stem is dry. These are difficult goals to achieve, but this work is a promising step forward.

These breeders’ standard variety, ‘Kitawasesoba’, is similar to many cultivated types. A tetraploid, ‘Hokkai 3’, had about twice the breaking strength. A tetraploid variety called ‘PennQuad’ was developed at Penn State in the 1960s. While it had some attractive physical traits, its yield was so low that it was never developed commercially.

Research Note — shatter resistance

A new variety from Dr. Alexeeva in Ukraine, ‘Nika’, has yielded well in early trials. It is both tetraploid and green-flowered. Thus, the challenges in breeding high-yielding shatter resistant tetraploids are now being solved.

The researchers found a particular mutation doubled the pedicel diameter and the breaking strength as well. To increase the breaking strength further, they bred it into a tetraploid variety and found that the combination added shatter resistance from both sources. This pedicel-fattening mutation also causes the flowers to be green. There is not yet and explanation. We also don’t know whether bees visit green flowers as readily as they do white and pink flowers.


The Cornell fact sheet on buckwheat planting can be found online at nmsp.cals.cornell.edu/publications/factsheets/factsheet50.pdf.
**Fres hly made noodles are springier**

Fresh buckwheat noodles, soba, are greatly valued in Japan. Soba-making may be second only to sushi as a cultural food art form, and it is considerably more subtle. The springiness of the noodle is crucial, as is the characteristic of *nodogoshi*, which has been described to me as the way it feels going down the throat. The literal translation is *Passing the Throat*. Both of these properties are related to what cereal scientists call cutting strength.

An investigation from Kiyokazu Ikeda’s lab at Kobe Gakuin University found that after a ball of dough is formed, protease enzymes in the dough start breaking down the protein. Buckwheat noodles are hard to make because they contain no gluten. Gluten is the sticky protein that holds bread dough together. Losing what little sticky protein is in buckwheat dough can be a problem. Indeed they found that once the flour is mixed with water, waiting even 3 hours to finish making the noodles can make the dough softer.

This result fits in with the traditional dictum, *San-Tate*, that top soba noodles should be freshly ground (*Hiki-tate*), freshly made (*Uchi-tate*), and freshly cooked (*Yude-tate*).


Editors note: I had the pleasure of studying noodle making with Dr. Ikeda on a trip to southern Japan. He is the editor of the buckwheat journal *Fagopyrum*.

**Research note — rotation value of buckwheat**

Deborah Samac and colleagues with USDA Agricultural Research Service in St. Paul, Minnesota, Have been investigating the benefit of buckwheat in alfalfa production. Their particular concern has been ways to reduce diseases of alfalfa that are problematic in the wheel tracks. Wheel-track compaction is a significant problem in alfalfa stands, which are harvested many times each year. In the wheel tracks, they measured about 10% lower plant stands and 15 to 20% lower yields. At one research site, where crown rot was prevalent, alfalfa planted after a buckwheat crop suffered only an 8% yield loss. At a high-yielding site, with less crown rot, there was no difference attributable to buckwheat.

The researchers anticipated finding differences in the prevalence of crown rot pathogens, or in inhibitors of those pathogens. However those differences were slight. It is possible that the small differences in crown rot antagonists were enough to reduce the disease. One might also consider whether buckwheat had affected the soil condition in the wheel tracks so that the alfalfa tolerated traffic better.

How much soybean ground will go to buckwheat in 2013?

In field-crop rotations, it can be helpful to think of buckwheat as a super-early soybean. The soil has been too wet to plant during much of the soybean planting season. Therefore, Northeastern soybean growers may find buckwheat to be a good way to finish planting their planned soybean acres. Mike Stanyard, Cornell Cooperative Extension Specialist for field crops, estimates that there are about 50,000 acres of New-York soybean ground yet to be planted as of June 27. The cutoff for most of them is the first of July. It is likely that tens of thousands of acres will be available for buckwheat. If even a small proportion of that is contracted to buckwheat, it will go a long way to making the Northeast self-sufficient for buckwheat.

About the Northeast Buckwheat Growers Association

The NBGA is made up of about 150 buckwheat growers in the Northeast. Membership may be obtained by contacting the editor and providing contact information (address, phone, email). There is currently no charge to join. This semi-annual newsletter goes out to those who have signed up as members of NBGA. The printed version is sent to members in the Northeast, and electronic version elsewhere. The complete member list is distributed to members each fall. The Northeast Buckwheat Growers Association has been on the World Wide Web since 1998. An on-line Buckwheat Production Guide for the Northeast and back issues of this newsletter are available there.

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Thomas Björkman Northeast Buckwheat Growers Association