Capital Area Ag Report
October 2016

“Never be afraid of something new. Amateurs built the ark. Professionals built the Titanic.”

Announcements

Tuesday, October 11, 2016, 2pm-4pm
Biocontrol for Growers, Educators, and Consumers - Session Four of Greenhouse Biocontrol Demonstration Series at the Schenectady County Horticulture Education Center PTL Arthur Chaires Lane, Schenectady, NY. $5.00 per person. FREE Greenhouse Scout App for the first 40 greenhouse growers who sign up! Questions? Tove Ford (tff24@cornell.edu) or Lily Calderwood (lbc75@cornell.edu)

October 18 & 26, November 9, December 5 & 17, 2016,
Basic Farm Business Management Planning: A Quick Overview for Success
A 2 ½ hour class on business planning and farm business management designed to help your agricultural business achieve success. We will teach you how to avoid some of the pitfalls that strike many small businesses and connect you with helpful resources, help you find out about regulations and build a business plan to attract financing. FSA Borrower Training Financial Credits available. $25.00 for first person, $10 for each additional person from the same business. Register online at https://pub.cce.cornell.edu/event_registration/main/events.cfm, or with Tove Ford, 518-765-3518, tff24@cornell.edu, CCE 24 Martin Rd., Voorheesville, NY 12186. For more information, please contact Sandy Buxton at 518-380-1498 or sab22@cornell.edu

The Ag Report is produced by: Aaron Gabriel, adg12@cornell.edu

Building Strong and Vibrant New York Communities
Cornell Cooperative Extension provides equal program and employment opportunities
Current dates and locations (but please check with us as we may add additional ones):

- **October 18, 2016 6:00-8:30 pm at CCE-Columbia, 479 St. Rte 66, Hudson, NY**
- **October 26, 2016 6:00-8:30 pm at CCE-Greene, 6055 Route 23, Acra, NY**
- **November 9, 2016 6:00-8:30 pm at CCE-Albany, 24 Martin Rd, Voorheesville, NY**
- **December 5, 2016 6:00-8:30 pm at CCE-Rensselaer, 61 State St, Troy, NY**
- **December 17, 2016 9:30-noon at CCE-Washington, 411 Lower Main St, Hudson Falls, NY**

**October 26th, 2016 - 6:00 PM - 9:00 PM**

**Beef Quality Assurance Training**
Kinderhook Creek Farm, 5168 South Stephentown Rd, Stephentown, NY. Beef Quality Assurance is a nationwide certification program to help ensure a safe, wholesome and quality beef product for consumers. Topics covered include cattle nutrition, handling, and vaccine protocols. Trainings are free, but a charge of $10 applies for the manual (one per farm). A light supper will be served. To register: contact Tove Ford at (518)765-3518/tff24@cornell.edu

Questions: contact Hank Bignell at (518)272-4210/hdb48@cornell.edu

**December 2016**
**Farmer Discussion Groups – “Growing Crops Profitably: Inputs That Make Dollars & Sense”**
Margins and cash flow are tight. Aaron Gabriel (CCE-CAAHP) will lead a discussion on selecting crop inputs for your farm. **Noon to 2 pm.** Pizza lunch.

- **December 6th** @ Brunswick Family Community Center, Keyes Ln (off rte &), Center Brunswick, Rensselaer County.
- Date to be announced (probably 12/7) @ Knox Town Hall, 2191 Berne-Altamont Rd., Knox, Albany County
- **December 8th** @ Agroforestry Resource Center, 6055 State Route 23, Acra, Greene County.
- **December 13th** @ Cornell Cooperative Extension Meeting Hall, 479 Route 66, Hudson, Columbia County
- **December 14th** @ Proudfit Hall, 181 Main St., Salem, Washington County

**January 12, 2017**

"Strategizing the Future: The Future of Milk Markets and How to Develop an Economic Plan". Andy Novakovic (Cornell Dairy Economist) and Jason Karszes (ProDairy Farm Business Management) will discuss what will be affecting milk markets in the next few years and how to develop an economic plan. Take this time to stop, and thoughtfully plan the next few years. **Held at CCE Saratoga meeting room, 50 West High St., Ballston Spa.** Pre-registration of $18 includes lunch. RSVP by Jan 9th, 4 pm by contacting Tove Ford, 518-765-3518, tff24@cornell.edu. Late registration & walk-ins $25 and no guarantee of lunch or printed materials. Program questions to Aaron Gabriel, 518-380-1496, adg12@cornell.edu.

Brought to you by Cornell Cooperative Extension (CAAHP, CCE Saratoga, & Central NY DFC Team).
FYI & Articles

The online CCE Forage Exchange has been restarted due to the drought. Producers or growers with surplus forage or corn may use this site for free to list what they have for sale. Interested buyers may use this site to find what they need and make arrangements directly with sellers. The site URL is below along with a “how to post an ad video”.
- Forage exchange: http://forage-exchange.cce.cornell.edu
- How to post an ad video: https://youtu.be/Olrwm9drrgU


“What’s Cropping Up?” has new articles posted (click on the title):
- On-Farm Organic No-Till Planted Soybean in Rolled Cover Crop Mulch
- Wheat Does Not Respond to High Inputs at the Aurora Research Farm in the Dry 2016 Growing Season
- NYCSGA Precision Ag Project Update
- Recent results from the Cornell Organic Cropping Systems Experiment
- Emergence, Plant Densities (V2 Stage) and Weed Densities (R3 Stage) of Soybean in Conventional and Organic Cropping Systems in 2016

September’s Dairy Market Watch is now available. The Word Version is attached, and the pdf version can be viewed or downloaded here: http://chautauqua.cce.cornell.edu/resources/dairy-market-watch-2016-09-september-2016.

Fall alfalfa management decisions can be tricky. Refer to the last NYS IPM Report at http://blogs.cornell.edu/ipmwpr/2016/.

The NYS Department of Environmental Conservation (NYSDEC) has announced that their new online pesticide product registration database is available. The new database (http://www.dec.ny.gov/nyspad/products) replaces the PIMS system hosted by Cornell. Please note that PIMS is no longer updated with current product registration information, including labels. Those who need to look up current product registration information for New York State will now need to use the NYSDEC’s database.

Cover Crop Mixtures Provide More Agroecosystem Services, Study Finds (click on title) A two-year study of 18 cover-crop treatments by Pennsylvania State University researchers found that planting a multi-species mixture of cover crops provides increased agroecosystem services. Researchers tested mixtures of up to eight species and evaluated them on weed suppression and nitrogen retention during the cover-crop season, cover-crop aboveground biomass, inorganic nitrogen supply during the subsequent cash-crop season, and subsequent corn yield. (from ATTRA Weekly Harvest Newsletter)
Small Grain Variety Trial results are now available for soft white winter wheat and soft red winter wheat at https://plbrgen.cals.cornell.edu/research-extension/small-grains/cultivar-testing. Contact me (Aaron Gabriel, adg12@cornell.edu) for malting barley and hybrid rye results (they are not yet posted).

The Dairy Culture Coach is a great newsletter for dairy farm managers who employ Hispanic workers. From the Northwest NY Extension Team, find it at http://nwnyteam.cce.cornell.edu/submission.php?id=597&crumb=bilingual%7C13

Protecting Pollinators was the topic at our March 2016 Pesticide Applicator Recertification Day. The recording of the morning talk on “State of Knowledge on Health of Native and Managed Bee Species” can be found in three parts at: https://www.youtube.com/watch?v=voix_yB1Mlo (parts 2 & 3 will start automatically) or https://www.youtube.com/channel/UC56gjrLFxeP1votgPb6Z1cw (click on each part to start it separately).

Is a pasture with more species more productive? An article in “On Pasture” reports on a Pennsylvania study that answers “yes” - http://onpasture.com/2016/08/22/more-for-less-in-pasture/

Plant Diversity a Key to Soil Health (click on title) 
Research led by Lancaster University in the UK shows that plant diversity is key to maintaining soil health. Scientists tested soil's structural stability when planted with a variety of different grasses, herbs, and legumes. They found that soil structure improved with higher plant diversity and that the diverse properties of different plant roots were the key factor in keeping soil healthy.

The new Cornell Soil Health Training Manual was recently released (3rd Edition): http://soilhealth.cals.cornell.edu/training-manual/

A new way to look at “hated” bedstraw—“Bedstraw is a Nutritious and Resilient Forage”: http://onpasture.com/2016/08/08/bedstraw-is-a-nutritious-resilient-forage/

Resources for managing grains in storage (from North Dakota State Univ.) can be found on Cornell Field Crops Malting Barley page, http://fieldcrops.cals.cornell.edu/small-grains/malting-barley, or click on the title below:

- Natural Air-Low Temperature Crop Drying
- Allowable Storage Time Malting Barley
- Grain Equilibrium Moisture Content Charts
- Cool Grain to Prevent Storage Problems

One tool to control weeds in hay fields, is a “weed wiper” or “weed rope”- a herbicide saturated rope that touches weeds above the hay canopy (or any crop canopy) and wipes herbicide onto the weeds only. If you are interested, I have plans on how to make your own. Email me for a copy, Aaron Gabriel, adg12@cornell.edu.

A new tool for pre-emergent weed control in hay fields is Prowl H2O herbicide for grass and mixed stands. No product endorsement implied, just an FYI.
It has been a few months since I last wrote an “Ag Report”. As you can see in the FYI section, I have accumulated several resources. I hope you find these useful. We have gone from record high beef and milk prices to another painful slump. My goal is to help you be profitable or at least survive through the tough times. With that in mind, this winter we are planning a dairy meeting with our two best dairy economists—Andy Novakovic and Jason Karszes. We will discuss what will be affecting milk markets in the next few years and how to develop an economic plan for it. If you have other dairy market/economics questions, please let me know and I will pass them along to Andy and Jason. These are two very very busy people and I am very appreciative that they will be coming to eastern New York to talk to us. This is your chance to have some time with them.

I am also planning a series of Farmer Discussion Groups for each county. We will discuss which inputs are economical. I will probably divert a bit and discuss which management practices are economical or not. On some products, there is not a lot of research data, so if you have experience with a product, we will be glad to hear it.

**Potato leafhopper resistant alfalfa**

While attending a Cornell field day this summer, I took a couple pictures of alfalfa test plots. This picture shows a PLH susceptible variety on the left and a PLH resistant variety on the right. You would not see this contrast if your entire field is planted to just one variety. PLH resistant varieties are yielding as well as non resistant varieties with and without PLH pressure.

**Calling all Malting Barley Growers**

A small team of Cornell faculty and Extension Educators form the New York State Malting Barley Education Program, funded by NYS Ag & Markets and other funders. Cornell has been evaluating malting barley varieties so we can make recommendations for New York growers. We have also been collecting field information on malting barley and developing agronomic recommendations. A malting barley listserv has been established and winter meetings are being organized. **If you grow malting barley, please give me your contact information so I can make you part of our educational outreach** (Aaron Gabriel, adg12@cornell.edu).
Comparing the Cost of Amending Soil with Un-eaten Hay to Buying Soil Amendments

One way that farmers improve their soil is by rolling round hay bales down a slope and allowing livestock to eat some and trample a considerable amount into the soil. Or simply by placing round bales throughout a field and allowing them to eat some and trample the rest into the soil. Adding this organic matter to the soil is very beneficial to the soil, but what is the cost. By using some simple arithmetic, one can calculate the cost of waste hay as a soil amendment compared to buying other soil amendments (compost, manure, paper fiber). Consider the equations below and use your own numbers to fit your situation. My numbers favor the hay, to leave no doubt about the economics.

Value of un-eaten hay

($/bale) X (% not eaten) X (# of bales/acre) = $/ac of hay

(Bale weight/ 2000 lbs per ton) X (% not eaten) X (# of bales/acre) = tons soil amendment

EXAMPLE: $30/bale X 30% not eaten X 16 bales/acre (spaced every 50 ft) = $144/ac

800 lb bale/2000lbs X 30% not eaten X 16 bales/ac = 1.92 tons/acre of hay

Cost of Applying Soil Amendments

[ ($/ton of amendment) X (tons/acre) ] + spreading cost/acre = $/acre for soil amendment

Typical amendment costs:
  Compost - $30/ton
  Manure - $7.50 - $10/ton (assuming $0.50/lb of NPK & typical dairy manure analysis)
  Limed Paper fiber - $3 - $5/ton, plus $15/ton nitrogen to balance its high carbon / low nitrogen content, $20/ton

FOR $144/ACRE (1.92 tons hay) you can apply (at $40/ac spreading cost:
  3.4 tons of compost
  5.2 tons of limed paper fiber (that has the neutralizing value of 1 ton of lime)
  10.4 tons of dairy manure (approximately 40# N, 40# P₂O₅, and 70# K₂O)
**Soil Health Resource List** (provided by Joe Lawrence, ProDairy Forage Specialist)

USDA NRCS—Soil Health webpage

A Comprehensive Guide to Cover Crop Species Used in the Northeast United States

Nutrient Management Spear Program, Cornell University
Agronomy Fact Sheet Series
http://nmsp.cals.cornell.edu/guidelines/factsheets.html

- # 43: Nitrogen Benefits from Winter Cover Crops
- # 60: Nitrogen Credits from Red Clover as Cover Crop between Small Grains and Corn
- # 64: Forage Radishes
- # 88: Estimating Fall Nitrogen Uptake by Winter Cereals
- # 91: The Carbon Cycle and Soil Organic Carbon

Calculators
http://nmsp.cals.cornell.edu/software/calculators.html
- Fall Nitrogen and Carbon Pools for Winter Cereals

Impact Stories
http://nmsp.cals.cornell.edu/NYOnFarmResearchPartnership/DoubleCrops.html

Articles
http://nmsp.cals.cornell.edu/publications/extension.html

Comprehensive Assessment of Soil Health, Cornell University
http://soilhealth.cals.cornell.edu/training-manual/

Penn St. Cover Crops
http://extension.psu.edu/plants/crops/soil-management/cover-crops

Steps Toward a Successful Transition to No-Till, Penn State University
http://extension.psu.edu/publications/uc192/view

Advanced Ag Systems Crop Soil News
http://advancedagsys.com/newsletters/

- Multiple newsletters related to Double Crop Management

Herbicides Persistence and Rotation to Cover Crops, Penn State University
http://extension.psu.edu/plants/crops/soil-management/cover-crops/herbicide-persistence

How are cover crops affecting my nutrient levels?
http://ulster.cce.cornell.edu/agriculture/justin-odea-1
SARE
Managing Cover Crops Profitably, 3rd Edition
http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition

Building Soils for Better Crops, 3rd Edition