Cornell Cooperative Extension | Northwest NY Dairy, Livestock and Field Crops Program

AG FOCUS

Making Plans for the Future

by Margaret Quaassdorff

The beginning of a new year is a great time to review your farm's goals and ambitions.

Where Do We Want to Go? Don't shoot for average; shoot higher, but keep your goals realistic.

"We want to improve profitability on our farm."

Where are we right now? Take a look at your records. If you haven't consciously been tracking basic production measurements like milk per cow and total solids, or cows sold in the first 60 days in milk, or heifer inventory, start now.

How do we get there, and when will we know we were successful? In a recent presentation on freestall and tiestall economics, Kelsey O'Shea from the CCE North Country Regional Team, explains three ways to improve profitability:

1. Increase Income: Will this investment help me sell more milk, or more components, or reach the next premium level?

2. Reduce Costs: Will this investment decrease my overall cost per unit, or is there a cheaper (yet still equally effective) alternative?

3. Improve Efficiency: Will this investment help me spread costs over more units, or make more per unit, or take less time to accomplish, or use significantly less labor?

Here is also where a partial budget comes in to help make your goal a reality.

Partial budgeting helps you determine what effects (potentially positive and negative) can result from a single change in business strategy. Consider each of these areas and write them down; what will be the: a). Added Income (what more are you selling, what is its quality and value?), b). Added Costs (what more are you buying, who else needs to be paid?), c). Reduced Costs (what don't you have to buy anymore, or how many labor hours are you saving?), d). Reduced Income (What won't you be selling anymore, how much milk yield/components might you lose?).

An example: Goal- Improve profitability by increasing cow comfort on a sand-bedded freestall

Research from Miner Institute tells us that each additional hour of resting time is associated with 2.0-3.5lbs more milk per cow per day, with her ideal resting time between 12 and 14 hours total. Photo by M. Quaassdorff.

We are assuming:

- 300-cow dairy that has sand bedding that could be bedded more often
- Evaluate on a monthly basis
- We will increase resting time by 5-10% which will give us 1lb/cow/d more milk (being conservative)
- $18.00/cwt milk
- Increased bedding amount by 20% ($490/month more)
- Increased bedding management by 4 hrs/week (@15.00/hr.)

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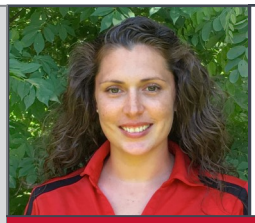

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Making Plans for the Future

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So… 300 cows x 1lb more per day x $0.18 per lb. milk x 30 days = $1,620/month additional milk income

Now subtract…$490 per month of additional sand cost and $240 per month in additional labor costs

Total: $1,620 - $490 - $240 = a net positive of $890

Now, consider variations on the scenario…if those extra 16 hours a month to add bedding are overtime hours, your cost of labor is higher, $360…which still gives you a monthly net positive of $770. Now, calculate on your own for different milk prices. Could you afford more labor if she made 2-3lbs more milk? Does it still make sense in each plausible scenario? Talk it over with your farm management team, employees and consultants. Is it feasible on your farm? A great resource "Economic Benefits of Improved Cow Comfort" by Rick Grant has additional information that can help in your partial budgeting.

How did we change? Was it a worthwhile investment? Do I need to change again?
Now that you have taken some of the risk out of the decision to improve cow comfort and profitability on your farm, you may decide to go ahead and invest...but don't stop there! After the first month of adding extra bedding, have you noticed an increase in your milk production to your expectation of 1lb/cow/d? Is it more, or less, or no change? Check it! Has it resulted in an increase in profitability on your dairy? If not, re-evaluate, see what might have been different than what you predicted. Measure again next month.

In this way, you can strategically and methodically tackle each one of your farm's goals of 2020 and beyond! Happy New Year!

Upcoming Webinars

January 13, 2020 - Noon (CST)
The dairy situation and outlook for 2020
Mark Stephenson, University of Wisconsin-Madison
https://hoards.com/flex-309-Webinars.html

January 27, 2020 - 1:00PM (EST)
Facilitating dairy teams: Tips, tricks, & to dos
Lisa Holden, Penn State
https://extension.psu.edu/dairy-management-mondays

February 11, 2020 - 8:30AM (EST)
Technology Tuesday Webinar
Penn State
https://extension.psu.edu/technology-tuesdays

Inside This Issue


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Catch Up on a Good Read by Nancy Glazier

Winter is always a great time to read some good books. I was asked to review the book, *The Art and Science of Grazing, How Grass Farmers Can Create Sustainable Systems for Healthy Animals and Farm Ecosystems*, by Sarah Flack. It is written for all graziers with all skill and experience levels; it valuable information to get the beginner off on the right start and a great resource for the experienced grazier.

Though Flack has lived in and traveled to distant parts of the world she now lives in Vermont. The book is written from the perspective of mesic, or humid climates: think the eastern US. It is scientific, but clearly written for the layperson; written to benefit conventional and organic farms. References are listed in the Notes section if the reader has interest in delving deeper. Call out boxes highlight additional or critical points. The art portion is covered at the conclusion of chapters with spotlights on successful grazing farms. All is highlighted with great pictures and illustrations, all numbered to be referred to in the text.

This book is a good read all the way through and afterward as a resource go-to on the bookshelf. It is broken down into four parts: Laying the Groundwork, Grazing from the Plant's Perspective, Grazing from the Animal's Perspective, and Designing and Managing a Grazing System. Each successive chapter builds off the preceding chapters. The Contents are listed by Part, Chapter and Headings. This helps to quickly find what you are looking for. An Index is included in the back of the book to search for words or short phrases.

What I really like is how Sarah drives home the importance of management, particularly in averting overgrazing. That is the biggest challenge I see as an educator. She stresses paying attention to occupancy and recovery periods, and modifying them as the season advances, and adding acreage as needed during summer slump.

Fertility management is covered. Many pastures are brought back into production from idled land. Soil testing is an important first step to know what amendments are needed.

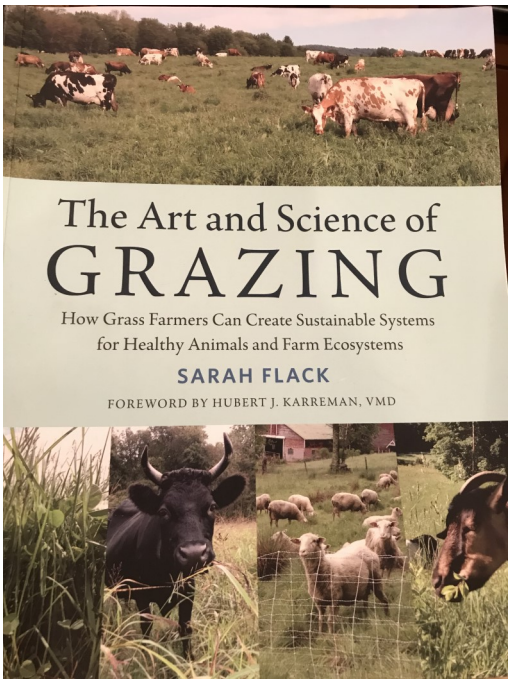
Chapter six is a review of common pasture plants, including some that are sometimes considered weeds. With proper management weeds are fine additions to pastures. Sarah describes annual and perennial species of cool- and warm-season grasses (including small grains), legumes and forbs. She points out the importance of matching species to one's soils, drainage and climate.

Eat Now, Chew Later. Part three of the book looks at the ruminant digestive system and nutrition from pasture. Pasture quality is a moving target, but Sarah does a great job walking the reader through it. She covers basic nutrition, collecting and understanding a forage analysis. She reviews manure scoring and why it's important with pictures to help with descriptions. She continues with a chapter on grazing behavior that includes a review of toxic or mechanically injuring (thorny) plants, and other potential health concerns associated with grazing.

Part four brings it all together with Designing and Managing a Grazing System. Chapter 14 covers design and infrastructure including fence, water, and electric, even some cool labor-saving technology. The next chapter brings goals, plans and management together for a successful system. Worksheets are provided to develop your own plan. Recordkeeping is recommended to keep track of what transpired – rain, temperature, residency, recovery, number of livestock – and plan for future grazing.

Things don't always go smoothly on the farm. Flack has developed troubleshooting tables for livestock, plants, and soil. A glossary is included that helps define and clarify related jargon. Resources are listed for further reading.

Sarah provides the science and reminds us of the art of grazing with her chapter endings. There are no cookie-cutter grazing systems and this book will help you develop and manage yours. So much great stuff in one book! I read it cover to cover.



The Art and Science of Grazing book cover. Photo courtesy of N. Glazier.

A Cornell University Study Finds that when Compared to Conventional Corn Soybean Wheat Rotations, Organic Crop Rotations Generated Greater Returns when Totaled over Four Years

by John J. Hanchar and Bill Cox

This article draws from Bill Cox, John Hanchar, Eric Sandsted, and Mark Sorrells. 2019. "Organic Compared to Conventional Crop Rotations … and in the total 4 Years of the Study". What's Cropping Up? Newsletter. http://blogs.cornell.edu/whatscroppingup/2019/08/09/organic-compared-to-conventional-crop-rotations-lost-during-the-transition-but-made-more-in-the-2-years-after-the-transition-and-in-the-total-4-years-of-the-study/

Note, the following abbreviations are used in this article.

Abbreviation	Description
C	Corn Grain
S	Soybean
W	Wheat
RC	Red Clover as a Green Manure Crop
RC-C-S-W/RC	4 Year Sequence of Red Clover-Corn-Soybean-Wheat/Red Clover
C-S-C-S	4 Year Sequence of Corn-Soybean-Corn-Soybean
S-W/RC-C-S	4 Year Sequence of Soybean-Wheat/Red Clover-Corn-Soybean

Summary

- Although not evaluated statistically, the Organic S-W/RC-C-S rotation was far more profitable than the two other 4 year organic sequences.
- In contrast, the C-S-C-S rotation was most profitable for the conventional system.
- Based upon 4 year sums of returns and study conditions, results suggest that organic cropping systems, regardless of rotation, generated greater returns above total selected costs when compared to conventional crop sequences, rotations.

Background

Producers often express interest in alternative crops for their potential to improve the economic viability of their businesses. Organic crop production interests some producers.

Bill Cox, Emeritus Professor, Cornell University/School of Integrated Plant Sciences, and others initiated a 4 year study at Cornell University's Aurora Research Farm in 2015 to compare different sequences of the corn, soybean, wheat/red clover rotation in conventional and organic cropping systems under recommended and high input management during the 36 month transition period from a conventional to an organic cropping system. Please see Cornell University's "What's Cropping Up? Newsletter" website for reports by Professor Cox on the multiyear study <https://scs.cals.cornell.edu/extension-outreach/whats-cropping-up>, including the research mentioned at the beginning of this article.

Results

Returns above total selected costs varied by treatment by crop sequence (Table 1). Based upon four year totals of returns above total selected costs and given the agronomic conditions under which researchers implemented the study, organic cropping systems outperformed conventional sequences.

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Table 1. Estimated selected costs, revenues, and returns above total selected costs by treatment by 4 year crop sequence, rotation, dollars per acre, Cox and others, 2019, New York.

	4 Year Sequence (2015 through 2018)		
Treatment	**RC-C-S-W/RC**	**C-S-C-S**	**S-W/RC-C-S**
	Total Selected Costs ($ per acre)		
Conventional			
Recommended	572	781	616
High Input	782	996	868
Organic			
Recommended	723	1322	798
High Input	1208	1708	1210
	Total Revenue ($ per acre)		
Conventional			
Recommended	1379 b	2172 b	1775 b
High Input	1432 b	2351 b	1888 b
Organic			
Recommended	1942 a	2980 a	2927 a
High Input	2015 a	3198 a	3168 a
	Return above Total Selected Costs ($ per acre)		
Conventional			
Recommended	807 b	1391 b	1159 c
High Input	650 c	1355 b	1020 c
Organic			
Recommended	1219 a	1659 a	2128 a
High Input	807 b	1490 b	1959 b

Notes

- Treatment means within the same column for the same measure followed by the same letter are not significantly different at the 0.05 level.
- For other detailed notes see the full article referenced at the beginning of this article.

Future analysis will include net present value analysis based upon study findings.

Farm Laborers Fair Labor Practices Act Brings Changes to New York Farms by Libby Eiholzer

Farms in NY will be required to comply with the new labor laws beginning on January 1, 2020. The major changes that this law brings about include overtime pay after 60 hours of work in a calendar week, a mandatory day of rest every week and the right to collectively bargain. In addition, Worker's Compensation, Unemployment, and Disability Insurance and Paid Family Leave are now required for all employees. (There are no longer exemptions for farm employers or for small farms).

Researchers and extension educators from Cornell University Agricultural Workforce Development, Charles H. Dyson School of Applied Economics and Management, Cooperative Extension and PRO-DAIRY, have developed several tools to help New York farmers manage through these changes.

A new extension bulletin "Adapting Your Labor Strategies to New York's Revised Farm Labor Employment Laws" gives a more in depth explanation of these major changes. It also discusses the pro and cons of various management strategies that farmers may consider in response to the new overtime rules. The guide does not make recommendations, but details the positive and negative implications of changes to work schedules, employee policies and farm expenses.

Our spreadsheet tool is designed to help farm managers estimate how much overtime they would have to pay under their current employee work schedules. The tool can also be used to estimate costs of new work schedules. To use the tool you will need to know current compensation levels and work schedules. Worksheets are provided to collect or calculate that information in advance, if it is not readily available.

Visit agworkforce.cals.cornell.edu/overtime to download these tools or contact Jennifer Ifft (jifft@cornell.edu) or Richard Stup (rstup@cornell.edu) for more information.

For a Spanish-language explanation of the changes in the law to share with your employees, visit: https://nwnyteam.cce.cornell.edu/topic.php?id=13.

2020 Pesticide Training and Recertification Series

Date	Wednesdays, February 5, 12, 19, 26, 2019; Exam Wednesday, March 4, 2020
Time	7:00 pm – 9:30 pm; Exam: 6:00 pm – 10:00 pm
Location	Cornell Cooperative Extension-Ontario County, 480 North Main Street, Canandaigua, NY 14424
Cost	$175.00 for certification which includes the training manuals and all 4 classes. Does not include the $100.00 exam fee. Recertification is $25.00 per class.
Contact for Info/ Registration	Cornell Cooperative Extension-Ontario County, 585-394-3977 x 427 or x 436 or email nea8@cornell.edu or rw43@cornell.edu Registration form is available on the website www.cceontario.org
Description of Meeting	Anyone interested in obtaining a pesticide certification and meets the DEC (Department of Environmental Conservation) experience / education requirements **OR** current applicators seeking pesticide recertification credits should attend. 2.5 recertification core credits will be available for each class.

Commander's Intent

by Timothy X. Terry, Harvest NY

So you've done your part. You've hired and/or trained up the right people, developed standard operating procedures (SOPs), and planned for every contingency (you hope). Now the question becomes, "How much oversight or direction do I need to give these guys?" Lee Iacocca once said, "I hire people brighter than me and then get out of their way." Simple to say, but obviously, much harder to do. It's no doubt a balancing act as you're walking a very fine line between informed oversight and inefficient/ineffective micromanagement. You want to make sure they remain true to the cause, but also give them enough leeway so they can work efficiently, make needed changes on the fly, and incorporate new ideas as appropriate.

Commander's Intent

In any military operation there is an element of uncertainty. SEALs and other Special Forces are trained to improvise, adapt, and overcome, but what does that look like and how do they know what to do? Short answer: they follow the principle of *Commander's Intent*. Commander's Intent acts as a basis for transforming thoughts into actions. It links the mission and concept of operations and answers the question, "If everything goes well, what will the world look like?" (a.k.a. – the end state). You might recognize the end state better as a goal. By focusing on the larger goal, your team, or crew, has the guidance it needs to complete the tasks, but also sufficient autonomy to make real-time decisions as needed.

Here's the rub, though. It requires transparency on your part and time to build trust between you and your crew(s).

Expanded Purpose

Even the U.S. Army Field Manual states that, "The mission and the commander's intent must be understood two echelons down." This from an organization built on a well-defined hierarchy, but obviously they understand that front-line forces are more effective when they understand the <u>why</u> behind the <u>what</u>. For you, this means communicating the broader vision of what accomplishing this objective means to your operation. Share with them the farm's Mission Statement, production goals, long term vision, etc. – even if they are just close family members. This is where the transparency part comes in. Take time to explain why that seemingly insignificant, mundane activity is actually vital to the progress of the enterprise.

Commander's Intent acts as a basis for transforming thoughts into actions. It links the mission and concept of operations and answers the question, "If everything goes well, what will the world look like?"

For example, when I was managing university research farms we spent what some considered an inordinate amount of time making sure everything was always spic-and-span -- lawns mowed, flowers weeded, windows washed, etc. Some might suggest we were obsessive-compulsive. Yes, there were frequent grumblings by the work-study students, but once I explained how the farm was a flagship entity of the university and was always under greater scrutiny by the community (and alumni benefactors) the grumbling subsided (didn't stop, just subsided).

Key Tasks

Follow Lee Iacocca's advice (see above). Help your crew focus on those activities that must be performed as a whole in order to achieve the desired end state (goal). Don't let them get bogged down in the implied minute details of the operation.

Here's what I mean. You have a protocol that requires sanitizing calf feeders and pens / hutches before they are reused. Implied in the process is the use of detergents, sanitizers, scrub brushes, and hot water, so this shouldn't have to be specifically outlined or that they need to keep a supply of these materials in close proximity to the point of use (if you do, you may need to revisit your training

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Commander's Intent

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protocols). The phrase "…before reuse" also gives them flexibility to schedule cleaning for a more advantageous time – better weather, staff and equipment availability, etc. – but it also points them to the desired end state of caring for neonates with sanitary equipment so they don't get lost along the way.

Resource Expenditure

The end state (goal) is closely tied to your mission and vision. This is the homing beacon keeping your crew on track though there be many tactics employed getting there. That said, however, if the cost – time, talent, treasure – is more than the benefit realized, you and your crew may need to rethink the whole process.

I was recently called out to a farm that wanted to rework a heifer barn because the present setup was very labor intensive especially at cleanout. The facility was an add-on to the main tiestall barn and was not part of an overall farmstead development plan. The interior had many support columns, and the eave height was low – about 8' – making equipment entry pretty much impossible. After sketching out many scenarios it became painfully apparent that the farm could spend a significant amount of money, but only marginally improve labor efficiency. In the end the farm decided to save their pennies for new stand-alone heifer barn at some time in the future.

Take Home Message

This Commander's Intent philosophy will likely require a paradigm shift in how you manage the business and your employees execute their tasks. The reward, though, is two fold: 1) it keeps your focus at the managerial level, and 2) you empower your crew to learn and grow.

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We would like to invite you to join us at our Precision Planting and Precision Data Analytics clinics.

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- **Understand the agronomics to produce higher yields, with optimum planter performance.**
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- **Planning for the future……..surpassing your yield goals.**

Check the 2020 Schedule Below. Call ahead to your Growmark FS Agronomy or Precision Ag Specialist and reserve a seat. Clinic times are listed below.

When:	**Where:**	**Time:**
Tuesday, February 11, 2020 RSVP (570) 265-8141	American Legion 912 Main Street Towanda, PA 18848	Registration at 9:30 AM 10 AM Start 3 PM Adjourn
Wednesday, February 12, 2020 RSVP (716) 665-9164	Club 57 Restaurant 7465 Seneca Rd. N Hornell, NY 14843	Registration at 8:30 AM 9 AM Start 3 PM Adjourn
Thursday, February 13, 2020 RSVP (585) 322-7273	Wolf Creek Event Center 12 Main St. Castile, NY 14427	Registration at 8:30 AM 9 AM Start 3 PM Adjourn
Friday, February 14, 2020 RSVP (716) 665-9164	Falcon's Nest 2001 E. Main St. Falconer, NY 14773	Registration at 8:30 AM 9 AM Start 3 PM Adjourn
Tuesday, February 18, 2020 RSVP (315) 841-8886 - Sangerfield RSVP (315) 877-4142- Lowville	Holiday Inn 1777 Burrstone Road New Hartford, NY 13413	Registration at 8:30 AM 9 AM Start 3 PM Adjourn
Wednesday, February 19, 2020 RSVP (716) 998-4972 RSVP (716) 665-9164	Waterloo Quality Inn 2468 NY Ste. Rte. 414 Waterloo, NY 13165	Registration at 8:30 AM 9 AM Start 3 PM Adjourn
Thursday, February 20, 2020 RSVP (716) 665-9164	Batavia Quality Inn 8250 Park Rd. Batavia, NY 14020	Registration at 8:30 AM 9 AM Start 3 PM Adjourn

RSVP to one of the phone numbers above to reserve your place. Lunch is provided.

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Modern On-Farm Preparedness

On-Farm and Live Webinars

Webinars can be accessed at the local site or signed in anywhere from a mobile device or computer.

Six consecutive Thursday afternoons: January 23 - February 27. Attend all sessions or individual sessions.

Registration is $10 per session or $50 for all six sessions.

Presenting organizations:

Cornell Cooperative Extension, NY State Cattle Health Assurance Program, American Dairy Association, and New York Center for Agricultural Medicine and Health.

Information on locations and registration:

NNY - Registration or questions: Tatum Langworthy tlm92@cornell.edu | 315-788-8450 | reg.cce.cornell.edu/modernonfarmpreparedness_10512

NWNY - Registration or questions: Brandie Waite | 585-343-3040 ext.138 | bls238@cornell.edu | nwnyteam.cce.cornell.edu/events.php

SCNY - Questions: Betsy Hicks | bjh246@cornell.edu | 607-391-2673

Cornell CALS
College of Agriculture and Life Sciences

DATES AND LOCATIONS

Jan 23 - Preparedness for Urgent Situations. Be prepared for a fire, weather emergency or barn damage.

Old Acres Farm, 7863 Route 39, Perry, 1 - 4 pm.

Jan 30 - F.A.R.M 4.0 Update. The F.A.R.M program is evolving as farmers implement the program. Learn about how farmers have used and gained benefits and how you can use the FARM program.

Webinar, CCE Orleans County, Albion: 1 - 2 pm.

Feb 6 - Activist Preparedness. This session will address good hiring practices, available resources for support, and a plan of who to contact if something happens on your farm. Learn how to talk about activist videos and how to prepare your employees for these events.

Webinar, CCE Genesee County, Batavia 1 - 2 pm.

Feb 13 - Social Media Preparedness. How to respond to negative comments on farm pages. Resources and people you can call for effective responses.

Lamb Farms, 6880 Albion Rd. Oakfield, 1 - 4 pm.

Feb 20 – Disease Outbreaks and Biosecurity. Dr. Melanie Hemenway, State Veterinarian, will provide concrete steps to deal with disease outbreaks and make biosecurity recommendations for prevention.

Webinar, CCE Wyoming County, Warsaw: 1 - 2 pm.

Feb 27 - On Farm Safety-Prevention, Prevention, Prevention. Yet accidents still happen. This session will focus on prevention and also address accident response.

BreezyHill Dairy, 2705 N Sheldon Rd. Strykersville, 1 - 4 pm.

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Soybean Cyst Nematode Now Confirmed in Six Additional Counties in New York

by Jaime Cummings and Ken Wise, NYS Integrated Pest Management Program; Mike Hunter, Mike Stanyard, Aaron Gabriel and Kevin Ganoe, Cornell Cooperative Extension; Michael Dorgan, NYS Dept. of Agriculture and Markets

The soybean cyst nematode (SCN) is considered the number one pest of economic concern of soybeans nationally and globally, potentially causing 10-30% yield loss in the absence of above ground symptoms. In 2017, national estimates reported over 109 million bushels lost to this pest in the U.S. alone. Considering that this pest is confirmed in surrounding states and provinces, and given its potential to spread, statewide survey efforts have been underway since 2013 to determine the presence or absence of the soybean cyst nematode in NY. From 2013-2016, numerous fields in 17 counties were sampled and tested as part of a statewide soybean disease survey led by Cornell's Field Crops Pathology program, funded by Northern NY Agricultural Development Program and NY Corn and Soybean Growers Association. In 2016, SCN was confirmed in one field in Cayuga County by Cornell's USDA ARS Nematology lab, albeit at very low levels. Since then, survey efforts have continued, because it is widely assumed that SCN is much more prevalent in NY.

In 2019, the NYS Integrated Pest Management Program was commissioned by NYS Department of Ag and Markets to coordinate a Cooperative Agricultural Pest Survey (CAPS) in soybeans with Cornell Cooperative Extension specialists to maintain vigilance against potentially invasive species. For more information about the CAPS program and this survey effort, please refer to this article. As part of this survey, 25 soil samples were collected from fields in 16 counties across NYS and were submitted for testing at the SCN Diagnostics laboratory. Of those 25 samples, seven of them were positive for SCN in six different counties, confirming our suspicions that this pest is potentially widespread throughout soybean production areas in NY. This brings us to a total of seven counties in NY with at least one field positive for SCN. The counties identified with fields positive in 2019 include Columbia, Dutchess, Jefferson, Monroe, Tompkins and Wayne (Fig. 1).

Thankfully, the egg counts in these positive samples were all below 500 eggs per cup of soil (250 cc of soil). Although that may sound like a lot, these are very low numbers compared to the 10,000-80,000 egg counts that some growers struggle with in other states. This means that we are in a good position to *proactively* manage for this pest *before* it gets out of hand and starts causing economic losses.

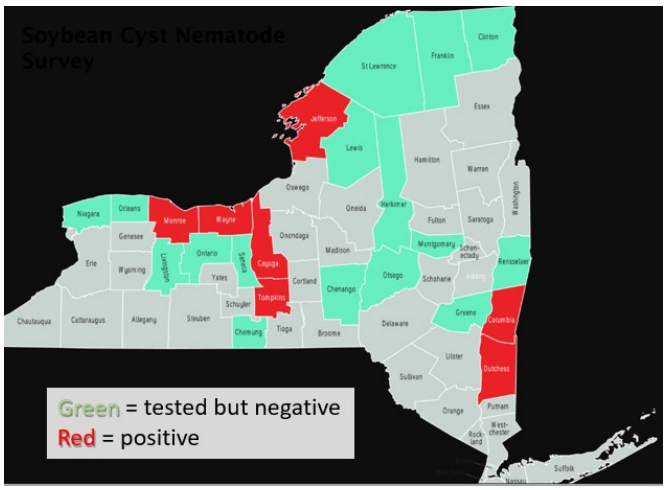


Figure 1. Soybean cyst nematode survey efforts in NY since 2013. Counties colored in green had fields tested with negative results, and counties colored in red had one or more fields that tested positive. The first positive result was in Cayuga County in 216. In 2019, six more counties tested positive as a result of the soybean Cooperative Agricultural Pest Survey.

An integrated management approach will help NY soybean growers stay ahead of the soybean cyst nematode. This involves continued testing efforts to monitor your fields for SCN. Determining if you have the pest is the first step toward management. For detailed information and recommendations on how to collect samples for SCN testing and where to send those samples to, please refer to this article. If you get a positive result, keep records of your egg counts for each individual field. Implement the following tactics when managing for this pest:

1. SCN can be moved among fields on soil, whether it be via wind, water, equipment, or boots. Consider improving sanitation of equipment coming from fields with known SCN infestation to avoid spreading it to others.

(Continued on page 16)

Soybean Cyst Nematode Now Confirmed in Six Additional Counties in New York

(Continued from page 15)

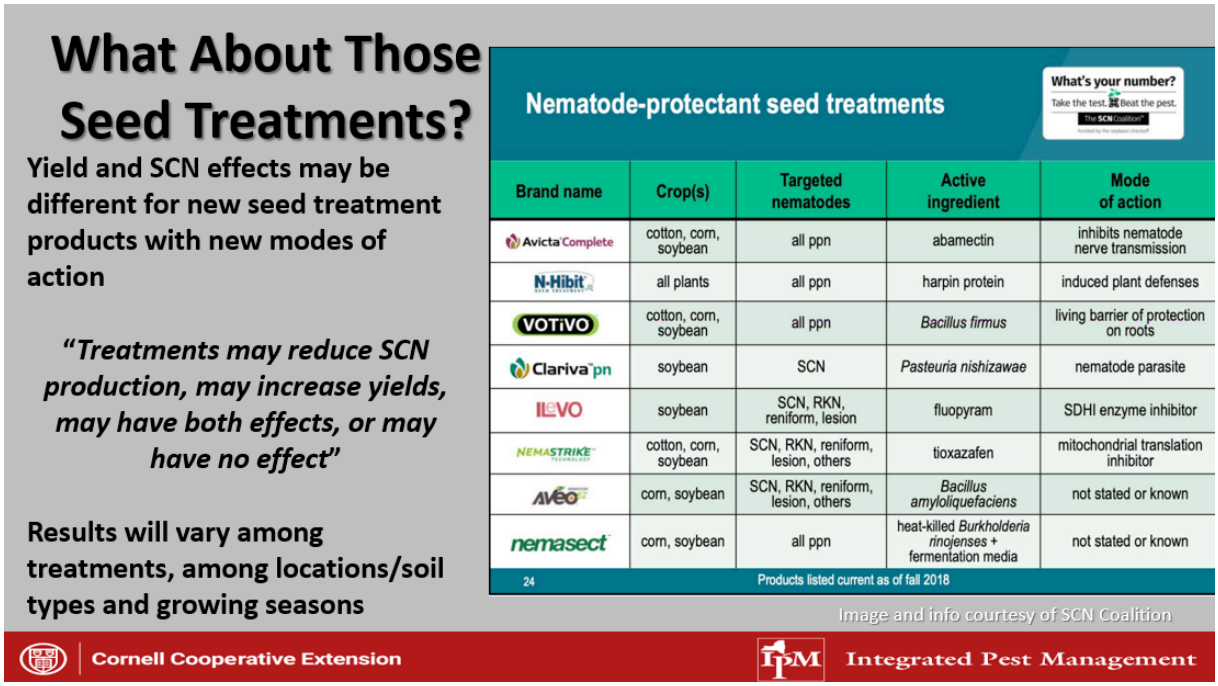


Figure 2. Nematicidal seed treatments available for managing soybean cyst nematode.

2. Crop rotation is the number one tool for managing SCN. Rotating to a non-host crop, such as corn, small grains, alfalfa, forage grasses and mixes for one year can reduce the nematode population by up to 50%. Continuous soybean production in an infested field can increase nematode populations exponentially, since this pest can have up to three life cycles per season in NY.

3. Select and plant soybean varieties with resistance to SCN, and rotate those resistant varieties that you plant. The nematode quickly develops resistance to the resistant varieties when exposed to the same varieties over and over, in the same way that weeds develop resistance to over-used herbicides.

4. Consider nematicidal seed treatments if your SCN populations start causing economic damage (Fig. 2). Research has shown that these products are only cost-effective with high SCN population levels causing significant damage.

5. *Keep testing*. Continue to test fields that you get negative results from, and especially continue to test fields that you get positive results from. Keep track of your egg counts in each field to know how your populations are changing, as that may affect your management strategy. It is recommended that as long as egg counts remain below 30,000 eggs per cup of soil, crop rotation with SCN-resistant soybean varieties is the best approach.

Crop rotation is the most important tool, and we are lucky to have a number of non-host crops already in our rotations. But, SCN has a fairly wide host range, including a number of our common weeds and cover crops. Some of these weed and cover crop hosts include chickweed, clover, common mullein, henbit, pokeweed, vetch and purslane. That's just another thing to remember as you plan your crop rotations and weed management strategies.

Keep in mind that testing for SCN can be tricky, since it can be difficult to detect at low population densities, and populations can be quite variable within a field (Fig. 3). Focus your testing efforts on fields with unexplained lower yields, or fields with a history of Sudden Death Syndrome (SDS) or Brown Stem Rot. It is well known that there is a strong correlation between the presence of SCN and SDS.

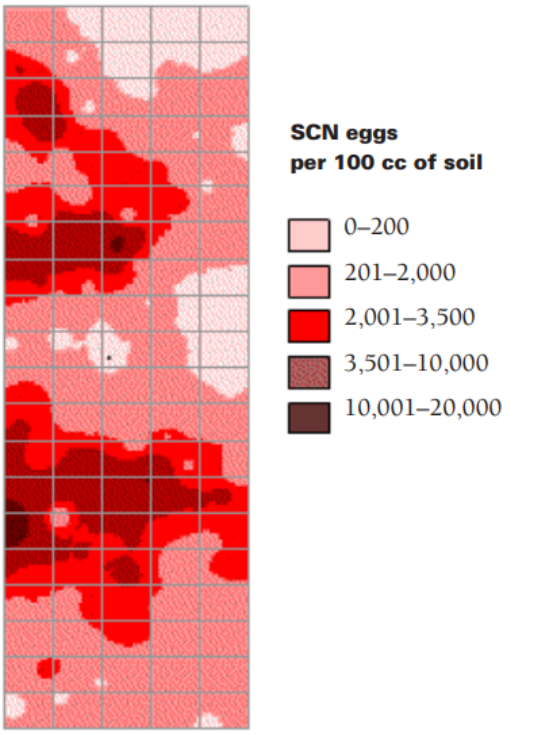
(Continued on page 17)

Soybean Cyst Nematode Now Confirmed in Six Additional Counties in New York

(Continued from page 16)

If you see patches of SDS in your field, that would be an ideal location to pull soil samples for testing for SCN. For more information on the relationship between SDS and SCN, please refer to this article.

For more information on this pest and recommendations, please visit the Soybean Cyst Nematode Coalition website. There you will find numerous resources explaining the resistance issues with this pest, how and where to test for it, management recommendations, and success stories. Expanded SCN testing efforts will commence in 2020, supported by the NY Corn and Soybean Growers Association. If you suspect SCN in your fields, contact your area Cornell Cooperative Extension specialist for assistance, they may be able to offer you free testing on suspect fields as part of the expanded testing efforts in 2020.



Variability in SCN egg population densities among half-acre cells of a 50-acre study area in Boone County, Iowa.

Figure 3. Grid sampling reveals high variability in soybean cyst nematode population densities within a single field. (Image courtesy of Iowa State University)

2020 Soybean & Small Grain Congresses

February 5, 2020	February 6, 2020
Quality Inn & Suites	Quality Inn
8250 Park Road	2468 NYS Route 414
Batavia, NY	Waterloo, NY

Check your mailbox for Congress brochures or visit:
https://nwnyteam.cce.cornell.edu/

Morning Agenda

8:30 AM - 9:50 AM
Registration & Visit Vendors

Managing Wheat for High Yield Potential

Dennis Pennington, Small Grains Specialist
Michigan State University

Disease Management Issues in Small Grains and Soybeans

Gary Bergstrom, Plant Pathologist
Cornell University

Effective Programs for Controlling Waterhemp in Soybeans

Bryan Brown, NYS IPM Program
Cornell University

Lunch & Visit Vendors

Afternoon Agenda

Building a Soybean Yield Potential Database in New York

Jodi Putman, Field Crops
Cornell Cooperative Extension

Cereal Leaf Beetle: History, Biology, Management and Biocontrol

Jamie Cummings, NYS IPM Program
Cornell University

Managing Spray Drift

Mike Helms, Pesticide Management Education Program, Cornell University

Assessing Pesticide Hazard vs. Risk: Glyphosate, a Case Study

Dan Wixted, Pesticide Management Education Program, Cornell University

Guest Speaker: Dennis Pennington, Michigan State University Extension

Dennis has been employed with MSU Extension for 22 years. His career includes being a two county agriculture and natural resources educator, senior bioenergy educator and Extension specialist for wheat. Dennis received both his Bachelor and Master of Science degrees in the Crop and Soil Sciences Department from Michigan State University. His current research program includes the wheat state performance trials, precision planting, high management BASF project and on farm research and demonstration. Dennis is committed to excellence and strives to fulfill the MSU Extension mission by bringing science-based information and knowledge to critical needs and issues.

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2005 PETERBILT 378; 475 HP CAT C15; Jake Brake; 10-Spd. Manual; 206" WB; 12,000# F/A; 46,000# Locking Rears on Chalmers Susp.; Polished Alum. Wheels; Dual Exhaust & Air Cleaners; 738,651 Miles; Stk. #5821 - $50,000

2008 MACK GRANITE GU813 WATER TANK TRUCK; 485 HP Mack MP8; 18-Spd.; Tandem Axle; 24.5 Tires (75% Rubber); 236" WB; 20,000# F/A; 46,000# Locking Rears; 4,400 Gal. Water Tank w/Pump; Can Separate Tank From Chassis; 21' Frame Behind Cab; 170" CT; 337,914 Miles; Stk. #5838 - $63,000

1997 FORD L9000; Double Framed 6x6 Flatbed/Knuckleboom Truck; 330 HP Cummins M11; 18-Spd. Manual; w/Fasse F270 Knuckleboom Crane; 18,740# F/A; 46K Rears; 13,200# Rear Mounted Lift Axle; 23'6" x 102" Flatbed; 248" WB; Will Separate Bed & Crane From Chassis; 29' Frame Behind cab; 208" CT; 111,244 Miles; Stk. #6157 - $26,900

2006 KENWORTH T800; Flatbed Winch Truck w/Braden 30-Ton Winch; 550 HP CAT C15; 18-Spd. Manual; 16K F/A; 46K Full Locking Rears; 284" WB; 18'6" Deck; Air Ride Susp.; Flip Over 5th Wheel; Will Separate Deck & Winch From Chassis; 21' Frame; 206" CT; 4.30 Ratio; 295,224 Miles; Stk. #6148 - $45,000

2004 KENWORTH T800; 525 HP CAT 6NZ; 18-Spd. Manual Trans.; Clean Datcab w/220" WB; 46K Full Locking Rears; KW 8-Bag Air Ride; 4.11 Ratio; Stk. #5725 - $58,000

2003 PETERBILT 367; Daycab; 485 HP Cummins ISX; Allison Auto. Trans.; Tandem Axle; 24.5 Tires; Alum./Steel Wheels; 202" WB; 14,600# F/A; 44,000# Full Locking Rears; Wetline; 109,212 Miles; Stk. #5843 - $52,500

315 FREIGHTLINER 122SD; 505 HP Detroit Diesel DD15; Jake Brake; 18-Spd. Manual; Double Frame Vacuum Truck w/Curry Supply 4,200 Gal. Tank; Masport Pump; 20K F/A; 46K Full Locking Rears; Chalmers Susp.; 330" WB; 2-Steerable Lift Axles; 17,524 Hours; Will Separate Tank From Chassis; 25' Frame Behind Cab; 236" CT; 380,229 Miles; Stk. #6077 - $69,500

2003 KENWORTH T800; 475 HP CAT C15 6NZ Turbo; 8LL Manual Trans.; Clean Daycab w/12,800# Front Axle; 46K Rears On KW 8-Bag Air Ride; 4.11 Ratio; 186" WB; Wetline; 447,898 Miles; Stk. #5925 - $53,000

2010 PETERBILT 365; 350 HP Cummins ISM Engine; Allison Auto.; Long, Double Frame Cab & Chassis w/300" WB; 227" CT; 31' Frame Behind Cab; 18,000# F/A; 60,000# R/A On Hendrickson Susp.; 87,267 Miles; Stk. #5907 - $59,900

1999 MACK RD688S DUMP TRUCK; 400 HP Mack E7; Engine Brake; 8LL Trans.; Rubber Block Susp.; Tri-Axle; 19' Steel Body; 20,000# F/A; 46,000# R/A; 22.5 Tires; 248" WB; Spoke Wheels; EXPORT PRICED!!!; 777,148 Miles; Stk. #5902 - $19,500

2005 PETERBILT 357; 370 HP Cummins ISM; 8LL Trans.; Quad Axle Cab & Chassis w/Double Frame; 18K F/A; 44K Full Locking Rears; (2) 11K Steerable Lift Axles; Air Trac Susp.; 22' Frame Behind Cab; 212" CT; 302,500 Miles; Stk. #5831 - $48,500

2002 KENWORTH T800; 475 HP CAT C15 6NZ; 10-Spd. Manual; Double Frame; Daycab w/20,000# F/A; 46,000# Locking Rears; NEWAY Air Ride Susp.; 5.29 Ratio; 204" WB; 16" Of Frame; 186,151 Miles; Stk. #6097 - $39,500

2007 MACK GRANITE CV713; Double Frame Dump Truck; Mack 335 HP; Allison Auto. Trans.; 21' Alum. Box; 18K F/A; 46K Rears On Camelback Susp.; Steerable Lift Axle; 8,995 Hours; 174,712 Miles; Stk. #6156 - $62,900

2007 KENWORTH T800; Double Frame Cab & Chassis; CAT 335 HP; 10-Spd. Manual; 20K F/A; 44K Full Locking Rears; Hendrickson Spring Susp.; 4.63 Ratio; 262" WB; 29" Frame Behind Cab; 188" CT; 20K Rears Mounted Lift Axle; 70,172 Miles; Stk. #5165 - $59,900

2007 PETERBILT 330; 210 HP CAT; Allison Auto. Trans.; Clean, Single Axle Dump w/10' Steel Box & Tarp; 28,000# GVW; Spring Susp.; 4.88 Ratio; 156" WB; Juice Brakes; 267,969 Miles; Stk. #5899 - $30,000

2007 MACK CT713; Mack 350 HP; 8LL Trans.; w/Mobile Batch Mixer; Rear Auger Discharge; 18K F/A; 18K Steerable Lift Axle; 46K Full Locking Rears; Double Frame; Hendrickson Rubber Block Susp.; 232" WB; 162" CT; 238" Usable Frame; 192,377 Miles; Stk. #6086 - $52,000

2006 WESTERN STAR 4900SA; Double Framed Crane Truck; CAT 410 HP; Allison Auto. Trans.; 20K F/A; 46K Full Locking Rears; 16K Rear Mounted Lift Axle; 24' Steel Deck; Chalmers Susp.; 72" Spread; IMT16000 Drywall/Block Crane; Can Separate Crane & Deck from Chassis; 30'6" Frame Behind Cab; 202" CT; 264" WB; 274,074 Miles; Stk. #5948 - $39,900

2005 MACK CT713; Mack 370 HP; 10-Spd. Manual; Flatbed Truck w/Moffett Forklift Carrier; 18K F/A; 46K Rears; Camelback Susp.; 22'6" Deck; 252" WB; Will Separate Deck From Chassis; 22' Frame; 180" CT; 350,244 Miles; Stk. #6125 - $39,500

2005 PETERBILT 357; CAT 305 HP; Allison Auto.; Clean Cab & Chassis; 20K F/A; 46K Rears on Haulmaax Susp.; 17' Frame Behind Cab; 140" CT; 216" WB; New Drive Tires; 129,217 Miles; Stk. #4894 - $59,000

2005 KENWORTH T800; CAT 430 HP; 13-Spd. Manual; Very Clean, Low Mile 21' Steel Body w/High-Lift Gate Silage Dump Truck w/14,600# F/A; 40K Full Locking Rears; 256" WB; 150,149 Miles; Stk. #6149 - $59,900

2003 KENWORTH W900; 320 HP Cummins ISM; Allison Auto.; Clean, Low Mile Cab & Chassis w/20,000# Front Axle; (2) 11,000# Steerable Lift Axles; 44,000# Full Locking Rears On Chalmers Susp.; 5.43 Ratio; 250" WB; 21' Frame Behind Cab; 156" CT; Muffler Takes Up 12" Behind Cab; Stk. #6016 - $54,900

2010 INTERNATIONAL 5600i; 425 HP Cummins ISM; Allison Automatic Trans.; 172" WB; Wetline; 20K Front Axle; 58K Rears On Hendrickson Susp.; 12R24.5 Rubber; 226,177 Miles; We Can Stretch This Tractor To Any Length For HD Cab & Chassis; Stk. #5943 - $47,000

2004 WESTERN STAR 4900S 430 HP CAT C12; 18-Spd. Manual; Clean, Low Mile Tank Truck w/4,360 Gal. Steel Tank & Bowie 3" Pump; 16K F/A; 46K Full Locking Rears; 252" WB; Chalmers Suspension; 133,613 Miles; Stk. #5979 - $39,500

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9 ***Corn Congress - Waterloo, NY,*** 8:30am - 3:30pm. Quality Inn, 2468 NYS Route 414, Waterloo, NY 13165. Program begins at 10am. For more information visit: https://nwnyteam.cce.cornell.edu/events.php

14 ***New York Certified Organic (NYCO) Meeting,*** 10:00am. Martin Auction Barn, 1036 NY Route 318, Waterloo, NY. All interested in organic production are welcome. Free event, no registration required, bring a dish to pass or donation for potluck lunch.

23 ***Modern On-Farm Preparedness Series - Preparedness for Urgent Situations,*** 1:00pm - 4:00pm. Old Acres Farm, 7863 Route 39, Perry, NY. Be prepared for a fire, weather emergency, or bard damage. *See page 14 for details.*

30 ***Modern On-Farm Preparedness Series - F.A.R.M 4.0 Update*** - 1:00pm - 2:00pm, CCE Orleans County, Albion, NY. Learn how farmers have used and gained benefits and how you can use the FARM program. *See page 14 for details.*

February 2020

5 ***Soybean/Small Grains Congress - Batavia, NY,*** 8:30am - 3:30pm. Quality Inn & Suites, 8250 Park Road, Batavia, NY 14020. *See page 18 for details* or visit: https://nwnyteam.cce.cornell.edu/events.php

6 ***Modern On-Farm Preparedness Series - Activist Preparedness,*** 1:00pm to 2:00pm. CCE of Genesee, Batavia, NY. Will cover good hiring practices, available resources for support, and more. *See page 14 for details.*

6 ***Soybean/Small Grains Congress - Waterloo, NY,*** 8:30am - 3:30pm. 8:30am - 3:30pm. Quality Inn, 2468 NYS Route 414, Waterloo, NY 13165. *See page 18 for details* or visit: https://nwnyteam.cce.cornell.edu/events.php

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13 ***Modern On-Farm Preparedness Series - Social Media,*** 1:00pm to 4:00pm. Lamb Farms, Oakfield, NY. How to respond to negative comments on farm pages and resources for effective responses. *See page 14 for details*.