

Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

Broome | Cayuga | Chemung | Cortland | Tioga | Tompkins

DAIRY & FIELD CROPS DIGEST Winter 24-25

2025 Winter Crop Meeting

Two Dates / Two Locations

Thurs, January 23 Dryden VFW 2272 Dryden Road (Rte 13)

Or

Friday, January 24 Ukranian Club

126 Washington St., Auburn

Time:

9:15 am Registration

10:00 am - 3:00pm: Speakers | Program

Cost Including Lunch: \$35–Pre-registration \$40–At door

To Register for Auburn: <u>https://tinyurl.com/</u> <u>WCM25Auburn</u>

To Register for Dryden: <u>https://tinyurl.com/</u> <u>WCM25Dryden</u>

Having trouble registering? Contact Donette @ (607)391-2662 or dg576@cornell.edu

Questions on WCM? Contact Janice @ (607) 391-2672 or jgd3@cornell.edu

CCA & DEC Recertification Credits Available

Opportunities for High Oleic Soybeans in Dairy Diets |

Dr. Tom Overton, Professor, Department of Animal Science, Cornell

The availability of high oleic soybeans offers the opportunity to feed more whole soybeans than conventional with inherent (but not zero) risk for milk fat issues. One should not routinely expect increased milk fat percentage if there is not evidence of milk fat depression, so the opportunity may be to examine whether or not there are ways to decrease feed cost. Roasting high oleic soybeans greatly increases their feeding value by increasing the rumen undegradable fraction. Until these become widely available as feed ingredients in feed mills, this is largely an opportunity for a farm to utilize "extra" acres or partner with a crop farm or purchase as a commodity. Data on impact on milkfat production and income over feed costs will be discussed.

Planning Weed Control and Fertility Programs and Updates

for 2025 | Taylor Harris, Specialist, Helena Agri-Enterprises, LLC

We are challenged by herbicide resistant weeds along with long term weed control needs. An overview of herbicide options for weed control in different scenarios will be presented. The presentation will include best fit and use practices for herbicides discussed.

Seed Corn Maggot | Anna Dipaola, PhD Candidate, Dept. of Entomology, Cornell University

Members of Dr. Katja Poveda's lab will present the latest findings on predicting seedcorn maggot damage in New York State. They will share results on how soil amendments, cover crops, and insecticides affect this early season pest.

Integrated Strategies for Weed Control | *Dr. Vipan Kumar, Extension Weed Scientist, Section of Plant Science (SIPS), CALS Cornell University*

Overview of herbicide resistant weeds in USA and NYS-scope of the problem and review of history, efficacy of pre and postherbicide programs in soybean and corn, spray application technologies and weed control, and non-chemical tools for weed control. Includes review of 2024 field studies.

Growing Season Factors and Corn Silage Performance |

Mr. Joe Lawrence, Dairy Forage Systems Specialist, PRO-DAIRY

From planting to harvest, the growing season can affect the corn crops yield, nutritional value and how it acts as it dries downs for silage harvest. This set of projects looked at the impact of growing season and harvest timing on the overall performance and value of corn silage in the diet. The change in nutritional value as the plant dries down and how this affects the use of the corn silage in a lactating cow diet and differences in diet cost.

The **South Central New York Dairy and Field Crops Program** is a Cornell Cooperative Extension partnership between Cornell University and the CCE Associations in six

Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

We are pleased to provide you with this information as part of the Cooperative Extension Dairy and Field Crops Program serving Broome, Cayuga, Cortland, Chemung, Tioga and Tompkins Counties. **Anytime we may be of assistance to you, please do not hesitate to call.** Visit our website: <u>http://scnydfc.cce.cornell.edu</u> and find us on social media! Facebook, YouTube, & Twitter!

Janice Degni

Team Leader & Field Crops Specialist 607.391.2672 jgd3@cornell.edu

> Betsy Hicks Area Dairy Specialist 607.391.2673 bjh246@cornell.edu

Donette Griffith

Main Office Administrative Assistant 607.391.2662 <u>dg576@cornell.edu</u>

We put knowledge to work in pursuit of economic vitality, ecological sustainability, and social well-being. We bring local experience and research-based solutions together, helping our families and our community thrive in a rapidly changing world.

The views and opinions reproduced here are those of the authors and are not necessarily those of the SCNY Dairy and Field Crops Team of Cornell Cooperative Extension. We strive to provide various views to encourage dialogue. The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by Cooperative Extension is implied. Permission is granted to reproduce articles from this newsletter when proper credit is given. Electronic copies are available upon request. If we reference a website that you cannot access and would like the information, contact Donette Griffith, Administrative Assistant at 607.391.2662 or by email: <u>dg576@cornell.edu</u>.

"Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities"

Dear Farmers and Producers, As the year comes to a close. we want to thank you for your dedication. resilience, and hard work in feeding our communities and sustaining our world. Agriculture is no easy task, yet your commitment to overcoming challenges. embracing innovation, and providing for so many is truly inspiring. This holiday season, we wish you and your loved ones peace, joy, and a chance to rest and recharge. May the new year bring you prosperity. good health. and continued success. Thank you for all you do, and we look forward to supporting you in the year ahead. Janice Betsy Donette

The Evolving Nature of Precision Ag: The Confluence of Societal Interests and Precision Agriculture by Steve Sonka, Department of

Agricultural and Consumer Economics University of Illinois December 2, 2024 farmdoc daily (14):217

This article illustrates how the same tool could be employed to enhance environmental stewardship.

The DIFM s effort is developing the capabilities to allow farmers to explore the "how much" question based upon data from field trials conducted on their own farm. Figure 1 depicts the layout of a field trial conducted on a farmer's field where five levels of nitrogen application are compared. Each level of nitrogen is shown by its own shaded block. The pattern illustrates how the different nitrogen levels are tested throughout the field, with each small block being an experimental plot. Importantly, the associated field operations (input applications and harvesting) can be done with the farmer's existing equipment and processes. More information about this innovation is available from the DIFM program (<u>https://difm.farm</u>).

<u>Water quality</u>: The quality of our rivers and streams affects us all. An effect of agricultural production is that byproducts of the production process, such as soil particles and excess nutrients, can migrate to those surface water ecosystems. Minimizing those negative effects, while maintaining production levels that satisfy consumer and farmer needs, is challenging. Historically, obtaining real-time, consistent, and scientifically appropriate measurements at both small and large scale has not been possible.

Applications of advanced technology are beginning to offer a means to overcome this constraint. For example:

<section-header><figure><figure>

'The <u>Great Lakes to Gulf Virtual Observatory (GLTG)</u> is a partnership between National Great Rivers and the

> National Center for Supercomputing Applications (NSCA) at the University of Illinois and is funded by the Walton Family Foundation. It is an interactive website that provides user-friendly visualizations of water quality and land use data in the Mississippi/Atchafalaya River Basin (MARB). GLTG draws data from 1,300 sensor sites covering 122,233 contributing waterways and over 44 million data points. Together, the data create a comprehensive model of nutrient loads entering the Mississippi River and the Gulf of Mexico." (GLTG)

Although still in the proof-of-concept stage today, he power of this approach is demonstrated in Figure 2, where 20

Figure 2. Depiction of Ongoing Research Depicting the Direction of 20-Year Trends in Nutrient Loads at Specific Sites Within the Mississippi River Basin



Understanding Trends in **I** ILLINOIS Water Quality and Agricultural Practices:

South Central NY Dairy & Field Crops Digest

It's not likely that an individual farmer would conduct such trials

every year and on every field.

approach, fueled by the DIFM

would seem to be an extremely effective means to advance

learning. Importantly, the findings could improve environmental, as

well as economic performance. In some cases, use of methods such

documentation to earn payments for improved environmental

DIFM could provide

outcomes.

method and possibly organized by ag retailers and/or Extension,

However, a farmer group

(Continued on page 4)

years of data on trends in nitrogen loading are documented across measuring stations in the Mississippi River Basin. A black downward facing arrow indicates a decline in nitrogen loads whereas a red upward facing arrow indicates an increase in nitrogen loads. Because of the density of data observations underlying the GLTG system, similar results can be determined at varying levels of geographic scale and time periods. Linking these capabilities to federal and state policies could provide needed feedback on the most effective means to optimize the water/agriculture interface.

<u>Agricultural practices</u>: But what if we had better data on agricultural practices on the land to pair up with the data on water quality trends? While the GLTG effort relies upon water quality measuring stations, technological advances in remote sensing also are enabling a better understanding of the extent and impact of farming practices. In addition to identifying the crops that are being grown, the ability to document the application of practices which support regenerative agriculture are under development. Two examples that illustrate this rapidly advancing area of research and development are:

- A recent article documented the rapid increase in the use of cover crops in the Midwest (<u>Zhou</u>). Although from a small base, this is positive news and it is based upon direct observation rather than survey results.
- Another recent report indicated that cover crops could be effective in increasing soil organic carbon in Midwest agricultural systems (<u>Qin</u>). Further management practices could enhance that effect.

The role of regenerative practices, such as cover crops, is potentially important in reducing adverse environment effects on water quality and in enhancing soil organic carbon. Both outcomes have direct societal implications. Incentive payments for farmers to expand these activities are emerging from both governmental and private sectors.

However, verification is essential if significant actions are required and substantial payments are involved. Concerns already exist that claims of regenerative agriculture, without measurable metrics, could be no more than "greenwashing" (Little). To be useful, verification must be trusted and it must be economically conducted. Remote sensing seems to be a potentially effective tool to fit these criteria and, therefore, could be central to future growth of regenerative agriculture.

Small autonomous Vehicles

The term, autonomous farm equipment, evokes images of the very large tractors and harvesters of today – absent the steering wheel. And that is a likely future reality. However, small autonomous vehicles, robots and drones, may well be playing new roles. This section discusses three such roles.

<u>Mechanical Weed Control, Back to the Future</u>: Those of us of a certain age may remember being a 12 year-old pulling into an 80 acre corn field with a tractor equipped with a **2 row** cultivator. We wondered how 80 acres could seem so big!

Figure 3. Example of a Robot in Development in Operation at I-FARM: Farm of the Future

Figure 3 shows a prototype of a robotic weeding machine. The idea is that this little machine would run up and down the rows dislodging the small weeds as it went – and probably knocking down fewer corn plants than the 12-year-old tractor driver did. Why is this potentially important? The phenomenon of herbicide resistant weeds is becoming a problem.

A mechanical approach minimizes the resistance problem and it can be targeted to those areas where the problem emerges. Further, the 12-year-old couldn't be in the field 24 hours a day. A recent i-FARM webinar explores future costs and benefits of this approach (Atallah).

<u>More Precise Application</u>: As the growing season progresses, weed or pest infestations sometimes develop only in part of the field. Once the crop is fairly well along, use of large-scale equipment is not desirable to apply needed chemicals because of the damage that would be done to the growing crop.

Use of drones (such as in Figure 4) to deliver very targeted, relatively small area applications would seem to provide a means

Figure 4. A Drone in Operation over I-FARM: Farm of the Future



South Central NY Dairy & Field Crops Digest

(Continued from page 4)

to address these problems. Use of helicopters or small planes also can provide coverage, if a large area application is needed. However, drift is a potential problem, that could be reduced through the use of drones.

Giving Cover Crops a Better Chance: For the reasons noted previously, cover crops seem to be part of the future for Midwestern row crop agriculture. A key challenge is planting the cover crop early enough in the fall so that a good stand can be accomplished before periods of severe winter cold start.

Figure 5 shows an example of a robot designed to spread the cover crop seed before the cash crop is harvested. Then the

cover crop can take root and start to grow before the cash crop is harvested, getting a head start on winter weather.

Wrapping Up

The purpose of this and the preceding two articles was to give one glimpse of a possible agriculture 20 years or so into the future. The first article ended by emphasizing the growing influence of the farmer's use of pooled data as a key to future decision making. The second article highlighted a sampling of potential technology applications. While individually intriguing, the combined effect and application of these technologies will drive performance.

This article expanded the horizon of agricultural decisions to

include technological applications enabling Figure 5. Robot Distributing Cover Crop Seed at I-FARM: Farm of the Future; farmers to better respond to societal concerns, such as environmental effects and carbon sequestration. While presented individually, it is the integrated effect of these and other future technologies which should enhance profitability and effectively respond to societal interests. Farmers and managers who routinely search out and evaluate these opportunities are likely to earn the early adopter benefits.

> References and Full article available online at https:// farmdocdaily.illinois.edu/2024/12/the-evolvingnature-of-precision-ag-the-confluence-of-societalinterests-and-precision-agriculture.html.





Helping Agricultural Communities in New York State become more energy efficient and profitable.

Learn more about NYSERDA's Agricultural Energy Audit Program, REAP Technical Assistance Program, and Energy-Related Best Practices.

nyserda.ny.gov/agriculture

NYSERDA





Webinar Series

To Keep or Not to Keep: Dairy Welfare and Profitability Considerations



Every Tuesday January 21st to March 4th, 2025

FREE

Register: https://cornell.zoom.us/webinar/register/WN_3V8B_M-eTUam2K9603Vj6

Registration: https://cornell.zoom.us/webinar/register/WN_3V8B_M-eTUam2K9603Vj6Q

Topics:

January 21 Longevity Dr. Kaitlyn Briggs

12:00 EST

- January 28 Economics and Data for Culling Dr. Miel Hostens
- February 4 Transport Issues for Calves Dr. Catie Cramer
- February 11 Calf and Heifer Welfare at Culling Margaret Quaassdorff
- February 18 Cow Welfare at Culling Dr. Julia Herman and Lindsay Ferlito
- February 25 Managing Euthanasia Drs. Jennifer Walker and Kaitlyn Lutz
- March 4 Maximizing Harvest Value Dr. Julia Herman

Mechanisms of Herbicide Resistance

What occurs within a resistant plant that allows it to survive after an herbicide application? What characteristics do the resistant plants possess that the susceptible plants lack? The four known mechanisms of resistance to herbicides are:

Altered target site:

An herbicide has a specific site (target site of action) where it acts to disrupt a particular plant process or function (mode of action). If this target site is somewhat altered, the herbicide no longer binds to the site of action and is unable to exert its phytotoxic effect. This is the most common mechanism of herbicide resistance.



Enhanced metabolism:

Metabolism within the plant is one mechanism a plant uses to detoxify a foreign compound such as an herbicide. A weed with the ability to quickly degrade an herbicide can potentially inactivate it before it reaches its site of action within the plant.



In Memoriam: Dr. Russell Hahn Weed Science at Cornell

With deep sadness, we share the passing of Dr. Russell Hahn, a cherished friend, colleague, and esteemed leader in the field of weed science. Dr. Hahn passed away on [insert date] at Robert Packer Hospital in Sayre, PA. Plans for a memorial event in the new year are underway, with details to follow.



Dr. Hahn's legacy spans decades of dedicated service to Cornell University, the College of Agriculture and Life Sciences (CALS), Cornell Cooperative Extension, and farmers across New York State and the northeastern U.S. Joining Cornell's faculty in 1974, he served as Professor and Weed Science Specialist before transitioning to Professor Emeritus in 2017.

A Nebraska native, Dr. Hahn earned his BS and MS in agronomy and weed science from the University of Nebraska–Lincoln in 1964 and 1968, respectively. He went on to complete his PhD in weed science at Texas A&M University in 1974, launching his distinguished career at Cornell the same year.

Throughout his career, Dr. Hahn was a pivotal figure in the Northeastern Weed Science Society (NEWSS), serving as President in 1985-86 and remaining an active member until his retirement in 2014. His numerous accolades reflect the impact of his extension and research contributions, including NEWSS Distinguished Member Award (1994), NEWSS Outstanding Educator Award (2006), NEWSS Award of Merit (2014), Weed Science Society of America (WSSA) Fellow Award (2001), WSSA Outstanding Extension Award (2014).

Dr. Hahn was known for his candid insights, dry humor, and unwavering commitment to his field and community. He was a deeply valued mentor, colleague, and friend, leaving a legacy that will be remembered by all who had the privilege of knowing him.

We extend our heartfelt condolences to Dr. Hahn's family, friends, and the many individuals whose lives he touched.

Russ was both a mentor and friend to me. He was my major professor for my master's program and he set the path for my career with Cornell Cooperative Extension. He was my backup for many weed control recommendations. We collaborated on field trials. Many of you will remember him as a regular at the Winter Crop Meetings from 1998-2014 when he retired. Every year he provided an update on the performance of the current and emerging herbicides. Every year he organized a weed day

for industry professionals and farmer's alike to view and evaluate the activity of an array of herbicides and crops. We all learned much from his extension outreach. Russ was my dear

friend and he will be missed.

Janice

South Central NY Dairy & Field Crops Digest

Corn and Soybeans Economics in 2024 and 2025: Back to the

New (Old) Normal? By Gary Schnitkey, and Nick Paulson, Department of Agricultural and Consumer Economics—University of Illinois, Carl Zulauf, Department of Agricultural, Environmental and Development Economics—Ohio State University; published July 9, 2024 farmdoc daily (14):126

In recent months, corn and soybean prices have trended lower, leading to questions about longer-run prices. Recent price patterns suggest that 2021 through 2023 was a transitory period of higher prices, and now we may be returning to a period of lower prices. Those price patterns are reminiscent of the past, suggesting potential for a multi-year period of lower incomes. Overall, thoughtful use of financial resources is prudent, as is always the case in Corn-belt farming.

2024 and 2025 Projected Corn and Soybean

Prices

In its June *World Supply and Demand Estimates* (WASDE) report, the U.S. Department of Agriculture (USDA) projected the 2024 corn price at \$4.40 per bushel. This 2024 price is the market year average price for the U.S. from September 2024 to August 2025. The \$4.40 price is down from the 2023 price of \$4.75 and is a considerable drop from the recent high of \$6.54 per bushel for the 2022 marketing year (see Figure 1). USDA does not currently provide a projected price for 2025, but futures markets indicate another slight decline to \$4.25 per bushel.

Similarly, soybean prices have declined from recent 2022 highs. Soybean prices averaged \$14.20 per bushel in 2022, falling to \$12.55 in 2023, with a projection of \$11.20 per bushel for 2024 (see Figure 1). Futures markets suggest a 2025 price of \$11.00 per bushel.

demand conditions, including the rebuilding of China's swine herd in 2020, the Ukraine-Russia war which disrupted supplies from that region and increased overall market uncertainty, and lack-luster yield performance in Brazil, Argentina, and the U.S. in recent years.

Commodity prices exhibit long periods in which they vary around a long-run plateau, with those plateaus changing rarely only when permanent market shocks are realized. From 1974 to 2006, corn and soybean prices averaged \$2.38 and \$5.98 per bushel, respectively. There were periods in which prices were well above those long-run averages. For example, corn prices exceeded \$3.00 in 1974, 1980, 1983, and 1995. After each one of those higher prices, corn prices again declined and fell below the \$2.38 plateau.

In the mid-2000s, both corn and soybean prices reached higher plateaus. Since 2006, the average corn price has increased from \$2.38 per bushel to \$4.55 per bushel, and average soybean prices have increased from \$5.98 per bushel to \$11.00 per bushel. Those increases were caused by increased corn use for ethanol and strong sustained growth in export demand for soybeans.

Since 2006, there have been two periods when corn and soybean prices exceeded the \$4.55 and \$11 plateaus. In 2012, corn and soybean prices hit highs of \$6.89 per bushel for corn and \$14.40 for soybeans. Those higher prices were attributed to supply shortfalls around the world leading into 2012, with the Midwest drought of 2012 causing even lower corn supplies and higher prices. The most recent period of higher prices occurred from 2021 to 2023.



eight-year period, corn prices
were below the \$2.38 plateau, and soybeans prices were below the \$5.98 plateau in all but one year: 1988. The 1988 drought pushed prices higher, but the increase was short-lived.

Between the high price periods,

commodity prices can spend

longer-run averages. For

year periods:

prices were below long-run

considerable time below their

example, both corn and soybean

plateaus over the following multi-

1985 to 1992. During this

• 1998 to 2005. During this eight-year period, prices were

The highs in 2022 led to hopes that corn and soybeans had reached new higher levels. Current prices and projections suggest that those hopes are in the process of being dashed. A reasonable working model is that the high prices were caused by short-lived supply and

below their plateau except in 2003.

• 2014 to 2020. During this seven-year period, corn prices fell below \$4.55, and soybean prices remained below the \$11 plateau in all years.

South Central NY Dairy & Field Crops Digest

At this point, the high prices in 2021 and 2023 appear to be driven by short-run factors and not by changes to fundamental supplydemand conditions. If true, then we expect to see a period of lower prices, with no or little change in the plateaus of \$4.55 corn and \$11.00 soybeans. How long a lower price period may last is unpredictable, just as the factors that cause higher prices are unpredictable. The period could end if yields in the U.S. are below average in 2024. However, chances of below-average yields appear to be diminishing as the growing season progresses. Other factors could push prices higher in 2024, such as changes in the Ukraine-Russia conflict. While those possibilities exist, history also suggests that a lower price period could also persist for seven or eight years.

Returns and Management Decisions

Lower prices bring in a period of lower returns and lower farm incomes, with cost adjustments typically lagging prices. In that respect, the next few crop years could be much like that of the period from 2014 to 2020, the most recent period of lower prices and returns. This period was associated with:

• Lower returns. Figure 2 shows operator and land returns from 2000 to 2024P for central Illinois farmland. Operator and land returns represent returns to both the farmer and farmland. Those operator and land returns fell after the high prices in 2012, reaching a lower level from 2014 to 2019. Those low returns resulted in lower net farm incomes for grain farms in Illinois, with a nearly \$0 net income in 2015 (see *farmdoc daily*, <u>November 15, 2022</u>).

- Slight declines in input costs. Costs can be expected to decline on some inputs, with fertilizer and fuel being the most likely to decline (*farmdoc daily*, <u>June 18, 2024</u>). Other inputs, such as seed and pesticides, can be expected to stabilize (see *farmdoc daily*, <u>April 30, 2024</u>).
- Downward cash rent pressures. From 2014 to 2019, operator and land returns were near or below cash rents, leading to a period of stable and slightly declining cash rents (see Figure 2).
- Decreases in farm financial position. From 2014 to 2019, average debt-to-asset ratios increased, and current ratios decreased (see *farmdoc daily*, <u>November 15, 2022</u>). Slight deteriorations in financial positions likely will begin in 2024 and continue until prices improve.

Summary and Commentary

Extended periods of lower corn and soybean prices have been experienced in the past and, in fact, should likely be viewed as the norm. As such, suggested responses to price downturns are well known, and include the usual thoughtful use of financial reserves. Overall, higher incomes from 2020 to 2023 put most farms in solid financial positions such that weathering a period of lower prices and returns is possible. As is usually the case in these periods, younger farmers with fewer financial reserves, higher debt loads, and the need to grow the operation will face the most financial stress.

Returns to farming have declined, suggesting that cash rents should

decline as well. The process of lowering cash rents lags that of lower incomes. How quickly or how much cash rents decline will depend on how far commodity prices fall, as well as potential policy responses to those price declines. Those dynamics will play out in the near future, suggesting that farmland markets bear watching.

For full list of references, visit original posting at https://

farmdocdaily.illinois.edu/2024/07/ corn-and-soybeans-economics-in-2024-and-2025-back-to-the-new-oldnormal.html

COMMUNITY HEALTH

Agricultural Program / Programa Agricola

Figure 2. Operator and Land Return and Cash Rent in \$ per acre Central Illinois, High-Productivity; 50-50 Corn-Soybean Rotation



nger Lakes

1-800-724-0862

info@LocalCommunityHealth.com

http://localcommunityhealth.com/medical/agricultural-workers/ For more information or to make an appointment

Compartmentalization, or sequestration:

Some plants can restrict the movement of foreign compounds (herbicides) within their cells or tissues to prevent the compounds from causing harmful effects. In this case, an herbicide may be inactivated either through binding (such as to a plant sugar molecule) or removed from metabolically active regions of the cell to inactive regions, the cell wall, for example, where it exerts no effect.



Over-expression of the target protein:



If the target protein, on which the herbicide acts, can be produced in large quantities by the plant, then the effect of the herbicide becomes insignificant.

Cell pictures adapted from: <u>http://www.cellsalive.com/</u> <u>cells/cell_model.htm</u>

Compiled by Dr. Wayne Buhler, PhD



Source: <u>Mechanisms of Herbicide Resistance – Pesticide</u> <u>Environmental Stewardship (pesticidestewardship.org)</u>

Timely Field Crop Resources

The Handy Bt Trait Table for U.S. Corn Production: <u>Bt Corn Trait Table - Extension Entomology</u> Editor: Chris DiFonzo, Michigan State University, <u>difonzo@msu.edu</u>

NYS DEC pesticide recertification requirements: New York State certified pesticide applicators must be recertified every three years (for commercial applicators) or five years (for private applicators). You can recertify by accumulating required number of continuing education credits for each category/subcategory. **Commercial applicators** can earn all of their recertification credits in one calendar year, while **private applicators** must earn their credits over more than one calendar year. Credits must consist of at least 25% category-specific training for each category or subcategory of certification. NYSPAD Pesticide Course Training Calendar—<u>https://extapps.dec.ny.gov/nyspad/find?1&tab=COURSES</u>

Corn and Soybean Herbicide Chart. Features families by Mode of Action (effect on plant growth) and a list of pre-mix herbicides by trade names and their Site of Action Groups. <u>https://soybeanresearchinfo.com/wp-content/uploads/2019/03/weeds_herbicide_MOA.pdf</u>

Weed Management Planner. Includes before and after charts.

The chart: <u>https://growiwm.org/wp-content/uploads/2024/06/weed-management-planner.pdf</u> How to Use: <u>https://growiwm.org/the-weed-management-planner/</u>

A New Year Goal: Cultivate Success with Better Bookkeeping

Join us for a six-session virtual series designed to boost your knowledge about what bookkeeping services are available to help you excel in farm recordkeeping.

6 Sessions from 12noon-1pm

- January 16th Meeting Goals with Keeping Books
- January 30th Low(er) Tech Options That Still Work
- · February 13th Quick Books Upgrading to On-Line
- February 27th Other On-Line Options (Ag Squared, PC Mars, AmBrook)
- March 13th More On-Line Options (Wave & Farm Raise)
- March 27th Keeping Receipts, Comparing Packages: Pros & Cons
- Program is team taught by CCE & Farm Net Business Management Educators and experts from the companies.

Why This Program??



Looking to learn and compare, firsthand, about various means and services ?



Fee: \$60 per farm for the entire series

Register Here

http://weblink.donorperfect.com/2024New Year_BetterBookkeeping

brought to you by....

Cornell Cooperative Extension

For more information or to register use the QR code or the link below

Cornell Cooperative Extension

South Central NY Dairy and Field Crops Program

60 Central Avenue • Cortland • 13045 • 607.391.2660 • http://scnydfc.cce.cornell.edu

NON PROFIT U.S. POSTAGE PAID PERMIT NO. 1 CORTLAND, NY 13045

Change Service Requested

Inside this Issue:	
Winter Crop Meeting 2025	1
Year End Message from Team	2
The Evolving Nature of Precision Ag: The Confluence of Societal Interests & Precision Agriculture	3
Webinar Series: To Keep or Not to Keep: Dairy Welfare & Profitability Issues	6
Mechanisms of Herbicide Resistance	7
In Memoriam: Dr. Russell Hahn, Extension Weed Scientist	7
Corn and Soybean Economics in 2024/2025: Back to New (Old) Normal	8
Timely Field Crop Resources	10
Webinar Series: Cultivate Success with Better Bookkeeping 6 sessions	11

Upcoming Events Calendar

6 sessions starting	A New Year Goal: Cultivate Success with Better Bookkeeping - A 6-week Virtual Series.
Jan16 Noon—1 pm	Registrtation: <u>https://scnydfc.cce.cornell.edu/event.php?id=2503</u>
January 23 January 24 9:15 –3 pm	Winter Crop Meeting—Dryden VFW <u>https://scnydfc.cce.cornell.edu/event.php?id=2491</u> Winter Crop Meeting—Ukranian Club, Auburn <u>https://scnydfc.cce.cornell.edu/event.php?id=2491</u> id=2490 CCA & 3 DEC recertification credit will be earned
January 19th	2025 Agricultural and Food Business Outlook Conference
Virtual or in person	FMI: <u>https://dyson.cornell.edu/outreach/economic-outlook-conference/agenda/</u>
7sessions starting	To Keep or Not to Keep: Dairy Welfare and Profitability Considerations.
Jan 21—12 pm	Registration: <u>https://scnydfc.cce.cornell.edu/event.php?id=2500</u>
Feb 11	Crop Protection Meeting in Horseheads—Pest Management Topics 302 S Main St.
10 am-2:30pm	CCA & 2.5 DEC recertification credit will be earned. <u>https://scnydfc.cce.cornell.edu/event.php?id=2495</u>

