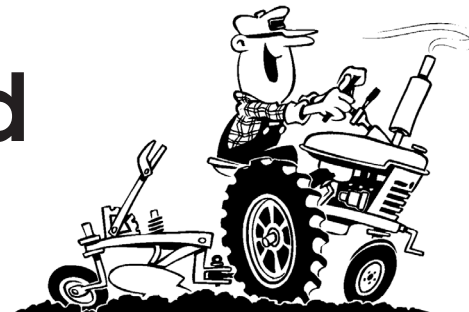


Cultivating Cumberland

September - 2022

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Upcoming Research Field Tour in Burlington County

Kate Brown, August 16, 2022, Plant and Pest Advisory

Rutgers Cooperative Extension of Burlington County will host a research and demonstration plot field tour at the Burlington County Agricultural Center on Wednesday, September 14, 2022.

We have submitted for pesticide recertification credits in CORE plus categories 1A, 9,10, and PP2 and are currently awaiting approval from NJDEP.

Space is limited and REGISTRATION IS REQUIRED. Please contact Sandra Trossbach at 609-265-5051 or strossbach@co.burlington.nj.us to register by Wednesday, September 7.

PROGRAM AGENDA

5:15 p.m. Meal and Registration (in the red market barn)

6:15 p.m. How low can you go? Impact of soybean planting population on yield efficiency and crop management. **Bill Bamka, Agricultural Agent, RCE-Burlington County**

6:45 p.m. Off-target herbicide movement and response of economically important vegetable crops to sub-lethal rates of dicamba Thierry Besançon, **Extension Specialist in Weed Science – Specialty Crops, Rutgers NJAES**

7:30 p.m. Beyond the active ingredient: Additives to the pesticide spray tank

8:00 p.m. Pesticide Recertification Credits and Adjourn

The flyer for this event is available at https://events.rutgers.edu/pdfs/Flyer_Research-Tour-at-Ag-Center-2022.pdf

Attachments:

- Feeding Nitrate- Containing Forages
- NJDEP Pesticide License Info
- NJ 2021 Annual Vegetable Report

Nitrates in Forage Crops

Michael Westendorf, Rutgers Cooperative Extension

With a large portion of New Jersey receiving abnormally low rainfall during the 2022 growing season there is concern about excess nitrate accumulation in forages. Excess nitrate in forages can result in sickness and death in cows, sheep, goats, and other ruminants consuming these feeds.

It might be helpful to understand the danger forages containing higher levels of nitrates pose to animal health. Nitrate is a common form of nitrogen found in the soil, which is taken up by plants and converted to protein in the plant. Under normal growing conditions, nitrates do not accumulate in the plant. However, when plants are stressed with dry growing conditions, photosynthetic and metabolic processes are inhibited and the potential for accumulation of nitrates increases.

Utilizing drought-affected crops for livestock feed is a common practice; however, producers must consider the potential risks of nitrate toxicity. Harvesting forage crops that are more susceptible should be done so that the lower segments of the plant stalk, which has the highest chance of storing nitrates, are not harvested.

Ruminant animals can convert nitrate to nitrite and ammonia in the rumen and detoxify nitrate. When the level of nitrate builds up in the rumen due to higher levels in the diet rumen microbes cannot convert all the nitrate present to ammonia because the conversion of nitrate to nitrite occurs more quickly than the conversion of nitrite to ammonia. If levels of nitrate are great enough, nitrite will accumulate in the rumen and be absorbed through the wall of the rumen into the blood supply. Nitrite can combine with hemoglobin in the blood and convert it to methemoglobin, which will carry very little oxygen to the tissues. The first sign of nitrate poisoning is often dead animals. Other physical signs of nitrate poisoning include difficult breathing, muscle incoordination and staggering, diarrhea and frequent urination, heavy salivation, cyanosis, and collapse. Sublethal poisoning may result in a loss of appetite, lowered milk production, slow growth, abortions, and poor fertility.

A couple precautions about feeding drought affected forages containing high levels of nitrates:

1. Order of feeding priority: Silage > Hay > Grazing > Green chop. Ensiling will destroy 40-60% of nitrates. Therefore, silage crops will have the lowest levels of nitrates due to bacterial destruction. Producing forage for dry hay does not destroy nitrates. Green chop will be the riskiest to feed. If nitrate levels are high enough, ensiling may be the only way to salvage the forage.
2. Never feed forage containing greater than 1.5% nitrate. Ruminants, especially cows, can be fed forage containing <1.5% nitrate if slowly adapted and provided the forage is only a portion of the diet.
3. If contamination is suspected or if animals are showing signs of toxicity, the best option is to call a veterinarian, they will be able to provide veterinary treatment.

The attached factsheet and article on feeding nitrate containing forages will give you more information if you have questions.

Educational material will be provided, and meetings are planned to help with questions. The State Department of Agriculture is planning a testing program through their feed laboratory to assist producers in managing affected forages. Thanks to Dan Wunderlich (daniel.wunderlich@ag.state.nj.us) at the New Jersey Department of Agriculture who has provided assistance.

Working Lands for Wildlife Outreach Event

September 8th 5:00-8:00 PM

Landis Sewerage Authority

1776 South Mill Rd.

Vineland, NJ 08360

Please join New Jersey Audubon (NJA), USDA-Natural Resource Conservation Service (NRCS), and Quail Forever (QF) for a night of conservation at the Landis Sewerage Authority located at 1776 South Mill Road in Vineland, New Jersey. NJA, NRCS, and QF are partnering together to showcase, explain, and accept applications for funding opportunities available for landowners to partake in conservation practices.

While funding for a variety of conservation practices is available through these organizations, the following will be highlighted at this event:

- Bobwhite Quail Habitat Restoration – in partnership with NRCS & NJ Division of Fish and Wildlife (NJDFW), Quail Forever aims to establish and enhance grassland habitat on private lands within NJ. This Bobwhite Quail initiative is focused on landowners signing up for NRCS programs which provides financial assistance for those applying habitat management practices. Technical assistance including planting recommendations and guidance are available.
- Atlantic White Cedar Forest Restoration – Atlantic White Cedar is a declining species within New Jersey and throughout its range. Southern New Jersey has remaining intact stands with potential to restore these declining habitats. New Jersey Audubon's Healthy Land and Waters Grant aims to implement restoration work with private landowners who have Atlantic White Cedar forests on their property within the Rancocas Creek and Maurice River Watersheds. Restoration work is guided by management prescriptions within a Forest Stewardship Plan written by a state approved forester.
- Stormwater Management on Working Land – programs providing technical and financial assistance are available to farmers and landowners in New Jersey who wish to conserve natural resources such as soil and water on working lands and have an added benefit of enhancing wildlife habitat. Enrolling in programs through USDA-NRCS or New Jersey Audubon will help achieve reduced storm water runoff, soil erosion, and increased groundwater recharge.

Attendees will tour the LSA grounds to see these projects in action, then gather for refreshments to learn how they too can implement these practices on their own land with the financial and technical assistance provided by these organizations.

If you are interested in attending, please RSVP to Alyssa Bright at (alyssa.bright@njudubon.org). We hope to see you there!

USDA Assistance for On-Farm Food Safety Expenses

Wes Kline

In the July Cultivating Cumberland newsletter, we mentioned a new program from United States Department of Agriculture (USDA) to off set some expenses to help an operation prepare for food safety requirements. The "Food Safety Certification For Specialty Crops" will cost share expenses for:

- Developing a food safety plan for first-time food safety certification.
- Maintaining or updating an existing food safety plan.
- Food safety certification.
- Certification upload fees.
- Microbiological testing for products, soil amendments and water.
- Training.

The FSCSC application period for 2022 is June 27, 2022, through January 31, 2023, and the application period for 2023 will be announced at a later date. FSA will issue payments at the time of application approval for 2022 and after the application period ends for 2023. If calculated payments exceed the amount of available funding, payments will be prorated.

Interested specialty crop producers can apply by completing the FSA-888, Food Safety Certification for Specialty Crops Program (FSCSC) application. The application, along with other required documents, can be submitted to the FSA office at any USDA Service Center nationwide by mail, fax, hand delivery or via electronic means. Producers can visit farmers.gov/service-locator to find their local FSA office. The local FSA office for Cumberland, Atlantic and Cape May is located at 1318 South Main Rd., Bldg. 5A, Vineland, NJ 08360, telephone 856-205-1225. Specialty crop producers can also call 877-508-8364 to speak directly with a USDA employee ready to assist.

Farm Storage Facility Loans

A second program that has been available for several years is the farm storage loan program. This covers cold storage construction along with equipment in a packing operations such as baggers, brush polishers, bulk bin tippers, cement flooring, circulation fans, dip tanks, conveyors, graders, refrigeration units, sizers, sorting bins and tables, trucks, washers, waxers, etc. A grower may borrow up to \$500,000 for up to 12 years. If an operation needs to make major changes in a packinghouse or needs a refrigerated truck this program is worth considering. Contact the FSA office listed above.

RAM-AMS Harmonized GAP Assistance Program

The USDA Risk Management Agency (RMA) and USDA Agricultural Marketing Service (AMS) covers the cost of voluntary USDA Harmonized GAP and Harmonized Plus audits. This is only available for growers, producer cooperatives and food hubs. Once the audit is completed USDA will generate a bill to the auditee which summarizes the cost and then show a credit for the same amount. The funds will cover 100% of the audit fees. These funds are available for 2022 which may be the last year of availability.

Announcing the Processors' Food Safety Toolkit

The Northeast Center to Advance Food Safety has announced The Processors' Food Safety Toolkit which is a resource collection to help very small and small processors get started with Preventive Controls for Human Food (PCHF) and Good Manufacturing Practices (GMPs). The website (<https://pCHF.necafs.org/>) provides authoritative, comprehensive, and actionable resources for processors to understand and comply with federal regulation. To tell you more about the Processors' Food Safety Toolkit, we've compiled this handy FAQ:

- Who is this for? The Processors' Food Safety Toolkit was developed for small and very small processors who need to comply with the Preventive Controls for Human Food rule.
- What makes this website different? The Processors' Food Safety Toolkit is a curated educational experience, organized by topic and aimed at those who may not have a complete understanding of preventive controls.
- Why was it made? The team that makes up the Northeast Center to Advance Food Safety's Preventive Controls Working Group identified the need to create a "one stop shop" for food safety that walks processors through the process of understanding the Preventive Controls for Human Food rule.
- How was it developed? Beginning in 2018, experts from both universities and industry collaborated to develop the website, research materials, and catalog over 200 resources. A pilot test of 20 small and very small processors found that 100% of them would use the site and recommend it to their peers.
-

Who can I reach out to with questions? If you have questions, suggestions, or feedback, do not hesitate to contact Annie Fitzgerald at anne.fitzgerald@uvm.edu.

New Rutgers Fact Sheet

The following new fact sheets are now available on NJAES Publications:

- FS1346 Web Soil Survey: A Useful Tool to Understand the Natural Soil Properties of Your Farm Field
Written by: William Errickson, Hemant Gohil, Megan Muehlbauer
Find it online at <https://njaes.rutgers.edu/fs1346/>
- FS1347 Large Crabgrass Life Cycle Disruptions for Effective Control in Specialty Crops
Written by: Meredith Melendez and Theiry Besancon
Find it online at <https://njaes.rutgers.edu/fs1347/>

Pesticide Applicators Seminar- Credits Available

Over the past two years in-person trainings for pesticide applicators to obtain recertification credits have been a challenge. To educate licensed pesticide applicators and help them to receive credits, a 3-hour seminar will be held on Tuesday, October 18, 2022 from 9:00AM to 12:00PM at the Rutgers Cooperative Extension office in Gloucester County, 254 County House Rd, Clarksboro, NJ. The meeting will be in the Sullivan Room auditorium. Attendees can enter through the ramp on the far-right side of the main building.

Presenter: Michelle Infante-Casella, Agricultural Agent

Schedule:

- 9:00 AM Pesticide Storage Facilities and Pesticide Disposal
- 10:00 AM Pesticide Record Keeping, Notification, and Posting
- 10:30 AM Insect Identification and Life Cycles for Proper Control Strategies in Landscapes, Turf, and Farm Fields
- 11:00 AM Weed Identification: Annuals and Perennials: Know Your Weeds in Landscapes, Turf and Farm Fields
- 11:30 AM Common Plant Diseases of Major Crop/Plant Groups
- 12:00 PM Pesticide Credits and Adjourn

The following credits have been assigned by NJ DEP:

- 3 – CORE Credits
- 3 – PP2 Credits
- 3 – 3A Credits
- 3 – 3B Credits
- 3 – 1A Credits

Call 856-224-8040 ext. 1 or email jmedany@co.gloucester.nj.us to pre-register or for more information. There is a \$50.00 fee per participant. Only checks or cash will be accepted. Please make checks payable to "Rutgers the State Univ. of NJ"

Pre-registration is appreciated, and walk-in participants are welcome and can pay at the door. To find more information see: <https://go.rutgers.edu/Oct18PesticideSeminar>

USDA to Invest \$15 Million in Innovative Projects for Climate-Smart Agriculture, Urban Agriculture and Addressing Invasive Species

WASHINGTON, Aug. 10, 2022 – The U.S. Department of Agriculture (USDA) announced today it will invest \$15 million this year for the Conservation Innovation Grants (CIG) Classic program. Through CIG, grantees work to address our nation’s water quality, water quantity, air quality, soil health and wildlife habitat challenges, all while supporting agricultural production. This year’s funding priorities are climate-smart agriculture, addressing invasive species and conservation in urban agricultural systems.

“The challenges that farmers and ranchers face require innovative solutions to support their continued ability to produce the food and fiber we all depend on,” said Terry Cosby, Chief of USDA’s Natural Resources Conservation Service (NRCS). “Invasive species are a continual problem, from weeds in cotton in the East to western bark beetles and other pests in the West. Climate change has led to more extreme weather and less available water for agriculture. At the same time, we are seeing opportunities for growth. Urban farming has increased, along with an interest in local foods and resilient food systems. We’re eager to help our nation’s farmers and ranchers address these challenges and opportunities, and science and innovation will help get us there.”

For the fiscal 2022 award process, at least 10% of the total funds available are set aside for proposals that entirely benefit historically underserved (HU) producers. This HU set-aside will ensure that equity is incorporated in the planning and delivery of CIG projects to align with NRCS’s Justice 40 goals. HU applicants can also waive the non-Federal match requirements.

Applications are being accepted now through October 11, 2022. Private entities whose primary business is related to agriculture, nongovernmental organizations with experience working with agricultural producers and non-federal government agencies are eligible to apply. For more information and to apply, visit [grants.gov](https://www.grants.gov).

About CIG

The national CIG program has two parts: CIG Classic and CIG On-Farm Conservation Innovation Trials. Through CIG Classic, grantees develop new tools, technologies and strategies to support next-generation conservation efforts on working lands and develop market-based solutions to resource challenges. CIG On-Farm Trials support more widespread adoption and evaluation of innovative conservation approaches in partnership with agricultural producers. Incentive payments are provided to producers to offset the risk of implementing innovative approaches. Last month, USDA announced \$25 million in funding for CIG On-Farm Trials.

For more information about the Conservation Innovation Grants program, visit the NRCS website.

Skin Cancer and Farmers

Michelle Infante-Casella, July 25, 2022 , Plant and Pest Advisory

Skin cancer is the single most common cancer in the United States and the rising number of incidents is staggering: 5.4 cases in 3.3 million people in 2012, according to The Skin Cancer Foundation. More people are diagnosed with skin cancer each year than all other cancers combined.

Farmers, livestock producers and agriculture industry personnel are part of core skin cancer statistics related to outdoor work, consistently ranking highest in overall sun exposure. Farmers are in one of the most high-risk skin cancer categories. Most farmers work in direct sun often for seven days per week and at the sunniest times of the year.

Types of Skin Cancer The three most typical skin cancers are basal cell carcinoma, squamous cell carcinoma and melanoma. Of the three, basal cell is the most common and often found on the face, neck, ears, scalp, nose, and shoulders. Caught early, the cure rate is almost 100%. Basal rarely spreads and the risk of metastasis is less than 0.5%.

Squamous cell carcinoma (SCC) is the second most common type of skin cancer, and although relatively simple to cure when caught early, can be highly aggressive if unchecked. Over 1,000,000 SCC cases are diagnosed each year in the U.S., resulting in approximately 15,000 deaths. SCC can look like psoriasis and is an underestimated tumor. If left unchecked SCC can get into lymph nodes or other organs and cause death. SCC can be more aggressive than commonly thought. SCC is more common in persons with dark pigment skin, like those who tan easily, but darker skin doesn't mean you're protected.

Melanoma ranks as the rarest, but most serious form of skin cancer, causing 9,000 deaths per year. It is typically highly aggressive and can pop up anywhere on the body, even on areas with no sun exposure: palms, soles, genitalia, eyes, navel, or inside the mouth.

As with any cancer, early detection increases survival rate. The earlier you catch melanoma, the shallower it will be on the skin's surface. Generally, a thin melanoma kills 2% to 5% of people, but the numbers go to 80% of people dying for a deep melanoma.

What does melanoma skin cancer typically look like? It may look like an asymmetrical dark spot, usually larger than 6 mm diameter with jagged borders, color variation, and changes in appearance. A five-letter (A-E) framework provides a general melanoma description. A = asymmetry; B = border irregularity; C = color variation; D = diameter over 6mm; and E = evolution or change.

Keep in mind, there are melanoma that don't fit that pattern. You can have spots that don't correspond to the chart and still be melanoma. If you've got a new mole that's changing and catches your eye, just get it checked.

Preventative Measures:

Wear Light-Colored Clothing

Since farmers spend a great deal of time working outdoors, it's important for them to understand the many ways to protect their skin so that they can reduce their chances of developing skin cancer. Clothing protection is most important in protecting the skin.

Hats can protect the most vulnerable head and neck areas from the sun's rays. While baseball-type caps will protect the top of the head, they don't protect other important areas including the ears, nose, and

neck. Farmers should wear wide-brimmed hats. The recommendation is to wear a hat that has at least a 4-inch brim. Long-sleeved shirts and long pants can help to protect the arms and legs. Wearing tightly woven lightweight and light-colored fabric can keep the body cooler in the sun and will protect against cancer-causing rays. There are many companies that manufacture high-quality sun-protective clothing.

Choose Waterproof Sunscreen – Even on Cloudy Days

Applying sunscreen **every day** to exposed skin can help prevent skin cancer. Don't reserve the use of sunscreen only for sunny days. Even on a cloudy day, up to 80 percent of the sun's ultraviolet rays can pass through the clouds. Sunscreen should be applied to dry skin 15 to 30 minutes before going outdoors. When using sunscreen, be sure to apply it to all exposed areas, and pay particular attention to the face, ears, hands and arms. Coat the skin liberally and rub it in thoroughly – most people apply only 25% to 50% of the recommended amount of sunscreen. One ounce, enough to fill the palm of your hand, is considered a good amount needed to cover the exposed areas of the body properly. Don't forget that lips get sunburned, too. Apply a lip balm that contains sunscreen with an SPF of 15 or higher.

Be sure to dispose of outdated sunscreen, as it will have lost its effectiveness. Reapply sunscreen frequently during the day and at least every two hours. There are so many types of sunscreen that selecting the right one can be confusing. Sunscreens are available in many forms, including ointments, creams, gels, lotions, sprays and wax sticks. The type of sunscreen you choose is a matter of personal choice. Creams are best for individuals with dry skin, but gels are preferable in hairy areas, such as the scalp or male chest. Roll on or rub on Sticks are good around the eyes and other facial areas. Creams typically yield a thicker application than lotions and are best for the face. Spray-on sunscreen should be rubbed on the skin immediately after spraying to coat the skin evenly.

Ideally, sunscreens should be water-resistant, so they cannot be easily removed by sweating or when in the water, and should have a high SPF number (at least SPF 30) that provides broad-spectrum coverage against both UVA and UVB light.

Scheduling Daily Tasks and Shade

Although working outdoors when the sun is less intense, before 10 a.m. or after 4 p.m., may not be feasible, sometimes rescheduling chores where exposure is lessened can be achieved. Even though the sun may be less intense in the morning and late afternoon, damage to the skin is still possible and sunscreen is recommended. Seeking shade may have obstacles but creating shade where you work with an umbrella or pop-up tent is a great idea. We often see more non-cab tractors with a canopy or umbrella to protect the operator from exposure to the elements.

Conclusion:

It's never too late to protect yourself from the sun and minimize your future risk of skin cancer. Understanding how to best protect your skin from the sun can help prevent melanoma, the deadliest form of skin cancer as well as other skin cancers. Early detection is key – so get checked at least annually by a doctor and especially if you see something suspicious on your skin.

Resources:

The Skin Cancer Foundation <https://www.skincancer.org/>

Economics of using drought-stricken crop residue for livestock feed

August 20, 2022 Melissa Bravo, Plant and Pest Advisory

Livestock producers who rely on purchased feed have an opportunity in this drought to purchase standing dry corn fodder (field corn, sweet corn) to offset potential shortages in hay availability due to waning pasture production. Due to the variability in precipitation during silking, many areas in NJ have fields that have acres of good corn, so-so corn, and some really poor field corn as far as ear development. The stover value of these areas is worth considering as an alternative feed source.

Here is a checklist of questions to ask and sellers to answer to ensure the fodder purchased is fit for livestock consumption and priced accordingly.

Nutritional value of standing corn fodder. With the ear intact, the nutrition value of standing mature corn fodder will be less than 11% crude protein. Cattle need a feed intake of at least 7% crude protein content for their rumen to digest high fiber forages. If the entire crop is harvested and fed, a well-eared corn crop should meet this minimal requirement.

What is an acres worth of standing corn fodder yielding? An acres worth of six-foot-tall well populated standing bone-dry corn fodder can yield at least five tons of chopped corn fodder. The taller the corn and the higher the population, dry fodder yields can exceed 15 tons per acre. This is the same as saying exceptional silage corn harvested at 65% moisture will yield up to 30 ton per acre. Many fields of early planted longer day corn exceed seven feet in height. There is a ton of potential fodder out there if one can obtain it.

Doing the math. On average, NJ producers are purchasing hay to get them through 5 to 8 months until the next grazing season. With the drought, this is looking like 285 days' worth of stockpiled feed is in order. At 35lbs/ DM intake a day, an acres worth of chopped corn fodder at 5 tons per acre (10,000 lbs.) can feed one cow for 285 days. An exceptional field (30,000 lbs.) can provide fodder for three cows for the same time period. In this scenario we are either grazing combined residue or chopping standing corn and feeding daily (grazing; or windrowed, chopped, or baled).

Current prices of standing corn with ear intact. Locally, hay yields have been impacted by the lack of rain, driving up prices. In South-Jersey, the bushel value of a well-eared corn crop in grazing value is at least \$600.00 an acre. This value is comparable to the current market price of \$300/ton premium alfalfa or alfalfa-grass (two ton per acre in yield) equivalency. Remember, with the ear, comes the energy that is lacking in hay rations alone.

Grains (corn, wheat, barley, oats) contain on average about 80% total digestible nutrients compared to just 42% in low quality to 58% TDN in high quality hay. To put that into perspective, if a 50 lb. bag of 17% minimum CP fitting ration containing 18% maximum fiber is costing \$10.00/bag, its value is \$400/ton and doesn't come with 35 lbs. of fiber. The value of the corn still in the field is 7% CP; is 30% higher in energy; and has the additional value of the bulk of the daily fiber intake that drives cow rumination. Cover crop planting deadline may incentivize dry fodder chopping. If soil moisture conditions remain poor, sellers may be incentivized to get rid of the biomass so they can plant winter wheat and barley

in October to ensure a good stand establishment. Without soil moisture and adequate rainfall, traided cornstalk residue can take more than a year to break down. In high biomass fields (>6 foot tall), the amount of residue remaining impedes planting and emergence in no-till.

Value after combining. Without kernels, corn fodder with some leaves intact after combining can provide only about 5% crude protein but the cob, leaves and stalks are still providing more than 50% TDN. The equivalent value of combined corn fodder is equal to or slightly better than good wheat straw. But very poor-quality wheat straw may only have 22% TDN. Current regional market prices suggest post-combined corn fodder value (cob, leaves, stalk but no kernels) in NJ is worth \$200-\$300/acre if yielding one to two tons per acre. Or 33% to 50% of the bushel value of the crop per acre if yielding 100 bushels/per acre.

Value of low nitrates. April and May planted corn is the least likely to have high nitrates based on past precipitation patterns. These fields are ideally the ones to consider purchasing to graze or harvest as dry corn fodder and should fetch a premium if optioned to be harvested as corn fodder.

June and July planted corn has to be tested for nitrate levels. If no nitrogen other than starter was applied and no chicken manure was applied, early planted corn is least likely to have high nitrates. Any other scenario requires a nitrate test of the stalk and leaves. Nitrates and prussic acid accumulate in drought stressed crops that received nitrogen fertilizer or high amounts of high nitrogen containing manure and can kill livestock. In a year like this, do not feed recently frosted corn that was not already mature or dead (leaves brown and ear hanging) without first testing for nitrates if fertilizer or manure was applied during the growing season.

Weed presence must be factored into decision. Fields with johnsongrass and shatter cane are not only a risk for nitrate and prussic acid poisoning during a drought, but the weed seeds will pass through the manure. Before choosing to purchase a corn field for fodder, walk the field. Jimsonweed is also toxic in large quantities. Heavy infestations of pigweeds and common lambs quarters can also result in nitrate toxicity. Before grazing, determine the date of the last herbicide application and review the grazing and slaughter withdrawal language in the label for each product, as many broadleaf herbicides have 7 days to 8 weeks feeding restrictions since application. For a quick look, see the USDA fact sheet Appendix H. Grazing Restrictions by Herbicide at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd496997.

Non-herbicide Management Options for Large Crabgrass in Specialty Crops

Meredith Melendez, August 29, 2022, Plant and Pest Advisory

Large crabgrass can form robust root systems thanks to its numerous tillers and capacity to root at stem nodes, allowing it to out-compete crops for moisture and nutrients. Understanding the life cycle and biology of large crabgrass is key to figuring out the best options for its control on your farm. Learn more about non-herbicide life cycle disruptions that can be used in the development of a short and long term management plan through the large crabgrass decision tool fact sheet and an informational video. These resources are one of a five-part weed management series funded by USDA Specialty Crop Block Grant AM190100.

Fact sheet can be viewed at <https://njaes.rutgers.edu/fs1347/>

Video can be found here https://www.youtube.com/watch?v=eSUZJ4MO4y4&list=PLKx8NLAujm_leJVAfug4ZZMb1KPjsU7-M&index=4

2023 Farmer Grant Proposals from Northeast Sustainable Agriculture Research and Education (SARE)

August 23, 2022 Michelle Infante-Casella, Plant and Pest Advisory

Do you have an idea you would like to try on your farm that is related to sustainable agriculture? Stephen Komar, Rutgers SARE Coordinator and Sussex County Agricultural Agent, would like to announce that Northeast SARE will open the website for 2023 applications for Farmer Grants on October 1st. Approximately \$750,000 has been allocated to fund projects for this grant cycle. Individual awards typically range from \$5,000 to \$30,000, depending upon a project's complexity and duration. Projects must be related to sustainable agriculture and results are to be shared through a final report to SARE along with some type of outreach by the farmer as part of the project. The online system for submitting proposals will open on Oct 1, 2022. Proposals are due no later than 5:00 p.m. EST on November 15, 2022. Go to [Northeast-SARE-Farmer-Grant-Call-for-Proposals.pdf](#) for more information. Northeast SARE Farmer Grants provide the resources farmers need to explore new concepts in sustainable agriculture conducted through experiments, surveys, prototypes, on-farm demonstrations or other research and education techniques. Projects address issues that affect farming with long-term sustainability in mind. Northeast SARE funds projects in a wide variety of topics, including marketing and business, crop production, raising livestock, aquaculture, social sustainability, climate-smart agriculture practices, urban and indigenous agriculture and more.

The goals of SARE Farmer Grants are to help farmers try new things that could improve their operations and to share that information with others. There are also some other restrictions for budget items. Funds can be used to conduct the research project including paying farmers for their time, for project-related materials, for project costs like consulting fees or soil tests, and any communications or outreach expenses associated with telling others about project results. This grant program is not meant to help start or expand farm businesses. Farmer Grant funds cannot be used for capital costs associated with building a barn, greenhouse, or other major farm fixture, nor can funds be used to start a farm, purchase durable equipment like tractors or computers, or for any utility, telephone, or other costs that would be there in the absence of the project. Farmer and employee wages can be included in a Farmer Grant budget for work done specifically on the grant project. Applicants should include a reasonable wage for their work on a grant project. In New Jersey, the current adverse wage rate used for the H2-A farmworker program is currently \$15.54 per hour and could help gauge wages for employees time on the project. For farmer/project manager) wages, the rate to use would be higher and could be based on the complexity of the tasks on the project.

In addition, each project must include a technical advisor to assist with the project. Technical advisors can be anyone who is an agricultural service provider, such as your local cooperative extension agricultural agent, USDA personnel, an agricultural consultant, etc. In New Jersey and other states, SARE Coordinators are not eligible to be technical coordinators due to a conflict of interest of leadership in the program. Therefore, Agricultural Agents, Stephen Komar (Rutgers SARE Coordinator) and Michelle Infante-Casella (Rutgers SARE Assistant Coordinator) are not able to be technical advisors to grants. However, if you have questions about the grant process, they both can help answer questions or point farmers in the right direction to identify technical advisors. A SARE Farmer Grant informational webinar featuring Tommye Lou Rafe, who has received multiple SARE Farmer Grants,

will take place at 12:00 p.m. on October 4, 2022. This webinar information will help farmers thinking of applying for a SARE grant to learn about the process and types of projects that fit this program. To register for the webinar go to northeast.sare.org/farmergrantwebinar The Northeast region includes Connecticut, Delaware, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, West Virginia, Vermont, and Washington, D.C. Like other SARE Grants, Farmer Grants are competitive and will be judged against other applicants in the region.

To learn more about SARE project in New Jersey see New Jersey State Fact Sheet(sare.org)

Rutgers Private Applicator 2023 Online License Renewal Assistance

August 15, 2022 by Pat Hastings, Plant and Pest Advisory

The New Jersey Department of Environmental Protection has released an announcement “Pesticide License Renewal Info 2023” to licensed applicators via email. The announcement is posted at https://www.nj.gov/dep/enforcement/docs/Pesticide-License-Renewal-Info-2023.pdf?utm_medium=email&utm_source=govdelivery.

Note: The announcement is attached to this newsletter.

All Private Applicators are now required to process their “zero” license invoice online. Private Applicators are encouraged to book an appointment for one-to-one assistance in processing their online license invoice with Rutgers NJAES.

Book an appointment by going to <https://pestmanagement.rutgers.edu/rutgers-private-applicator-2023-online-license-renewal-assistance/>

To go to the Bookings page, click anywhere on the box below.

Patricia Hastings - Bookings Page

Rutgers Private Applicator 2023 Online License Renewal Assistance

30 min

New Jersey Private Pesticide Applicators can make personal appointments for one-to-one assistance in processing their 2023 license invoice online. This is a free service provided by Rutgers Pesticide Safety Education Program. Appointments are available on all Tuesdays in August, September, and October from 1 pm to 5 pm, First come, first serve. Other appointment times available upon request (email cdh@njaes.rutgers.edu). Once you have booked your spot, you will receive an email confirmation with your appointment time and Zoom link.

This link will expire on: November 30, 2022

[Book meeting](#)

Calendar of Events

- Indicates a newly added event

September 14, 2022

Pesticide Exams at Cumberland County Extension Office; Rutgers Cooperative Extension of Cumberland County, 291 Morton Ave., NJ 08332; 9AM-4PM; Save the date! Rutgers will administer exams in our office for pesticide licensing. Register online at <https://pacer.rutgers.edu/index.php>

September 21, 2022

CORE Basic Pesticide Training Course; Bioresource Engineering Laboratory (formerly ECC), 18 Ag Extension Way, New Brunswick, NJ 08901; 12:30PM- 4:30PM; \$145; This is the first step in training for individuals interested in becoming a licensed NJ pest control operator and/or applicator. This course satisfies New Jersey's requirement of attending a basic pesticide training course for new applicants seeking to gain a state license; Register online and find more information at <https://cpe.rutgers.edu/pesticide-application/core-basic-pesticide-training>

September 26-28, 2022

2022 International Pepper Conference; Arizona; The academic program taking place in Tucson, Arizona and the chief pepper variety trial, mechanical harvest, field and equipment demonstrations occurring at the Curry Chile and Seed Co. in Pearce, Arizona. The deadline for early bird registration is August 26, 2022. Registration and additional information can be found at this link: <https://extension.arizona.edu/ipc/>

- **September 28-29, 2022**

Northeast Outdoor Industry Showcase and Expo (NOISE); Hunterton 4-H Fairgrounds, 1207 County Route 179, Lambertville, NJ 08530; The Northeast outdoor industry showcase and expo is a comprehensive landscape, nursery, horticulture, hardscape, outdoor living, and equipment showcase.; Register and find more info at <https://ngis-nj.com/about-us/>

- **September 30- October 1, 2022**

Draft Animal Power Field Days; Sanborn Mills Farm in Loudon, NH; Intensive workshops on Friday September 30th, with our block programs and activities on Saturday and Sunday October 1st and 2nd; Find more information and register online at www.draftanimalpower.com

October 18, 2022

Pesticide Applicator Seminar; 9AM - 12PM, RCE Gloucester County, 254 County House Road, Clarksboro, NJ 08020; \$50

October 18-20, 2022

FIRA USA 2022 Ag Robotics Forum; Fresno, California; More information at www.vegetablegrowersnews.com/events/

October 26, 2022

CORE Basic Pesticide Training Course; Bioresource Engineering Laboratory (formerly ECC), 18 Ag Extension Way, New Brunswick, NJ 08901; 12:30-4:30 PM \$145; This is the first step in training for individuals interested in becoming a licensed NJ pest control operator and/or applicator. This course satisfies New Jersey's requirement of attending a basic pesticide training course for new applicants seeking to gain a state license; Register online and find more information at <https://cpe.rutgers.edu/pesticide-application/core-basic-pesticide-training>

- **November 14-17, 2022**

World Alfalfa Congress 2022 San Diego, CA For more information and to register, please visit: <https://worldalfalfacongress.ucdavis.edu/>. Early bird registration ends September 30th

November 18, 2022

CORE Basic Pesticide Training Course in Spanish; Bioresource Engineering Laboratory (formerly ECC), 18 Ag Extension Way, New Brunswick, NJ 08901; 8:00AM-12:00PM; \$145; This is the first step in training for individuals interested in becoming a licensed NJ pest control operator and/or applicator. This course satisfies New Jersey's requirement of attending a basic pesticide training course for new applicants seeking to gain a state license; Register online and find more information at <https://cpe.rutgers.edu/pesticide-application/core-basic-pesticide-training>

December 6, 2022 - December 8, 2022

Great Lakes Fruit, Vegetable & Farm Market EXPO; Grand Rapids, Mi; [More information at www.vegetablegrowersnews.com/events/](http://www.vegetablegrowersnews.com/events/)

December 13, 2022 - December 15, 2022

New England Vegetable & Fruit Conference; Manchester, N.H.; More information at www.vegetablegrowersnews.com/events/

- **January 30- February 1, 2023**

Global Organic Produce Expo; Seminole Hard Rock Hotel & Casino; Hollywood, FL; This years theme is Reaching the Conscious Consumer and will inspire every aspect of the event from keynote presentations and educational sessions to networking events and the bustling exhibit hall; Find more information and register online at https://events.farmjournal.com/gopex_2023

February 3-7, 2023

North American Farmers' Direct Marketing Association (NAFDMA) Convention; Austin, TX; The convention will have all the great farm tours, educational sessions, presenters, exhibitors, and agritourism connections you have come to expect. Visit www.nafdma.com for more information

- **February 7-9, 2023**

2023 NJ Agricultural Convention and Trade Show; Atlantic City, NJ; Vegetable Growers Association will hold their annual convention with educational sessions and trade show. Save the date! Find more information at vganj.com

February 9-10, 2023

Alabama Fruit & Vegetable Growers Association Annual Conference and Trade Show; Gulf Shores, Alabama; More information at www.vegetablegrowersnews.com/events/

Regularly Scheduled Meetings

Pesticide Credit Exams

December 8th, 10 AM, 12 PM
RCE - Westhampton, NJ

September 14th, 10 AM, 12 PM
RCE - Millville, NJ

October 18th, 10 AM, 12 PM
Monmouth - Freehold, NJ

Virtual testing available.

Sign-up and find more
information at
<https://pacer.rutgers.edu/>

Cumberland County Agriculture Development Board

Virtual Meetings Information
can be found on the
Public Meeting Calendar on
co.cumberland.nj.us

Meetings are held on the 2nd
Tuesday of each month.
Meetings start at 7 p.m.

For more information call the
Dept. of Planning, Tourism,
and Community Affairs
at 856-453-2175

Cumberland County Board of Agriculture

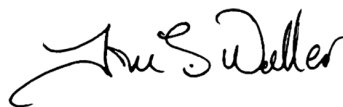
Virtual Meeting Information
<https://rutgers.zoom.us/my/smangia>
Meeting ID: 529 557 9817
Passcode: Sal2020
or call in at 1 (646) 558 - 8656

Meetings are held on the
3rd Thursday of September - May
at 7 p.m. in-person at RCE

Sincerely,



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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The user is responsible for the proper use of pesticides, residues on crops, storage and disposal, as well as damages caused by drift
Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label.

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New Jersey Agricultural
Experiment Station

Have you visited the Cumberland County website for the Present and /or past issues of "Cultivating Cumberland"?

It's a great resource for information and dates...

<https://Cumberland.njaes.rutgers.edu/>

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Cooperative Extension of Cumberland County



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