

# CROPS COWS & CRITTERS newsletter



A partnership between Cornell University and the CCE Associations of Allegany, Cattaraugus, Chautauqua, Erie and Steuben Counties.

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partnership with Cornell University and the five county region of  
Erie, Chautauqua, Cattaraugus, Allegany, and Steuben and their  
CCE Associations. To simplify information, brand names of  
products may be used in this publication. No endorsement is  
intended, nor is criticism implied of similar products not named.  
Every effort has been made to provide correct, complete and up-  
to-date pesticide recommendations. Changes occur constantly  
and human errors are still possible. These recommendations are  
not a substitute for pesticide labeling. Please read the label  
before applying pesticides.

By law and purpose, Cooperative Extension is dedicated to  
serving the people on a non-discriminatory basis. Newsletter  
layout and design by Katelyn Walley-Stoll.

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For accommodations or accessibility  
concerns, please contact our specialists at  
least one week prior to the scheduled event.  
If you need information provided in a  
different format, call 716-640-0522.

# An Introduction To Worker Protection Standard

By Katelyn Miller, Field Crop and Forage Specialist

The Worker Protection Standard (WPS) is a regulation originally issued by the U.S. Environmental Protection Agency (EPA) in 1992. It covers pesticides used in the production of agricultural plants on farms, forests, nurseries, and greenhouses. The WPS requires employers (agricultural and commercial pesticide handlers) to provide specific information and protections to workers, handlers, and other persons when WPS labeled pesticide products are used in the production of agricultural plants. It's intended to reduce the risk of injury and illness resulting from pesticide exposures on agricultural establishments.

Based on the WPS How to Comply Manual, the WPS applies to you if:

<b>You own or operate an agricultural establishment directly related to the production of an agricultural plant.</b>	Even if you are the owner of a farm, forest, nursery, or an enclosed space production facility (e.g., greenhouse, grow house, hoop house, high tunnel) and you or members of your "immediate" family do all the work, you are a "WPS employer" and must comply with some of the requirements described in this manual.	<b>You operate a business in which you (or people you employ) apply pesticides that are used for the production of an agricultural plant.</b>	Commercial pesticide handlers and their employees are included in the WPS even if some of the pesticide handling tasks (mixing, loading, disposal, etc.) take place somewhere other than the agricultural establishment that is the treatment site. An example would be mixing/loading at the commercial handling establishment or an airport hangar.
<b>You hire or contract for the services of agricultural workers to do tasks related to the production of agricultural plants on an agricultural establishment.</b>	This includes hiring labor contractors and others who contract with growers to supply workers or handlers to work on your agricultural establishment. <b>The labor contractor can be assigned WPS responsibilities but is not responsible for your WPS compliance.</b>	<b>You operate a business in which you (or people you employ) perform tasks as a crop advisor on any agricultural establishment.</b>	"Crop advisor" means any person who is assessing pest numbers or damage, pesticide distribution, or the status, condition, or requirements of agricultural plants. Examples include crop consultants and field scouts. For a description of WPS provisions for certified and non-certified crop advisors, see Chapter 6: Exemptions and Exceptions.
<b>You employ researchers who help produce agricultural plants.</b>	There is an exemption from the WPS requirements when conducting research on unregistered pesticides. This exemption DOES NOT include research on unregistered uses of a registered pesticide product or maintenance pesticide applications applied to agricultural plants subject to research.	<b>You are a pesticide handler who applies WPS-labeled pesticide products on an agricultural establishment.</b>	Handlers have several specific responsibilities under WPS separate from employers of handlers that deal with the actual application of the pesticide and wearing PPE.

Knowing if you fall under WPS is important, but there are also some definitions that are crucial to understanding when it applies.

**Agricultural Plants** are plants grown and maintained for commercial or research purposes. Examples include food, feed, fiber plants, seedlings, tress, etcetera.

A **worker** is anyone who is employed for compensation (including self-employed) and performs tasks like harvesting, pruning, weeding, or watering in the production of agricultural plants.

A **handler** is anyone who is employed for compensation (including self-employed). They perform tasks such as mixing, loading, or applying pesticides; assisting in pesticide applications; cleaning, repairing, or adjusting spray equipment, or acting as a flagger. A person is not a handler if they only handle pesticide containers that have never been opened or have been emptied and cleaned according to instructions on the pesticide product labeling.

A **crop advisor** is any person who assesses pest numbers, damage, pesticide distribution, or the status or requirements of agricultural plants.

**Other Persons** include nonworkers, family members, customers, government officials, and any bystanders.

To determine if you fall under the Worker Protection Standard, or need more information on how to comply with the regulations, check out the WPS How to Comply Manual at: <https://www.pesticideresources.org/migrated/wps/htc/htcmanual.pdf>.

For questions, contact Katelyn Miller at 716-640-2047 or [km753@cornell.edu](mailto:km753@cornell.edu). You may also contact your local DEC office.

DEC Region 8 Regional Headquarters in Avon (Steuben):  
585-226-2466

DEC Region 9 Regional Headquarters in Buffalo (Allegany, Cattaraugus, Chautauqua, Erie):  
716-851-7200

Contact Katelyn Miller at 716-640-2047 or your local DEC office for more information about complying with the Worker Protection Standard.

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The WPS is intended to reduce the risk of injury and illness resulting from pesticide exposures on agricultural establishments.



# Considerations For N-fixing Biologicals In Corn Production

By Joe Lawrence, Kirsten Workman and Quirine Ketterings

In recent years, products containing nitrogen (N) fixing bacteria have been marketed for their ability to supply N to a corn crop. With recent volatility in fertilizer markets, farmers are interested in using biologicals for nitrogen management, but data are needed to truly understand when and how they can provide a production benefit in our region, for cropping systems on both cash grain and dairy operations, with and without a manure history.

Numerous variables associated with field crop production increase the importance of evaluating any new product across a diverse range of conditions to better understand when and where it is most likely to work "as advertised" and it simply takes time to build this knowledge base.

Biologicals are generally understood to provide N throughout the growing season as microbes are active, which is a valuable contribution as corn has season-long needs. Some results suggest biologicals may enhance plant health and result in a higher yield as a plant may be less stressed during the growing season.

Main question is: **How do we determine if a biological (1) improves yield; and/or (2) reduces the need for fertilizer N?**

## CONSIDERATIONS

Before we can answer this question, here are some considerations:

### Different types of biologicals

While this article focuses on products that include N-fixing bacteria, a summary of the many different types of biological products available for row crop production is at Dr. Connor Sible's overview: [cropphysiology.crops.illinois.edu/wp-content/uploads/2022/12/BiologicalSummary.pdf](http://cropphysiology.crops.illinois.edu/wp-content/uploads/2022/12/BiologicalSummary.pdf)

### Nitrogen replacement versus nitrogen addition - Agronomic considerations

Corn takes up nitrogen from different sources. In the case of N-fixing bacteria, it needs to be recognized that their application should be credited as a source of N to meet the overall N needs of the crop, just as N from fertilizer, manure or previous crops are credited. In simple terms the expected N credit they provide should be added to your N balance equation, where the goal is for total N inputs to equal total corn N needs:

Total N inputs = soil N + manure N + rotation N + fertilizer N + biological N contribution

## Field history

If a crop does not need extra N, using a biological to bring in more N does not help increase yield.

Two possible examples:

1. First year corn after sod does not require additional N beyond a small starter application. Therefore, the likelihood of any N benefit from N fixing bacterial products for first year corn after sod is very small.
2. If all N needs are met with manure and other N sources already on the farm, addition of more N is also unlikely to increase yields.

## TESTING BIOLOGICALS ON-FARM

With any new product, it is highly recommended to do on-farm testing to see if the product is a good investment for the farm. Manured fields tend to yield higher than non-manured fields, reflecting greater soil health and nutrient cycling. It is likely that biologicals work differently in manured fields than they would in non-manured fields. Also, decide what the measure of success is (yield only, specific forage quality parameters, total economic impact) and then be sure to capture those at the end of the season.

### Yield benefits

If the goal is to test if a biological enhances yield, testing can be done using a with and without treatment while everything else is kept the same (same N rate, same seeding rate, etc.). You can also opt to do this comparison at two different N rates as shown in the examples below:

Example using one N rate:

Treatment	N rate	Biological used?	Example treatment scenario
1	Normal N rate	No	140 lbs applied N
2	Normal N rate	Yes	140 lbs applied N + biological

Example using two N rates:

Treatment	N rate	Biological used?	Example treatment scenario
1	Normal N rate	No	140 lbs applied N
2	Normal N rate	Yes	140 lbs applied N + biological
3	Normal N rate - expected N contribution	No	100 lbs applied N
4	Normal N rate - expected N contribution	Yes	100 lbs applied N + biological

Biologicals are generally understood to provide N throughout the growing season as microbes are active, which is a valuable contribution as corn has season-long needs.

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Decide what measure of success you will use to evaluate the efficacy of biologicals. Think about yield, specific forage quality parameters, total economic impact, etc.



Each treatment pair (1+2 for the first example or 1+2+3+4 in the second example) should be replicated at least three times (more is better). For specific guidance on designing these type of on-farm research trials, see: [nmsp.cals.cornell.edu/publications/factsheets/factsheet68.pdf](https://nmsp.cals.cornell.edu/publications/factsheets/factsheet68.pdf).

For farmers with yield monitor systems and yield stability zone maps, the Single-strip Spatial Evaluation Approach (SSEA) can be used as well. For information on this approach, see: [nmsp.cals.cornell.edu/publications/factsheets/factsheet124.pdf](https://nmsp.cals.cornell.edu/publications/factsheets/factsheet124.pdf). This approach is easier to implement but requires harvest with a well-calibrated yield monitor and a minimum of three years of past corn silage or corn grain yield monitor data.

Keep in mind that with these designs, if there are no differences, we cannot conclude that the biological saved us a specific amount of fertilizer. It can simply tell us if the biological enhanced yield. The reason is that it is possible that at the rates used, nitrogen was not the limiting factor. What we can conclude is if the biological enhances yield for the field where the on-farm research was done. If the results show no difference, it may also make you re-evaluate your nitrogen management in general.

## Nitrogen benefits

If the goal is to evaluate how much less N you can use when a biological is used, it is essential to do N rate studies with five to six N rates replicated within the same field. The use of N rates WITH AND WITHOUT the product in question is critical to determine the N credits from use of the biological. An example of this in the protocol for the [NMSP's Value of Manure Study](#) that uses manure instead of a biological product, but gives an idea of a trial designed to quantify N replacement.

## Northeast region research needed

Research is ongoing given the promise of biologicals. Most recently a summary was posted by researchers in the North Central region ([www.ndsu.edu/fileadmin/snrs/Files/SF2080\\_Performance\\_of\\_Selected\\_Nfixing\\_Products.pdf](https://www.ndsu.edu/fileadmin/snrs/Files/SF2080_Performance_of_Selected_Nfixing_Products.pdf)).

The summary of their studies is a good reminder to test products locally. As stated by the authors: "It is good for farmers to be curious; however, the wise grower needs to test products of interest on their own farm in a replicated manner and search for unbiased data on product performance before using them on whole fields." We invite companies that sell biologicals in the region to work with us to test products for use in New York cash grain and dairy rotations. ■

## 2024 Minimum Wage Increase And Overtime Tax Credit

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Access the original article and links to the resources here:



It's 2024, and with the new year comes another increase in the minimum wage in New York state. Be sure that all of your employees are earning at least \$16 per hour in New York City, Long Island and Westchester; and \$15 in the rest of upstate New York. Details can be found on NYS Department of Labor's minimum wage site. Also note that the state has scheduled minimum wage increases of \$0.50 each year on January 1, 2025 and 2026. After that, increases will be determined by the state government each year based on data from inflation indexes.

Of course, January 1, 2024 also brought the first scheduled decline in the farm employee overtime threshold. Overtime for farm employees now begins at 56 hours each week. Eligible farm employers will be able to apply for the Farm Employer Overtime Tax Credit to help offset the cost of the overtime premium. Both the state Departments of Agriculture and Markets, and Tax and Finance have set up webpages to help explain this new tax credit and how to apply for it.

NYS Department of Agriculture and Markets:

<https://agriculture.ny.gov/farming/farm-employer-overtime-credit-advance>

NYS Department of Tax and Finance: Farm Employer Overtime Credit:

<https://www.tax.ny.gov/pit/credits/farm-employer-overtime-credit.htm>

For additional help with your farm business, contact Katelyn Walley at 716-640-0522. ■

It is good to be curious about new products, but it's important to test them on your own farm in a replicated manner.

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Overtime for farm employees now begins at 56 hours each week. Eligible farm employers will be able to apply for the Farm Employer Overtime Tax Credit.

## Livestock Checkoff Programs 101

You may have heard of checkoff programs, but aren't sure exactly what they are, or what they mean to you as a livestock producer. This article sheds some light on the basics.

### What's a Checkoff?

Checkoffs are programs developed as Acts of Congress. Their purpose is to drive demand for agricultural commodities by funding research, education, and promotion. Some checkoff-funded initiatives that you may be familiar with are, "Pork. The Other White Meat", "Beef. It's What's for Dinner", or "The Incredible, Edible Egg".

Those working for the checkoff are, under no circumstances, allowed to lobby; other organizations that you may be familiar with such as Farm Bureau, National Cattlemen's Beef Association, and the National Pork Producers Council do this work independently of checkoff dollars.

### What Livestock Commodities are included?

There are currently 22 checkoffs in the US that are overseen by the USDA's Agricultural Marketing Service. Each of the checkoffs are run by a research and promotion board. Those of pertinent to livestock production include The Cattleman's Beef Board, The National Pork Board, American Lamb Board, American Egg Board, and the The National Honey Board.

### Who Pays into it?

Producers are required to pay into the checkoff by law based on sales of their commodity. Both domestic producers and importers are required to pay it. Organic commodities are not subject to remitting checkoff dollars, which is the result of a variance that was written into the law to help expand the organic market.

### How is the checkoff calculated?

Checkoff calculations are not one size fits all. Each one has different computations, which are listed below. That said, all producers selling these commodities must pay into the checkoff. There are a couple of exemptions listed below.

- Beef: \$1 per head sold. This includes both cattle and calves from both beef and dairy operations.
- Pork: \$0.35 per \$100 of sale price. This includes weaned pigs, feeder pigs, market hogs, and seed stock animals. Each time the animal changes production classes (ie weaned pig to feeder or feeder to market hog), the assessment is collected, with the same producer never being assessed twice for the same animal.
- Lamb: A live weight assessment of \$0.007 per pound and a first handler assessment of \$0.42 per head. This includes all sheep and lambs of any age, including ewes, rams, feeder and market lambs, breeders, and cull animals.
- Eggs: \$0.10 for every 30-dozen case sold. Farmers producing eggs from under 75,000 laying hens can request an exemption from paying assessments.
- Honey: \$0.015 per pound. Farmer marketing less than 250,000 pounds of honey a year are exempt.

### How do I submit my Checkoff?

Each producer is responsible for submitting their own checkoff dollars each time an animal is sold. Payments are due by the 15<sup>th</sup> of the month following the transaction. Depending on the checkoff, you can submit a check or use an online secure payment portal. You can go to your respective commodity's website to learn more and pay your checkoff.

## NEW YORK PORK PRODUCERS 2024 ANNUAL MEETING

**Saturday, March 23rd**

**The Lux Hotel & Conference Center**

2468 NY 414

Waterloo, NY 13165

Registration opens at 8am, day-long program begins at 9am. Lunch is included.

Pork Producers interested in current swine production and youth interested in swine showmanship are invited and encouraged to attend. You do not have to be a member of NYPP to attend.



Pre-registration is encouraged by March 9th. To register, fill out the form at the bottom of the page on <https://newyorkpork.org/>. Donations for the silent auction are open to everyone and appreciated! If you have any questions, please contact Krista Jaskier at [info@newyorkpork.org](mailto:info@newyorkpork.org).

### SCHEDULE

- Dr. Todd Price from North Central Vet in Ohio will present on Swine Diseases and Vaccinations and Swine Breeding.
- The National Pork Board and The National Pork Producers Council will be giving an update on all current issues in the pork industry.
- We will be featuring a Producer Spotlight and Q&A session with producers in NY.
- NEW THIS YEAR - We will be hosting a Youth Swine Clinic and YQCA training session.

The NYPP meeting is free of charge and provides a networking opportunity with various facets of the industry. If you need assistance registering contact Amy Barkley 716-640-0844 or [amb544@cornell.edu](mailto:amb544@cornell.edu)

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All producers are required pay into their commodity checkoff program if they qualify. Your checkoff dollars are not used to lobby! They're used for research and educational programs.





# DEC License CORE Training Series



## CORNELL COOPERATIVE EXTENSION ALLEGANY COUNTY

5435 County Road 48, Belmont, NY 14813

Series consists of 5 classes

**WEDNESDAYS from 1:15PM - 4:15PM**

**2/28** INTRODUCTION &  
IMPLICATIONS OF FORMULATION

**3/6** PESTICIDES IN THE ENVIRONMENT  
& CATEGORY REVIEW

**3/13** SAFETY

**3/27** READING LABELS &  
SAFE TRANSPORT AND STORAGE

**4/3** SPRAYER CALIBRATION

**Register by 2/22**

585-268-7644 ext. 10  
klb288@cornell.edu

Cash or check accepted.

Full payment is due before the start of the first session.



Checks made payable to: CCE Allegany

Mail to: CCE Allegany 5435 County Rd 48, Belmont, NY 14813

Training series cost: \$25

- One set of CORE and Category Manuals are required for each participant/household. The manuals are an additional \$100, **however thanks to generous sponsorship we are able to provide private category participants manuals free of charge. A \$100 savings per farm.**
- This course is open to those age 15 and up.
- We will teach without electronics using hands-on examples.
- Trainees 17 and over can choose to take the DEC pesticide licensing exams.
- Registering to sit an exam is separate from registering for this course.



**FOLLOWPA**  
FINGER LAKES - LAKE ONTARIO WATERSHED PROTECTION ALLIANCE



**DEC Private Use Pesticide Applicator License Categories:**  
*Private applicators only apply pesticides to sites that they farm themselves*

- 21 - Field & Forage
- 22 - Fruit
- 23 - Vegetable
- 24 - Greenhouse & Florist
- 25 - Nursery, Ornamentals & Turf
- 31 - Livestock/Agricultural animal housing

**DEC Non-Private Pesticide Applicator License Categories:**  
*all others, including but not limited to:*

- 1A - Commercial Ag Plant
- 1B - Commercial Ag Animal
- 2 - Forest Pest Control
- 3A - Commercial Ornamentals, Shade Trees & Turf
- 3B - Turf & Golf Courses
- 6A - Right-of-Way Vegetation Control
- 7A - Structural & Rodent Control
- 7F - Food Processing

First name: \_\_\_\_\_ Last name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City/town: \_\_\_\_\_ State: \_\_\_\_\_ Zip code: \_\_\_\_\_

Phone number: (optional) \_\_\_\_\_

Email address: (optional) \_\_\_\_\_

**DEC Category:**

**\*required\***

Choose from above list

Are you interested in getting your spray license? Join us for this five-part CORE training series.

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To register for the BELMONT location, mail to:  
CCE Allegany  
5435 County Road 48,  
Belmont, NY 14813

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Cornell Cooperative Extension  
Cattaraugus County  
716-699-2377x110

MAIL registration to:  
Cornell Cooperative Extension  
28 Parkside Drive Ellicottville, NY 14731

## 2024 Using Pesticides Safely / DEC License CORE Training Series

Series consists of 5 classes. Classes are on Wednesdays from

Randolph Community Building - 72 Main Street in Randolph  
8:30am - 11:30am

Location (choose one): Randolph Community Building - 72 Main Street, Randolph, 8:30-11:30am  
CCE Allegany - 5435A County Rd 48, Belmont, 1:15 - 4:15pm

This course is open to those age 15 and up. We will teach without electronics using hands-on examples. Trainees 17 and over can choose to take the DEC pesticide licensing exams. Registering to sit an exam is separate from registering for this course.

- 1) First Name *(Required)* \_\_\_\_\_
- 2) Last Name *(Required)* \_\_\_\_\_
- 3) Mailing Address *(Required)* \_\_\_\_\_
- 4) City *(Required)* \_\_\_\_\_
- 5) State *(Required)* \_\_\_\_\_
- 6) Zip Code *(Required)* \_\_\_\_\_
- 7) Telephone \_\_\_\_\_
- 8) Email \_\_\_\_\_
- 9) DEC category (below) *(Required)* \_\_\_\_\_
- 10) Location *(Randolph or Belmont)* \_\_\_\_\_

Cost for the educational series is \$25. One set of CORE and Category manuals are required for each participant/household. *The manuals are an additional \$100.* Thanks to generous sponsorship, we are able to reduce the manual cost to \$50 for up to 24 participants/households interested in private categories. Book cost may be further reduced if we have fewer than 24 private category participants.

Payment due at the first session. Cash and personal/business check accepted, no cards.

DEC Core Manual and Category Manual are required and will distributed at the first class.

DEC Private Use Pesticide Applicator License Categories:

*private applicators only apply pesticides to sites that they farm themselves*

- |                                  |  |
|----------------------------------|--|
| 21 - Field & Forage              | 22 - Fruit                                 |
| 23 - Vegetable                   | 24 - Greenhouse & Florist                  |
| 25 - Nursery, Ornamentals & Turf | 31 - Livestock/Agricultural animal housing |

DEC Non-Private Pesticide Applicator License Categories - *all others, including but not limited to:*

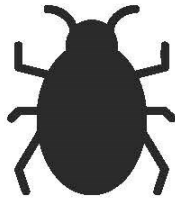
- |                                    |   |
|------------------------------------|---|
| 1A - Commercial Ag Plant           | 1B - Commercial Ag Animal                       |
| 2 - Forest Pest Control            | 3A - Commercial Ornamentals, Shade Trees & Turf |
| 3B - Turf & Golf Courses           | 6A - Right-of-Way Vegetation Control            |
| 7A - Structural and Rodent Control |   |

Questions on the Cattaraugus County Course?  
Contact CCE Cattaraugus  
716-699-2377 x110

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To register for RANDOLPH location mail to:  
CCE Cattaraugus County  
28 Parkside Drive  
Ellicottville, NY 14731





# Pesticide CORE Certification Training



TOWN OF RANDOLPH COMMUNITY  
ROOM: 72 MAIN ST, RANDOLPH, NY  
14772

OR

CORNELL COOPERATIVE EXTENSION OF  
ALLEGANY: 5435 COUNTY RD. 48,  
BELMONT NY 14813

**WEDNESDAYS, 8:30 - 11:30 AM**

**WEDNESDAYS, 1:15 - 4:15 PM**

Series cost: \$25 for private category applicators  
\$125 for all other DEC application categories

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**2/28 INTRODUCTION &  
IMPLICATIONS OF FORMULATION**

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**3/6 PESTICIDES IN THE ENVIRONMENT &  
CATEGORY REVIEW**

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**3/13 SAFETY \***

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**3/27 READING LABELS &  
SAFE TRANSPORT AND STORAGE \***

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**4/3 SPRAYER CALIBRATION \***

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Learn safe and responsible pesticide use!  
Attendees will be prepared for DEC certification, but testing is not required.  
\*Applied for DEC recertification credits

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Register by 2/21  
**(716) 699-2377 x 100 or [tsb48@cornell.edu](mailto:tsb48@cornell.edu)**

**Cornell Cooperative Extension**

Are you interested in getting your spray  
license? Join us for this five-part CORE  
training series.

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This training is being held in Randolph and  
Belmont! Register today with CCE  
Cattaraugus or CCE Allegany by  
February 21st.

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# Join Us March 13th & 14th For A Value Added Dairy Tour To Eastern New York!

By Katelyn Walley, Farm Business Management Specialist

Are you a dairy producer interested in on-farm dairy processing? Looking to diversify your operation with direct to consumer sales? Interested in value-added production? Well, hop on the bus – we're headed East!

On March 13<sup>th</sup> and 14<sup>th</sup>, Katelyn Walley from our team, along with Margaret Quaassdorff from the Northwest New York Dairy, Livestock, and Field Crops team, will be hosting a tour of value added dairy processing facilities in Eastern New York. More information about our tour stops is below. We will plan to leave from CCE-Genesee in Batavia at 8:30am on Wednesday, March 13<sup>th</sup> and will be back on Thursday, March 14<sup>th</sup> at 9:00pm.

The cost to register is \$100, and you can register and pay online by visiting [tinyurl.com/CceDairyTour](https://tinyurl.com/CceDairyTour). Thanks to the generous grant funding from the Northeast Dairy Business Innovation Center, the only other costs you will need to plan to cover are Wednesday and Thursday dinner and any incidentals you'd like to plan for (snacks, refreshments, and purchases at our diverse tour stops). We will be staying overnight at a hotel in Cobleskill, NY. Final stop locations, times, accommodation information, and additional details will be shared directly with the participants after registering (or by request).

Following the tour, we will bring participants back together for discussion groups and educational opportunities to continue learning more about value added opportunities and the business planning considerations for implementing them!

If you are interested in attending but would like additional information, please contact Katelyn Walley at 716-640-0522 or [kaw249@cornell.edu](mailto:kaw249@cornell.edu) or Margaret Quaassdorff at 585-405-2567 or [maq27@cornell.edu](mailto:maq27@cornell.edu). Registration is due by 2/26.

## Tour Stops (subject to change)



**Trinity Valley Dairy (Cortland, NY)** is a fourth-generation family farm in the beautiful valley of East Homer. The Moo Crew Ken and Sue Poole, Derek and Kelsi Poole and Branden and Rebekah (Poole) Brown run the farm. In 2013, they turned a sweet corn field into a milk production facility and general store that sells local products. Their farm is small and independent, bottles its milk onsite for our Trinity Valley brand and the Manhattan Milk Co. We will be



stopping there for a catered lunch and an overview of their operations, along with milk and cookies!



**Byebrook Farm (Bloomville, NY)** is an 8th generation dairy farm milking 40 cows, operated by Paul and Gwen Deysenroth, and Dennis and Sami Deysenroth. They produce and bottle raw milk and make farmstead Gouda cheese. They also operate a year-round farm stand with their products and other local farm goods. We'll get a peak at their processing operation and learn more about how they've continued to diversify sustainably to support their family.



We're planning to visit over 6 farms and agribusinesses on our trip to learn more about their diversified operations.

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This tour will be a chance to also chat and meet WNY dairy producers who are interested in on-farm processing.





**Don's Dairy Supply (South Kortright, NY)** is a full service dairy supply and service business owned by Don and Debbie Coager, and their two children – Kyle and Brooke. Their operation specializes in designing and building custom-made, container-based, dairy processing units!



**SUNY Cobleskill's Dairy Processing Center (Cobleskill, NY)** is operated by their Institute for Rural Vitality. We will meet with DPC manager, Debbie Brant, to tour the facility and learn more about how they accept applications to allow dairy producers to access their product development services and small-batch processing equipment. We will also hear from JoAnne Cloughly, Carriage House Café's Manager, about their retail space that highlights campus-made products and local farm goods.

**King Brother's Dairy (Schuylerville, NY)** is a fifth generation dairy farm that offers milk delivery and an extensive range of products, including ice cream, at their farm store. We will have the opportunity to see their processing facility through viewing windows, hear more about the farm's goals and tremendous growth, and have a chance to browse their farm store.



## OUR FARM STORE



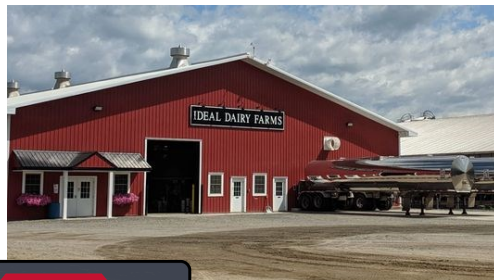









**Argyle Cheese & Ideal Dairy (Hudson Falls, NY)** is a partnership between Marge and Dave Randles and the Dickinson and Getty families. Argyle Cheese has been in business since 2007, and in 2020 they partnered with Ideal Dairy to build a new processing facility and direct source all of the milk needed to make high quality



cheese, yogurts, buttermilk, smoothies, and much more. Ideal Dairy milks 3200 cows and is home to "Cookiecutter Holsteins".

We're extremely grateful to all of our tour hosts for sharing their space, time, and expertise with our group to make our trip diverse and fun!

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Please don't hesitate to reach out to Katelyn Walley by calling 716-640-0522 if you're interested in attending or would like to register.

**Cornell Cooperative Extension**

Southwest NY Dairy, Livestock and Field Crops Program

**Cornell Cooperative Extension**

Northwest NY Dairy, Livestock and Field Crops Program

**NORTHEAST**

**DAIRY BUSINESS  
INNOVATION CENTER**

# **VALUE-ADDED DAIRY TOUR**



**MARCH 13 & 14, 2024**

**JOIN US AS WE TOUR 6+ ON-FARM DAIRY  
PROCESSING FACILITIES IN EASTERN NEW YORK  
TO LEARN MORE ABOUT FARM DIVERSIFICATION  
OPTIONS AND BENEFITS/CHALLENGES.**

**COST TO REGISTER - \$100/PERSON  
REGISTER BY 2/26**

ADDITIONAL DETAILS, INCLUDING TOUR STOPS, DEPARTURE/ARRIVAL  
TIMES, AND FORMAL REGISTRATION ARE NOW AVAILABLE ON OUR  
WEBSITE ([TINYURL.COM/CCEDAIRYTOUR](https://tinyurl.com/ccedairytour)). CONTACT KATELYN WALLEY  
AT 716-640-0522 OR KAW249@CORNELL.EDU OR MARGARET  
QUAASSDORFF AT 585-405-2567 OR MAQ27@CORNELL.EDU FOR MORE  
INFORMATION.

FUNDING FOR THIS TOUR WAS MADE POSSIBLE BY THE U.S. DEPARTMENT OF AGRICULTURE'S (USDA) AGRICULTURAL MARKETING  
SERVICE THROUGH DAIRY BUSINESS INNOVATION INITIATIVE, GRANT 21DBVT1004-00. ITS CONTENTS ARE SOLELY THE  
RESPONSIBILITY OF THE AUTHORS AND DO NOT NECESSARILY REPRESENT THE OFFICIAL VIEWS OF THE USDA.

The Value Added Dairy Tour leaves on March  
13th and returns March 14th. Cost to register  
is \$100.

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For more information, please contact Katelyn  
Walley at 716-640-0522 or  
[kaw249@cornell.edu](mailto:kaw249@cornell.edu). We hope to see you  
there!





Cornell Cooperative Extension

# Hands-on Dairy Animal Care Training

9:30am to 3:00pm

**Offered in English & Spanish at each site**

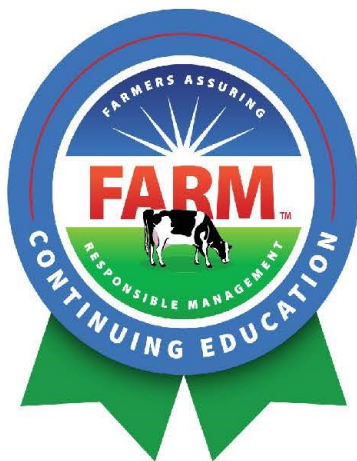
Featuring stations with mostly hands-on activities and demonstrations

## Who should attend:

- ♦ Dairy farm owners or managers that want to learn more about the FARM Animal Care Program and receive continuing education credits.
- ♦ Dairy farm workers with animal care responsibilities that want to learn more, gain hands-on experience, and receive continuing education credits.

## Topics covered:

- ♦ FARM Animal Care Program Version 5.0 updates
- ♦ Physical exam and non-ambulatory cow management
- ♦ Dairy stockmanship (heifers)
- ♦ Pre-weaned calf care
- ♦ Euthanasia
- ♦ Fitness for transport



**Registration: \$15 per person** (includes lunch)

## For more information:

Lindsay Ferlito, CCE NCRAT; Lc636@cornell.edu; 607-592-0290

## Thank you to our generous sponsors!

Boehringer Ingelheim Farm Credit East  
Cargill Horizon Organic  
Delaval Jefe  
fairlife, LLC Lactalis  
DFA

Novus Int  
Perry Vet Clinic  
Seed Way  
Upstate Niagara Coop  
Zoetis

## 2024 Dates & Locations:

### Northern New York

**Mar 11** | Butterville Farm, 11279 County Rd 75, Adams, NY

**Mar 12** | Beller Farm, 10639 NY 126, Carthage, NY

**Register:** [ncrat.cce.cornell.edu/event.php?id=2314](https://ncrat.cce.cornell.edu/event.php?id=2314)

### South Central New York

**Mar 13** | Glezen Farms, 1024 Caldwell Hill Rd, Lisle, NY

**Mar 14** | Green Hill Dairy, 2288 Mosher Rd, Scipio Center, NY

**Register:** [scnydfc.cce.cornell.edu/events.php](https://scnydfc.cce.cornell.edu/events.php)

### Central New York

**Mar 15** | Saratoga County

**Mar 22** | Madison County

**Register:** [cnydfc.cce.cornell.edu/event.php?id=2344](https://cnydfc.cce.cornell.edu/event.php?id=2344)

### Northwest New York

**Mar 18** | Orleans Poverty Hill Dairy, 13646 West County House Rd, Albion, NY

**Mar 19** | Lake Country Holstein, 4602 Yautzy Rd, Stanley, NY

**Register:** [nwnyteam.cce.cornell.edu/events.php](https://nwnyteam.cce.cornell.edu/events.php)

### Southwest New York

**Mar 20** | R&D Adams Dairy Farms, 4435 Walker Rd, Randolph, NY

**Mar 21** | Alfred State College Farm, 1254 SR 244, Alfred Station, NY

**Register:** [swnydfc.cce.cornell.edu/events.php](https://swnydfc.cce.cornell.edu/events.php)

**Hands-on Dairy Animal Care in SWNY**

This event will be held in SWNY on:

**March 20th**  
**R&D Adams Dairy Farms LLC**  
**Randolph NY**

And

**March 21st**  
**Alfred State College Farm**  
**Alfred Station NY**

To register to one of those locations, please do it online by going to our website or scanning the QR code below or by contacting Kelly Bourne at 585-268-744 ext 10 or [klb288@cornell.edu](mailto:klb288@cornell.edu)



Join us for a dynamic hands-on training in Randolph on March 20th or Alfred Station on March 21st.

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Earn FARM program continuing education credits and receive a certificate valid for the 2024 cycle.

# Don't Let Cow Comfort Stand Between You And Extra Milk

By Camila Lage, Dairy Management Specialist

Once, I heard that the cow has three main jobs: get milked, eat and drink, and lie down to chew her cud, and that a farmer's job is to guarantee her the conditions to do these things well. In scientific terms, "cow comfort" is to provide cows with physical and emotional wellness, including the ability to walk and exercise freely without risk of injury, gain access to sufficient food and water to satiate their hunger and thirst, seek shelter from weather and climate extremes, and, perhaps most importantly, achieve adequate rest (Cook, 2020).

Although a simple concept, providing ideal facilities and management while balancing farm economics can prove to be a very challenging task, especially in times when margins are tight. However, overlooking "cow comfort" can cost money in milk production, cow longevity, and operating costs, and looking at it from an investment lens rather than an expense can go a long way. In this article, we will discuss the main points of cow comfort and what the literature says about the economic benefits of improved cow comfort.

## THE 24-HOUR TIME BUDGET

The daily time budget of a cow is an essential part of the cow's comfort, and the facility planning and herd management should focus on matching her natural behavior. A dairy cow at approximately 100% stocking density in free-stall housing feeds 3-5 hours daily and consumes 9-14 meals daily. In addition, they ruminate 7 to 10 hours per day and spend 30 minutes per day drinking, 2-3 hours per day outside the pen for milking and other activities, and require approximately 10-12 hours of lying time per day. In summary, a cow requires ~20 hours each day to herself, with no more than four hours devoted to milking or other intrusive activities.

## CRITICAL FACTORS FOR COW COMFORT

- **Minimize time spent on holding pens, milking parlor, and headlocks:** Reducing time outside the pen is crucial for maintaining optimal feeding and resting behaviors, enhancing milk production, and reducing lameness. Exceeding 3.5 hours daily for all these activities can decrease milk production by up to 8 pounds/day.
- **Stall comfort:** Providing a clean, dry, and comfortable resting place is crucial for promoting higher milk production and better health in cows. As a general guideline, achieving an additional hour of resting time can result in an increase of 2 to 3.5 pounds of milk per cow. One reason for this is that cows prioritize resting over eating, and they are willing to sacrifice approximately 1 minute of eating time for every 3.5

minutes of lost rest when lying time is limited. Cows prefer a soft bed, with deep, loose sand bedding being considered the optimal choice. Thin rubber mats or concrete surfaces with minimal bedding are not suitable for adult cattle housing. It's important to recognize that there are significant differences among alternative stall bases, particularly in how firm they become over time. When considering building a new barn or retrofitting existing facilities, it's essential to take the time to research the best options available. The Dairyland initiative offers valuable resources on housing for cows, serving as an excellent starting point for farmers.

- **Overstocking at the stall level:** Overstocking (more cows than beds) reduces the cow's ability to practice natural behaviors. However, it can yield better economic returns on facility investments. Its effects on cow performance and health will vary depending on farm conditions and management practices. Generally, exceeding 120% of overstocking leads to performance declines and long-term consequences, notably health and reproduction. Overcrowded conditions can disrupt cows' resting patterns, increasing the risk of mastitis and lameness.
- **Feed bunk management and overstocking at the bunk level:** Barn layout significantly impacts cow comfort and competition dynamics among cows. Even in barns where each cow has one stall (100% stocking density), overstocking at the feed bunk can occur. For instance, a six-row barn with a feed bunk space of approximately 20 inches per head may experience more crowding compared to a four-row barn with a space of about 30 inches per head. When cows are grouped, some level of competition at the bunk is inevitable. Despite having access to feed, cows may engage in behaviors to gain an advantage over others, such as displacing them at the bunk through head-butting. Limited space can lead to cows reducing the number of meals daily and engaging in slug feeding, which can impact rumen health.

Dr. Rick Grant from Miner Institute suggests critical elements for an ideal dining experience, including adequate access to stalls, on-demand feed availability, consistent feed quality and quantity along the bunk, maintaining bunk stocking density below 100%, feeding TMR twice daily, conducting half-hour feed push-ups post-feeding, aiming for a 3% feed refusal target, and ensuring the bunk remains empty for no more than three hours per day, ideally not at all.

A cow has three main jobs: get milked, eat & drink, and lie down to chew her cud. A farmer's job is to guarantee her the conditions to do these things well.

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The daily time budget of a cow is an essential part of the cow's comfort, and the facility planning and herd management should focus on matching her natural behavior.



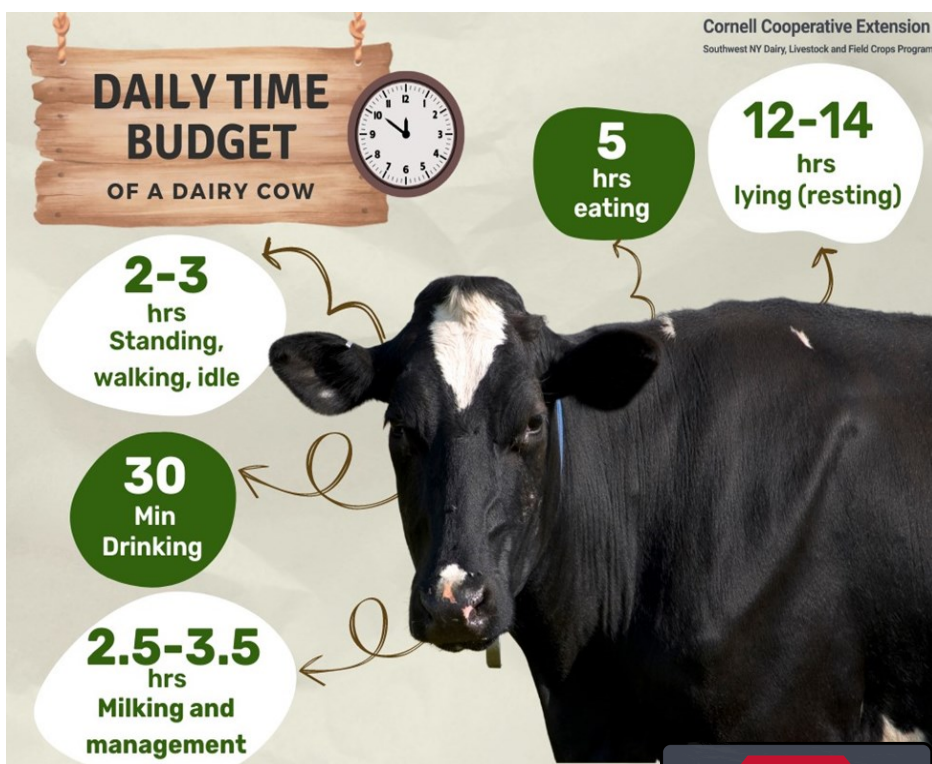
It is crucial to avoid overcrowding at the feed bunk and stall space, particularly for transition groups, as close-up dry cows may struggle to compensate or recover from competition for feeding or lying space.

- **Avoid grouping primiparous and multiparous:** Mixing primiparous cows with older ones creates competition, which lowers resting activity, rumination, and milk yield for the less dominant cows. Separating them is not always possible, especially on smaller farms, but it is essential to consider stocking density if they are housed together. In such cases, ensuring comfortable stalls and effective feeding management becomes even more critical to ensure all cows receive adequate rest and feed consistently.
- **Environmental factors:** Ensuring cows' comfort year-round is crucial on dairy farms. As cows become more productive, they become increasingly sensitive to heat stress. Therefore, implementing aggressive heat stress abatement strategies as a temperature-humidity index (THI) reaches 68 for both dry and lactating cows is necessary. This approach increases feed intake and milk yield (cows can lose over 10 pounds per cow per day under heat stress conditions), reduces lameness, and smoother transition periods.
- **Cow handling:** Gentle treatment of cows, especially in the parlor, results in a 3.5 to 13 percent greater milk yield and does not cost extra money to the farm.

- **Environmental enrichment and grooming:** Finally, environmental enrichment is a widely discussed concept concerning animal welfare. It aims to enable cows to express their natural behaviors and fulfill biological needs. Cows require exercise and grooming, and when these needs are unmet, it can lead to frustration, stress, and decreased performance. An excellent example of environmental enrichment for dairy cows is the provision of cow brushes. Studies have demonstrated that access to a brush increases grooming activity by 508%, highlighting the significant role scratching plays in promoting cow well-being.

In summary, ensuring cow comfort is not only essential for their well-being, but also directly impacts milk production and overall farm profitability. By prioritizing housing conditions and herd management we can optimize cow health and performance while minimizing costs associated with reduced productivity and health issues. Moreover, adopting practices such as gentle cow handling and providing environmental enrichment further contribute to enhancing cow welfare & performance, ultimately benefiting both the animals and the dairy operation as a whole.

If you would like helping evaluating cow comfort or help as you consider building or retrofitting facilities, please reach out to Camila Lage at 607-422-6788. Cornell PRO-DAIRY also have free resources to help you designing and inspecting agricultural structures. If that's what you are looking for, you can also reach out to Tim Terry at txt2@cornell.edu. ▀



## References

- DeVries, T.J., Vankova, M., Veira, D.M. and Von Keyserlingk, M.A.G., 2007. Usage of mechanical brushes by lactating dairy cows. *Journal of dairy science*, 90(5), pp.2241-2245.
- <https://afs.ca.uky.edu/dairy/brushing-dairy-cow-brushes> accessed on 2/8/2024
- [https://easyfix.com/usa/research\\_article/novus-economic-benefits-of-improved-cow-comfort/](https://easyfix.com/usa/research_article/novus-economic-benefits-of-improved-cow-comfort/) accessed on 2/8/2024
- <https://thedairylandinitiative.vetmed.wisc.edu/home/housing-module/adult-cow-housing/> accessed on 2/8/2024
- <https://www.canr.msu.edu/news/stocking-density-in-a-dairy-barn-can-impact-cow-performance> accessed on 2/8/2024
- Rao, T.K.S., Chauhan, I.S., Fulsoundar, A.B., Gamit, V.V. and Parveen, K., 2014. Improving comfort and welfare to mitigate stress in dairy animals-a review. *Wayamba Journal of Animal Science*, 6, pp.1070-1084.

A cow requires ~20 hours each day to herself, with no more than four hours devoted to milking or other intrusive activities.

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# Beef Cow Nutrition Before And After Calving

By John W. Comerford, Professor Emeritus of Animal Science, Penn State University

Beef cattle are the scavengers of the livestock business. They can turn high fiber forages and food by-product residuals into protein food at a very effective rate. For the cow herd there is seldom a period during the year when the cow cannot meet her nutritional needs with reasonable quality grass, hay, or stored forages. The exception for these nutritional needs is for the 60 days prior to calving and immediately after calving.

Why is there a challenge to the cow just prior to and after calving? There are three major reasons: the initiation of lactation, the return to a fertile reproductive state, and for the production of colostrum. Cow age will certainly have an impact on these factors, and younger cows have more critical nutritional needs.

## LACTATION

There is considerable variation from genetics and breed type, but the average beef cow produces about 1 1/2 gallons of milk per day during a lactation. Approximately 60-75% of the total milk produced will be in the first 60 days after calving. Studies have shown there is a point of diminishing returns and additional milk production in beef cows is probably wasted because calves will not be able to efficiently utilize large quantities of milk. When we compare this result to the typical dairy cow that may produce 6-10 gallons of milk daily, the divergent nutritional needs are apparent. The dairy cow has a large outflow of protein, minerals, and water that must be replaced. The beef cow has very little loss of these nutrients from milk production. Data in Table 1 show an 1100-lb. cow eating 22 lbs. of grass hay with 11% crude protein will need to be a pretty exceptional milk producer to require additional protein in the diet. Except for small additions of protein for heavy-milking cows and young cows still growing, the key nutrient is energy. Most beef cows will be able to meet lactation needs with reasonable intake of grass, hay, and stored forages of good quality that will usually supply 1-1.2 Mcal/lb of metabolizable energy.

Cow Weight	10 Lbs Milk Met Energy (Mcal/Lb)	10 Lbs Milk Crude Protein (%)	10 Lbs Milk Crude Protein (lbs)	20 Lbs Milk Met Energy (Mcal/Lb)	20 Lbs Milk Crude Protein (%)	20 Lbs Milk Crude Protein (lbs)
900	.94	9.9	1.9	1.15	12.9	2.4
1100	.92	9.4	2.0	1.07	11.9	2.6
1400	.90	9.0	2.3	1.01	11.0	2.0

NRC, 1984

The ideal body condition score of a beef cow getting ready to calf is between 5-6 for young cows and 4-5 for most mature cows on a scale of 1-9.

16 - February 2024

## REPRODUCTION

There are reams of data to show that cows in poorer body condition at calving will have a longer postpartum interval, lower rebreeding rate, and a shorter life in the herd than cows in adequate condition. First-calf cows are the usual suspects for poor condition since they are adding growth to the stress of lactation and reproduction. Condition scores range from 1 through 9 with 1 being extremely thin to 9 being very obese. The optimum score at calving for most mature cows is 4-5 and for young cows is 5-6 (Morrison et al., 1999.) Studies show condition score at calving will have very little effect on calf birth weight, so it follows Nature is pushing the intake of nutrients to fetal growth at the expense of cow condition. When the nutritional plane is inadequate, problems occur. Results from an older-but still relevant-study in Table 2 show the results of reduced feed intake prior to calving and the subsequent loss of production from cows and calves.

First-Calf Cows	100% of Requirements	67% of Requirements
Born alive (%)	97	90
Weaning wt. (lbs.)	350	324
40-day estrus return (%)	41	28
Heifer calf puberty (days)	318	337

Second-Calf Cows	100% of Requirements	50% of Requirements
Born alive (%)	100	90
Alive at weaning (%)	100	71
40-day estrus return (%)	48	38
Weaning wt. (lbs.)	320	294
Calf Scours rate (%)	33	50
Mortality (%)	0	19

Corah et al., 1975.

If one calculates the economics of the above data with calf value at \$1.00 per pound, it shows the restricted intake cost about \$40.00 per cow (36% of calf weaning weight) in returns even with these very light weaning weights, and it does not include lost production from cows that did not rebreed.

Restricted feed intake right after calving will result in similar losses. Increased nutrient intake after

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Do not try to put your cows "on a diet" in the last 60 days of gestation – this can result in ketosis.



after calving stimulated secretion of anabolic hormones, promoted fat deposition, shortened the postpartum interval to estrus, and increased pregnancy rate at the first estrus in the study from Ciccioli et al. (2003) for cows fed to gain either 1 lb/day or 2 lbs./day for 71 days after calving.

Restricted pre-calving feed intake may also influence calf nursing behavior. Lardy and Stolenow (2001) have reported on Australian data which showed calves born to dams on a low plane of nutrition took significantly longer to nurse than calves born to dams on a maintenance or high plane of nutrition.

### COLOSTRUM

One of the factors often overlooked in the nutrition of beef cows is colostrum production. A Virginia Tech study (Hough et al., 1990) indicated immunoglobulin (IgG) concentration would not be changed in cows fed 100% or 57% of NRC pre-calving nutritional levels, but colostrum volume and calf absorption of

IgG would be lower from the restricted cows. A study in sheep from Swanson et al (2008) indicated improper nutrition from mid to late pregnancy in ewe lambs altered colostrum quality and quantity and reduced offspring birth weight. By association, results from Table 2 indicate calves born from dams with restricted pre-calving nutrition are more susceptible to disease from scours and have a higher mortality rate. Other studies have shown steers with restricted colostrum intake at birth had lower feedlot growth rates and lower carcass grades.

The restriction of feed intake and quality pre-calving will have significant impacts on many economically-important issues of beef production, and there will be life-long effects on calf performance. Prepared by Dr. John Comerford. This article originally appeared in Farming: The Journal of Northeast Agriculture. <https://extension.psu.edu/beef-cow-nutrition-before-and-after-calving> ■

## A friendly reminder to check your hives!

If you're a beekeeper, here is a friendly reminder to check your hive weights. This winter has been unseasonably warm, meaning that many hives have consumed more of their winter stores than usual. If your hives feel light, add supplemental feed. It never hurts to overfeed in the winter. At this point in the year, they'll need solid feed (granulated sugar, fondant, sugar bricks). When temperatures get above 55 during the day as we get closer to spring, you can feed 1:1 sugar syrup either from in-hive or external feeders.

When you check your hives, pick a sunny day above freezing if you can - ideally 45-50 degrees at minimum. BUT! If the hives are light and there are no nice days in the forecast, it's better to open the hive quickly and place feed on the top bars than to potentially let a hive starve.



A hive in late winter with granulated sugar fed on newspaper on the top bars

Proper nutrition ensures calf growth and vigor while decreasing the rebreeding interval.

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Bees typically need 100 pounds of honey (10 full frames) to make it through winter, but in warm winters, this need may be higher.

# Dairy Market Watch

January 2024



Prepared by Katelyn Walley-Stoll. Funded by PRO-DAIRY.

An educational newsletter to keep producers informed of changing market factors affecting the dairy industry.

Milk Component Prices			Milk Class Prices				Statistical Uniform Price & PPD				
Month	Butterfat	Protein	I (Boston)	II	III	IV	Jamestown, NY		Albany, NY		Albany \$/gal. to farmer
Dec 22	\$3.15	\$2.65	\$25.83	\$23.11	\$20.50	\$22.12	\$21.91	\$1.41	\$22.51	\$2.01	\$1.94
Jan 23	\$2.77	\$2.80	\$25.66	\$21.61	\$19.43	\$20.01	\$20.71	\$1.28	\$21.31	\$1.88	\$1.84
Feb 23	\$2.71	\$2.36	\$24.03	\$20.83	\$17.78	\$18.86	\$19.60	\$1.82	\$20.20	\$2.42	\$1.74
Mar 23	\$2.73	\$2.41	\$22.24	\$19.52	\$18.10	\$18.38	\$18.78	\$0.68	\$19.38	\$1.28	\$1.67
Apr 23	\$2.70	\$2.56	\$22.10	\$19.20	\$18.52	\$17.95	\$18.62	\$0.10	\$19.22	\$0.70	\$1.66
May 23	\$2.75	\$1.80	\$22.82	\$19.11	\$16.11	\$18.10	\$18.31	\$2.20	\$18.91	\$2.80	\$1.63
Jun 23	\$2.76	\$1.51	\$21.26	\$18.83	\$14.91	\$18.26	\$17.46	\$2.55	\$18.06	\$3.15	\$1.56
July 23	\$2.79	\$1.19	\$20.57	\$19.12	\$13.77	\$18.26	\$17.08	\$3.31	\$17.68	\$3.91	\$1.52
Aug 23	\$3.02	\$2.08	\$19.87	\$19.91	\$17.19	\$18.91	\$18.28	\$1.09	\$18.88	\$1.69	\$1.63
Sep 23	\$3.12	\$2.30	\$22.15	\$19.98	\$18.39	\$19.09	\$19.27	\$0.88	\$19.87	\$1.48	\$1.71
Oct 23	\$3.71	\$1.04	\$22.72	\$21.95	\$16.84	\$21.49	\$20.05	\$3.21	\$20.65	\$3.81	\$1.78
Nov 23	\$3.46	\$1.32	\$23.00	\$21.21	\$17.15	\$20.87	\$19.59	\$2.44	\$20.19	\$3.04	\$1.74
Dec 23	\$2.97	\$1.44	\$23.01	\$19.88	\$16.04	\$19.23	\$18.56	\$2.52	\$19.16	\$3.12	\$1.65
December Utilization (Northeast): Class I = 30.3%; Class II = 22.5%; Class III = 29.8%; Class IV = 17.4%.											
Class I = fluid milk; Class II = soft products, cream, and yogurt; Class III = cheese (American, Italian), evaporated and condensed products; Class IV = butter and milk powder.											

Dairy Commodity Markets (Excerpt from USDA Dairy Market News – Volume 91, Report 2, January 12th, 2024)

**Dry Products:** Contacts note demand from Mexico has picked up again. Contacts anticipate winter weather to be an obstacle for moving condensed skim loads to drying facilities.

**Cheese:** Due to storm activity in many eastern states, many milk loads intended for Class III processors were diverted into Class I channels. Processors note production schedules are steady to lighter commensurate with milk availability. Contacts in the Northeast relay increased export demand. Cheesemakers note steady demand and comfortable inventory levels. Winter weather is expected to add obstacles for both milk and cheese transport.

**Butter:** Retail and bulk butter demands are mostly steady. However, some lighter domestic demand is reported in the western region as a few manufactures indicate demand is below expectations. Persistently weak food service demand is noted in the east region. Some butter makers are turning down cream offers due to currently being at capacity.

**Fluid Milk:** Farm level milk production is steady to stronger across the U.S. In the Northeast, farm level milk production continues to grow week over week. Due to winter weather, contacts noted some spot milk loads intended for Class III processing were redirected into Class I channels at the beginning of the week. Spot milk prices were reported from \$7 to \$0.50 under Class III. Contacts noted Class I orders during this week were stronger than in previous years. The Federal Milk Marketing Order Pricing Formula Hearing recessed on December 8 and will reconvene on Tuesday, January 16, 2024, at 8:00 a.m.

Friday CME Cash Prices					
Dates	12/15	12/22	12/29	1/5	1/12
Butter	\$2.49	\$2.54	\$2.66	\$2.57	\$2.56
Cheese (40# Blocks)	\$1.52	\$1.39	\$1.40	\$1.43	\$1.44

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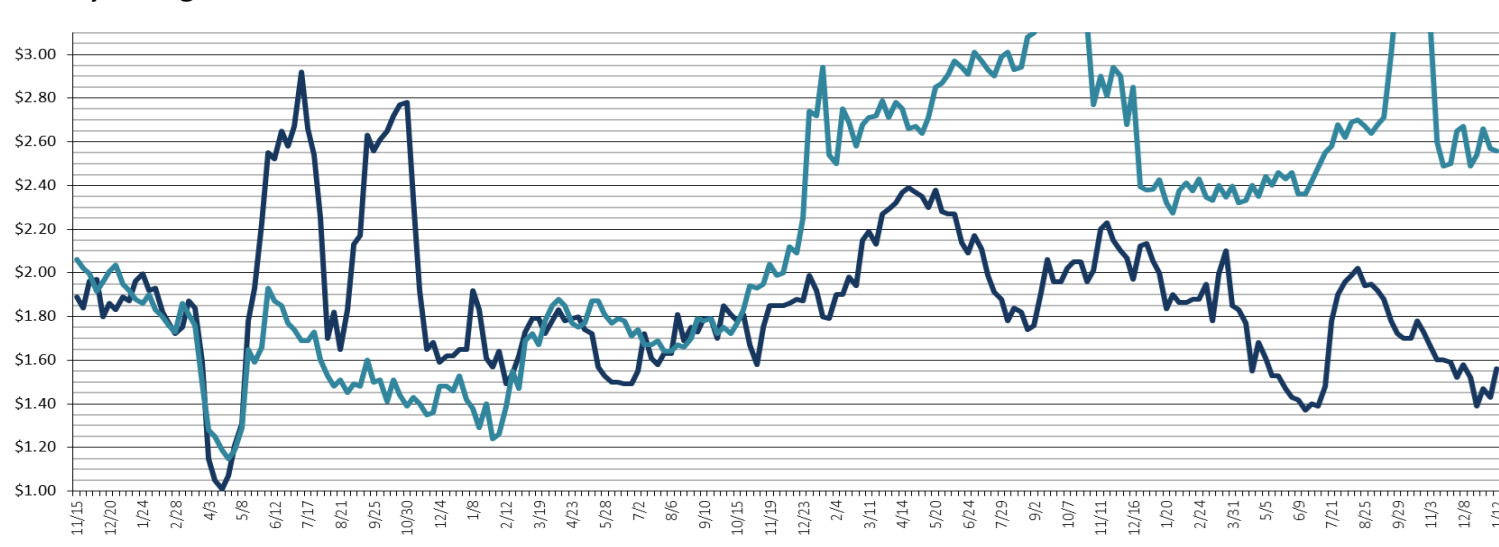
December's Albany \$/Gallon was \$1.65. This is a continued decrease from a year ago when it was \$1.94.

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Dairy Market Watch is an educational newsletter compiled by Katelyn Walley and funded by Cornell PRO-DAIRY.



## Weekly Average CME Cash Price - 2019 to Present



### Katelyn's Drop in the Bucket - January 16th, 2024

*Short notes about dairy markets this month.*

The **USDA Federal Order national hearing** is set to restart today and will run, if necessary, through February 2<sup>nd</sup>. The last comprehensive revision was in 2000, and current talks began in August of 2023. Proposed changes include using the "higher of" Class I mover, discontinuing the use of barrel cheese in the protein component price formula (currently 50%), changing component price formulars for Class III and Class IV, and more.

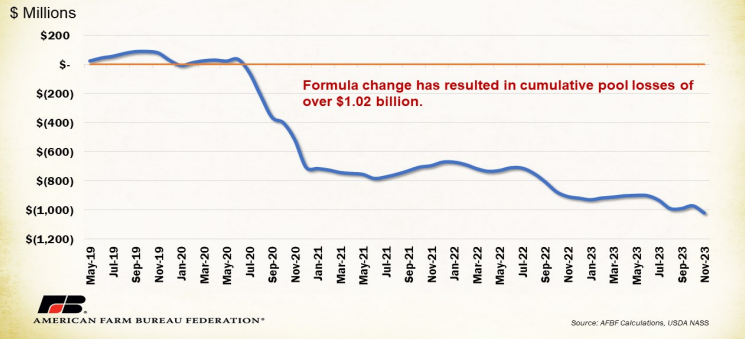
Winter weather impacted **cheese production in the northeast** last week, diverting loads to Class I channels. The National Retail Report also listed shredded cheese in 6 to 8 ounce packages as the most advertised cheese item with an average price of \$2.32.

December 2023's Pool Price Announcement showed a big decline in **Butterfat price** (\$2.97 down from \$3.46) and a small increase in **Protein price** (\$1.44 up from 1.32) from month to month. Butterfat hit a low in 2023 of \$2.70 and a high of \$3.71.

With higher feed prices and uncertain market conditions, **USDA milk production forecasts for 2024** have decreased. Slower than expected milk yield per cow and lower than expected number of cows in 2024 will bring an estimated all-milk price of \$20.25 (down \$0.55 per cwt from the previous forecast). The forecast for 2023's all-milk price is \$20.60, indicating another long year of low milk prices.

Since September, federally inspected **milk cow slaughter** has been decreasing by about 7% from week to week.

**FIGURE 1: CUMULATIVE FEDERAL ORDER POOL LOSSES DUE TO CLASS I MOVER CHANGE**



The national herd size continues to decline, but at a slowing pace. The expected average number of milk cows for 2024 is 9.360 million (2023's average forecast was 9.4 million).

**Dairy exports** have declined from a year ago by 326 million pounds. Shipments of lactose and whey protein concentrate have increased year-to-year with strong demand from China, Mexico, and Japan. The 2024 export forecast on a milk-fat basis is 11.4 billion pounds. Overall, exports will do little to bring up milk prices.

In that case, milk prices could be influenced by **domestic dairy demand**. USDA's current domestic use forecast for 2024 on a milk-fat basis is 224.6 billion pounds, higher than 2023's estimated use of 222.9 pounds.

Something to watch will be the implementation of **whole milk in schools**. The House recently passed legislation that would amend the 2012 "ban" of anything but low-fat milk options. The bill still needs to pass in the Senate to become law. ■

Let's keep rooting for the return of whole milk in schools! While this will be a slow and incremental shift, it could help increase domestic milk consumption over time.

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For more information about any of these topics, please contact Katelyn Walley by calling 716-640-0522 or emailing kaw249@cornell.edu.

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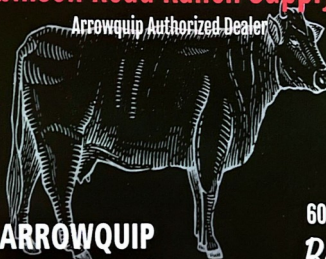
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