

# AG FOCUS



## What Dr. Gordie Jones, the Grandfather of Cow Comfort, Has to Say About Heat Stress by Kaitlyn Lutz

I was driving yesterday thinking about what topic to write about for Ag Focus this month and deciding if I should listen to a podcast on politics or cows, as I'd be in the car for the next hour. Nothing jumped out at me, so I picked an episode on heat stress in dairy cattle from the American Association of Bovine Practitioners. After all, it was summer. To be honest, my first reaction was "what else is there to learn about heat stress? I hope this isn't boring." However, my cynicism was quickly uprooted as the speaker, Dr. Gordie Jones, enthusiastically reminded us listeners of some important big-picture concepts. Dr. Jones is the self-described Grandfather of Cow Comfort, first writing about it in 1986. So here are the highlights.

**Cows are happiest at 40°F.** When you set your heating in the winter, I doubt you set your thermostat to 40 degrees. Our "happy place" at around 70 degrees is far from that of our bovine counterparts. And although I'm sure you all know that heat stress starts around 68 degrees, we may not think about how cold tolerant our cows really are. Dr. Jones explains that the bovine species originated during the Ice Age and they're one of the last large species left from that era.

**Cows compensate through dry matter intake.** A cow's thermoneutral zone ranges from around 20-68°F. Since she doesn't have central air conditioning (unless you're at a dairy in Saudi Arabia), she compensates by dialing her dry matter intake up or down. This is because digestion is an exothermic reaction, meaning that as feed particles are broken down, energy is released in the form of heat. Basically, she is adding more fuel to the fire in cold conditions to warm her core and less fuel when she's overheating.

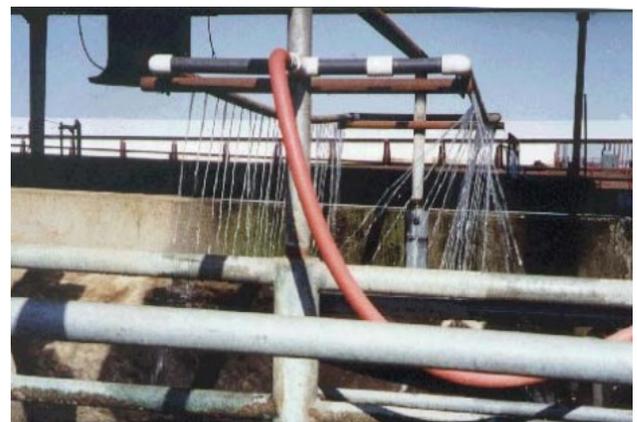
**Less fuel equals less milk.** If you're not seeing some cows in your herd peaking at double your herd average (180lbs for a 90lb herd), you are restricting intake at peak. This is especially important during the summer when their tendency is to restrict their own intakes. Dr. Jones describes that cows prefer to eat during low light times, such as dawn and dusk, since they were historically slow-moving prey animals who needed to avoid

predators. Dr. Jose Santos at University of Florida has shown that a cow prefers to eat up to 35% of her daily intake at her first feed in the morning. Dr. Jones argues that we are underfeeding cows at exit from parlor in the morning and that there is a 4:1 return on that last bite of feed! He recommends that over 50% of daily feed is available on exit from morning milking.

**We need to soak cows, not just add fans.** Having worked on dairies in other parts of the country where feedline and holding area soakers are the norm, I was surprised that in our area of NY there are many farms without these cooling systems in place. Dr. Jones says that across the world, dairymen's first inclination is to add fans, but fans do little to drop the cow's core temperature if we aren't soaking the cow first, allowing for evaporative cooling.

He also addresses the concern about the amount of water entering manure storage, suggesting starting with soakers in the holding area and exit alley and then moving to high producing pens. If you are considering adding soakers to your dairy, check out Cargill's handbook, [Heat Stress Relief for Dairy Cows](#). This handbook details everything from nozzle types to soaking frequency and offers many innovative, low-cost systems to

*(Continued on page 4)*



PVC pipe with holes drilled for soaker system in alley.

Photo: Dr. Jeff Brose, Cargill, Inc.

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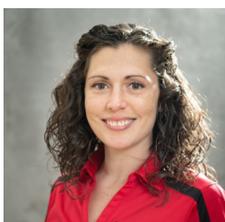
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# What Dr. Gordie Jones, the Grandfather of Cow Comfort, Has to Say About Heat Stress

(Continued from page 1)

fit your farm's needs. A higher-tech method to offer cow soaking while limiting excess water in your manure storage is through motion-activated soakers, such as the [Cool Sense™- Motion Cooling System](#).

**Waterer space has a caveat.** Dr. Jones explains that cows recognize about 100 other cows, so that is their social group size. He sees issues in pens of about 120 cows, because they form two social groups. Each social group has a boss cow, who guards one waterer, allowing a second waterer for the lower ranked animals. Often these 120 cow pens have three waterers, one on each end and one in the cross-over alley. This means that one social group has two waterers, while the other is left with one, being guarded by the boss cow. He recommends having 4 waterers in pens over 100 cows for this reason, even if you're hitting the target for linear inches of water space.

I hope you found some of these ideas and explanations from Dr. Gordie Jones' to be a good reminder as to why we do what we do to cool cows. Stay cool!



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## What's the Alternative? by Jodi Letham

With changing weather patterns, diversifying your forage supply and not banking on one crop (corn) will help you maintain a more consistent forage supply. Brown Mid Rib forage sorghum or sorghum-Sudan is one of those alternative crops. It is planted when the soil temperatures are over 60°F and warmer weather is expected. This happens after most, if not all of first cutting haylage has been harvested and is one way to increase yield from an old hayfield.

The initial question is why sorghum instead of corn? You can immediately save \$/acre on seed costs. Replicated trials conducted by Tom Kilcer at Advanced Ag Systems near the Canadian border in upper New York have consistently produced yields equal to or greater than those of the adjacent corn variety trials. According to Tom Kilcer if BMR sorghum is properly harvested and fed in a high forage NDF ration, it produces a similar amount of milk as corn silage with small changes to the concentrate (a little more cornmeal, and less soymeal).

Tom noted the following advantages of planting sorghum:

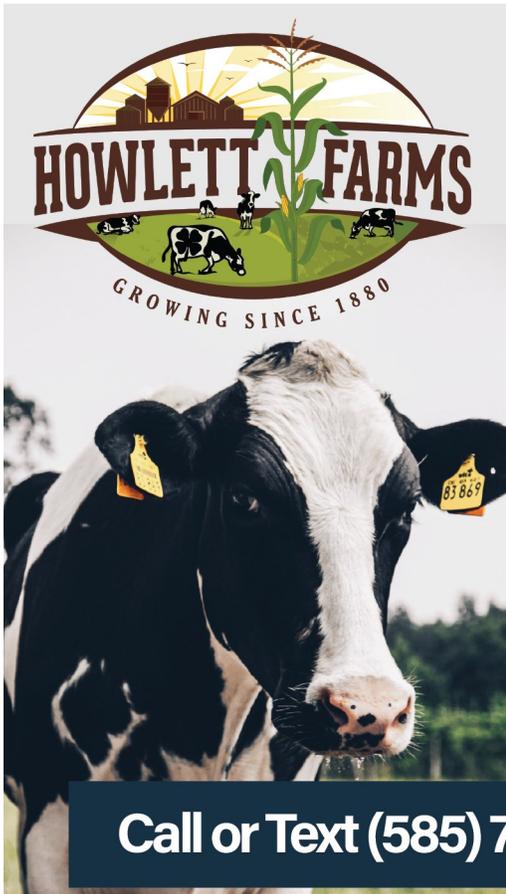
- Corn can follow sorghum without rootworm issues.
- Drilled sorghum can protect the soils from erosion earlier than corn.
- In drought-like conditions sorghum will yield 50-100% vs. corn in the same conditions.
- Sorghum does not get Tar Spot.

Tom has worked on a majority of the research on this topic and recently did a presentation at the University of Maryland Extension Virtual Forage Conference in January. You can view the recording of his presentation online at <https://youtu.be/2wWEuQTAueU>

To learn more read [Why BMR Sorghum?](#) by Tom Kilcer at Advanced Ag Systems & the University of Maryland Extension also has a good article: [Forage Sorghum as an Alternative Silage Crop.](#)



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# Farm Business Summary and Analysis - Timely Data for Decision Making throughout the Year

by John Hanchar

## Summary

- Dairy farm business owners, operators and/or managers working to successfully implement continuous improvement based practices throughout the year employ data driven decision making in response to current market, production, financial and other conditions.
- Financial management concepts provide measures for identifying possible areas for improvement, and decision making regarding proposed changes to the farm business.
- Effective tools for data collection and analysis on a more frequent basis when compared to annual business summary and analysis include: Cornell University/ College of Agriculture & Life Sciences (CALIS)/PRO-DAIRY Program's Dairy Profit Monitor; and other monthly, periodic tools available from lenders, farm business consultants and others.

## Background

Frequent readers of Ag Focus might be asking, "Why does this year's July issue contain an article covering the farm business summary and analysis topic?" After all, the late fall, winter issues generally cover the annual farm business summary and analysis topic, while a year's remaining issues cover other farm economics and management topics. Although farm business summary and analysis related, this article covers periodic, timely summary and analysis in contrast to annual summary and analysis.

Dairy farm business owners, operators and/or managers working to successfully implement continuous improvement based practices throughout the year, employ data driven decision making in response to current market, production, financial and other conditions. During the late fall and winter months, a farm's management team faces a different set of time and effort demands compared to the demands during planting, growing and harvest season months. Management decisions are made under a different set of time and effort constraints. A comprehensive annual business summary and analysis approach will likely not be a workable alternative for monthly, timely data collection and analysis.

For example, consider the Cornell University Cooperative Extension Dairy Farm Business Summary and Analysis

Program (DFBS). Those seeking a workable data collection and analysis tool for monthly, periodic decision making would likely prefer a program other than the DFBS – an annual, comprehensive with respect to financial statements and analysis, production and other business condition and performance measures. Cornell University/CALIS/PRO-DAIRY'S Dairy Profit Monitor was a natural next step from the DFBS. Staff developed an online business trend analysis tool that provides a monthly snapshot of key operating parameters and farm-level efficiencies. The program provides a means for farms to monitor their businesses in a timely manner.

A farm's management team can create customizable benchmark reports to track progress and trends, assess the impacts of management changes and highlight areas for improvement. Users can track past management changes, share reports with key employees and consultants to track business progress in management meetings, and make informed management decisions based upon the reports and information. The program focuses on the areas of milk production, herd health, labor efficiency, and feed costs. The program's Net Milk Income over Lactating Feed Costs per Cow per Day (Net Milk Income over ...) measure is a key measure of performance. The measure tracks the performance of a farm's feeding program using both actual and fixed milk price factors. The Net Milk Income over ... measure has the highest correlation with annual profitability based upon DFBS program data.

To learn more about the Dairy Profit Monitor program visit <<https://dpm.cac.cornell.edu/Help>> and/or call the program staff at (607) 255-8667. Also, some agricultural industry lenders, farm business consultants and others provide similar products and services.

## Closing Thoughts

To successfully implement continuous improvement based practices, including making timely, data driven management decisions given current market, production, and financial conditions, investigate alternative data collection and analysis tools. Examples include the PRO-DAIRY/Dairy Profit Monitor Program, and similar programs and services available from agricultural industry lenders, farm business consultants and others.



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## Winter Wheat Harvest, Protection & Storage by Mike Stanyard

I'm not sure we are going to see the NY record wheat average of 77 bushels per acre growers harvested last year. Despite the high yields in 2021, let's not forget our grain quality was horrible. In many areas, it never stopped raining after July 4 and falling numbers plummeted as wheat pre-sprouted. The high price of feed wheat salvaged what could have been a disaster.

On to the 2022 crop. Overall, I am impressed with the winter wheat after all that it has been through. There was plenty of rain in September and October and many growers did not get the wheat acres planted that they intended. The Winter Wheat Seedings and Grains State Report estimated the planted area for harvest at 130 thousand acres, down 16% from 2021. It seemed to make it through the winter with minimal winterkill but some acres were plowed down this spring that didn't fare well. Some acres that normally would have been terminated were kept as wheat rose above \$10 a bushel. The April 3 USDA National Ag Statistics Service report rated the NY winter wheat crop as 24% excellent, 30% good, 42% fair and 4% poor.

There were a few good windows to get the first shot of nitrogen on. When it warmed up, the wheat greened up and looked good. Timely herbicides were important particularly on those fields with lower plant populations and wet holes. The wheat moved into stem elongation and growers were able to get the second shot of nitrogen applied in a timely manner. The flag leaf was out right on time and I did not see any stripe rust or powdery mildew to worry about. I saw more roughstalk bluegrass than normal as fields began to head out. Osprey Xtra needs to be incorporated into many spray programs next year.

Wheat started to flower in the last days of May into the first week of June. Conditions for pollination were good. Cereal leaf beetles were very prevalent this year. Growers who sprayed a fungicide for Fusarium Head Blight (FHB) were able to clean up these pests at the same time. The Fusarium Risk Assessment Tool (<http://www.wheatscab.psu.edu/>) predicted a medium to high risk of FHB infection for the NWN region from May 27 through June 3. However, by June 5, most of the NWN counties had moved to low risk. As of June 5, USDA National Ag Statistics Service report rated the NY winter wheat crop as 42% excellent, 23% good, 26% fair, 5% poor and 4% very poor.

### Harvest Preparation

Know your grain moisture and have the combine prepared to go when it is time to pull the trigger. Weather



Wheat at full flowering (anthesis). Photo: M. Stanyard / CCE NWN Team

and field conditions do not always cooperate during harvest. Many producers will start harvesting at 20% to avoid pre harvest sprouting and dry it down to 13%. Producers who don't have dryers and rely on field drying, run the greater risk of reduced grain quality. The first harvested wheat will have the best quality. If your wheat flowered that first week of June, vomitoxin from FHB could be a concern. Look for pink coloration and shrunken kernels in the heads. If these conditions are present, set the combine fans to high and try to blow these light kernels back onto the field.

### Grain Bin Preparation

Storage facilities should be inspected thoroughly prior to grain fill. Look for openings, leaky vents, fallen supports, and signs of rodents. Bird nests are always a treat to find in the auger or vents. Stored grain insects survive in old grain so a thorough cleaning is the first line of defense. Clean up all remaining grain on the floor of the bin. Take a long-handled broom and remove any grain stuck to the walls, around the door, supports, ladder rungs and in the fan opening. If there are lots of fines remaining on the floor, clean up with a shop vacuum. It is amazing how many insect eggs and larvae are in a small amount of material. The same is true for grain handling equipment such as augers and drying bins.

After the bin is cleaned out, an insecticide application will help keep the grain mass clean. This can be more helpful the longer you keep the grain in storage. We are very limited when it comes to empty bin insecticide treatments. TEMPO® SC ULTRA and STORCIDE™ II (see label for application restrictions) are both labeled. Diatomaceous earth is a non-insecticidal silica sand applied as a dust in the bin and below the floor.

I know many growers are excited about their potential wheat yield with such high grain prices. Fingers crossed for a great harvest this month!

## NWNY Team YouTube Videos

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- [Waterhemp Control in Soybeans and Corn](#)
- [Pasture Management](#)
- [Marketing Meat Products](#)

Visit: <https://www.youtube.com/user/CCENWNY>

## Upcoming Webinars

**July 11, 2022 - Noon (CST)**

“Housing calves in small groups: The pros, cons and best practices”

Whitney Knauer, D.V.M., University of Minnesota  
College of Veterinary Medicine

<https://hoards.com/flex-309-Webinars.html>

**August 8, 2022 - Noon (CST)**

“Strategies for silage harvesting success”

John Goesser, Rock River Laboratory

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## Solar Grazing with Sheep: Does it Pay? By Nancy Glazier

Sheep production is an important enterprise in NYS. As reported in the 2017 census there were over 2,000 farms that raise over 80,000 sheep and lambs, with nearly 70,000 lambs sold. With the state's initiative to supply 70% of our renewable energy by 2030, solar sites are being installed across the region and state. Does it make sense to graze sheep for vegetation control on the solar farms?

Grazing Sheep on Solar Sites in New York State: Opportunities and Challenges, a white paper was completed February 2021 by postdoctoral researcher Nikola Kochenderfer and the late Dr. Mike Thonney, professor at Cornell. They looked at the potential to scale up sheep production to deal with vegetation control at both smaller (1 to 20 megawatt) and larger (>20 megawatt) solar sites. Solar grazing has occurred at a limited number of sites across the state. Some of the initial locations are in Ithaca utilizing animal grazing density of 3 sheep per acre.

Some form of vegetation control is needed to avoid panel shading. Using livestock would reduce mechanical needs plus reduce labor needed. Sheep have been the preferred species. They are least likely to chew wires, jump on or rub panels. Secure, permanent, perimeter fencing is critical, especially for predator control. Temporary fencing may be used to subdivide paddocks for more efficient grazing.

Water is essential as well. The study found that an installed well on-site would be the most cost-effective approach for long-term grazing. Otherwise, water would be hauled in or use of public water supply, if available.

Grazing at the density of 3 sheep per acre encourages biodiversity of plant species. This could attract pollinators plus other beneficial insects, such as ladybugs.

A few of the other opportunities include:

- Soil carbon sequestration potential.
- Entrepreneurial opportunities
  - For new farmers with reduced start up costs associated with land access.
  - Site management businesses.

- Increase of locally raised meat.
- Potentially positive perception of seeing sheep on solar sites.
- Siting of small solar sites on existing pasture to increase farm income.

Some of the challenges include:

- Lack of coordinated meat marketing.
- Lack of lamb slaughtering facilities.
- Increasing sheep numbers vs. replacing grazing sites could increase greenhouse gas emissions.
- If sheep numbers increase, where to overwinter and accessing hay.

The study also noted the critical siting of solar sites. They need to be near electric transmission sites, but to focus locations on marginal, vacant, or existing pasture acreage. The question was posed, can grazing be intensive enough to maintain agriculture exemption on land? Time will tell on that.

This is a very brief overview. The study, plus additional resources can be found here: <https://blogs.cornell.edu/grazing/>. The American Solar Grazing Association has many resources on budgets, contracts, and seeding mixes can be found here, <https://solargrazing.org/>. The site also highlights current research, including Cornell's work.



Ewes enjoying the shade provided by the panels at the South Cascadilla Solar Farm. *Photo: Cornell Sheep Program Facebook page: <https://www.facebook.com/Cornell-Sheep-Program-128526913871543/>*

## Looking into the Future of Dairy Welfare by Margaret Quaassdorff

This year at the Dairy Cattle Welfare Council's annual symposium held in Syracuse, NY, one major theme was the management of calves. It is not only of interest to consumers and buyers of milk, but current research shows benefits to raising calves in well-managed pairs or small groups. Dr. Jennifer Van Os of University of Wisconsin-Madison discussed benefits of social housing for calves, and studies show that pair-housed calves have advantages over their individually housed peers. Calves that are housed in pairs tend to be more motivated to eat, have a higher average daily gain and like to lie together (Costa et al., 2016). Group housing also encourages social development and play behavior which leads to calves that grow into heifers and adult cows that are more resilient to stress and able to adapt to novel situations. (Think pen and diet changes, learning different feeding and watering systems, coping with the process of hoof trimming, moving through a robotic milking system or a parlor, etc.).

Wait a minute...you might be thinking, "Social and eating behavior benefits sound great, but isn't health management a main reason the industry typically houses calves separately?" You're right, but also, when calves are well-managed, no studies have indicated significantly better respiratory health outcomes for pair housed calves compared to those in individual housing systems. See UW-Madison's group housing guide for more: [https://animalwelfare.cals.wisc.edu/calf\\_pairing/](https://animalwelfare.cals.wisc.edu/calf_pairing/)

What does paired housing look like?



Figure 1. Correctly pair-housed calves with ample space, feed and water resources. Photo: Jennifer Van Os, UW-Madison



Figure 2. A pair of calves incorrectly housed in a single wire pen with space and resources available for a single calf. Calves are also able to reach another calf through the wire outside of their pair, which may contribute to increased incidence of disease.

Photo: M. Quaassdorff / CCE NWNV Team

In any pair-housing situation, it is important that calves are matched in size and age so that a bigger or older calf does not take advantage of her companion. Calves may be housed together on day 1 of life, but some farms may choose to keep them separate initially for several days in order to ensure that both calves are eating and moving around well before pairing. If planning to house calves together from an early age, it is recommended to properly disbud non-polled calves with appropriate hot iron methods including pain mitigation for the procedure and recovery period. Caustic paste is a disbudding method to be used with extreme caution if calves are housed together as paste may rub off onto or be sucked off by a companion calf causing injury to both calves.

### OUTDOOR HOUSING

**Two Hutches Side-By-Side:** This is a very practical option where two hutches may be connected with fence panels. This method allows enough square footage for both calves to dwell in the same pen, though oftentimes they choose to occupy the same hutch. Calves benefit from social bonding, learning and competitiveness, but it may require extra effort from caregivers to keep the space well-bedded, clean and dry.

**Super Hutches:** This option requires the purchase of the larger "super hutches", but allows calves to dwell in the same ~60 square foot space. The opening to the hutch is larger than a typical hutch which may create challenges in

(Continued on page 13)

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## Looking into the Future of Dairy Welfare

*(Continued from page 12)*

keeping the bedding dry in the rain and snow, but it is manageable. It can be tempting to overcrowd these hutches, but keep in mind the goal of 30-35 square feet or more of bedded space per calf.

### INDOOR HOUSING

Pens with removable divider panels: This is a great option for those raising calves in barns. This system works well when calf pens (large enough for two) have solid panels surrounding a pair of calves to prevent excess cross-contamination or spread of disease. This system makes it particularly easy to background calves individually for a few days. When each calf is deemed to be eating well and is strong enough, a divider panel may be removed to create the larger pen. As calves age, more panels may be pulled to create larger groups of six to eight.

Of course, housing calves individually while providing them with clean bedding, and ample fresh feed and water is still a perfectly acceptable way to raise calves. There are some great benefits too, those being the ability to monitor individual calf intake and behavior for health, as well as keeping them from readily spreading disease during an outbreak. Though it is of interest to consumers (Perttu et al., 2020) and to processors conducting and requesting animal welfare audits, currently there is no regulation requiring calves to be pair- or group-housed; however that could change in the near future. Will pair-housing be a plausible and welcomed management practice on your farm?



## Hearing About Union Activity on Farms in Your Area?

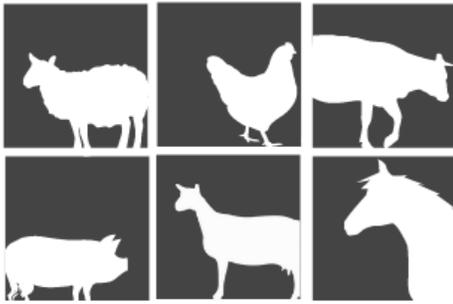
There has been a lot of discussion lately around the Farm Laborers Fair Labor Practices Act (FLFLPA), which went into effect January 1, 2020, surrounding the changes to overtime regulations. This is just a quick reminder that as part of the FLFLPA, farm workers also gained the right to organize or unionize. We have heard of an increase in union activity in our region of NWNY and therefore want to make sure that all farm owners and managers are aware of the resources available to them. It is essential that we all understand what is allowed, legally, to be said in discussions with our employees regarding unions. Please take a moment to read some of the information at the links below and consider educating your employees also.

Ag Workforce Development has an [overview presentation](https://tinyurl.com/AgWorkforce-Union-Overview) (https://tinyurl.com/AgWorkforce-Union-Overview) by Richard Stup as well as a [Guide to Collective Bargaining Rights and Responsibilities](https://tinyurl.com/Collective-Bargaining-Guide) (https://tinyurl.com/Collective-Bargaining-Guide) by the Public Employment Relations Board (PERB).

Farm Bureau also has some excellent resources for members including: **Webinar: Collective Bargaining Rights on Farms, Collective Bargaining- Dos and Don'ts**, [Talking Points for Farmers on Unions](https://tinyurl.com/NYFB-Talking-Points) (https://tinyurl.com/NYFB-Talking-Points).

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## NEW Livestock Resource Website from Cornell Cooperative Extension



**Livestock Program  
Work Team**  
Cornell Cooperative Extension

If you are looking for resources for producing and marketing livestock, then visit the NEW Cornell Cooperative Extension's Livestock Program Work Team website <https://www.ccelivestock.com>.

The CCE Livestock Program Work Team recognized New York livestock producers' needs to have a trustworthy central location for all things livestock and developed the website in response. The website is organized into themes based on species and information can be found on a variety of production topics including breeding and reproduction, nutrition, and health as well as marketing.

"Our goal is to continue adding resources and have it be the go-to place for workshops, trainings, and webinar recordings", states Nancy Glazier, Regional Small Farms/Livestock Specialist.

Dana M. Havas Ag Team Leader from CCE Cortland expressed "It is exciting to have extension livestock experts from all over the state working together to develop a robust and valuable collection of resources for our communities"

As the website grows we look forward to hearing how you use the website and invite you to tell us what you think by contacting the website administrator <https://www.ccelivestock.com/contact-us>.

The CCE Livestock Program Work Team is comprised of educators working to build a collaborative network of experts and resources to foster the success of livestock farms across New York State.

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SAVE THE DATE  
AUGUST 16-17, 2022

### 2-DAY HOOF TRIMMING WORKSHOP

IN-PERSON  
HANDS ON LEARNING



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

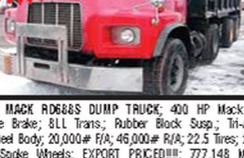
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- BOVINE HOOF ANATOMY
- HOOF TRIMMING TECHNIQUE
- HOOF HEALTH & NUTRITION
- LAMENESS DETECTION
- KNIFE SHARPENING & SAFETY

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<p><b>Vac Truck</b></p>  <p><b>97,000 Miles</b></p> <p>2013 PETERBILT 348 VACUUM TRUCK, Paccar P93 350 HP; 10-Spd. Manual; Clean, Double Frame w/2940 Gallon Tank; Air-Trac Suspension; 20K Front Axle; 46K Full Locking Rears; 4:30 Ratio; 25.8" WB; Vacuum System Can Be Removed. 2016" Frame Behind Cab; 18" CT; 97,334 Miles; Sk. # 6325 - \$46,900</p>	<p><b>20K/69K Rears</b></p>  <p><b>Chassis Allison Auto.</b></p> <p>2009 WESTERN STAR 4900; Detroit Diesel 490 HP; Jakes; Allison 4500 Auto. Trans. w/PTO; Double Frame Cab &amp; Chassis; 20K F/A; 69K Triple Locking Rears; Neway Air Ride; 312" WB; 368" Bridge Measurement; 31" Frame Behind Cab; 61,745 Miles; Sk. # 6353 - \$58,900</p>	<p><b>Heavy Spec</b></p>  <p><b>600 HP</b></p> <p>2013 KENWORTH T800; Cummins ISX 600 HP; 18-Spd. Manual; Double Frame; 24" WB; 20K Front Axle; 46K Full Locking Rears on Hendrickson Air Ride Suspension; 3.73 Ratio; 2-Spd. Auxiliary Transmission; 194" CT; 176" Frame Behind Cab; 545,546 Miles; Sk. # 6321 - \$54,900</p>	<p><b>Steerable Tag Axle</b></p>  <p><b>Pete Tanker</b></p> <p>2011 PETERBILT 37 TANK TRUCK; CAT 475 HP; 18-Spd. Manual; 20K F/A; 46K R/A; 19K Steerable Tag; 26.5" WB; 17.5" CT; 4,200 Gal. Tank w/Inland Pump; WILL SELL JUST CHASSIS; 336K Miles; Sk. #5963 - \$61,900</p>
<p><b>23.5 Ton Crane</b></p>  <p>2007 PETERBILT 367 CRANE TRUCK; 430 HP CAT C13; 8LL Manual Trans.; Double Frame; Telex 814792 23.5 Ton 92" Reach Crane w/4-Outriggers; 36" Bunk; 18" Steel Deck; 20K Front; 40K R/A; Steerable Lift Axle; 21" WB; 105,127 Miles; Sk. #5938 - \$71,900</p>	<p><b>Clean Water Truck</b></p>  <p><b>Low Miles</b></p> <p>2011 KENWORTH T800 WATER TANKER TRUCK; Cummins 425 HP; w/8,226 Gallon Advance Steel Tank and Pump; 250" WB; 16K Front Axle; 46K Full Locking Rears on Hendrickson Air Ride; 4.30 Ratio; We Will Separate the Tank from the Chassis; 21" Frame Behind Cab; 172" CT; 48,878 Miles; Sk. # 6354 - \$58,000</p>	<p><b>20K/46K Rears</b></p>  <p><b>475 HP</b></p> <p>2007 PETERBILT 357; 475 HP CAT C13; 18-Spd Manual; Clean Daycab w/Totals Winch; 20K F/A; 46K Full Locking Rears; Chalmers' Susp.; 22.4" WB; 496,503 Miles; Sk. #6241 - \$39,900</p>	<p><b>24 ft. Flatted</b></p>  <p><b>Heavy Spec</b></p> <p>2009 KENWORTH T800 FLATBED; CAT 335 HP; 10-Spd. Manual; Clean Double Frame Flatted Truck w/Puller P/A 1001 Rear Mounted Knuckboom; 42" Rears; 20K Front Axle; 46K Full Locking Rears on Neway Air Ride; 23" x 96" Aluminum Deck; 4.63 Ratio; 27" WB; 192" CT and 21" Frame Behind Cab; Ratted &amp; Knuckboom Can Be Removed; 278,458 Miles; Sk. # 6308 - \$48,900</p>
<p><b>46K Rears</b></p>  <p><b>CAT 6N2</b></p> <p>2003 KENWORTH T800; 475 HP CAT C15 6N2 Turbo; 8LL Manual Trans.; Clean Daycab w/12,800# Front Axle; 46K Rears On KW 8-Bag Air Ride; 4.11 Ratio; 186" WB; Wetline; 447,898 Miles; Sk. #5925 - \$49,900</p>	<p><b>(2) Available</b></p>  <p>2004 &amp; 2003 PETERBILT 378 TRI-AXLE DUMP TRUCKS; 475 HP CAT C15 Single Truck; 13-Spd. Manual; 20K F/A; 44K R/A; Air Trac Susp.; Double Frame; 21" Aluminum Box; Air/H Tag; 540,000 Miles; Sk. # 6345/6346 - CALL FOR PRICE</p>	<p><b>Dozens of Mack Dumps!!</b></p>  <p>1999 MACK RD68S DUMP TRUCK; 400 HP Mack E7; Engine Brake; 8LL Trans.; Rubber Block Susp.; Tri-Axle; 19" Steel Body; 20,000# F/A; 46,000# R/A; 22.5 Tires; 248" WB; Spoke Wheels; EXPORT PRICED!!!; 777,148 Miles; Sk. #5932 - \$19,900</p>	<p><b>22 ft. Frame</b></p>  <p><b>Allison Auto. Dump</b></p> <p>2006 PETERBILT 367 CAB &amp; CHASSIS; Cummins 370 HP; Engine Brake; 8LL Manual Trans.; Quad-Axle w/Double Frame; 18K F/A; 44K Full Locking Rears; (2) 11K Steerable Lift Axles; Air Trac Susp.; 22" Frame Behind Cab; 212" CT; 302,500 Miles; Sk. #6831 - \$43,600</p>
<p><b>6x6 Flatted</b></p>  <p><b>Low Miles</b></p> <p>2005 PETERBILT 357 6x6; Clean Double Frame 31" Flatted Truck; CAT 350 HP; 8LL Trans.; 23K F/A; 46K Full Locking Rears; 4265R22.5 Tires; Hendrickson Holman Susp.; 5.83 Ratio; 28" WB; 21" CT; 31" Frame Behind Cab; We Separate the Tank from Chassis; 174,181 Miles; Sk. #5701 - \$49,900</p>	<p><b>Heavy Spec Long Flatted</b></p>  <p>2006 KENWORTH T800 FLATBED; CAT 335 HP; Double Frame Flatted Truck; 20K F/A; 44K Full Locking Rears; 21" x 96" Steel Deck; 5.29 Ratio; 24" WB; Hendrickson Susp.; Ratted Can Be Removed; 19" Frame Behind Cab; 162" CT; 12,584 Hours; 137,760 Miles; Sk. # 6323 - \$49,600</p>	<p><b>Heavy Spec Chassis</b></p>  <p>2010 WESTERN STAR 4900FA; Detroit Diesel Series 60 14.0L 495 HP; 18-Spd. Manual; Clean Fuel Tanker Truck w/5,550 Gal. Hainnits Steel Tank &amp; Pump; 24.5" WB; 14,700# Front Axle; 44K Full Locking Rears on Airliner Susp.; 3.90 Ratio; We Will Separate Tank from the Chassis; 20" Frame Behind Muller; 158" CT; 223,505 Miles; Sk. # 6394 - \$58,900</p>	<p><b>485 HP</b></p>  <p>2008 PETERBILT 367; Cummins ISX 485HP; Allison Auto Trans.; Clean Single Frame Dump Truck w/15" Steel Body w/3" Sides and 1" Sideboards; Tarp; 14,300# F/A; 46K Locking Rears on Air Trac Susp.; 20.4" WB; Plumbed for Pup Trailer; Engine Had Complete Rebuild (Paperwork Include); 383,992 Miles; Sk. #6264 - \$62,900</p>
<p><b>Heavy Spec Dump Truck</b></p>  <p>2008 PETERBILT 340 DUMP TRUCK; Paccar P93 330 HP; 13-Spd. Manual; Double Frame; 19" Heated Steel Body; 20K Front Axle; 20K Lift; 46K Full Locking Rears; 24" WB; Tarp; 5.25 Ratio; Air-Trac Suspension; Hitch and Plumbed for Pup Trailer; 214,987 Miles; Sk. # 6332 - \$49,900</p>	<p><b>Attn. Farmers! Feed Mixer</b></p>  <p>2007 MACK CTP1713; 370 HP Mack MP7; Clean, Low Hour Double Framed Feed Mixer Truck w/Supreme Int'l. Inc. 1400T Feed Mixer; Digi-Star E23400 Scale System; Allison Auto. Trans.; 20K F/A; 45,400# R/A; Camelback Susp.; 25.4" WB; 198" CT; 24" Frame; 79,290 Miles; Sk. #6363 - \$164,900</p>	<p><b>2010 WESTERN STAR 4900FA; Detroit Diesel Series 60 14.0L 495 HP; 18-Spd. Manual; Clean Fuel Tanker Truck w/5,550 Gal. Hainnits Steel Tank &amp; Pump; 24.5" WB; 14,700# Front Axle; 44K Full Locking Rears on Airliner Susp.; 3.90 Ratio; We Will Separate Tank from the Chassis; 20" Frame Behind Muller; 158" CT; 223,505 Miles; Sk. # 6394 - \$58,900</b></p>	<p><b>6x6 Crane</b></p>  <p>2007 MACK CTP1713; Mack MP7 370 HP; 10-Spd.; Clean Cab &amp; Chassis; 18K Front Axle; 46K Locking Rears; Air Ride Susp.; 27" WB; 192" CT and 21" Frame Behind Cab; 118,186 Miles; Sk. # 6399 - \$47,250</p>
<p><b>Kuhn Feed Mixer</b></p>  <p>2012 KENWORTH T800 FEED MIXER; 330 HP Paccar P93; Allison Auto. Trans.; Clean Double Frame Feed Mixer Truck w/Kuhn Wagon Profeed 70110 Feed Mixer; Digi-Star E23800 Scale System; 18K F/A; 45K Locking Rears; Hendrickson H/I Susp.; 24" WB; 178" CT; 23" Frame; 71,740 Miles; 59,926 Miles; Sk. # 6364 - \$79,900</p>	<p><b>Tri-Drive Crane</b></p>  <p><b>Tandem Axle</b></p> <p>2006 WESTERN STAR 4900 TARIEM TRI-DRIVE CRANE; 530 HP CAT C15; Double Frame; Tri-Drive; Twin Steel Truck w/Tare Storage TM7571 Crane w/Inlay; 32.5 Ton Capacity; 71' Reach; 38" Bunk; (4) Outriggers; 38K F/A; 57K Triple Locking Rears; R/H Wheel 40" Bridge Measurement; 4.56 Ratio; 32.5 Ton Lift Hook; 221,636 Miles; Sk. #6361 - \$72,900</p>	<p><b>Heavy Spec Chassis</b></p>  <p><b>118,700 Miles</b></p> <p>2004 KENWORTH W800; 335 HP CAT C10 Engine; 8LL Trans.; Cab &amp; Chassis; 20K F/A; 46K Full Locking Rears; 25" WB; 21" Frame Behind Cab; 150" CT; 4.89 Ratio; Holman Susp.; 118,703 Miles; Sk. #6075 - \$29,900</p>	<p><b>6x6 Crane</b></p>  <p><b>Cummins N14</b></p> <p>2001 INTERNATIONAL 5600 6x6 CRANE; 435 HP Cummins N14; 10-Spd. Manual; Double Frame; P/Man Hydra-Lift HL1590 7-Ton 65' Crane; 4-Outriggers; 20' x 8' Ratted; 20K F/A; 46K R/A; Hendrickson H/I Susp.; 24" WB; 184" CT; 25.3" Frame Behind Cab; 158,174 Miles; Sk. #6299 - \$49,900</p>

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## July 2022

**Pasture Walk at Hendrickson's Grazing Acres** - Wednesday, July 13, 2022 from 7:00pm - 8:30pm. Will meet near 5702 Route 19, Gainesville, NY. Cost: \$10 per person. Pre-register online at: <https://nwnyteam.cce.cornell.edu/>. Questions? Contact Nancy Glazier: 585-315-7746 or email [nig3@cornell.edu](mailto:nig3@cornell.edu)

## August 2022

**Cornell Hemp Field Day** - Save the Date: August 11, 2022 from 8:00am - 3:00pm at Cornell's AgriTech Campus in Geneva, NY. The focus this year includes hemp genetics and breeding, pest management, and grain and fiber production, including demonstrations of combine harvesting and baling. This hands-on field day will have interactive workshops offering DEC credits on the use of pesticides and disease management. Digital ag applications and an introduction of the USDA hemp germplasm repository will also be included. We hope to see you there! **Registration will open in July watch for details soon.**

**Two Day Hoof Trimming Workshop** - August 16-17, 2022. More details coming soon! Information and registration will be posted on the NWNY Team website, <https://nwnyteam.cce.cornell.edu/>



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