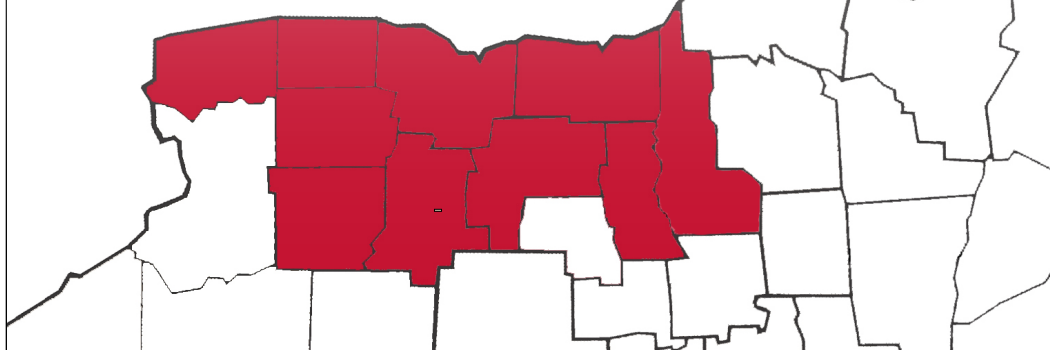


# AG FOCUS



## Results of the 2023 NY Corn Yield Tour

Mike Stanyard

Last year, the NY Corn & Soybean Growers Association sponsored the first NY Corn Yield Tour, and I presented the results at the annual Summer Crop Tour. The corn tour was a success and so we plan to make this an annual event. This year's tour happened on August 7 and 8. Despite the cool rainy weather, ten teams sampled over 100 corn fields across a ten-county area of NWNY.

The NY Corn Tour is modeled after the Pro Farmer Crop Tour which occurs across six states in the Midwest every August for the past 30 years. Teams of trained scouts and volunteers travel pre-determined routes in each state and take corn and soybean yield estimates which are reported at the end of each day. At the end of the 3-day tour, their primary goal is to provide the industry with potential corn and soybean yield data and conditions on a regional and state basis prior to harvest. To see the results of this year's tour on August 21-24, see their website, <https://events.farmjournal.com/pro-farmer-crop-tour-2023>.

New York is not a major corn producing state with roughly 650 thousand acres of grain corn, so we are obviously not on their radar. But it is nice to get a feeling of what corn conditions and yield potentials look like at that time. We still have a long way to go before it's in the bin!

Each team was assigned a county and visited the same ten NYC&SGA member's farms that were sampled last year. Each team included an NYC&SGA board member and 2 to 3 local agribusiness reps. Farms were contacted and asked to identify their earliest pollinated field since corn plants were behind on maturity at that time. We wanted to make sure we had corn to count!

At each stop, teams were able to collect field data such as the number of

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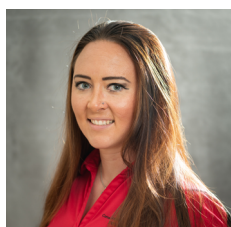
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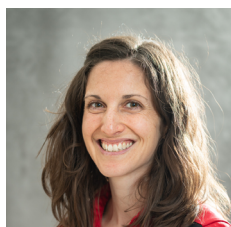
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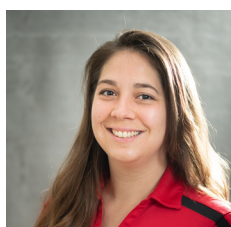
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# Check Out The NWNY Team Blog!

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Upcoming Events: and more from our  
team members.

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## Results of the 2023 NY Corn Yield Tour Cont.

ears in 30 foot of row, length of grain on the ear and number of kernels around the ear to come up with a potential yield estimate for each field. The teams enjoyed getting out in the corn and visiting with producers. Everyone agreed it was a great experience and want to be a part of the Corn Tour next year.



Measuring corn yield potential. Photo: J Degni, CCE/SCNY Team

On August 10, the annual NYC&SGA Summer Crop Tour was held at the Rodman Lott & Son Farm in Seneca Falls. Along with top-notch presentations and field tours, I presented the "Results of the 2023 NY Corn Yield Tour". Each county yield potential range and average is summarized in the chart below and you can see things look pretty good across the region. We still have a way to go. Moisture looked good moving forward; we just need some heat and lots of sunshine!

NYC&SGA and I will continue to make the corn tour an annual event. We ended up sampling 108 fields this year and it would be great to sample more with more teams. I will also work to expand teams into other counties across the state to compare yields between regions. After two years, we realize that corn maturity can be an issue, and this is just too early to sample corn in NY. We are planning to move the tour closer to the end of August next year to get more accurate ear length measurements. Hope everyone has a great corn harvest!

County	Fields Sampled	Range in Yield	Average Yield
Niagara	9	163 - 332	232
Orleans	20	155 - 276	223
Genesee	10	174 - 240	205
Wyoming	10	183 - 274	218
Livingston	8	146 - 263	208
Monroe	11	154 - 228	191
Ontario	10	143 - 221	199
Wayne	10	179 - 237	209
Seneca	10	145 - 242	194
Cayuga	10	157 - 234	199
Region	108	145 - 332	208

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### 2023 CORN SILAGE REGIONAL DRY-DOWN DAY SENECA COUNTY, NY

Corn silage harvest is drawing near. The way corn silage is harvested and stored is a single event that affects your operation for the entire next year. Dry Matter dictates when harvest should begin, and is influential to the success of the harvest.

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## Prepare for Vaccination Success

Nancy Glazier

Vaccinations provide an immune boost to protect animals from disease. No product yields 100% immunity but 70-80% in the herd or flock. If appropriate steps aren't taken this percentage can be much lower. Take the proper steps for success and not failure.

**Start with animal management.** This sounds straightforward but includes adequate nutrition, water, and minerals. Healthy livestock will have an improved immune response. Strategically deworm animals. Keep handling stress to a minimum, don't work animals when it is hot and humid. It is also best to vaccinate 3-4 weeks prior to weaning youngstock. That way their immune systems have had adequate time to respond to the vaccines before a very stressful period.

**Proper vaccine handling.** Care needs to be taken handling pharmaceutical products to keep them at the proper temperature. That includes through shipment, pick-up at the store or vet clinic. Heat and cold can be detrimental to products. When vaccinating keep extra supplies in coolers and out of the sun. When mixing modified live vaccines only mix what you will use in a short period of time. Products should be stored in a refrigerator with a thermometer that should be checked periodically.

**Choose the correct products.** For optimum efficacy work with your veterinarian to develop your herd/flock health plan. They can help you select the appropriate vaccines to target specific pathogens for your farm, and help you decide which animals to vaccinate. It is also important to vaccinate at the correct time.

**Choose the appropriate needle and syringe.** From a meat quality assurance perspective, the smallest needle for the product and animal is best. A smaller gauge needle can be used on younger, thinner-skinned animals. One-use needles are ideal. Reusing needles can lead to dulling and additional tissue damage as well as run the risk of a needle breaking off and causing an emergency situation. Do not ship an animal to auction with a broken needle, only send an animal to a processor who knows about it. Needles can migrate within an animal.

It is important to select the right-sized syringe for accurate dosing. Syringes can be reused by cleaning them or pistol grip vaccinators with hot water and a small amount of soap then rinse thoroughly with hot water.

**Read the label and package insert.** This should be done before heading to the chute. The inserts usually have very small print and can be tough to read in a well-lighted area! The insert will list dose, location, need for booster shot, and adverse reactions, to list a few. The least intrusive is the best route for injection, with most products administered subcutaneously. Be aware of what is the withdrawal time, in case an animal needs to be marketed unexpectedly. Keep records of vaccinations (and treatments). Also, make sure chuteside helpers are aware of proper use of equipment being used.

These are just a few pointers to be aware of, whether as a refresher or new to you. A little planning now will go a long way.



*Proper vaccine storage is important chuteside when working cattle or other livestock.*



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**2016 Cat 930M** High lift wheel loader with 4.5 CYD roll-out bucket. \*\*\*NEW BRIDGESTONE 20.5R25 TIRES\*, 5,57hrs. - **\$112,900**



**2019 John Deere 6130M** 130hp, MVWD tractor with enclosed cab, power quad transmission, 12 front weights, 3 SCVs, 480/70R24 front tires, 520/70R38 rear, 540/1000 PTO, outside 3 point hitch controls, air ride seat, suspension cab, 1783 hrs - **\$89,900**



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**2002 Sterling LT9500** Double frame cab and chassis with CAT C12 350hp+, Allison automatic transmission, 20K front, 46K rear on Hendrickson spring suspension, 266" wb, 198" C-T, and 22" of frame behind the cab (21" of frame behind the muffler). Front engine/transmission capable PTO, 5,929 hours, 34,450 miles. - **\$60,900**



**Low Mile Rollbacks**

**500 HP CAT**

**(2) 2013 PETERBILT PB330 CLEAN ROLLBACK TRUCK** w/14" Kargo King Bed; Tarp; Allison Auto.; 25,993# GVW; 7,998# F/A; 17,995# R/A; Spring Susp.; 180" WB; Hydraulic Brakes; 4.33 Ratio; 219,000/212,000 Miles; Stk. # 6648/6664 - **\$52,900**



**104ft. Height Tri-Drive Bucket Truck**

**2007 INTERNATIONAL PAYSTAR 5600:** Cummins ISM 385 HP; Eaton-Fuller Autoshaft Trans.; TRI-DRIVE; Double Frame Bucket Truck w/Altec AM900-E100 Boom; 104.6' Working Height; (4) Outriggers; 20K F/A; 52,998# Locking Rears; Neway Susp.; 294" Bridge; PTO; Wetkit; Pintle Hitch; 36,335 Miles; Stk. # 6693 - **\$84,900**



**Supreme Feed Mixer**

**2007 MACK CTP713 FEED MIXER TRUCK:** CLEAN; Supreme 1400T Feed Mixer; Mack 370 HP; Allison Auto. Trans.; 20K F/A; 46K R/A; 425/65R22.5 Front, 11R22.5 Rear Tires; Camelback Susp.; 264" WB; 66,500 Miles; Stk. # 6818 - **CALL**



**Allison Auto.**

**Heavy Spec**

**2003 KENWORTH T800 FLATBED:** Heavy Single Frame; 395 HP CAT C12; Allison Auto. Trans.; 15'6" x 102" Steel Deck; 18K F/A; 46K Full Locking Rears On Haulmax Susp.; 196" WB; 122" CT; 14'8" Frame Behind Cab; 4.56 Ratio; 233,014 Miles; Stk. # 6767 - **\$58,900**



**Rear Mounted Knuckleboom**

**Flatbed Truck**

**2007 KENWORTH T800:** CAT 335; 10-Spd.; Palfinger PK9501 Rear Mounted Knuckleboom Powered Pony Motor; 42" Forks; 20K F/A; 44K Full Locking Rears On Neway Air Ride; 22'6" x 96" Aluminum Deck; 4.63 Ratio; 256" WB; 182" CT; 23" Frame Behind Cab; 252,135 Miles; Stk. # 6309 - **\$44,900**



**20K/46K Rears**

**Low Mile Chassis**

**2009 KENWORTH T800 CAB & CHASSIS:** Clean Double Frame; 355 HP Cummins ISM (Can Be Re-Rated To 425 HP); 18-Spd. Manual; 264" WB; 21" Frame Behind Cab; 186" CT; 20K F/A; 46K Full Locking Rears On Neway Air Ride; 4.30 Ratio; PTO w/Controls; 107,210 Miles; Stk. # 6778 - **\$59,900**



**550 HP**

**69K Rears**

**2015 KENWORTH T800 CAB & CHASSIS:** Tri-Drive; Also Available; 550 HP Cummins ISX; 18-Spd. Manual; Double Frame; 48" Flat Top Bunk; 354" Bridge Measurement; Air Ride; 25'8" Frame Behind Cab; 18K F/A; 69K Full Locking Rears; 4.30 Ratio; 310,693 Miles; Stk. # 6776 - **\$85,900**



**46K Rears**

**525 HP**

**2016 FREIGHTLINER CORONADO 122 DAYCAB:** Clean; Cummins ISX 525 HP; 18-Spd. Manual; 14.7K F/A; 46K Full Locking Rears; 201" WB; AirLiner Susp.; 3.91 Ratio; 557,561 Miles; Stk. # 6700 - **\$65,900**



**Allison Auto.**

**Heavy Chassis**

**2004 VOLVO VHD64 CAB & CHASSIS:** Heavy Single Frame; Volvo 365 HP; Allison Auto. Trans.; 20K F/A; 46K Full Locking Rears; T-Ride Susp.; 214" WB; 150" CT; 18'6" Frame; 153,968 Miles; Stk. # 6758 - **\$49,900**



**20K/46K Rears**

**CAT C15**

**2007 WESTERN STAR 4900SA CLEAN HEAVY SPEC SLEEPER TRUCK:** CAT C15 475 HP; w/34" Mid Roof Sleeper; 20K F/A; 46K Full Locking Rears; AirLiner Suspension; 244" WB; 4.10 Ratio; 276,693 Miles; Stk. # 6733 - **\$55,900**



**Knuckle Boom Crane Truck**



**22,500 Miles**

**Like New Packer**

**2015 MACK LEU613:** Mack MP7-325M \*\*HP CAN BE INCREASED TO 395-425 WITH SOFTWARE FLASH\*\*; Allison Auto. Trans.; Double Frame Cabover Truck w/Haul-Air Equipment Systems 25 Cu. Yd. Side Load Packer; 18K F/A; 46K Locking Rears; Haulmax Susp.; Both LH/RH Side Drives; 176" WB; 150" CT; 17" Frame Behind Cab If Hydraulic Tank Is Removed/Re-located; 22,557 Miles; Stk. # 6739 - **\$49,900**



**20K/46K Rears**

**Allison Auto.**

**560 HP**

**2014 WESTERN STAR 4900SF DOUBLE FRAME SLEEPER CAB & CHASSIS:** 560 HP Detroit DD16; Allison 4500 RDS Trans.; 52" Mid Roof Bunk; 296" WB; 20'6" Frame Behind Bunk; 146" CT; AirLiner Susp.; PTO; 20K F/A; 46K Full Locking Rears; Hitch; 508,000 Miles; Stk. # 6729 - **\$59,900**



**Southern Truck**

**46K Lockers**

**2015 WESTERN STAR 4700SF:** Detroit DD13 470 HP; 10-Spd. Manual; Clean Daycab with 12K Front Axle; 46K Full Locking Rears; AirLiner Suspension; 210" WB; Headache Rack; 3.91 Ratio; 391,389 Miles; Stk. #6798 - **\$71,900**



**2000 Peterbilt 357 w/ Kuhn Knifht VT180 vertical feed mixer truck w/scale system, Cummins ISM (recent inframe overhaul), Allison Auto (reman Weller trans), 20,000lbs, 46,000lbs rear, 397,000 miles, 6,889hrs. - **CALL****



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**2000 OSHKOSH:** Detroit Diesel V8 500 HP Turbo Diesel Engine; Engine Brake; Automatic Trans.; 86,000 lb. GVWR; Two 55,000 lb. Winches; Aux. Winch; 8x8; Rear Wheel Steer; Exhaust Brake; Air Ride Susp.; PTO; Fifth Wheel Ramp Plates; Central Tire Inflation System; 22,557 Miles; Stk. # 6696 - **\$88,900**



**Clean Vac Truck**

**2006 INTERNATIONAL 7600 w/VAC-CON VXP4212-LHE VAC SYSTEM:** 380 HP CAT C13; 20K F/A; 46K R/A; Hendrickson Susp.; 258" WB; Dumping Steel Tank w/Hydraulic Tailgate & Locks; 8" Suction Hose On Telescopic Boom w/Remote; DynablastHot Water Pressure Washer; 3.91 Ratio; \*\*Vacuum System Can Be Removed\*\*; 21'6" Frame Behind Cab; 178" CT; 82,550 Miles; Stk. # 6743 - **\$48,900**



**46K Lockers**

**600 HP**

**2015 WESTERN STAR 4900 DAYCAB:** 60 HP Detroit DD16; 18-Spd.; 13.3K F/A; 46K Full Locking Rears; AirLiner Susp.; 230" WB; Hadache Rack; Dual Exhaust; Air Cleaners; 4.30 Ratio; 500,809 Miles; Stk. #6781 - **\$71,500**



**20K/46K Locking Rears**

**2006 MACK GRANITE C7713 WITH NATIONAL CRANE:** 400B Crane; Mack 370 HP; Eaton-Fuller 9LL Trans.; 55' Boom & 8-Ton Capacity; (4) Outriggers; 252" WB; 20K F/A; 46K Full Locking Rears; Hendrickson Haulmax Susp.; 188" CT; 21'8" Frame Behind Cab; 114,624 Miles; Stk. #6711 - **\$63,900**



**Cummins N14**

**20K/46K Rears**

**Allison Auto.**

**1999 INTERNATIONAL PAYSTAR 5000 DOUBLE FRAME DAYCAB:** Cummins N14 370+ HP; Allison Auto. Trans.; 184" WB; NEWAY Air Ride; Wetline; Rubber 95%; 90,427 Miles; Stk. # 6745 - **\$39,900**

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# Pricing Corn Silage - Fall 2023

John Hanchar

## Summary

- Analysis suggests corn silage price depends on corn silage quantities, alfalfa hay price, the price received by farmers for milk, and corn grain price.
- Analysis for NY suggests that estimated corn silage price is most sensitive to corn silage quantities, alfalfa hay price and corn grain price.
- Price estimates combined with understanding of relevant supply and demand factors from an individual farm business owner's perspective can aid decision making regarding corn silage price. Given recently available alfalfa hay and corn grain prices (April through June, 2023, and August, 2023, respectively), price analysis for NY suggests an estimated corn silage price of about \$63 per ton. The fall 2022 estimate was about \$61 per ton.

## Determining Corn Silage Price

A farm business owner can examine how much corn silage the owner would be willing to supply to a market at a given price. Analysis of the farm business' cost structure for corn silage production combined with consideration of other factors help define the supply relationship. A seller can develop a target based upon the above, but actual market conditions provide no guarantee that a buyer will purchase quantities desired at prices that achieve the producer's target.

Some farm business owners might approach the problem of determining corn silage price from a value in production, or input demand perspective. Amounts of corn grain and corn stover in a ton of corn silage, relevant prices, and corn silage's place in the milk production process relative to other inputs are key factors. A buyer can develop a price target based upon the above, but actual market conditions provide no guarantee that a producer will sell the quantity desired at a price that matches the buyer's willingness to pay target.

Although factors in price determination, the two approaches described above in isolation, don't completely determine price and quantity. Supply and demand relationships work simultaneously in markets to determine price and quantity. Empirical price analysis brings supply and demand relationships together to determine price.

## Corn Silage Price Analysis

Empirical price analysis suggests that corn silage price is a function of corn silage quantities, alfalfa hay price, the price received by farmers for milk sold, and corn grain

price. An ordinary least squares regression model expresses corn silage price as a linear function of the above variables. The statistical analysis used here is fairly basic. However, readers of the original work and annual update articles note that the analysis and estimates help farm business owners price corn silage.

## Corn Silage Price Estimates – Fall 2023

The ordinary least squares regression model originally reported in August 2012, updated here to reflect additional data available, and changes in other underlying factors, produced corn silage price estimates for NY. Below, estimated corn silage price is a function of alfalfa hay price and corn grain price with other factors (corn silage production and milk price) fixed at expected levels. Expected corn silage quantity is set at 8,657 units (one unit = 1,000 tons).

- estimated corn silage price (\$/ton) =  $-9.93576 + (0.19089 \times \text{price of alfalfa hay (\$/ton)}) + (4.34634 \times \text{price of corn for grain (\$/bushel)})$

## Suppose

- NY alfalfa hay price is \$261 per ton, the three month average of the period April, May, June, 2023. (USDA/NASS. [Agricultural Prices](#). Washington, DC: National Agricultural Statistics Service. [QuickStats](#) website. August 1, 2023 access date.), and
- corn grain price is \$5.32 per bushel (Western NY Energy. "Corn Bids." Website. August 1, 2023 access date. Approximate value based upon reported bids for fall 2023.)

Using the estimating equation and the above prices for alfalfa hay and corn grain as expected prices, estimated corn silage price is about \$63 per ton. Compare this to last fall's estimate of about \$61 per ton. Using an expected corn silage quantity of 8,150 units (1 unit = 1,000 tons), about one standard deviation less than the initial value, yields a corn silage price estimate of about \$66 per ton. Using an expected corn silage quantity of 9,164 units, about one standard deviation greater than the initial value, yields a corn silage price estimate of about \$60 per ton. Buyers and sellers use an estimate as a base, typically adjusting for quality and/or harvest, hauling and storage costs based upon the situation, for example, when pricing standing corn for silage.

Corn silage price estimates combined with understanding of relevant supply and demand factors from the individual farm business owner's perspective, including local conditions, aid decision making regarding corn silage price.

## 7 Business Planning Considerations for On-Farm Dairy Processing

By Katelyn Walley-Stoll, Business Management Specialist, SWNY DLFC Program

*Originally Published on the SWNY DLFC Program website June 3, 2022*

### Financial Management Questions to Ask When Diversifying Your Dairy

With the current volatile dairy market, rising input costs, and continued challenges in commercial dairy production, dairy farm owners are looking for new ways to improve their profitability. If you're a dairy farmer interested in diversifying or vertically integrating your business, one option could be on-farm processing of raw milk into value-added goods and bottled fluid milk for sale. While this might seem like a fun, lucrative, and sustainable new venture at first glance, it's important to consider how you'll need to adjust and address your farm's business plan to accommodate for this change.

**1. Management Team Support.** It's no secret that there are many hands involved when it comes to dairy production. The owner, their family and friends, and employees seem the most direct, but there's also folks outside of the immediate farm that provide insight and support. People like bankers, lenders, accountants, financial advisors, crop advisors, veterinarians, nutritionists, milk cooperative leaders, and more. When diversifying into value-added production, that circle of support will grow even larger. Direct customers and wholesalers, product suppliers, inspectors, and more. Thinking about the people around you, your trusted advisors and helping hands, consider how your farm diversification will affect them and your relationship with them. Hopefully, this is a positive move for all involved. But, you may work with some who are hesitant, or have (oftentimes, very valid) concerns for this business venture. Without everyone on board and in the loop, there could be potentially disastrous consequences later on down the road. Bringing in third-party advisors, like Cornell Cooperative Extension Specialists or NY FarmNet Consultants, to moderate a management team discussion can be a helpful preventative step.

**2. Business Life Cycle.** Over time, businesses tend to follow a general lifecycle, described here. Farms are no exception and travel through a launch and start-

up phase (as a new farm entirely or under new management/ownership through succession), to a period of growth, then a peak production of business maturity, and, finally, a decline to an exit phase (or transition to new ownership/management). Depending on where you, or your successors, are in the business cycle will affect any decisions you might make when diversifying your dairy. For example, if you're just getting started, do you want to add something new to your plate? If you're thinking about exiting the business, how will this new venture affect your retirement goals or transition to new ownership? Understanding where your business is, and what your future goals are for production, is an important consideration when considering a new venture.

**3. Financial Position and Borrowing Capacity.** You know the old adage "You Can't Manage What You Can't Measure"? This applies here as well, and having an accurate understanding of your farm's financial position is a key business planning consideration. You can work with your lender, financial advisor, or local Farm Business Management Specialist to perform a Financial Analysis of your farm business. While it might seem tedious, it'll give you a whole farm picture of your financial health by analyzing your balance sheet and income statement items. Do you know if your farm is profitable right now? If your farm is currently profitable, or has the potential to be, what would be the motivation to start a new venture? If you're not profitable right now, what would change if you added a new venture? While it won't come as a surprise to you, creating a milk processing facility on your farm requires a lot of cash. Consider your options for financing such a venture and the current borrowing capacity of the farm.

**4. Cash Flow Budgeting and Profit Potential.** For dairy producers, cash flow tends to be straightforward. Your milk is picked up regularly and you receive a check regularly throughout the entire year. However, a value added business will have an entirely different cash flow, depending on your market. If you're working with wholesale buyers, you might be fronting product that you won't receive a paycheck for right away. If you're going to be marketing directly to consumers, how will you handle the times of the year where customers might not be buying? Additionally, start-up costs associated with this new venture will impact the liquidity of your overall farm business, and limit your responsiveness to change. It's also important to have



an idea of how long it will take for you to make a profit with this new venture as you balance start up highs and lows and customer recruitment to plan for cash availability.

**5. Calculating Your Cost of Production.** Do you know how much it will cost you to make and sell a gallon of milk? Tub of ice cream? Block of cheese? Calculating your cost of production by unit of sale can be a daunting process, but will be important to know what your breakeven price is and influence your business planning. An example - let's say you have an idea to make the most delicious, pint sized chocolate milks around. So, you listened to your friendly, neighborhood Farm Business Management Specialist and calculated what it would cost for you to make each of these pints of milk. This included the actual cost of producing the milk, the processing equipment and utilities, flavor ingredients, packaging, marketing, and more! You add all of those budgeted costs up, divide them by your anticipated production, and get to a cost of \$12.30/pint of delicious chocolate milk as your cost of production. In this scenario, how long do you think it would take to be profitable at \$12.30/pint? Or, would you ever be profitable, depending on your target consumer? Knowing your cost of production, or anticipating based on your enterprise budgets, will help you make decisions about how to move forward.

**6. Opportunity Cost.** Now, this consideration is one of the ones that gets me the most eye rolls, but from a "let's operate our farm as a business" perspective, makes a lot of sense. Opportunity cost is "the loss of potential gain from other alternatives when one alternative is chosen". Consider how much time and money and management effort will be involved in starting up a new value-added venture. What would your return on investment be if you used that money someplace else? This could look like improving your current farming operation, diversifying into a different venture, or even investing it via traditional routes. One example where I see this occur is, especially, with time. If the time you're

spending growing and developing your plan was spent on, for example, improving your herd health - what would happen? Another consideration is how your current farming operation will change if you're spending time and effort on a new project - do you have a plan in place to keep things running smoothly if you're elsewhere? If you consider alternatives and Value-Added Dairy still has the biggest returns, great. If it doesn't, how will this play into your business planning?

**7. Wellbeing.** One final Business Planning consideration I would urge you to evaluate is how this new venture will affect the wellbeing of your farm, your family, and yourself. This will change over time and vary by situation, but, in general, any new venture will cause a lot of stress and could negatively impact your wellbeing. Having a support system in place and a "plan" for

how to handle things when the going gets tough can make all of the difference during those low times. Additionally, knowing how value-added production will bring you closer to your overall goals, your "why", will help motivate and safeguard your wellbeing which should be of utmost importance.

On-Farm Dairy Processing can provide a much-needed lifeline for navigating volatile milk price swings, working through cooperative buying restraints, and providing new profitability

streams to expand on-farm management and bring in new family members. However, this isn't a venture that should be entered into lightly and will have long-lasting impacts on your farm business plan.

*If you are thinking about expanding your own business to include value-added dairy production, check out our recent **webinar recording**, consider signing up for one of our upcoming discussion groups to help you move through the business planning process, or join us on our Value-Added Dairy Tour to get ideas from successful value-added dairy businesses in Eastern NY (date TBD). -Margaret (maq27@cornell.edu)*

**WEBINAR RECORDING**  
**VALUE-ADDED ON-FARM DAIRY PROCESSING**  
<https://www.youtube.com/@CCENWNY>

**Katelyn Walley-Stoll**  
Farm Business Management Specialist,  
CCE SWNY Team

**Anika Gianforte**  
Dairy Processing and Marketing Specialist,  
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# Nudge Your Way to a Safer Dairy Farm

Kaitlyn Lutz



It is no surprise to anyone who has grown up around agriculture that dangers lurk around every alley way and commodity bay. As agriculture consolidates, we are presented with new risks and opportunities for mitigation. It is not only the way we interact with our equipment that is changing (i.e., automation) but also our employees. Many of you can relate to the changing demographic that you are employing now compared to the previous generation, whether that be gender, nationality or rural vs. city backgrounds. Certainly, all these factors come into play when considering how to effectively improve safety on each farm.

In honor of this year's National Farm Safety and Health Week, which runs September 17th - 23rd, let's talk about a *novel* way to approach safety on your farm. This novel approach is a technique called **nudging** in the world of behavioral science, is as simple as it sounds and focuses on encouraging people to do the right, or safer, thing *without having to think about it*. This last point is so important because behavioral science research tells us that 95% of the time we run on autopilot, not actually consciously thinking about what we are doing.

So, if you've found yourself saying something like, "Juan just doesn't care! I've told him 5 times how to spread lime in the free stalls and he still got it in his eyes", then consider nudging. Nudging techniques work with people's natural tendencies to take shortcuts, revert to habits, do what is easy, and follow others. On top of this, we tend to have short attention spans. It is easy to get frustrated by these natural tendencies, but to be successful in managing employees it's important to work with them instead.

Here's an example of nudging:

**Dave:** I know I need to take my blood pressure medication, Nelly, but I always forget to grab it from the kitchen cabinet in the morning on my way to the barn. Stop pestering me!

**Nelly:** "Dave, you're so forgetful! This is a priority!"

**Nelly using nudging:** Nelly puts the blood pressure medication next to a glass of water on the counter every night before bed so that when Dave grabs his coffee in the morning he sees it, which "nudges" him to take the medication.

Another simple example of nudging occurred during the COVID-19 pandemic. Remember the white dots painted on floors and streets 6-feet apart? People are drawn to them and don't have to *think* about what 6-feet looks like.

New York Center for Agricultural Medicine and Health (NYCAMH) used a New York Farm Viability Grant to study nudging on dairy farms. One of the farms they worked with, Milk Train, Inc., in Sprakers NY, had a goal of improving communication between the night and day shift prompted by a few equipment failures that were not brought to management and led to dumped milk. They had already talked to the milkers on both shifts about the issue, but improvements didn't last.

One of the principles of nudging is to make it easier for people to do the right thing. To do this, you first must identify *what are the barriers* employees identify. In this case, interviews were conducted with the employees that found they were tired after their shift and just wanted to go home. Another finding of the interviews was that employees all had a common interest in soccer. The nudging intervention: create a communication board shaped like a soccer field with night and day shift each being a team!

This simple step replaced the typical mundane white board method of communication with an eye-catching, fun, and easy way to communicate between shifts.

If you have a chronic issue on your dairy that you're struggling to fix and you'd like to try nudging, NYC-AMH would like to try out a few more projects. Please contact Kaitlyn, who is working with Julie Sorenson from NYCAMH, or NYCAMH directly at [info@necenter.org](mailto:info@necenter.org). To learn more about nudging and the project at Milk Train, view their video: <https://youtu.be/8zYFLV6sz-w>.

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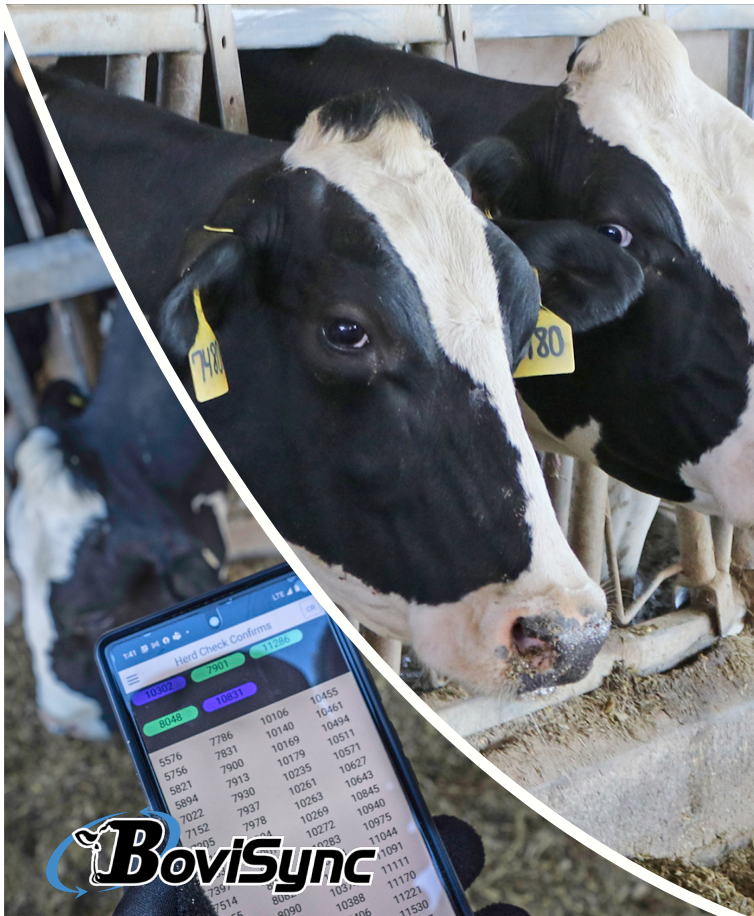
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# Chop, Chat, & Chew: The 3 C's of Forage Quality

Jodi Letham

Temperatures here in the NWNY region have been averaging mid 70's to low 90's with high humidity and copious amounts of rain. Whether it's your 2023 planned crop or an alternative crop, optimizing forage quality will be important as we start to prepare for the harvest season.

The length of cut forages, whether it is haylage, corn silage or another forage crop, has an impact on the final forage quality in several ways. The length of chop has an effect on packing in various storage types, which ultimately affects the fermentation. There's also the effect on fiber.

A short chop will minimize air infiltration into the silo, while longer chop length increases effective fiber in the diet. Theoretical length of cut (TLC) recommendations for alfalfa and grass are 3/8 to 1/2 inch and the TLC for corn is 1/2 to 3/4 inch. Corn harvested for silage at greater than 30 percent dry matter (DM) should be processed to maximize utilization by the animal.



Figure 1—Penn State Particle Size Separator. The two screens are offset to show the diameter of the holes.

By understanding the 3 C's of forage quality, you can make decisions for your forage harvest that will provide you with a higher-quality end product to feed your herd.



A coarser or longer chop will not pack as well as a finer chop, allowing more air spaces in between forage particles in the storage facility. A finer chop will lend to better packing, regardless of the storage structure or moisture. Length of cut, packing and the amount of air present in the storage structure can affect fermentation. In a proper

fermentation, the sugars are mainly used as fuels for the lactic acid bacteria. Drier feeds, poorly packed feed or any other situation that would increase the oxygen level present in the storage structure, will cause more of these sugars to be used by the aerobic bacteria, molds and yeasts. By reducing the amount of time it takes for the pH to drop and oxygen to be eliminated will increase the sugars available for lactic acid production.

So how does length of cut affect effective fiber? A longer cut will provide more physical fiber than a shorter cut. In all cases, a shorter cut will reduce the effectiveness of the fiber. Achieving adequate ration particle size requires using recommended guidelines for forages and TMRs (Table 1.). Particle size guidelines were based on intense research studies at Penn State to further refine the guidelines.

**Table 1. Corn Silage, haylage, and TMR particle size recommendations for lactating cows.**

Screen	Pore Size (inches)	Particle Size (inches)	Corn Silage	Haylage	TMR
Upper Sieve	0.75	> 0.75	3 to 8	10 to 20	2 to 8
Middle Sieve	0.31	0.31 to 0.75	45 to 65	45 to 75	30 to 50
Lower Sieve	0.16	0.16 to 0.31	20 to 30	30 to 40	10 to 20
Bottom Pan		< 0.16	< 10	< 10	30 to 40

## Particle size effects on the Dairy Cow

Adequate forage particle length is necessary for proper rumen function. Reduced forage particle size has been shown to decrease the time spent chewing and cause a trend toward decreased rumen pH. When cows spend less time chewing, they produce less saliva, which is needed to buffer the rumen. In comparison, when feed particles are too long, animals are more likely to sort the ration, and ultimately the diet consumed is very different than the original formulated.

**Chat** with Jodi Letham, Field Crops Specialist to discuss your goals for optimizing forage quality through proper harvesting, ensiling, and feedout practices!



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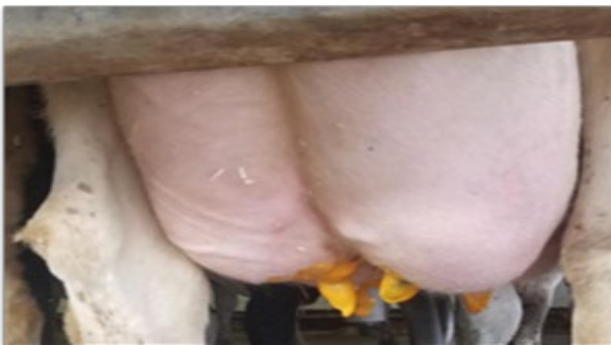
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## UPCOMING EVENTS

### September 6th

#### Dry Down Day

10AM - 2PM : Seneca County : Free

More Info & Registration: <https://nwnyteam.cce.cornell.edu/event.php?id=2205>

### September 9th

#### Youngman Farms Field Day

1PM : Youngman Farms : Free

More Info & Registration: <https://nwnyteam.cce.cornell.edu/event.php?id=2216>

### September 14th

#### Grazing Dairy Technology Farm Tour/Pasture Walk

1PM - 3PM : Cottonwood Farms

More Info & Registration: <https://nwnyteam.cce.cornell.edu/event.php?id=2206>

### September 27th

#### Technology for Grazing Dairies Webinar

12PM - 1PM : Zoom : Free

More Info: <https://nwnyteam.cce.cornell.edu/event.php?id=2199>

### October 16th

#### Agritourism Workshops Monthly

12PM - 1PM : Zoom : Free

More Info & Registration: <https://nwnyteam.cce.cornell.edu/event.php?id=2165>

### October 17th

#### Meat Marketing and Processing Workshop

6:30PM - 8:30PM :  
Ontario County : \$15

More Info & Registration: <https://nwnyteam.cce.cornell.edu/event.php?id=2202>

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