A Well Deserved Award on the National Stage

By: Jerry Bertoldo

The National Association of County Agricultural Agents (NACAA) each year recognizes individual members who demonstrate excellence in their field. Award winners are nominated from each state by peers in the association. For members with less than ten years of service in Extension there is the Achievement Award. This year this award was presented to five individuals from the Northeast region at the NACAA Annual Meeting Professional Improvement Conference in Salt Lake City, Utah on July 12.

Our Libby Eiholzer was this year’s winner from New York with five years of service as a bilingual dairy specialist with the NWNY Team. Her nomination qualifications included the traditional team responsibilities of providing information to producers, designing and delivering educational programs and newsletter contributions. In addition to these activities, Libby was cited for her Spanish language trainings, meeting facilitation for dairies with Hispanics, safety training, OSHA LEP inspection specific advisement, a quarterly Hispanic focused newsletter and leadership in employee management.

Next time you see Libby join us in congratulating her on a job well done!
Mission Statement
The NWNY Dairy, Livestock & Field Crops team will provide lifelong education to the people of the agricultural community to assist them in achieving their goals. Through education programs & opportunities, the NWNY Team seeks to build producers’ capacities to:

- Enhance the profitability of their business
- Practice environmental stewardship
- Enhance employee & family well-being in a safe work environment
- Provide safe, healthful agricultural products
- Provide leadership for enhancing relationships between agricultural sector, neighbors & the general public.
Telling Your Story Through Social Media

By: Libby Eiholzer

We’ve all heard the statistic: only 2% of Americans are directly employed in agriculture. Yet as farmers, we know that consumers’ preferences are driving changes in agriculture. All you have to do is look at trends in food labeling: “all natural,” “non-GMO,” “organic,” “free range.” Consumer demands are changing production practices, whether or not consumers actually understand what those production practices entail.

Insert the farmer. You have the opportunity to educate those around you on where their food comes from and how it is produced. Consumers are interested. Educating can take the form of small talk in the line at the grocery store, a letter to the editor, or a call in to a talk radio show when something to do with agriculture comes up. Social media is another popular way to educate. It’s quick, easy and timely. While creating a social media presence like Dairy Carrie and the Peterson Brothers might seem overwhelming, you don’t have to go to the same lengths to make a difference. Here are a few tips and guidelines on educating through social media.

Start small. While the aforementioned people spend lots of time and effort crafting their social media messaging, you don’t have to go all in to make a difference. Start by simply posting a picture of something happening on the farm with a sentence or two of explanation. A cute calf can give you the opportunity to talk about the excellent care you provide your animals. A beautiful sunrise over a field of soybeans lends itself to a snippet about sustainable farming practices.

We’re all in this together. One thing that completely derails the goal of educating the public is when farmers attack other farmers on social media. It’s pretty confusing to the average consumer, and it makes us all look bad. Conventional or organic, small farm or large, remember that we all have the same end goal. We want people to understand our production practices and respect the choices that we make. So describe your production practices without bashing others. Please.

Haters will be haters. Yes, there are people out there that are completely against what farmers do, and we’re not going to change their minds. Your goal in educating the public should be to interact with the “moveable middle”-people who will be open to learning about what we do. Animal rights activists are NOT going to change their minds, so don’t worry about them. If you get negative comments on your posts, you have the option to reply politely, ignore, or delete the negative comments all together. One way to guard against negativity is by posting community guidelines somewhere on your social media account. These guidelines serve to outline inappropriate behavior and actions which could lead you to delete comments or block a user.

Want to get inspired? Table Rock Farm, Will-O-Crest Farm, Lamb Farms, and CY Farms are just a few of our local farms that are taking the time to share their daily work on Facebook. These farmers do an excellent job of sharing a positive message about agriculture and interacting with consumers.

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Revised Form I-9 Now Available

By: Joan Sinclair Petzen

USCIS released a revised version of Form I-9, Employment Eligibility Verification, on July 17. Instructions for how to download Form I-9 are available on the Form I-9 page. Employers can use this revised version or continue using Form I-9 with a revision date of 11/14/16 N through September 17. On September 18, employers must use the revised form with a revision date of 07/17/17 N. Employers must continue following existing storage and retention rules for any previously completed Form I-9.

Revisions to the Form I-9 Instructions:

- We changed the name of the Office of Special Counsel for Immigration-Related Unfair Employment Practices to its new name, Immigrant and Employee Rights Section.
- We removed “the end of” from the phrase “the first day of employment.”

Revisions related to the List of Acceptable Documents on Form I-9:

- We added the Consular Report of Birth Abroad (Form FS-240) to List C. Employers completing Form I-9 on a computer will be able to select Form FS-240 from the drop-down menus available in List C of Sections 2 and 3. E-Verify users will also be able to select Form FS-240 when creating a case for an employee who has presented this document for Form I-9.
- We combined all the certifications of report of birth issued by the Department of State (Form FS-545, Form DA-1350, and Form FS-240) into selection C #2 in List C.
- We renumbered all List C documents except the Social Security card. For example, the employment authorization document issued by the Department of Homeland Security on List C changed from List C #8 to List C #7.

We included these changes in the revised Handbook for Employers: Guidance for Completing Form I-9 (M-274), which is also easier for users to navigate.
Pricing Corn Silage -- Fall 2017

By: 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 most recently available alfalfa hay and corn grain prices (June 2017, and August 8, 2017, respectively), price analysis for NY suggests an estimated corn silage price of about $54 per ton. The Fall 2016 estimate was about $60 per ton.

Determining Corn Silage Price

A farm business owner can examine how much corn silage he/she 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 to 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 a price that achieves the producer’s cost 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 are key variables. 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.

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. The ordinary least squares regression model here expresses corn silage price as a linear function of the above variables. The analysis is somewhat rough, elementary. However, readers of the original August 2012 Ag Focus article describing this work, and readers of annual update articles note that the analysis and estimates help farm business owners price corn silage.

Corn Silage Price Estimates – Fall 2017

The ordinary least squares regression model reported in August 2012, updated here to reflect additional data available to date and changes in other underlying factors, produced corn silage price estimates for NY. 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 8,212,000 tons, the average for the period 1991 through 2015.

Upcoming Webinars:

“Management Approaches to Minimize Nutrition - Related Health & Production Issues”

September 11, 1:00 - 2:00 p.m.

Presented by:
Bill Stone, Diamond V

estimated corn silage price ($/ton) = 1.600 + (0.175 x price of alfalfa hay ($/ton)) + (3.342 x price of corn ($/bushel))

Suppose
- corn grain price is $4.05 per bushel (Western NY Energy. “Corn Bids.” August 8, 2017. Approximate value based upon reported bids for Fall 2017.)

Using the estimating equation and the above prices for alfalfa hay and corn grain, estimated corn silage price is about $54 per ton. Compare this to last fall’s estimate of about $60 per ton. Suppose alfalfa hay price is $204 per ton, the average for the period 2013 through 2015, and expected corn grain price is $4.05 dollars per bushel, then estimated corn silage price would be $51 per ton. Buyers and sellers use an estimate as a base, typically, adjusting for quality and/or costs for harvest, hauling and storage 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, for example, growing conditions, can aid decision making regarding corn silage price.
Hay Storage Considerations - Don’t Waste it!

By: Nancy Glazier

It is time to start thinking about storing hay for winter. Quality may be lower this year due to delayed harvest and excessive rains so less quality hay may be available and more of the bale will need to be utilized. Whether they are small or large bales, proper storage should be considered. Hay loss can occur when baling, moving and feeding and is unavoidable. The biggest loss – both dry matter and digestibility – occurs with outdoor storage. Dry matter loss can reach 50% depending on the beginning quality, storage conditions and length of storage. It is not always realistic or practical to build a barn to store hay. Here are some tips to minimize waste from outdoor storage.

Large bales are a convenient form of hay for one-person operations. These bales can be moved, stored and fed relatively easily with the right equipment. Tightly wrapped bales tend to shed water better. The outer layer forms a thatch to reduce water infiltration. What helps with shedding precipitation is placing the bales lined up tightly together end to end. Pick a site that has good ventilation, away from hedgerows and wooded areas. This gives bales a better chance to dry out with air movement. Row spacing of at least 3 feet or more allows for good air flow and sunlight penetration. It’s also a good idea to keep vegetation mowed between rows.

Ideally, bales should be stored off the ground. Hay stored directly on the ground may lose up to 12 inches on the bottom of the bales due to wicking action. Find some waste material such as old fence posts, pallets, or tires and place the bales on top. Gravel or stone may work too. Research conducted by University of Tennessee animal scientists compared different methods of storing large round bales of grass hay. The hay was cut and baled in June and bales were weighed at the time of harvest and storage. They were weighed again the following January at the time of winter feeding. The following table lists the type of storage and the resulting percentage hay loss.

Losses of Hay Stored using Six Methods of Storage

<table>
<thead>
<tr>
<th>Type of Storage</th>
<th>Percentage (%) Hay Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>On ground, no cover</td>
<td>37%</td>
</tr>
<tr>
<td>On tires, no cover</td>
<td>29%</td>
</tr>
<tr>
<td>On ground, covered</td>
<td>29%</td>
</tr>
<tr>
<td>On tires, covered</td>
<td>8%</td>
</tr>
<tr>
<td>Net wrap on ground</td>
<td>19%</td>
</tr>
<tr>
<td>In barn</td>
<td>6%</td>
</tr>
</tbody>
</table>

Note the difference between storage in the barn and on tires and covered. Some small changes can make a big difference! Plastic tarps can be relatively inexpensive when the savings from reducing loss is calculated. Adding tires or gravel can add another big savings.
We’ve all heard the axiom, “Failure to plan is a plan for failure.” At the 2017 Pre-Empire Farm Days Calf tour held August 7th Curt Cooch, ag engineer with Pro-Dairy, reiterated the importance of this as he retraced the steps that one farm took to get them into this new facility. The one question that was asked before any measurements were taken or lines were drawn on paper was, “What are your goals for this project?”

KISS

Why? – The Project’s Goals
This is the most important question. This might also be the organization’s goals, but, more specifically, it’s the reason you’re getting up in the morning or spending a half-million dollars on a new facility.

If you were to ask the farm staff this question they might say something like, “Increase calf growth rates,” or, “decrease mortality and morbidity rates,” but this is really more what we do than why we do it. In fact, John Rudgers, Farm Manager for Synergy, LLC, stated that their goal was not to raise the best calf at the cheapest price (opposing targets), but to provide an environment that would allow these highly-bred calves the opportunity to maximize their genetic potential.

What? – The Objectives
Now that you’ve settled the “why” question you may now tackle the “what” question. This should be pretty much straightforward. You just need to decide what you’re going to measure and how you’re going to measure it. This is where you can engage the frontline staff – the calf feeders. By asking them to provide success measurements they can be part of actively tracking and contributing to the overall goals. This will likely increase transparency, employee buy-in, and cooperative responsibility – especially important if a challenge arises and a solution needs to be developed.

How? – The Activities
This is probably the easiest part because almost everyone knows what needs to be done on a day-by-day, week-by-week, or month-by-month basis. In other words these are the activities or assignments that will be undertaken to achieve the larger goal. Again, this is a perfect opportunity to engage the frontline staff as you develop the protocols or standard operating procedures necessary to complete the tasks. In some cases, it may be advantageous to include some outside consultants in the discussions – i.e. attending vet, nutritionist. Most importantly, once the protocols have been established there must be 100% buy-in by all staff affected by them. One or more individuals following a “my way or the highway” philosophy can seriously confound the success of the operation unbeknownst to the rest of the staff. When things begin to go south it will be all but impossible to determine what is causing the issue if everyone thinks the protocols are being followed. No one should be going off the reservation solo. If a protocol is not working then it should be reviewed by the group to determine what, or if, a change is warranted. Otherwise a reassignment of staff may be required. But I digress…

By keeping things simple – Why? What? How? – you’ll be able to get the plan firmly ingrained in your team’s mind. This should yield greater employee engagement, buy-in, and, ultimately, better execution.
Reducing Replacement Heifers Rearing Cost through Improved Reproductive Management

Replacement cows generated by the heifer rearing enterprise are critical to the future of dairy farms. Nevertheless, raising heifers represents a major cost burden accounting for as much as 15 to 20% of the total cost of production. Thus, minimizing the duration of the non-lactating period by reducing days to pregnancy can help reduce farm operating costs. We will present new research data evaluating different reproductive management programs for dairy heifers in commercial dairy farms. The impact of these strategies on the reproductive performance and economics of heifers during their non-lactating period and their first lactation will be discussed.

Fresh Cow Calcium Supplementation—To Treat or Not to Treat

A recent large trial conducted on farms in New York State has provided insight into which cows truly benefit from oral calcium supplementation. We will review the trial results to help you make practical decisions regarding post-calving calcium supplementation in your herds.

Supported by:

Summer Dairy Research Update:
- Heifer Reproduction
- Hypocalcemia

Julio O. Giordano, DVM, MS, PhD
Cornell University
St. John Family Sesquicentennial
Assistant Professor – Dairy Cattle Biology & Management
Department of Animal Science

Magdalena Masello Souza, DVM
Cornell University
PhD Student—Dairy Cattle Biology & Management Lab

Robert A. Lynch, DVM
Cornell University PRO-DAIRY Program
Herd Health & Management Specialist

Where: Genesee Co CCE Office
420 E Main St.
Batavia, NY

When: Date: Sep 6th
Time: 7-9 PM

Registration is free, but you need to register so we have refreshments and dessert for everyone.
Contact Cathy Wallace by Sep 4th:
cfw6@cornell.edu
or–
585-343-3040 x138

RSVP with:
- Name
- Farm/Clinic/Business
- # Attending

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Planting Tips for Winter Small Grains

By: Mike Stanyard

After a relatively mild winter, all of the winter small grains (wheat, triticale, barley and rye) came through in great shape. The wet spring, however, was quite the challenge! Those who sprayed for weeds in the fall were thankful because some never had an opportunity to get their fields sprayed. Fields that had early nitrogen applied while the ground was still cold and dry were also thankful. Those fields got off to a quick start and it was very obvious that the nitrogen was still there and taken up by the plants. Lots of stuck sprayers, late N applications and some planes were called into duty. Rainfall totals across the region were quite impressive and discouraging at times! Hard to believe it is time to start over and plant next year’s winter grains.

Planting Dates. September 15th is the earliest wheat, barley and rye should be planted in western NY. This has been traditionally based on the timing of the average first frost that would eliminate any Hessian flies. Ideally, between the last week in September and the first half of October has been the most productive planting window. It is recommended that triticale be planted two weeks before you normally plant your first wheat (first half of September) to maximize tillers if using as a forage crop (Tom Kilcer personal communication).

Variety Selection. Cornell has released the yield results of the 2017 small grain trials that were planted across the state. You can review this year’s and past years’ results for red and white winter wheat, malting barley oats and hybrid rye on their website, https://plbrgen.cals.cornell.edu/research-extension/small-grains/cultivar-testing. Seedway has the hybrid rye variety Brasetto and malting barley variety Scala available.
Seeding Rates, Wheat. Seeding rates should increase as the season gets later and should be adjusted based on soil conditions (See chart). Seeds should be drilled 1-1.5 inches deep for good emergence. See examples below on how to calculate million/pounds of seed per acre.

<table>
<thead>
<tr>
<th>Soil Condition</th>
<th>Sept. 15</th>
<th>Sept. 25</th>
<th>Oct. 5</th>
<th>Oct. 15</th>
<th>Oct. 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>1.33</td>
<td>1.45</td>
<td>1.57</td>
<td>1.69</td>
<td>1.8</td>
</tr>
<tr>
<td>Average</td>
<td>1.45</td>
<td>1.57</td>
<td>1.69</td>
<td>1.8</td>
<td>1.93</td>
</tr>
<tr>
<td>Poor</td>
<td>1.57</td>
<td>1.69</td>
<td>1.8</td>
<td>1.93</td>
<td>2.06</td>
</tr>
</tbody>
</table>

Live seed % = Recommended rate / Percentage of live seed = Rate/acre

Example: 1,350,000 seeds / .90 live seeds = 1.48 million seeds/acre

To figure out how many pounds per acre, use the following formula.

Seeds per acre / # seeds/lb. = lb./acre Example: 1,450,000 / 13,000 = 111.5 lb./acre

Other Winter Grains. Malting barley is a 48 pound bushel. We have gone with 2 bushels or 96 pounds which seems to be adequate. Hybrid rye is a 56 pound bushel and should be planted at 800 thousand seeds/acre in later September and 1 million seeds/acre in October. Triticale planting should be between 100-125 lbs./acre.

Starter Fertilizer. I have seen an increase in the number of wheat growers putting down a starter with great end results! Phosphorus is very important and winter grains need 15 pounds for strong seedling establishment. Follow your soil sample recommendations for P and K and remember winter small grains grows best at a pH around 6.3. Triticale for forage will get most of the needed fertility if enough manure is plowed down prior to planting. If no manure, nitrogen will vary depending on planting date. The earliest plantings will need 90 lbs. This will gradually decrease to 60 lbs. by mid-September and 30 lbs. after September 20 (Tom Kilcer personal comm.).

Broadleaf and Grass Weed Management. Winter annual weeds are the most prevalent weed competitor for our winter grains. Chickweed, purple dead nettle, shepherds purse, corn chamomile and others in the mustard family emerge right along with the crop in the fall. Many producers spray with Buctril or Harmony Extra in the fall so they are starting clean in the spring.

Continued on page 14
Marestail was common in the wheat this year at harvest. Remember, most of our population is glyphosate resistant. This weed can be managed with tillage prior to planting. It can germinate with the wheat but will not be controlled with Buctril or Harmony Extra. Your best bet is to catch it early with 2,4-D in April in the rosette stage. For No-tillers: small marestail can be taken out with 1 pint of banvel but needs to be applied at least 20 days prior to planting. It is important to start clean of marestail in either circumstance.

Annual and roughstalk bluegrass and cheat populations continue to increase across the region. These grasses also emerge in the fall right along with the wheat. Osprey is the only option we have right now and is only labeled in wheat.

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**BQA in a Day - Early Kick Off of BQA Month**

Saturday, September 16
10:00 a.m. - 2:00 p.m.

Runnings
3191 Eastern Blvd., Canandaigua

Cost: FREE
Need to RSVP by: September 8
For lunch count

To register contact: Nancy Anderson
585-394-3977 x427 or nea8@cornell.edu

Manuels may be purchased for $10

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**BQA in an Evening**

Friday, October 13
6:00 p.m. - 9:00 p.m.

Empire Livestock Market
357 Lake Street, Pavilion

Cost: FREE
Need to RSVP by: October 6
For dinner count

To register contact: Cathy Wallace
585-343-3040 x138 or cfw6@cornell.edu

Manuels may be purchased for $10

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Strategic Marketing Conference

Getting Started in Agri-tourism:
Exploring Market Strategies, and Creating an Implementation Plan to Increase Sales

September 20-21, 2017

Featuring:
- Tips on Starting an Agri-tourism Business
- Marketing Your Enterprise - A Farmers Perspective
- Speakers from variety of business owners covering: Farm Stays & Wedding Venues, Farm to Table Restaurants and You-Pick Operations.
- Farm Tours

Registration and Conference Information

Cost: $60 for 2 full days. Farmer Scholarships are available reducing rate to $20 for two full days.

Cost includes: Materials, Breakfast, Lunch, and Dinner on Sept 20th and Bus tour on Sept 21st - lunch is on own Sept 21st.


Time: Sept 20: Registrations from 8:30am-9:00am. Sept 21: Depart Hampton by Hilton at 8:30am arrive back from bus tour by 1:30pm.

Hotel Accommodations: Conference attendees are responsible for their own hotel reservations. A block of rooms has been reserved at Hampton by Hilton Lockport - Buffalo, 6682 Transit Road, Lockport, New York 14094. When making your reservations, refer to group code: CCE, to get the negotiated rate of $119.99 + tax. State and local taxes can be waived upon receipt of a valid NYS Tax Exemption certificate.


All members of the agriculture community are encouraged to attend.

Producers, agribusiness, agri-service providers, industry educators and development specialists – there’s something for everyone!

Funded by: Stanley W. Warren Teaching Endowment & Charles H. Dyson School of Applied Economics and Management at Cornell University

Sponsored by: CoBank and Farm Credit East

Additional support provided by Cornell Cooperative Extension

Cornell Cooperative Extension provides equal program and employment opportunity. Accommodations for persons with special needs may be requested by contacting Megan Burley at msb347@cornell.edu or 716-652-5400 ext. 138 by Sept 15, 2017
By: Jodi Letham

This year has brought about many challenges to Western New York agriculture. Many farms suffered a long, wet planting season. For both dairy and livestock producers this will be a year when segregating your corn silage based on quality could play an important role in your herds’ performance over winter. Harvest and storage management both effect silage quality.

**Forage Maturity and Dry Matter**

Harvesting forages at the right stage of maturity is important because it sets the stage for the rest of the year. Higher forage quality results in more animal consumption and in return increases milk production. Corn silage should be harvested when the whole plant is at 32 to 35% dry matter and the kernels are at ½ milk line. Conversely, whole plant dry matter and milk line do not always match up therefore whole plant dry matter should be your first indicator for corn silage harvest. Harvesting silage that is too wet (typically < 28-30% DM) will result in excessive fermentations that produce high concentrations of acetic acids and results in nutrient run off. The problem with feeding large amounts of wet corn silage is a reduction in dry matter intake because of the high acid content.

**Harvesting & Storage Considerations**

- Pack in thin layers (6-8 inches) if possible.
- Take samples during harvest and have them analyzed to provide a base of information on the nutrient content of the crop.
- Check chopper settings and particle size of material coming out of chopper. Adjust accordingly.
- Consider advantages and disadvantages to processing based on corn maturity.
- Continue to follow normal silage management practices of filling fast, packing and covering the top with plastic or the newer oxygen limiting silage covers.
- Give silo/bunk 3-4 months after filling before pulling feed from it.

**Forage Quality & Mycotoxins**

There are a number of factors that affect the forage quality of corn silage. Major factors on overall quality include whole plant maturity at harvest, ear to stover ratio and seasonal weather patterns. A healthy plant with minimal damage to plant tissue is able to mature to desired corn silage dry matter content in a more efficient and timely manner. It’s extremely difficult to predict the chances of mycotoxin issue in silage. It is essential to recognize that mycotoxins only develop on living plant tissue and therefore the necrotic tissue resulting from leaf diseases are not an indicator of potential mycotoxin risk. Plant injury to living tissue, where mycotoxins can develop, such as feeding damage on the ears (western bean cutworm) and stalk can offer a pathway for disease organisms and moisture to get into the plant and wet conditions late in the growing season can increase the chances of mold development. There is no clear causal relationship for an indication that mycotoxins will develop. Work with your nutrition consultant at harvest to test for potential mycotoxin issues. (K. Wise., and Lawrence, J. Cornell University NYS IPM, PRO-DAIRY).
**Cutting Height & Particle Size**

When harvesting corn silage it is common to leave 4 to 6 inches of stalk in the field. The cutting height should be higher in dryer years to avoid nitrate accumulation in the lower third of the stalk. Nonetheless, some dairymen high-cut their corn silage as a normal practice. By leaving more of the stalk in the field higher concentrations of fiber and lignin are left and can help improve your soil conditions. In addition to this high cut corn silage (18 to 20 inches of stalk) results in slightly lower concentrations of fiber and lignin but greater concentrations of starch and net energy (Wu and Roth, 2003). Chop size typically runs between 3/8 to ½ inch for unprocessed corn silage and about ¾ inch for processed silage. When corn silage makes up the majority of your forage diet, 15-20% of the particles should be greater than 1.5 inches long.


**Processing**

The processing of corn silage improves starch and allows for good packing and is an accepted method utilized to improve the quality of corn silage. Whole plant processing crushes the entire plant through rollers and can be done in the field during harvest, at the silo but prior to storage, or after ensiling and just prior to feeding. In doing so it can improve animal digestion.
This article draws heavily from and highlights the following report: Thayer, Cheryl, Megan Burley and others. 2017. Industrial Hemp: from Seed to Market, Ithaca, NY: Cornell University, Harvest NY.) Please see the Cornell University, School of Integrated Plant Science, Industrial Hemp page at https://sips.cals.cornell.edu/extension-outreach/industrial-hemp for the complete report.

Summary
- Farm business owners are interested in answering the following question. Does industrial hemp have the potential to enhance the economic viability of the farm business?
- Research and extension efforts are underway to provide local research to ensure optimal crop productivity and quality for NY grown industrial hemp
- Future work will include study of legal, production economics, and supply chain considerations

Background
Farm business owners in the NWNY region frequently express interest in alternative, new crops for their potential to enhance the economic viability of their farm businesses. Growers want to know -- Do they make sense, that is, do they have a place in the cropping system given objectives of the farm business? Recent examples include double cropping winter cereals for forage following corn silage, grain sorghum, and malting barley.

Due to legislation at the state level and funding decisions by New York State’s (NYS) executive branch, the state’s agricultural sector can add industrial hemp to the list. For more background information on legislative and funding considerations, see the Harvest NY report mentioned at the beginning of this article.

“Hemp is commonly used to refer to Cannabis strains cultivated for industrial (non-drug) use. Industrial hemp has many uses and is used in various products including agricultural products, textiles, recycling, automotive parts, furniture, food and beverages, paper, construction materials, and personal care items.” (Thayer, Burley and others, 2017).

The purpose of this article is to highlight current and future research and extension efforts. NWNY Dairy, Livestock, and Field Crops Team members are contributing to research, applied analysis and extension work underway throughout NYS.

Current Efforts
Current research and extension efforts are grounded in the belief that local research is needed to provide specific information on growing requirements for industrial hemp in NY.
Research efforts seek to
- Understand best growing practices for industrial hemp in NY
- Identify best varieties for NY environmental conditions
- Identify barriers to production.

Extension efforts seek to
- Identify specialized Cornell Cooperative Extension personnel who can provide research based information to growers
- Produce fact sheets, grower manuals and internet resources
- Analyze and provide information on markets and end product value

Regarding recent activity, around 80 attendees viewed field trials and learned about the latest on Cornell’s industrial hemp research and extension efforts at two field days held in August.

Two years ago, New York decided to join a nationwide movement to promote a cash crop that was long banned for its family resemblance to marijuana. In the spring of 2016, CALS was first to host the New York State Industrial Hemp Summit, where officials extolled the plant’s virtues and announced $400,000 in research and Extension funding for Cornell. To date, Cornell University’s 2017 Industrial Hemp Program will test seventeen industrial hemp varieties (6 grain, 4 fiber, and 7 dual purpose) in three locations on plant performance in various soil types, assess disease resistance, and identify insect pests. Hemp is a tough plant that is sensitive to pesticides, has a short growing season, and needs a lot of water. At present, 28 permits totaling 1,700 acres have been filled in the state to pursue industrial hemp research. Majority of the acreage is found in western New York and will be grown for grain and monitored by the NWNY Field Crops Specialist and Cornell University’s Industrial Hemp Team members. Information to be gathered will range from previous crop, type of planter, planter settings, variety planted, planting date & acreage, soil type, fertility, weed, disease and insect ID, harvest equipment, harvest date along with quantitative and qualitative statistical analyses. Cornell University’s Industrial Hemp Program research will continue to gather and obtain this information in 2018.

Future Work
Thayer and Burley provide the following to direct future research and extension work
- Can the legality of transporting harvested industrial hemp across state lines be demystified with absolute certainty?
- How do expected returns from hemp production compare to other crops, such as corn, soybeans, wheat?
- Who are existing NYS processors that could feasibly process hemp?

NWNY Team members will be working with producers, research and extension staff and others to answer the question regarding expected costs and returns.
September 2017

6  Summer Dairy Research Update: Heifer Reproduction/Hypocalcemia, 7:00 p.m. - 9:00 p.m., CCE-Genesee Co., 420 East Main Street, Batavia. Cost: Free. Need to RSVP by: September 4. To register contact: Cathy Wallace at 585-343-3040 x138 or cfw6@cornell.edu. See page 11 for more details

8 & 9  The Southern Tier Sheep & Wool Growers Annual Wool Pool, 12:00 p.m. - 4:00 p.m., The pool will be accepting wool both days at the Otsego County Fair Grounds, Morris, NY. For more information contact: Sue Smith at 607-293-8810

9  Livingston County Farm Bureau Farm Fest 2017, 10:00 a.m. - 3:00 p.m., Dairy-Knoll Farms, LLC., 4693 Rosebrugh Road, Geneseo

16  Beef Quality Assurance in a Day - Early Kick Off of BQA Month, 10:00 a.m. - 2:00 p.m., Runnings, 3191 Eastern Blvd., Canandaigua. Cost: FREE, Need to RSVP by: September 8 for lunch count. Can purchase manuals: $10. To register contact: Nancy Anderson at: 585-394-3977 x427 or nea8@cornell.edu

30  Southern Tier Initiative Stocker Short Course, Live in CCE-Allegany, Belmont, NY. Streamed to other locations. For more information, contact: Mike Baker at 607-255-5923 or mjb28@cornell.edu

October 2017

13  Beef Quality Assurance, 6:00 - 9:00 p.m., Empire Livestock Market, 357 Lake Street, Pavilion. Cost: FREE, Need to RSVP by: October 6 for dinner count. Can purchase manuals: $10. To register contact: Cathy Wallace at 585-343-3040 x138 or cfw6@cornell.edu

21  Preconditioned Feeder Calf & Replacement Sale, 10:00 a.m., Empire Livestock Market, 7418 Route 415N, Bath, NY. Hosted by NY Beef Producers Region 4 & CCE-Allegany & CCE-Stueben. For more information, contact Lynn Bliven at 585-268-7644 x18 or lao3@cornell.edu. http://allegany.cce.cornell.edu/agriculture/feeder-calf-replacement-sale

25  Feeder School, Day 1, 10:00 a.m. - 3:00 p.m., CCE-Ontario County, 480 North Main Street, Canandaigua. Cost: $75 and includes lunches & materials. To register contact: Cathy Wallace at 585-343-3040 x138 or cfw6@cornell.edu. Questions??? Contact: Jerry Bertoldo at: 585-281-6816 or Libby Eiholzer at: 607-793-4847

November 2017

1  Feeder School, Day 2, 10:00 a.m. - 3:00 p.m., Lawnel Farms, 2413 Craig Road, Piffard. Questions??? Contact: Jerry Bertoldo at: 585-281-6816 or Libby Eiholzer at: 607-793-4847