

North West New York

Cornell University Cooperative Extension NWNY Dairy, Livestock & Field Crops Team



Cottonwood Farms – Winner of Two **Environmental Stewardship Awards**

By: Jerry Bertoldo

Daul and Jason Tillotson operate a 1,000 acre dairy in Pavilion, NY on the location where the family began farming in 1880. Today they milk 300 cows and raise all of their youngstock on the premises. Passing by the well maintained farmstead would not tell you how unique this operation is.

Cottonwood Farms is a successful organic dairy that has adopted as many new technologies as many larger conventional operations. The Tillotsons have intensively grazed since 1999 becoming certified organic in 2006. They have hosted many tours and pasture walks showcasing their improved laneways, water stations and grass management.

The farm raises all of its forages. They group house their calves, feeding them UV pasteurized milk with a robotic unit



Photo Source: Jerry Bertoldo

for the past 5 years. In 2013 they installed robotic milkers and feed pushers, successfully blending intensive these grazing and labor saving technologies.

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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.

Continued from page 1

Perhaps the most notable aspect of the farm is the attention to environmental details. A compost pack heifer barn, manure separation, liquid manure irrigation of pastures, manure solids used for bedding, no till seedings and accommodation for wildlife are management practices that have won them not one, but two environmental stewardship awards this year.

The Tillotsons were awarded the Environmental Stewardship Award by The American Dairy Association and Dairy Council as part of the "Dairying for Tomorrow" program for the Northeast. They recently received the acclamation at an award breakfast at the NYS State Fair. The ADADC will donate \$1,000 to the charity of their choice in the Tillotson's name.

Horizon Organic field staff nominated the farm for one of their two national "Hope Awards" this year. Cottonwood received Horizon's Environmental Stewardship Award and a fully paid trip to the Farm-Aid concert event in Virginia. A Horizon newsletter article will feature the farm later this year.



Photo Source: Jerry Bertoldo

We congratulate Paul, Jason, their family and dedicated employees for their superior efforts in protecting the environment, providing excellent cow comfort and being good neighbors.



gardening, helping friends, construction projects, and tax planning.

Most people wouldn't describe tax planning as how they like to unwind, but then again, Kirk Williams isn't most people. As a Farm Credit East tax-planning specialist, Kirk has a passion for helping our clients manage their tax liability, maximize their deductions, and work toward personal and professional goals.

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Survey Sheds Light on Hispanic Dairy Workforce

By: Libby Eiholzer

The future of the dairy industry in New York State relies in part on the availability of a stable workforce. While it's common knowledge that Hispanic immigrants make up a large portion of the current dairy workforce, quantifying and qualifying that workforce is difficult. Together with Tom Maloney, Senior Extension Associate at Cornell University, we developed two surveys to help inform the discussion on dairy farm labor. One survey was for farm managers who employ Hispanic dairy workers, and the second was for Hispanic dairy workers. The surveys were designed to be compared with similar surveys completed in 2005 and 2009.

Two hundred and five surveys of dairy farm workers were conducted on thirty-six New York dairy farms. These farms range in size from 200 to 2,650 cows. Almost 2/3 of the farms had 1,000 cows or more. The farms included were in Cayuga, Cortland, Genesee, Livingston, Niagara, Ontario, Tompkins, Wayne and Wyoming Counties.

We conducted surveys via personal interviews of workers and employers on the farms. Brooke Ryan, one of the NWNY Team's interns, conducted the majority of these interviews. Brooke is a senior at Cornell University studying Spanish and Dairy Science.

One notable preliminary result from the employer survey showed that for 69.4% of the farms surveyed, Hispanic workers constitute 50-100% of the total farm workforce. (See figure 10a) This is a much greater percentage than we expected.

Here's an overview of Hispanic worker demographics:

The average age of Hispanic workers on these farms is 30 years old. Far fewer workers (16.6%) are between 16-21 years of age compared to the 2005 report where 39% were in this age group. The majority (95.6%) is male, though the number of female workers has doubled since 2005 (up to 4.4% female). Most (80%) come from Mexico, with the



For nearly half (47.20%) of the farms surveyed, Hispanic workers constituted 50-74% of their workforce. For another 22.2% of the farms, Hispanic workers constituted 75-100% of their workforce.

remainder coming from Guatemala. Of those from Mexico, half come from the states of Oaxaca and Veracruz. One out of two (52%) have completed between 9-12 years of education. More than half (55.6%) report that they do not speak English well, while 37.6% say they speak some English. The average number of years working in the U.S. is 12.5. The majority (60%) have worked for one or two employers, while 28.8% have worked for three to five employers.





Two-thirds of employees (60.5%) plan to work here for a time and then eventually return to their home country, while two out of five (39.5%) said they would like to stay in the U.S. long term. Two-thirds have a spouse in their home country.

Table 1: Quartiles of Hourly Wage Earned for Milkers			
	Starting Hourly Wage (N=36 farms)	Highest Hourly Wage (N=36 farms)	
1st Quartile	\$9.00	\$9.00 - \$9.99	
2nd Quartile	\$9.01 - \$9.24	\$10.00 - \$10.49	
3rd Quartile	\$9.25 - \$9.49	\$10.50 - \$11.74	
4th Quartile	\$9.50 - \$11.00	\$11.75 - \$15.75	
Mean	\$9.34	\$11.05	
Standard Deviation	\$0.44	\$1.44	

The majority of Hispanic employees work 12 hours a day (58.8%), and 6 days a week (88.8%). Most (64.9%) milk cows, but nearly half push cows and help with calvings (49%). Employees report performing many other job duties as well. (See Figure 19)

On average, employers report a *starting* hourly wage for milkers as \$9.34/hour. The *highest* hourly pay rate for milkers was \$11.05. (See Table 1) The average hourly wage for the highest paid Hispanic employee in any position on the farm was \$12.94.

We asked both employers and employees about the benefits that workers receive. Nearly 80% receive employer-paid housing and utilities. Roughly 1/3 receive free beef and transportation from employers. More than four out of five employers also offer cable TV, internet, garden space, and a bonus program.

Many employees report receiving paid vacation as well.

While many of the results confirmed what we have observed on dairy farms in the area over the last few years, it is certainly interesting to see the data by the numbers. In conclusion, Hispanic employees make up a substantial part of our dairy workforce, and are extremely valuable to the farms that employ them. It's clear from the survey results that farm owners recognize this by the total compensation package they offer to workers. Since the Hispanic dairy worker population is older, has been here for longer, and 60% plans to return to their home country, we need to consider how we can better attract and retain a sustainable workforce.

As we continue working with the data from these surveys, we hope to provide further insight to farm owners. If you are interested in being notified when we post the final report, please email me at <u>geg24@cornell.edu</u>.



Farm Business Owners Can Turn to Budgeting When Facing the Challenges Presented by Drought

By: John Hanchar

Introduction

ffects of drought conditions on crops and livestock will challenge farm business owners' abilities to achieve financial objectives over the next several months. Readers of last month's AgFocus learned about strategies for dealing with the drought conditions affecting many counties in western New York. Some articles focused on the benefits of establishing where you are now with respect to feed quantities, feed needs and others, and where you expect to be over the next several months. Just as the business benefits from such assessments, the business facing drought conditions also benefits from assessing where the business is now and where it expects to be over the next several months with respect to financial performance, for example, with regards to meeting cash flow obligations in a timely manner. Regarding where the business expects to be, budgeting plays an important role. Budgets estimate future financial condition or performance. A budget is a projection.

Budgets

For farm business owners, most budgeting work focuses on estimating expected effects on profit, and on projecting the business' ability to meet cash obligations in a timely manner.

Key characteristics of budgets include the following:

- Budgeting helps you see what a future period's financial performance will look like for planning purposes. A budget allows one to project cash flow shortages, plan borrowings, and determine the ability to repay borrowings.
- Budgeting provides the manager with a tool for assessing how well the business is meeting projections, and to identify and correct potential problems.
- Budgets help the farm business owner communicate to others where the business is headed financially.



Photo Source: ithrivehere.com

Examples of budgets include: partial, enterprise, and whole farm budgets for projecting expected effects on profitability and for projecting expected effects on the business' ability to meet cash obligations; and capital budgets associated with investment analysis. Income statements or cash flow statements that report a past period's performance, for example, an income statement for the 2015 calendar year, are not examples of budgets. They report actual past performance, and do not project or estimate future financial performance.

Whole Farm Budgets

A whole farm budget examining profitability summarizes expected income, expenses, and profit. A cash flow budget for projecting the business' ability to meet cash obligations is a summary of the



expected cash inflows (cash farm receipts, money borrowed, capital sales, non-farm income) and outflows (cash farm expenses, principal payments, capital purchases, withdrawals for family living and other personal withdrawals).

Characteristics include the following:

- Whole farm budgets consider all items including those that are not expected to change from the current, base period to the future period. For example, a cash flow budget projects what the cash flow statement will look like in a future period and reports total values for all inflow and outflow items.
- The most useful, valid projections are obtained when proper procedures are used. LaDue, Schuelke and Mensah-Dartey offer some basic rules to follow to insure useful projections (LaDue, Eddy L., Jacob Schuelke and Virgil Mensah-Dartey. 2000. <u>CASHPRO: A Computer</u> <u>Spreadsheet for Projecting Annual Cash Flows</u> and Pro Forma Income Statements.)

- 1. Project cash flows from accrual (or accrual adjusted) receipt and expense values.
- 2. Exclude unusual occurrences from the base year data used for projections.
- 3. Use causal logic in estimating each receipt and expense item.
- 4. Be sure to adjust for inflation.
- 5. Livestock farms that grow forages or concentrates should carefully assess their forage and/or concentrate balance whenever significant changes are expected in the size or composition of the animal herd or cropping program.
- Conducting sensitivity analysis and seeking critical review of the projections enhance the usefulness and validity of projections.

The CASHPRO electronic spreadsheet with instructions is available at http://dyson.cornell.edu/outreach/decision-aids. Monthly, whole farm, cash flow budgeting is also an option. Again, see http://dyson.cornell.edu/outreach/decision-aids for a monthly cash flow budgeting tool.



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SESSION TWO January 31-Feb 1, 2017 Mt.Morris, NY

SESSION THREE March 14-15, 2017 Class size is limited to 30 dairy professionals to maximize the small group interaction and peer-topeer learning. Applications will be accepted until October 15, 2016.

Registration website: http://prodairy.cals.cornell.edu/conferences/ academy PRESENTED BY:





Cornell University Cooperative Extension

How can you farm more profitably?



Upcoming Webinars:

Food Supply Outlook

October 10, 1:00 p.m. - 2:00 p.m. *Presented by:* Mike Hutjens University of Illinois http://www.hoards.com/webinars

Technology Tuesday Series: Creating a Healthy, Comfortable Environment for Calves

October 11, 8:30 - 10:30 a.m. *Presented by:* Dan McFarland, Penn State Extension http://extension.psu.edu/animals/dairy/courses/ technology-tuesday-series



Disaster Area declared in NY

Agriculture Secretary Tom Vilsack designated much of WNY as primary natural disaster areas due to the drought. Primary and contiguous counties



Photo Source: Getty Images

are eligible for assistance, including emergency loans, from the United States Department of Agriculture Farm Service Agency.

Farmers in eligible counties have eight months from the date of a Secretarial disaster declaration to apply for emergency loans. Local FSA offices can provide affected farmers with further information as the eligible counties has changed weekly. To find your local FSA office, visit <u>www.fsa.usda.gov</u>.

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Alternative Energy Systems – Part 5: Micro Hydroelectric

By; Timothy X. Terry Dairy Strategic Planning Specialist

A few years ago a fellow church member asked me to assist him with the earthwork calculations and site plan for a domestic hydroelectric plant. My initial reaction was to stifle a gut laugh because I was imagining thousands of yards of earth moved, hundreds of yards of concrete poured, turbines, generators, and endless permitting issues. I thought the cost estimate on the sitework alone would send him into severe sticker shock and kill the project immediately. However, I was wrong.

As I researched the subject further I found that even in the most remote parts of the world people were using hydroelectric to power their homes, schools, and businesses – all it takes is falling (or flowing) water and a way to get it to turn a turbine that can turn a generator.

So how much water does it take? Surprisingly, not as much as one might think providing we're not building another 2,000 megawatt Hoover Dam. Just something big enough to power the house and/or farm.

The basic formula for calculating potential output in watts is:

$$Watts = \frac{\left[head\left(ft\right)x\,flow\left(\frac{gal}{min}\right)\right]}{12}$$

Head – measured in vertical feet is the difference in elevation between where the water first enters the generating system (penstock) and where it contacts the impeller of the turbine. This is an indicator of the potential *impulse force*. (F_{impulse})

Flow – measured in gallons of water per minute. Unfortunately, most river, creek, or pipeline flows are calculated in cubic feet per second (cfs). Multiply the given cfs by 448.8 to convert to gallons per minute. This is an indicator of the potential *reaction force*. (F_{reaction}) For example, let's say you wanted to tap into a creek where it was 50' higher in elevation than where you were planning on placing the turbine. You're figuring you can pipe it to the turbine at a rate of 225 gal/min. So you plug it into the equation.

$$Watts = \frac{\left[50'x \ 225\frac{gal}{min}\right]}{12} = 938W = 0.938kW$$

So you can get almost a full kilowatt of energy out of not much water -225 gal/min = 0.5 cfs which is equivalent to a 6" tile on a 1% slope running full bore. How many times have you seen that in March and April?

Knowing the head and flow rate not only helps you calculate potential output, it also helps to determine the type of turbine appropriate for your installation. Pelton, Kaplan, and Francis are the most commonly used types of hydraulic turbines.

Where you have high head (>300') but low flow (<20 cfs) the Pelton would be your turbine of choice. This is what many of the third world and back-woods installations were built around, but, again, they were usually in or near a valley and tapping into some high mountain water course.

Conversely, where you would have low head (<80') but high volume (>20,000 gal/min) the Kaplan is your best bet. This is where you have a sizable stream or river and you have a way to channel the flow like an old mill race or decommissioned power plant.

In between these two extremes is the Francis turbine. This is where you would have medium head and medium flow. Because it makes use of both the impulse and reaction forces it has a wider effective range and a greater window of peak or near-peak efficiency.

For a more in depth explanation of the three turbine types check out the following video: <u>https://</u><u>www.youtube.com/watch?v=k0BLOKEZ3KU</u>

Beyond the turbine and generator, is the power conditioning and distribution controls – just like with solar, biogas, wind, etc. Here is where power can be used domestically or synchronized and sold to the grid via net metering.

Like every other alternative energy system we've discussed in this series, micro hydro has its Pros and Cons.

Pros

- It's a renewable energy. You just need to choose your location and installation wisely. An area that frequently erodes, has catastrophic floods, and/or is difficult to get to with excavators, pipe, etc. is probably not a good candidate for development.
- It is considered a "green" energy and may be eligible for cost sharing opportunities. However, design is critical so that it does not impede other natural processes gravel & silt movement, fish passage and cancel out all the "green" benefits.
- It is reliable even for base power requirements. Here in the northeast water is always flowing – even in a drought year water is moving through the streambed gravel.
- Production is flexible to meet fluctuating demand. If the flow can be regulated so can energy production.
- It is safe. Like geothermal, there is no fossil or radioactive fuel involved or waste to deal with. However, if a dam or large berm is part of the design, safety may be an issue.

Cons

- Environmental consequences are related to interventions in nature due to damming of water, changed water flow and the construction of roads and power lines.
- Fish habitats may be altered and the NYS Dept. of Environmental Conservation regulates many streams. Try to stay away from those that have a 'T' (trout) designation.
- Upfront capital intensive Building power plants in general is expensive. Hydroelectric power plants are not an exception to this. On the other hand, these plants do not require a lot of workers and maintenance costs are usually low.



Photo source: RainWindSun.com

- Electricity generation and energy prices are directly related to how much water is available. A drought could potentially affect this. Choose your water course wisely.
- Because of development and regulation (see above) the number of available reservoirs / stream channels is finite and decreasing almost daily.

For a better understanding of the basics of micro hydro check out the following video: <u>https://</u><u>www.youtube.com/watch?v=Lx6UfiEU3Q0#t=40</u>

And if you're looking to minimize your upfront costs, here's what you can do with an old Chevy differential – just make sure the Posi-lock works! <u>https://www.youtube.com/watch?v=OP5jfDtMoFg</u>



Cornell University Cooperative Extension Northwest New York Dairy Livestock & Field Crops Team

Calf & Heifer Congress 2016 "Laying the Foundation for Top Herd Performance"

The conference will be held at the Doubletree in East Syracuse on December 7 - 8 Register online at <u>http://nwnyteam.cce.cornell.edu/event.php?id=395</u>.

This year we're excited to put an emphasis on the human side of raising heifers with our keynote speaker, Laura Daniels, a dairy farmer and renowned spokesperson for the dairy industry. Her evening talk will discuss connecting and sharing your values as a dairy farmer. She will lead a panel discussion the second day to help you focus on ways to inspire and motivate your employee team.

We will also feature a Dairy Girl Network event on the first evening to connect women in the dairy industry. See more info here: <u>https://dairygirlnetwork.com/</u>.

Application of Genomic Technology in Dairy Herds Jonathan Lamb, Lamb Farms, Inc.

Best Practices for Calving Assistance Harry Momont, DVM, University of Wisconsin

Preventing Disease Outbreaks—Records, Oversight & Assessment Theresa Ollivett, DVM, University of Wisconsin

Role of Trace Minerals in Active Immunity & Respiratory Vaccine Effectiveness Roberto Palomares, DVM, University of Georgia

Antibiotic Use & Considerations in Calves & Heifers Danielle Mzyk, DVM/PhD candidate, N. Carolina State University

Needed "Hitch Pins" Connecting & Sharing Your Values Laura Daniels, Heartwood Farm & Dairy Girl Network

> LifeStart: The Science Behind the Concept Fernando Soberon, PhD, Shur-Gain, USA

Feeding Strategies for Older Heifers Mike Van Amburgh, PhD, Cornell University PRO-DAIRY

Keeping Things Clean: Biofilms, Troubleshooting, Culturing & Protocols Panel Jerry Bertoldo, DVM, Cornell Cooperative Extension, moderator

> **5 Tips for Inspiring Your Team, followed by a producer panel** Laura Daniels, Heartwood Farm & Dairy Girl Network

Respiratory Disease: Diagnostic Tools & Economic Losses Theresa Ollivett, DVM, University of Wisconsin

Leading by Example: A Virtual Tour of Well-Managed Heifer Operations Chris Rossiter Burhans, VMD, MS, Poulin Grain, Inc.



BQA Update - Preconditioning Cattle is Animal Welfare

By: Michael J. Baker, PAS, PhD, Cornell Beef Extension Specialist

To kick off October is Beef Quality Assurance month in New York, I asked Mike to provide some guidance for fall calf management. See the back cover for BQA training dates near you. Nancy

Preconditioning of feeder cattle to prepare them for movement to the next enterprise is an important BQA principle. First and foremost it is an animal welfare issue. Cattle that are sold direct off the cow without any preparation is a stressor that puts them at greater risk of getting sick. Cattle that get sick require antibiotics, which the beef industry is trying to reduce relative to expense, resistance and consumer perception. Additionally, it's been well documented that cattle that get sick don't perform well in the finishing phase and have reduced carcass quality. On average around 2-4% of cattle die post weaning. This could be cut drastically if these cattle have been properly prepared for the next phase off the cow.

Preconditioning consists of three management practices that work together to reduce stress thereby increasing the immune status of the young calf.

- Vaccination/health management
- Weaning
- Nutrition

Vaccination/health management. Vaccines assist the calf in fighting diseases that are for the most part resident in the animal itself – though many of them are contagious and can be spread between animals. Building immunity begins with assuring the calf gets colostrum from a well vaccinated dam. Cows that are not vaccinated will not have the same level of immunoglobulins as vaccinated cows. At a minimum cows should be vaccinated for IBR, PI3, BVD, BRSV and Leptospirosis. To assure the most effective immune response calves should be boostered (if required) at least 30 days prior to movement. Included is the protocol table for different levels of vaccination. Work with your herd veterinarian to develop a protocol for your farm. BQA

recommendation is to inject vaccines subcutaneously in the neck region.

Weaning.

Separation from the dam is a high stress event. Therefore if the immune system is



not prepared as described above, disease-causing viruses and bacteria have a much easier time overcoming animal health. Low stress weaning practices such as fence line weaning have shown some success in reducing stress.

Nutrition. Calves that have had only mom's milk, grass and water out of a pond are further stressed when they are expected to eat stored forage, grain and drink water from a tub. Ideally transitioning calves to their new diet occurs prior to weaning.

Preconditioning is not only good for the calf and good for the pocketbook, it is the right thing to do. As BQA producers, this practice should be as common place as checking fences and feeding your cows.

Internal & external parasite control is critical at this time. Calves that are burdened by parasites have a reduced immune system.



Protocol Quality	Vaccines	
Prime		
Weeks from weaning		
6	Selenium, Leptospirosis, IBR, BVD, PI3, BRSV, Clostridial spp.	
5	Mannheimia hemolytica ^{1,2} , Pasteurella multocida ² , Hemophilus somnus	
3	Booster shot: Leptospirosis, Clostridial spp., BRSV or 4-way	
2	Booster shot: Mannheimia hemolytica ^{1,2} , Pasteurella multocida ² , Hemophilus somnus	
0	Wean calves	
High Choice	Initial (killed) ³ vaccine – Six weeks prior to weaning. Booster vaccine – $3-4$ weeks prior to weaning. Vaccines not requiring a booster ($3-4$ weeks prior to weaning).	
Low Choice	Initial (killed) ³ vaccine $-2-3$ weeks prior to weaning. Booster vaccine at weaning. Vaccines not requiring a booster should be given 3-4 weeks prior to weaning.	
Select	Modified Live Vaccine ⁴ at weaning or two weeks post- weaning. Vaccines not requiring a booster should be given two weeks post-weaning.	

USELESS: Killed³ vaccine at weaning with no booster

¹Formerly Pasteurella hemolytica

²Recently developed subunit (leukotoxin and cell wall components), eg. Presponse^OHM, Pulmo-guard PHM-1[™].

³Killed vaccines are generally safe for pregnant cows and calves nursing pregnant cows (check label thoroughly); most require a second injection 2-4 weeks after the initial injection.

⁴Some Modified Live vaccines (e.g. 3 way vaccines) require no booster but must not be given to pregnant cows or to calves while nursing pregnant cows (there is a new MLV that is labeled for use in pregnant cows. Check with your veterinarian for details. If used incorrectly, **ABORTIONS** are likely). Modified Live vaccines including BRSV recommend a booster of at least the BRSV fraction.

• WE NEED YOUR HELP..





It has come to our attention that the hard copies of September AgFocus did not reach certain people until mid-month. This was designed to be a timely collection of drought related articles meant to reach mailboxes before Labor Day. We are not sure whether this was a problem with certain Zipcodes or something that involved the entire batch. We would appreciate a note sent to Cathy Wallace at <u>cfw6@cornell.edu</u> or a call to

her at 585-343-3040 x138 saying when you received your copy. Thank you.



Cornell University Cooperative Extension Northwest New York Dairy, Livestock & Field Crops Team

CALF MANAGEMENT WORKSHOP



November 8th Mulligan Farms 5403 Barber Road, Avon, NY 10:00am - 3:00pm

November 15th

Lamb Farms 6880 Albion Road, Oakfield, NY 10:00am - 3:00pm

Classroom topics:

- Maximizing calf potential before birth
- Colostrum management
- Pre-weaned calf nutrition
- Calf health
- Housing & ventilation

On-farm activities :

- Calf necropsy
- Calf health scoring
- Pre-fresh and maternity pen evaluation
- Testing colostrum
- Testing blood serum

<u>REGISTER BY:</u> October 31st

\$50.00/person (enrolled with NWNY Team)

\$75.00/person (*not enrolled with NWNY Team) Includes lunch both days & materials

To Register: Cathy Wallace at: 585-343-3040 x138 OR online at:

http://nwnyteam.cce.cornell.edu/

For more information, contact:

Libby Eiholzer at 607-793-4847

Or Jerry Bertoldo at 585-281-6816.

*Not enrolled in the NWNY Team? Contact your local CCE office for more information.



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Farm Safety for Grain

By: Mike Stanyard

In the past month I have seen plenty of bunk silo safety articles which are a great reminder of how important it is to stay alert and watch out for everyone working around us. Now that most of our corn silage is put under cover, I thought we should switch gears and talk some about safety issues around the grain bins as corn and soybean harvest begins. Below are some great suggestions from a farm safety website, <u>http://farmsafety.mo.gov/safetytopics/grain/</u>.

Never Enter Flowing Grain Bin. Suffocation is one of the most common causes of death involving grain bins. This occurs when someone enters a bin with flowing grain and is pulled under and covered

with grain. Many

grain. Standing on

moving grain can be

deadly; the grain

quicksand to create

bury a person in mere seconds. Do

not enter bins while

grain is loaded or

unloaded; wait until

the dust clears so

you can clearly see

your footing before

entering. For more

safety details see the

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Photo source: Mike Stanyard

OSHA fact sheet, Worker Entry into Grain Storage Bins, <u>https://www.osha.gov/Publications/</u> grainstorageFACTSHEET.pdf.

Shut off and Secure Power Sources. Be sure to turn off and lock out all power equipment associated with the grain, including the augers used to help move grain, when not in operation. Be especially aware of automatic unloading equipment, and keep



Grain Cart Auger

Photo source: Mike Stanyard

children away from operating grain augers at all times.

Avoid Carbon Dioxide. Grain fermentation produces carbon dioxide, a colorless, odorless gas. Grain bins often have an oxygen-deficient atmosphere. Working in a grain bin where carbon dioxide is present can be very harmful to your health. Once exposed, the carbon dioxide can get in your bloodstream and slow down your breathing, which can cause drowsiness, headaches and even death by suffocation. To reduce the hazard, open all manholes and doors to force air through the bin before working inside.

Wear Dust Mask. Even a small amount of spoiled grain can produce millions of tiny mold spores which easily become airborne when disturbed. Airborne mold spores can be inhaled into the lungs through the nose and mouth, causing reactions so severe that sometimes hospitalization is necessary. Farmers working without respiratory protection inside a bin or other grain storage facility where moldy grain is present are especially vulnerable to mold and dust reactions. Always wear a respirator capable of filtering fine dust particles. Avoid unnecessary exposure to mold because your tolerance may be reduced with each repeated exposure. Be sure to wear a mask that fits securely around the mouth and nose to protect you from grain dust and fungus in moldy grain.

Use Equipment Guards and Shields. Equipment guards and shields create fewer opportunities for farmers and workers to become entangled in moving equipment parts. Removing equipment guards and not replacing them is a common cause of injury in farmers. When repairing machinery, be sure to replace all guards and shields when finished to reduce injury during loading/unloading processes. It is extremely important to make sure there is a guard on a PTO-driven grain auger. Some PTO shafts can rotate at 540 revolutions per minute, which can cause severe injury and even death. The power shaft that moves power to the top of the auger can cause the same injuries as a rotating PTO shaft. Always replace damaged or missing PTO and power shaft shields before operation. Intake screens on augers help prevent your hands and feet from getting caught between the auger screw and tube during operation. Today, most new augers are sold with intake screens in place. If you have an older machine that does not have an intake screen, add one, and be sure to replace missing or damaged screens. Many grain augers operate on a belt or chain drive system. These belts and chains have two, or sometimes three, pinch points. A pinch point is where a belt or chain wraps onto a pulley or sprocket. If a finger or clothing item gets caught in a pinch point or the auger, it may result in severe injury, sometimes requiring amputation. Most of these systems do not come with shields but can be easily fabricated for use.

Install Safety Equipment Grain augers become increasingly dangerous with each hour of use. It is important to continuously review the operator's manual and examine all equipment parts to make sure the auger is in safe operating condition. Before working in bins, be sure to have all equipment in place in case of emergency. This includes full-body harnesses and life lines for easier worker rescue in case of a grain avalanche. This also includes installing rest platforms every 30 feet on vertical ladders on the outside of bins to reduce the risk of falls while climbing the bins. Strategically placing safety decals around the grain bins should alert workers to the possible dangers of flowing grain, crusted-over grain, and carbon dioxide.



When Financial Hardship Hits, Farmers Often Turn to Their Woodlots

By: Russell Welser, Sr. Resource Educator, Cornell Cooperative Extension of Ontario Co.

his year's drought along with the current low I milk price has or will put a financial strain on many farm operations. As they look for additional income they often turn to that parcel of land they typically ignore, called the woodlot. It's great that you have that resource to fall back upon, but how you proceed with your timber sale might very well determine if you receive \$40,000 vs. \$80,000. All too often a logger knocks on the door, offers a deal and you accept. If you are not working with a New York State DEC forester or consulting forester, you are not getting the full value of your timber, plain and simple. Yes, it will require a little more on your part to sit down with the forester to talk over your woodlot objectives, walk the woods, identify property lines, put together a contract, etc. Keep in mind that some foresters work directly for a lumber mill and you may still not be getting the best price. The timber sale needs to be put out for bids. You wouldn't sell your hay for \$200/ton when you could possibly get \$300 or more so why accept the first offer on your timber? Remember loggers/mills are looking to make money and if they have no competition, they're not going to offer their best price. If one of your objectives is to have a sustainable woodlot for future harvest of quality trees, but have no over-site/control of the trees being harvested, you will likely end up with a woodlot of low value/poor quality trees to provide the seeds for the next generation of trees. How this occurs is quite simple. Like any business operation, timber harvesters strive for efficiencies which will earn them the most money in the least amount of time. One of those efficiencies is to harvest the most valuable tree species and the largest/best quality trees and leave the rest. This is what we call high-grading. The equivalent would be a dairyman selling off all the top producing cows in their herd and keeping the remaining low producers. You go from a herd average of 28,000 lbs. of milk to 20,000 lbs. but more importantly, these remaining cows are now your genetics for the future of your herd. Ouch!!! Your woodlot is no different. The bottom line is that



Photo Source: Peter Smallidge

you need to work with a forester. In selecting a forester, start with your DEC forester in your region. If they are not available, contact several consulting foresters, check their references, and recent land owners they have worked with. Select the one you feel best represents your interests and needs. To locate your DEC forester or consultant forester, go to www.dec.ny.gov/lands/5230.html

The remainder of this article is an excerpt from the November-December, 2010 "The New York Forest Owner" magazine, Ask a Professional column written by Dr. Peter Smallidge, NYS Extension Forester, Department of Natural Resources, Cornell University.

Once you've selected your forester, how do you negotiate and foster a relationship? Foresters will encourage you to have a contract with a logger, and similarly they should be receptive to a contract with you. An example of a contract is available at <u>www.ForestConnect.info</u> Review any contract with your attorney.

In the forestry profession there is considerable discussion and debate about service fees. There are two categories of service-one is timber sale design and administration and the other is broadly grouped as woodland management activities. One of the most contentious issues among foresters is payment for assistance with timber sales. I won't address pay scale or amount, but rather payment method. Some, but not all, industrial foresters won't charge you directly for services because they may expect the timber to be sold to their mill, and under some circumstances this is a desirable working relationship. Many mills have been established for decades and seek long-term sustainable relationships with woodland owners. Some mills have well-qualified and credentialed foresters who can provide a variety of services.

Among consultants the most common payment method is as a percentage of sale or "on commission." Payment on commission means some percentage of the timber sale value goes to the forester; the more high-value timber that is cut the more money the forester makes. If you decide to hire a forester using commission, know that you can negotiate the rate of commission and that you need not be bound by the "usual" rate. Most consultant foresters will be able to describe what they see as advantages to payment on commission.

An increasingly common payment method and one that has several advantages for landowners is to pay on a flat rate, such as per hour or per acre, rather than pay a commission for timber sale assistance. The advantages of flat rate include the following:

1. Avoiding the potential for a conflict of interest. The potential exists because the forester paid on commission makes more money if they administer a sale where they designate a greater number of high value trees and a lesser number of low value trees for harvest. A primary cutting emphasis on high value trees may degrade the woodlot.

- 2. With flat rate, a forester receives fair compensation at a known rate for any and all services. A forester deserves fair compensation because they can provide important and valuable technical assistance. Because timber sales involve similar skills (e.g., inventory, planning, tree selection) regardless of the quality of the timber, a flat rate ensures fair compensation for the forester and a stable price for the landowner. Note that the sale of low value timber to improve your woodlot may require more time for marking and marketing and thus perhaps higher costs than high value sales.
- 3. A flat rate allows a forester to provide services to a landowner without a timber sale or with a sale involving low value trees. Some foresters won't work with landowners who want to cut cull trees or other low value trees.

Good forestry or bad forestry, can happen with any type of forester or payment method. The landowner needs to emphasize their desire for the use of sustainable practices that meet the goals for the property.

NYSERDA Offers No-Cost Energy Audits

NYSERDA launched the Agriculture Energy Audit Program in March 2016. The Program offers farms and on-farm producers no-cost energy audits that provide recommendations for energy efficiency measures. Energy audits are important tools to help farmers make the best decisions for their operations and to help them become economically and environmentally sustainable.

In addition to providing energy audits, the Program also provides assistance identifying and obtaining funding for implementation of the measures identified through the energy audit. NYSERDA's program implementer, EnSave, will offer guidance to determine the appropriate measures to install and programs available to assist with the implementation



of those measures.

Funding for audits is available on a first-come, firstserved basis. Call 800-732-1399 or email aeep@nyserda.ny.gov to discuss program options and obtain an application. <u>Agriculture Energy Audit</u> <u>Program</u>



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→BQA in a Day Trainings

Participants will become Level 1 certified at the end of training. Level 2 certification requires having signed Veterinarian Client Patient relationship (VCPR) forms.

> Wednesday, October 19 6:00 - 9:00 pm Jim & Mary's Fravil Building 7238 Ann Street, Ovid

Friday, October 28 6:00 - 9:00 pm start time at each location

WBB Farm, Warren & Brenda Bippert 290 Four Rod Road, Alden

* OR *

Empire Livestock Market 357 Lake Street, Pavilion

To register contact:

Cathy Wallace: 585-343-3040 x138 On-line: <u>http://nwnyteam.cce.cornell.edu/index_real.php</u>

BQA manuals may be purchased for \$10 at the trainings

For a full list of trainings across the state, check out: <u>http://nybeef.org/bqatrainings.aspx</u>

QUESTIONS???? Contact: Nancy Glazier at: 585-315-7746 or nig3@cornell.edu

> NOTE: Trainings are free thanks to our industry sponsors! Priefert Farm Ranch & Rodeo, Kent, Powder River, Zoetis, Multimin & Merial

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OCTOBER 2016

Save the Date...

- 19 *BQA Training*, 6:00 9:00 pm, Jim & Mary's Fravil Building, 7238 Ann Street, Ovid, Chuteside to follow at a nearby farm. Manuals for purchase: \$10. To register contact: Cathy Wallace at 585-343-3040 x138 or cfw6@cornell.edu
- 26 Soil Health Field Day, 9:00 am 3:00 pm, celebrate Family Church, 74 Mount Morris Rd., Leicester. Pre-registration: Wyoming Co. SWCD at 585-786-3675 or wcswcd@frontier.net. CCA & DEC (pending) Credits available. \$15 for preregistration or \$25 at door.
- 26 *Winter Calf Care Webinar*, 12:30 1:15 pm, Presented by: Jerry Bertoldo, DVM, NWNY Team, <u>http://prodairy.cals.cornell.edu/production-management/dairy-webinars</u>
- BQA Training, 6:00 9:00 pm, WBB Farm, Warren & Brenda Bippert, 290 Four Rod Rd., Alden. Manuals for purchase:
 \$10. To register contact: Cathy Wallace at 585-343-3040 or cfw6@cornell.edu
- 28 **BQA Training**, 6:00 9:00 pm, Empire Livestock Market, 357 Lake St., Pavilion. Manuals for purchase: \$10. To register contact: Cathy Wallace at 585-343-3040 x138 or cfw6@cornell.edu

NOVEMBER 2016

- 8 *Calf Management Workshop*, 10:00-3:00 pm, Mulligan Farms, 5403 Barber Rd., Avon. See page 16 for more details
- 9 Cornell Field Crop Dealer Meeting, Liverpool Holiday Inn
- 15 *Calf Management Workshop*, 10:00 3:00 pm, Lamb Farms, 6880 Albion Rd., Albion. See page 16 for more details
- 15-18 *Employee Management Road Show*, more info to come

DECEMBER 2016

- 7-8 *Calf & Heifer Congress*, Doubletree Inn, 6301 State Route 298, East Syracuse. See page 12 for more details.
- 13-14 The Academy for Dairy Executives, Beaver Hollow Inn & Conference Center, 1083 Pit Road, Java Center. Application deadline: October 15. To register contact: Joan Sinclair Petzen at: 585-786-2251 or jsp10@cornell.edu or Libby Eiholzer at: 607-793-4847 or geg24@cornell.edu

JANUARY 2017

- 11 *WNY Corn Congress*, 10:00 3:00 pm, Quality Inn & Suites (formally Clarion), 8250 Park Road, Batavia
- 12 Finger Lakes Corn Congress, 10:00 3:00 pm, Holiday Inn, 2468 NYS Route 414, Waterloo
- 31-1 The Academy for Dairy Executives, Country Inn & Suites, 130 North Main Street, Mount Morris. Application deadline: October 15. To register contact: Joan Sinclair Petzen at: 585-786-2251 or jsp10@cornell.edu or Libby Eiholzer at: 607-793-4847 or geg24@cornell.edu

FEBRUARY 2017

28 *Forage Congress*, Genesee River Restaurant & Reception Center, 134 N. Main St., Mount Morris. More info coming.

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