

Report Published: Workforce Issues & the New York Dairy Industry

By: Libby Eiholzer

While dairy farmers in New York State are heavily reliant on Hispanic workers to fill increasingly skilled positions on the farm, they are currently facing a myriad of concerns regarding this workforce. This report is a summary of a focus group of 12 employers of Hispanic dairy workers that took place to discuss recruitment, retention and employment of these workers. The participating farms had workforces made up of at least 50% Hispanic employees. The following is a review of the topics discussed.

Recruitment: Eleven out of the twelve participating employers said that while they currently are able to fill most job openings through referrals, they are concerned about finding qualified workers in the future. This is mostly due to competition from other employers and changes occurring through state and federal legislation.

Wages and Benefits: Employers think it is likely that overtime pay will eventually be required in New York State. They feel that they are currently offering competitive wages, but in the future may need to increase pay and offer more vacation time to stay competitive. Housing is a benefit currently offered but one that can be difficult to manage.



Photo source: Libby Eiholzer

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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.

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Immigration: While relatively few employees have been deported at this point, there is a feeling of fear amongst the Hispanic worker population regarding immigration enforcement. Employers would struggle greatly if they lost their employees through immigration enforcement or mandatory E-verify, and would have to look to other labor pools.

Farm Worker Advocacy: Participating farmers expressed concern regarding farm worker advocacy groups and a desire to see them move towards a more cooperative relationship with farm employers in order to truly help farm workers.

Farm Employment and the Consumer: Farmers already strive to be the best possible employers and do not feel that mandated guidelines for worker treatment will be created and enforced.

Collective Bargaining: These employers expect to see collective bargaining rights for farm workers within the next 10 years.

Robotic Milking: The continued adoption of technology will continue, including robotic milking systems. Due to the large capital investment required, the trend towards increased farm size will continue.

Hispanic Culture: Employers treat their Hispanic employees like all their other employees and make a special effort to understand their background and provide opportunities to enrich their lives while in the US.

Labor Law Compliance: While the Trump administration may make it easier for employers to comply with Federal labor laws, New York State laws continue to be tougher on employers than federal laws.

Additional Thoughts: Employers feel that they cannot advocate for their potentially undocumented workers without compromising their businesses, though they feel that it is extremely important for both their employees and their businesses.

This focus group was held just a few weeks after President Trump signed an Executive Order on immigration, which certainly brought immigration enforcement concerns to the forefront in agricultural communities. Despite this, the 12 farm employers had many other thoughts and concerns to discuss. Overall, the consensus was that there are many changes around the corner; we will eventually have a dairy farm workforce that is more skilled and includes fewer unauthorized immigrant workers.

To read the full report, visit <u>https://</u> <u>dyson.cornell.edu/outreach/extension-bulletins/</u> <u>documents/Cornell-Dyson-eb1703.pdf</u>. Thank you to Farm Credit Northeast AgEnhancement for providing funding for this project.



Stable Flies – Different and Costly

By: Jerry Bertoldo

The first thing we think about when it comes to flies is manure and the breeding ground it offers for fly eggs developing into maggots and back around to adults. This is true for stable and house flies, but not face and horn flies that prefer very fresh manure patties or horse and deer flies that lay eggs on vegetation near wet areas.

Stable flies are biting pests that are at home outside in the sun or inside the barn. House flies also invade the dark spaces of barns unlike the other fly pests associated with pastured cattle. Stable flies prefer the legs and underside of the cow or horse. Both males and females attack to feed on blood unlike some other fly species. Stable flies will bite humans and pets as well. The vigorous stomping of feet and irritated circling of livestock are mostly due to these flies. Bunching in free stalls can be a sign of stable fly pressure. Approaching weather fronts increase their activity, hence their alternative name – storm flies.

Stable flies lay eggs in moist organic matter such as manure piles, aging manure in barns, old silage, dirty bedding, grass clippings, poorly managed compost piles and areas of wet feedstuffs. Dropped calf grain wet from spilled water or milk in front of a straw bedded hutch is the paradise environment for these pests. Shavings, sand or pea gravel is much preferred in the summer to reduce stable fly propagation around calves. Since these flies do not like wind, tunnel and well ventilated barns are not usually plagued by stable flies.

Milk production losses have been estimated at 5-20% depending on the exposure and severity of stable fly pressure on dairies. The most severe are in pasture situations. Growth loss in calves can approach 0.2 lbs/day. Threshold levels for negative animal impact are only 10 flies per animal. Since these pests can travel as much as 20 miles, your problem may be at least partially imported.

Pass through feed additives such as Clarifly and Rabon do not work for stable fly control since these



flies do not need manure to breed. Parasitic wasps are effective if started early (by mid-May) and environmental cleanup of breeding areas is maintained. Knock down sprays require fly contact, have low residual effect and miss a large portion of the fly population. Sticky tapes and traps can be helpful.

For more information on fly management go to the Cornell Integrated Pest Management Program website at <u>http://www.nysipm.cornell.edu</u>



Planning for Emergencies

By: Nancy Glazier

6 What happens to my farm if something happens to me?" I was posed with this question after a recent farm visit. The farmer was in his late 30's and was thinking about an acute emergency. He was a sole proprietor of his full-time livestock operation and what would happen to his farm if he had an accident? He said the farm would come to a crashing halt. After another visit where the elderly farmer was having health issues and wanted to reduce his herd size and needed advice, I got to thinking about how to be better prepared for both situations. The first was pondering an emergency, the second was a chronic or long term situation. Both can be planned for.

Many livestock farms are small, part-time operations run by a sole proprietor and only this individual knows how to run the farm. Many have only farm family members as employees, though only one or two may know the logistics of the operation.

To help deal with this concern, the Seneca Beef Producers group decided to tackle developing an emergency plan template. There are many emergency plans out there, but none covered topics they had in mind. They weren't looking to plan for a natural or manmade disaster, but a guidebook for someone to use in an emergency involving the operator. A plan could be organized around systems such as species of livestock and crops, or arranged into short term and long term requirements. Neighbors might be able to fill in short term, but a long term caretaker (such as settling an estate) would be much more difficult to arrange. They would need to be compensated for their work, and you should anticipate how much.

Some suggested elements of the plan:

- One page summary of farm operation.
- Designated backup people, whether neighbors or family members who may be farmers or former farmers.
- Important phone numbers for family members, attorney, veterinarian, electrician, plumber, fuel supplier, equipment dealers, and auction barn.

- How many animals and how grouped. List ways they are fed and sources of feed.
- Seasonal changes in farm routines, like water lines that must be drained.
- Systems such as electric fence or water lines and any quirks.
- Procedures or protocol manuals (may be beneficial for insurance claims).
- Computer programs and email passwords.
- Tractor and other important manuals.
- Breeding times with expected birthing dates.
- Protocols for newborn livestock and biosecurity.
- Shutoffs for water, gas and electric.
- Meat sales and slaughter dates. Note where vet records are kept that pertain to withdrawal times. Location of freezers.
- Location of fire extinguishers.
- Location of keys to tractors, doors, etc.
- Location of insurance policies, will, other important papers.
- What payments need to be made and when.

Some of this information is confidential, so locate the folder in a safe place, but where someone in an emergency can find it. It would be wise to let one of the neighbors or family members listed as emergency contact know where it is. I can share a copy of the template with you, if you'd like. Give me a call, text or email. Yes, I know this is not the time of year for office work, but this is something to address on every operation. Start thinking about it now and make a few notes.



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Winter Wheat Harvest, Protection, & Storage

By: Mike Stanyard

2017 at a Glance

verall, the winter wheat across NWNY looks to be in pretty good shape despite what it has been through. It came through the winter beautifully with no winter kill. Those that applied their first shot of nitrogen early this year benefitted as it got wet and stayed wet all spring. Many had to bypass early nitrogen, herbicide, and fungicide applications and go on late (or when they could get on the ground). Some was even flown on! Despite lower wheat prices, growers who have been following high management yield practices continued to do so this spring. Maximizing yield potential was even more important this year. Unfortunately, I still saw some fields that were brown and burned from combining nitrogen and herbicide applications. I think some felt they did not have a choice with such small windows of opportunity for applications.

The wet spring meant that powdery mildew was present early and many fields had a fungicide tank mixed with their herbicide application. Cereal leaf beetle populations were very low in the wheat. I am not sure if this was due to natural population cycles but they did not get an early start. I expected higher numbers with the milder winter. There were much higher numbers in the spring grains (oats and barley) in mid-June. Despite having some fairly high common armyworm moths caught in our pheromone traps there have been minimal calls about rescue applications. They are around and we will be watching for the blackbirds to tell us where. Most of our wheat pollinated in late May and early June. I saw quite a few sprayers in the field at flowering which means fungicides such as Caramba and Prosaro were being applied mainly for Fusarium Head Scab (FHS). The Fusarium Risk Assessment Tool (http://www.wheatscab.psu.edu/) predicted a low risk of FHS infection for NWNY through most of this critical flowering stage. However, June 6-10 blew up with predictions of high levels of inoculum in our area so there could be some unfavorable VOM numbers at harvest unfortunately. These applications



Photo source: Mike Stanyard

at flowering also protected the flag leaf from leaf diseases like powdery mildew and **stripe rust** which was found in isolated pockets around NWNY.

Folks are not very excited about straw this year as inventory is high from last year and prices are down. I have talked to some that will chop and spread it behind the combine this year. The only task left is to get the wheat harvested and in the bin!

Harvest Preparation

Know your grain moisture and have the combine prepared to go when it's time to pull the trigger. Weather and field conditions do not always cooperate during harvest. Many producers will start harvesting at 20% and dry it down to 13%. Producers who don't have dryers and rely on field drying, run the greater risk of reduced grain quality. The first harvested wheat will have the best quality. If you had later planted wheat that flowered in the second week of June, vomitoxin from FSH could be a concern. Look for pink coloration and shrunken kernels in the heads. If these conditions are present, set the combine fans to high to try and blow these light kernels back onto the field.

Grain Bin Preparation

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

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

Spray the floor and walls inside the bin to the point

of runoff. Spray some through the fan under the false floor of drying bins. Spray around the outside base of the bin and eliminate any weeds and old grain debris within 30 feet of the bin. Insects and rodents can survive on weed seeds too!

Wheat Yield Prediction

The June 11 NY Crop Progress and Condition Report from NASS USDA Northeast had winter wheat as 28% excellent, 47% good, 22% fair and 3% poor. At the Cornell Small Grains Field Day in Aurora on June 8, Bill Cox made his annual prediction of the NY winter wheat state average for 2017. He used 2011 as a similar year based on average rainfall in April and May. His prediction......63 bushels per acre. Hope it's a little higher!



Summer Checklist for Cattle

By: Jerry Bertoldo

The breeds of cattle common to the Northeast are not well suited for extremes of heat and humidity. Any temperature in excess of 70°F (even with low humidity) requires the adult cow to rid itself of excess metabolic heat. This is particularly the case for dairy animals housed together in confinement. Fans are a start at cooling. Unfortunately, cows do not sweat very much and have a large body mass, so moving air past them does not result in effective cooling as it warms into the 80's. Natural evaporative cooling resulting from sweat evaporation works great for us humans, but has to be artificially applied to cows with sprinkler systems.

Thermal stress affects cow comfort, nutrition, reproduction and immunity. Increased standing time leads to lameness problems while flies, inability to eat when desired or drink fresh, clean water can add another page to the stress playbook. There are many management considerations that have amplified impact at this time. The carryover of the negative impacts on productivity, conception rate, pregnancy retention and hoof health makes this more of a 5 month ordeal rather than a couple of months of bother during the peak of summer.

Here are some things to think about that are real deal breakers during summer heat stress:

- Does the feed stay relatively cool throughout the time it is available? Feed heats with yeast and mold activity. More frequent feeding rates or addition of feed stabilizers can help. Better forage harvest and storage techniques are even better.
- Do you check weigh backs, cud chewing rates, individual fat tests and stall utilization? Heat alters behavior patterns. This includes reduced cud chewing, increased slug feeding, more on feet time and in the extreme bicarb loosing drooling – all leading to poor rumen performance and compromised performance.
- Are cows able to drink soon after milking? Cows will seek water and then feed after being milked.

A second try later may not result in equivalent intakes.

- Are calves given free choice water from the start? Calves lose water during warm weather through increased respiration rates. Calves experiencing some degree of scours tend to dehydrate as well. Pre-weaned calves are capable of consuming 1-3 gallons per day!
- Do you keep waste feed, manure piles, liquid organic effluence and standing water to a minimum? Flies reproduce in various organic matter environments. Think about areas that accumulate such materials that should be addressed. Flies aggravate cattle of all ages reducing growth rates as well as being a vector for pink eye disease.
- Do you refrain from vaccinating when the temperature could reach 85 degrees? Increased core body temperatures result in poor response to immunization. Early morning is an ideal time to vaccinate cattle on a day that will be hot.
- Do you restrict the lock up time for cows for breeding, examination or treatment on hot days? Cows away from feed and water get anxious and compound the stress associated with high temperatures. Lock up areas should have high priority for cooling fans.
- Do you keep foot bath management to a high standard? Infectious hoof diseases thrive with moist conditions prevalent during the summer in confined housing. The softening of the hoof contributes to claw wear and potential problems as well.
- Do you make sure stall grooming and raking is up to snuff? No matter if you bed with manure solids, shavings or sand, more humid weather and higher temperatures will promote faster growth of mastitis organisms when the moisture content increases in the bedding. Even fresh sand becomes contaminated with manure and urine at the back of a stall with normal traffic within a few days.



Malting Barley Budgets, New York, 2017

By: John Hanchar

The 2017 estimates in Table 1 resulted from working with growers, and Cornell University regional agronomists and faculty. The estimates are some of those presented at the Cornell University Small Grains Management Field Day, Musgrave Research Farm, June 8, 2017.

Table 1. Estimated Value of Production, Costs and Profit for Malting Barley by Variety by Management Intensity, Conventional Tillage, NY, 2017.

Item	Spring, Standard	Spring, Intensive	Winter, Standard	Winter Intensive
	Management, 50 bu./acre	Management, 65 bu./acre	Management, 70 bu./acre	Management, 80 bu./acre
Value of Production, Revenue				
	\$ per acre			
Barley at \$6.63/bu. * (grain only)	331.50	430.95	464.10	530.40
* Est. weighted avg. price				
Total	331.50	430.95	464.10	530.40
Costs of Production				
Variable Inputs				
	\$ per acre			
Fertilizer & Lime	33.95	45.86	46.23	55.57
Seeds	34.32	34.32	34.32	34.32
Sprays/Other Variable Inputs	48.08	70.39	69.47	90.22
Labor	16.67	17.18	16.67	17.19
Repairs & Maintenance				
Tractor	19.41	19.50	19.41	19.50
Equipment	4.19	4.58	4.19	4.58
Fuels & Lubricants	13.22	13.49	13.22	13.49
Interest on Operating Capital	4.25	5.13	8.48	9.79



Total Variable Inputs Costs				
	\$ per acre			
Total	174.09	210.45	211.99	244.66
	\$ per bushel			
Total	3.48	3.24	3.03	3.06
Fixed Inputs				
		\$ per a	cre	
Tractor	40.82	41.48	40.82	41.48
Equipment	24.02	25.90	24.02	25.90
Land Charge	100.00	100.00	100.00	100.00
Value of Op. & Family Mgt. Excluded*				
Total Fixed Input Costs				
	\$ per acre			
Total	164.84	167.38	164.84	167.38
	\$ per bushel			
Total	3.30	2.58	2.35	2.09
	Γ			
Total Costs				
		\$ per a	cre	
Total	338.93	377.83	376.83	412.04
		\$ per bu	ishel	
Total	6.78	5.81	5.38	5.15
	I		1	
Profit				
	\$ per acre			
Return above variable costs	157.41	220.50	252.11	285.74
		\$ per bu	ishel	
Return above variable costs	3.15	3.39	3.60	3.57
		\$ per a	cre	
Return above total costs	-7.43	53.12	87.27	118.36
		\$ per bu	ishel	
Return above total costs	-0.15	0.82	1.25	1.48

Character Traits

By: Timothy X. Terry

Regional Strategic Planning Specialist, Harvest NY

Some time ago I ran across the results of a study that was made of highly successful business leaders that sought to determine just what made them so successful. Of course, this also begs the question of why are others not so successful. Certain themes and concepts began showing up repeatedly as the study progressed. The following is a list of character traits common to successful and unsuccessful (or less successful) business men and women. Run through the lists and see how you'd score. (No one needs to know the results, just be honest with yourself, and make changes where needed.) Remember, these are commonalities and not absolutes.

	Successful	Unsuccessful
٠	Read Daily	Watch TV Daily
٠	Set Goals	Never Set Goals
٠	Compliment Others	Criticize Others
٠	Embrace Change	Fear Change
٠	Forgive	Hold Grudges
٠	Talk about Ideas	Talk About People
٠	Continuously Learn	Think They Know it All
٠	Take Responsibility for Their Failures	Blame Others for Their Failures

Unfortunately, I don't remember where I came across this nor am I able to find the original article on the internet, so I'm unable to give appropriate credit where credit is due. However, there's always value to an introspective exercise whether you're a business owner, manager, or even just an employee.







Wendy Taheri, Ph.D. Wendy Taheri is a microbial ecologist who is transforming the world of agriculture by developing microbe-

based, sustainable solutions to replace and reduce the plethora of toxic chemicals and environmentallydamaging practices currently used in conventional agriculture. Her research focuses on harnessing the power of Arbuscular Mycorrhizal Fungi (AMF) and other beneficial microbes; and has broad-ranging, practical applications.



John Wallace

John's research broadly focuses on integrated weed management strategies in conventional and

organic field crop production systems that utilize conservation tillage practices, with a particular focus on weed management tradeoffs associated with integrating cover crops into annual grain production systems. John is a post-doctoral research associate at Penn State University and will soon join Cornell as an Assistant Professor at Geneva.



Western New York SOIL HEALTH ALLIANCE wnysoilhealth.com

Tuesday August 22nd, 2017 8:30am to 3:30pm Orleans County 4-H Fairgrounds Trolley Building, 12690 Rt. 31 Albion, NY 14411

8:30-9:30 am	Registration & Refreshments
9:30-10:45 am	Wendy Taheri, TerraNimbus, LLC Arbuscular Mycorrhizal Fungi (AMF) 101
10:45-11:45 am	John Wallace, Cornell Assistant Professor Best Management Practices and Herbicide choices when Interseeding Cover Crops
12:00-1:30 pm Ra	Lunch and travel to field trial site <i>in or Shine - Dress accordingly</i>
1:30-2:30 pm	Station 1: Cover Crop Field walk
	Observe 8 trials of cover crop plantings
2:30-3:30 pm	Station 2: Soil pit with Wendy Taheri Learn what's going on underground
To register fo Orleans Coun checks made enclosed. You and number of	r this event, please return this form to ty SWCD at 446 W Ave, Albion NY 14411 with payable to Western New York Soil Health Alliance may also register by emailing your name of attendees to wayspillbealth@umail.com with

payment due in cash at the start of the workshop. Register by <u>August 18th</u> for reduced pricing. **\$40/pre**registered participant; **\$50 walk-ins. Lunch**

included. You can call 585-589-5959 with questions.

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Email

Number of Attendees _

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Nitrogen Management After a Wet, Cool Spring

Photo source: MSU Extension

By: Jodi Letham

A fter a very long and drawn out planting season many are asking where's my Nitrogen? Rainfall continues to be an issue and with the extra moisture, water movement through the soil is a

concern. If nitrogen was applied to corn fields last fall or this spring before recent rains, potential nitrogen loss is likely. Most inorganic nitrogen is in the form of nitrate. Nitrate in the soil is susceptible to leaching losses when excess water drains below the active rooting depth, which is about 3-4 feet for corn.

In the last 3 months (April, May and June) most areas across western New York have experienced significantly more rainfall than in recent years, causing many producers to wonder if their fields are at risk for nitrate leaching.

Pre-Sidedress Nitrogen Test (PSNT)

The pre-sidedress nitrogen test (PSNT) provides a way to determine if there will be enough available nitrogen in the soil from organic sources for maximum economic yield of corn. Therefore, in

certain circumstances PSNT results can help a producer determine whether or not to add extra N at sidedress time. The PSNT result is a measure of the nitrate level in the top 12 inches of the soil based on a sample taken when corn is 6-12 inches tall. The test is calibrated for corn fields (second year or more) assuming the following:

- Fertilizer N at planting is limited to 40lbs N/acre in the band.
- Pre-plant or early post-plant broadcast N is *NOT* used.
- Sampling is done no earlier than 2-3 days after significant rainfall.



The PSNT is not relevant when:

- Fields are in continuous corn and manure or other organic amendments are not used.
- PSNT samples are collected when corn is less than 6" or more than 12" tall at the whorl.
- Soil Samples are taken from less than 12 inch depth.
- More than 40lbs of N is band applied at planting.
- Pre-plant or early post plant broadcast N is applied.
- Sampling took place too soon after rainfall.

More information on this test can be found at: <u>http://</u><u>nmsp.cals.cornell.edu/publications/extension/</u><u>Ndoc2003.pdf</u>

Adapt-N

Adapt-N is a web-based modeling software developed by Harold Van Es at Cornell University. It utilizes farmer/agronomist inputs along with weather data to estimate the corn sidedress nitrogen needs. An Adapt-N account and a lot of accurate information are needed to effectively use this tool to



If your test indicates additional N will help you reach maximum economic yields then your sidedress application of Nshould occur when the plant is 12-24 inches tall.

determine corn Nitrogen needs. Check in with your local consultant agency to see if they are utilizing this software and can help you determine your corn sidedress nitrogen needs. Adapt-N gives better recommendations with later sidedress nitrogen application timing (V6 or later) because more of the growing season is in the model. Checking the model with traditional nitrogen soil tests, GreenSeeker technology, or potentially tissue testing can help you validate/calibrate the model. For more information please check out our website for the Adapt-N manual. http://adapt-n.cals.cornell.edu/about/



Bookkeeping and Nitty, Gritty Business Details

By Joan Sinclair Petzen

E ach farm business generally has someone who attends to the day-to-day financial transactions for the business. Whether that is recording direct deposits, processing payroll, sending out checks or arranging electronic payments to pay the bills, there is a laundry list of business related tasks that someone must attend to on a daily or weekly basis. That "someone" might answer to Sister, Dad, Grandma or hey you. What I frequently find is that "someone" has a pulse on many aspects of the business and quietly goes about keeping the business behind the farm running.

So what happens if "your someone" is suddenly unavailable to attend to all of those tasks? Who will pick up where they left off? Who knows all those tasks "your someone" does? Is there anybody in the business who could work with "your someone" to become familiar with their tasks and where to pick up and start from if needed?

Clearly the person who handles a multitude of "business" tasks is able to deal with often confidential information. They are also very important to the business. But, this is about risk management and building an organization that can keep functioning at a high level during adverse times. Since in agriculture, businesses are often closely held, an untimely accident or illness impacts the people involved both personally and from a business perspective.

So let me ask, is your business the 3,000 cow dairy where 84 year old Grandma is your business' someone? Or do your keep a cow-calf herd and finish a few beef each year to sell via "freezer trade" to folks in your community and you handle everything to do with the cattle and the farm business? Is your daughter or son growing into the business but "just isn't interested in all that bookwork"? Perhaps, you and your Dad have worked together very successfully and Dad is ready to step back and take on a supporting role and let you take the lead. In any of these situations, it is easy for the "someone" to just take care of things, but what next? Who is ready to fill those shoes?

If there are crops to be planted or cows to be milked or harvest activities to be attended to farm businesses frequently have backup plans in place in case of disaster. On the human side, we as people tend to prefer not to think about and plan for our mortality. However, the success of your business in the long run depends upon having trained individuals in place to handle the business side of things too. Build some redundancy into the business side of your operation. Identify who is going to work alongside your business detail person and be able to keep that side of the business going whether a vacation or an emergency requires someone different to attend to those business tasks.



A Dairy Riddle for the Season

By: Jerry Bertoldo

What is as common as air, sometimes a bother to find, critical to life, but seldom on the mind?

Water – the forgotten nutrient

S ummer heat brings us humans a better appreciation for the absolutely essential need for water. We have trouble putting ourselves in the place of dairy animals when it comes to many cow comfort concepts. When it comes to being thirsty, however, we can relate to the drinking desires of heat stressed cattle without too much imagination. The dynamics of cattle flow, drinking locations, competition, and water trough refill rates are not as easy to visualize.

Water should be clean, relatively free of organic matter and bacteria and palatable. Water tanks and waterers should be routinely scrubbed and flushed out. Excessively hard water should be treated not only for palatability reasons, but for possible interference with mineral utilization and health. Unfortunately, there is not much research to define the impact of bad water or even to set tolerance levels for various hardness factors.

Some points to keep in mind regarding water

- Water represents 87% of milk volume and 56-81% of body weight depending on age, stage of lactation and pregnancy status.
- Adult cattle may drink between 20 and 50 gallons a day.
- Only water meters can give you a true indication of consumption.
- Cattle prefer warm (room temperature) versus cold water.
- Cows in tie stalls drink 12-15 times per day, taking 15-20 minutes at a rate of 1-2 gallons per drink.
- Cows drinking out of water troughs consume 3-5 gallons per minute.
- There is usually a large difference in intakes between cows sharing water bowls in tie stall barns.
- Water pressure and flow rate often limit the

availability of water at peak drinking times.

- There should be no less than 2 watering locations per group.
- Water locations should be less than 100 feet from any location in a free stall barn.
- 2-3 inches of linear water space should be provided per cow in a group.
- Water tanks should be cleaned at least weekly.
- Water should be provided in return alleys from milking parlors.

Don't forget calves and younger heifers!

- All aged cattle require 4 times as much water by weight as pounds of dry matter consumed.
- Calves with scours can have a dramatic increase in the amount of water needed to stay hydrated in the heat.
- Water at summer ambient temperature (80-85°F) is consumed more readily than that ice cold drink we like.
- Separating water and grain pails keeps both cleaner and increases dry matter intake and water consumption.
- Young calves on milk or milk replacer not eating much starter will consume almost a gallon of water in hot conditions.
- 2 quarts of additional water are needed for each pound of starter consumed regardless of temperature.
- Common waterers in group calf pens can become a source of Giardia infection leading to diarrhea if not cleaned and sanitized routinely.

Water is cheap, usually easy to get, but has to be managed like most everything on the farm.



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Save the Date...

JULY 2017

- 6 *Seed Growers Field Day*, 9:00 a.m. 12:00 p.m., NYSIP Foundation Seed Barn, 791 Dryden Road, Ithaca. For more information contact: Margaret Smith at 607-255-1654 or mes25@cornell.edu, DEC & CCA credits will be requested.
- 11-15 Yates County Fair, 2370 Old 14A, Penn Yan. For more information: www.yatescountyfair.org
- 13 *Aurora Farm Field Day*, 9:45 a.m. 3:00 p.m., Musgrave Research Farm, 1256 Poplar Ridge Road, Aurora. DEC & CCA credits will be requested. For more information contact: Jenn Thomas-Murphy at: 607-255-2177 or jnt3@cornell.edu
- 17-22 Genesee County Fair, 5056 East Main Street Road, Batavia. For more information: www.gcfair.com
- 18-22 Livingston County Hemlock Fair, 7370 Fair Street, Hemlock. For more information: www.hemlockfair.org
- 19-22 Seneca County Fair, 100 Swift Street, Waterloo. For more information: www.senecacountyfairyny.com
- 24-29 Orleans County 4-H Fair, 12690 State Route 31, Albion. For more information: www.orleans4-hfair.com
- 26-30 Ontario County Fair, 2820 County Road #10, Canandaigua. For more information: www.ontariocountyfair.org

August 2017

- 2-6 Niagara County Youth Fair, 4487 Lake Avenue, Lockport. For more information: www.cceniagaracounty.org
- 4-6 *Monroe County Fair*, Northampton Park, intersections of Hubbell Road & Colby St., Spencerport. For more information: www.mcfair.com
- 12-19 Wyoming County Fair, 70 East Main St., Pike. For more information: www.wyomingcountyfair.org
- 14-19 Wayne County Fair, 300 W. Jackson St., Palmyra. For more information: www.waynecountyfair.org
- 22 Soil Health Workshop, 8:30 a.m. 3:30 p.m., Orleans County 4-H Fairgrounds, Trolley Building, 12690 Route 31, Albion. <u>RSVP by: August 18</u>. \$40 pre-registered, \$50 walk-ins. Lunch included. For more information, contact: 585-589-5959, Orleans Co Soil & Water Conservation District



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