Cornell University
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NWNY Dairy, Livestock & Field Crops Team


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NORTHWEST NEW YORK DAIRY, LIVESTOCK & FIELD CROPS TEAM

Ag Focus

Robotic Milking – Could It Be For You?

By: Jerry Bertoldo

Any technology has its growing pains and growth curve of adoption. Robot milking seems to be a relatively new technology, but surprisingly had its beginning at the University of Maryland 35 years ago. Today there are some 2,500 robotic units on more than 1,000 dairies in North America. Five companies compete in that market offering varying options, mechanical and software systems, but basically delivering a product with the same premise - increasing labor efficiency, providing more consistency and comfort to cows, automatically logging data and enabling a quick and accurate response to problems.


Lely Robotic Milker

Photo source: Lely Company

Besides completely new facilities incorporating these "automatic milking systems," producers have adopted robots as retrofits within free stall as well as tie stall barns with success. Attention to how a facility impacts cow flow and the handling of routine chores without animal disruption is critical. Transitioning from a convention parlor does not have to be abrupt and absolute. Phasing in robots while the old parlor is operating is often done for incremental expansion situations. The parlor may function as an alternative to cows that do not adapt well to robots, one particular parity group (say first lactation), or a production group that is less than the average 2.8X milkings per day in a robot and the lack of production and health related data is not as critical. A parlor and the associated housing can give the flexibility of

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Focus Points

Jerry Bertoldo
Dairy Management

Genesee County
585.343.3040 x 133 (office)
585.281.6816 (cell)
grb23@cornell.edu

Libby Eiholzer
Bilingual Dairy Management

Ontario County
607.793.4847 (cell)
585.394.0377 (fax)
geg24@cornell.edu

Nancy Glazier
Small Farms, Livestock

Yates County
315.536.5123 (office)
585.315.7746 (cell)
nig3@cornell.edu

John Hanchar
Farm Business

Livingston County
585.991.5438 (office)
585.233.9249 (cell)
jjh6@cornell.edu

Joan Sinclair Petzen
Farm Business Management

Wyoming County
585.786.2251 (office)
716.378.5267 (cell)
jsp10@cornell.edu

Mike Stanyard
Field Crops & IPM

Wayne County
315.331.8415 x 123 (office)
585.764.8452 (cell)
mjs88@cornell.edu

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Contributing Editors:
Jerry Bertoldo - Libby Eiholzer
Nancy Glazier - John Hanchar
Joan Sinclair Petzen - Mike Stanyard

Layout/Design: Cathy Wallace

Postmaster Send Address Changes:
NWNY Team—Cathy Wallace
420 E. Main Street, Batavia, NY 14020

Direct all inquiries & correspondence on advertising space and rates to Cathy Wallace, advertising representative at 585.343.3040 x 138 Fax: 585.343.1275

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Photo source: Cathy Wallace

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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seasonal surges in calving and the overcrowding that a robotic setup does not deal with well.

Robotic systems have become more reliable with time, but the proximity of dealer service has been and continues to be a concern. Experienced producers will say that troubleshooting and making repairs/adjustments on these systems is not much different than that of conventional parlors. Spare parts on hand, training and phone support goes a long way.

What about that hefty $200,000 plus per robot to get into the game? Does this ever get paid back in savings or benefits to match a parlor? The answer can be yes, but with lots of areas to look at. Striving to get away from the labor market struggle, the time inflexibility of conventional milking and missing your kids' schools events? This is your shot. Hoping to get technology to replace quality personnel and eyes on the cows? Better think twice. A human has to interpret the collected information and make the decision what to do with it. Do you wish you could capture more data automatically about production, mastitis, eating patterns, dry matter intake, cow weight and heats? The monitoring systems that either come standard or as add-ons can do this. Systems are designed to handle testing options in the works like BHBA, SCC and pregnancy diagnosis.

A quick checklist of the plusses and minuses of automatic milking systems:

PROS

- Less labor related to milking and moving cows
- Improved lifestyle - more flexible time for family
- Wide array of data capture
- Quicker response to problems
- Excellent public welfare perceptions
- Sanitizes between cows
- Quieter cows
- More lying time and better hoof health
- Dedicated milking "center" footprint rather small
- Robots represent higher percentage of total new facility cost
- No holding area heat stress
- Increased longevity? (the jury is still out)

CONS

- Must be good with computers
- Must have an excellent "cow person" to manage
- Must use all of data to maximize payback
- Have to learn new maintenance skills
- Unique feeding strategy – computer feeder plus partial mixed ration
- Overcrowding impacts cow performance more than conventional set ups
- Someone "on-call" 24/7 via smart phone
- Accelerated maintenance schedule
- Long shut down takes days to get cows back on routine

Holstein Foundation Graduates Young Dairy Leaders Institute Class 9

By: Libby Eiholzer

Over 40 young adults from across the U.S. and Canada recently graduated from the Holstein Foundation's ninth Young Dairy Leaders Institute class, with Phase III being held February 24-27 in Phoenix, Arizona. Building on the skills they learned during their first meeting last February, along with what they have practiced and accomplished over the past twelve months, the class participated in interactive workshops covering topics such as advanced communication skills, conflict management, and the public policy process.

Libby Eiholzer of the NWNY Team was a member of Class 9 along with a number of other New Yorkers. Kelly Broughton of Broughton Farm Operations, Hannah Worden of Will-O-Crest Farms, and Marianne Robinson of Sunnyside Farms all represented NY at YDLI and worked on a number of great projects throughout the past year. Kelly Broughton took the leap to host Wyoming County's Agri-Palooza at her farm. Hannah chronicled her pregnancy on Facebook alongside the pregnancy of a cow at Will-O-Crest with the same due date, a project that taught many people about cow care on modern dairy farms. Marianne held a neighborhood open house at Sunnyside, and Libby organized a panel discussion on dairy farming for the public radio station in Rochester. All of these projects served to share positive messages about dairy farming with the public, as well as to encourage YDLI participants to go outside of their comfort zones!

On their final feedback survey, participants were asked to write one sentence about what YDLI meant to them. Following are just a few of the comments that summarize the YDLI experience:

····"I've been introduced to a community of people and network of professionals in the dairy industry that I will use throughout my career as a dairy farmer."

Young Dairy Leaders Institute Class 9.

Photo Source: Holstein Foundation.

····"I was skeptical to join the program and a producer thought I wouldn't have time to do all the projects. I was wrong. It is what you make of it and it has been one of the best experiences I have had in my life. Thank you."

····"YDLI has given me tools and relationships that I will use the rest of my life, and has been one of the most invigorating and enjoyable experiences of my life."

The theme for this YDLI Class was "Leadership Oasis." In addition to hearing presentations from every class member about their Phase II advocacy projects, the Phase III session featured speakers and workshops including:

····Joan Horbiak presented "Leading Out Loud" focused on mastering interviews with the media, handling consumer questions, and telling dairy's story.

····Dr. Wes Jamison moderated a session with guest Paul Shapiro from the Humane Society of the United States on the topic of animal welfare. Dr. Jamison also led a workshop on conflict management.

····Pete Kappelman, YDLI Class 1 graduate, conducted a workshop on serving as a board member, and provided an inspirational evening keynote.

····Bonnie Burr, also a YDLI Class 1 graduate, led a session on understanding public policy and gave participants hands-on experience with the governmental process.

····Ty Bennett delivered a keynote about the "Power of Influence." His message left the class inspired and feeling empowered to continue their leadership journey and have a lasting influence on those they interact with.

The Holstein Foundation and Young Dairy Leaders Institute participants would like to sincerely thank the many gracious sponsors who made the experience possible. Platinum sponsors include Allflex USA, Inc.; CHS Foundation; Dairy Management, Inc.; DairyBusinesss Communications; Dean Foods Foundation; Farm Credit System Foundation; Farm Journal Media; Hoard's Dairyman; Holstein Association USA; Land O'Lakes, Inc. Foundation.; Northeast Agricultural Education Foundation; and Zoetis.

Gold-level sponsors were Cargill Animal Nutrition; and Deere & Company. Silver sponsors were Accelerated Genetics; Center for Dairy Excellence; GEA Farm Technologies, Inc.; and Pennsylvania Dairymen's Association. Bronze-level sponsors included COBA/Select Sires; Farm Credit Northeast Ag Enhancement; Horace Backus Fund; Merial Ltd.; and Select Sires Generations. Donated dairy products were served from Arizona Farms Cheese, Ehrmann Arizona Dairy LLC, and Shamrock Farms.

Read more about Class 9's YDLI journey on our official YDLI blog at www.ydli.blogspot.com!

YDLI Class 10 will be held in February 2017 and 2018. Applications, available on the Holstein Foundation web site, are due August 1, 2016. With questions or for more information about YDLI, visit www.holsteinfoundation.org, or contact Holstein Foundation Programs Manager Jodi Hoynoski at 800.952.5200, ext. 4261 or by email: jhoynoski@holstein.com.

Crisis Planning for Your Dairy

By Joan Sinclair Petzen

Is your livestock enterprise prepared if the next attack on agriculture targets your farm as an example of alleged mistreatment of animals, environmental pollution or community group opposition, farm worker issues or an accidental injury or death? Any farm is vulnerable to being in the media spotlight at a moment's notice. Understanding and preparing for a crisis helps you to protect yourself, industry image and consumer confidence. A written on-farm crisis response plan can help your business to weather a storm of attention from the media or social media.

Photo source: Cathy Wallace

"Differentiating between an 'issue' and a 'crisis' is an important first step in crisis planning," according to *Telling Your Story - On-Farm Crisis Preparedness* by American Dairy Association and Dairy Council (ADA/DC). Farm businesses deal with issues from equipment breakdowns to protocol slip or animal health challenges on a regular basis. A crisis might involve an unforeseen death, cause an abrupt halt or disturbance of operations, unexpected safety or health concern to your animals, bioterrorism, danger from consuming your milk or loss of confidence in your product, a sudden lack of trust in your farm or extensive damage to your facilities by fire, explosion or natural disaster.

ADA/DC outlines a five step process for crisis preparedness:

1. Develop your crisis response team
2. Identify stakeholders
3. Assess vulnerabilities and develop crisis scenarios
4. Identify spokespersons and communicate
5. Know the resources available to you

Be sure to develop an appropriate plan for different crises your farm might encounter. Putting plans in writing provides a guide for reacting more objectively during a time when emotions may be running high. The response team can use a written plan to communicate with family members, employees, stakeholders, neighbors, media or enforcement agencies.

The crisis response team should be a small group ideally of managers, who have the authority to make decisions and provide leadership. People intending to have a long term role in the farm business are best suited to be part of the response team. Some team members might be different for one type of crisis than another. Documenting team members' complete contact information in your written plan will make it easier to respond quickly if needed. Meeting twice a year to review the crisis plan prepares your team for rapid response and keeps the plan current.

Another group it is important to identify in advance are stakeholders. Be certain to gather contact information for each one and the best way to reach them. Appoint a response team member to communicate with stakeholders when a crisis arises.

Assessment of your vulnerability to a list of potential crises is a critical step. Develop a list of events that could result in a crisis. Estimate the probability of each event occurring from unlikely to it has happened and could again. Then determine the level of damage the event might cause ranging from devastating to very little damage. ADA/DC's workbook offers a scoring process for ranking potential disasters based upon likelihood of happening and potential damage. This helps you focus your planning on the most likely and highly damaging crises. For the top few, use your response team to work through each crisis scenario and thinking about the steps to take to address the situation and appropriate communication lines for addressing the situation.

Selecting your spokesperson is a vital aspect of the plan. They must represent your beliefs and mission. Select someone who is well spoken and in a position of authority with respect to the crisis at hand. It is key that your spokesperson is able to be empathetic, sincere and able to relate to affected parties. They must be able to think on their feet and be pleasing to the eye of the camera. Having a list of media prepared will help you to get your message out. If the media contacts your farm be certain to get a contact you can follow up with if the situation changes or new information is learned.

Media outreach goes beyond traditional print, radio and television. Think about how you are going to use social media and the internet. We live in the era of instant communication and having your message prepared in advance will help you to communicate proactively in the event of a crisis.

Finally, know your resources. Both industry and agency resources are available to assist you with messaging and appropriate communication techniques. Industry promotion organizations, the New York Animal Agriculture Coalition, Farm Bureau, government inspectors, Extension and the professionals you work with regularly in your business operations can be called upon to help you respond in a crisis. As you develop a plan for each scenario include a list of resources to call on to help your team respond proactively.

We hope no farm ever has to deal with a crisis. But being prepared can help lessen the blow of a crisis to your family and business. Dealing with a crisis can be emotionally charged and consume a tremendous amount of energy. Having a team in place and a plan for dealing with the most likely and damaging crises can help limit the fallout and reduce the disruption caused when one comes up. Identify your response team and stakeholders and prepare a written plan of action to be ready if crisis strikes.

This article concludes the series on crisis planning and preparedness. We've given you some tools and ideas for ways to handle a crisis. Now it's time to get started on a plan for managing crisis for your farm business.

Early Wheat Management Tips

By: Mike Stanyard

It is time to take care of your wheat! It looks like it will be an early spring if this mild weather continues. As I write this, I am staring out my window on March 9 and it is 70 degrees! There was a short window for frost seeding. If it didn't get done by March 4th it probably didn't. Many of the earlier planted fields will be greened up nicely as you read this. See the reminders below on tiller counting, fertility, herbicides, and fungicides.

Nitrogen. In past articles I have discussed counting the number of tillers to determine if you should put all of your nitrogen up front, split it into two applications, or put it all on at a second application at Stage 6 (jointing). With the lack of snow this March I'm sure many of you have already assessed how many plants and tillers you have per square yard. If you haven't and need a refresher course, see my short video on how to do so, https://vimeo.com/124455368.

See chart as example of tiller number and N timing and amounts. If your plant/tiller counts are low, be prepared to get more N on early as wheat plants green up fast and need to be fed. This N is utilized to increase vegetative production and promote additional tillers. If tiller counts are in the middle, then get some N on early and the remainder on at jointing. If tiller counts are high, hold off on applying N at green-up and apply it all at jointing. This later N application timing should coincide with stem elongation which means nitrogen is going towards increasing the number of seeds per head and seed size, not additional tillers. However, I will throw in a word of caution here. Last year was a wet year and

Tiller Numbers (per sq. yard)	Nitrogen Recommendation
< 300	up to 60 units of N at green up, rest applied at GS 5-6
450-600	Up to 45 units of N at green up, rest applied at GS 5-6
>700	No N at green up, all N applied at GS 5-6

those who held off for just one later application of N could not get in the field when they needed to and the wheat turned off-color. This is definitely not what we want at this crucial growth stage and yield potential was lost. I now have some growers who are going to apply 20 pounds of N early even if their tiller count is high, to protect against the potential for a delayed second application.

Weeds. We continue to encourage the earliest planted fields to be sprayed for winter annual weeds (purple deadnettle, chickweed, chamomile) in late fall. Some of the later planted fields may have had a burndown sprayed prior to planting. You never know what the weather will be like in the spring and timely weed control can be tricky. Most fields are sprayed in the spring. We are still encouraging that you do not mix your herbicide and nitrogen applications and spray separately. The leaf burning can cost us up to 10 bushels and could get worse as temperatures increase.

If grasses such as roughstalk bluegrass and cheat are a problem, Osprey does a good job of cleaning them up. It has no activity on broadleaves. Research by Russ Hahn has found that it has been very effective on bluegrass with better control achieved in the spring versus the fall. It can be applied up the jointing stage in winter wheat.

Fungicides. We have seen that fungicide applications in wheat can really pay off. Powdery mildew and leaf rust can move in during the early vegetative stages and result in yield losses. These leaf diseases can be more prevalent with thicker wheat stands. Weather conditions also can play a role. Wet, cool conditions are more conducive to disease development. In last month's AgFocus, I wrote about powdery mildew affecting wheat fields in NWNY last December. This means that early scouting of all your wheat fields is crucial to stay on top of this disease this spring! Look for large areas where the leaves are turning yellow. Lower leaves will gradually turn light brown. If you applied higher N rates (90-120 pounds), fungicides are even more important to keep the wheat healthy to prevent lodging.

Electronic Livestock Resources

Here are some listservs (email discussion groups) for livestock producers.

Outdoorpig": an Email Discussion Group for Outdoor Pig Producers: Send an email to: cce-outdoorpig-L-request@cornell.edu and type the word "join" in the body of the message. Once subscribed, send a message to "cce-outdoorpig-L@cornell.edu" to connect with other pastured pig producers in the Northeast. If you are on Facebook, you can join the group "Pastured Pigs" - it's very active and a useful resource.

SHEEPGOATMANAGEMENT: Drs. Mike Thonney and tatiana Stanton at Cornell University moderate the sheep and goat management listserv. As above, send an email to, sheepgoatmanagement-l@list.cornell.edu, with join in the body of the message.

Wholesale Market Watch: Are you a farmer, agricultural educator, or regional food-buyer in the Northeast? You can sign up to receive email alerts here: http://smallfarms.cornell.edu/projects/wholesale/listserve/

Livestockprocessing: For questions related to processing, moderated by Dr. tatiana Stanton. Email livestockprocessing-l@list.cornell.edu with join in the body of the message.

HOOF HEALTH SOLUTIONS COURSE

This course will focus on lameness detection and treating lame cows. Training your team to identify and treat lame cows is of utmost importance for animal welfare!

Tuesday April 19th & Wednesday April 20th:

Noblehurst Fieldhouse, 7955 York Rd, Pavilion, NY 14525

Thursday April 21st & Friday April 22nd:

El-Vi Farms 14 Pelis Road, Newark, NY 14513

$100 registration for enrollees of the NWNY Team. $125 for non-enrollees*.

Materials & lunches included both days. Classes will be capped at 15 people per site.

- Classroom & hands-on learning
- Taught by Hoof Trimmer's Association members Chip Hendrickson & Vic Daniels along with Jeff Wheeler of Zinpro Animal Health

*Each Class will be held two days in a row, 10am-4pm.
It will be offered in both English & Spanish

To register for either event, please contact: Zachary Amey at (585) 786-2251 or email zta3@cornell.edu. You can also register online at: https://reg.cce.cornell.edu/HoofHealthSolutionsCourse_256

For course specific questions contact Libby Eiholzer (607-793-4847) or Jerry Bertoldo (585-281-6816)

*Not enrolled in the NWNY Team? Contact your local CCE Office for enrollment information.

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2006 Western Star 4900SA; 515 HP Detroit 14L Diesel; 8LL Trans.; Engine Brake; Hendrickson Susp.; 21'L x 90"H x 102"W Alfab Body; 12.00 x 24.5 Tires; Spoke Wheels; Tandem Axle; 18,740# F/A; 65,000# R/A; Very Clean Heavy Haul Dump; Rebuilt Engine w/Paperwork; 14,094 Hours; 83,574 Miles; Stk. #4833 - **$82,900**

2006 KENWORTH T800; 430 HP CAT C12 Diesel; 13-Spd.; Engine Brake; Neway Susp.; 5.29 Ratio; 22.5 Tires; Alum. Wheels; 290" WB; Tandem Axle; 20,000# F/A; 44,000# R/A; 52,427 Miles; Stk. #4951 - **$49,900**

2004 MACK GRANITE CV713; 300 HP Mack Diesel; 8-Spd.; Haulmaax Susp.; 4.92 Ratio; 22.5 Tires; All Steel Wheels; Tandem Axle; 20,000# F/A; 46,000# R/A; 195,469 Miles; Stk. #4953cc - **$53,900**

2002 INTERNATIONAL 4900; DT466 Int'l Diesel; Haulmaax Susp.; 22.5 Tires; All Steel Wheels; 248" WB; Tandem Axle; 14,000# F/A; 40,000# R/A; Double Frame Cab & Chassis w/Auto. Trans.; 22'10" Frame Behind Cab; 180" CT; 75% Rubber; 74,500 Miles; Stk. #5026 - **$17,500**

2010 PETERBILT 367; 485 HP Cummins ISX Diesel; 10-Spd. Engine Brake; Air Trac Susp.; 24.5 Tires; All Steel Wheels; 202" WB; Tandem Axle; 13,200# F/A; 46,000# R/A; Very Clean Daycab Tractor w/Air Slide 5th Wheel; Steer Tires 99%, Drives 90%; 369,622 Miles; Stk. #4990/4991 - **$49,900**

2000 MACK RD688S; 350 HP Mack E7 Diesel; 8LL Trans; Camelback Susp.; 4.17 Ratio; 24.5 Tires; All Steel Wheels; 282" WB; Tandem Axle; 20,000# F/A; 44,000# R/A; Very Clean, Double Frame Truck; 19'6" Frame Behind Cab; 190" CT; Auto-Lube System; 108,544 Miles; Stk. #4647CC - **$31,900**

1998 MACK CL713; 350 HP E7 Diesel; 398,243 Miles; 8LL Trans.; Engine Brake; Camelback Susp.; 315/80R22.5 Tires; All Steel Wheels; 221" WB; 18,000# F/A; 46,000# R/A; Double Frame; ; Stk. #4937 - **$22,900**

2005 WESTERN STAR 4900SA; 550 HP CAT C15 Diesel; 18-Spd.; Engine Brake; AirLiner Susp.; 4.30 Ratio; 24.5 Tires; Polished Alum. Wheels; 257" WB; Tri-Axle; 20,000# F/A; 69,000# R/A; 656,916 Miles; Stk. #4924CC - **$45,900**

2007 KENWORTH T800; 430 HP CAT C13 Diesel; Allison Auto.; Engine Brake; Air Ride Susp.; 4.10 Ratio; 22.5 Tires; All Steel Wheels; 254" WB; Tandem Axle; 14,600# F/A; 44,000# Full Locking R/A; Cab & Chassis w/24" Sleeper; 19'6" Total Frame; 148" CT; Single Frame; 90% Front/25% Rear Tires; PTO; 186,400 Miles; Stk. #4917 - **$45,000**

2004 KENWORTH T800; 335 HP CAT C10 Diesel; 10-Spd.; Engine Brake; Hendrickson Susp.; 22' Length X 102" Width; 5.29 Ratio; 22.5 Tires; All Steel Wheels; 240" WB; Tandem Axle; 20,000# F/A; 44,000# Full Locking Rears; Low Mile, Double Frame Flatbed Truck w/PTO; Will Separate Flatbed From Chassis; 20' Frame Behind Cab; 160" CT; 75% Rubber; 110,826 Miles; Stk. #4952 - **$44,500**

2005 KENWORTH T800; 410 HP CAT C13 Diesel; 10-Spd.; Engine Brake; Neway Susp.; 5.29 Ratio; 200" WB; 96" Flat Top Sleeper; 22.5 Tires; All Steel Wheels; Tandem Axle; 12,000# F/A; 44,000# R/A; 93,255 Miles; Very Clean Truck w/2-Line Wetline & Good Rubber; 17,540 lb. Chassis Weight; Stk. #4839 - **$35,250**

2005 MACK VISION CX613; 380 HP Mack Diesel; 13-Spd.; Engine Brake; Air Ride Susp.; 22.5 Tires; Alum./Steel Wheels; 186" WB; Tandem Axle; 14,000# F/A; 46,000# R/A; Very Clean, Heavy Spec Daycab Tractor w/Low Miles; Air Slide 5th Wheel; 75% Rubber; 327,882 Miles; Stk. #4933 - **$29,900**

1999 PETERBILT 357; 330 HP CAT 3306 Diesel; 8LL Trans.; Hendrickson Susp.; 23' Length; 315/80R22.5 Tires; All Steel Wheels; 258" WB; Tandem Axle; 18,000# F/A; 45,000# R/A; Good Running Truck w/Galbreath 60,000# Rolloff w/Tarp System; Tires & Brakes In Good Condition; 555,740 Miles; Stk. #4771 - **$36,900**

2003 OSHKOSH F2345; 330 HP Cummins ISM Diesel; 10-Spd. Haulmaax Susp.; 22.5 Tires; Alum./Steel Wheels; 212" WB; Tandem Axle; 20,000# F/A; 46,000# R/A; 167,717 Miles; Stk. #5014 - **$48,000**

QTY. (3) 2005 PETERBILT 357; 305 HP CAT C11 Diesel; Automatic; Haulmaax Susp.; 216" WB; 22.5 Tires; Alum. Wheels; Tandem Axle; 22,000# F/A; 46,000# R/A; 133,852 Miles; Good Running, Low Mile Truck w/McNeilus 10.5 Cu. Yd. Mixer; We Will Separate Mixer From Chassis; 17' Frame Behind Cab; 140" CT; Stk. #4893-4894 - **$56,500**

1999 MACK RB688S; 400 HP Mack E7 Diesel; 8LL Trans.; Engine Brake; Rubber Block Susp.; 19' Length; 22.5 Tires; Spoke Wheels; 248" WB; Tri-Axle; 20,000# F/A; 46,000# R/A; 501,176 Miles; Stk. #4760 - **$24,900**

2009 INTERNATIONAL 5600i; 450 HP Cummins ISX Diesel; 184,606 Miles; 18-Spd.; Engine Brake; Air Ride Susp.; 24.5 Tires; All Steel Wheels; 212" WB; 18,000# F/A; 46,000# R/A; Very Clean Cab & Chassis w/Double Frame; Plow & Sander Controls In Cab; Rear Hitch & Hinge Point For Dump Body; Stk. #4942 - **$44,900**

1998 MACK CL713; 350 HP Mack E7 Diesel; 8LL Trans.; Engine Brake; Camelback Susp.; 315/80R22.5 Tires; All Steel Wheels; 221" WB; Tandem Axle; 18,000# F/A; 46,000# R/A; 398,243 Miles; Stk. #4937 - **$22,900**

2011 INTERNATIONAL 6900i; 525 HP Cummins ISX Diesel; Auto. Trans.; Engine Brake; Air Ride Susp.; 22.5 Tires; Alum. Wheels; 236" WB; Tandem Axle; 13,000# F/A; 46,000# R/A; Clean Daycab w/Heavy Rears, Big HP & Auto. Trans.; 90% Rubber; Auto-Lube System; 413,737 Miles; Stk. #5020 - **$39,900**

(2) 2010 PETERBILT 335; 240 HP Paccar PX8 Diesel; 6-Spd.; Air Ride Susp.; 26' Length Van Body w/Lift Gate; Rollup Door; 4.78 Ratio; 22.5 Tires; Alum. Wheels; 270" WB; Single Axle; 33,000# GVW; Very Clean Van Body Trucks; 75% Rubber; 309,234 Miles; Stk. #5018/5019 - **$22,900**

2012 MITSUBISHI FUSO FE180; 3.0L Diesel Engine; 18' Length COE Van Body; Rollup Door; 245/75R17.5 Tires; All Steel Wheels; 168" WB; Single Axle; 17,995# GVW; Nice Running, Clean Truck; 146,533 Miles; Stk. #5027 - **$19,500**

2003 KENWORTH T800; 430 HP CAT C12 Diesel; 10-Spd.; Engine Brake; Neway Susp.; 5.29 Ratio; 22.5 Tires; All Steel Wheels; 212" WB; Tri-Axle; 20,000# F/A; 44,000# R/A; Very Clean Southern Truck w/20K Lift Axle & Ful Locking Rears; 75% Rubber; 11,436 Miles; Stk. #5003 - **$47,900**

2004 MACK GRANITE CV713; AI 460 HP Diesel; 18-Spd.; Engine Brake; Air Ride Susp.; 24.5 Tires; Polished Alum. Wheels; 300" WB; 20,000# F/A; 46,000# R/A; Clean, Low Mile Truck; D/F; WAJAX 1564 15-Ton 64' Crane w/(4) Stabilizers; Stk. #4945 - **$55,900**

$$$$$ WE BUY MACK, FREIGHTLINER, PETE, KENWORTH, Etc. TRUCKS and CAT, KOMATSU, CASE, HYUNDAI, IR, Etc. CONSTRUCTION EQUIPMENT for $$$$$

Grasstravaganz

Healthy Soils • Healthy Animals • Healthy Farms

Alfred State will host Grasstravaganza '16. An event for farmers, conservationists, and consumers who are interested in soil health, grazing, and sustainable agriculture, will be held on the Alfred State campus August 4-6.

The conference, *Healthy Soils, Healthy Animals, Healthy Farms*, will feature presentations by national and local grazing and soil health experts who will cover a range of topics, interactive soil health related activities, and a trade show.

The featured speaker this year is Dr. Fred Provenza. For more than 38 years, Dr. Provenza has produced groundbreaking research on livestock grazing behavior. This work has influenced research in areas from nutrition and foraging behavior of animals and humans, to rural sociology and development.

Additional speakers include: Justin Morris, NRCS Soil Health Specialist; Dr. Bern Sweeney, Director, President, and Senior Research Scientist at the Stroud Water Research Center, an independent research institution focused on stream and river ecology; and Dr. Guy Jordarski (tentative), a holistic dairy veterinarian with nearly 30 years of experience in the industry, who now acts as the consulting veterinarian for the 1600 dairy farms in the Organic Valley milk cooperative.

For more information or to register, please visit the conference web site at www.alfredstate.edu/grasstravaganza or call Karen Meade at 607-587-4714

Upcoming Webinars:

Avoiding Disease in Dairy Calves

April 5, 1:00 p.m.

Presented by:

Dr. Geof Smith, North Carolina State University

http://articles.extension.org/pages/29156/upcoming-dairy-cattle-webinars

Target Rations for Your Milking Groups

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

Presented by:

Bill Weiss, Ohio State University

http://www.hoards.com/webinars

Technology Tuesday Series: Water Quality & Water Systems Design on the Dairy

April 12, 8:30 a.m. - 10:00 a.m.

Presented by:

John Tyson, Penn State Extension

http://extension.psu.edu/animals/dairy/courses/technology-Tuesday-series

Entry Point Precision Agriculture Technology: Benefits and Costs for Decision Making

By: John Hanchar with Erick Haas,
Cazenovia Equipment Company

Photo source: PrecisionAg.com

Summary

- Expected changes in profit attributed to auto steer exceed 0 over a range of expected values for key factors
    - ◊ overlap without and with auto steer, acres affected, and others
- Net present value analysis yields similar favorable results
- Understand that some benefits to the operator are difficult to quantify, but valuable -- reduced stress, reduced fatigue
- Producers encouraged to take advantage of analysis provided by equipment professionals, advisors etc. when making decisions

Introduction

For a more detailed reporting of this work, please visit the team's website, <http://nwnyteam.cce.cornell.edu/>. Look under the "Precision Agriculture" tab for the item titled, "Entry Point Precision Agriculture Technology: Benefits and Costs for Decision Making."

Benefits and Costs of Auto Steer Technology, Highlights

We sought to answer the following questions.

- What expected changes in profit can be attributed to auto steer when compared to traditional steer by sight?
- What expected net present values and rates of return can be attributed to auto steer when compared to traditional steer by sight?
- How sensitive are results to changes in key variables – expected acres affected, before and after overlap, etc.?
- What factors, considerations omitted from the analysis need mention?

Partial budget analysis produced estimates of the expected change in profit in an average future year associated with the adoption of auto steer technology. Expected change in profit is the expected change in total value of production, income (increases and/or decreases) minus the expected change in cost (increases and/or decreases).

Investment in and use of auto steer technology results from decision making regarding a capital item that has a useful life of greater than one year. Capital budgeting incorporates time value of money considerations to provide valuable information for decision making. Time value of money concepts reflect an individual's preference to choose a dollar received today over a dollar received at some future date. Net present value (NPV), the sum of present values for each year's change in net cash farm income less the initial cost of the investment, and internal rate of return (IRR), that discount rate which makes the present value of the change in net cash farm income flows just equal to 0, are key capital budgeting measures.

Selected assumptions not provided in Table 1, or in the text below include the following: 1) one auto steer unit with an expected useful life of ten years is suitable given the expected acres affected; 2) 2015 price levels; 3) tasks affected include spring chisel plowing, spring field cultivating, corn planting, fall chisel plowing for residue management.

Partial budgeting results suggest that adoption of auto steer technology can be a profitable change in farm business when compared to steer by sight (Table 1). Results are sensitive to variability in expected acres of corn affected and initial overlap without auto steer.

Table 1. Expected Change in Profit by Expected Acres of Corn by Overlap Without Auto Steer

	Overlap Without Auto Steer (%)		
Expected Acres of Corn Affected	5	10	13
	--- Annual change in profit (dollars) ---		
250	-145	1,459	2,421
500	1,459	4,666	6,590

Notes: 1) Expected change in value of production = $0; 2) expected initial capital cost = $12,000; 3) expected overlap with auto steer = 0%

Capital investment analysis also produced favorable results for the auto steer technology. Expected net present values greater than or equal to 0 resulted for five of the six scenarios when using a real discount rate of 4 percent. Net present values for the six acres affected, overlap without auto steer scenarios averaged $21,913 in today's dollars; ranging from negative $1,496 for the 250 acre, 5 percent initial overlap scenario to $53,130 for the 500 acre, 13 percent combination. Expected IRR's averaged about 31.4 percent; ranging from 1.4 percent for the 250 acre, 5 percent initial overlap scenario to 66.5 percent for the 500 acre, 13 percent scenario.

Closing Thoughts

Partial budget, NPV, and IRR results suggest that auto steer technology can be expected to increase profit, yield NPVs greater than or equal to zero, and produce favorable IRRs, respectively. Results are sensitive to the expected number of acres affected and the initial overlap without auto steer. Producers and their advisors can develop similar analyses that will likely find auto steer attractive under many scenarios. Two benefits attributed to auto steer mentioned frequently by producers and their advisors are reduced stress and reduced fatigue. Combine these benefits with expected favorable economic and financial impacts, and auto steer has the potential to be a beneficial change in practice for farmers, one that farmers will likely want to evaluate for their business.

Pasture Flies: Take the Integrated Approach to Control

By: Nancy Glazier

The focus of this article will be the "Big Three": face fly, horn fly and stable fly. They each have their own feeding areas on livestock, but have similar life cycles. They all have complete metamorphosis, which means they lay eggs that hatch into larvae, then pupate and emerge as adults. Critical for control is identification, habitat management, monitoring and assessment. They cause stress on animals; they reduce grazing time which in turn reduces production. These reductions can be seasonal, or with youngstock, cumulative.

The face fly was native to Europe and was first found in Nova Scotia around 1950. It spread to 26 states by 1960 and is now found in most of the US. The fly resembles the house fly, but is about 20% larger. It is a non-biting fly where the female feeds on proteins around the face; they hang out near the eyes, muzzle and mouth. They can serve as vectors for diseases such as pink eye. Also, they can congregate around wounds and feed on blood. Males generally feed on nectar and hang out on fence posts or branches to wait for the females as they move about. After mating, the female lays her eggs (up to 600) on very fresh manure. The time from egg to adult is 2-3 weeks, depending on temperatures.

The horn fly is about half the size of the face fly. It also came from Europe, being first observed in the US in 1887 and is now generally distributed. Both males and female horn flies feed by biting and take up to 20 blood meals a day. They will congregate on backs and shoulders of livestock. The female will lay 200-400 eggs in her life on fresh, undisturbed manure.

Face flies on cows on pasture.

Photo source: Nancy Glazier

The stable fly is another biting fly found worldwide. It is dark gray and slightly smaller than the house fly. This species is seen on the legs of livestock; when they congregate on animals, they stomp their feet to try to dislodge them. The female is less specific where she lays her eggs (200-400). Eggs may be laid on moist organic matter such as manure, spilled feeds, silage, grass clippings, and vegetation on edges of ponds and lakes. This fly can travel up to 20 miles on storms! They are the ones that stop by and take a bite on your ankles when you're out in the yard.

So once you've figured out the species, you'll need to get a count of the numbers present. This takes some time out on pastures with the livestock. A good representation is needed, the more animals the better, with a minimum of 5 to 10; 15 is better. You need to get close enough to count, so move slowly. And I suggest not doing this when you move fence unless you give the livestock time to move and settle in to the new paddock. Sample on a weekly basis at roughly the same time and write down what you see. A pocket pad works well.

Thresholds:

Face fly - 10 flies/face.

Horn fly - about 50 flies per side for dairy, about 100 flies per side for beef.

Stable fly - 10 flies/4 legs of the animal.

Control can involve cultural, mechanical, biological and chemical; some years it may take a combination of methods. Habitat management is a critical step in breaking the life cycle and proliferation. When a female lays 400 eggs over the course of 3-4 weeks, populations can explode if not controlled. Keep feeds dry, clean up spills, move outside feeding areas if possible. On pastures, some producers utilize pasture chains or drags to disperse manure pats so they dry out more quickly. Check to see if you have ground beetles and dung beetles cleaning up those manure pats. This isn't very pleasant, but it helps with management.

Various traps are on the market. These are a mechanical means to capture the flies. Some are for livestock to walk through and flies get trapped in screens, some employ sticky surfaces, while others use attractants.

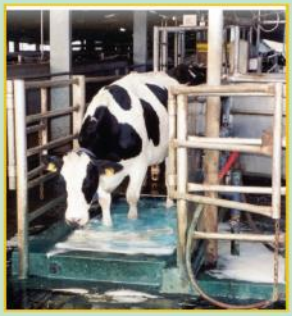
Birds (even poultry), bugs, spiders, mites, and diseases can help control populations. Some producers purchase parasitoid wasps to release during fly season. These wasps lay eggs on larvae; their eggs hatch and the larvae burrow into the maggots and kill them.

The more traditional approach is chemical: sprays, rubs, dusters, etc. If you use chemical control options, some can kill beneficial insects as well.

This is an overview of the 3 flies and a short look at control. An excellent resource for more information is, Integrated Pest Management (IPM) Guide for Organic Dairies from NYS IPM program. It can be downloaded at: http://www.nysipm.cornell.edu/organic_guide/dairy.pdf. Conventional and beef operations could benefit from this as well. Give me a call or drop me an email if you'd like to learn more about this.

FOOTBATH TREATMENT EVENING DISCUSSIONS

Discussion will focus on options for footbath treatments and will be targeted for farm owners/managers. Led by Chip Hendrickson



Tuesday April 19th, 6-9pm:

Noblehurst Fieldhouse, 7955 York Rd, Pavilion, NY 14525

Thursday April 21st, 6-9pm:

CCE Ontario County, 480 North Main St. Canandaigua, NY 14424

$20 registration for enrollees of the NWNY Team.
$25 for non-enrollees*. Dinner Included .

To register for either event, please contact: Zachary Amey at (585) 786-2251 or email zta3@cornell.edu. You can also register online at: https://reg.cce.cornell.edu/FoobathtreatmentDiscCourse-2_256
For course specific questions contact

Libby Eiholzer (607-793-4847) or Jerry Bertoldo (585-281-6816)
*Not enrolled in the NWNY Team? Contact your local CCE Office for enrollment information.

Group Calf Feeding

By: Timothy X. Terry
Dairy Strategic Planning Specialist

This past weekend (Feb. 25-27) was the annual NY Farm Show held at the NYS Fairgrounds in Syracuse, NY. Like Empire Farm Days, there really is too much to see and truly appreciate in a single eight hour day. In fact, I only managed to get through three of the six exhibit buildings. Of course, this also included a 2-hour seminar on the latest and greatest in robotic automation. It's phenomenal what has been and is being done to address the labor requirements of repetitive or menial tasks related to milking, feeding, and calf care. Some of these units have a surreal, almost art deco-meets-Buck Rogers appearance to them, but I digress…

Photo source: GEA Technologies

Calf care still seems to be a hot topic in the farming community. More specifically, "Do we go from the tried and true, but labor intensive, calf hutch system to the more labor efficient, but potentially capital intensive, group housing system with automated feeders?"

Upside –

So other than labor efficiency what are the benefits?

- Less labor time means more management time. Now you can be more of a manager making sure calves are growing well, are dehorned on time, tagged, vaccinated, etc.
- More space per calf. May be debatable, but it is contiguous space and it is shared with other calves. In a 4' x 8' hutch plus a 4' x 4' yard you have 48ft^2 and most group housing systems aim for ~50 ft^2.
- Because they are grouped there is the social interaction / socialization which seems to reduce stress, improve growth rates, and later, workability in the herd.
- You can increase the frequency of feedings, and even though each feeding may be smaller, the total daily amount may be greater. Moreover, the units can be responsive to increases in intake up to a set daily maximum – you get calves eating more and ramping up faster. This could ultimately translate to an additional 2,000 lbs. of milk in the first lactation (Soberon 2013).
- Even though there may be the occasional mechanical failure, the automated feeders never show up late, drunk, or not at all. The mix is consistent and never too hot or too cold, even for the 2 a.m. feeding.

Downside –

- Initial investment and set-up of the equipment can result in severe sticker shock as this usually requires a new building or renovation of an existing building. However, the ROI seems pretty good when you consider the salary and benefits paid to a competent calf feeder over 7 – 10 years.
- Cleanliness is paramount. In a 2011-2012 study, Endres followed 38 Minnesota dairy farms that used automated calf feeders and found that the most successful farms changed the nipples almost daily and made sure the reservoirs, hoses, and blending units were always clean. This will mean additional vigilance on your part.

- Some individual calf observation may be lost. When you're feeding bottles or buckets to individual calves you're forced to look at and evaluate each calf. Fortunately, many of these systems record consumption, number of visits, duration of visit, etc., and will flag calves that are not performing within the norms you set. However, this is just a flag; you will need to appraise each calf and decide how to proceed.
- Training calves takes patience on your part and a strong sucking response on the calf's part. Most farms wait until at least Day 2 (ave. Day 6) before starting a calf on an automated feeder. If the calf doesn't dive onto the nipple at feeding time she may need more time or is not a good candidate for the automated feeder.
- Potential for disease incidence (morbidity). Obviously, with calves in that close proximity to each other the chances of disease spreading throughout the pen is greatly increased. Again, vigilance on your part is required.

Even if you don't go the whole-nine-yards with automated feeders, you may be able to gain some of the benefits and efficiencies by strategically grouping the calves. By limiting the size of the pen (i.e. – 6 calves) or the age range (max. 4 days between oldest and youngest) you can "gang" or "mob" feed the group, provided they are equally competitive -- a timid calf will not do well here.

Either way, cleanliness and a sharp eye are keys to success. High coliform and/or standard plate counts (SPC) on feeding surfaces are ingredients for disaster. Feeders must be washed daily, bedding must be maintained, ventilation must be properly sized and functioning correctly, water should be available at all times, and grain should always be fresh – feed to a little more than consumption.

Remember: you are laying the foundation for future productivity. Just like a building, how well the foundation is laid determines how sound and how high the building can go. Ideally, you would like to double the calf's birth weight by weaning time (56 – 60 days).

Cooperative Extension Association of Livingston
NWNY Dairy, Livestock & Field Crops Team
3 Murray Hill Drive
Mount Morris, NY 14510

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Save the Date...

1 ***Livingston County Farmer/Neighbor Dinner,*** 5:00 p.m., Genesee River Restaurant & Reception Center, 134 North Main Street, Mt. Morris. For information contact: Livingston County Chamber of Commerce at 585-243-2222 x3

13 ***Herd Health & Nutrition Conference,*** 8:30 a.m. - 3:30 p.m., Holiday Inn, 441 Electronics Parkway, Liverpool/Syracuse.

19 ***Hoof Health Solutions Course,*** 10:00 a.m. - 4:00 p.m., Noblehurst Fieldhouse, 7955 York Road, Pavilion. RSVP by: April 8th., To register contact: Zach Amey at: 585-786-2251 or zta3@cornell.edu. ***This is a 2 day class***. For more details see page 11.

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April 16, 2016