Cornell Cooperative Extension

Northwest NY Dairy, Livestock and Field Crops Program

JUNE - DAIRY MONTH FOR \$1 YEARS

By: Jerry Bertoldo

June Dairy Month has become an annual tradition celebrating the dairy industry and its many contributions to our society. During its first two years, 1937 and 1938, it was called National Milk Month and ran from June 10 to July 10. Originally supported by the National Dairy Council (NDC), June Dairy Month was established to help stabilize dairy demand during periods of peak production as with the "spring flush" when cows went out to pasture.

"June Dairy Month" became the official title of the promotion in 1939 and focused on greater use of dairy products. Butter was rationed during World War 2 and the use of margarine encouraged. After the war with milk production high, the dairy industry efforts focused on promoting dairy product usage once again and regaining 'lost' butter consumption. The goal was "Sales, not Surplus." By 1950, retailers, producers and processors all worked together to promote dairy products in June.





June Dairy Month continued to evolve over the years with entire communities, both rural and urban, embracing it. Parades, free ice cream and dairy princess contests are familiar activities keeping with the theme. The cooperation between farmers and other community members is really the basis of what June Dairy Month is all about celebrating and using healthy and "made in America" dairy products.

Focus Points

Dairy Trends - Old, New or Recycled?	3 & 13
Is Dairy Crossbreeding Right for You?	4
Robotic Milking Systems - What We've Learned So Far (Part 2)	6-7
Upcoming Webinars	7
Understanding the Current Dairy Economy	8-9
How Does Your Compensation Strategy Compare?	10
Cornell Ag Workforce Development Program Established	11
Performance of Northwest NY Region DFBS Cooperators in 2017	14
Welcome New Precision Ag Specialist, Ali Nafchi	15
Dynamic Harvest Schedules	16-17
If Farming Were Easy	18-19
Regional Meetings	Back Cover

JUNE 2018

Ag Focus Cornell Cooperative Extension of: Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Seneca, Wayne, Wyoming & Yates

Postmaster: Send Address Changes: NWNY Team, Attn: Cathy Wallace, 420 East Main St., Batavia, NY 14020

Direct all inquiries & correspondence on advertising space/rates to Cathy Wallace at 585-343-3040 x138 or cfw6@cornell.edu



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



Jodi Letham Field Crops & Soils Livingston County 585.991.5437 (office) 585.208.8209 (cell) jll347@cornell.edu



Ali Nafchi Precision Ag Genesee County 585.313.6197 (cell) amn93@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



Cathy Wallace Administrative Assistant

Genesee County 585.343.3040 x138 (office) cfw6@cornell.edu To simplify information, brand names of products may be used in this publication. No endorsement is intended, nor is criticism implied of similar products not named.

Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Changes occur constantly & human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying pesticides.

By law and purpose, Cooperative Extension is dedicated to serving the people on a non-discriminatory basis.

Dairy Trends - Old, New or Recycled?

By: Jerry Bertoldo

ime changes many things, but there are human characteristics and challenges that endure. In the dairy industry quality and value of products, adopting technology and curiosity about what other people are doing spans the decades. Hard-to-believe advertising claims with glowing testimonials common in the early 1900's can still be found in advertising today. Pondering that new remedy or time saving device in a magazine or catalogue and ordering by mail has morphed into web searches and easy comparison shopping. People are still fascinated by the lure of sure cures and labor savers. The credit card has mostly replaced checks and cash in business transactions. The reliance on printed materials, the only means of bulk information a century ago, is much diminished.

How Different Were Things 100+ Years Back?

Pre-World War 1 dairy farmers were concerned about tuberculosis and brucellosis, diseases that could lead to the testing and condemnation of significant numbers of livestock. Since these were zoonotic and potentially fatal maladies to man, total eradication was the goal. The threat would not be well under control until the 1950's. Today there are only minor threats from these diseases. The causes of

milk fever and breeding problems were not understood, but this did not stop the manufacturers of patent medicine from offering a cure!

Pasteurization was introduced in the 1860's, but not mandated for milk sales decades. for It was considered too costly and cumbersome, not worth the The nutritional effort. "purity" and digestibility of raw versus pasteurized milk was debated by the medical community then and continues today. Consistent

cooling and quality of milk from farm to consumer, however, was sketchy before mechanical refrigeration. Up to a third of infant mortality was



traceable to "stale cow's milk" in urban areas. In 1908 Chicago became the first major city to require the pasteurization of milk and TB testing of all milk cows in order for dairy products to be sold within the city limits. In New York State, it was Sheffield Farms that built the first large scale creamery with pasteurizing capability in 1907. This was located in Delaware County, but numerous larger ones built by the company within New York City itself followed in the next ten years. Surprisingly, New York did not follow Chicago's lead in mandating pasteurization until 1914. Sheffield was also noted for pioneering the use of stainless steel in processing equipment in 1925 and the introduction of paper-packaging in 1930.

Cream and butter were the most profitable dairy products in the early 1900's. If these were made on

center, the

shortages by

marketing

difficult.

the farm, the skim milk by-

product was usually fed to

hogs and calves or simply

discarded. Unless you farmed

near a large population

all

production as fluid milk was

responded to fresh milk

canned fresh milk substitute

called "filled milk" made out

of the skim. The removed

butterfat was replaced by

vegetable based oils - a

foreshadowing of "alternative

dairy" perhaps? The standard

butterfat of 3.5% for whole

logistics

of your

Creameries

creating

of



Photo source: Hoard's Dairyman, 7.01.1921

milk was not established at the time and ranged from 3.3 to 4.0%.

Is Dairy Crossbreeding Right for You?

By: Nancy Glazier

A re you looking to generate a little more cash flow? Try breeding your low-end cows using beef semen. Dairy replacements are at a low value due to low milk prices and ample supply. According to Cornell/USDA Market News Reporters, wellmuscled crossbred calves are bringing a \$50-100 premium to Holstein calves. There needs to be a farm -specific strategy for this to be advantageous. To learn more, I recently met with Hannah Worden and Claire Mulligan to hear about ABS's InFocus program. This is one of several companies with an approach to this opportunity.

Each farm will need to come up with its individual plan. One of the first questions will need to that be answered, are you hanging on to cows that should be shipped? If so, count them out as culling will shift the number at the bottom. The goal is to breed the top cows to dairy, most likely sexed semen for improving the genetics, and bottom end

cows to beef semen from bulls best suited for crossbreeding. These percentages will need to be worked out on each farm. The middle cows will be bred as usual. You will need to determine how many replacement heifers your farm needs, generally 80-85% of the herd. The rest of the calves can leave the farm as beef.

How do you figure out which cows have low genetic potential? One way is through genomic testing, which can run in the \$45 range. Another is through pedigree review. Your semen company can help you; with either option accurate recordkeeping is critical. You want to make sure semen gets used on the proper cows.

When choosing a beef bull, it should complement the traits of the dairy cow. Dairy breeds are known for their marbling, but are lighter muscled with less desirable muscle conformation as compared to beef breeds. Select beef bulls with calving ease, moderate frames, heavy muscling, and above average rate of gain. Crossbreeding works with all dairy breeds.

There seems to be a difference of opinion on the conception rate using beef semen. Fertility may be diminished with the tail enders, while some feel beef semen improves the rate. Quality beef semen may cost more, but will be recouped.

Each and every calf born on the farm needs to be treated like a replacement: quality colostrum in a timely manner. As with replacement dairy heifers, immunity is critical when calves are to be raised as quality beef. Droopy calves will not bring a good price! These crossbreds also tend to be thriftier calves and may consume a lot of milk. Be aware they

> may want to hit the ground and get right up and want to nurse!

Calves will need to be identified as crossbreds to gain a better price than straight Holsteins. ABS has specific ear tags for their crosses, different color tags for calves from Holstein or Jersey cows. An observation has been the calves that look "beefy" will bring a better price, too. Though not part of the reports, demand has

been high and steady with little price fluctuation, according to observations of two of Cornell/USDA Market News reporters. Reports can be found at <u>https://www.ams.usda.gov/market-news/livestock-poultry-and-grain-list-reports</u>.

This concept has been around for several years, but is now gaining momentum. Some of the pieces are still coming into place. There are discussions underway with auction markets to hold special sales for these crossbred calves. There is also potential for pooling these calves or even holding graded (by USDA certified graders) sales. There are opportunities for farms to raise them, either as another income stream or a new enterprise. Some farms are utilizing old heifer facilities or old freestalls after exiting the dairy business. Options include raising them to weaning, up to 500 lbs. and to finished weight.



Commitment to Quality and Service

Since 1912, providing you quality feed and independent service for Western NY farmers.



Full Line of Complete Feeds at Competitive Prices
"Exclusive" Extruded Full Fat Soybeans "Steamed Rolled" Flaked Corn

Customized Feeds and Complete Nutritional Feed Programs
Dairy Production Consultant Fertilizer Blending: Liquid and Granular Custom Spraying and Crop Service Exclusive Manufacturer of "Country Magic Dog and Cat Food"

Working Relationships with Your Vet and Consultants for "YOUR Bottom Line"
PLUS Access to the Latest Technology in the Feed Nutrition Business -

See our great prices on Carhart Jackets and clothing to keep you warm this winter!



Robotic Milking Systems – What We've Learned So Far (Part 2)

By: Timothy X. Terry

Farm Strategic Planning Specialist, Harvest NY

Here are some more of those important tidbits I promised.

- Minimize the obstacles to and from the robot itself. There should be a minimum of 8' of clearance at the entrance and exit of a single robot, but 14' between robots in tandem.
- Sort pens are difficult to size. Of the three farms we toured none utilized sort pens. They all felt that it would be empty >80% of the time and that the money would be better invested in several strategically placed gates and manger headlocks.
- Fetch pens (where you gather cows that haven't visited the robot lately) are best kept small and temporary. When you fetch a cow you want to put her into the robot right away so she gets the idea that it's important to go to the robot. Generally, you'll fetch the cows only one or two at a time. Placing her/them in a small pen will encourage them to enter the robot ASAP. Blocking entrance traffic from the rest of the herd until the fetch cows are milked will help speed the process. It's not unlikely that a cow has to be fetched only because she is a little timid. By blocking other traffic it leaves her more comfortable to enter the robot. The pen should be temporary only in the sense that once the fetch cows are milked the gates can be lifted or swung out of the way so that the entrance is not obstructed. That said, whether sorting or fetching, it's important to think strategically about placing the gates. By opening and/or closing the right gates, one person should be able to easily sort or fetch a cow.
- RMS barns tend to be much quieter. As such the cow's behavior becomes more docile and workable, so sorting or fetching is not usually the rodeo it used to be when cows were gathered up 2-3 times per day. In some cases they become obnoxiously friendly, which means servicing a waterer or circulation fan can become a mob scene.
- With few exceptions, a Free Flow strategy works better than Guided Flow. In Free Flow a cow is able to get up and get a drink or bite to eat and then lay down which maximizes lying time (see previous). In Guided Flow she has to proceed



through the robot before or after her meal in order to lie down again. Depending on the traffic at the robot this will increase her standing time and cut into her lying time. It could also contribute to a slug feeding behavior as she may opt for only a few large meals hours apart in order to avoid going through the robot. Moreover, this puts additional, unproductive pressure on the robot because she will have to cycle through the robot and this takes time away from other animals attending the robot.

- Place waterers right outside the exit of the robot. Just like in a parlor, cows will drink the majority of their water immediately following milking. However, this waterer should be at least 10' away (15' is better) from the robot exit so as to not hinder cow flow.
- Figure an RMS to service a maximum of 60 cows. More than this and wait times increase and daily visits decrease you'll want to aim for that 2.8-2.9 visits/cow/day target. In practice 55-58 cows per RMS is better, especially in higher producing groups or herds. This allows animals to cycle through comfortably, including those peak production animals coming 4-6 times/day, as well as give you some downtime for daily maintenance.

- Start up an RMS at only 80% of capacity (<50 cows/robot). This gives the cows time to learn the robot and vice-versa. Cycle times for each cow will be longer until they get used to the sounds and sensations associated with the system. Don't limit the visitations during the first few days. If a cow wants to visit 19 times, let her; however, you may want to limit grain feeding after the third or fourth visit. The RMS experience should be as pleasurable as possible.
- Switching to an RMS doesn't have to be all or nothing. In fact, switching in a group-by-group manner will make the transition easier while also taking some pressure off the existing system. This may get you a few more years out of that aged parlor, and give you a way to milk the older cows who are more likely to refuse the RMS. In smaller herds the group-by-group manner may not be an option. However, starting with a small group of early lactation cows and then adding to the group as cows freshen in may work better.

Next month I'll conclude with the reasons and considerations the tour farms cited in making their decision to install an RMS.

Upcoming Webinars:

"Supervise Hoof Health with a No Lameness Tolerance Policy"

June 11, 1:00 p.m. - 2:00 p.m. Presented by: Karl Burgi Dairyland Hoof Care Sponsored by Zinpro https://hoards.com/flex-309-Webinars.html

Still Time To Plant Buckwheat



Guaranteed Price for 2018 is \$23.50 per cwt.

Buckwheat can be planted as late as mid-late July in many areas and is fast growing — 70 days from planting to harvest. May be able to double crop after winter wheat.

Buckwheat improves the soil and suppresses weeds.

Buckwheat needs very little attention during the Growing season.

Buckwheat makes a great rotation crop.

Buckwheat often grows well on low-fertility land.

Buckwheat is a high-yield crop. The Birkett Mills offers growers a specially developed, high-yield seed variety.

Buckwheat requires no chemicals and little or no fertilizer, producing savings in labor, fuel and chemical inputs.

There's still time to plant buckwheat in 2018. So, let's talk. We're looking primarily for full-production, contracted commercial, or, if you are a certified organic farm, we'll contract organic buckwheat as well. And, for those not wishing to contract, we also offer both commercial and organic cover crop buckwheat seed.

This year start managing price stability, crop size and the changing export market, contract with The Birkett Mills, where both price and market are guaranteed before you plant.



PO BOX 440 PENN YAN, NY 14527

PHONE: (315) 536-3311 FAX: (315) 536-6740 WEB: THEBIRKETTMILLS.COM

Understanding the Current Dairy Economy

By: Libby Eiholzer

Look for the Spanish translation of this article in the June issue of the Dairy Culture Coach, Libby's bilingual newsletter! Email Libby if you would like to receive the newsletter.

H as your boss been super stressed out or grumpy lately? Were you hoping for a raise and didn't get one this year? You're not alone. Dairy farmers in New York and all across the world are struggling with low milk prices, which can have a real impact on day-to-day life on the farm for owners and employees alike. When the price of milk is low, it can be hard to make money and pay bills: two things that are essential when running a business like a dairy farm!

Who sets the price of milk?

Most dairy farms in New York sell milk to a cooperative. The cooperative then distributes the milk to processing facilities that it owns (as is the case with Upstate Niagara), or sells it to other independent companies, who own and operate processing facilities (like Byrne Dairy or Sorrento). Other cooperatives like Dairy Farmers of America own some processing facilities and sell some milk to private companies like Chobani, and others.

The minimum price a cooperative or independent company must pay farms for the milk is based on a formula established by the Federal Milk Marketing Order (FMMO), which is controlled by the federal government. The FMMO determines the minimum price that processors are required to pay farmers or cooperatives for milk, and it depends on how all the milk in the order will be used (to sell as fluid milk, as a soft product like yogurt or sour cream, as a hard cheese, or as butter or dry products). The pay price is based upon recent market prices of dairy products. Processors or cooperatives can pay farmers an added market incentive and/or bonuses for quality, etc.

So what does this have to do with your boss's mood? The price of milk has been very low now for four consecutive years. It's normal for the price of milk to fluctuate, but the price cycles have gotten longer and more volatile in recent years. Milk is sold locally in New York State, but also between states, and even internationally. Mexico is actually the largest buyer



Source: <u>http://future.aae.wisc.edu/data/annual_values/</u> by_area/10?area=NEW+YORK&period=complete

of dairy exports from the US. The problem right now is that there is too much milk on an international level. There's more milk than there are processers to buy it. With time, the problem will fix itself. Some farmers will stop growing their farms, and others will go out of business. As the total amount of milk being produced decreases, the price will start to rise again.

How can you help?

While nobody can change the price of milk, farms do have some control over the total amount of money they are paid. If the cows produce more milk, or there is more fat and protein in the milk, then the farm gets paid more. Most cooperatives also pay the farm more if the milk quality is better, meaning that the somatic cell and bacteria counts are lower. The best way to affect this is by making sure that cows are well cared for and comfortable. For example:

- Increase milk production -
 - Push up feed frequently and clean waterers so that cows eat and drink more
 - Keep stalls clean and get cows back from the parlor as soon as possible so they can rest
 - \circ Turn on fans in hot weather to keep cows cool
- Improve milk quality -
 - Thoroughly disinfect and clean teats before attaching the milking machine
 - Keep the parlor and stalls clean
 - \circ Report cows with mastitis quickly

The other major way to improve the farm's finances is by reducing expenses.

- Conserve resources -
 - Don't let the water run, fix leaky pipes or faucets.
 - Turn off the lights when you leave a room. (Both at the farm and at home).
 - Don't let machinery run when you aren't using it.
 - Find the most efficient way to use your time at work. Time is money!
- Create less waste -
 - If you have an extra pair of new milking gloves in your pocket at the end of your shift, don't throw them out! Put them back in the box or save them until the next shift.
 - Make sure containers are empty before throwing them out (chemicals, medicines, etc.)
 - Use a scoop to measure the detergent you use to wash towels so you don't use more than you need. It may only be worth pennies, but those pennies add up!

• In addition, let your boss know if you have suggestions that could help the farm save money.

Don't Despair

It's a hard time to own or work on a dairy farm. Eventually (and hopefully soon!) the milk price will recover. Until then, the best thing we can do is stay positive and focus on all the little things that we can control.





How Does Your Compensation Strategy Compare?

Would you like to know more about farm employee compensation trends? Do you want to compare and manage your compensation strategy with accurate, up-to-date, and relevant information? Then participate in the Farm Employee Compensation Benchmark!

How can you participate?

- 1. Gather information about one or a few of your workers for the year 2017. How much did you pay them: wages, bonus/incentive, benefits? And how many hours did they work?
- 2. Log directly into this website: <u>https://</u> <u>cornell.qualtrics.com/jfe/form/</u> <u>SV_d6h8UvVmdm9zsOx</u>, or look for the dollar sign on this webpage (agworkforce.cals.cornell.edu).
- 3. Enter another employee by simply clicking the link in Step 2 again. If you have different types of employees such as front line, middle, and senior managers, add a few representative employees to the benchmark.



4. That's all, you're done. Just look for the summary report from me in your email.

What do you get for this?

- Every person who submits at least one usable survey will get a summary and analysis of the benchmark data in a written report.
- Additionally, you can request a "My Employee" report to compare one or more of your employees to relevant peers in the benchmark. Just contact Richard Stup to provide you with the "My Employee" report.

All of your individual farm data remains confidential. Reports will only be issued in aggregated form as analysis and summary of the data with no way to identify individuals.

For questions or more information, contact: Richard Stup, Ph.D., Agricultural Workforce Specialist Cornell University College of Agriculture and Life Sciences Office: 607-255-7890 Email: rstup@cornell.edu Website: agworkforce.cals.cornell.edu



Cornell Agricultural Workforce Development Program Established



E very sector of agriculture is struggling to find enough workers with the skills needed to carry out the critical business of producing food. New York's food and agriculture industry has a \$37 billion economic impact in the state and includes over 35,000 farms, all of which depend on the agricultural workforce. With these facts in

mind, industry organizations and state government cooperated establish a new Agricultural to Workforce Development Program in Cornell University's College of Agriculture and Life Sciences (CALS) and Cornell Cooperative Extension.

Cornell's Agricultural Workforce program is focused on creating and maintaining positive agricultural work environments, compliance with applicable labor and employment laws and regulations, and developing excellent farm employee managers. Like most small businesses, farmers need to learn best practices for securing farm employees, complying with labor laws and regulations, managing people effectively, and creating great places to work. The goal is profitable farms and excellent work experiences for farm employees.

The Ag Workforce program will leverage expertise and conduct research across disciplines to focus on solving problems and enhancing the quality of the agricultural workforce. Farmers will learn management and leadership practices used by the most successful managers to create and retain a highly engaged, successful, and high performing workforce.

Current Activities

- A website is up and running (<u>http://agworkforce.cals.cornell.edu/</u>) to provide tools and resources for human resource management, leadership, workforce regulations, and to share relevant ag workforce research.
- The <u>Ag Workforce Journal</u> is published regularly to address current issues and spotlight important topics.

- An Employee Onboarding Project is just getting started with the support of many industry partners. This project will create resources to help farm employers start new employees quickly, professionally, and safely.
- Providing tools, resources, and education about best management of employer-provided worker housing.

Leadership

The Cornell Agricultural Workforce Development program is led by Dr. Richard Stup, a senior extension associate in Cornell CALS. Dr. Stup has Bachelor's, Master's, and Ph.D. degrees from Penn State University with his doctoral work focused on Workforce Education and Development. He was a Human Resource Management Specialist with the Penn State Dairy Alliance program from 2000 to 2008, serving as Director from 2006 to 2008. He then joined AgChoice Farm Credit as Vice-President, Director of Business Management Services, and Senior Vice President from 2008 to 2015. In 2016, he founded a new business called Ag Workforce Development which focused on leadership, organizational development, and human resource technology for farms and agribusinesses.

Wednesday Webinars in Spanish

The Use of Antibiotics & Vaccines

June 13, 12:30 p.m. - 1:00 p.m. *Presented by:* Franco Francisco Leal Yepes

These webinars will be presented entirely in Spanish. No registration needed. Just go to the website: <u>https://prodairy.cals.cornell.edu/webinars/spanish-webinars</u> at the time of the webinar and clink "Join Webinar". Recordings will be posted to the website afterwards.

SPECIALIZING IN PROVIDING QUALITY



(2) 2007 Western Star 4900SA. 475 HP CAT C15 Diesel, 8LL Trans. Tri-Axle, Eng. Brake, #5728**\$49,500**



2004 Western Star 4900, CAT C12, 430 HP, Eng. Brake, 16KFA, 46KRA, #5755



2005 Kenworth T800, CAT G13 Dsl. Allison Auto, T/A, Eng. Brake, 4.78 Ratio, 22.5 Tires, #5719\$53,90 \$53,900



1997 Mack RD690 S, 300 HP Mack 20' Steel Box, 22.5 E7, 10 Spd., Tires, 250" WB, #5312 \$32,500



2007 Peterbilt 378, 475 HP CAT C15, Eng. Brake, 18 Spd., T/A, 24.5 Tires, Polished Alum., #5416**\$45,500**



2006 Western Star 4900SA, 550 HP CAT C15, 18 Spd., T/A, Eng. Brake, 24.5 Tires, #5726...\$44,000



2003 Kenworth T800, C10 CAT 335 HP, 8LL, T/A, 5.43 Ratio 22FRT/46Rears, #5736cc . \$41,900



2005 Western Star 4900SA Daycab, CAT C15, 475 HP, Eng. Brake, 13 Spd. 20KFA, 46KRA, #5760



2000 Mack RB688S, E7 Mack 400 HP, Eng. Brake, 8LL, 22.5 Tires Spoke Wheels, #5441. \$26 \$26,250



2002 Intl. 7400, 300 HP Intl. DT530 Dsl., T/A, 22.5 Tires, All Steel Wheels, 215" WB, #5732 ... \$22,900



1998 Oshkosh FF2346, 22.5 Tires, L10 Cummins, Alum. Wheels, 214" WB, 6x6 C+C, #5737 **\$23,900** \$23,900



2008 Mack Pinnacle CHU613, Mack MP8-485, Eng. Brake, 18 Spd. T/A, 22.5 Tires, #5675 \$38,250



2002 Kenworth T800B, C12 410 HP, Eng. Brake, 8LL, Tri-Axle, 20/46 Rears, Dbl Frame, #5744 . \$42,900



2006 Intl. 7600, 385 HP Cummins ISM Dsl., 8LL, T/A, 22.5 Tires, Steel Wheels, 266" WB, #5745 ... \$35,500



2004 Kenworth T800, 455 HP CAT C12 Dsl., 10 Spd., T/A, Eng. Brake 22.5 Tires, #5720 \$36,500



2004 Volvo VHD64B200, 395 HP Volvo VED12, Eng. Brake, Allison HD4560P 6 Spd. Auto, #5676 \$27,250



2009 Peterbilt 367, 475 HP CAT C15, Eng. Brake, 8LL, 3.70 Ratio, 22.5 Tires, 365,000 Mi., #3874 . \$58,500 \$58,500



2006 Mack Granite CT713, Mack



2005 Kenworth T800, CAT C15 475 HP, Eng. Brake, 8LL Manual, Dbl. Frame Winch Truck, #5749. \$49,750



2006 Intl. 7600, 330 HP Cummins ISM Dsl., 10 Spd., 22.5 Tires, Steel Wheels, 256" WB, #5731 ... \$37,900



1997 Mack RD690 S, 300 HP Mack E7, 10 Spd., 20' Steel Box, 22.5 Tires, 250" WB, #5312 \$32 \$32,500



2008 Kenworth T800, 350 HP Cummins ISM, 9LL, 20/46 Rears Lockers, 77, 333 Miles, #5734 \$57,900



2006 OSHKOSH F2346 6x6!!, 320 HP Cummins ISM, 10 Spd., T/A, 22.5 Tires, 211" WB, #5582 \$44,900



2007 Mack Granite CT713, 370 405 HP, 8LL, Tri-Axle, Eng, Brake, HP Mack MP7, Allison Auto, 18/44 22.5 Tires, 273" WB, #5665**\$49,500** Rears, 220" WB, #5663 ... **\$34,850**



2905 Simpson Rd • Caledonia, NY 14423 585-366-0087 See All Inventory At www.caledoniadiesel.com

Continued from page 3

Few dairymen were formally educated in animal husbandry, business or agronomy a century ago. Magazines, industry handbooks and Extension Bulletins offered a window into the latest trends with more scientific backing than had been available previously. Management guides for patrons were published by large milling companies like Quaker Oats and Ralston Purina with animal feed business as well as regional feed mills such as Tioga and Beacon Milling. Industry magazines such as Hoard's Dairyman also provided an opportunity for farmers to write in for answers to cattle health and production questions. Selection of good breeding stock was covered. They could read about examples of what to grow or buy for good balanced rations. Like today, admonishments for cutting hay too late and expecting good results none the less were there to be found.

The challenges of markets and expenses were a common subject for articles. Detailed accounts of expenses and income were offered by readers. Uncovered scandals such as Erie County's Cabana Farm world record production fraud of the 1920's caught readers' attention as most scams still do now.

Relocating dairies to the Southwest was promoted by land companies and the railroads. You could "homestead" 160 acres in Western Canada. Has the other side of the fence always been greener?

The present dairy economy is possibly the most worrisome since the 1931-1939 Depression Era stretch when costs on average exceeded the price of milk. At its worst in 1932, milk cost twice as much to produce as the farmer was paid for it. What will happen as time passes? Hard to say. Change is inevitable, but the dairy industry will endure. The progress and efficiency in producing Nature's Most Perfect Food will not be lost. The pride that comes with the work, culture and values of dairy farming will remain part of the men and women in the industry well into the future.





Performance of Northwest NY Region DFBS Cooperators in 2017 – Preliminary Results

By: John Hanchar & Joan Petzen

C ummary

- Milk receipts per hundredweight (cwt.) rose
 8.5 percent to \$18.84 per cwt. when compared to
 2016.
- In 2017, the operating cost of producing a cwt. of milk was \$14.97, a decrease of 3.9 percent relative to 2016.
- * As of May 9, 2018, preliminary results indicate that Northwest New York region (NWNY) dairy farms in Cornell University Cooperative Extension's Dairy Farm Business Summary (DFBS) Program achieved greater levels of profit in 2017 compared to 2016 -- for example, in 2017, the rate of return on all assets without appreciation averaged 4 percent compared to 0 percent in 2016.

Introduction

The results reported here represent averages for the following.

- 34 NWNY dairy farms cooperating in 2016, preliminary, data accessed May, 10, 2017
- 33 NWNY dairy farms cooperating in 2017, preliminary, data accessed May 9, 2018

The averages reported for 2017 and 2016 are not averages for the group of farms that participated in Cornell University Cooperative Extension's Dairy Farm Business Summary and Analysis Program (DFBS) in both 2017 and 2016. However, the averages below reflect a large number of farms participating in both 2017 and 2016, suggesting that the results reflect to a fairly large degree the same farms for the two comparison years.

Size of Business

- The average number of cows per farm for 2017 to date is 955 compared to 1038 in 2016.
- Worker equivalents per farm are 19.3 and 21 for 2017 and 2016, respectively.
- ♦ Tillable acres totaled 1,709 and 1,990 for 2017 and 2016, respectively.

Rates of Production

- Milk sold per cow averaged 25,763 in 2017 compared to 25,890 in 2016.
- Hay dry matter per acre rose 11.2 percent to 3.5

tons, while corn silage per acre rose from 15.9 tons to 19.1 tons.

Income Generation

- Gross milk sales per cow rose from \$4,497 in 2016 to \$4,853 in 2017, a change of positive 7.9 percent.
- ◊ Gross milk sales per hundredweight (cwt.) rose from \$17.37 to \$18.84.

Cost Control

- Dairy feed and crop expense per cwt. of milk was for the most part unchanged, averaging \$7.33 in 2017 compared to \$7.36 in 2016.
- In 2017 the operating cost of producing a cwt. of milk was \$14.97, a decrease of 3.9 percent relative to 2016.

Profitability

- Net farm income without appreciation per cwt. of milk averaged \$2.06 in 2017 compared to \$0.13 in 2016.
- Rate of return on equity capital as a percent without appreciation averaged 4.1 percent in 2017 compared to negative 1.7 percent in 2016.
- ◊ In 2017, the rate of return on all assets as a percent without appreciation was 4 percent compared to 0 percent in 2016.

Final Thoughts

Are you interested in realizing the benefits of DFBS participation? Contact John Hanchar or Joan Petzen.



Welcome New Precision Agriculture Specialist, Ali Nafchi

By: Peter Landre, CCE (edited by Julie Kikkert)

On behalf of Cornell Cooperative Extension Director, Dr. Chris Watkins, I am pleased to announce the appointment of Dr. Ali Nafchi to the position of Precision Ag Specialist. Dr. Nafchi will be working with the Cornell Vegetable Program and

the Northwest NY Dairy, Livestock and Field Crops Team to help growers implement and/or optimize precision ag tools in their farming operations. Ali grew up on a family vegetable and crop farm and was actively involved in all aspects of farming and management. He earned a B.S., M.S. and Ph.D. in agricultural engineering with

a focus on precision agriculture. He has held postdoctoral research and extension positions at the University of Florida and Clemson University, focused on precision ag. During the past 5 years, Ali has been involved in a variety of projects dealing with sensor-based, site-specific crop input management and harvesting equipment. For example, he developed and adapted tools for variable rate nutrient management; a variable-depth tillage system for managing soil compaction; hardware for variable-



rate fertigation equipment for center pivot irrigation systems; and a new soil moisture sensor. He has also work closely with both research and extension personnel in and out of his discipline to bring precision ag solutions to farms. Most recently, he coordinated two research and extension projects at Clemson University, one funded by USDA-CIG and the

other by NASA. Ali began his position May 1st and is working out of the CCE-Genesee Co. office in Batavia, NY.



Dynamic Harvest Schedules

By: Joe Lawrence, Cornell CALS PRO-Dairy

This article appeared in PRO-DAIRY's The Manager in March 2018. To learn more about Cornell University's PRO-DAIRY Program, visit <u>https://</u> prodairy.cals.cornell.edu

In a whole farm context the focus on high quality forage has shifted to the right quality forage for each group of animals on the farm. This, however, is not an excuse to relax goals on producing high quality forage. We all know that a number of factors, from weather to equipment breakdowns, can ruin the best of plans. While it is not possible to manage the weather, steps can be taken to help manage for the weather.

To fully capitalize on matching the right quality forage to the right group of animals, it is necessary to align forage inventories of each feed with animal numbers. To consistently do this it is critical to characterize and organize fields in a harvest schedule that captures each field when forage quality is high. This process needs to be dynamic, not static.

STEP ONE is to have the mindset that each and every field on the farm has the potential to produce feed appropriate for high producing lactating cattle. Factors such as plant species and soil drainage will certainly influence the likelihood of capturing that high quality. In the Northeast, where grasses and grass legume mixes are common, the general order for harvest is shown in Figure 1.

While grasses require the earliest harvest timing, well managed grasses continue to prove their merit in rations for high producing lactating animals, with harvest timing being key to quality.

"While grass species and variety selection, as well as fertilization issues are important, harvest management will determine the success or failure of grass silage as high producing dairy cow forage," reported Cherney and Cherney in a "Feeding Grass to Dairy Cows" article published by *Forages*.

Additionally, nitrogen management is instrumental in bolstering grass performance, according to "Fertilization of Perennial Grasses" by Cherney et al. in *Forages*.



Harvest timing for first harvest in the spring is critical to the quality of that cutting and to set the stage for subsequent harvest. Information on timing harvest is discussed in the PRO-DAIRY Forage Management Sheet: *Monitoring 1st Cut Harvest Timing*, found at: <u>prodairy.cals.cornell.edu/</u> <u>production-management/resources</u>.

STEP TWO is to acknowledge that despite our best intentions, some fields will not be harvested at optimum timing, leading to the need for a dynamic harvest plan. If we set the goal for maximum forage quality from each field, weather, logistics and other unknowns will likely provide you with the lower quality feeds you need for non-lactating animals. Furthermore, to be in the position of selling high quality forage and buying lower quality forage, is certainly desired over the inverse.

Many farms identify fields they anticipate to harvest for "heifer feed" in advance. These fields may contain more grass or may be poorly drained, causing harvest delays many years. While these fields are more likely to be harvested at a later stage on any given year, if you have planned this in advance, you have sealed their fate before the harvest season begins. This approach certainly assures you will have adequate feed of a quality suitable for nonlactating animals, but that should not be the goal. The goal should be to assure an abundance of lactating quality feed and let the rest play out as it may.

Figure 2 illustrates a simple example of ordering ten fields for harvest by stand composition, as well as a scenario of likely conditions at the time of harvest needed to achieve high quality forage. In both cases the goal is to capture six fields at the desired high quality needed for lactating animals and four fields for non-lactating animals.

The Rigid Harvest Schedule in Figure 2a depicts what is likely to happen when a set of fields (four fields) are predefined as non-lactating quality feed and consequently ignored at their optimum harvest timing. This leaves six fields to meet the needs of lactating animals. However, a not uncommon scenario of conditions during this sample harvest season results in only 50% of the fields planned for lactating quality feed actually meeting the standards.

By comparison, the Dynamic Harvest Schedule in Figure 2b illustrates a strategy where all ten fields are targeted for high quality feed and through the same sequence of conditions results in six fields harvested at the standards for lactating animals, with 100% meeting the desired standards, and still provides the four fields needed for non-lactating animals. With this strategy you are able to manage for the weather, instead of letting the weather manage you.

While this example simply uses fields rather than					
actual acreage needed, and is focused on an					
individual cutting, it provides the framework needed					
to implement this approach. The same process often					
works itself out with multiple cuttings over the					
course of a season, as well as for harvest of other					
forage crops.					

A similar approach was evaluated in a California study where researchers compared yields and economics of a "sequential" cutting system versus a "staggered" cutting system for alfalfa. The sequential system is described as "Habit, the field's proximity to the headquarters, or the dryness of a field typically determines the harvest order. Once an order is established, the same harvest sequence is followed for each subsequent cutting." It also states that "It is very easy to just miss producing 'dairy quality' and end up harvesting much of the alfalfa in one of the least profitable time periods" with this approach, according to an article by Orloff and Putnam in a Proceedings of the Western Alfalfa & Forage Conference. In contrast "A 'staggered' cutting schedule strategy, which targets some harvests for quality and others for yield and improved stand life, may be an effective approach. The number of 'dairyquality' cuttings was increased using a staggered cutting order."

2a. Rigid Haravest Schedule						2b. Dynamic Harvest Schedule					
Field ID	Proposed Harvest Order	Species	Conditions when High Quality	Plan Harvest for Lactating Animals	nned Delayed Harvest for Non-Lactating Animals	Ac Harvest for Lactating Animals	tual Delayed Harvest for Non- Lactating Animals	Plan Harvest for Lactating Animals	nned Delayed Harvest for Non-Lactating Animals	Ac Harvest for Lactating Animals	tual Delayed Harvest for Non- Lactating Animals
Α	1	100%	Favorable for		*		*	*		*	
в	2	100% Tall Fescue	Rain Delay		*		*	*			*
с	3	70% Grass, 30% Alfalfa	Favorable for Harvest		*		*	*		*	
D	4	70% Grass, 30% Alfalfa	Favorable for Harvest		*		*	*		*	
E	5	50% Grass, 50% Alfalfa	Favorable for Harvest	*		*		*		*	
F	6	40% Grass, 60% Alfalfa	Rain Delay	*		x		*			*
G	7	30% Grass, 70% Alfalfa	Favorable for Harvest	*		*		*		*	
н	8	20% Grass, 80% Alfalfa	Rain Delay	*		x		*			*
I	9	100% Alfalfa	Favorable for Harvest	*		*		*		*	
J	10	100% Alfalfa	Equipment Breakdown	*		x		*			*

Figure 2. Fields Ordered By Stand Composition

If Farming Were Easy...

By Joan Sinclair Petzen

In years of good prices farms have the opportunity to grow, invest and build a cushion of either cash or a credit line to use when things are less lucrative. When prices are less favorable is when managers have an opportunity to really fine tune farm operations. With all the predictions for a low income year on the farm, it is time to get creative.

Every farm has their protocols, systems and ways of getting things done. When the margins are tight, like they are right now, it is time to have everyone on the farm take a look at the systems with which they work. Ask employees and/or family members to review each procedure to look for changes that might be made to reduce costs or enhance revenue.

I am hearing many reports of manure lagoons on dairies that are brim full this Spring. This is both a curse and a blessing. The curse, needing to move massive quantities of manure in a short time when it feels like things are already weeks behind due to the weather. The blessing, there are a lot of nutrients available. Sample manure as you are loading out and be certain your application rates are making maximum use of nutrients available on farm allowing the farm to economize on purchased nutrients anywhere you can. Are you creative enough to figure out how to apply manure as side dressing if needed?



ENERGY A DECADE OF EXCELLENCE

- We support our local NY corn farmers by providing competitive bids for your old and new crop corn, including on-farm pricing. Payment within 2 days.
- Give us a call to discuss our high protein (31%+), low fat Dairy Distillers Grain.
 - Bulk commodity and grain transportation services available through our subsidiary, Shelby Transportation. Give us a call for a transportation quote.

Call now for more information: Corn: (866) 610-6705 Distillers Grain: (315) 247-1286 Shelby Transportation: (585) 734-4747 One farm I was talking with recently is reevaluating whether to purchase straw in baled form. Store it off site where it can be kept under cover. Then haul it to the feeding area to be chopped as needed throughout the year to add to the rations. An alternative could be to hire a custom operator to chop the straw in the field into their trucks and store it in ag bags near the feeding area. Then it will be on site, consistently chopped and readily available to incorporate into feed rations when needed. Another alternative would be to purchase it in baled form and tube wrap it for storage near the feeding area and chop as needed to feed.

To make a sound evaluation of this potential change requires some financial analysis. The partial budget is an excellent tool for evaluating decisions related to changes in procedure or substitutions of one input for another. It will be necessary to gather a little information about the time and inputs required for the current process and get cost estimates on the alternative processes. This information can be plugged into the partial budget to project the change in profitability and/or cash flow from the alternative processes. In case described above, two partial budgets will be required, one to compare each alternative to the present system.

The partial budget is a flexible tool that can be used to evaluate the impact of a change on either profitability or on cash flow. To evaluate the impact on profitability, changes to the depreciation, inventories and opportunity costs must be considered. When evaluating the impact of a change on cash flow, strictly changes to cash inflows and outflows from the proposed change are measured. Both types of partial budgets are contrasted in these tables below.

A partial budget helps one to quantify the financial

Proposed Change:

Assumptions:

Added Returns:

Reduced Costs:

Reduced Costs (A)

Total Added Returns and

impact of a proposed change in an objective manner. It is important to make thoughtful assumptions about the impact of the change. This is particularly true with the "soft" estimates needed in the process. This is a powerful little tool. Once the concept is understood it becomes second nature to many managers. For a more details on partial budgeting visit our web page: https:// nwnyteam.cce.cornell.edu/submission.php?id=238.

Or for a spreadsheet you can download visit: https:// www.ag.ndsu.edu/aglawandmanagement/agmgmt/ coursematerials/partialbudgetanalysis. Using this tool will help a farm manager to objectively evaluate small changes in a farm business that can add to the profitability and sustainability of the operation.



Change in Cash Flow (A-B)

Net Income from Change (A-B)

Cooperative Extension Association of Livingston NWNY Dairy, Livestock & Field Crops Team 3 Murray Hill Drive Mount Morris, NY 14510 Nonprofit Org. U.S. POSTAGE **PAID** Permit No. 298 Rochester, NY

Postmaster Dated Material Please Expedite

Save the Date...

June 2018

- 1-2 *Wool Pool*, 9:00 a.m. 4:00 p.m., Washington County Fair Grounds, 392 Old Schuylerville Road, Greenwich 12834
- 2 **Beef Quality Assurance Training**, 9:00 a.m. 12:00 p.m., Tullyfergus Angus, 8974 Clyde Marengo Road, Lyons. \$5/person (no lunch), For more information: Nancy Glazier at 585-315-7746 or nig3@cornell.edu
- 7 Small Grains Management Field Day (CUAES), 9:30 a.m. 12:00 p.m., Musgrave Research Farm, 1256 Poplar Ridge Road, Aurora. For more information contact: Jenn Thomas-Murphy at 607-255-2177 or jnt3@cornell.edu
- 13 Wednesday Webinars in Spanish, The Use of Antibiotics & Vaccines, 12:30 p.m. 1:00 p.m., No registration needed. Webinar presented entirely in Spanish. Just go to the website: <u>https://prodairy.cals.cornell.edu/webinars/spanish-webinars</u>
- 14 Cattle Handling Systems Importance for BQA, 6:30 p.m. 8:30 p.m., Bill & Marie Kuipers, Wilmar Farm, 3532 Mote Road, Gainesville. <u>RSVP is required!</u> Cost is \$10/person or \$15/farm. For more information or to RSVP contact: Lynn Bliven at 585-268-7644 x18 or lao3@cornell.edu or Nancy Glazier at 585-315-7746 or nig3@cornell.edu

July 2018

- 4 **Independence Day**, Office closed
- 10-14 Yates County Fair, 2370 Old 14A, Penn Yan. For more information: www.yatescountyfair.org
- 12 *Aurora Farm Field Day*, 9:30 a.m. 3:30 p.m., Musgrave Research Farm, 1256 Poplar Ridge Road, Aurora. For more information contact: Jenn Thomas-Murphy at 607-255-2177 or jnt3@cornell.edu
- 16-21 Genesee County Fair, 5056 East Main Street Road, Batavia. For more information: www.gcfair.com
- 17-21 Livingston County Hemlock Fair, 7370 Fair Street, Hemlock. For more information: www.hemlockfair.org
- 18-21 Seneca County Fair, 100 Swift Street, Waterloo. For more information: www.senecacountyfairny.com
- 23-28 Orleans County Fair, 12690 State Route 31, Albion. For more information: www.orleans4-hfair.com
- 24-28 Ontario County Fair, 2820 County Road #10, Canandaigua. For more information: www.ontariocountyfair.com

August 2018

- 1-5 *Niagara County Fair*, 4487 Lake Avenue, Lockport. For more information: www.cceniagaracounty.org
- 3-5 Monroe County Fair, <u>NEW LOCATION</u>: 6565 East River Road, Rush. For more information: www.mcfair.com
- 11-18 Wyoming County Fair, 70 East Main Street, Pike. For more information: www.wyomingcountyfair,org
- 13-18 Wayne County Fair, 300 W. Jackson Street, Palmyra. For more information: www.waynecountyfair.org



Building Strong and Vibrant New York Communities

Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.