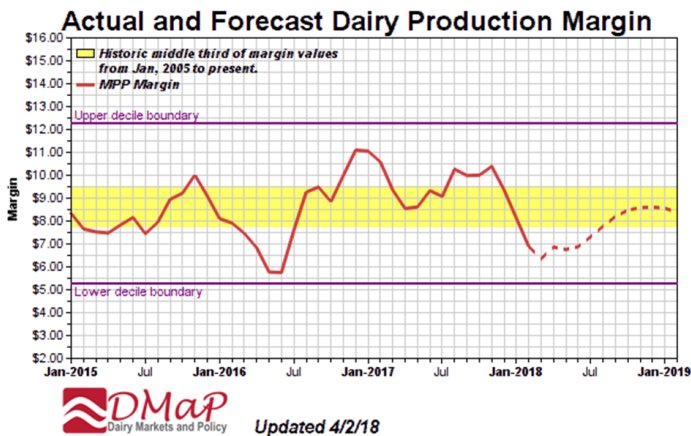


USDA Reopens Enrollment for Improved Dairy Safety Net Tool



Andrew M. Novakovic, Co-Director, National Program on Dairy Markets and Policy, Cornell University remarks:

“Insofar as the enrollment will allow farmers to go back to January, we will all know exactly how much the payments will be in January and February. It may well be that USDA will hold enrollments open long enough that we will also know March. In one sense that is a good thing but it also means that no benefit payments will be made until the enrollment period closes. Frankly, I think this will be pretty much a no-brainer. My quick arithmetic indicates that the February payment will pay for $\frac{1}{3}$ of the annual premium at \$8 coverage. The changes are significant enough for a large share of farmers that it just makes sense to give the new version a hard look. Mark Stephenson’s analysis shows some of the possibilities of the program. I would make two specific observations. First, I think it is likely that those who buy up at the highest levels will gain the most from program participation. Of course, there is some level so low that no payments would occur but it looks to me like the intermediate levels will not be as helpful even though the premiums are a bit lower. That means, if you are going to go you probably have to be prepared to go big. The MPP-Dairy decision tool can be used for assessing scenarios. When using the tool don’t misinterpret the statistically calculated “expected payment” as “you should expect to get this payment”.

USDA’s Farm Service Agency encourages dairy producers to consider enrolling in the new and improved **Margin Protection Program for Dairy (MPP-Dairy)**, which will provide better protections for dairy producers from shifting milk and feed prices. With changes authorized under the Bipartisan Budget Act of 2018, the U.S. Department of Agriculture’s (USDA) Farm Service Agency (FSA) has set the enrollment period to run from April 9, 2018 to June 1, 2018.

About the Program:

The program protects dairy producers by paying them when the difference between the national all-milk price and the national average feed cost (the margin) falls below a certain dollar amount elected by the producer.

Changes include:

- Calculations of the margin period is monthly rather than bi-monthly.
- Covered production is increased to 5 million pounds on the Tier 1 premium schedule, and premium rates for Tier 1 are substantially lowered.
- An exemption from paying an administrative fee for limited resource, beginning, veteran, and disadvantaged producers. Dairy operators enrolled in the previous 2018 enrollment period that qualify for this exemption under the new provisions may request a refund.

Dairy operations must make a new coverage election for 2018, even if you enrolled during the previous 2018 signup period. Coverage elections made for 2018 will be retroactive to January 1, 2018. All dairy operations desiring coverage must sign up during the enrollment period and submit an appropriate form (CCC-782) and dairy operations may still “opt out” by not submitting a form. All outstanding balances for 2017 and prior years must be paid in full before 2018 coverage is approved.

Dairy producers can participate in FSA’s MPP-Dairy or the Risk Management Agency’s Livestock Gross Margin Insurance Plan for Dairy Cattle (LGM-Dairy), but not both. During the 2018 enrollment period, only producers with an active LGM-Dairy policy who have targeted marketings insured in 2018 months will be allowed to enroll in MPP-Dairy by June 1, 2018; however, their coverage will start only after active target marketings conclude under LGM-Dairy.

USDA has a web tool to help producers determine the level of coverage under the MPP-Dairy that will provide them with the strongest safety net under a variety of conditions. The online resource, which will be updated and available by April 9 at www.fsa.usda.gov/mpptool. It allows dairy farmers to quickly and easily combine unique operation data and other key variables to calculate their coverage needs based on price projections. Producers can also review historical data or estimate future coverage based on data projections. The secure site can be accessed via computer, smartphone, tablet or any other platform.

For more information, visit www.fsa.usda.gov/dairy or contact your local USDA service center.

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We are pleased to provide you with this information as part of the Cooperative Extension Dairy and Field Crops Program serving Broome, Cortland, Chemung, Onondaga, Tioga and Tompkins Counties. **Anytime we may be of assistance to you, please do not hesitate to call or visit our office.** Visit our website: <http://scnydfc.cce.cornell.edu> and like us on Facebook: <https://www.facebook.com/SCNYDairyandFieldCropsTeam>.

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We put knowledge to work in pursuit of economic vitality, ecological sustainability, and social well-being. We bring local experience and research-based solutions together, helping our families and our community thrive in a rapidly changing world.

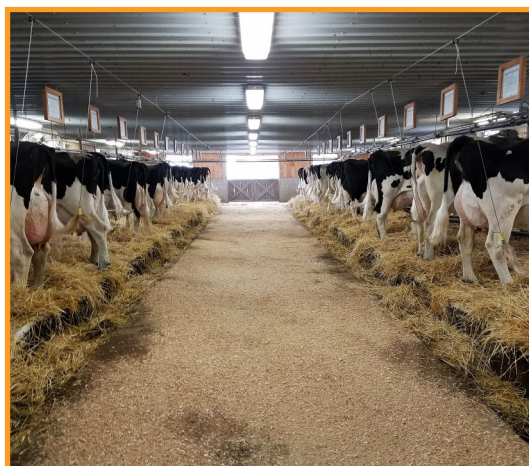
Building Strong and Vibrant New York Communities

"Diversity and Inclusion are a part of Cornell University's heritage.

We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities."

Now Enrolling Herds Linking Lameness and Lying Times in Tie Stall Facilities

Betsy Hicks, Area Dairy Specialist with the South Central NY Dairy & Field Crops Team is enrolling herds that house their milking string in tie-stall facilities in a project evaluating the effect of tie-stall housing upon lameness and lying times.



Q: What does it involve?

A: Betsy will meet with you to over the project and assessment in detail

On assessment, 40 cows will be assessed for body size and lameness and have data loggers attached to the leg for 1 week to measure lying behavior

Q: What do you get out of the project?

A: You will receive data from your initial assessment on lameness, lying behavior and facility and management factors, and form an action plan with changes specific to your dairy to positively impact lameness

Reassessment of lying time after changes are made if desired

Betsy will follow up with you periodically throughout the next 12 months to help implement and monitor changes

Q: Cost?

A: Free

Project funding made possible through NY Farm Viability

Enrollment is limited to 5 farms in the SCNY region this round.

Please contact Betsy Hicks to enroll at bjh246@cornell.edu or 607.391.2673



Pathogen-Based Treatment - Is on-farm culturing for your operation?

Betsy Hicks, SCNY Dairy Specialist

Current trends in dairy have producers asking how they can do things differently. Questions asked include how can we cut costs while maintaining production? How can we improve herd health without spending a lot of money? How can we reduce treatment costs without sacrificing herd health?

One thing to consider for all of these questions is pathogen-based treatment for mastitis. This can be done through a few different ways, but the basis for this strategy includes identifying cows with mastitis that are not systemically ill, obtaining a sample from the infected quarter(s) and culturing that sample for bacterial growth. By waiting 24 hours for the culture to grow and not treating the cow until the culture is read, producers are better able to identify which pathogen the cow is fighting and can use a treatment therapy prescribed for that. Why consider this management strategy? Often, over 20% of the time to be exact, a properly obtained milk sample will have no growth in a culture.

Dr. Daryl Nydam of Cornell University conducted a study to evaluate this strategy. A herd in NY was selected to be studied, and cows with mastitis enrolled into one of two treatments. The first group received pathogen-based treatment, while the second group of cows received blanket mastitis treatment. In all, they found that the length of clinical signs of mastitis did not differ for either group, post-mastitis event milk production was not statistically different, and odds of 30-day post-mastitis event survival was similar between the groups. What was significantly different, however, was the fact that the group that received pathogen-based treatment had, on average, three more days

of saleable milk than the group that received blanket treatment therapy. Treatment costs were reduced, and allowed for a 67% reduction in intramammary antibiotic use. In all, researchers estimate \$30,000 positive cash flow per 1,000 cows when considering all the positives for the pathogen-based treatment group.

So how can this strategy be implemented? If you live in an area where there is courier service to Quality Milk Production Services (QMPS), the only training needed is how to obtain an aseptic milk sample for culturing. If you don't, or if you want to culture on-farm, it is relatively easy to set up and obtain the proper training. Initial costs can be high with having to purchase an incubator, but costs of the plates are relatively inexpensive, running \$3-\$6 per plate depending on what type you choose. Many farms choose to work with QMPS to get the proper training required – sample technique, time of incubation and the interpretation of the different types of plates. Your herd vet is also a good resource in this instance, in terms of which therapy to use in the case of growth in the culture.

QMPS and the University of Minnesota Udder Health Laboratory have an agreement in place for the supplies and support of the Easy Culture II System in the northeast. To learn more about this system, you can read their manual at <http://dairyknow.umn.edu/topics/milk-quality/minnesota-easy-culture-system-user-s-guide/> and reach out to QMPS via <https://ahdc.vet.cornell.edu/sects/QMPS/LabServices/index.cfm>.



First Cutting Updates – Utilizing Alfalfa Heights as a Predictor for Quality

The SCNY team is going to monitor alfalfa heights again this spring to help predict quality and %NDF. Alfalfa height has been proven to be a reliable indicator of NDF values in the field for alfalfa, alfalfa/grass mixed and all grass stands. The team wants to identify fields that can be measured on a weekly basis. If you have fields that we can come out and measure, please let Janice or Betsy know! Results will be compiled on a weekly basis – to receive weekly email/text updates, please contact us at 607.391.2673 with your email address/cell phone number.

The numbers that are indicators for using alfalfa heights for NDF content are as follows:

100% grass stands should be cut when nearby alfalfa is 14 inches tall, to achieve 50% NDF

Begin cutting 50/50 mixed alfalfa/grass stands when nearby alfalfa is 22 inches tall, to achieve 44% NDF

Begin cutting 100% alfalfa stands when alfalfa is 28 inches tall, to achieve 40% NDF

Predicted days to cut are based on daily NDF increases for grasses of 1.0% point, 50/50 mixed alfalfa/grass stands of 0.8% points, and alfalfa of 0.5% points. Predictions are adjusted for the coming week's weather.

Typically NDF increases about 0.8 to 1.2 per day for grasses, with cooler weather being the lower end of the range and warmer weather being the higher end.

For alfalfa, NDF increases about 0.4 to 0.7 per day, also dependent upon warm/cool weather.

The weekly email will have a table of the locations around the region where we have measured the alfalfa height, as well as the elevation, and target date for harvest. Even if your fields aren't measured, you can use the location and elevation as a guide to conditions that may be similar to your own.

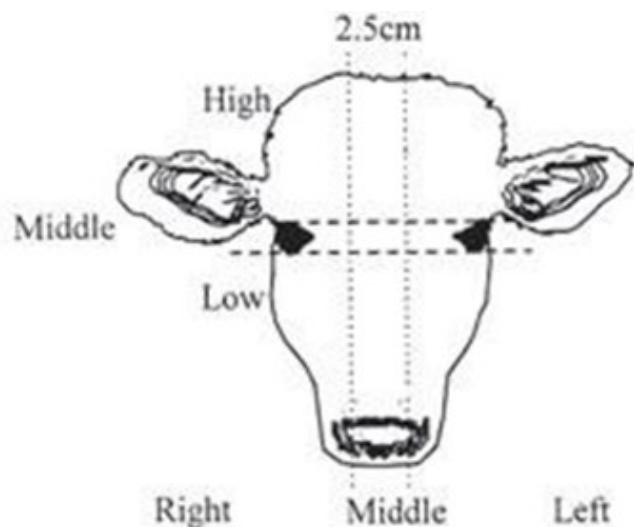


Cowlicks: An Indicator of Attitude?

Alyssa Couse; Agricultural Outreach Educator, Cornell Cooperative Extension of Jefferson County

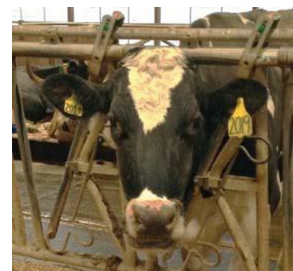
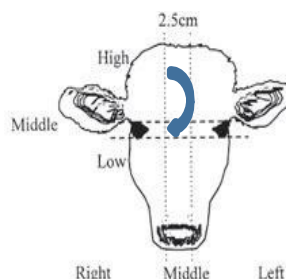
Wouldn't it be nice to be able to look at a calf and predict how it will fit into your herd in the future or how easily it might be trained to lead as a 4-H show heifer? Looking at the facial hair whorl, technically known as a trichoglyph, may be an easy visual indicator of cow temperament, reaction to novel environments, and even breeding soundness. It's hypothesized that facial hair whorl pattern and temperament are connected because hair follicles and skin develop from the same epithelium, or layer of cells, as the nervous system. The brain is the control center of the nervous system, so it is crucial for it to develop properly to allow the animal to function and behave normally. So is a normal facial whorl indicative of a well-developed brain?

Several studies have used facial hair whorls as a tool to evaluate temperament. Location on the face, shape, and direction of the whorl are important features to observe. Hair whorls are considered to be high if they are located above

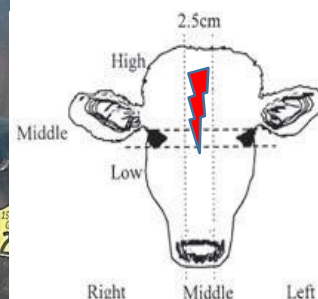


the eyes or low if they are below the eye line. You can note where the whorl is located laterally but it seems that its vertical location is the most useful. The ideal whorl to look for is one with a round epicenter that is centrally located between the eyes.

These cattle are the most likely to be calm, reasonable to manage and adapt well to novel environments. If a whorl is found higher on the face or is abnormally shaped, such as a lightning bolt shape, there is a greater chance the animal will be more excitable, nervous and harder to manage than cattle with whorls between the eyes below. The direction in which the swirl turns is typically clockwise, counter clockwise, or radial. Swirl direction has been associated with handedness in other species, like horses, but not cattle.



Betty is one of Miner Institute's most easy-going cows. Note the counter-clockwise whorl right between her eyes!



Gump, another cow in Miner Institute's herd, is a more aggressive animal and has a zig-zag whorl.

An animal that lacks facial hair whorls entirely tend to be more aggressive and easily agitated than those with whorls. In addition to temperament, research is exploring what other predictions can be made using facial hair whorls. Research has shown that hair whorl patterns could also be a predictor of fertility and growth rate. It was found that bulls with a round whorl between his eyes were more likely to have a high quality sperm. This is due to testicular development of a fetus. Studies have also suggested that young cattle with higher whorls tend to grow faster. Heifers with high whorls have been shown to be significantly heavier than those with medial and low whorls after 360 days in age. While hair whorls are only one of many factors that may affect temperament, fertility, and growth, it is safe to say that this easily identifiable trait may provide important information when making culling decisions. Evaluating hair whorls can be done at any stage of life because hair patterns never change...and they are free of charge!

*References available on request.

Alyssa Couse is the Agricultural Outreach Educator at Cornell Cooperative Extension of Jefferson County. Ms. Couse wrote this article as a research technician at the William H. Miner Agricultural Research Institute in Chazy, NY. It was published in the April 2015 edition of the Farm Report. She can be reached at 315-788-8450 ext. 278.

2017 CENSUS OF AGRICULTURE

YOUR VOICE. YOUR FUTURE. YOUR OPPORTUNITY.

If you produce or grow any agricultural products, including field crops, fruits, vegetables, floriculture and livestock, regardless of the size of your operation, you should fill out the 2017 Census of Agriculture form.

Responding to the Census benefits your operation, your community, and your future by:

- Strengthening farm and conservation programs.
- Improving infrastructure in your area.
- Helping create beginning farmer programs to protect the future of agriculture.

Deadline to complete your 2017 census of agriculture has been extended to April 30th.

Remember the Census of Agriculture is Your Voice, Your Future, Your Opportunity.

Plans are underway for a Dairy Girl Network Peer Group for the Central New York area. This peer group is focused on building camaraderie with other dairy women, to share ideas, experiences and encourage one another. We will have guest speakers covering a variety of topics with time for discussion and sharing. All women in any walk of dairy and interested are welcome to join us. We are planning to get started with our first meeting in early May. More details to follow.....



Please contact Melanie Palmer at mjp232@cornell.edu or 315-424-9485 extension 228 if you would like to be a part of the Dairy Girl group.

Seeking Farm Participants for Research

A team at Cornell University College of Veterinary Medicine is carrying out an investigation on the presence of foodborne pathogens, specifically *Escherichia coli*, *Salmonella* spp. and *Campylobacter* spp., among dairy cows originating from conventional and organic operations in New York State. The team is collecting milk filters, bulk tank milk, and composite fecal samples from these operations for comparison studies.

- Sample results will be shared with participating farms and all results will be kept confidential to protect participating operations.
- Knowledge generated will be used to look into novel management practices for participating farms to reduce these pathogens.
- The team is currently recruiting farms.
- If you are interested in participating or have additional questions about the study, please reach out to Cornell DVM/MPH Candidate, Leanne Jankelunas, by telephone at 845-637-0225 or by email at LNJ4@cornell.edu.

Fireside Chat– Managing During a Milk Price Fall

Wayne A. Knoblauch, Professor at Dyson School of Applied Economic & Management, Cornell University

(1) We have had dramatic milk price declines many times in recent dairy history. The decline of the mid-1980's, in the early 1990's and 2009 being the most serious in memory. Some dairy farmers will experience real pain and there could also be some big winners. I am going to focus on the pain component of the price decline.

(2) Significantly lower milk prices and therefore dairy farm profits, combined with lower asset values, translating into reduced borrowing capacity, pose a serious threat to the survival of many dairy farms. This current situation is different from the past in that the total economy is in difficulty. As a result, we may be facing a more prolonged period of low prices.

(3) What should a dairy farmer consider and what actions should be taken in times of very low milk prices? Let's apply our proven management principles and economic theory to this situation. Economic theory tells us that we need to look at the individual farm situation using both profit and cash flow analysis.

PROFIT

NOW: If cash receipts cover cash expenses, then continue to operate the dairy as long as there is some contribution to overhead. Cash expenses include items such as hired labor, veterinary fees and medicine, utilities, interest, and purchased feed. Farm produced feed/forage is now, in my opinion, a fixed or sunk cost and should not be included as a cost in the **NOW** analysis.

If cash receipts do not cover cash costs, then cutting all costs possible without deteriorating the net profit margin, selling unprofitable cows or making other changes to the cost and revenue stream must be implemented. There is no time to lose to make changes to the business.

PLANTING TIME: We must now include crop production costs as a cash cost in our analysis. To continue in production, the expected milk price over the next year should be such that it will cover all cash costs and generate some contribution to fixed costs. If that is not the result, then the **NOW** strategies previously discussed, as well as some longer term changes, should be adopted if they can be expected to reverse this scenario.

NEXT TWO OR THREE YEARS: To continue in production, the expected milk price will need to cover the cost of production, including the value of operator labor and management. Remember, profitability is the key to long run business survival.

CASH FLOW

NOW: Consider these options if you are covering cash costs, but cannot cash flow from operating. Refinancing, making interest only payments, selling non-productive assets, borrowing, improving the business, etc. should all be considered. But, only consider improving cash flow if you can expect to have a profitable business after planting time. If you are not covering cash costs, and cannot make changes to correct that situation, then liquidation or eating equity are your options. Eat equity only if there is a promise of significantly better days ahead. Remember, cash flow is the key to short run business survival. Note: eating equity simply means that the net worth or equity of your business goes down as a result of continuing to operate the business.

PLANTING TIME: If you can project to cover cash costs, including those associated with growing crops, then refinancing, making interest only payments, selling non-productive assets, borrowing, etc. should be considered. But, only consider improving cash flow if you can expect to have a profitable business after planting time and be able to cover scheduled debt payments and provide for family living. If you are not covering cash costs, and cannot make changes to correct that situation, then liquidation or eating equity are the options. Keep in mind that full or partial liquidation and eating equity can have serious long term consequences on your business.

NEXT TWO OR THREE YEARS: A business must be profitable to be sustainable in the long run. If you cannot project profits over the next years, then you likely will be eating equity. The only exception is if asset values increase dramatically and your strategy is to wait to sell assets later at higher prices. However you then become a speculator, not a business manager.

This crisis will also pass, as have other before. However, this current crisis will be very painful for many farmers. These trying times will severely stretch and test the management skills of all dairy farmers. We should not react out of fear, nor not react at all. Rather, we should do a careful analysis of where our business is and where we want it to go. Then do an analysis of the expected impacts of possible changes on both profit and cash flow before taking action. While difficult, we should also view this as a time to employ our financial management skills. Many professionals are available to help. Cooperative Extension, FarmNet consultants as well as others can give assistance, identify alternatives and provide an objective outside view of available options.

Do's and Don'ts for Dairy Farmers When Facing Financial Difficulty

Wayne A. Knoblauch, Professor at Dyson School of Applied Economic & Management, Cornell University

Do's

1. Complete a production and financial management analysis of your business for 2017. Determine strengths, but most importantly, areas for improvement with an immediate response and improvement in cash flow.
2. Complete a profitability and cash flow projection, for example, partial budget of the expected impacts of any changes made to improve the business.
3. Meet with your lender and share your financial management analysis and cash flow projections. Communicate with your lender often and provide periodic updates regarding your financial situation.
4. Continually review and update cash projections and partial budgets. Cash flow management is the key to surviving difficult economic times.
5. If you have past due balances, meet with suppliers to develop payment arrangements.
6. Effectively utilize farm produced feeds, especially forages.
7. Test all farm-grown forages and feed for nutrient availability. Evaluate the most cost effective commodities to purchase when feeding balanced rations, especially to early lactation cows.
8. Treat disease outbreaks, such as mastitis, before they become worse.
9. Be an astute purchaser of inputs.
10. Examine family living to see if expenses can be reduced.
11. Maintain minimal inventory; cull unprofitable cows, buy feed as needed. If you have extra dairy replacements, consider selling them. When selling animals, remember to consult your tax preparer concerning associated tax liabilities.
12. Sell nonessential capital items, including machinery and equipment; that is not needed to operate the business. Consider selling land not essential to the business, including timber. Remember to consult your tax preparer concerning tax liabilities of a sale.
13. Examine debt for possible benefits of restructuring or alternative financing.
14. Perform tasks in a timely fashion, yet get enough rest. Sleep deprivation can interfere with task

performance and judgement.

15. Consider off-farm work by all family members.
16. Communicate current financial situation often with management team/family members. Seek and welcome their suggestions and involve them in key financial decisions.
17. Adopt new technologies only after careful study.
18. Monitor the financial health of those who purchase your farm products. They may also be under severe financial pressure in this economic period.
19. Seek management advice and analysis assistance early from cooperative extension, consultants, FarmNet, and others.
20. Seek personal counseling and advice from close friends, clergy, FarmNet, medical professionals, and others .
21. Routinely test manure for nutrient content. Employ modern soil testing technology to minimize purchased crop nutrients.
22. Evaluate risk management tools such as crop insurance, livestock gross margin, and the margin protection program in order to minimize production and price risk.
23. Evaluate business arrangements with other farms that have potential to reduce costs.
24. Forward contract inputs such as feed, fuel, and other supplies if you can lock in a profit.

Don'ts

1. Obtain price quotes from multiple suppliers for in order to make decisions that will cause the problem to be worse a week, month, or year down the road.
2. Continue the same practices simply because you've always done it that way.
3. Neglect needed accounting tasks because there isn't time right now.
4. Utilize farm produced feeds so rapidly that they are used up without a replacement plan.
5. Reduce purchased feed just to save money.

Cont'd on pg. 9

Managing Weeds for the Future

Bryan Young, Weed Scientist, Purdue University

Weed management is primarily dictated by herbicide resistance. Mechanisms of resistance and ways to optimize herbicide use and include other management options are discussed.

Managing Weeds for the Future

Herbicide resistance in major agronomic crops such as soybean is currently the greatest weed management challenge facing farmers. More specifically, weeds such as horseweed (aka marestalk), waterhemp, and Palmer amaranth. Yet, most growers are planning on herbicides continuing to serve as the primary method they implement to control weeds over the next ten years, even though we are in the midst of a 20-year drought for new herbicide modes of action being commercialized with nothing new over the horizon. If herbicides will indeed play the major role in achieving weed management success in the future, we need to start using these herbicides more wisely.



Field with a mixed population of herbicide resistance and susceptible marestalk. Photo: Bryan Young, Purdue

Herbicide resistance today is largely comprised of weed biotypes that are resistant to foliar (postemergence) herbicide applications with resistance mechanisms that allow for low- to high-level resistance to specific herbicides within an herbicide site of action group. We have allowed low-level resistance mechanisms to evolve and thrive by applying low concentrations of herbicides on large weeds (e.g. cut rates, weeds too big at application, poor application methods, etc.). If we move to the opposite end of the spectrum and provide relatively higher herbicide concentrations on the smaller weeds, we can reduce the risk of selecting for these low-level resistance mechanisms. The best example is using a soil residual herbicide shortly after application will result in a relatively high concentration of the herbicide on the smallest size weed possible, the germinating seedling. This helps explain why we have fewer resistance problems, though certainly not immune, with soil residual herbicides than postemergence herbicides. We see this in fields today with waterhemp and Palmer amaranth that are resistant to foliar

applications of PPO-inhibiting herbicides, but some reasonable level of control remains when these herbicides are applied at pre-emergence. In fact, there are other documented cases where soil applications of HPPD, ALS, and photosystem II-inhibiting herbicides are much less impacted by the low-level resistance mechanism that have rendered foliar applications of the same herbicides ineffective.

When it comes to battling weed resistance to herbicides, it makes sense to try and eliminate the proliferation of any low-level resistance on your farm. This means using full herbicide use rates and, preferably, soil residual herbicides to get a high dose on a small germinating seedling. This practice alone is not sufficient to thwart herbicide resistance, but should be used as part of an integrated approach that includes a rotation of diverse, effective herbicide site of action groups, cultural practices such as narrow row spacing or cover crops, or mechanical forms of weed control. Without any truly novel herbicides coming to market in the near future, we must adopt better weed management strategies as our current methods will lead us further down the path of weeds with multiple herbicide resistance, ineffective weed control, and significantly greater costs for weed management that diminishes our sustainability.

Best Practices

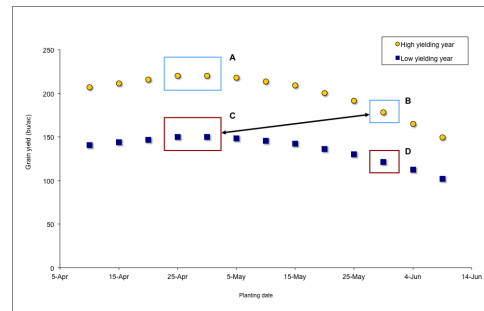
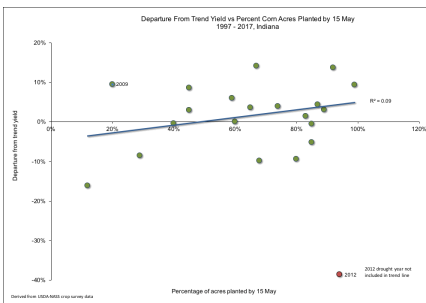
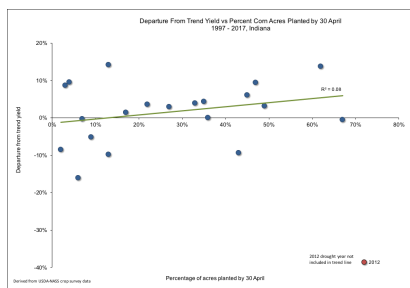
With the exception of Roundup Ready crops in their prime, we can all relate to seeing a few weed escapes at the end of the year and not think much about any seed production. The weed grew from a single seed in your field that likely contains more than a trillion of the very same weed seeds. So how could a little more seed production from a weed really cause any major problems? That mentality has to stop! The prominence and spread of weed biotypes with resistance to multiple herbicide site of action groups such as horseweed, waterhemp, and Palmer amaranth requires us to move away from this lackadaisical approach. That single plant producing seed on your farm may not just force you to alter one herbicide in your overall management program, it may require you to completely rethink your strategy on how you manage weeds.

Take for instance Palmer amaranth (aka Palmer pigweed), if you have never had this weed on your farm you have no reason to believe that the single plant out in your field that looks like a regular pigweed is anything special. Research has shown that within three years of letting that Palmer amaranth plant go to seed that you could have a complete crop failure as the weed problem escalates in your field. That plant isn't just a new weed, but also carries resistance to important herbicides such as glyphosate and multiple other herbicide sites of action. Weed resistance doesn't have to evolve in each field to infest millions of acres. The only requirement is the seed needs to spread through various natural or human activities and you let that weed survive your herbicide program and set seed. This scenario

should emphasize the need to keep an active eye on your weed management to understand and manage weed escapes. In almost all cases, the best approach to weed management is to never let the weeds get a head start, which translates to early season management with effective soil residual herbicides.

Another area that we have taken for granted is our ability to perform herbicide applications, especially foliar burndown and postemergence, in a manner that optimizes herbicide efficacy. Glyphosate (Roundup) was the most forgiving herbicide we've ever used for control of emerged weeds. No other herbicide option will perform as well as glyphosate under varied environmental or field conditions. Thus, we need to make each herbicide application work the first time if we are relying on that herbicide to control weeds that glyphosate won't. Using the best herbicide rate, carrier volume, droplet size, and adjuvant on a relatively small weed is a must for achieving consistent weed control on problematic weeds today, especially when a single herbicide may be your only chance of controlling the weed due to prevalent herbicide resistance. That means reading the herbicide label(s) to determine the best application parameters and using adjuvants that are consistent with those recommendations. Demand research data on adjuvant performance because we can't afford a failed herbicide application and there are plenty of adjuvants in the marketplace that are sold on sensational claims not backed by science.

Best management practices for weed control includes an integrated approach of chemical and non-chemical methods. Performing herbicide applications that optimize herbicide activity and scouting fields to monitor weeds that have escaped management or that may have been recently introduced to your field are critical components of these BMPs. If you wait for weed control failure to start implementing better management, you may be forced to live with a weed infestation mess that you'll regret for the foreseeable future.



The Planting Date Conundrum for Corn

R.L. (Bob) Nielsen, Agronomy Dept., Purdue Univ.

- Early planting favors higher yields, but does not guarantee higher yields.
- Statewide averages for planting date and yield are not strongly related.

Conventional wisdom says that the prime planting window to maximize corn yields in much of Indiana opens about April 20 and closes about May 10.

Recent rains, and SNOW, across Indiana threaten to delay the start of the 2018 corn planting season. Mark my words, the fear-mongers and pessimists among us will soon begin to worry about the consequences of a late planting season and the risk that imposes on the crop's yield potential in 2018.

But, hold on... How absolute are the negative consequences of late planted corn? How important a predictor of statewide corn yield is planting date anyway? Does late planting in and of itself guarantee lower than normal yields? Good questions, but the effect of planting date on statewide average corn yield is simply not clearcut.

If one reviews USDA-NASS crop progress reports for the past 20 years ([USDA-NASS, 2018](#)), there is **NOT** a strong relationship between planting date and **absolute** yield or departure from trend yield on a statewide basis for Indiana. Figures 1 and 2 illustrate the relationship between departure from trend yield and two measures of statewide planting progress; percent of total corn acres planted by April 30 or by May 15. Even though one can draw a trend line to describe the relationships between departures from statewide trend yield and statewide planting progress by either April 30 or May 15, the mathematical relationships only account for 8 to 9% of the variability in trend yield departures from year to year, respectively. In other words, **a number of yield influencing factors (YIFs) in addition to planting date also affect yield for any given year.**

(Cont'd *Do's and Don'ts* from pg. 7)

- Purchase products that promise to be a cure-all, unless you have hard data and experiences of others to confirm.
- Make capital investments to reduce tax liability or because "it is a good buy."
- Borrow money unless the profitability of the farm is reasonably expected to increase in order to provide for repayment.
- Neglect the details; cleaning and maintaining equipment, communicating with and managing labor, detecting heats, etc.
- Use alcohol to excess. Alcohol and other drugs can make a tough situation even worse.
- Assume a management strategy that worked for one farm will be effective on yours.

Forage Herbicide Quick Sheet

Cereal Rye Forage after Corn Silage

Elizabeth Bosak and Vince Davis
Department of Agronomy, University of Wisconsin-Madison

This quick sheet is intended to give a brief overview of the herbicide rotational restrictions for **double-cropping cereal rye for forage directly after corn silage harvest**. The rotational restrictions for herbicides vary depending on the crop species and the intended use of the biomass.

For instance, will the crop be fed to livestock as a forage? Or conversely, will the crop biomass be left in the field to provide cover? A cover crop is not intended to feed animals by harvesting or grazing; therefore less restrictions apply.

When seeding a mix of crops as a forage, the crop with the most restrictive cropping interval listed on the label must be followed.

For example, if planting a mix of cereal rye and field peas, the longest rotational interval for either cereal rye or field peas must be followed.

The chart below includes the herbicide site-of-action group numbers to aid in the design of your herbicide resistance management program. Remember to consider herbicide efficacy ratings when planning your weed management program.

For additional information, refer to the "Herbicide Rotation Restrictions in Forage and Cover Cropping Systems" fact sheet (WCWS 201) and the product label(s) for actual rotational restriction intervals.

		SITE OF ACTION GROUP #	CEREAL RYE
PRE-PLANT-INCORPORATED	Acetochlor (Surpass EC)	[15]	-
	Dual II Magnum	[15]	✓
	Outlook	[15]	✓
PREEMERGENCE HERBICIDES	Acetochlor (Surpass EC)	[15]	--
	Callisto	[27]	✓
	Dicamba (Clarity)	[4]	✓
	Dual II Magnum	[15]	✓
	Hornet WDG	[2]+[4]	✓
	Instigate	[2]+[27]	✓
	Lumax EZ	[5]+[15]+[27]	✓
	Outlook	[15]	✓
	Prowl H2O	[3]	✓
	Python WDG	[2]	✓
	Sharpen	[14]	✓
	Surestart	[2]+[4]+[15]	--
	Valor	[14]	✓
	Verdict	[14]+[15]	✓
	Zemax	[15]+[27]	✓

If there is a "✓" for a specific herbicide and forage crop, then it is likely that the rotational interval will be satisfied with normal crop system operations. A "--" indicates that the rotational interval likely exceeds the time between application and forage crop seeding, therefore legal planting for forage harvest is not possible.

When interpreting label restrictions, remember the time of replant interval listed is the time between application and forage crop planting, not forage crop harvest. For example, if you made an application of Dual II magnum on May 1 and Liberty on July 15 then the rotational intervals for cereal rye would be satisfied 4.5 months after May 1 and 70 days after July 15. So, after September 25, cereal rye could be seeded for a forage crop but not before that date.

The product information compiled here is intended to be as accurate as possible at the time of printing.

Always follow the product's current label restrictions and instructions.

Avoiding High Pressure Injection Injuries from Hydraulic Lines

By James Carrabba Agricultural Safety Specialist

The New York Center for Agricultural Medicine & Health - NYCAMH

There are many dangers present on tractors and farm machinery. In addition to the obvious hazards such as tractor rollovers, tractor runovers, and machinery entanglements, there is another hazard present that farm equipment operators may not always be aware of. That is the danger of high pressure injection injury from a hydraulic line. Hydraulic systems are found on a lot of agricultural equipment. The hydraulic system lifts implements, changes the position of machinery components, powers hydraulic motors, and many other tasks. To do this, the hydraulic system places the hydraulic fluid under great pressure. In most agricultural equipment, the hydraulic system operates at 2,000 pounds per square inch of pressure or greater. If a pinhole leak should develop in a line or hose, this can be a very dangerous situation. This can also occur with diesel fuel lines.

One of the more common injuries with hydraulic systems is being contacted by fluid forced out of a pinhole leak. A pinhole leak may be fine enough that you cannot see it. The operator may only see an oily spot where the leak is occurring. If they run their hand over the leak while the system is under pressure, the fluid can easily be injected into their skin through the pinhole leak. When this happens, the victim might only feel a stinging sensation and may not be too concerned right away. Usually within a few hours, the wound will be much worse. Having the hydraulic fluid injected into your body causes a gangrenous type injury. If injected into the bloodstream it will move rapidly through the body. This type of injury can become very serious or fatal if not treated promptly. In many cases hands or limbs had to be amputated because the victim did not obtain medical treatment promptly, or did not receive the proper medical treatment. A doctor that is familiar with treatment of this type of injury must surgically remove the fluid from the victim's body. If you should ever suffer a hydraulic injection injury, get to an emergency room or trauma center right away and bring the Material Safety Data Sheet for the injected fluid with you.

Here are some steps you can take to reduce the hazard of a high pressure injection injury from hydraulic lines:

- Remember that the leak may be small enough that you cannot see it, you might only see the fluid that is accumulating out of the leak
- Never use your hands to find suspected hydraulic leaks
- Heavy gloves and heavy clothing will not protect you from a high pressure pinhole leak
- Never get close to any lines you suspect may have a leak
- Use the far end of a long object, such as a board, or cardboard to find the path of a suspected leak
- Wear ANSI Z87.1 rated safety eyewear if performing these tasks
- Shut off the engine and relieve pressure on the hydraulic lines before disconnecting, replacing or servicing hydraulic lines. Bring the machine to a neutral energy state
- While the machine is off, visually check the lines for signs of wear. Replace any hydraulic lines that look worn, cracked, or broken
- Always make sure that replacement hoses are rated for the pressure they will be under

Share this article with your employees, coworkers or family members. Make sure everyone who works at your business knows about the dangers of high pressure injection injury. As always, NYCAMH is available to provide safety training at New York farms on hydraulic safety or any other agricultural safety topic. These services are offered at no cost by a grant from the New York State Department of Labor Hazard Abatement Board. For more information, please contact Jim Carrabba, Agricultural Safety Specialist at (800) 343-7527 extension 239, or e-mail jcarrabba@nycamh.com. NYCAMH, a program of Bassett Healthcare Network, is enhancing agricultural and rural health by preventing and treating occupational injury and illness.

What do you call a cow with no legs?

Ground beef.

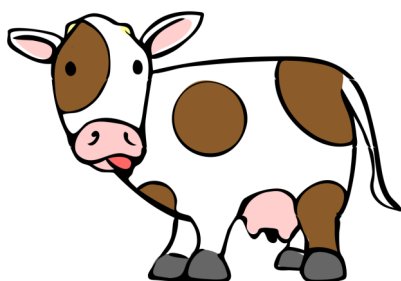
What do you get when you cross a cow and a dog?

Hound beef.

What goes "ooo, oooo, oooo?"

A cow with no lips.

Silly Cow Jokes



What newspaper do cows read?

The daily moos.

What do you call a cow spying on another cow?

A steak out,

Why do cows wear bells?

Because their horns don't work.

Cornell University Cooperative Extension
SCNY DAIRY & FIELD CROPS TEAM

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Many of you may have heard of the NY Grown & Certified program which was launched earlier this year by New York State Department of Agriculture & Markets. This branding program focusing on highlighting farms across a variety of commodities who adhere to the highest environmental and food safety standards. For dairy farms across the Southern Tier region (Broome, Chenango, Chemung, Delaware, Tioga, Tompkins, Schuyler, and Steuben) you can join this program, totally FREE. In order to be eligible, your farm must:

- Participate in the county Soil & Water Agricultural Environmental Management Program (AEM) at Tier 2 Level 2 OR has a CAFO permit;
- have a majority of milk supply from NYS and your processor is located in NYS
- Clean Ag & Markets inspector record for 1 year prior to application
- If applicable: annual third party food safety audit (SQF or similar), safe food handling training course, processor plant supervision training

There are cost share funds available to help with the food safety portion of joining the NY Grown & Certified program. Up to \$50,000 is available with only a 10% cost-share by the farm!

If you would like more information about joining, accessing the cost-share funding, or connecting with your local Soil & Water Conservation District, please contact Laura Biasillo, Agricultural Economic Development Specialist with CCE Broome County, at lw257@cornell.edu or (607) 584-5007.

CALENDAR OF EVENTS

Apr 2– May 18

Online Transition Cow Management Course

<https://prodairy.cals.cornell.edu/events/online-courses/transition-cow-mgmt>