Hello, Northeast Ohio Counties!

Spring field work and planting is in full swing throughout our region this week. Corn, soybeans, oats, and peas are in the ground on drier ground. We will likely see their appearance this weekend if the weather continues to cooperate. Despite the prolonged cold and wet spring, we have had decent stretches of warm and dry to almost catch up with planting.

As we are all hurrying to fix equipment, finish field work, and keep up with yard work don't forget to think about safety. We've all jumped off a tractor, truck, wagon, etc., and landed just a little bit awkward causing some pain. Knowing what drivers are going to do is an impossible task, but while driving equipment on the road don't confuse them with your actions. Make sure your marker/turn lights are working properly.

Stay safe out there and happy planting!

Lee Beers & David Marrison
Extension Educators
Ag & Natural Resources
Decent Spring Planting Conditions Ahead
By Jim Noel, NOAA
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2018-12/decent-spring-planting-conditions-ahead

A progressive weather pattern will continue over the next 2-3 weeks. This will allow for periods of dry conditions to be mixed with periods of wet conditions. This week should see many dry hours to allow for planting to be hit hard. While a cold and damp April put things behind schedule, we will continue to see things catching up to normal with mild and drier conditions.

The outlook for the rest of May is slightly above normal temperatures with rainfall slightly above normal north and slightly below normal south.

The outlook for summer continues to call for slightly above normal temperatures with slightly below normal rainfall. However, as is often the case, we expect high variability in summer rainfall this year with stretches of dry next to stretches of wet conditions. Northern areas will likely get clipped by some flooding events around the edge of the heat dome over the summer.

Over the next 2-3 weeks, rainfall will average 1-3 inches with normal being about 2.5 inches. Some places will be a bit wetter and others somewhat drier than normal. However, everyone should see some rainfall for the rest of May. See the attached 16-day rainfall map attached for more info.

Finally, soil temperatures have been quickly responding to the warmer air temperatures by finally returning to around normal values.
2018 Dairy Margin Protection Program Update
By: Dianne Shoemaker, Field Specialist, Dairy Production Economics

Largely considered a failure by dairy farmers, changes to the Dairy Margin Protection Program (MPP) included in the 2018 Bipartisan Budget Act earlier this year may be helpful for some farmers.

Dairy farmers should re-evaluate the use of the 2018 MPP before the June 1 signup deadline. Originally initiated by 2014 Farm Bill legislation, the MPP intended to provide dairy farmers with a tool to manage risk by insuring a margin between the Statistical Uniform Milk Price and a calculated feed cost based on a set equation and monthly corn, soybean and hay prices. This program replaced the MILC and support price programs. Now farms can choose to participate in either the MPP, the Livestock Gross Margin Insurance Program, or neither.

Farmers that choose to participate in the MPP pay a $100 administrative fee and receive coverage for a $4 per cwt “catastrophic margin” (CAT), on 90% of their production history. They can also choose to “buy up” coverage up to an $8 margin for 25% to 90% of their production history.

Changes Made

Administration Fee:
Farms that participate must pay a $100 administration fee. Now this fee will be waived for limited-resource, beginning, veteran, and disadvantaged farmers.

Premiums: Tier 1 premiums now cover the first 5 million pounds of production history. Previously, they applied to the first 4 million pounds. Tier 1 premiums are also substantially less, offering new opportunities for farms covering up to 5 million pounds of milk. Tier 2 premiums are unchanged. See Table 1 for old and new premium rates. Note that on the first 5 million pounds (Tier 1), coverage up to a $5.00 margin is now available at no cost.

Production History: No changes here. Production history (PH) is based on the highest annual production from 2011, 2012, or 2013. Farms that participated previously and paid their fees in a timely manner receive annual production increases with rates announced annually by Farm Service Agency (FSA). Farms that started milking cows after 2013 should work with their FSA office to establish their farm’s production history.

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**Indemnity Calculations:** Will be made and paid monthly in 2018. Previously, margins were calculated and announced each month, but for program purposes, 2 months were averaged together and any indemnity payments were made on those 2-month averages. For example, under the old rules the indemnity for January/February would have been based on an average of the January margin of $8.11705 and February’s $6.88349, or $7.50027. If a farm had bought up coverage for an $8 margin, the indemnity payment on covered pounds would be $8 - $7.50027, or $0.49973 per cwt.

Under 2018’s revised rules, the indemnity for January is zero since the actual margin was more than $8. February’s is ($8 - $6.88349) or $1.11651 per cwt, resulting in a higher overall indemnity payment for a farm that buys up coverage to the $8 margin. These monthly calculations and payments can increase the dollars received by the farm, and result in faster payments to the farm.

**No Play, No Pay:** Last fall, this option was initiated by the Secretary of Agriculture, and continues under the new rules. Even if a farm had signed up for coverage prior to 2018, it may opt-out of the program for 2018.

**Sign-ups reopened:** The original sign up period for 2018 coverage opened and closed in 2017. With the rollout of the new rules, a new sign-up period opened April 9<sup>th</sup> and continues through June 1. If you signed up in 2017, even at the minimum level, you must sign up again! If you do not, you will not be enrolled in the program for 2018.

**Retroactivity:** The sign up period is for January 1 through December 31, 2018, and coverage is retroactive to January 1. This puts us in the interesting position of knowing the margins for January, February, and March before making a program decision. By the end of May, we will also have a pretty clear idea of what the April margin will be plus or minus a few cents.

**Making Decisions:** The Margin Protection Program Decision Tool is updated with the new rules and Tier I Premiums. Futures market data is updated daily by Mark Stephenson’s group at the University of Wisconsin which developed the tool. Find it at [https://dairymarkets.org/MPP/](https://dairymarkets.org/MPP/). Plug in your production history and use the “Select Coverage” feature to see the administrative fees and premiums, expected payments and expected net returns for each margin coverage level at the percent of PH coverage that you select.

**Projections:** Using futures market data available on April 30<sup>th</sup>, the MPP Decision Tool is projecting that the margin will stay below $8 per cwt through June. If this is what actually happens, the decision tool projects an expected payment of $24,082 for a farm with a production history of 5 million pounds buying up coverage for an $8 margin on 90% of their production history (4,807,827 pounds of milk is covered). The administrative fee and premiums
for this coverage will cost $6,927 with the $100 administrative fee due at sign up, and the balance due by September.

If milk price improves, and/or feed prices decline, the expected payment could be considerably less. The projections do not guarantee the actual performance of the program. It projects what will happen based on yesterday’s futures market data. Each farm has to make a final participation decision based on today’s information and your expectations of what will happen in the market place for the rest of 2018.

**What we know for sure:** What we do know for sure is that for a farm purchasing coverage at the $8 level, there will be indemnity payments for February ($1.11651) and March ($1.23163). A logical next question is, “how much of the fees and premiums will that cover?”

For our example farm covering 90% of their 5 million pound beginning PH, the covered annual production is 4,807,827 pounds. (A farm participating each year receives an annual increase to their PH, so their 2018 program PH is 5,342,030.) To calculate monthly payments, the covered PH is divided by 12, regardless of when milk is actually produced on the farm. Continuing with our example above, the farm’s monthly covered PH is 4,807,827 lbs/12 = 400,652 lbs or 4,006.52 cwt.

February $1.11651 \times 4,006.52 \text{ cwt} = \$4,473$

March $1.23163 \times 4,006.52 \text{ cwt} = \$4,935$

Estimated 6.6% sequestration deduction - 621

Feb/March Payment to the farm $8,787$

Note: Farm Bill payments are subject to a sequestration deduction related to budget-balancing efforts. Current estimates are that the deduction rate for MPP payments will be around 6.6%.

For our example farm, we know that the payments for February and March will return more than the $6,927 administrative fee and premiums. It appears very likely that the margin forecasted for April will also be well under $7 with May and June currently forecasted above $7 but less than $8. So, in this case, a farm can sign up knowing that the fees will be covered, and there will be some net return to assist with a few bills.

**More than 5 Million Pounds:** Our example farm at 5 million pounds of PH would be representative of a farm milking 200 cows selling 25,000 pounds of milk per cow per year. How does MPP look for farms with more than 5 million pounds of milk?

Here we have to consider two important factors.

1) Tier 2 premiums for milk over 5 million pounds are considerably higher than the Tier 1

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premiums for the first 5 million pounds of milk. For example, $8 coverage costs 14.2¢ per cwt for the first 5 million pounds, and $1.36 per cwt for any milk above that level.

2) Only one level of coverage can be selected for the first 5 million pounds, and any milk above 5 million pounds.

Because of this stipulation, farms with more than 5 million pounds will want to cover whatever percent of their PH that gets their covered milk as close to 5 million pounds as possible. If your farm has more than 20 million pounds of PH, even at 25% coverage, you will be purchasing some Tier 2 protection. Those high rates can quickly eat up any indemnity payments. Use the MPP Tool to see what coverage optimizes net returns for your farm.

Because of the higher Tier 2 premiums on the milk over 5 million pounds, some farms will find that the February and March payments will cover less than half of the fees and premiums. These farms will want to look carefully at the cost and probability of the program helping their farm business, factoring in their own market projections.

It is likely that farms with over 25 million pounds of production history will find that the fee and premiums will cost more than the projected indemnities. Run the Decision Tool again shortly before the sign-up deadline as market projections will change.

**Bottom Line:**
- Significant changes were made to the 2018 Dairy Margin Protection Program.
- Farms who signed up in 2017 for the 2018 program must sign up again by June 1.
- Sign up is retroactive to January 1, 2018 and coverage is for January through December 2018.
- Sign up at your County Farm Service Agency office.
- Farms should use the Margin Projection Program Decision Tool to evaluate their farm’s participation. Your County Extension Educator can assist you with the tool.
- The MPP Decision Tool is updated with new futures markets information daily. Results and projections change because results are projections based on yesterday’s market data.
- Combine MPP Decision Tool projections with your projections about this year’s markets and what we already know about January, February, and March margins to make the best decision for your farm.
- Premiums must be paid in full by September 1. It makes sense to pay off the premium with indemnity payments received before using MPP payments to pay other bills.

The good news is that these changes may bring a few dollars to cash strapped farms. Will it substantially help with pervasive cash flow issues? No. However, for 2018, it might help pay a bill or two.
Be Mindful of Honeybees and Other Pollinators During Planting

Author(s): Reed Johnson, Kelley Tilmon, Andy Michel
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2018-12/be-mindful-honeybees-and-other-pollinators-during-planting

The winter of 2017-2018 is destined to go down in Ohio beekeeping history as one of the worst on record. In October, the OSU honey bee lab had 50 living colonies, but by the beginning of April, we were down to just 5 survivors. While some of these honey bee colonies died as a result of the exceptionally long, cold winter, more than half of our losses occurred before the first snow fell in November 2017. In talking with other beekeepers around the state it has become clear that 90% losses were typical for many beekeepers this year. To replace lost colonies we’ve spent $130 per hive to purchase boxes of bees imported to Ohio from Georgia or California. These new colonies should thrive and grow on the bountiful dandelions, mints, mustards and fruit trees of spring. With luck, the populations of colonies will soon be large enough that they will be able to make a honey crop off of clovers, black locust, alfalfa and soybean in the coming months. Some beekeepers will then move their colonies into pumpkins or cucumbers later in the summer.
But spring build-up of these young, expensive bee colonies is critical, and early May is the most important period. Unfortunately, colony growth can be directly threatened by corn planting. Insecticide seed treatments used on corn seed generate an insecticidal dust when they are planted. Bees may encounter a cloud of insecticidal dust as they cross corn fields to visit the dandelions and blooming trees in field margins. Insecticidal seed treatment dust can also settle on these flowers that bees are visiting. Insecticide dusts are particularly harmful for honey bees because they do not immediately kill the adult foraging bees that encounter the insecticide. Instead, the dust is packed up with the pollen by the forager and brought back to the colony where it is fed to young bees. So it is the future workforce for the colony that is hit hardest by corn planting-related seed treatment dust.

Several years ago, in spring of 2015, we sampled pollen from ten bee yards in the counties west of Columbus. During corn planting, all colonies were bringing back pollen containing corn seed treatment insecticides. While no spectacular bee-kills were observed in our colonies, we did observe a significant increase in the number of dead bees appearing in front of colonies during the week of corn planting in 2015.

Honey bee exposure to seed treatment dust during corn planting can be reduced by 1) starting with clean and weed-free fields that are uninteresting to honey bees; 2) following recommendations for using talc or other seed lubricants; 3) following proper planter clean-out and disposal procedures when finished to minimize escape of seed treatment dust.

Corn, Soybean, and Alfalfa Yield Responses to Micronutrient Fertilization in Ohio
By Steve Culman, Anthony Fulford, Laura Lindsey, Douglas Alt
Ohio farmers often wonder if micronutrient fertilization will increase grain yields. A recent study exhaustively compiled the last 40 years of Ohio State University micronutrient fertilizer trials in corn, soybean and alfalfa. A total of 194 trials (randomized and replicated) were found across 17 Ohio counties. In general, micronutrient fertilization rarely resulted in a statistically significant yield response. Manganese (Mn) fertilization or a blend of Mn with other micronutrients increased soybean yield in 9 out of 144 trials. Boron fertilization had no effect on corn grain yield in 8 out of 9 trials and actually decreased yield in one trial. Micronutrients had effect on alfalfa yields in 17 total trials.

There is a large degree of uncertainty in using soil tests to reliably predict when a crop needs micronutrient fertilization. This is primarily because yield responses to micronutrient fertilization are uncommon, and without yield responses, soil test critical levels are difficult to develop. It is important to keep in mind that the probability of a yield response to micronutrients is much greater in scenarios where deficiencies are known or suspected to be more prevalent, such as in sandy, acidic, or peat soils. When considering micronutrient fertilization, it is always a good idea to leave an unfertilized strip as a check or control. This will allow you to compare areas that received a micronutrient fertilizer versus an area that did not. Yield monitors or weigh wagons can help you determine if the micronutrient fertilization increased yield and provided an economic benefit.

The article can be found here: https://ohioline.osu.edu/factsheet/agf-519

Dust Bowl to Drought Tolerance: How History Leads to Innovation
By Mark Edge

Northeast Ohio Agriculture
Mark leads Monsanto’s collaboration with the WEMA public-private partnership project to improve food security and rural livelihood among smallholder maize producers in Sub-Saharan Africa. The project develops new drought-tolerant and insect pest-protected maize hybrids and provides the technology royalty-free. He grew up on a corn, soybean and livestock farm in Iowa. Before joining Monsanto, his experience included biotech research, managing seed business development as well as the grain export business. He received a B.S. from Iowa State University, a M.S. in Genetics from the University of California at Davis, and an MBA from Drake University.

As a young man on our family farm in Iowa, I can recall the many years we farmed around the wet spots because we had too much rain. Then came 1988…

The drought of ’88 was epic, conjuring old-timer memories and images of the dust bowl during the 1930s. The frustration of watching our hard work and investment slowly wither in the field, and the drought devastate our crops, is forever a memory.

The 2012 U.S. drought had far-reaching effects across the country. (Image Credit: Drought Monitor)
That year, average corn yields were only about 85 bushels to the acre, substantially below the normal expectation of approximately 130 bushels per acre. Honestly, my family was just happy we didn’t lose everything.
Fast forward to 2012, when I was working for Monsanto to introduce the first GMO corn trait to provide improved drought-tolerance. In that same year, the U.S. experienced another devastating drought just like the one from my youth.

Fortunately, farming improved in the 25 years since the ’88 drought. Plant breeding made the corn more drought tolerant, and GMOs enabled protection from insects and improved weed control. This enabled the adoption of widespread minimum tillage practices which kept more water stored in the soil.

The drought of 2012 was a tough year for farmers, and the agricultural industry, but these conditions provided real-time testing environments for our new drought resistant traits. By every statistic, the drought of 2012 was as bad or worse than in 1988, and yet the average corn yield was about 123 bushels per acre, 38 bushels better than in ’88. That’s progress.

Today, almost a third of the continental U.S. is experiencing a drought. More significantly, some 87 million Americans live where there’s a limited water supply. Globally, in any given year, 3.4 billion people (nearly 50 percent of the world’s population) are vulnerable to water scarcity. This motivates me to do something about it.

With the frequency of drought predicted to increase as an impact from climate change, we need to look to innovative technology to adapt to more water stressed conditions. Agriculture has a big role to play as it is estimated that agriculture uses about 70 percent of the world’s available water supply.

One of the most remarkable applications of agricultural technology is the development of drought-tolerant crops. As arid weather continues, farmers are looking to water-efficient seeds to help them produce more food per unit of water.
My work at Monsanto has offered me new challenges—to help smallholder farmers in Africa get better seed to help them manage the threat of frequent drought. In 2008, we entered a public-private partnership to develop Water Efficient Maize for Africa (WEMA) funded by the Bill and Melinda Gates Foundation and USAID. We are continuously working to adapt technology and share experiences from our work on drought in the U.S. to fit the African environment—this is a real solution and I get to be part of it.

WEMA is a collaborative partnership that strives to improve food security and livelihoods among smallholder farmers in sub-Saharan Africa by developing drought-tolerant maize that is adapted to African conditions. Monsanto has provided the royalty-free use of technologies for drought tolerance and insect resistance to the project so that smallholder farmers in sub-Saharan Africa can afford the newest technology in hybrid maize seed bred for and adapted to their environment.

The WEMA partnership has helped develop hybrid seed now available to African farmers under the TELA™ and DroughtTEGO™ brands. Specifically, conventionally bred DroughtTEGO™ hybrids give farmers the ability to harvest 20 to 35 percent more grain under drought conditions. These hybrids have also impacted the livelihoods of approximately 250,000 African farm families and more than 1.5 million people.

Without the adoption and use of modern agricultural technology, like drought-tolerant maize, African farmers are likely to repeat the well-known story of drought leading to drastic yield loss and food insecurity. This is an all too familiar downward spiral that can devastate families, communities and countries—again, unacceptable to me. The scourge of drought is seared in my memory from 1988. Those memories compel me to keep striving to learn more and use science and innovation to help farmers around the globe persevere through the dry years.

There are no simple solutions or a single fix to problems like water scarcity. But we know that science leads to innovation, and modern agricultural technologies will perform with demonstrated resiliency in the face of climate change. Farmers everywhere start every season full of hope. With rapid advances in science, these hopes are being realized.
Hello, Ashtabula County! This past weekend really emphasized that spring is officially here! First, it is nice to finally see the forsythia, daffodils, and tulips blooming all over the county. Our lawns are also waking up and I just love the smell of the first lawns being mowed in the spring. It ranks right up there with the smell of fresh tilled soil or the smell of a hay field after it is cut. So what are some other signs that spring is officially here?

For our 4-H program, a sign of spring was seen at the Ashtabula County fairgrounds this past weekend. Saturday was the day which hundreds of 4-H members brought their 4-H animals to the fairgrounds to have them officially tagged for the Ashtabula County fair scheduled for the first week of August. It was pigs, sheep, feeder calves, goats and kids abound!

Another sign of spring is that turkey season is underway in northeast Ohio and thousands of hunters have been hitting the woods to scout and hunt for gobblers. When thinking of all the hunters out in the woods, one cannot forget about the explosion of the deer tick population which also starts this time of year.

Blacklegged ticks or deer ticks can be a carrier for the bacterium *Borrelia burgdorferi* which is transmitted to humans and can cause Lyme disease. I was very pleased to attend the 2nd Annual Multidisciplinary Lyme Disease Symposium held this past Saturday at Pymatuning Valley High School. This event was sponsored by the non-profit Northeast Ohio Lyme Foundation.

I was really impressed with the line-up of speakers which spoke at this event and I learned a lot. Prevention, prevention, prevention is the key for all of us to remember. Do you know that just one deer can be the traveling host for over 200,000 ticks? Or that bite from the tick can leave a tell-tale bulls-eye rash?

One of the speakers at the conference was Dr. Bea Szantyr from Maine who spoke about Lyme disease and provided some key prevention tips. These included wearing light colored clothes with long pants and shirts when in tick infested areas. She also advocated for being a bit nerdy by tucking your shirt in your pants and your pants into your socks. Yep, channeling your inner Steve Urkel can help prevent ticks from getting under your clothes and attaching to your skin.

She also recommended to be vigilant and to always check for ticks when you come inside from being out in the woods. Have a tick checking buddy! One great piece of advice was to dry your clothes on high heat for 6 minutes in the dryer when you come back into the house and before
you launder them. This heat cycle will help kill any ticks which might be unsuspecting hitchhikers on your clothes.

Lyme disease not only affects humans but also our four-legged friends. Dr. Charles Curie was also a speaker at the event and spoke on the new vaccinations and treatment programs for dogs. Dr. Curie shared that 20% of the dogs they have tested in their Conneaut clinic have tested positive for Lyme disease. As Dr. Curie mentioned “The dogs are the canary in the cave” showing how rampant Lyme disease is spreading across northeast, Ohio.

For those looking for resources on Lyme disease and blacklegged ticks, the Ohio Department of Health has a great website which is updated frequently and it can be accessed at http://www.odh.ohio.gov/lyme. Ohio State University has a great factsheet on Ticks and Tick-Borne Diseases and it can be found at https://ohioline.osu.edu/factsheet/HYG-2073

Congratulations to the tireless work of Connie Moschell along with her daughters Megan & Sara Tilton, son Jonathan Moschell, her husband Marlin, and countless volunteers for putting on such a great event!

And one final sign of spring is just the incredible amount of people I see out walking, running and biking in our communities over the past two weeks. Exercise is so very important in creating a healthy lifestyle for our families. One of our key missions at OSU Extension especially through our SNAP-Ed nutrition programs is to advocate for healthy eating and exercise.

OSU Extension was very honored to be at the grand re-opening of the Ashtabula Walmart last Friday. Congratulations to Walmart for all their renovations. We were very pleased to be on hand to receive a $2,500 donation. We will be using this donation to purchase a Smoothie Bike which will be used in our 4-H, SNAP, Local Foods, & Master Gardeners outreach programs. This will be a great way to promote healthy lifestyles in Ashtabula County! We would like to thank Brennan Faulkner, Stacy Morrison, Annette Paul and all the employees of Walmart Ashtabula for making a difference. Thank you!

To close, I would like to share a quote from author Bernard Williams who stated, “The day the Lord created hope was probably the same day he created Spring.” Have a good and safe day.

**Upcoming Extension Program Dates**

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The following programs have been scheduled for Northeast Ohio farmers. Complete registration flyers can be found at: http://ashtabula.osu.edu/program-areas/agriculture-and-natural-resources/upcoming-educational-programs-deadlines

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