Hello, Coshocton County! So far the month of June has treated us well. The rains of this past week were a welcomed sight for our area farmers as our crops were starting to get a bit thirsty. The rain was also a great thing for the thousands of acres of hay which have been made across the county. This will help produce a nice second crop hay in July.

I invite you to check out the Farm Office Live zoom webinar tomorrow morning from 9:00 to 10:30 a.m. Our team will be providing updates on the CARES Act, Payroll Protection Program, Economic Injury Disaster Loan (EIDL), Dicamba legislation, and the Coronavirus Food Assistance Program (CFAP). Participants can pre-register or join in tomorrow morning at https://go.osu.edu/farmofficelive

Here is hoping that our favorable weather continues. Stay safe.

Sincerely,

David Marrison

Coshocton County OSU Extension ANR Educator
**What a Difference a Year Makes in the Weather**

By: Aaron Wilson

Source: [https://agcrops.osu.edu/newsletter/corn-newsletter/2020-19/what-difference-year-makes-weather](https://agcrops.osu.edu/newsletter/corn-newsletter/2020-19/what-difference-year-makes-weather)

Things change quickly when it comes to weather and climate. Recall 2019, a record wet start to the year for many across Ohio, only to see 26% of the state enveloped in moderate drought conditions by October. Though not nearly as wet as last year, it has been wetter than average through the first five months of 2020.

Since our calendar flipped to the meteorological summer on June 1, however, precipitation has all but turned off across western and northwest Ohio (Figure 1). Most areas here have seen an inch or less of rainfall. Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) observers in Ada, Napoleon, and Lima have only recorded 0.18”, 0.29”, and 0.40” of rainfall so far for the month! With warm summer conditions, this has led to intense evaporation rates and rapidly drying soils. To submit a report of drought impacts for your area, consider the Drought Impact Reporter. For more information on recent climate conditions and impacts, check out the latest Hydro-Climate Assessment from the State Climate Office of Ohio.

A cold front slowly moving through the region on Tuesday this week will provide a focus for showers and storms across the state. Behind this front, cooler and slightly less humid air will move in for Wednesday through Friday, with highs in the low to mid-70s across northern Ohio and mid to upper 70s across southern Ohio. Temperatures will moderate back into the 80s for the weekend. Though a few scattered storms cannot be ruled out for Wednesday through Friday, typical summertime storms will return for the weekend. Overall, we are expecting 1-2” of rain over the next seven days across northern Ohio, with 0.50-1.25” across our southern counties (Figure 2). There could be locally heavier rainfall where stronger storms occur.

The latest NOAA/NWS/Climate Prediction Center outlook for the 6-10 day period (June 28 – July 2) shows elevated probabilities of above-average temperatures and above-average precipitation (Figure 3). This scenario strongly points to warmer than average overnight lows throughout the region. Normal highs during the period should be in the low- to mid-80s (north to south), normal lows in the low- to mid-60s, with 1.05-1.20 inches of rainfall per week. The 16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center supports above-average
precipitation over the next couple of weeks.

**Soybean Vegetative Growth Stages- VC vs V1**

By: Dr. Laura Lindsey  

Across the state, soybean growth and development is variable, ranging from early vegetative stages to flowering. However, there has been some confusion regarding the identification of the VC and V1 growth stages. This confusion is mostly due to two definitions of V1...that actually mean the same thing. The Fehr and Caviness Method (1977) is based on the number of nodes that have a fully developed leaf, whereas Pederson (2009) focuses more on leaf unrolling so that the leaf edges are no longer touching. The VC definition for both methods is the same, but the differences start to appear between the methods at V1. Fehr and Caviness define V1 as “fully developed leaves at unifoliolate nodes,” which also means that there is “one set of unfolded trifoliolate leaves unrolled sufficiently, so the leaf edges are not touching.” This second definition is common in extension publications (Pedersen, 2009).
<table>
<thead>
<tr>
<th>Stage</th>
<th>Definition</th>
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<td>VC</td>
<td>Fehr and Caviness (1977)- Unifoliolate leaves sufficiently unrolled, so the leaf edges are not touching. Pederson (2009)- Unifoliolate leaves unrolled sufficiently, so the leaf edges are not touching.</td>
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<tr>
<td>V1</td>
<td>Fehr and Caviness (1977)- Fully developed leaves at unifoliolate nodes. Pederson (2009)- One set of unfolded trifoliolate leaves unrolled sufficiently, so the leaf edges are not touching.</td>
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Dicamba Battle Continue: Court Allows Dicamba Use
By: Peggy Hall
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2020-19/dicamba-battles-continue-court-allows-dicamba-use

There was a great deal of action last Friday in the case that vacated the registrations of XtendiMax, Engenia, and FeXapan dicamba-based products. Despite a barrage of court filings on Friday, however, nothing has changed the current legal status of the dicamba products in Ohio, and Ohio growers may use existing stocks of the products now. Still, they must end-use by June 30th, 2020.

Here's a rundown of the orders that the Ninth Circuit Court of Appeals issued in the case last Friday:

The court denied the emergency motion that the petitioners (National Family Farm Coalition, Center for Food Safety, Center for Biological Diversity, and Pesticide Action Network North America) filed on June 13th. That motion asked the court to enforce its previous mandate to vacate the registrations, to prevent any further use of the products, and to hold the EPA in contempt for issuing the Cancellation Order the agency had made that allowed continued use of existing stocks of the products. The court did not provide its reasoning for denying the motion.

The court granted amicus curiae (friend of the court) status to CropLife America and American Farm Bureau (representing itself as well as national soybean, cotton, wheat, corn and sorghum association interest.) Those parties filed their amicus curiae briefs in support of the EPA's Cancellation Order and opposition to the petitioners' emergency motion.

The court also granted emergency motions to intervene in the case filed by BASF Corporation, maker of Engenia, and DuPont (Corteva), maker of FeXapan. The companies argued that they did not know that the scope of the court's order on Bayer's XtendiMax product registration would also affect their dicamba product registrations, and they should now be permitted an opportunity to defend their products.

BASF filed a motion asking the court to recall the court's mandate that had canceled the registrations of the products, claiming that the court had not followed appropriate procedural rules. In its brief, BASF also suggested that the company would be filing petitions for rehearing since BASF had not had an opportunity to be heard when the court vacated the registration of its Engenia product.

The court ordered the original petitioners to file a brief in response to BASF's motion to recall the mandate by June 23rd, and for BASF to reply to that brief by June 24th.

The companies that make the dicamba products clearly intend to challenge the vacatur of their product registrations, even though the EPA's Cancellation Order allows the continued use of existing stocks of the products until July 30th, 2020. This dicamba battle is not yet over, and we'll keep you posted on new developments.

The 6th Annual National Forage Week
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2020-19/6th-annual-national-forage-week

The 6th Annual National Forage Week is being celebrated on June 21-27, 2020, to raise awareness of the importance and impact of forages in our lives. The American Forage and Grassland Council have prepared a cool video of the impact and influence of forages, which you can access at https://nationalforageweek.org.
Forage Management & Cow Size
By: Steve Boyles, OSU Beef Extension Specialist
Source: https://u.osu.edu/beef/2020/06/24/forage-management-and-cow-size/

Increased Hay Production per Cow: The increased use of the round baler and other hay production technologies since the early and mid-1970s (Van Keuren, OARDC – The History of the Development of the Large Round Bale) has lowered the labor requirement and increased the convenience of hay production. Hay production per cow in the southeastern United States has increased by 136% (USDA NASS, 2016) since 1976. Reliance on stored forages by cow-calf producers is can be a challenge to sustainable production.

Cow Size: There has been a 30% increase in cow mature size over the last 30 years. From 1975 to 2015, cow numbers have decreased by 35%, but beef production has been maintained at a level similar to 1975 (Beck, Gadberry, Gunter, Kegley, Jennings, 2017). Correspondingly, market steer and heifer weights have increased. This also due to selecting bulls for increased yearling weights.

Forage Management: The larger the cow, the more forage is needed per cow. Forage management strategies have been developed to reduce reliance on stored forages for wintering beef cows. Beck et al. (2017) lists rotational grazing increases harvest efficiency of grazing livestock and can help maintain plant populations of clovers or other desirable forage species that lack persistence under continuous grazing management. Stan Smith has written several articles on the use of Oats for summer slump/fall grazing. Other management strategies exist for fall and winter grazing (Boyles Vollbom Penrose, Bartholomew, Hendershot, 1998). These can include stockpiling of forages like fescue for fall and winter. Early work at OARDC Eastern Agricultural Research Station observed if cows could see the grass sticking through the snow, they will graze through the snow to get the grass. By intensifying the management of forages we can sustain and or increase stocking rates. The OSU Beef Team members have, and continue to do so, write numerous materials on these grazing systems. Take a “little graze” through this newsletter.

LITERATURE CITED


USDA. 2016 Agricultural Statistics Annual Chapter 6 STATISTICS OF HAY, SEEDS, AND MINOR FIELD CROPS. https://www.nass.usda.gov/Publications/Ag_Statistics/2016/Chapter06.pdf

Oats as a Late Summer Forage Crop
By: Jason Hartschuh and Al Gahler, OSU Extension AgNR Educators (originally published in The Ohio Farmer)
Source: https://u.osu.edu/beef/2020/06/24/oats-as-a-late-summer-forage-crop/

Oats is traditionally planted as the first crop in early April as a grain crop or an early season forage. One of the beauties of oats is its versatility in planting date. Oats can also be planted in the summer as an early fall forage for harvest or grazing.

Summer oats has a wide planting window but performs much better with an application of nitrogen and may benefit from a fungicide application to improve quality. During the summer of 2019 we conducted a study to examine the planting of oats from July 15th through early September to examine tonnage and forage quality. Through this trial we examined planting date, yield, forage quality and an application of foliar fungicide to control oats crown rust.

Usually the best scenario for growing oats for forage is to plant them into wheat stubble, which is normally available by mid-July at the latest. However, the typical recommendation is to plant oats between August 1st and 10th to maximize tonnage and quality, since the shorter day length triggers oats to grow more leaf instead of producing seed, but if planted too late in the year, there is not enough time for growth. The oats in this study were harvested between 60 and 75 days after planting, with full head emergence. Figure 1 shows how yield changed based on planting date and nitrogen rate. Similar to previous studies, applying 46 pounds of nitrogen significantly increased yield on all planting dates but applying 92 pounds only increased yield during the late July planting. The July planting date did not receive rain for 8 days then received about 1.5 inches possibly leading to a loss of nitrogen. Adding this study to others, the recommended nitrogen rate for summer oat forage is to apply 50 pounds of nitrogen at planting. When planted in early September yields fall to an average of a half-ton per acre making it less economical to mechanically harvest as stored forage and more economical to graze.
Not only does nitrogen rate affect yield but also the feed value of the oats. In 2019 the oats were severely infected with crown rust. Fungicide was sprayed on the plots based on recommendations in the 29th issue of the 2019 C.O.R.N newsletter. The fungicide application significantly reduced the presence of rust. Without a fungicide application over 50% of the leaf was covered by rust, while the fungicide application prevented the severe outbreak and decreased the rust content to less than 1% coverage on average. Figure 2 and 3 show the crude protein, CP and total digestible nutrients, TDN over the four planting dates across 3 rates of nitrogen with and without fungicide. Fungicide application had no effect on yield but did affect forage quality. The application of nitrogen increased forage quality but only the mid-August planting saw a difference between 46 and 92 pounds of nitrogen for both CP and TDN. The application of fungicide improved oats digestibility, increasing protein by 1-2% and energy by 5 points. Energy also saw a consistent increase over all treatments based on planting date. Crude protein averaged around 14% when nitrogen was applied but only 10% without nitrogen. TDN had an average of 50 with a nitrogen application and 40 without the nitrogen application.

![Figure 2: Oats Crude Protein](image)

**Figure 2:**
T=Fungicide Treatment, U= No Fungicide Treatment

![Figure 3: Oats TDN](image)

**Figure 3:**
T=Fungicide Treatment, U= No Fungicide Treatment

Based on previous trials, we recommend seeding oats at 2-3 bushels per acre and applying 50 pounds of nitrogen at planting. With most seed oats or triple cleaned feed oats commonly used for fall forage, test weight is normally much higher than the standard 32 lbs, so a more accurate assessment for planting rate may be to seed 80-100 pounds per acre, regardless of the source. The oats should be planted into moisture up to 1.5 inches deep if needed. No-till planting is the ideal seeding method, but shallow conventional tillage maybe
required to incorporate nitrogen, assist with weed control, and improve seed to soil contact if drills are not closing the seed slot. Just keep in mind that if mechanical harvest is the intention, loose soils from conventional tillage may contribute to significant soil in the harvested crop, leading to higher ash content in the feed. If weeds are present a chemical application of Glyphosate plus 2,4-D can be used to clean fields up before planting or before oats has emerged. When harvested as a stored forage, oats often needs harvested as silage or baleage. If weather allows for dry harvest the oats usually needs tedded multiple times and in late September or October, 6 or more days of drying may be required.

Oats makes an excellent double crop after wheat. When planted between mid-July and mid-August and fertilized with at least 46 pounds of nitrogen, average yields are in the range of 1-1.5 tons dry matter, and with ideal conditions 3 or more tons is very possible. The nutritional value of oats without fertilizer is about $250 per ton of dry matter and when fertilized, the value increases to about $280 per ton. Oats makes an excellent forage for sheep, goats, beef cows, feeder calves, dairy heifers, and when made early, even milking cows. Planting after wheat harvest provides forage and increases farm profitability, with return on investment rivaling and often surpassing the potential for double crop soybeans.

Avoid Heat Stress in Your Sheep & Goats

By: Michael Metzger, Michigan State University Extension Educator
(Previously published on MSU Extension, Sheep & Goat: June 29, 2012)

Make sure your sheep and goats have access to plenty of clean fresh water on hot, humid days.

Extreme heat is stressful to livestock, as well as people. High temperatures are even more problematic in states like Michigan, because high temperatures are also often accompanied by high humidity. The heat index (temperature plus humidity) is a more accurate measure of heat stress than temperature alone.

Some livestock tolerate heat better than others. Sheep and goats tend to be less susceptible to heat stress than swine, cattle, llamas, and alpacas. However, goats tend to tolerate heat better than sheep. Goats with loose skin and floppy ears may be more heat tolerant than other goats. Angora goats have a decreased ability to respond to heat stress as compared to sheep and other breeds of goats.

Wool protects sheep from extreme heat as well as extreme cold. Research shows that sheep with a one-inch fleece are more comfortable than sheep with less wool, as wool fibers dissipate heat more rapidly. Woolly and hairy animals should be sheared prior to the onset of hot weather. Spring shearing allows sheep to have adequate wool growth to keep them cool in the summer (and avoid sun burning) and a full wool coat in the winter to keep them warm. Sheep and goats should not be sheared in extreme heat.

 Plenty of clean, cool and fresh water is paramount to preventing heat stress in livestock. During periods of extended heat and humidity, it may be necessary to provide extra water and clean and change waterers more often. On average, a sheep or goat will drink one to two gallons of water per day. This amount will increase on hot days.

Access to shade is another important aspect of managing livestock during hot weather. Livestock shelters do not need to be complicated or elaborate. Simple shade structures can be constructed from shade cloth, mesh fabric, tarps, canvas or sheet metal. Mature trees provide excellent shade (and shelter) and are usually the least-cost alternative. While there is disagreement as to whether grazing livestock require shade, some studies show the benefits to shade.
Toxic Plants & Small Ruminants – Wild Cherry
By: Autum Ballard, Madison Findley, Emily Gaglione, and Cassandra Randolph, OSU Animal Science Undergraduate Students
Brady Campbell, Program Coordinator, OSU Sheep Team
Toxic Plants and Small Ruminants: Wild Cherry
** Follow the link above to view the Ag-note.

As we wrap up one of our last Animal Sciences undergraduate student Ag-notes for the page, students Autum Ballard, Madison Findley, Emily Gaglione, and Cassandra Randolph have chosen to highlight a toxic plant that is known to be an issue in livestock pastures, especially during the peak of summer among high wind systems – Wild Cherry trees. Wild Cherry, a tree commonly found in Ohio woodlands, can cause severe health issues in livestock when plant material is consumed by livestock after the plant has been stressed.

One of the greatest concerns with Wild Cherry trees is the cyanogenic precursors that the leaves contain. When a Wild Cherry tree experiences any type of stress (i.e. frost, drought, and storms resulting in physical damage), trees leaves will begin to wilt. During the wilting process, a glycoside within the leaves will dissociate and will be turned into cyanide and sugars. This is were problems begin. In general, animals tend to be attracted to the higher levels of available sugar within the leaves and as a result, livestock will thus consume the leaves. However, as a result of consuming these palatable leaves, livestock are also exposed to a high level of cyanide. Cyanide, a fast acting poison, will immediately negatively affect the host in which consumes it. In addition Wild Cherry tree leaves, Wild Cherry seeds are known to have elevated levels of cyanide. However, the flesh of the cherry seed is safe to eat and thus may be a reason upon why there are fewer issues associated with the seed as compared to the leaf.

So, you more than likely have traversed your pastures and fences lines several times this year to ensure they are still functioning properly, but have you taken the time to identify the trees species that are close and among your pastures? If so, well done! If not, no worries – here are some helpful tips to help you decipher whether or not you have some Wild Cherry trees amongst your property. Wild Cherry trees have bark in which appears scaly in appearance (as shown in the image above). Mature trees are dark gray to black in color. Tree leaves are leathery to the touch and are elongated in shape. Tree flowers are white and very fragrant. The cherries produced by the Wild Cherry tree are dark red. Wild Cherry trees are commonly found around fence lines and open woods are they require a lot of sunlight for optimal growth.

The next question becomes, what do you do if you find Wild Cherry trees on your property. In reality, nothing has to be done, just ensure that you keep a close eye on these trees, especially after summer rain storms as broken tree limbs containing wilting leaves may be available to grazing livestock. If this does occur, either remove your livestock from this area or remove all leaves and tree materials that have fallen. If you choose to remove your livestock from the affected area, animals may be re-introduced once the leaves have been removed or dried. If you are concerned about this type of event happening regularly, you may also opt to remove the tree completely by harvesting it. In the poster, herbicide application and mowing may also be viable options in removing trees as well, but if the tree is of size, harvesting the tree for lumber will be the most economical decision.

As an example, let’s say that you do have some Wild Cherry trees in your pasture and around your property that just experienced a storm the night before. You go out to check on your livestock and find that there are several Wild Cherry tree limbs down in the field and the animals are beginning to graze for the day. How do you know if your livestock have consumed any of the leaves? As discussed earlier here, the ingestion of wilted Wild Cherry leaves may result in cyanide poisoning. Symptoms can occur as quickly as 15-20 minutes post ingestion. Primarily, cyanide poisoning results in decreased blood flow to the brain and can cause increased salivation, an increase in respiration rate, weak pulse, and convulsions. Unfortunately, once symptoms manifest, recovery is rare as animal death is inevitable and occurs within 30-45 minutes of the initial symptoms. However, there are documented cases where animals may recover, but again, these cases tend to
be few and far between.

If you suspect that your animals are experiencing an issue with cyanide poisoning, be sure to connect with your local and/or farm veterinarian immediately. In doing so, you can be assured that your assessment of the situation was correct and know how to correct for it in the future. In the case that it is not cyanide poisoning, you and your veterinarian will be able to determine what other underlying health issues you may be facing in your operation. Therefore, throughout the growing season, be sure to not only check on your animals on a daily basis, but also the environment in which they are in, which may sometimes include fence lines and treed areas within your grazing systems.

Follow the link above to view the Ag-note at: https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/e/45418/files/2020/06/Animal-Health-Toxic-Plants.pdf

**Farm Office Live Session Slated for Thursday, June 25 from 9:00 to 10:30 a.m.**

OSU Extension is pleased to be offering the a “Farm Office Live” session on Thursday morning, June 25 from 9:00 to 10:30 a.m. Farmers, educators, and ag industry professionals are invited to log-on for the latest updates on the issues impact our farm economy.

The session will begin with the Farm Office Team answering questions asked over the past two weeks. Topics to be highlighted include: Updates on the CARES Act, Payroll Protection Program, Economic Injury Disaster Loan (EIDL), Dicamba legislation, and Coronavirus Food Assistance Program (CFAP) Update

Plenty of time has been allotted for questions and answers from attendees. If you miss the on-line office hours, the session recording can be accessed at farmoffice.osu.edu the following day. Participants can pre-register or join in on Thursday morning at https://go.osu.edu/farmofficelive

**David's Monthly Beacon Article**

by David Marrison

Originally Published in The Beacon on June 24, 2020

Hello Coshocton County! Some of you may have heard about Randy Pausch the Carnegie Mellon professor who died from pancreatic cancer at the age of 47 in 2008. He is known for his “Last Lecture.” This talk was modeled after an ongoing series of lectures where top academics are asked to think deeply about what matters to them, and then give a hypothetical “final talk”, with a topic such as "what wisdom would you try to impart to the world if you knew it was your last chance?"

As part of my academic outreach for OSU Extension, I am able to help farm families develop their farm estate and succession plans. Many times, this planning happens in an accelerated or emergency pace as someone has gotten sick or unexpectedly passed away. I would encourage you to start thinking today about your legacy. What would be in your last lecture?

This discussion really hit home to our family a decade ago when my dad passed away from pancreatic cancer in June, 2010. I often wondered if dad had the strength, what would his last lecture be?

While dad never had the chance to give a last lecture, I can’t help but think, in his own style that he gave us a “sentence” at a time during his life. I cherished learning from him from the moment I was able to climb up the poles in the barn to attach the milkers to the pipeline so I could milk cows. He was my “County Agent.” All the agricultural knowledge and success I have had, can be tied directly back to the lessons he provided me.
As we prepared for his funeral, my mom found a piece of paper with two quotes that dad had written down and were tucked away in his suit coat. I would like to share these with you:

The first quote was, “The measure of one’s character is not what they get from their ancestors but what they leave their descendants.” It is my belief that too many people are concerned about how much money or land they will receive from their parents when they die. In my mind, the physical or monetary assets received are far less important than the values and convictions which we receive from our parents.

The second quote was, “I still find the days too short for all the thoughts I want to think, all of the walks I want to take, all the books I want to read, and all the friends I want to see (J. Burrows).” To this date, this quote still tugs at me the deepest. There has not been a day that I have not missed my dad. He not only was my father, but he was literally my best man. How we all wish we could turn the hands of time back to get more time for talks and walks with dad. However, just as I have learned each and every day on the farm, there is a time, place and season for everything, just as is taught in Ecclesiastes 3.

A few years’ ago, my sisters helped me brainstorm the lessons we learned from growing up on dad’s dairy farm. It titled, “All We Need to Know We Learned on Our Dad’s Dairy Farm” and says…

“Most of what we really needed to know about how to live and how to be, we learned on our dad’s dairy farm. We learned that wisdom is not on top of the graduate school mountain but there in the thick of the manure and milk. These are the things that we learned:

From the cow pasture, we learned that a cow path is a lot like life; not always the shortest route between two points and it is full of twists and turns. And while you are walking through the pasture, keep looking ahead because the cow pies of life don’t fall behind you. From the chicken coop, we learned that you can’t tell a rotten egg by its shell and that birds of a feather flock together, so take a hard look at whom you are flying with.

From the fields so green, we learned that the worker bees make the sweetest honey and sour grapes don’t make sweet wine. From the hog lot, we learned that sometimes you have to roll in the mud to be cool and the grass is always greener by the manure pit.

And from the barn, we learned that patience is a virtue –especially when dealing with the donkeys in life. And that a momma cow always helps her newborn calf to stand and walk by giving gentle upward loving strokes with her tongue. And finally when it is all said and done, tomorrow is just an udder day.”

Each of these sentences describe those values that dad taught us. I know that my dad’s legacy will continue for many generations because of the lessons he taught to his children, grandchildren and to many others.”

Coshocton County, I encourage you to take time today to think what your last lecture would be and to make special memories with your loved ones. It will be, time well spent. Have a good and safe day.

Check us out on Facebook at: https://www.facebook.com/OSUExtensionCoshocton/