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OHIO STATE UNIVERSITY EXTENSION

COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES

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Hello Coshocton County! I think many will agree with Aaron Wilson's title for his weekly weather article -"Weather Update: Warm Up Already!". Hopefully this weekend's warm-up will help dry things up as we move into May.

It was good to see some swine and dairy manure being applied to fields across the county today. It does look like we are in for another compressed planting season.

A reminder the registrations are due by this Friday for the Home Fruit Production workshop which will be held on April 25. Reservations are rolling in—so if you are interested, please make your reservations soon.

Have a good and safe week!

Sincerely,

David L. Marrison

Coshocton County OSU Extension ANR Educator

Weather Update: Warm Up Already!

By: Aaron Wilson
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-10/weather-update-warm-already

Summary
Despite sporadic warm days, Ohio has been a bit on the chilly side this month. Through the first seventeen days of April, only Ashtabula and far northern Trumbull counties are running 1-2°F above average. The remainder of the state is running at or below average, up to 4°F below average in the far southwestern counties. Overall, precipitation has been a bit on the lighter side, with much of Ohio running 50-90% of normal. However, most locations have received precipitation on 12-15 of the first 18 days of April. This has prevented the surface from drying out. For the latest up-to-date conditions, seasonal outlooks, and monthly climate summaries, please visit the State Climate Office of Ohio.

Forecast
The remnants of Monday's storm will linger on Tuesday morning, with a few scattered rain and/or snow showers around. Highs will remain below average in the 40s. High pressure will ensure a decent day on Wednesday with highs in the 50s after a frosty start. A weak cold front will drop across the state on Wednesday night and Thursday with another round of rain showers possible and highs in the mid 50s to low 60s. This front will lift back to the north on Friday as a warm front, with a few showers possible, gusty southerly winds, and setting the stage for highs to push well into 70s and low 80s this weekend. Rain showers cannot be ruled out Sunday afternoon, before the next cold front pushes steadier rain back into the region on Monday. The Weather Prediction Center is forecasting 0.25-1.50" of precipitation over the next 7 days (Fig. 2).

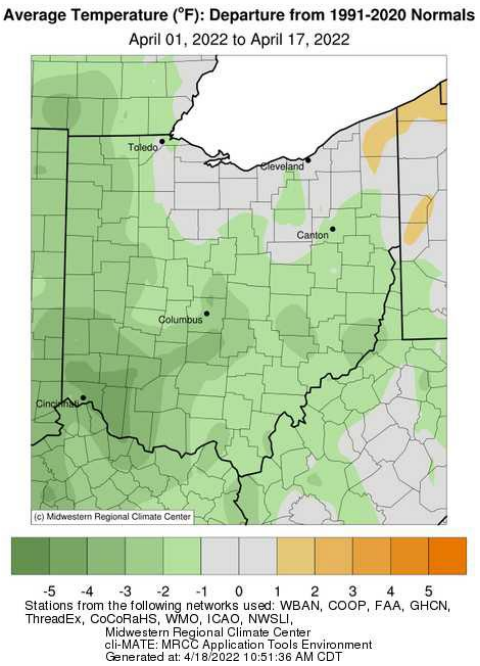


Figure 1). Departures from average temperature for April 1-17, 2022. Figure courtesy of the Midwestern Regional Climate Center (https://mrcc.purdue.edu/).

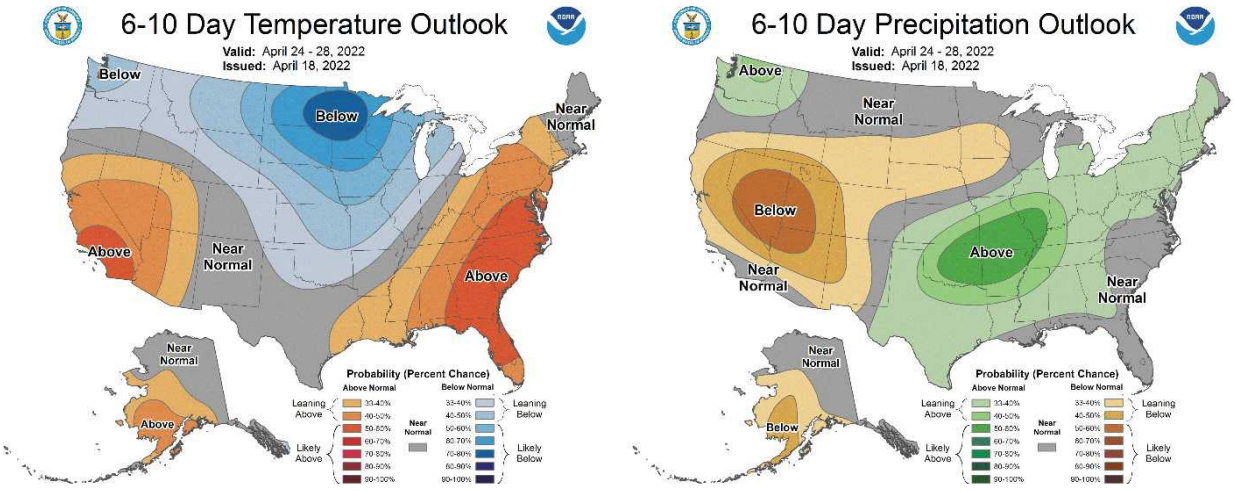


Figure 3) Climate Prediction Center 6-10 Day Outlook valid for April 24-28, 2022, for left) temperatures and right) precipitation. Colors represent the probability of below, normal, or above normal conditions.

The Climate Prediction Center's 6–10-day outlook for the period of April 24 – 28, 2022 and the 16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center indicate above average temperatures with near average to leaning above average precipitation (Fig. 3). Climate averages for this period include a high temperature range of 62-67°F, a low temperature range of 41-45°F, and average weekly total precipitation of 0.85-1.15 inches.

Dealing With Winter Injured Forage Stands

By: Mark Sulc
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-10/dealing-winter-injured-forage-stands

Alfalfa field damaged by excessive wetness during winter and spring. Source: J. Stachler

I've been hearing reports from around the state of forage stands that look poor, especially where flooded soil conditions developed over the past few months. Alfalfa fields that were cut mid- to late fall also are looking rough compared with stands where the last cutting was taken by early September and no fall cutting was taken.

In anticipation of questions about how to manage these forage stands that look rough coming out of the winter, I've outlined some ideas in this article to consider.

The first step is to assess how extensive and serious is the damage. Review the article about assessing forage legume stands posted here the first week of April 2, (https://agcrops.osu.edu/newsletter/corn-newsletter/2022-07/time-assess-forage-legume-stands). Grass stands should be growing well by now and any damage should be fairly obvious by now.

If the damage is extensive and widespread over the entire field, it usually is best to destroy the stand, rotate to another crop, or plant an emergency forage. In these cases, corn silage is the number one choice for an annual forage in terms of yield and nutritive value. But corn silage won't be an option in some situations. Forage might be needed before corn silage can be ready, equipment and storage infrastructure for silage may not be available, or field topography may not be conducive for corn.

Other acceptable short-season forage options include spring oat, spring triticale, spring barley, and Italian ryegrass planted as soon as possible now and harvested at the proper stage of maturity this summer. For more details on these species, see the Ohio Agronomy Guide and information resources at https://forages.osu.edu/forage-management/forage-species-varieties/annual-forages.

Other options, particularly for beef cattle or sheep, include the brassicas. When planting in late May and June, summer annual grasses will do better, such as sudangrass, sorghum-sudan, forage sorghum, pearl millet, and teff.

If the forage stand is damaged, but still salvageable, below are a few suggestions to increase forage production this year and longer term. These were adapted from an article written by Dr. Bruce Anderson, Emeritus Professor and Extension Forage Specialist at University of Nebraska:

- For fields planted last year, try to interseed this spring to thicken up the thin spots. Even in alfalfa, autotoxicity is not a problem until after stands are more than one year old.
- For alfalfa fields greater than one year old, autotoxicity and other problems make interseeding alfalfa risky. But interseeding is still possible in other forage species, and older alfalfa stands can also be interseeded with species other than alfalfa. Consider adding red clover for longer term stands, or if legume production is desirable for this year, consider interseeding crimson clover or berseem clover (they will not do much after this first year though).
- Annuals like oats, spring triticale, and Italian ryegrass can be interseeded as early as possible now. Italian ryegrass planted now will establish rapidly and will continue to produce all year and might even continue into next spring. Oats will produce only a single cutting. Another option is to interseed summer annual grasses right after taking the first cutting. For example, several years ago after an excessively rainy spring in western Ohio, a very successful approach was to interseed sudangrass and sorghum sudangrass hybrids into the damaged alfalfa stands. The summer annual grasses established well in

the thin alfalfa stands and greatly increased forage yields while competing against weed encroachment in those stands.

- Perennials like orchardgrass, festulolium, meadow fescue, and red clover can be interseeded into existing stands and will bring long-term help but won't add much to this year's production.

If you do interseed damaged stands, the competition by the surviving plants for sunlight is a potential serious threat to success. It only takes about one week of shading by a full canopy to kill seedlings below. The only way to open up a canopy once it develops over new interseeded forages is to harvest the existing stand extra early. This will lower first harvest yield and may further weaken already stressed older plants. But it's the only way to get enough sunlight to the new seedlings you interseeded into the existing stand.

In some situations, it might be better to wait until late summer to interseed damaged stands (this of course doesn't help forage supplies this year though). Forage cut in late August or early September regrows more slowly than in spring, thus causing less competition. Interseeding right after that last harvest will give a better chance for success, provided there is adequate soil moisture.

The excessive wet conditions this winter and late fall cutting last year have reduced stands and will reduce forage production in many forage fields this year. Make a careful assessment of the existing stand and then act quickly to minimize long-term losses.

Plant Forage Stands As Soon As Feasible

By" Mark Sulc & Jason Hartschuh
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-10/plant-forage-stands-soon-feasible

Early spring provides one of the two preferred times to seed perennial cool-season forages, the other being late summer. Given our current weather patterns, planting opportunities will likely be few and short again this spring, continuing the pattern of the past several years. So we need to be ready to roll when the weather gives us a planting window. The following 10 steps will improve your chances for successful perennial forage establishment.

1. Check now to make sure soil pH and fertility are in the recommended ranges. Follow the Tri-state Soil Fertility Recommendations (https://forages.osu.edu/forage-management/soil-fertility-forages) . Forages are more productive where soil pH is above 6.0, but for alfalfa it should be 6.5 – 6.8. Soil phosphorus should be at least 20 ppm for grasses and 30 ppm for legumes, while minimum soil potassium should be 100 ppm for sandy soils less than 5 CEC or 120 ppm on all other soils. If these soil test levels are not present, or you don't even have a recent soil test, we recommend making corrective lime and fertilizer applications this spring and seeding an short season forage for the summer and delay establishing the perennial forage stand until late summer.
2. Plant high quality seed of known varietal source adapted to our region. Planting "common" seed (variety not stated) usually proves to be a very poor investment over the life of the stand. Forage yields from "common" seed are often less even in the first or second year and have shorter stand life.
3. Calibrate forage seeders ahead of time. Seed flow can vary greatly for different varieties and depending on the seed treatment and coatings applied. For example, many new alfalfa varieties are sold with a 34% clay coating by weight, so your actual pure live seed rate would be dramatically reduced if you don't adjust for the seed coating. We recommend watching the video entitled "Drill Calibration" available at https://forages.osu.edu/video/.
4. Prepare a good seedbed as soon as soils are fit. The ideal seedbed for conventional seedings is smooth, firm, and weed-free. Don't overwork the soil. Too much tillage increases the risk of surface

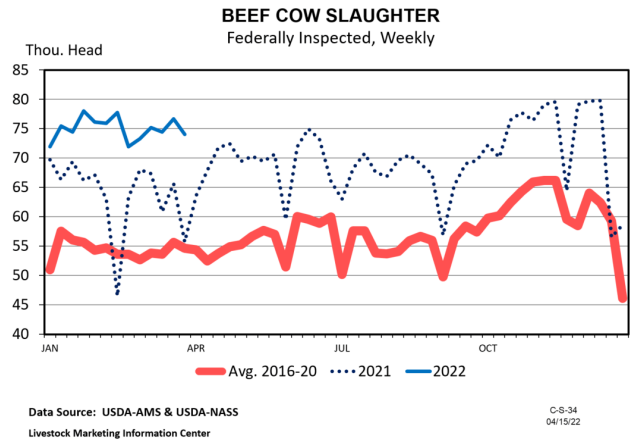
crusting. Firm the seedbed before seeding to ensure good seed-soil contact and reduce the rate of drying in the seed zone. Cultipackers and cultimulchers are excellent implements for firming the soil. If residue cover is more than 35% use a no-till drill. No-till seeding is an excellent choice where soil erosion is a hazard. No-till forage seedings are most successful on silt loam soils with good drainage and are more difficult on clay soils or poorly drained soils. You will want no-till fields to be smooth because you do not want to bounce over them for all the years of this stand!

5. Look for opportunities to seed as soon as possible now. Earlier planting helps forage seedlings get the jump on weeds and the forages establish before summer stress sets in. Weed pressure increases as planting is delayed, and forages will not have as strong a root system developed by early summer when conditions can turn dry and hot. Later plantings also yield less. Given the current conditions, we expect planting won't be possible until sometime in May in many parts of the state. If planting gets delayed past mid-May, it might be better to plant a summer annual and establish the perennial forages in August.
6. Plant seed shallow (¼ to ½ inch deep) in good contact with the soil. Stop and check the actual depth of the seed in the field when you first start planting. This is especially important with no-till drills. In our experience, finding some seed on the surface indicates most of the seed is at the right depth.
7. When seeding into a tilled seedbed, drills with press wheels are the best choice. When seeding without press wheels or if broadcasting seed, use a cultipacker before and after broadcasting the seed, preferably in the same direction that the seeder was driven.
8. In fields with little erosion hazard, direct seedings without a companion crop in the spring allows harvesting two or three crops of high-quality forage in the seeding year, particularly when seeding alfalfa and red clover. For conventional seedings on erosion prone fields, a small grain companion crop can reduce the erosion hazard and will also help compete with weeds. Companion crops like oat can also help on soils prone to surface crusting. Companion crops usually increase total forage tonnage in the seeding year, but forage quality will be lower than direct seeded legumes. Take the following precautions to avoid excessive competition of the companion crop with forage seedlings: (i) use early-maturing, short, and stiff-strawed small grain varieties, (ii) plant small grains at 1.5-2.0 bu/A, (iii) remove companion crop as haylage or early pasture (only if soils are firm), and (iv) do not apply additional nitrogen to the companion crop.
9. During the first 6 to 8 weeks after seeding, scout new seedings weekly for any developing weed or insect problems. Weed competition during the first six weeks is most damaging to stand establishment. Potato leafhopper damage on legumes is especially of concern beginning in late May and continuing most of the summer.
10. The first harvest of the new seeding should generally be delayed until early flower stage of legumes (approximately 60 days after emergence) unless weeds were not controlled adequately and are threatening to smother the stand. For pure grass seedings, generally harvest after 70 days from planting, unless weeds are encroaching in which case the stand should be clipped earlier to avoid weed seed production.

Beef Cattle Slaughter Continues to Outpace Last Year

By: Dr. Kenny Burdine, Extension Professor, Livestock Marketing, University of Kentucky
Source: https://u.osu.edu/beef/2022/04/20/beef-cow-slaughter-continues-to-outpace-last-year/

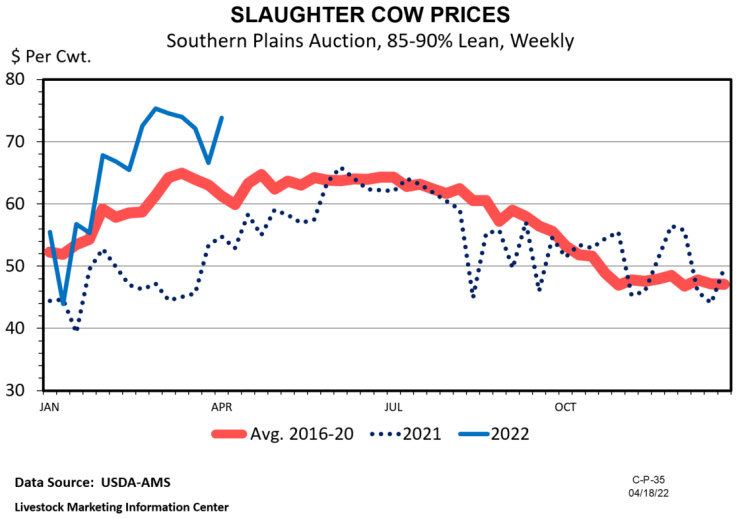
The size of the US beef cow herd was estimated to have decreased by 2.3% during 2021. Steep culling of the cowherd was a major reason why this was the case as beef cow slaughter was up by nearly 9% for the year. A frustrating calf market and drought in much of the US led to herd reductions as a lot of cows were sent to market. Year-over-year, the increase amounted to almost 300 thousand cows, which probably accounted for about 40% of the reduction in beef cow numbers last year.

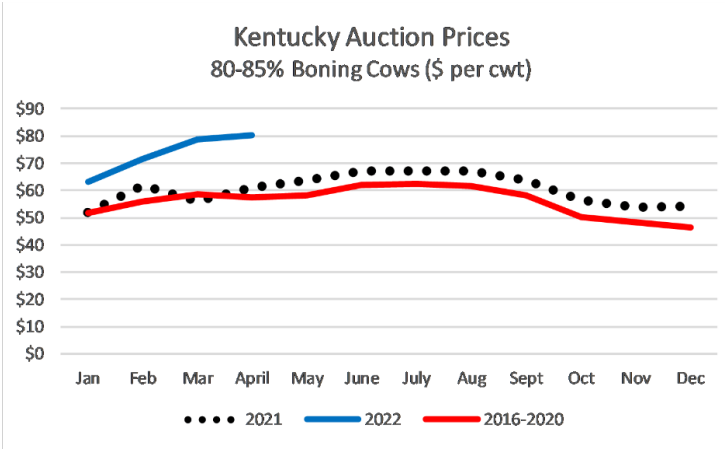


While calf prices have been higher in the first three months of 2022, a large portion of the US remains in significant drought. Most significantly for the cattle sector, drought moved into the Southern Plains during the fall of 2021 and has seemed to intensify over the last several months. The chart above shows beef cow slaughter for 2022 (blue line), which has been running well ahead of 2021 (dotted line). Year-to-date, beef cow slaughter has been over 17% higher than year-ago through the end of March. This is slightly biased by an extremely low cow slaughter week in February 2021, which was the result of a significant ice storm. However, even taking that week out of the comparison, harvest levels are still more than 14% higher so far this year.

While drought conditions are likely the major driver behind current cow slaughter levels, price levels are adding fuel to the fire. The chart below shows slaughter cow prices in the Southern Plains, which have been running much higher than last year. For the first week in April, slaughter cow prices were almost 35% higher than the same week in 2021. The same has generally been true for cull cow markets in the Southeast and I am including a cull cow price chart for Kentucky as well.

Beef heifer retention was lower coming into 2022, which suggests continued contraction in beef cow numbers. It is still early in the year, but beef cow slaughter through the end of March points to another year of heavy culling. The combination of dry weather and strong cull cow prices are likely to keep cows moving and encourage producers to pull the trigger a little sooner on those cows as they approach the end of their productive lives. This is definitely something to watch as we move through the current year and it is hard to imagine that we won't be discussing another decrease in beef cow numbers at the start of 2023.





Marketing Feeder Lambs

Government of Alberta- (Previously published online: Marketing feeder lambs)
Source: https://u.osu.edu/sheep/2022/04/19/marketing-feeder-lambs/

Overview

Lambs can be marketed either as finished (ready for slaughter) or feeder lambs. The choice depends on the facilities a producer has for feeding out lambs and their willingness to regularly sort and market them as they reach the ideal weight and finish. If a producer plans to sell all of their lambs at one time, it may be better to sell them to a feedlot than to sell a mixed group of lambs for slaughter.

Feeder lambs require more growth and finish before they are a suitable size and weight for a particular slaughter market. Generally feeder lambs are divided into three definite live weight groups:

- Under 60 lb. (long-term feeders)
- 60-80 lb. (middle-term feeders)
- 81-94 lb. (short-term feeders)

Lambs can, however, be sold as feeders at weights as high as 100 to 110 lbs., depending on the intended market. Deciding to sell feeder lambs should be part of an overall management plan, rather than a last-minute decision. To keep the alternative of selling feeder lambs open, they must be docked and castrated soon after they are born. Producers who decide to sell their lambs as feeders should shop around for the best time and market to sell them in.

Deciding whether or not to sell feeders will depend on the size and type of operation, the availability and cost of feed, and the producer's time and management skills. Many of these factors are influenced by when the lambs are born. Feeding practices can vary widely for early- and late-born lambs, and lambs that are not finished by the end of the pasture season.

Early-born feeders

Lambs born from January to late March will finish when prices for finished lambs may be declining. Therefore, producers should try to finish early-born lambs as quickly as possible on a ration high in grain with a protein supplement.

For some, selling to a feedlot may be a good choice if managing the lambs interferes with other farm operations, such as spring fieldwork. Other producers may be able to feed the lambs at home, but find it difficult to market them efficiently. Producers with a small number of lambs may have only a few ready to be marketed at any one time. That situation can make the per-head marketing costs prohibitively high. Producers in that situation can choose to feed the lambs until the largest are nearly ready for slaughter and then sell them all at a feeder sale or directly to a feedlot. The buyer or feedlot operator can sort and assemble larger loads with lambs bought from other producers. These larger loads will have lower transportation costs and therefore increase net returns.

Finishing lambs requires good management to ensure proper health care and careful ration formulation. That proper management is a skill that can be learned by any producer who is willing to seek and follow advice. Sheep production courses and ration-balancing software are available, and many feed mills have nutritionists that can formulate lamb rations.

Late-born feeders

Lambs born in the late spring or early summer are not usually finished before slaughter lamb prices drop in the fall. Since finishing lambs quickly at this time will not likely produce a price premium, finishing them as inexpensively as possible will produce better net returns. This usually means feeding them on pasture. However, in some circumstances, such as when grain is very cheap or there are severe predator problems, it may be more profitable to finish them in a feedlot. The feedlot can be the producer's own or a custom feedlot where the producer retains ownership of the lambs and pays to have them fed. Or the lambs may be sold to a separate feedlot.

Pastured lambs that are not finished by the end of the season must be put into a feedlot at the home farm or sold as feeder lambs. Fall pasture may be adequate for dry ewes but does not generally provide sufficient nutrition for growing lambs. Lambs that are to be sold or fed after the pasture season should be moved as soon as the pasture starts to deteriorate instead of keeping them on a feed source that does not match their nutritional requirements.

The following factors will affect a producer's decision to keep the lambs and finish them or sell them to a feedlot:

- Change in value of the finished lambs – the price per pound for finished lamb is generally 5-15% lower

than the price per pound for feeder lambs.

- Seasonal price trends – the final value of the lambs should be calculated using the projected lamb price for the time the producer expects the lambs to be finished, rather than the current slaughter lamb price.
- The cost of finishing the lambs – if a producer has good, but nonsaleable, feeds, for example, heavy grain screenings, at home, the cost of putting on the last few pounds may be low. That makes finishing the lambs at home less costly.
- Transportation home from the pasture – if the pasture is far from home, the added cost of trucking lambs back to the home farm may nullify any profit that could be made during this final feeding period.
- Producer facilities – there is little point in building complete feedlot facilities for a short feeding period. On the other hand, if a producer already has sufficient barn and corral space and only needs to build some feeders, the added cost is small. That allows the producer to make more use of facilities they are already paying for.
- Other farm operations – if a producer is busy with harvest operations or a winter job, there may not be time to properly manage feeding lambs.
- The cost of marketing finished lambs – if a producer will only be able to have a few lambs ready for slaughter at any one time, per lamb marketing costs, including time and hauling expenses, may be disproportionately large.

Producers who have decided to sell their lambs as feeders can do so by selling directly to a feedlot, by selling to an order buyer, or by taking the lambs to an auction.

Additional information
See other Marketing Manual modules for further information on marketing sheep and lambs through auction marts or licensed dealers.

Make Hay in May

By: Christine Gelley, OSU Extension Educator ANR, Noble County
(Previously published in Ohio Farmer: April 19, 2022)
Source: https://u.osu.edu/sheep/2022/04/19/make-hay-in-may/

Producers must pay attention to soil fertility, drying time, and storage to maximize both quality and quantity. With May quickly approaching, hay season will soon be officially underway.

In the years since I began working at Ohio State Extension in Noble County, there have been two years when conditions were right for making dry hay in May — 2020 and 2021. The smell of mowed hay drying in the warm sun and the sight of fresh round bales soon to be peppering fields gives me a boost of much-needed optimism. For people concerned with the quality of hay, this is exciting stuff.

Making hay in May is worthy of celebration because the most influential factor on forage quality is plant maturity. As grasses and legumes emerge from the soil in springtime, energy is allocated to leaf production. This is the vegetative stage of growth. The leaves are the most nutritious part of forage crops for livestock to consume, either by grazing or as stored feed.
It is ideal to harvest forages before they bloom. In legumes, the ideal stage for harvest is “early bud,” and for grasses, the ideal stage is “early boot.” Both stages describe the time in which the balance between nutritional value and yield is maximized before the flower fully emerges.

As temperatures heat up and time passes, plants progress from the vegetative phase to the reproductive phase of growth. In this window of time, the plants are allocating energy to the production of a flower.

After flowering, energy is allocated to seed fill. While the focus is shifted to reproduction, leaves and stems become less nutritious and accumulate fiber. The increase of fiber in the stems and leaves helps support the flower and seed head as the plants become heavier.

As fiber increases, the forage becomes more difficult for animals to fully digest. Animals eat less because it takes longer for food to pass through their digestive tract. The greater the amount of fiber in the forage, the lower the nutritional value for livestock, thus the more they must eat to maintain weight. When the rate of consumption cannot adequately supply nutrients to the animal, weight gain stalls and production ability of the animal decreases.

In simple terms, if the weather allows, harvest should be accomplished before grasses and legumes begin producing seed. Having good weather in May gives the haymaker the opportunity to achieve a timely first harvest, and improves the odds of getting good results in subsequent cuttings in the same hay season.

While there are numerous other factors that go into the production of high-quality hay, having good weather on your side is critical for success. Producers must also pay attention to soil fertility, drying time, and hay storage to maximize both quality and quantity.

Making hay in May will mean we are off to a great start of hay season.
Please be safe out in the field, and avoid rushing through tasks. Yes, hay harvest is a task that requires you to time your work for best success, but nothing is more important than worker safety. Take your time to maintain your machinery, your stamina, and your focus. Best wishes to all for a productive and happy summer ahead!

Ohio Farmers Invited to Participate in Multi-State On-Farm Research Survey

Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-10/ohio-farmers-invited-participate-%C2%A0multi-state-farm-research

A working group from The University of Nebraska-Lincoln, Kansas State University, and The Ohio State University have partnered to conduct a multi-state assessment of farmers' approaches to on-farm research, including its importance and motives to participate. Understanding farmers' perceptions of on-farm research will be vital for the long-term success of initiatives that promote agronomic research on field scales. The information will also be critical in helping to shape future extension programming efforts. The survey will close on May 23rd and it is open for responses before that date. The survey is short, and it should take about 5-10 minutes to complete. Your information/responses are voluntary and will be recorded anonymously.
Access the survey here: https://kstate.qualtrics.com/jfe/form/SV_71iwM5FE0zhSW10

Questions can be directed to:
Carlos Pires, carlospires@ksu.edu or 785-770-6335 Osler Ortez, ortez.5@osu.edu or 330-263-9725

When the Rain Won't Let Up

By Bridget Britton, OSU Extension Behavioral Health Field Specialist
Source: go.osu.edu/farmstress

Each morning when waking up recently it feels as though we look out the window and it is either raining or has rained overnight. Farmers are natural meteorologists and are in tune with what is going on with the weather any given hour of the day.

According to Aaron Wilson, Ohio State University Extension climatologist, there has been measurable rainfall all but 3 days so far in the month of April. Wet weather and planting delays are sources of additional stress. Though we can't know for sure when the fields will dry up enough to plant, there are things you can do to keep some of the stress from overwhelming you.

- **Get moving:** This is normally when the physical activity starts ramping up. You might not be out busy

in the fields yet but start prepping your body and mind now by doing whatever exercise you enjoy to get in the right mindset. This "exercise" might include working on equipment, cleaning your shop, or catching up on things you've been putting off.

- **Make time for laughs:** Have you ever heard laughter is the best medicine? Well, it might not be the best, but it can help. Make sure you find time to spend with your funny family member or employee. You know who they are.
- **Stay away from unhealth coping mechanisms:** If you are like me stress eating is easy to do, but instead of overeating try playing a game, calling a friend, or spending time with nature. An increase in unhealthy habits such as alcohol use can contribute to farm accidents, and could negatively impact you, your family, and your farm business.
- **Take a look at long term goals and plans:** Though you would rather be out in the fields, with all the rain this may be a good time to examine the future of the farm. Talk with family and employees about any improvements or goals you have for the future. Making sure everyone is on the same page is crucial. Often as planting season begins little time is left for any of these types of conversations.
- **Help yourself and others during stressful times:** Make time during the wet days and evenings for check-ins with family and friends. This can support not only them but you during this stressful time. No one should have to suffer alone if they may be feeling any type of anxiety or sadness. While you are waiting for the rain to pass this is a great time to spend some time off the farm and each other's company.

Remember you are more than your farm. We need you to be healthy both physically and mentally. Reach out if you or someone you know may be struggling. There are resources available at go.osu.edu/farmstress or reach out to your local extension office. If someone is in crisis there is the free and confidential crisis line at 1-800-273-8255.

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Farm Office Live Will Air on April 22

The Farm Office Team will be back on April 22 at 10 am, for the next installment of Farm Office Live. The April topics include: state and federal legislation update; LLC liability protection review; 2021 Midwest farm performance preview; fertilizer and crop budgets update; FSA program updates; Ohio General Assembly website tour. Register or watch replays at go.osu.edu/farmofficelive. The next Farm Office Live will be held on May 20.

"Name that Tree" Workshop Slated for June 29

Have a tree that you pass on a regular basis that you always wonder 'what is that? Or do you own a woodland and want to know exactly what trees you have? If so, OSU Extension and Clary Gardens will be hosting a **"Name that Tree Program"** on Wednesday, June 29 from 10:00 to 3:00 p.m. at Clary Gardens located at 588 West Chestnut Street in Coshocton, Ohio

This one-day workshop is designed to give participants in-depth training and practice on identifying trees using leaves and other common characteristics. The class begins in a new outdoor event pavilion with some introductory identification clues and samples that

we use to work through a dichotomous key. The afternoon is spent out in the woods practicing (expect moderate walking).

The registration fee for this program is $40 per person. This registration fee includes the program, light refreshments, lunch, and handouts. There is limited seating so pre-registration is due by June 21. For more information about this program, contact the Coshocton County Extension office at 740-622-2265.

Home Fruit Production Workshop Scheduled for April 25

OSU Extension invites Coshocton County residents to attend a Home Fruit Production Workshop on Monday, April 25 from 6:00 to 8:00 p.m. at the Roscoe Village Visitor's Center in the Lock Landing Meeting Room at 600 N Whitewoman Street in Coshocton, Ohio. This workshop will help participants learn how to grow strawberries, red raspberries, black raspberries, and blackberries. Participants will also learn how to care for fruit trees such as apple, peach and pear trees. The keynote speaker Sabrina Schirtzinger, OSU Extension Educator in Knox County.

The registration fee of $10 includes the program, light refreshments, door prizes, and handouts. Limited copies of the "Midwest Home Fruit Production Guide" ($25) will be sold at the event. You can also pre-order with your registration to receive a $5 discount on this publication. ($20). Don't miss this chance to learn more about growing delicious fruit for your family. For more information about this program, contact the Coshocton County Extension office at 740-622-2265.

The Cheapest Mineral Isn't Really Cheap

Francis L. Fluharty, Ph.D.

Professor and Head

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The major nutritional requirements are: water, energy, protein, minerals, and vitamins. In many cases, beef producers do a good job of providing adequate water, energy, and protein. However, many beef producers buy 'cheap' minerals, ignoring the fact that the availability of the minerals in the oxide form in many of these mixes are only 10 to 20% as absorbable by the animal in the sulfate, chloride, organic, or chelated forms (when minerals are metals bound to an organic compound such as an amino acid in zinc methionine or organic selenium in selenomethionine; Spears, 2003) in more expensive mineral mixes. The advantage of more available forms of minerals are seen when stress increases. Consider the fact that weather can be a stress, whether it's extreme heat or cold, and that working cattle at breeding, vaccination, and weaning can be stressors. So, why do so many producers buy minerals that don't provide the best nutrition to the animal when they need it most, and buy the cheapest mineral instead? In many cases, it's because we think in terms of tons rather than days, and a ton of mineral seems expensive relative to a ton of hay, but not when you consider that a ton of mineral with an anticipated intake of 4 oz per day will provide feed for 8,000 animal days. I can't imagine a beef producer going to their truck dealership and asking for the truck with the least power when it's under a load, or asking for the truck with the weakest transmission, but we do this same thing when we buy minerals with the poorest absorption during times of stress, then we buy additional hay, or grain, or treat sick newborn calves, or blame the bull when cows don't breed in a timely manner.

In beef cattle, macro minerals are described as those required at concentrations greater than 100 ppm of the diet and are often expressed as a percentage of the diet. Trace minerals are considered to be those required at concentrations less than 100 ppm (McDowell, 1992; NRC, 1996). Macro minerals include calcium, phosphorus, potassium, magnesium, sulfur, and sodium and chloride (salt), whereas the trace minerals include cobalt, copper, iodine, manganese, selenium, iron and zinc (NRC, 1996). The most commonly deficient vitamin is vitamin A, as vitamin D is synthesized by cattle exposed to sunlight or fed sun-cured forages, and vitamin E concentrations are high in fresh forages. Rumen microflora synthesize B- vitamins in sufficient quantities, and B-vitamin supplementation is not normally needed. It is important to remember, however, that the most important nutrient is the one that is missing or deficient, and in the case of nutrient imbalances, there can be more than one! Magnesium and the trace minerals copper and

manganese are all cofactors in the cow's energy producing metablolic pathways, and deficiencies can limit energy production and utilization at the tissue level.

For instance, if a mineral is $1200 per ton, it seems like a lot of money so producers tend to purchase the cheapest mineral possible. However, at a 4 ounce per day intake, the mineral only costs $.15 per day ($1200 ÷ 2000 pounds = $.60 per pound × .25 [4 ounces = ¼ pound] = $.15 per day). The cost of really good mineral nutrition is only $54.75 per animal per year (365 days × $.15 per day)! Well, does that pay? Let's assume that the price of feeder calf is $1.50 per pound. If the cow's nutritional status is insufficient, and she does not breed on her first estrus, it will be 21 days before she can breed. Normally, calves should gain approximately 2.5 pounds per day from birth to weaning at 205 days. Remember that most operations wean their calves on one day. Therefore, losing 21 days on a calf's age costs around 52.5 pounds (21 days × 2.5 pounds per day). At $1.50 per pound, that's $78.75, or $24.00 more than the cow's entire mineral nutrition cost for the entire year! Furthermore, many producers supplement their cows with distillers grains, or corn. If dry distillers grains (DDG) are $300 per ton, that's $.15 per pound ($300/ton ÷ 2000 lb/ton), and if corn is $7.00 per bushel, it costs $.125 per pound ($7.00/bu ÷ 56 lb/bu). If a producer supplements their cows with 5 pounds of distillers grains, or corn, for 60 days in late gestation and early lactation in order to keep body condition in the 5.0 to 5.5 range, it would cost $.75 per day for DDG, and $.625 per day for corn. That's $45.00 for DDG, and $37.50 for corn, and that doesn't include the cost, and time, involved with transportation and feeding. This doesn't even take into account the number of calves that are born weak, or the fact that the quality of colostrum is impacted by nutrition, or the fact that supplementing with corn or distillers grains can increase calf birth weight and increase calving difficulties. Why not feed a mineral mix that improves the entire management of the cow herd, allows the cow to take advantage of improvements in body condition throughout the summer and fall, and improves her ability to deliver a live calf and then rebreed in a timely manner. Producers could reduce energy and protein supplementation costs, reduce the average number of days from calving to rebreeding, reduce the number of calves treated for illness due to poor immunity early in life, and increase the total pounds of calves weaned and whole-herd profitability potential, and focus more time on management.

Literature Cited

McDowell, L. R. 1992. Minerals in Animal and Human Nutrition. Academic Press Inc. Harcourt Brace Jovanovich Publishers, San Diego, CA.

NRC, 1996. Nutrient Requirements of Beef Cattle 7th Revised Edition. National Academy Press. Washington, DC.

Spears, Jerry W. 2003. Trace mineral bioavailability in ruminants. J. Nutr. 133:1506S-1509S.

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University of Georgia

CFAES

OHIO STATE UNIVERSITY EXTENSION

"Name That Tree" Workshop

Wednesday, June 29, 2022
10:00 a.m. to 3:00 p.m.
Clary Gardens
588 West Chestnut Street
Coshocton, Ohio 43812

Have a tree that you pass on a regular basis that you always wonder 'what is that? Own a woodland and want to know exactly what trees you have? Then this **Name That Tree Workshop** is for you! This one-day workshop is designed to give participants in-depth training and practice on identifying trees using leaves and other common characteristics. The class begins in a new outdoor event pavilion with some introductory identification clues and samples that we use to work through a dichotomous key. The afternoon is spent out in the woods practicing (expect moderate walking). This workshop is being co-hosted by OSU Extension and Clary Gardens

Class Agenda

9:30 a.m.	Registration
10:00 a.m.	Introduction to Tree ID
11:15 a.m.	Using a Key to ID
12:00 noon	Lunch (provided)
1:00 p.m.	Hands-On ID in the Woods
3:00 p.m.	Wrap-Up & Adjourn

REGISTRATION INFORMATION: The registration fee of $40 includes the program, light refreshments, lunch, and handouts. **There is limited seating so pre-registration is due by June 21.**

Name(s)_____

Address_____

Email_____ Phone_____

Clary Gardens

$40 per person registration ____# of attendees @ $40 each

Please make checks payable to OSU Extension and mail to OSU Extension, 724 South 7th Street, Room 110, Coshocton, Ohio 43812. For more information, call 740-622-2265.

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

CFAES

OHIO STATE UNIVERSITY EXTENSION

Home Fruit Production Workshop

Monday, April 25, 2022
6:00 to 8:00 p.m.

Roscoe Village Visitor's Center
Lock Landing Meeting Room
600 N. Whitewoman Street
Coshocton, Ohio 43812

Join OSU Extension – Coshocton County and keynote speaker Sabrina Schirtzinger (OSU Extension Educator in Knox County) to learn more about growing fruit in your home landscape. Learn how to grow strawberries, red raspberries, black raspberries, and blackberries as well as how to care for fruit trees such as apple, peach and pear. Don't miss this chance to learn more about growing delicious fruit for your family. Pre-registration is requested as space is limited. The registration fee for this program is $10 per person. Copies of the "Midwest Home Fruit Production Guide" can also be purchased. We hope you will join us in beautiful Roscoe Village!

REGISTRATION INFORMATION: The registration fee of $10 includes the program, light refreshments, door prizes, and handouts. **There is limited seating so pre-registration is due by April 18.** Limited copies of the "Midwest Home Fruit Production Guide" ($25) will be sold at the event. You can also pre-order this publication with your registration to receive a $5 discount ($20).

Name(s)_____

Address_____

Email_____ Phone_____

$10 per person registration ____# of attendees @ $10 each

Pre-order a copy of Midwest Home Fruit Production Guide ___ yes ___no ($20 additional)

Please make checks payable to OSU Extension and mail to OSU Extension, 724 South 7th Street, Room 110, Coshocton, Ohio 43812. For more information, call 740-622-2265.

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