

COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCESMarch 11, 2020 Issue

Some Good Weather News
Managing Mud Season
Benchmarks for the Cow/Calf Producer
Rhizobia Inoculant Following the 2019 Season
Cover Crop Termination
Pasture Species Selection for Sheep
2020 Spring Sheep Shearing School Announced
Backyard Fruit Production Workshop Postponed until April 28
ODA Pesticide Testing
SWCD Tree Sales
Coshocton County Dairy Banquet on March 20
National Ag Day Luncheon
Upcoming Programs

Coshocton County Extension
724 South 7th Street, Room 110
Coshocton, Ohio 43812
Phone: 740-622-2265
Fax: 740-622-2197
Email: marrison.2@osu.edu
Web: <http://coshocton.osu.edu>

Hello Coshocton County! It has been a busy two weeks since the last newsletter. We held the Farm Financial Management School on February 27, offered 2 Farm Management Webinars (Workers Compensation on Feb 26 & Estate Planning on March 11); held the Hay Quality workshop on March 3, Pesticide and Fertilizer Re-Certification session on March 4 and our 5th & final Farmers Breakfast on March 10.

At last week's hay clinic, Dr. Ted Wiseman taught how to take a forage sample to get it analyzed for its quality. The challenging weather of the past two years made it very difficult to make quality hay. Bottom line is that most hay that has been made will not meet the nutritional needs of your cows; especially during late pregnancy or during lactation. In most cases additional feed such as corn needs to be fed. Just a reminder OSU Extension is able to send forage samples out to be tested for \$35 per test. This is money worth spending!

At last but not least, the coronavirus (COVID-19) has been forefront in the news this week. The Ohio State University has been proactively implementing protocols to ensure the safety and health of our students and clientele. After consultation with the college and university leadership, OSU Extension is postponing or cancelling most of our educational events through at least March 30. We understand this may cause an inconvenience to you, but please know that your health and the health of our community at-large is our highest priority. We will share updates as more information becomes available. Thanks for your patience as we learn more about how this virus is affecting Ohioans.

Sincerely,

David Marrison

Coshocton County OSU Extension ANR Educator



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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go.osu.edu/cfaesdiversity.

Some Good Weather News

By: Jim Noel

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-05/some-good-weather-news>

There has been a recent confirmation of the coronavirus in the state of Ohio leading to public health concerns related to disease transmission.

A warmer than normal March is now anticipated now. This is a change toward the warmer side. This will speed up green up conditions and start evapotranspiration early this spring. This will also help to dry out our really wet soils a little bit at least. The bottom line is things are shaping up to not be as tough this spring.

The outlook for March calls for above normal temperatures and near to a little bit above normal rain (but not as wet as it had looked like several weeks ago). <https://www.cpc.ncep.noaa.gov/>

The spring outlook calls for things to be warmer and slightly wetter than normal but not as wet as last year.

The summer is still leaning toward warmer than normal but a swing toward drier than normal. Hence, the planting season appears not as tough as last year but there still could be some summer challenges ahead as dryness could develop. We do need to watch the above normal temperatures this spring. The next 16-day

rainfall can be found at: <https://www.weather.gov/images/ohrfc/dynamic/NAEFS16.apcp.mean.total.png>

It is generally considered normal to slightly above normal. But it will be combined with above normal temperatures which will offset most of the normal to above normal rainfall areas.

Managing Mud Season

By: [Ted Wiseman](#), OSU Extension, Perry County (originally published in [Farm and Dairy](#))

Source: <https://u.osu.edu/beef/2020/03/11/mud-season/>

This is not a new topic or an issue that we haven't seen before. But this past year has really been a challenge for ruminants. In a normal year mud season was early fall, then freeze in the winter and then reappear in March. This year it started after last September's dry weather, and since then it's been mud season. This has made feeding forages and maintaining pastures very difficult. To further compound the problem last year's first cutting hay was of very low quality. I hope that you have taken forage samples and are maintaining body condition scores in preparation for the newborns arriving soon if not already.

Not only is the mud situation bad for our pastures and feeding areas, it also increases the nutrient need for our livestock. Reports have indicated that cattle in muddy conditions may require 30% more net energy for maintenance. Shallow depths of mud (4-8") can reduce feed intake 5-15% and when mud is 12-24" deep, feed intake can be reduced by 15-30%. To make matters worse the first cutting hay made last year is not even good enough to meet a beef cows needs.

Driving around southeastern Ohio these past few months, we are going to have a great deal of work to do this spring in re-establishing feeding areas and some pastures. There are a few places that will probably re-establish themselves, but those are very few. Depending upon how deep the mud and ruts are in your fields, you may be able to simply do a mud seeding (formerly known as frost seeding). If the ground requires some extensive tillage, leveling and weather conditions do not improve in time. It may work best to do a light seeding this spring and wait till early fall to complete any groundwork and then reseed.

Traditional early spring mud/frost seeding works best with seeds that are small and get good soil contact like legumes, typically red clover. Grasses like perennial rye grass have been used with some success. However, with all the exposed soil we have this year it may just be possible to seed other grasses. I know many do not like fescue, but we do have available some endophyte free and novel endophyte varieties that would be good to put into the mix, especially in those high traffic areas. If you have a small area and are willing to put some effort into managing a grass, Kentucky 31 infected fescue might be an option. I know many have a great dislike for this grass because of the endophyte issue, but it is a tough grass and is a good sod builder.

Mud/frost seeding is a low-cost method of trying to re-establish pastures and feeding areas. Once you decide

you how you are going to repair these distressed areas, you will need to decide what forages species you are going to use and determine seeding rates. The wild card as always is dealing with weather conditions, but when in the past has that never been the issue anyway.

Heavy use pads are a great option to avoid muddy messes that we have been dealing with. Just reducing animal stress, hay losses and being able to manage manure through these extreme wet conditions quickly make these facilities well worth the investment. There are numerous options and designs when constructing these. Every farm and situation are different, but you can check with your local soil and water conservation districts for assistance in designing and financial assistance with construction.

Benchmarks for the Cow/Calf Producer

By: Dr. Andrew Griffith, Assistant Professor, Department of Agricultural and Resource Economics, University of Tennessee

Source: <https://u.osu.edu/beef/2020/03/11/benchmarks-for-the-cow-calf-producer/>

The past couple of meetings I have spoken at I have briefly discussed some benchmarks for conception rate, calving rate, and weaning and marketing rate. The reason this has been a topic is because of the concern about cattle prices. Many producers are concerned about cattle price, but I would contend that many cow-calf producers are losing more money from not getting cows bred and not getting calves to the age of marketing than they are through market price swings.

The benchmark values I suggest is a 95 percent conception rate, 94 percent calving rate, and a 90 percent weaning and marketing rate. Thus, a producer with 30 cows needs to have 27 marketable calves each year while the producer with 100 cows needs 90 marketable calves.

For many producers, these benchmarks are not being met which means the market price has no impact on animals that never make it to marketing. This is meant to encourage producers to focus on management aspects that improve the likelihood of actually having something to market.

Rhizobia Inoculant Following the 2019 Season

By: Laura Lundsey & Stephanie Karhoff

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-05/rhizobia-inoculant-following-2019-season>

Following wet weather conditions and fallow fields, some producers are wondering if they need to inoculate their soybean seed with Rhizobia.

Soybean plants have a symbiotic relationship with bacteria in which the bacteria fix nitrogen from the atmosphere into a plant-available form of nitrogen. In soybean, nitrogen fixation is associated with *Bradyrhizobium japonicum* (commonly referred to as just Rhizobia). Generally, fields with a history of soybean production have an adequate population density of *Bradyrhizobium japonicum*. In our research trials, we have measured a yield increase of approximately 1.5 to 2.0 bu/acre when soybean seed is inoculated and the field has a history of soybean production. However, statistically, this is only at the 70% confidence level (e.g., I'm 70% confident there is a 1.5 to 2.0 bu/acre yield increase when soybean seed is inoculated when the field has a history of soybean production.)



Image courtesy of cropwatch.unl.edu

What about fields that were flooded? In Wisconsin, researchers examined Rhizobia populations and effect of inoculant following flooded field conditions the previous year. Trials were conducted in three field locations that

were flooded for at least three weeks. Soybean yield was not influenced by inoculant (four inoculant products tested). Even following a flood, Rhizobia populations were adequate for crop growth. However, if large amounts of soil or plant residue from an unknown origin were deposited in the field, Rhizobia inoculation may be necessary.

What about fields that were never planted? When fields remain unplanted, there may be a decline in beneficial mycorrhizal fungi, which is commonly referred to as “fallow field syndrome.” Keep in mind Bradyrhizobium japonicum are bacteria, not fungi. There is very limited information on the effect of fallow fields on Rhizobia populations. However, if soybean were planted sometime during the past three years, there should be an adequate Rhizobia population.

If you are concerned about having adequate Rhizobia populations in your fields, inoculant is a relatively cheap insurance.

Reference:

Furseth, B.J., Conley, S.P., & Ané. (2011). Soybean response to Rhizobia on previously flooded sites in southern Wisconsin. Agronomy Journal, 103, 573-576. (Available at: <https://access.onlinelibrary.wiley.com/doi/10.2134/agronj2010.0393>)

Cover Crop Termination

By: Mark Loux & Alyssa Essman

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-05/cover-crop-termination>

The 2019 growing season came and went and left many fields in a state of disarray heading into 2020. Many growers that were unable to plant decided to use cover crops, to reduce soil erosion and provide some weed suppression during the extended fallow period.

Terminating these cover crops using the right methods at the right time will be critical to ensure timely planting and prevent the cover crops from competing with cash crops.

The three main methods of cover crop termination are natural (species that winter kill), chemical, and mechanical. Cover crops may also be bailed, grazed, or harvested as silage. Most species require some sort of management decision for termination. Cover crop species, growth stage, weather, and cover cropping goals should all be considered when planning termination method and timing. These decisions require a balance between growing the cover long enough to maximize benefits and terminating in time to prevent potential penalties to the following cash crop.



Natural Termination

Summer and fall planted cover crops that die naturally over the winter in Ohio include: oats, sorghum-sudangrass, tillage and oilseed radish, turnips, and winter pea (if planted after August). The use of these species can simplify spring management. However, they provide a shorter period of soil protection, especially if planted after a late harvest. For this reason, they are often included in some sort of species mixture with other grass or legume species that over winter to provide weed suppression and soil protection in the spring. Producers have also started to experiment with interseeding and broadcast seeding in the late summer or early fall. Doing so can maximize benefits from winter killed species and species mixes, and avoid the risk of not being able to plant cover crops in the event of a late harvest.

Chemical Termination

Termination with herbicides is reliable if applied at the appropriate herbicide rate and growth stage. Refer to the label for rate and surfactant recommendations. Glyphosate has proven to be an effective means of control.

In general, grass species including wheat, barley, rye, oats, and annual ryegrass can be controlled with glyphosate alone or mixes that include glyphosate. Recent research shows that for these grass cover crop species, glyphosate alone or glyphosate plus 2,4-D, saflufenacil, or clethodim was most effective (Whalen et al. 2019a). Use caution when considering annual ryegrass as a cover crop species, as it is especially aggressive and can quickly turn weedy and escape chemical control. Systemic herbicides, such as glyphosate, are most successful when applied on warm, sunny days when plants are actively growing. Termination treatments should be applied before the boot stage of grasses. Control of grasses with paraquat and glufosinate often declines 4 weeks after application, relative to the longer-term effectiveness of glyphosate (Pittman et al. 2019). It is often recommended that cereal rye be terminated 10 to 14 days before corn planting to reduce the effects of allelopathy on the germinating corn crop. Soybeans are generally less susceptible to this effect from cereal rye, and some growers have had success planting into a growing stand of rye. As with all new practices, it is important to start experimenting on a small scale and work with your crop insurance agent regarding termination requirements.

Non-selective contact herbicides such as paraquat and glufosinate can also be used in the termination of cover crops, and can be beneficial in particularly cool springs. The key to successful termination with contact herbicides is complete coverage and including other herbicides in the mix that improve effectiveness. Legume species such as Austrian pea, crimson clover, and hairy vetch are best controlled using a mix of actives that include either paraquat or glyphosate (Pittman et al. 2019). Hairy vetch and crimson clover can also be controlled with 2,4-D. Recent multi-state research on cover crop termination shows that chemical applications which include glyphosate are more effective compared to applications that included paraquat or glufosinate. This study showed that for broadleaf cover crop species, glyphosate, paraquat, or glufosinate applied with either 2,4-D or dicamba were most effective (Whalen et al. 2019a). When making your spray plan keep in mind that some antagonism can occur if glyphosate and glufosinate are applied together, and also for grasses where a growth regulator herbicide is added to glyphosate. A follow up POST treatment of growth regulator herbicide and/or glyphosate in corn and certain soybean trait systems can complete control of covers that partially survive a burndown treatment.

Residual herbicides can be integrated into cover crop termination applications to reduce additional field passes. Preplant and POST termination applications that include a residual can provide effective cover crop termination and residual weed control. There is generally more weed control benefit from including the residual in preplant applications compared with inclusion in the POST application. Timing of termination and levels of biomass are often determined by the goals of the cover crop, and will impact the amount of residual product that reaches the soil. If high biomass is the goal, then later termination and inclusion of the residual with the POST application is recommended (Whalen et al. 2019b).

Recommendations for using herbicides to terminate a cover crop:

Cereal rye

- Generally easy to kill
- Glyphosate up to 18 inches
 - Base rate: 0.75 lb ae (22 oz PowerMax)
 - Increase the rate on taller rye
 - Antagonism with residual herbicides possible, increase rates or apply separately
- Gramoxone can be effective
 - Use high rates on tall plants
 - Coverage is essential, 20 GPA
 - More effective with atrazine or 28%

Winter wheat

- Tougher to kill than cereal rye, more issues with antagonism, weather, and rate
- Glyphosate up to 18 inches
 - to 1.5 lb ae (33 to 44 oz PowerMax)
 - Increase rate on taller wheat, possible antagonism with residual herbicides

- 28% a concern, most effective when applied alone in water
 - Most easily controlled when plants are small
- Gramoxone not consistently effective

Annual ryegrass

- Ryegrass should be less than 6 inches tall
- Control is faster in warm weather, cold weather slows herbicide activity
- Glyphosate is most effective
 - 1.5 lbs ae/A minimum (44 oz PowerMax)
 - Can use a higher rate if plants are large or in cold weather
 - Can add Select, Assure II
- Gramoxone is variable, possibly high cost
 - Terminate small plants at high rates
 - More effective with atrazine
 - 20 GPA is preferable, aim for medium spray droplets

Hairy vetch, winter pea

- Fairly easy to kill, large vetch especially
- Glyphosate plus 2,4-D or dicamba
 - Glyphosate: 0.75 to 1.1 lb ae (22 to 33 oz PowerMax)
- Gramoxone is effective on larger hairy vetch
 - Add 2,4-D and/or atrazine

Clover, alfalfa

- Not necessarily easy to kill
- Glyphosate plus 2,4-D or dicamba
 - Glyphosate: 1.1 to 1.5 lb ae (24 to 44 oz PowerMax)
- Clopyralid is very effective on these species
 - Surestart, TripleFlex, Hornet, Stinger
- Gramoxone is generally not a good choice
 - Can kill larger crimson clover with 2,4-D

Mechanical Termination

Mechanical means of cover crop termination include tillage, rolling/crimping, or mowing. Tillage from field cultivators can terminate a cover crop by burying the plant residue and cutting the roots. Vertical tillage is a less effective termination option, and many types of tillage may require multiple passes to achieve the desired level of control. Strip-tillage can be performed to break up residue and increase soil warming in the row. Termination via tillage speeds up the breakdown of residue and incorporates it into the soil. In general, this method of termination can negate some of the benefits associated with using cover crops.

A roller-crimper can be used to control a number of cover crop species, but doing so at the right stage based on species is critical for complete termination. Cereal rye can be rolled after pollen shed to form a dense mat of residue. This can be an effective option, as this residue is capable of choking out weeds and conserving soil moisture in the hot summer months. Hairy vetch can be rolled in full bloom just before corn planting. This termination method might be suitable for organic operations looking for less soil-intensive means of weed control. The use of multi-species mixes can complicate termination via roller-crimping, as the different species often require termination at different times due to varying maturation rates. In these instances it is best to roller-crimp according to the latest maturing species. Mowing is generally less effective than tillage or roller-crimping, with often unpredictable effectiveness and regrowth of some species.

As you plan for the 2020 season and decide on methods to terminate your cover crop, contact your crop insurance agent to know your options and requirements.

Pasture Species Selection for Sheep

By: Dan Undersander, Extension Forage Agronomist, University of Wisconsin

(Previously published on the [University of Wisconsin-Madison Extension page](https://u.wisc.edu/extension/forage/2020/03/10/pasture-species-selection-for-sheep/))

Source: <https://u.osu.edu/sheep/2020/03/10/pasture-species-selection-for-sheep/>

Pasture and hay forage crops generally fall into four categories:

1. Legumes
2. Cool Season Grasses
3. Warm Season Grasses
4. Alternative/annual forages

The last category includes many perennials crops, such as rape, kale, comfrey, and all annual forage crops, such as sudangrass, sorghum, and various millets. None of these should be considered for sheep pasture other than in emergency situations.

Warm season grasses are generally not recommended for sheep pasture in the northern states. They are generally adapted to warmer climates than Minnesota, Michigan, and Wisconsin because they require high temperatures to grow. Therefore, they start growing later in the spring and quit earlier in the fall than cool season grasses. These include most prairie species, such as switchgrass, big bluestem, little bluestem, and Indiangrass. Warm season grasses are used for ground cover and wildlife in northern states but if grazed extensively will be crowded out by cool season grasses that will come in naturally. Warm season grasses should not be mixed with cool season grasses in pastures because the cool season grasses will predominate in northern states.



Cool season grasses are most adapted to grazing in northern states. They start growing early in the spring and produce the bulk of their growth in May and June. Some cool season grasses will continue to provide good forage through the summer and fall if fertilized with nitrogen fertilizer in June and August.

Cool season grasses generally fall into two categories: sod formers and bunch grasses. Sod formers spread vegetatively by underground shoots and form a solid mat (Kentucky bluegrass is an example). Sod forming grasses suffer less damage when grazed in wet conditions and will fill in spots that have been killed out. Bunch grasses generally establish faster and recover from grazing more quickly, but each plant comes from a separate seed and stands may become 'bunchy' as they thin.

Several choices exist for the long-lived grass depending on soil type, location, and needs of the landowner.

These are listed in the UW extension publication entitled [A1525 Forage variety update for Wisconsin](#).

Major sod forming grasses are Kentucky bluegrass, smooth brome grass, and reed canary grass.

- **Kentucky bluegrass** is commonly used in many sheep pastures. This grass is more traffic tolerant than most grasses. It is very high in forage quality and very palatable. It is more drought and flood tolerant than many grass species. It is also very tolerant of overgrazing. Kentucky bluegrass grows only 20-24 inches tall so the pastures do not look as rank as when other taller-growing species are planted. It establishes easier than smooth brome grass or reed canary grass. However, it is the lowest yielding grass species commonly used in pastures for all but the northern regions of Minnesota, Wisconsin, and Michigan.
- **Smooth brome grass**, along with Kentucky bluegrass and quackgrass, are the most common species in unimproved pastures in the northern Midwest. It is the most winterhardy grass species we grow. Smooth brome grass is more adapted to drought and higher temperatures than other cool season grasses and is therefore not recommended in northern Wisconsin, Minnesota, or Michigan. This grass is generally the second highest yielding grass south of a band approximately 100 miles south of the

Canadian border. It is slow to establish, though not as difficult as reed canarygrass. The major problem with smooth brome grass is that two-thirds or more of the yield occurs during May and June with little regrowth the rest of the year. It is also slow to recover after mowing or grazing. This is fine for hay but not for grazing. Smooth brome grass works well for fields that are harvested for hay in June and grazed the remainder of the growing season.

- **Reed canarygrass** is an excellent grass that tolerates flooding and drought. It is frequently sown in low areas. Reed canarygrass is extremely winterhardy. It is the highest yielding grass grown in the Midwest. It grows up to 5 feet tall if not mowed or grazed. It is a sod former and so will fill in vacant areas. This trait has also caused it not to be recommended by some who consider it an invasive species. Seed is expensive and reed canarygrass is slow to establish, often taking a year or more to get a stand. If growing reed canarygrass, be sure to plant low alkaloid varieties, such as Venture, Rival, or Palaton.

Major bunch grasses are orchard grass, timothy, tall fescue, Italian (annual) ryegrass, and perennial ryegrass.

- **Orchardgrass** is an excellent grass for either pasture or hay. It establishes quickly, is ready to graze early in the spring and recovers quickly from grazing. It produces more forage in the late summer and early fall than any other cool season grass. It is important to select a good variety because some are not winterhardy enough for Wisconsin and Minnesota. Orchardgrass varieties also vary in maturity. Early types may be planted with red clover. Medium-late to late types should be planted in mixtures with alfalfa or other grasses, so that all species of the mixture mature at the same time. Visit this [link](#) for

Winterhardiness of Orchardgrass	
2 nd year	
Variety	ground cover (%)
Potomac	95
Orion	100
Boone	100
Sterling	75

- a listing of orchardgrass maturities. Disadvantages are that orchardgrass has moderate winterhardiness and will die out once in a great while. Note in the table how important it is to pick the right variety. Also, because of its quick recovery after haying or grazing, it may be difficult to graze a large portion of pasture while the orchardgrass is in an acceptable maturity range. For these two reasons, we recommend no more than 30% of the total pasture be planted to orchardgrass. It is also very important to plant the right species. We recommend late maturing varieties, which are slightly more expensive than early maturing types, but mature at a time more compatible with other species. When orchard grass gets too mature in a mixture sheep will avoid it and graze only other species.
- **Timothy** is an old standby. It is moderately easy to establish. It is very palatable, both sheep and cattle prefer it to most other grasses. However, it is low yielding and tends to be short-lived, lasting only 3-5 years in most stands. It also heads out most of the summer while all other grasses, except the ryegrasses, head only once in May or June and all regrowth is strictly vegetative. Timothy is best adapted to cool, wet soils and should only be grown in central and north regions of northern states. Its seed size is different than most grasses and must be seeded separately or mixed with legume seed. If seed is mixed with other grass seed in the seeder, timothy will settle to the bottom of the seeder and be seeded first. Because of this timothy is seldom seen in pasture mixtures.
- **Tall fescue** is an easy to establish bunchgrass that is only slightly less adapted to flooding and drought extremes than reed canarygrass. It is the most traffic and shade tolerant of any of the mentioned grasses. On the negative, tall fescue is very unpalatable. Also, if using, one must be sure to get fungus-free seed. The internal (endophytic) fungus produces an alkaloid that can be detrimental to sheep and other animals. Volunteer tall fescue or that growing in ditch banks or grassed waterways is likely fungus infected. Tall fescue is very common in pastures across southern Iowa, Illinois, Missouri, and Arkansas. However, a fungus free type may be the best choice for shady or high traffic areas even in the upper Midwest.
- **Italian ryegrass** is a rapidly establishing, high quality forage. It will grow and yield into late July or early August. However, it is lower yielding than many other grasses and will tend to die out over winter. Its primary use is to overseed damaged areas and as a cover crop in mixtures with other longer-lived grasses. Be sure to buy forage types, not turf types. (Note also that ryegrass is different from rye which is a cereal grain crop.)

- **Perennial ryegrass** is a rapidly establishing, high quality forage. It will grow in early spring and late early fall. However, it is lower yielding than many other grasses and may die out over winter. Its primary use is in pasture and hay fields in northern Wisconsin and Minnesota where snow cover will keep stands in for 3-4 years. Be sure to buy forage types, not turf types.

The last category of forages important to sheep owners is legumes. Choices available for pastures including alfalfa, white clover, red clover, birdsfoot trefoil, ladino clover, alsike clover, and kura clover. More detail on specific varieties presented in the UW extension publication [A1525 Forage Variety Update for Wisconsin](#).

- **Alfalfa** is the most common legume in the dairy regions. It is the highest yielding and generally will persist for 4-6 years. It is primarily a hay and silage crop because alfalfa grows very erect. Alfalfa is also a good grazing crop but will be too rich for most sheep unless mixed with about 50% grass. It can be dual used for hay in the spring and grazing thereafter. It requires a soil pH of 6.8 or higher and does not do well in poorly drained soils.
- **White clover** is the most common clover in pastures. It is easy to establish (even by frost seeding) and is the most drought tolerant. It is also the most tolerant of over grazing. White clover spreads by above ground runners called 'stolons.' This clover tends to be low yielding. There are several types of white clover and one should be sure to plant the medium or Dutch types. These will grow 6-8 inches tall and are moderate yielding. Common white clover should be avoided because it will only grow 3-4 inches tall and is very low yielding. Taller growing types will tend to be shorter lived and will need to be reseeded periodically. Dutch and medium white clovers are recommended for sheep pastures, especially for mixing with Kentucky bluegrass. Ladino clover is the tallest growing type but is short lived. Soil pH should be at least 6.0.
- **Red Clover** is the most common pasture legume species in Wisconsin. It is a fast-establishing clover. It is the highest yielding of the clovers. Soil pH should be 6.2. It is high yielding and establishes quickly and easily. Good varieties will last for four years – cheap varieties for two years. It is possible to frost seed this into grass pastures in most parts of the upper Midwest.
- **Birdsfoot trefoil** is a long-lived legume that reseeds naturally. It is high in quality and maintains its quality longer than most other legumes. This makes it good for stockpiling (i.e. allowing it to mature and save it for periods of drought or late fall/early winter grazing. It tolerates wet conditions second only to alsike clover. Birdsfoot trefoil yield is especially good in the northern parts of Minnesota, Wisconsin, and Michigan.
- **Alsike clover** is frequently mixed with ladino clover for use in wet soils. Alsike is easy to establish (can frost seed) and but stands usually only last 2-3 years so other legumes should be used where soil drainage is adequate.
- **Kura clover** is a rhizomatous legume (spread by underground runners). It is high yielding and persistent. However it is very slow to establish, often taking up to two years to get a good stand. For this reason, it is not currently recommended for sheep pasture.

When seeding new pasture it is best to seed a mixture of grasses and legumes. However, one should avoid putting too many species in the mix to avoid competition among the components and increase difficulty of grazing management when species do not mature at the same time. A good mix to seed consists of three components:

1. a long lived grass, e.g. orchard grass, timothy, smooth brome grass, bluegrass, or reed canary grass.
2. a legume.
3. a cover crop or short lived grass, such as Italian ryegrass. Oats have often been used as a cover crop but are not recommended because Italian ryegrass provides better grazing.

Some common mixtures are:

Mixture 1

Kentucky Bluegrass	15 lbs/a
Medium White Clover	4 lbs/a
Italian Ryegrass	2 lbs/a

Bluegrass is moderately drought tolerant and very winterhardy. It is a sod former so will fill in. It also does not get as tall as other grasses and keeps pastures looking better. However, it is among the lowest yielding grasses. Dutch clover may be substituted for medium white clover.

Mixture 2

Bromegrass	10-12 lbs/a
Red Clover	4-6 lbs/a
Italian Ryegrass	2 lbs/a

This is the most common mixture as high yielding bromegrass is extremely winter-hardy and moderately drought tolerant. However, bromegrass does not yield as well through July, August and September as Orchard grass.

Mixture 3

Orchard grass	10 lbs/a
Red Clover	6 lbs/a
Italian Ryegrass	2 lbs/a

This is a high yielding pasture mix that will recover quickly after grazing. This grass yields more late in the season than any other mix. However, the mix will not fill in because orchardgrass is a bunchgrass. In most cases it is wise to plant some pastures to one mix and some to another because each mix will do better under some conditions and at certain times of the year. By having different pastures of different mixtures, you will have good growth during a larger portion of the season and across a wider range of environmental conditions.

Lastly, it is important to remember that seed of vastly different sizes cannot be mixed together for seeding. For example, if bromegrass and clover are mixed together, the clover will settle to the bottom of the seeder box and be seeded first and the bromegrass later. Orchardgrass, bluegrass, timothy, ryegrass, alfalfa, birdsfoot trefoil, and clovers generally will not separate during seeding. All mixtures should be put into seeder near the field to be seeded to avoid separation of mixture components prior to seeding.

2020 Spring Sheep Shearing School Announced

By: [Brady Campbell](#), Program Coordinator, OSU Sheep Team

Source: <https://u.osu.edu/sheep/2020/03/03/2020-spring-sheep-shearing-school/>

The Ohio Sheep Improvement Association in conjunction with The Ohio State University Extension are pleased to announce that they will be offering a spring sheep shearing school scheduled for April 17-18, 2020 from 9:00 am – 4:00 pm at the Dave Cable Farm in Hebron, Ohio.

During this two day schooling event, attendees will be given the opportunity to learn how to properly shear a sheep using the Australian shearing method. Those in attendance will be taught by veteran shearers as they walk through each step and demonstrate how to properly position the sheep and shearing hand piece in the correct location. Attendees will also learn to appreciate fleece quality by ensuring that their work station is clear of debris and how to keep the animals fleece all in one piece. This shearing session is open to any and all sheep producers, regardless of your shearing experience. Even if you are an experienced shearer, you are bound to learn something new or to improve upon from the school! Who knows, maybe it could help you shear off a couple of seconds on each sheep that you shear.



Attendees are encouraged to bring their own shearing equipment as doing so will allow you to become more comfortable with the tools that you will be using. Please note that class space is limited to 15 participants with registration due by Monday, April 6th. The cost to attend is \$50 which includes a boxed lunch for each day. For those interested in participating in this year's school, please be sure to fill out and return the [registration form](#) to the Ohio Sheep Improvement Association as indicated on the form by April 6th. New this year, online registration will also be available! For those interested in registering online, please visit ohio.sheep.org. Additional information regarding this school and other sheep related events can be found on our [Events/Programs](#) page.

As the sheep industry continues to maintain a strong foothold in the state of Ohio, new sheep shearers will be needed to ensure the longevity of our industry's future. It's up to you to help continue this legacy. We look forward to seeing you there! Happy shearing!

Backyard Fruit Production Workshop Postponed until April 28

OSU Extension invites Coshocton County residents to attend a **Backyard Fruit Production** workshop on Tuesday, April 28 from 6:00 to 8:00 p.m. at Frontier Power located at 770 South 2nd 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. Due to space limitations, this program will be limited to the first 50 registrants. First come, first served basis. 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. **Note: this program was originally scheduled for March 23, 2020.**



ODA Testing Date in Coshocton County Slated for March 16

The Ohio Department of Agriculture (ODA) will be administering Private and Commercial Pesticide license examinations on Monday, March 16, 2020 at the Coshocton County Services Building (Room B100) located at 724 South 7th Street in Coshocton, Ohio. The testing will begin at 10:00 a.m. Pre-registrations are required and can be made on-line at the ODA website at:

<https://agri.ohio.gov/wps/portal/gov/oda/divisions/plant-health/pesticides/exam-registration> Producers can also call the ODA at 614-728-6987. Study materials can be obtained at: <https://pested.osu.edu/>

SWCD Tree Sales

The Coshocton Soil & Water Conservation District is holding its Annual Tree Seedling Sale! Tree varieties are available in packs of 5, 25, or 100 seedlings, and this year the White Pine, American Plum, Redbud, River Birch, and Tulip-tree are also available as single 2.5 to 4 foot saplings. You are encouraged to order early as there are a set number of seedlings available for the sale. All orders are filled on a first-come, first-served basis. The deadline for turning in order forms is Monday, March 16. The pick-up day for all orders will be Friday, April 17 at the Coshocton SWCD Office. More information about the sale is available by calling 740-740-622-8087, ext. 4 or via email at samanthapriest@coshoctoncounty.net.

Coshocton County Dairy Banquet on March 20

The Coshocton County Dairy Service Unit is pleased to be hosting the annual Coshocton County Dairy Banquet which on Friday, March 20, 2020 starting at 7:00 p.m. at the Coshocton County Career Center. Banquet highlights will include the crowning of the Coshocton County Dairy King & Queen and the recognition of 4-H youth receiving the dairy achievement award. The cost for the banquet is \$10 for adults and \$5 for children 12 and under. Dinner will be served by the Fresno United Methodist Church. Tickets can be paid at the door but pre-registrations are requested by March 18 so that adequate food can be prepared. Reservations can be made by contacting Maureen Sturtz at 740-829-2488.

National Ag Day Luncheon

Join us **Wednesday, March 25, 2020** for National Ag Day to recognize the contributions of today's farmers and show our appreciation for the men and women of agriculture. This year's theme is "Food Brings Everyone to the Table." This event is sponsored by Farm Credit Mid-America, Coshocton Soil & Water Conservation, OSU Extension, and Coshocton County Chamber of Commerce. The Celebration will be held at the Lock Landing on the lower floor of the Roscoe Village Visitor's Center. Doors will open at 11:30 a.m. with lunch at 11:45, with a short program that will adjourn at 1:00 p.m. Meal will be catered by Schumaker Farms, and the cost is \$10 per person. RSVP by March 13 to (740) 622-8087, ext. 4 or email samanthapriest@coshoctoncounty.net.



Upcoming Programs

- Mortality Composting Workshop- TBA
- Pesticide & Fertilizer Re-certification in Tuscarawas County- March 19
- National Ag Day Luncheon- March 25
- Pesticide & Fertilizer Re-certification in Tuscarawas County- March 26
- Backyard Fruit Production Workshop: April 28
- Master Gardener Plant Sale: June 6
- Summer Pasture Walk: July 28
- Summer Pasture Walk: August 25

**Check out upcoming
programs at:**

go.osu.edu/coshoctonevents

Backyard Fruit Production Workshop

**Tuesday, April 28, 2020
6:00 to 8:00 p.m.**

**Frontier Power Community Room
770 South 2nd Street
Coshocton, Ohio 43812**

Join OSU Extension and learn how to grow strawberries, red raspberries, black raspberries, and blackberries. Keynote speaker Sabrina Schirtzinger, OSU Extension Educator in Knox County, will also discuss caring for fruit trees such as apple, peach and pear trees.

Don't miss this chance to learn more about growing delicious fruit for your family. Pre-registration is requested as space is limited to the first 50 registrants. The registration fee for this program is \$10 per person.

REGISTRATION INFORMATION. The registration fee of \$10 includes the program, light refreshments, door prizes, and handouts. Due to space limitations, this program will be limited to the first 50 registrants. First come, first served basis.

Name(s) _____

Address _____

Email _____

Phone _____

Total Enclosed \$ _____

\$10 per person to register

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.

