CFAES

OHIO STATE UNIVERSITY EXTENSION

April 2023
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OHIO STATE UNIVERSITY EXTENSION
Gallia County
111 Jackson Pike, Suite 1572
Gallipolis, OH 45631

Gallia County Agriculture Newsletter

Hello Gallia County,

Springtime is here! With the start of spring, I would like to share with you the return of the Master Gardener Volunteer Program to Gallia County. On May 11th I will have an open house to discuss starting up a Master Gardener Volunteer Program here in the county. So, if you have an interest or want to learn more come to the extension office at 4 p.m. and we will talk about the future of this program. I also have some more key important dates for programs that I would like to share with you. The first is on April 13th and there will be a program talking about Veterinary Oversight for Antibiotics. I will be there to go over some information and some of our local Veterinarians will be there as well so that any questions you have can be answered. Then at the end of April on the 29th there will be Small Farm Ruminant Production Field Day from 9 a.m. to 3 p.m. at the Jackson County Extension Office and will be limited to the first 50 registrations. **See the attached flyers for more information**. All the event's dates, times, and locations are listed on the next page.

You can also stay updated with the latest information by checking out our website gallia.osu.edu or our Facebook page Ohio State – Gallia County Extension. If you have any questions, you can reach me at the office, at 740-446-7007 or my cell phone, at 740-350-0417 or by E-mail, at penrose.30@osu.edu.

Have a great April,

Jordan Penrose

Jordan Penrose,
Gallia County
Agriculture and
Natural Resources
Extension Educator

enclosures

In this issue:

Upcoming Events

Please RSVP for the events that you plan on attending by calling the office at 740-446-7007 or e-mailing, at penrose.30@osu.edu.

April 13th Veterinary Oversight for Antibiotics 6 P.M. to 7:30 P.M. at the Gallia County Extension Office. RSVP by April 10th. **See attached flyer for more!**

April 28th Fish Sale deadline. **Contact Gallia Soil and Water Conservation District for more information (740-446-6173)**

April 29th Small Farm Ruminant Production Field Day 9 a.m. to 3 p.m. at the Jackson County Extension Office. Limited to the first 50 Registrations. **See attached flyer for more!**

May 11th Master Gardener Volunteer Program Open House @ 4 p.m. at the Gallia County Extension Office. **See attached flyer for more!**

Breeding Soundness of Bulls – By Brooks Warner, OSU Extension Agriculture & Natural Resources Extension Educator, Scioto County – Published in The Ohio BEEF Cattle Letter, (originally published in Ohio Farmer)

Breeding season for most beef herds is upon us or rapidly approaching here in the Midwest, and whether you plan to use your old bull or purchase a new one, it is important to know that the bull you have is fertile. The best way to know if your bull is fertile is by sending him through a Breeding Soundness Exam (BSE).

It is important to understand what a fertile and productive bull looks like before you open your billfold to purchase a bull. Aside from the initial cost of purchasing a sub-fertile bull, the economic loss due to sub-fertile bulls is far greater in the long run. For every 21-day period of the breeding season that a cow remains open, there is a loss of ~55lbs of weaning weight the following year for the calf she finally conceives.

Not only does a bull need to fit the physical criteria and the inherent drive to breed cows, but he needs to be of the right age. Most bulls are sold as yearlings, because breeders want to capture the genetics of a new yearling in the first year. About 2/3 of bulls reach maturity (fertile) at 14 months, but oftentimes we can see reproductive failure due to bull immaturity. Only about 35%, 60%, and 95% of 12-, 14-, and 16-month-old bulls, produce good quality semen (Barth, 2000). Even if young bulls have high quality semen and have all the attributes of a productive and fertile herd sire, lack of experience could be another determining factor in how many or how few females he is able to breed.

Mature bulls should be able to service cows at a ratio of 1:25-1:30 easily if he fits all the criteria in a BSE. Smaller pastures during breeding season may help the bull get every female bred more easily. Be prepared for your bull to lose a considerable amount of condition during breeding season, the off season is the time to be

reconditioning your bull to prepare him for next season.

Colorado State University shows that bulls aged 2 years had 120 mounts while bulls aged 3+ had 85.8 mounts, the 2-year-old bulls were responsible for a 41.5% pregnancy rate while the 3+ year old bulls had a 49.9% pregnancy rate. Yearling bulls had an even larger number of mounts at 207 and the lowest overall pregnancy rate of 30.9%. This shows that with age, bulls will achieve more pregnant females with reduced effort compared to younger and more inexperienced bulls.

	Yearling	2-year-old	3+ year-old
Number of Mounts	207	120	85.8
Number of Services	54.5	37.6	40.5
Estrus females serviced, %	69.4	73.8	72.0
Pregnancy rates of Serviced females, %	39.6	59.4	72.0
Overall pregnancy rate, *%	30.9	41.5	49.9

(Adapted from Pexton et al 1990)

A BSE can determine a bull's ability to be a productive member of your herd through passing on his genetics in the next calf crop. His productivity is directly connected with his physiology as well as a built-in desire to breed females, we call this libido. A breeding soundness exam does not cover a bull's libido, but this can be observed on your own through watching the bull's behavior around cattle that are in standing heat.

The cardinal principles of breeding soundness are:

- Physical Soundness
- Reproductive soundness
- Good semen quality
- Normal serving capacity

The Western College of Veterinary Medicine in Saskatchewan saw that in 2,110 bulls tested, 22.1% of bulls had at least one physical abnormality that could negatively impact reproduction. WCVM looked at scrotal shape and circumference, assessed hooves for abscess, Interdigital fibromas (corns), corkscrew of the hoof claw, and other conformation issues in the legs and range of motion. Body Condition Score is taken, and sheath and eyes are inspected.

Semen can be collected by a veterinarian and looked at under a microscope to look at concentration of sperm cells, and mobility of the sperm cells. Morphology of the sperm cells and overall volume is also considered in determining if a bull can provide high quality semen.

Mature bulls that have a scrotal circumference less than 34cm are considered sub-fertile but breed specific averages should be considered as some breeds may average below 34cm.The scrotum will also be palpated to check for any masses in the spermatic cords, testes, and scrotal skin. It is important that the testes are similar

in size and can move freely within the scrotum.

Bulls that have no physical abnormalities are classified as “satisfactory potential breeders” if they meet the minimum requirements for Scrotal circumference, sperm motility and sperm morphology. Bull’s that do not meet the minimum requirements will be classified as “unsatisfactory potential breeders.”

Getting a BSE done on your herd bull is the best way to ensure you have a fertile and sound bull that will add to your program for years to come. When we consider the economic loss from having a sub-fertile bull on the farm, it makes sense to make the initial investment on a good bull that fits the criteria we need and who also passes the BSE and is identified as a satisfactory potential breeder.

Spring Oats Offer Fast Forage – By Mike Rankin, Hay and Forage Grower Managing Editor – Published in the OSU Sheep Team (Previously published in Hay & Forage Grower: March 28, 2023)

Although the days of growing oats for horses have morphed into grandfather tales on most farms, the cereal grain remains a valuable and often-used species in the forage toolbox. Whenever fast forage to graze or harvest is needed, or a companion crop for an alfalfa seeding is desired, more often than not the conversation turns to oats.

The utility of oats as a forage crop can be capitalized upon not just in the fall as a late-season annual but also in the spring if winter annuals didn’t get planted last fall, if they winterkilled, or if perennials suffered winter injury. The beauty of oats is that they can be planted and harvested earlier than most other forage alternatives.

The planting window for spring oats varies by location but generally adheres to the mantra of “whenever the soil is dry enough to seed into.” Planting dates in March and April are typical for a large part of the U.S., although some Southern areas may already have oats in the ground now.

With good growing conditions, forage production from spring-planted oats often ranges between 2 and 2.5 tons of dry matter per acre. Based on this amount, nitrogen (N) fertilizer should be applied at a rate of about 60 pounds of actual N per acre following establishment.

Spring-planted oats do not produce many tillers. Therefore, a higher seeding rate and slightly shallower planting depth can result in quicker establishment and greater growth. If oats are being used as a companion crop for alfalfa and/or grasses, back the planting rate off a notch or two so they don’t compete too heavily with the perennial crop.

Oat growth typically improves when seed is drill-planted at a rate of 80-100 pounds per acre. In areas with lower precipitation, it is more common for seed to be planted at 40-60 pounds per acre. Seeding depth can be up to 1.5 inches, but planting at 0.5-0.75 inches accelerates emergence, establishment, and forage production potential. Oat seed is more seedbed-forgiving than many other crops.

It’s generally not recommended to plant bin-run feed oats because they often are not tested, may contain weed seeds and other foreign material, and have unknown seed germination. Also, seed laws require that seed being sold for planting purposes have a tag with a recent test result for germination, weed seed content, and foreign material.

Maturity drives quality and yield

There are several oat varieties that have been specifically bred for forage production. Dry matter yields for these varieties can be up to 25% higher than standard grain varieties, but they often mature about a week later. Maturity needs to be considered if you're planting another crop after the oats are harvested.

When spring temperatures begin rising, oats can mature rapidly, and quality will decline. This is the big difference between spring-planted and fall-planted oats. The former finishes in warm weather while the latter under cool conditions.

Where oats are being used as a companion crop, harvest in the boot stage to open the canopy and remove competition with the perennial seedlings.

Spring-planted oats won't meet the "rocket fuel" quality of fall-planted oats, but their forage nutrient value is still very good if harvested at or before early heading.

Before grazing, oats should be a minimum of 6 inches tall. Each acre of spring-planted oats can provide between 35 and 60 days of grazing when stocked at one mature cow [or 5-6 mature ewes] per acre.

When and How Much Nitrogen to Apply to Wheat – By Ed Lentz and Laura Lindsey – Published in the C.O.R.N. NEWSLETTER

Wheat has already reached green-up across the state so spring N may be applied anytime fields are fit. Keep in mind that research has shown no yield benefit to early N applications as long as the application was made by Feekes GS 6 (one visible node). (If you need a reminder on how to assess if wheat is at Feekes GS 6, see this video: https://www.youtube.com/watch?v=D_f3VrqzV5c Nitrogen applied early has the potential to be lost since wheat will use little N until after jointing. Urea-ammonium nitrate (UAN) or 28% has the greatest potential for loss and ammonium sulfate the least. Urea will have little potential for loss as long as it does not volatize. No stabilizer will protect the nitrate component of UAN, which is roughly 25% of the total N in UAN at application time.

Ohio State University recommends the Tri-State Fertilizer Recommendation Bulletin for N rates in wheat. This system relies on yield potential. As a producer, you can increase or reduce your N rate by changing the value for yield potential. Thus, a realistic yield potential is needed to determine the optimum N rate. To select a realistic yield potential, look at wheat yield from the past five years. Throw out the highest and lowest wheat yield, and average the remaining three wheat yields. This three-year average should reflect the realistic yield potential.

Table 10 in the Tri-State Fertilizer Bulletin recommends 120 lb N for yield goals of 100 bu/A, 110 for 90 bu/A crop, 90 lb for 80 bu/A crop, and 80 lb for a 70 bu/A crops. These recommendations are for total N. If you prefer to be more specific, the following equation may be used for mineral soils, which have both 1 to 5% organic matter and adequate drainage:

N Rate = (1.33 x Yield potential) - 13.

No credit is given for previous soybean or cover crops, since it is not known if that organic N source will be released soon enough for the wheat crop. The Tri-State Fertilizers Bulletin recommends that you subtract from the total (spring N) any fall applied N. I would take no more than a 20 lb/A credit even if you applied a larger amount. Whether you deduct fall N depends how much risk you are willing to take and your anticipated return of investment from additional N. Based on the equation above and deducting 20 lb from a fall application, a

spring application of 100 lb N per acre would be recommended for a yield potential of 100 bu, 90 for 90 bu potential; and 70 for a 80 bu potential. Nitrogen rate studies at the Northwest Agricultural Research Station over the past 20 years have shown the optimum rate varies depending on the year. However, averaged over years, yield data from these studies correspond well with the recommendation equation given above. These studies have also shown apart from one year, yields did not increase above a spring rate of 120 lb N per acre.

Wheat generally does not benefit from a nitrification inhibitor since temperatures are relatively cool at application time and the application is made to a growing crop, this is especially true as the crop approaches Feekes GS 6. However urea may benefit from a urease inhibitor (products containing NBPT) if conditions for volatilization exist for several days after application. These conditions would include an extended dry period with warm drying temperatures (risk increases with temperatures above 70°F) and evaporating winds. Urea applications need at least a half inch rain within 48 hours to minimize volatilization losses unless temperatures remain relatively cool. The urease inhibitor will prevent volatilization for 10 to 14 days with the anticipation of a significant rainfall event during this time.

ESN or polymer coated urea will reduce the potential for N loss from leaching, denitrification, and volatilization. Since these conditions are unlikely to occur in most years, it may not be economical to use this product. Cool weather may prevent the timely release of N from ESN, so if ESN is applied, it should be mixed with urea or ammonium sulfate and be no more than 60% ESN.

A split application of N may be used to spread the risk of N loss and to improve N use efficiency. However, Ohio State University research has not shown a yield increase from this practice compared to a single application after green-up. In a split system, the first application should be applied no sooner than green-up. A smaller rate should be applied with the first application since little is needed by the crop at that time and the larger rate applied closer to Feekes GS 6.

USDA to Aid Distressed Farmers Facing Financial Risk – By Chris Zoller, Extension Educator, ANR in Tuscarawas County – Published in the Ohio Ag Manager

Beginning in April, USDA will provide approximately $123 million in additional, automatic financial assistance for qualifying farm loan program borrowers who are facing financial risk. Funding is through the Inflation Reduction Act (IRA) and builds on the same program announced in October 2022.

Like the program announced in October 2022, qualifying borrowers will receive an individual letter detailing the assistance as payments are made. Distressed borrowers' eligibility for these new categories of automatic payments will be determined based on their present circumstances. More information about the new categories that make up the $123 million in assistance and the specific amount of assistance a distressed borrower receives can be found in this fact sheet, IRA Section 22006: Additional Automatic Payments, Improved Procedures, and Policy Recommendations.

USDA will provide information and training to program participants about the potential tax consequences of the funding program. USDA will also sponsor a webinar featuring farm tax experts to review the program and answer questions. Further information about tax implications of USDA program is available here: farmers.gov/taxes.

If you have further questions, please reach out to your USDA Farm Service Agency office. If you are unsure where of the location of the nearest office, please use this tool: https://offices.sc.egov.usda.gov/locator/app.

CFAES

Veterinary Oversight for Antibiotics

Thursday
April
13

6:00 p.m.–7:30 p.m.
Location: Gallia County Extension Office

In June of this year all medically important antibiotics currently available at most feed or farm supply stores will now require veterinary oversight (written Rx) to be used in animals, even if the animals are not intended for food production. Examples of affected antibiotics include injectable penicillin and oxytetracycline. In addition, some retail suppliers who were able to sell these drugs/products in the past may no longer sell them after June of 2023. To continue using medically important antimicrobials, you may need to establish a veterinary-client-patient relationship (VCPR).

Come join me and a couple of the local Veterinarians at the Extension Office to learn more about this!

Register by Monday April 10th, to do so Call 740-446-7007 or Email penrose.30@osu.edu

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

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CFAES

Small Farm Ruminant Production Field Day

DATE:
April 29, 2023

TIME:
9:00 a.m.– 3:00 p.m.
Registration 8:30 a.m.

LOCATION:
Jackson County Extension Office
17 Standpipe Rd.
Jackson, OH 45640

THE OHIO STATE UNIVERSITY
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Have a small herd of beef cattle, goats, or a flock of sheep? Are you a new or beginning ruminant livestock producer? If yes to either of these questions, this program is for you!

Join OSU Extension educators and state specialists for an all-day workshop covering topics every ruminant livestock producer needs to know from grazing and nutrition, livestock marketing, facilities and housing.

After lunch, afternoon training sessions will be species-specific that include hands-on training in animal care and handling, basic animal health, livestock evaluation, and much more.

Cost: $30 per person lunch Included.
Limited to first 50 Registrations.
Register at https://go.osu.edu/smallfarmslivestock

Or Call OSU Extension Jackson County at 740-286-5044

OARDC
oardc.osu.edu

OSU Extension Beef Team
beef.osu.edu

OSU Extension Sheep Team
sheep.osu.edu

CFAES

Master Gardener Volunteer Program Open House

Thursday

MAY

11

4:00 p.m.–6:00 p.m.

Location: Gallia County Extension Office

Do you want to learn more about plants and gardening? Do you want to participate in a practical and intensive training program? Do you enjoy sharing your knowledge with others? If you answered yes to any of these questions, then Master Gardeners may be just the thing for you! If you have an interest at all, come to Extension Office and learn more about the Master Gardener Volunteer Program.

We will be having an open house to talk about starting up the Master Gardener Volunteer Program here in Gallia County. So, if you have an interest or want to learn more come to the extension office at 4 p.m. and we will talk about the future of this program.

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