

# Producers Newsletter

March/April



# Upcoming Events

## Private Applicator Training

March 21 - Lewistown

April 6 - Stanford

## "Mary had a Little Lamb Day"

April 8 - Judith Gap

# Farm/Ranch Ride-alongs

This year I would really like to get out and see your operation and how you run your farm/ranch. Give me a call at (406) 535-3919 to set up a day and time for me to come out and either hop in your pickup, side-by-side or possibly bring my own horse out so you can show me your operation.



# Toxic Plants

As we get closer to spring and start thinking about turning livestock out to pasture, it is important to keep in mind that not all plants are safe for livestock to consume. Toxicity of plants will depend of concentration, duration, and season. Animal losses are never good and losses caused by toxic plants can devastate a herd/flock.

Efforts to avoid exposing animals to toxic plants should be taken in order to minimize economic losses. Not grazing ranges that are heavily infested with toxic plants is the easiest way to mitigate the effects of poisonous plants. This includes grazing early in the year when many toxic plants are the biggest/greenest plant in the area. Providing adequate water will help dilute the toxins of poisonous plants as well. If you do need to move animals into or through an area, it is important to be sure that animals are not hungry.

## **Death Camas**

This is a low growing flower with a single stem, grass like leaves and tiny white-yellowish flowers clustered together. It has an onion like bulb and is often confused with wild onion, but can be distinguished by the lack of onion odor. It is found in moist meadows, pastures and rocky slopes. It is often seen in the mountain areas of Broadwater County. All parts of



## Toxic Plants (cont.)



the plant are poisonous, but the bulb is extremely fatal. The biggest concern is in the spring. This will be one of the first plants up and livestock are more likely to eat it when there is not as much other desirable forage. If the ground is moist, livestock are more likely to pull up the bulb but usually this is rare. After the plant blooms and the plant withers, livestock are less likely to eat it.

### Larkspur

There are two types of larkspur in the county, low larkspur and tall larkspur. However, because of the nature of low larkspur, tall larkspur seems to be more of an issue. This plant gets quite large, 3-7 feet tall. Leaves are broad with deep lobes. Stems are thick and hollow. Flowers are white to blue and look similar to a snapdragon. It is usually found at higher elevations in moist, half shaded areas. Cattle are most susceptible to poisoning and it is more common midsummer while its flowering. Cattle will graze it even if there are an abundance of other forages. Even though the toxicity decreases throughout the summer, the seeds will remain highly poisonous into the winter.



## Toxic Plants (cont.)

### Locoweed

Plants in the milkvetch family are sometimes called “locoweed” or “crazyweed”. There are nearly 400 species in the United States, but not all of them have known toxicities. There are at least 10 of these species listed in the guidebook “Poisonous Range Plants in Montana”.

Depending on the species, all the plants will look different but there are a few general similar characteristics. The flowers resemble pea flowers and a wide range of colors is possible. The flowers form a pea pod. Stems are hairy and leaves are deeply looped. There is the most danger of livestock eating locoweed in the spring when it is flowering and often stands out from the grass. Poison from locoweed will build up in the animal over time. Horses seem most susceptible, but poisoning can occur in cattle and sheep.



### Lupine

There are 5 poisonous species of lupin, Silky lupine, tailcup lupine, velvet lupine, silvery lupine, and lunara lupine. Lupine toxicity can result in coma, death, and birth defects. Older plants are less toxic than younger plants, which have large leaves in the early part of the growing season. These large leaves make lupine an appealing forage source to livestock. Consuming 1-12 lbs of lupine can result



## Toxic Plants (cont.)

in death for cattle if not consumed with other forages, depending on the species of lupine. Crooked legs and other congenital deformations occur in newborn calves whose mothers consumed lupine while 40-100 days of gestation. This makes keeping pregnant cattle away from pastures containing lupine important during that critical window of gestation.

If you have additional questions regarding poisonous plants in Montana, please feel free to reach out to your local MSU Extension Office. Sections on Death Camas, Larkspur and Locoweed are from Allison Kosto's 2020 article *Poisonous Plants to Livestock*. All information is adapted from USDA article *Plants Poisonous to Livestock in the Western States* published in 2021.



# Planning the Garden

Choose the right location. Sunlight (6 to 8 hours) is essential to growing healthy, productive vegetables. Some plants, such as tomatoes and squash, will require substantial daily sunlight while others, like lettuce and spinach, can prosper with some shade during the day. A flat area with easy access to water is critical (Figure 1).

Take care of the soil. Not all soils are the same; ideal soils are easy to work and have a good mix of silt, sand, clay, nutrients and organic matter. Since most soils aren't ideal, we often must add soil amendments to improve them. Most Montana soils are alkaline and so well-buffered that it is difficult to change their pH. Have soil tested to determine if a fertilizer or compost is recommended and follow the recommendations of the lab. See the MSU Extension MontGuide, Home Garden Soil Testing & Fertilizer Guidelines (MT200705AG), for more information.

Mapping and organizing. How crops are organized in the garden is also important. Plant tall vegetables like corn on the north or northeast side to reduce shading. Orient all rows in a north-south direction to take advantage of the best sunlight distribution. Plant vegetables that need heavy watering in the fall away from those like onions, potatoes, and other root crops, which need less water in fall in order to be dry for proper storage. Correct spacing between plants is also important to ensure adequate nutrition for each plant and ease of harvest.



Figure 1: 6 to 8 hours of sunlight is essential to growing healthy, productive vegetables. BY CHERYL MOORE-GOUGH

## Planning the Garden (cont.)

Grow appropriate varieties and cultivars for the location. Note the number of “days to maturity” on the seed packet or pot tag of transplants to be sure the cultivar will have time to mature before the end of the season. The days to maturity should be used to compare varieties, but they are not precise for Montana conditions. Days to maturity of vegetables that are direct-seeded refer to the date of planting the seed, while days to maturity of transplants is from the date the transplant is placed in the garden.

To determine the frost-free period, contact the local Extension agent or use the MSU Extension MontGuide Can I Grow That Here? (MT199308AG). The dates given for a locality represent average length of growing seasons, which means the real season length can vary by plus or minus two weeks. Check with the local Extension agent to see if specific diseases or insects are common in the area and purchase seeds of resistant cultivars to help eliminate problems. Don't pay extra for resistance that may not be needed.



Average growing seasons (frost-free days) in Montana vary widely. Table 1 contains information about average days to maturity, plant spacing, planting depth, and average yields for common vegetables. For more information for your area visit <https://mtmastergardener.org/linksandresources/frostfreezedat a.html>. Because of the large difference in the length of growing seasons, gardeners in different locations in Montana are likely to have very dissimilar gardens.



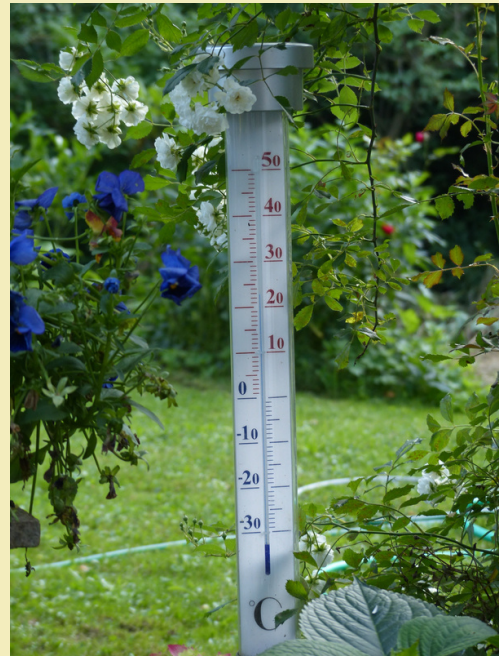
## Planning the Garden (cont.)

Is it better to direct-seed or use transplants?

Timing. Seeds and transplants should be planted at the right time and in the correct manner for the species and cultivar. This will vary with air temperature, soil temperature and the needs of individual crops.

One of the most useful methods of classifying vegetables for Montana growers is by temperature requirement and hardiness. This allows us to separate cool-season from warm- season vegetables. Cool-season vegetable seeds germinate at a lower soil temperature, and the young plants are frost tolerant and hardy. Cool-season crops grow best with air temperatures between 55° and 65°F, while warm-season crops make optimal growth between 65° and 85°F.

The above information can be found in the MontGuide *Successful Home Vegetable Gardening*, MT202002AG. Additional information can be found in other MontGuides located at <https://store.msueextension.org/> or from your local MSU Extension Office.



# Initial Private Applicator Training

## March 21, 2023 | 8:10 am to 5:30 pm

The Montana State University Extension Pesticide Education Program along with the Fergus County Extension Office are hosting an Initial Private Applicator Training on March 21, 2023, in Lewistown. Initial Private Applicator Trainings are programs covering seven hours of instruction on the basics of pesticide use followed by an ungraded 30-question exam. Completion of the program meets the requirements to obtain a Montana Private Applicator License to apply restricted use pesticides on land you own, rent or lease, while receiving many valuable pesticide education opportunities. This is an onsite event. Please arrive at least 15 minutes early to sign in.

- **Location:** Lewistown Eagles Club, 124 W Main St., Lewistown, MT 59437
- **Fee:** \$20
- **Lunch:** Provided
- **Registration:** Registration encouraged by March 15th with walk-ins welcome. To register contact Cody Ream at (406) 333-3919 or [cody.ream@montana.edu](mailto:cody.ream@montana.edu).
- **Private Applicator Credits:** 6, Full day only

*Register by **MARCH 15** as spaces are limited.*

### LICENSING FEE

For private applicators in District 5 there is a licensing fee of \$60 in addition to the event registration fee. This fee will be sent to the Montana Department of Agriculture with your private applicator license application.

### CREDITS

Pesticide education credits will be offered for recertifying applicators only (new applicators cannot get credits at this event). For commercial credits offered please visit the event website.

For more information visit:

<https://www.montana.edu/extension/pesticides/events/23-01.html>



**MONTANA**  
STATE UNIVERSITY

EXTENSION

Pesticide Education Program  
[pesticides@montana.edu](mailto:pesticides@montana.edu) | 406-994-5178

# Initial Private Applicator Training

## March 21, 2023 | 8:10 am to 5:30 pm

- 7:30 to 8:00 am - Sign In
- 8:10 am - Welcome
- 8:15 am - Private Applicator Pesticide License, Amy Bowser, MSU Extension Pesticide Education Technician
- 8:45 am - Reading the Pesticide Product Label, Cody Ream, MSU Extension Agent - Fergus County
- 9:15 am - Integrated Pest Management, Cecil Tharp, MSU Extension Pesticide Education Specialist
- 10:15 am - Break
- 10:30 am - Pesticide Safety and Toxicity, Amy Bowser, MSU Extension Pesticide Education Technician
- 12:00 pm - Catered Lunch
- 1:00 pm - Pesticides and the Environment, Shelley Mills, MSU Extension Agent - Valley County
- 2:00 pm - Pertinent Pesticide Laws, Theresa Schrum, MDA District 2 Officer and Caitlyn Forrester, MDA District 5 Officer
- 3:00 pm - Break
- 3:15 pm - Calibration of Sprayers, Cecil Tharp, MSU Extension Pesticide Education Specialist
- 4:45 pm - Review and Exam, Amy Bowser, MSU Extension Pesticide Education Technician
- 5:30 pm - Evaluations, Licensing and Wrap Up



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*Montana Farmers Union Presents:*  
**"Mary Had a Little Lamb Day"**

**What:** 4-H Education Day on Sheep Production  
 Includes hands on tour of lambing operation  
 and discussion of sheep production/products

**Where:** E.L. Peterson Ranch  
 989 Heavenly Hollow Lane  
 Judith Gap, MT 59453

**When:** Saturday April 8th, 2023  
 Starts at 10 a.m. sharp with delicious brunch  
 Ends around 12:30 p.m.

**Why:** Introduce 4-H children to sheep production  
 Promote the Montana Farmers Union summer  
 youth camps

**\*\*Please leave your dogs at home, wear appropriate winter clothing, and warm boots that can get muddy\*\***



Please come join us for the Fergus/Petroleum County  
 4-H Public Speaking Contest and Gavel Games!

**1 pm on Sunday, March 26th @ Boys and Girls Club  
 Registration Due March 15th!**

**4-H Presentation Categories**

- \*Demonstration
- \*Illustrated Talk
- \*Career Communication
- \*Commercial
- \*Prepared Speech
- \*Cloverbud Show and Tell



# Raising Chicks

Now that spring is getting closer you might start hearing chirping while you walk through the feed store. This is most likely not a bird that found its way into the store, but the chicks that are available for purchase. Many feed stores supply all types of poultry, including chickens, ducks, turkeys, geese, and sometimes game birds. If you like most people, the thought of taking some home will cross your mind.

However, there are some things you need to know about raising poultry before taking them.

Knowing what breed/species of poultry will fill your need is the first step. Different poultry excel at different tasks; for instance, turkeys may

not be the best choice if your wanting birds for egg production and geese might not be the best companions for young children. Instead, try something like a leghorn for egg production or a Cornish

Cross for meat production. A list of 60 breeds can be found at the MSU Extension page from a resource titled The American Standard of Perfection showcasing what breeds fit the production goal you have.

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## Raising Chicks (cont.)

Raising poultry from the time they are chicks can be a rewarding process. When setting up your facilities, keep space in mind as different sized birds will require different amounts of space. A typical rule of thumb is to provide each bird with 2 square feet of space. Baby chicks should not be given too much space in order to keep them from wondering away from feed and water. Solid footing is also important in young birds as slipping can result in spraddles, or a hip dislocation that cannot be fixed. Providing wood shavings or coarse saw-dust will help prevent slipping. Along with clean water, feed, and bedding, chicks will require a

supplemental heat source. Chicks require temperatures around 95 degrees F. This can be achieved with a 250-watt heat lamp and a windbreak to prevent any drafts. After a week you can begin to reduce the temperature by 5 degrees F per week until chicks have been acclimated to the surrounding air temperatures.



- If they are cold, they will huddle under the lamp, chirping loudly. Lower the lamp until this behavior stops.
- If they are hot, they will move as far from the lamp as possible.
- When the ideal temperature is reached, the birds will act normally; some will be eating, some drinking and some sleeping.
- When the birds lay down to sleep, they should form a "doughnut" around the heat lamp. The "doughnut hole" will be directly under the lamp

## Raising Chicks (cont.)

Once you have your birds home you will need to think about getting them fed and watered. When choosing a feed you should look for a starter diet that contains ~20 percent protein.

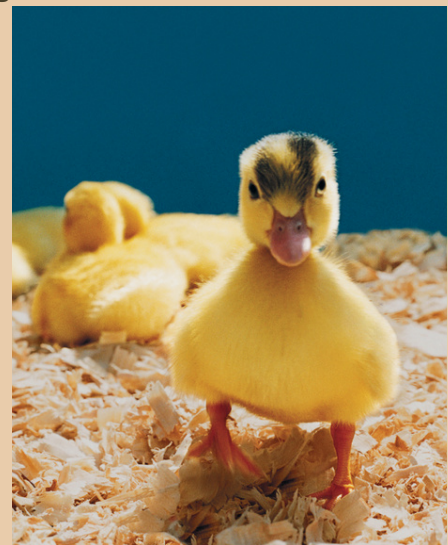
fast growing meat breeds may require a greater amount of protein in the diet. If you have breeds that you desire for egg production, a diet containing 15-16 percent protein and 3-4 percent calcium will be needed.



Be sure to maintain the following practices:

- Keep feed available to the birds at all times.
- Be sure to use fresh feed—no more than four weeks old.
- Feed your birds from feeders. Begin with a couple of small troughs and switch to larger troughs or hanging tube feeders later.
- Provide enough feeder space so that all of the birds can eat at the same time. Limited feeder space can lead to more back scratches and reduced growth.

Additional questions can be answered by your local MSU Extension office. So next time your in the feed store and have that urge to buy some chicks, remember to pick breeds that fill match the need you are trying to achieve, you have proper facilities for these birds, and you can provide clean feed and water.



# The Spread of Weeds

With spring comes new growth, however, this also means new growth for old pests like weeds. Weed spread during the winter can become apparent in the spring when seeds begin to germinate. This means pastures that were relatively weed free before the snow fell may possibly be infested with weeds come spring. The transportation of weeds can occur by complete accident from normal production agriculture activities.



Winter feeding of hay presents a risk in terms of weed seed transportation. Anytime forages are moved from one location to another, the risk of moving weed seed is present.



Buying hay from weedy fields should be avoided for this reason. Feeding in a bunk does not guarantee that the spread of weeds will not occur as there will always be spillage and some seeds can endure digestion to later be excreted as feces. In order to avoid unwanted weeds from taking hold, follow best management practices. Use questionable hay in areas that can be easily monitored for new weed species. If new weeds do appear, document the species and enact weed control measures. It will be important to treat weeds before the creation seeds and remove any seeds found. Movement of livestock should also be deferred until weeds are under control and no seeds are present. If possible use purchase hay that you know is free of weeds or hay that has been



## **The Spread of Weeds (cont.)**

certified weed seed free. By using forages free of weeds the risk of new weeds being introduced are minimized.

**The following information is from the MontGuide Preventing Noxious Weed Invasions.**

Limiting weed seed dispersal Noxious weed seeds are often carried along roadways in the undercarriage of vehicles. A Montana State University study showed that a vehicle driven several feet through a spotted knapweed infestation could pick up about 2,000 seeds. Only 10 percent of the weed seeds remained on the vehicle 10 miles from the infestation. Similarly, weed seeds are dispersed by machinery. It is important to remember to limit noxious weed seed dispersal by refraining from driving vehicles and machinery through weed infested areas during the seeding period. It is also important to wash the undercarriage of vehicles after driving through an area infested with a seed-producing noxious weed. Be sure to control emerging weeds in the wash-up area. Wildlife and livestock disperse seeds two ways. First, animals ingest noxious weed seeds. These ingested seeds can pass through the stomach unaffected, introducing seeds into new areas. Second, many weed seeds can become tangled in the hair coat of animals. When animals are moved to weed free areas these seeds fall to the ground. Little can be done to limit weed seed dispersal by wildlife. However, livestock should not graze weed infested areas during flowering and seeding, or should be transported to a holding area for about 14 days after grazing weed-infested areas and before being moved to weed-free ranges. Sheep and goat grazing must be properly timed and managed to prevent seed

## **The Spread of Weeds (cont.)**

transport. If animals graze noxious weeds after seed set, they will spread seeds on their coats and through their feces. Noxious weeds can be dispersed in feed. This is especially true on lands where recreational horseback riding and hunting is permitted, but can be a problem for ranchers as well. Using feed that is certified as free of noxious weed seeds is one method of preventing the introduction of noxious weeds. Grinding and pelleting forage or grain will also reduce the chances of introducing noxious weeds. Hikers, campers and other recreationists spread noxious weed seeds on their clothing or as they pick the flowers and discard the wilted parts along trails and recreational access sites. Even though discarded, these plants continue seed development. Clothing and camping equipment should be brushed and discards should be burned in a hot fire before leaving an area. Prudence in limiting weed seed dispersal is critical for all recreationists.

### **Minimizing soil disturbances**

Areas of disturbed soil provide an optimal location for noxious weed establishment and subsequent invasion. All noxious weeds are alien to North America and have evolved under intense grazing which causes soil disturbance and erosion. Noxious weeds have developed many characteristics which provide them an advantage over native North American plants in occupying disturbed soil. Minimizing disturbance of soil by vehicles, machinery, wildlife, and livestock is central to preventing noxious weed establishment.

