



**COLORADO STATE UNIVERSITY  
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## **Nature's Little Serial Killer, the Loggerhead Shrike**

By Sierra Crumbaker, Colorado Natural Heritage Program

Ever come across a barbed wire fence decorated with the impaled bodies of insects, reptiles, rodents, and the occasional small bird? It looks like the work of a sadistic little kid having a boring day, but in fact it's the proud display of what you might call nature's little serial killer, the loggerhead shrike (*Lanius ludocivians*).

its habit of catching and impaling other small creatures to whatever pointy object it has handy. If you [google loggerhead shrike prey](#), you'll be bombarded with images of beetles, grasshoppers, mice, lizards, and birds (sometimes decapitated) stuck to barbed wire, thorns, yucca, and sharp sticks.

Believe it or not, this songbird is infamous for

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Colorado State University Extension and U.S. Department of Agriculture programs are available to all without discrimination. Colorado State University Extension, U.S. Department of Agriculture and Colorado counties cooperating.



### **A loggerhead shrike and its unlucky prey. (Photo credit: David Leatherman)**

#### **Loggerhead Shrike continued from page 1**

Pam Smith, a resident botanist at Colorado Natural Heritage Program (CNHP), attended an indoor and outdoor Audubon field class about the loggerhead shrike led by David Leatherman, a retired Colorado State Forest Service entomologist and shrike enthusiast. They traveled to the plains of Weld County to respectfully examine the work of a local shrike, dubbed “Charles Manson” by Leatherman. He proceeded to explain that the work of Charlie has a lot less to do with psychopathic nature and a lot more to do with attracting females, who would pass through the area a little later.

The impaling hobbies of a male shrike are intended to showcase his impressive talents to potential mates, and his stashes of speared buffets provide food for the couple and their young down the road.

To rub salt in the wound, shrikes frequently impale bugs head-first so that they remain alive and fresh for forthcoming meals, a strategy that has led

Leatherman to discover pinned bugs with their legs still squirming. Leatherman also pointed out that shrikes not only behead some birds but place the head at one end of their nesting ground and the body at the other—what he believes may be an intimidation tactic in staking out territory.

The next time you’re out in the grasslands east of Fort Collins and you happen across a grasshopper impaled on a yucca, stop and listen, because you might hear the rough, squeaky melody of the little songbird responsible for it. And the next time you glance at CNHP’s colorful logo, just remember that somewhere out of sight in the background, there’s a barbed wire fence with a smorgasbord of small, impaled animals waiting to be noticed.

*If you’re interested in learning more, read a humorous (and somewhat macabre) article about the “butcher bird” by David Leatherman.—<https://cobirds.org/cfo/ColoradoBirds/HungryBird/64.pdf>*



## Thinking of Reseeding a Pasture?

By Jennifer Cook, CSU Extension/USDA-NRCS

This fall and winter are great times to reseed dryland pastures in most of Colorado. Reseeding can be expensive (\$100-\$500 per acre, depending on type of seed and available equipment) and will take multiple years for grass to establish. There are few important tips to keep in mind so that you can make the most of the money and time spent reseeding.

First, consider the amount of weeds in the pasture. If there are less than 80% weeds, than a cheaper option could be to reduce total grazing time and implement persistent weed control over a few years. These two actions will really help improve the health and production of desirable grasses.

If a total reseeding is necessary, the existing vegetation (including weeds, competitive grasses, and legumes) must be controlled prior to grass seeding. Common techniques for removing existing

vegetation are herbicides or tillage. If herbicide is used, read the label to be sure it will not have any residual effects on your new grass seeding.

After controlling the weeds or existing vegetation, prepare the seedbed by tilling or disking. If using a no-till drill, this step is not necessary.

For dryland grass seeding, fertilizer is not usually needed.

After the first frost (November-ish, depending on your location), use a grass drill to plant your recommended seed mixture. Plant the seeds  $\frac{1}{4}$  -  $\frac{1}{2}$  inch deep. Rows can be 7-12" apart. If a cover crop was used, be sure to plant your grass with a no-till drill so the cover crop residue can remain on top of the ground. (A cover crop of oats or sterile sorghum can be planted in the summer prior to reseeding.)

Contact your local Extension or Conservation District for grass recommendations, purchasing grass seed, and local grass drill rentals. Local contractors can be found on the small acreage services database - <http://sam.ext.colostate.edu/>

If a grass drill is not available, you can broadcast the seed, but be sure to double the recommended drill seeding rate. After broadcasting the seed, drag a harrow or chain link fence over the seedbed, or use a rake to create seed-to-soil contact.

Although you controlled weeds prior to planting, you will still need to be diligent about controlling the weeds during the first few years of grass establishment. It is important to control weeds to reduce water and nutrient competition, so the grass seedlings have the best opportunity to grow.



**This wildlife plot broadcast seeder is another option for reseeding pastures.**

Mow every month during each growing season for weed control, about 3-5 times a year. Set the mower to 4-6" high, no lower. Do not use herbicides for 3-5 years after planting, or until grasses are grown past the five-leaf stage, because herbicide may hurt the establishing grass seedlings.

Exclude animals until grasses are well established. For non-irrigated areas, grasses can take 3-5 years to establish. Adequate establishment for dryland grasses is 3 plants per square foot.

Remember, Mother Nature is not on a schedule, so be patient with expectations after any land management effort.

## **Vesicular Stomatitis Confirmed in 35 Counties**

By Colorado Department of Agriculture

Cases of vesicular stomatitis (VSV) have been identified in the following 35 Colorado counties: Adams, Alamosa, Arapahoe, Archuleta, Boulder, Broomfield, Chaffee, Conejos, Delta, Dolores, Douglas, Eagle, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Jefferson, La Plata, Larimer, Las Animas, Mesa,

Mineral, Montezuma, Montrose, Morgan, Ouray, Park, Pueblo, Rio Blanco, San Miguel, Summit, Teller, and Weld. The total count of premises under quarantine for VSV by county is updated regularly on the [CDA VSV website](#).

Two cows have tested positive for VSV on a small cow/calf operation in Larimer county. These cows had recently been brought down from summer pasture at a different location in Larimer county. to the state veterinarian's office at 303-869-9130. All non-equine cases must be investigated by a state/federal veterinarian.

Equine owners and livestock producers across the state are impacted by VSV; all livestock owners should carefully watch the case numbers and affected counties to gauge their level of risk and institute mitigation measures.

Please see the [USDA APHIS Veterinary Services website](#) to read the current situation report for all confirmed cases in the U.S.

The first case of VSV in Colorado was reported on July 3, 2019, in Weld County by a field veterinarian from the State Veterinarian's Office at the Colorado Department of Agriculture. An incursion of VSV-infected insect vectors is the likely source of infection. There are no USDA approved vaccines for VSV.



“This is the time of year when we potentially see more bovine cases, when cattle are transported down from summer pastures in the mountains,” said Colorado State Veterinarian Dr. Keith Roehr. “It is important that cattle producers and veterinarians inspect cattle coming off grass for VSV lesions, particularly oral and mammary lesions, and report any suspect cases to our office.”

If VSV lesions are suspected, it should be reported



### **Vesicular Stomatitis Background**

Vesicular stomatitis is a viral disease that primarily affects horses and cattle but occasionally swine, sheep, goats, llamas, and alpacas will show clinical signs. The transmission process of VSV is not completely understood, but includes insect vectors such as black flies, sand flies, and biting midges.

The incubation period ranges from 2-8 days. Clinical signs include vesicles, erosions, and sloughing of the

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## VSV continued from page 4

skin on the muzzle, tongue, ears, teats, and coronary bands. Often excessive salivation is the first sign of disease, along with a reluctance to eat or drink. Lameness and weight loss may follow.

Humans may become infected when handling affected animals, but this is a rare event. To avoid human exposure, individuals should use personal protective measures when handling affected animals.

### Tips for Livestock Owners

- Strict fly control is an important factor to inhibit the transmission of the disease.
- Avoid transferring feeding equipment, cleaning tools or health care equipment from other herds.
- Colorado veterinarians and livestock owners should contact the state of destination when moving livestock interstate to ensure that all import requirements are met.

Colorado fairs, livestock exhibitions, and rodeos may institute new entry requirements based on the extent and severity of the current VSV outbreak. Certificates of veterinary inspection (CVIs or health certificates) issued within 2-5 days prior to an event can be beneficial in reducing risks. Be sure to stay informed of any new livestock event requirements. See the Vesicular Stomatitis Guidelines for Shows and Fairs.

### Important Points for Veterinarians and Horse Owners

Any vesicular disease of livestock is reportable to the State Veterinarian's Office in Colorado – to report call 303-869-9130. If after hours, the voice message will indicate which staff veterinarian is on call.

### Additional resources

[USDA APHIS Veterinary Services National VSV Update](#)

[CDA Vesicular Stomatitis Information](#)

## CSU Online Land Stewardship Short Courses

Take one or all of these self-paced online courses, developed for the Colorado-arid west soil and climatic conditions.

**Stewardship Planning—\$40 Soils—The Basics—\$50 Water—The Basics —\$50 Management of Forage Plants—\$50 Management of Invasive and Noxious Weeds— \$50 Emergency Preparedness—\$50 Management of Wildlife in Colorado—\$50**

\*Discounts for bundling classes

Each class aims to help small acreage audiences and takes 5—10 hours to complete at your own pace.

Participants will gain a better understanding of natural resources, localized land strategies, and build an effective long-term land management plan for their property.

More info and register here—

[www.online.colostate.edu/badges/landstewardship](http://www.online.colostate.edu/badges/landstewardship)

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Follow @Colorado Stewardship on Instagram and Facebook

Upcoming focus -

**Things that Scare Us**



## Resources for Hay Buyers and Producers

By Colorado Department of Agriculture

The 2019 Colorado Hay Directory is now available, connecting hay producers and buyers, and serving as a valuable resource for livestock owners seeking alfalfa, grass, mix or other hay types.

“The Colorado Hay Directory continues to be a valuable resource for both producers and buyers,” said Wendy White, marketing specialist for the Colorado Department of Agriculture. “We receive calls from across the state and nation requesting copies of the directory.”

The 33rd edition of the Colorado Hay Directory features producers and brokers of hay as well as companies that provide hay-related products and services. Categorized by region, each listing includes the type and amount of hay available, bale type and size, whether or not laboratory analysis is available, certified weed free status and identifies organic hay.

The Colorado Hay Directory is published by the Colorado Department of Agriculture in cooperation with participating Colorado hay producers, Colorado State University Extension, and with support from Augie’s Ag Sales, LLC, KeyAg and Tytan International.

The directory and other hay resources are available online at [www.coloradoagriculture.com](http://www.coloradoagriculture.com). For more information or to request a copy of the Colorado Hay Directory, call the Colorado Department of Agriculture at 303-869-9175.

## Plant Look-a-Likes: Hemlock and Osha

By Jennifer Cook, CSU Extension and USDA-NRCS

The past few years I have seen more and more Poison Hemlock (*Conium maculatum*) in Colorado. This plant, along with Spotted Water Hemlock (*Cicuta maculata*), is poisonous to livestock and humans. Osha or Porter’s Lovage (*Ligusticum porter*) is an edible plant, and looks very similar to Poison Hemlock. Both species are members of the *Apiaceae* (Parsley) family, but Osha is edible while the Hemlock is very poisonous.

Let’s start with Osha, sometime called wild parsley, Porter’s Lovage or wild celery (*Ligusticum porter*). This tall, broadly branching perennial plant has fern like leaves that smell like spicy celery. It grows up to 3 feet tall, and is found in meadows and aspen forests of upper montane and subalpine areas, 7,000 to 10,000 feet.

Osha roots, leaves, and seeds are edible and have antibacterial and antifungal properties. It is considered a sacred plant of Native and Hispanic Americans. Those adjusting to high altitudes can chew on a leaf or drink tea made of Osha leaves.

Poison Hemlock (*Conium maculatum*) is a non-native biennial that grows up to 8 feet tall. Spotted Water Hemlock (*Cicuta maculata*) is a native that grows up

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**Spotted Water Hemlock (*Cicuta maculata*).** Stems may vary in color and pattern, from solid green or purple to green with purple spots or stripes.

**Hemlock and Osha continued from page 6.**

to 4 feet tall. Both species have a foul, musty smell and are found in foothills to montane ecosystems (up to 9,000 feet).

All parts of the Hemlock plants are poisonous. Water hemlock is considered the most poisonous of plants (2-3 bites can kill humans). This plant is famous in the ancient Greek story of Socrates's death, in 399 when he drank the deadly hemlock tea. Use gloves when removing these plants.

These three plants, Osha, Water Hemlock, and Poison Hemlock, look very similar, with white umbel flowers. What are some clues to distinguish them?

- The elevation at which the plant is growing could be a helpful clue, since poison hemlock is found up to around 9,000 feet and Osha is found higher in subalpine ecosystems.
- Smell the leaves. If it smells musty its poisonous, if it smells more aromatic it's probably Osha.
- Look at the roots. Osha roots have a brown hairy fringe around the top of the dark root.
- Look at the stem. If it had purple spots or stripes, it is poisonous hemlock.



**Poison Hemlock (*Conium maculatum*)**

Be sure to identify these properly before grazing or eating!



**Leaves of Osha (*Ligusticum porter*)**

#### Additional Resources

Poison Hemlock factsheet - <https://drive.google.com/file/d/1q1zgvdYtZfgnTKBzMM7gc>

Water Hemlock poisoning - [https://csuvth.colostate.edu/poisonous\\_plants/Plants/Details/47](https://csuvth.colostate.edu/poisonous_plants/Plants/Details/47)

Osha - <https://plants.usda.gov/core/profile?symbol=LIPO>



## Salmonella Outbreaks Linked to Backyard Poultry

This year, many people across the US were infected with outbreak strains of salmonella. Evidence shows that the outbreak strains are linked to backyard poultry, specifically one strain linked to samples in Ohio.

Over the six months of the outbreak, 77% of ill people interviewed reported having contact with backyard poultry, such as chicks or ducklings, since becoming infected.

Salmonella is sneaky. Chicks, ducklings, or other backyard poultry can carry the salmonella bacteria and still appear to be healthy.

### Tips to stay healthy, from the Centers for Disease Control and Prevention

1. After touching backyard poultry or anything in the area they live or roam, wash your

hands with soap and water, use hand sanitizer if necessary.

2. Supervise your child as they wash their hands after contact with backyard poultry.
3. Do not allow your flock within the house, especially in the kitchen.
4. Wear specific shoes while caring for your flock and do not wear those shoes in your home.
5. Do not kiss or snuggle your chicks or ducklings and then touch your face or mouth.
6. Children under 5 and adults over 65 who have weakened immune systems should stay away from all backyard poultry.

### Additional information

Colorado Farm to Table website - [healthy living with backyard chickens](#)

[Backyard Chickens recorded Webinar](#) – learn about health, safety, and general care of backyard flocks.



## Fall Weed Management

By Sharon Bokan, Boulder County Extension

For some weeds, fall is a good time for weed management. As always, you want to identify the weeds first. Not all management strategies work for all weeds. The life cycle of the plant will help determine what management methods will work best.

Winter annual weeds, such as cheatgrass, will be germinating soon. While it's a little late to put a preemergent down for cheatgrass (late July and August are better), you can be noting where you see it emerging for a possible winter herbicide application.

The other winter annual weeds won't germinate for a while yet so there's not much you can do other than note their locations and numbers. You'll need to deal with them in the spring.

Summer annual weeds, such as kochia and scentless chamomile, are nearing the end of their growth for this year. Spraying them at this point is a waste of herbicide and money as they are already producing seeds. The only option you have at this point is to remove the plants and their seeds, bagging them so you aren't adding more seed to the soil for next year.

Biennials, such as Scotch thistle, are forming or have formed their rosettes for next year. You can hand pull them, hoe, undercut or spray them. If you undercut the plant, be sure to pull the plant out of the ground. Just undercutting the plant will not



**Oxeye Daisy**  
kill it and it is likely to

re-root. "Organic" herbicides (containing acetic acid, citric acid or clove or cinnamon oils) will kill the smaller plants. Larger plants may require a couple of applications. The appropriate (based on which weed it is) "synthetic" herbicide can also be used. Remove and bag any flower stalks that still have flowers or seeds.

Perennials, such as oxeye daisy and Canada thistle, are storing energy for winter, much like bears and other wildlife. Perennial weeds are more apt to take in an herbicide, so fall is a good time to spray them. If you can, remove and bag any flower stalks and seeds to reduce seed spreading.

### A bit on herbicides

Don't assume that the herbicide you purchased several years ago for your diffuse knapweeds will also work on your toadflax. Certain herbicides work better on certain weeds. To be the most effective and do the least harm to surrounding plants, learn what weeds you have and what management techniques and herbicides work best on them.

If your herbicides are several years old and have been exposed to alternating hot and cold temperatures out in your shed or barn, they may lose some of their effectiveness. They are chemicals and chemicals have expiration dates and break down over time and in extreme temperatures. If you notice that your weeds are not affected by an application, it may be that your herbicide has lost its' effectiveness.

If you have herbicides that you are no longer using, find a Household Hazardous Waste Collection site in your area - <https://www.colorado.gov/pacific/cdphe/household-hazardous-waste-collectionprograms>

Always read and follow the label on the herbicides, whether "organic" or "synthetic." They are both meant to kill plants and you want to be sure you kill the weeds and not your forage plants or injure

yourself. The label provides information on any surfactant needed, personal protective equipment,

timing of spraying, and grazing or haying restrictions.

## Colorado Small Acreage Services Database

The source for landowners to find contractors, equipment, and services

[http://  
sam.ext.colostate.edu](http://sam.ext.colostate.edu)



Need help with weed control?  
Have a small pasture seeding project?  
Search the site today to find a local contractor!

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Upcoming focus -

**Things that Scare Us**



For a list of upcoming events in your area visit CSU Extension Small Acreage Management website  
[sam.extension.colostate.edu/](http://sam.extension.colostate.edu/)

## Do you have a question about managing your small acreage?

Contact CSU Extension /NRCS Small Acreage Coordinators:

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