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Fall Birdhouse Cleaning

By Pat Brodbent, *The Bird Man*®

Birdhouses are an excellent landscape feature increasing the number of songbirds on your property. Attracting songbirds to your backyard is easy and can be very beneficial in keeping many day time pests (grasshoppers and mosquitoes) and rodents under control.

Each fall or early winter, your birdhouses should be cleaned out and repaired. By doing this in the fall rather than spring, it will increase the chances of your birdhouse getting used again the following spring.

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Home Grown Wheat



By Jennifer Cook, *Small Acreage Management Coordinator, NRCS/CSU Extension*

Wheat is a grain that can be grown to make flour, animal feed and bedding, or simply used for flower arrangements and wheat artwork. It doesn't take much space to grow wheat to feed your family, but the grain needs to be harvested, dried, and cleaned properly, which takes time and labor.

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Birdhouse Cleaning continued from page 1

To clean out a birdhouse just open it up, take the old nest out, scrape any feces off the sides, clean out all the vent holes, and check and remove any wasp

When cleaning out birdhouses it is imperative that you protect yourself by wearing a quality dust mask and latex gloves! Never touch a bird nest with your bare hands!

nests from the ceiling. All birdhouses should have a way to be opened easily for cleaning. If your birdhouses are not easy to open, I would suggest replacing them. Also, all birdhouses should have vents on the bottom, both sides, and the back.

You also want to replace any worn or broken parts. If the birdhouse is in really bad shape, replace it with a new one. When cleaning out your birdhouse, ensure that the roof, sides, front, and bottom are in good shape. If any of these parts are cracked or broken they should be repaired or replaced.

Cleaning out your birdhouses in the fall allows the many cycles of freezing to naturally kill eggs from critters that may be attached to the wood surfaces. Getting rid of the old nesting material allows the cavity to thoroughly dry during the winter months. This drying process is also very effective in killing off any bad bacteria that can affect nesting birds in the spring.

Top Ten Reasons to have Cleaned and Repaired Birdhouses

10 Cleaning out, repairing, or installing a new birdhouse in the fall will significantly increase your odds of that house being used in the spring by a cavity nesting bird.

9 Hundreds of little insects can live in old nests! Critters such as spiders and mites will multiply by the hundreds if allowed to stay in a birdhouse until spring.

8 Old packed nesting materials and feces will hold moisture, allowing bacteria to grow and thrive all

winter. The bacteria in these nests can cause disease and death in the springtime nesting birds. The baby birds are especially sensitive.

7 Repairing the entry hole of your birdhouse is critical! Entry holes can become enlarged from woodpeckers during the past year. The enlarged holes enable predators, such as magpies, grackles, starlings, squirrels, and feral cats, to easily kill the nesting birds in the spring. A predator guard is also highly recommended!

6 Leveling the birdhouse to make sure the house is not tipped back will ensure next year's fledglings will have an easier time getting out of the entry hole. Even a house tipped back one degree can cause a high percentage of fledgling deaths.

5 Most all cavity nesting birds eat insects. One of the most common cavity nesting bird in Colorado is the Tree swallow. A single Tree swallow will consume more than 500 mosquitoes or as many as 50 Miller moths per day. One family: Dad, Mom, 3-5 babies, up to 1 family per 5 acres ...that's a lot of insect consumption!

4 Another cavity nesting bird in Colorado is the Western or Mountain bluebird. Both are huge consumers of moths and grasshoppers!
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Mountain bluebird

Birdhouse Cleaning continued from page 2

Up to 40 grasshoppers and 40 moths can be consumed per day by a single bluebird.

3 Birds like to use birdhouses for roosting in the wintertime. The chances of birds using a nesting box for roosting during the winter significantly increases with a clean birdhouse.

2 Cleaning out the old nests can be very educational for both children and adults. See how birds make their nests, what materials were used, and what kinds of feathers you find. These clues will give you tips as to what type of bird used your box last season. If you find the box was filled with sticks you can be assured Wrens are in your area.

1 An unused nesting box can attract wasps. Many times one or more wasp nests will form on the inside roof of the box. Removing these wasp nests is the only way you have a chance of birds using the box next spring. Leaving the wasp nests ensures you will have many, many more wasps in your yard next year.

To schedule your birdhouse cleaning, repairs, replacement, or for more information on attracting wild birds & bats, organic gardening, insect control, or if you or someone you know is in need of a speaker for your next event contact The Bird Man at:

www.birdmanusa.com/eCart/ContactUs.html
birdman@birdmanusa.com or 303-517-3102



Red Crossbill

Wheat continued from page 1



Although it would be ideal to have a combine to do the harvesting and cleaning, everything can be done by hand with a few cheap tools in your garden or small plot.

There are various types of wheat grown commercially in the US: hard red winter, hard red spring, soft red winter, white, and durum. While each is grown for a specific purpose commercially, they all make fine flour for breads and baking. The genetic diversity is amazing in wheat (colors, heights, awns or no awns) so have fun growing different varieties. Perhaps plant 3 or 4 different varieties to see what works for you.

Select local varieties that grow in your area. Variety information for Colorado is available at: www.extsoilcrop.colostate.edu/CropVar/index.html. Visit local feed stores, seed stores, or a grain elevator to purchase local seeds. You can also get seed from CSU Colorado Seed Programs at <http://seeds.colostate.edu/>. Start with a seeding rate of 100 lbs/acre for irrigated wheat or 50 lbs/acre for dryland.

Plant winter wheat around September 10 to September 25 for both irrigated and dryland seedings. Don't plant winter wheat too early. Planting earlier increases the risk for wheat insect and disease infestations. Winter wheat will grow a bit before winter and then continue growing the next spring. Spring wheat must be planted early in the spring to beat the heat. Plant spring wheat in the spring as soon as the frost has left the soil, the earlier the better. Spring wheat will probably need irrigation in Colorado.

Unless you have access to a grain drill and combine, you'll want to start with a small plot at first (maybe 20- by 20-foot area), and expand each year if needed.

Wheat prefers a well-drained soil with a pH of 6.4. Take a soil test prior to fertilizing. Be sure not to

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Wheat continued from page 3

over fertilize with nitrogen because it will cause lodging, where the heavy yielding seed heads fall over flat on the ground, making harvesting difficult. Control weeds prior to planting and/or plant in rows to make weeding easier. Be sure to rotate your crops every year so you aren't growing wheat on the same ground year after year. This will limit pest and nutrient problems and will break up weed cycles. Till the soil to prepare an evenly-fine seed bed. Broadcast the seed about 1 seed per square inch. Then rake over the seed to cover it no more than 2 inches deep. If possible, spread 2-4 inches thick of weed-free straw after planting to reduce weeds and act as mulch. Water the seeded area enough to keep the seeds surrounded by moist soil.

The wheat seedlings will germinate in a week or so, depending on soil moisture and soil temperature. Continue to monitor and control the weeds while the wheat grows.

Wheat is ripe when the heads turn flat yellow and look dead. Bite down on a seed and it should make a slight indentation and be crunchy hard when chewed. But if you plan to hand thresh, harvest the wheat before the grain is completely ripe. The stalks will be yellow with streaks of green in some of them, and the grain will still be doughy.

To hand harvest, cut the wheat stalks 3 inches above the ground with a sickle bar mower or a scythe. Assemble and tie wheat stalks into bundles. Stack or hang the bundles in the field or under cover to dry for three weeks.

After the wheat bundles are dried, you must separate the grain from the stalk. This is called threshing. Place a wheat bundle on a sheet over a hard surface, and lightly beat the seed heads with a rubber hose or club. The grains will fall out onto the sheet. After threshing, the straw stalks can be used as bedding for animals, or give it to the chickens to pick through and eat the leftover grains. You can use it in your compost pile as a good carbon source as well. Next, the grain and the extra organic material (chaff

and bits of straw), must be separated. This is called winnowing. Set up a box fan and pour the grain from one bucket to the other in front of the fan. The lighter chaff will separate from the grain in the breeze.

There are small-scale machines that either thresh or clean, or both, but they tend to be expensive. Attend a farm auction to see what might be available, and look online. You may even want to build your own. Here are some videos on homemade cleaners www.youtube.com/watch?v=IVcOOJXKjYw and www.youtube.com/watch?v=EAT0KU7Qw1A

Store the grain in the freezer to prevent insect problems. Grind the grain in a blender or grain mill before each use. Pick your favorite bread, pasta, or pancake recipe and start cooking. Chickens will enjoy the ground grain as well. Try popping wheat grain in a pan for a nutty crunchy snack. Wheat grain can also be sprouted.

More Information:

Small-Scale Grain Raising – 2nd edition, Logsdon, Gene, 2009. ISBN 9781603580779

Growing Wheat of your Own, Mother Earth News www.motherearthnews.com/real-food/growing-wheat-types-of-wheat.aspx#axzz2aBv0baO1

Small-scale grain machines www.ferrari-tractors.com/smallscale.htm

Colorado Wheat <http://coloradowheat.org/>



4 **Wheat is cut and left to dry in bundles called shocks.**

Where Do They Go for Winter?

By Whitney Cranshaw, CSU

As cold weather moves into the state, insects and mites undergo major changes to survive. Some species will die out over winter, such as those that annually recolonize the state with spring and summer migrations (e.g., aster leafhopper, potato psyllid, black cutworm). Others prepare for winter in several different ways. Caterpillars and beetles tend to burrow into soil or other protective cover. Aphids produce cold-resistant eggs that are attached to buds and needles. Several species like the protection that buildings and homes provide, producing seasonal nuisance problems.

Regardless, most species that successfully overwinter undergo physiological changes as well. Insects become "cold-hardy" at this time, which involves chemical changes, including the production of anti-freeze that protects their cells from lethal freezing. At this time, most insects are also in a condition known as *diapause*, a semi-dormant state where reproduction, development, and most feeding ceases. Diapause persists for months and is only ended when certain environmental triggers are passed. Day length is sometimes used to determine when diapause occurs; a critical exposure to chilling temperatures may also be required to end diapause.

The following is a summary of how many arthropods in the state survive winter:

BUTTERFLIES

Most Colorado butterflies spend the winter as pupae in sheltered corners, often several yards from the plants that when in the caterpillar stage it fed

on. However, a few manage to tough it out as adult butterflies, notably the Mourning Cloak, which may even be seen flying during warm days in winter.

Several butterflies, including the Monarch, Painted Lady, and Variegated Fritillary, show true migration into the state during spring followed by a southern migration in late summer. The Monarch overwinters in the butterfly stage in a fairly restricted area in the highlands of Mexico.

ANTS

Ants are social insects that maintain a colony from year to year. Underground nesting is the norm, although some nest in wood or around homes. Overwintering stages are adults—both workers and fertile queens. With warmer temperatures in late winter, eggs are laid and new ants are produced.



Ants and ant eggs

HONEY BEES

Honey bees are social insects that also maintain a colony from year to year. Almost all honey bee colonies are in maintained hives, although a few wild colonies occur in hollow trees, hollows of walls, and other protected sites.

Overwintering stages are workers and a single queen. Egg laying is suspended in fall and begins again during late winter.

YELLOWJACKETS, HORNETS, PAPER WASPS

Yellowjackets and hornets are social insects that abandon the nest at the end of the season and start a new colony each spring. Overwintering stage is a fertilized queen, which hides in protected sites such as under bark, around buildings, and other locations. In spring, surviving females attempt to individually establish a new colony, a project that is

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Where They Go for Winter continued from page 5

rarely successful. Colonies that do become established grow slowly during the early season, when the queen and a few worker wasps are available for colony chores. However, as the season progresses, colonies expand rapidly. At the very end of the season, queen and males are produced. By early fall, the colony is abandoned and the workers and males die.

BUMBLE BEES

Bumble bees are social insects that make a new colony each year. The only stage that over winters are the large, fertilized queens that hide in protected areas. In spring the queens emerge and try to establish a colony in abandoned rodent or bird nests or in hollows that have insulating material nearby. As the colony is originally produced solely by the efforts of the single queen, the first workers produced are malnourished and small in size. However as these and later workers are produced to help with colony chores, the colony becomes full-sized in late summer before it is abandoned.

LADY BEETLES

Lady beetles overwinter in the adult stage, typically seeking protected locations (e.g., under clapboards, leaves, bark flaps) in the general vicinity of where they spent the summer. In particularly good sites, they often will winter in clusters. One species that recently established in the state, the multicolored Asian lady beetle, frequently winters in homes.

A few of the lady beetles may migrate long distances seeking winter shelter, including at least 2 species which fly to the mountains and spend the winter under the snow at elevations typically above

9000 ft. These beetles often occur in spectacular aggregations that are most commonly observed during fall. The beetles then fly to lower elevations in late spring as snow melts. Mass winter aggregations occur all along the Front Range, but apparently they do not occur in western Colorado.

APHIDS

Most aphids overwinter as eggs on some trees or shrubs. A typical Colorado aphid life cycle involves feeding on an herbaceous summer host plant followed by return of the aphid to a perennial plant in late summer and early fall. For example, green peach aphid is a common garden pest in summer, but only survives winters on various *Prunus* spp.; potato aphid, another common garden pest in summer, survives as eggs on rose plants in the winter. Some aphids, notably the Russian wheat aphid, overwinter on the plant on which they feed, continuing to feed and develop throughout winter as long as temperatures permit. Other aphids, such as the cotton aphid and greenbug, rarely survive Colorado winters and most found during the summer originate as annual migrants from more southern areas.



Potatoe/Tomatoe psyllids

POTATO PSYLLID

Potato psyllid overwinters on native plants along the U.S.-Mexico border. Its occurrence in Colorado is based on annual migrations northward from these southern areas.

GRASSHOPPERS & CRICKETS

There are a lot of different grasshoppers in Colorado (60+ species), and the ways they make it through the winter also vary. However, most of the damaging grasshoppers (certain *Melanoplus* spp., clearwinged grasshopper) and crickets overwinter as eggs, in an egg pod inserted into soil. Other species overwinter as adults and even nymphs.

General Grass Seeding Plan for

Dryland Areas

By Jennifer Cook, Small Acreage Management Coordinator, NRCS/CSU Extension

Weed Control

For your grass seeding to be successful, existing vegetation must be controlled prior to grass seeding. Common techniques for controlling 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.

Fertilizer

Fertilize according to your soil test prior to planting your cover crop or grass mixture. Use a reputable soil testing lab for your soil test. Soil tests often take 4-6 weeks for the results so plan ahead.

Seedbed Preparation

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.



Control existing weeds before planting grass seed. Perennial weeds like field bindweed are very difficult to control with tillage. Chemical herbicides may be the best method for controlling perennial weeds prior to reseeding grass.

Sorghum Cover Crop

It is recommended that a cover crop be used on dryland areas because it can increase the success of the grass seeding. A cover crop will grow and die in one year and will shade out weeds, reduce erosion, and add organic matter to the soil. After the cover crop is dead, the residue will hold water at the soil surface while the grass seedlings are trying to grow. Sterile sorghum is the best cover crop to use in Colorado's dry climate.

If using a cover crop, plant 3-6 pounds per acre of sterile sorghum after May 15. Let it grow throughout the summer. It can be mowed or harvested before planting your grass, but it is not necessary. The cover crop will die in the fall.

Grass Planting

Between November 15 and April 15, use a grass drill to plant your recommended seed mixture. Contact your local NRCS or CSU Extension office for a seed recommendation. 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. After seeding, water the area if possible.

If a grass drill is not available, you can broadcast the seed, but be sure to double the drill seeding rate. After broadcasting the seed, drag a chain link fence over the seedbed, or use a rake to create seed to soil contact. Mulch the seeded area if possible with weed-free straw and water.

Maintenance

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. Mow every month during each growing season for weed control, about 3-5 times a year. Set the mower to 4" high, no lower. Do not use herbicides for 3-5 years after planting, or until grasses are grown past the

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Grass Seeding continued from page 7

three-leaf stage, because herbicide may hurt the establishing grass seedlings.

Exclude animals for 3-5 years or until grasses are well established. For non irrigated areas, adequate establishment is 3 plants per square foot. Be patient.

Once grasses are established, continue to monitor for weeds and control them before they become a problem. Manage grazing so that animals are not allowed to overgraze.

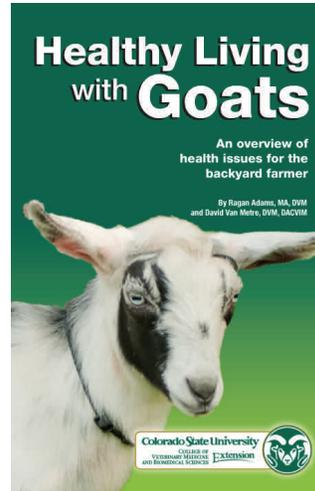
Visit the CSU Extension Small Acreage Management website www.ext.colostate.edu/sam for videos and other information about grazing. Contact your local Extension or NRCS for grazing management assistance.

Watch the one-hour recorded webinar called **Renovating and Reseeding Your Pasture** available at www.ext.colostate.edu/sam/webinar.html Scroll down to find it listed under 2012.



First year grass seedlings.

Healthy Living with Goats



The Healthy Living with Goats pamphlet provides an overview of important goat health issues, specifically related to backyard or urban goat keeping. Topics include diet, common diseases, and housing considerations. The pamphlet was produced by CSU College of Veterinary Medicine

and Biomedical Sciences. View the pamphlet at csu-vth.colostate.edu/livestock/pubs/healthy-living-with-goats/index.html

Upcoming Small Acreage Events

For a list of upcoming events in your area visit CSU Extension Small Acreage Management website www.ext.colostate.edu/sam/

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Sustainable Small Acreages

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