



Sagebrush Press

Douglas County Extension Office
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Colorado
State
University

Extension

Small Animals + for Your Small Acreage

Want to know how to raise chickens or goats? Interested in beekeeping?

Want to hear from the experts about the Equine Herpes Virus?

Mark your calendars for Saturday, November 19th, 9am-2:30pm for the latest edition of the Small Acreage Seminar Program put on by CSU Extension Offices in Douglas and Arapahoe County. The program will be held at the Douglas County Events Center located on the Fairgrounds – registration is \$15 (\$20 at the door) and includes a catered lunch.

See Attached Flyer for all the details and to Register

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Douglas County Agriculture Ad Hoc Report

The Douglas County Citizen’s Agriculture Ad Hoc Committee (“Committee”) was convened to analyze, recommend and identify barriers and methods to revitalize, broaden and promote Douglas County’s agricultural economy. In particular, the Committee is interested in the economic feasibility of measurably increasing the amount and diversity of agricultural production, processing and distribution in order to capture a greater percentage of local consumption of agricultural products and services. In short, the goal is to identify existing and untapped agricultural resources and opportunities that will result in . See full committee report—attached.

*Do you like to garden?
Do you like to help out others in the community?
Are you interested in becoming a Douglas County Master Gardener?*

Applications for the 2012 Colorado Master Gardener Program in Douglas County are available on September 19th. Call 720-733-6935 or email mgardenr@douglas.co.us for more information.



Extension

Calendar of Events

- Sept 19th—Master Gardeners Applications Available
- September 23rd—First Average Frost Date
- October 1st —Last Farmers Mkt
- October 13th —Extension Advisory Mtg.
- November 19th— Small Acreage Seminar

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Why Leaves Change Color

By Kimberleigh Anders, Douglas County Master Gardener

Some years the leaves begin changing before temperatures have yet to cool into what we think as fall weather. There are other factors involved than just a crispness in the air.

Throughout the warm sunny months, trees are lush green because of the abundance of the pigment chlorophyll, which is required to convert sunlight, water and carbon dioxide into energy-rich sugars.

As summer wanes, the leaves begin to change color which is triggered by cooler temperatures, changes in rainfall and most importantly, the days becoming shorter. During this time, trees begin to absorb essential nutrients and store them in their roots so they are available for the following spring. As the trees absorb the last of the chlorophyll, the brilliant colors we associate with autumn begin to appear.

Temperature affects the process, so it does play a part in the leaf color, although it is not solely responsible for the timing. Here in Colorado, the Aspen are known for a spectacular showing in the fall. The brightest autumn colors in the high country for Aspen are produced when dry, sunny days are followed by cool, dry nights during September. So essentially, the time the leaves begin changing is based on hours of sunlight and the vibrancy of the changing leaves is based on weather.

White Pine Weevil

By Whitney Cranshaw, Professor & Extension Specialist CSU

The white pine weevil (*Pissodes strobi*) produces a conspicuous injury to the terminal growth of spruce trees. In late spring the new growth wilts and dies back. The affected terminals wilt into a “shepherd’s crook” form and the needles often become lighter colored before they ultimately die and drop. Because of this injury, affected trees have stunted growth and develop a bushy appearance with multiple leaders. Presently, injury by white pine weevil is almost entirely limited to higher elevation areas of the state, foothills areas and above, although significant problems do extend into Colorado Springs.

White pine weevil spends the winter in the adult stage, under dropped needles and other sheltering debris, usually very close to previously infested trees. In spring the adults crawl to trees, although some may fly when

temperatures exceed 70⁰ F. Mating occurs on the bark of the tree and there is a period of feeding on the bark of the terminal branches. Feeding wounds are often marked by a point of resin.

To lay eggs, female weevils chew small pits in the bark, beginning just below the unemerged bud of the new terminal. Typically one or two eggs are laid in each pit which is then capped. A single female may lay 100 or more eggs.

The legless larval grubs then begin to feed on the wood underneath the bark. Ultimately these wounds may girdle the plant, causing the emergent new growth to wilt and die. The larvae tunnel downwards, sometimes extending tunnels below the next whorl of branches, causing them also to die back. When full grown the larvae cut

into the wood to produce a chamber within which they pupate. The pupal chamber is very distinctive, constructed of stringy wood chips, known as a “chip cocoon”.

After transforming to the adult stage, the new weevil adults chew their way to the surface, producing exit holes slightly larger than a pencil lead. The adults remain on the tree for the remainder of the summer, feeding intermittently on the small twigs in the crown of the tree, but do not reproduce at this time. In fall they move to the base of the tree for overwintering shelter. One generation is produced annually.

Continued: White Pine Weevil

Management of White Pine Weevil

Spray Applications. The standard approach to manage white pine weevil is to spray insecticides in spring so that

they cover the terminal. This treatment is directed at the overwintered adults to kill them before they lay eggs. Current insecticides useful for this treatment would include products that contain bifenthrin (Talstar, Onyx), permethrin (Astro), or cyfluthrin (Tempo). Rates of use should be to the high-end of what is labeled, such as for bark beetles or borers.

Timing is very important but difficult to determine. Sprays should be applied shortly before adults begin to feed on the terminal and lay eggs. The adults will likely begin to renew activity and move to trees during sunny days in April, when temperatures exceed 70°F. In the midwest, adult activity is often coincident with forsythia bloom; this may not be an available indicator in Colorado where forsythia is more rarely planted. A second application, two weeks after the first, is recommended to maintain coverage of the terminal.

Other spray treatments may also help manage this insect during outbreaks.

Treatment of the top of the tree during midsummer, after adults have emerged from the wilted terminals, can kill weevils as they feed in this site, reducing overall numbers that may cause problems in the subsequent year. Also, as many weevils crawl to the trees in spring, treatment of the lower trunk at the same time spring terminal applications are made may also help kill some of the migrating overwintered insects.

Soil Treatments. Soil drench/injection treatments of the systemic insecticide imidacloprid (Merit, Touchstone, etc.) can help prevent white pine weevil injury. These applications should be made in fall to allow sufficient time for uptake of the insecticide to the terminal in spring. Use of soil-applied imidacloprid also requires that the soil be sufficiently watered for a couple of weeks, to allow initial uptake by roots.

Pruning. Pruning out terminals that are currently infested by larvae can be used to reduce white pine weevil populations. However, the time for effective use of pruning is brief, limited to the late spring/early summer period between when terminals show evidence of infestation (wilting) and the insects emerge from the terminal,

as evidenced by exit holes. *The pruned area should be limited only to the part of the terminal that is infested*, which often may not extend to the next set of branches. The pruned material should be removed from the site and disposed since weevils may continue to develop in prunings.

The primary injury by white pine weevil is esthetic, deforming the growth of the tree as co-dominant uninjured side branches later grow to form multiple new leaders. This can be prevented by forcing a single leader to be dominant, suppressing the others, which will allow the tree to ultimately restore nearly normal form. This can be achieved by selecting as the new leader the most vigorous side branch and pinching the terminal buds of the other side shoots.

Related Species

A closely related species, *Pissodes terminalis*, causes similar injury to lodgepole pine in Colorado. This insect is sometimes known as the **lodgepole pine terminal weevil**.

Extension Advisory Council Meeting

There will be a quarterly meeting of the Douglas County Extension Advisory Council on Thursday, October 13 at 5:30 p.m. The meeting will be held in the upstairs meeting room of the CSU Extension Office, 410 Fairgrounds Road, Castle Rock. The meeting is open to the General Public.

Are There Deer-Proof Plants?

By Kimberleigh Anders, Douglas County Master Gardener

No plant is deer-proof. If deer are hungry enough, they will eat anything! However, some plant varieties are deer-resistant. Living in Douglas County, there is a high probability you will come in contact with deer. Perhaps this summer you have experienced deer damage. It can be very frustrating to nurture, water, and weed for hours only to have your beautiful plants eaten to the ground.

Placement of plants in your garden can determine the extent of damage. Place more susceptible species near the house, in a fenced area, or inside a protective ring of less-preferred species. Deer are unpredictable; a par-

ticular plant may be damaged in one area and left alone in another. The best defense is to hide their favorites from them.

Choosing plants that are not as palatable will increase your success. According to CSU, the plants that are very popular with deer are Wild Geranium, Common Phlox, Low Sunflower, Nodding Onion, Pussytoes, Strawberries and Tulips. Tree and shrub choices include: Apple, Aspen, Mugo Pine, Rocky Mountain Juniper, Roses and Wild Red Raspberry.

On the other hand, some deer-resistant varieties are Daffodil, Grape Hyacinth, Black-Eyed Susan, Gaillar-

dia, Gayflower, Larkspur, Lavender, Mountain Harebell, Pearly Everlasting, Purple Coneflower, Russian Sage, Thyme and Yarrow. Trees and shrubs are Apache Plume, Blue Mist Spirea, Common Juniper, Douglas Fir, Mountain Mahogany, Oregon Grape, Pinyon Pine, Potentilla and Rabbitbrush. For more information visit, <http://www.ext.colostate.edu/pubs/natres/06520.html>.

When planning next year's garden, keep in mind the plants that are deer magnets and the plants that are less palatable. If you wish to grow favorites of the deer, do so where they are protected so you can enjoy them but where the deer may not find them.

Gambel Oak Defoliation - NEED LANDOWNER ASSISTANCE

Landowners in Douglas County may have noticed a great deal of defoliation this past spring. Much of the defoliation was south and west of Castle Rock but there were probably other areas in the county that were also damaged. The CSU Extension Office, Colorado State Forest Service and other interested parties are planning on checking the oak this fall, sometime between Halloween and Thanksgiving. You might think that this is a strange time of year to be checking for insects. However, the possible culprit of the several thousands of acres of oak defoliation could be the Linden Looper and IF it is the insect responsible for the damage, we can confirm it in the fall. The adult moths – males have wings but the female is flightless - emerge between October and December, and lay eggs at that time. Odd timing but, as Dave Leatherman, former Colorado State Forest Entomologist indicated, the moths should be fairly conspicuous during this period of time. **So, we are asking landowners and Master Gardeners to be looking for the moths, checking your porch lights and collecting the adults and then bringing them to the CSU Extension Office in Castle Rock.** The adult male is the size of the common Cabbage White Butterfly but they are tan with some distinctive dark dots on the wings. **There should be lots of moths in the locations where there was severe defoliation.**

It should be noted that there were other problems that occurred on Gambel Oak including environmental (weather), some disease problems (due to all of the rain in the spring) and just normal things that occur on Oak every year, such as gall wasps. Gambel Oak is very tough and has great recuperative qualities. As I have told landowners concerned about their Gambel (Scrub) Oak – it is almost impossible to transplant if you want to move it (seems to die when it is transplanted) but also almost impossible to kill the plant and remove it.



West of Eden

By Shelly Stephens D.C. Master Gardener

When Eve chomped into the apple I often wondered if her new wisdom included “we need to get at these weeds.” Perhaps not biblically recorded, any gardener knows that weeding is a task to be endured and tackled. The more aggressive in garden culture bear the title of “weed warriors,” with weaponry of implements and chemicals. The more spiritual dirt diggers view the task as divine -inspired exercise. Whether soldier or saint, weeds need to be addressed so they don’t overpower or absorb nutritional needs of wanted growers – or take over before they take you under.

Diligent maintenance of a healthy lawn will lessen the haven for weeds to take up residence. In flower beds and tree surrounds, mulch, low ground covers, perhaps sedums or ajuga, will cover soil that weeds have set their root sights on. If weeds prevail, the trick is to get at them in their early stage before their roots become aggressive and certainly before their seed heads get adventurous.

If you’ve done the best (you think) and yet weeds still appear, bear in mind that weed control is not a one-time deal, you may not overcome, but will stay ahead. “Thou shalt not kill,” but who says you may not remove. Weeds may be plants that happen to be growing where you don’t want them, like snapdragons that pop up in the driest rock-intended areas. Relocate them by careful removal, plant where desired, and they’ll reward you with color and eventual seeds for you to choose where next season’s growth is wanted.

There are herbicides where the container’s instructions must be adhered to rigidly. An extensive list of weeds and specific chemical controls is available on the CSU Extension website (www.douglascountyextension.org).

I have small dogs and hesitate to use chemicals. Thus my early morning attire includes my coffee mug, pronged weeder, and market bag. I canvass my yard areas, enjoy the neighborhood fox on his/her run, the rabbits, birds and butterflies, pull the easy weeds (easy when soil is rain dampened) and dislodge the more stubborn. Think of the aeration benefit provided and the non-gym travel for early exercise.


Follow with an apple chomp and think of your own Garden of Eden creation.

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We're on the web?
www.douglascountyextension.org



NRCS—Natural Resources Conservation Service in Douglas County

303-688-3042

“With offices in nearly every county in the United States, NRCS works with landowners and communities to improve our soil, water, air, plants, wildlife, and energy use. Ensuring, productive lands in harmony with a healthy environ-

ment is our vision. Seventy percent of the land in the United States is privately owned, making stewardship by private landowners vital to the health of our Nation’s environment.”

The NRCS office in Franktown hosts the annual Seedling Tree program each year. You can get your application from November to March and the Seedlings are delivered in April for an application call Pam @ 303-688-3042.



<http://www.nrcs.usda.gov/wps/portal/nrcs/home>
