



**Sagebrush
Press**

Douglas County Extension Office
410 Fairgrounds Road
Castle Rock, Colorado 80104
(720) 733-6930

**Colorado
State
University**

Extension

Summer 2010

**Joseph Julian
Ag/Natural
Resources Agent**

July, August and September

Calendar of Events

July 4th – Independence Day
July 5th – Extension office Closed in observance of Independence Day
July 8th – CSU Extension Advisory Council
July 10th-Oct 2nd – The Castle Rock Farmers' Market
July 31st – Aug 8th – Douglas County Fair and Rodeo
Aug 6th – Open Agriculture/Horticulture show
Sept 6th – Labor Day – Extension Office Closed

EXTENSION ADVISORY COUNCIL MEETING

The next meeting of the CSU Extension/Douglas County Advisory Council will be on Thursday, July 8, 2010 at 5:30 p.m. in the upstairs conference room of the CSU Extension Office.

CASTLE ROCK FARMERS MARKET BEGINS JULY 10TH

The 23rd year of the Castle Rock Farmers Market (also known as the Plum Creek Valley Farmers Market) will begin on Saturday, July 10th at the same location as last year – 2nd and Perry Street. The Farmers Market features fresh fruits and vegetables from growers in Colorado and locally in Douglas County.

There are also some food vendors that will provide such goodies as tamales, hot dogs, honey sticks, pop & water, organic beef, etc. This year there will also be a “face painter” on selected Saturdays. The market emphasizes horticulture crops but there are some “crafty” vendors that sell pottery, jewelry, and other unique items.

The Douglas County Master Gardener Program is available on site to answer your horticulture questions and to look at and diagnose your plant samples. Master Gardeners will provide fact sheets on a variety of horticulture and related topics

including insects, weeds, tree varieties, flowers, canning, food safety and more!

Sorry but the Farmers Market Board of Directors is no longer accepting applications for vendors this year – applications are due by early May each year as the Board only gets together one time to review and accept or reject applications. We are still, however, accepting applications from Non-Profits. If you are a non-profit organization, inquire at the Farmers Market on how to submit an application.

DOUGLAS COUNTY FAIR & RODEO

The 2010 Douglas County Fair & Rodeo runs from Saturday, July 31st through Sunday, August 8th. In addition to the great 4-H Events such as Horse Shows, Livestock Shows (Cattle, Swine, Sheep, Goats, Llamas) and the General Projects including Rocketry, Shooting Sports, Computer Science, etc., there will be some great entertainment. The fair will be showcasing eight bands on two different stages. Check out the schedule of all the fun events at:



www.douglascountyfairandrodeo.com

ENTER YOUR VEGETABLES & FLOWERS IN THE 2010 DOUGLAS COUNTY FAIR

Don't forget to enter your veggies, agricultural crops/exhibits and flowers at the DC Fair on **Thursday, August 5th from 7 am – 11 am** in Kirk Hall.

WORKSHOP ON HOW TO ENTER FLOWERS ON JULY 22ND AT THE CSU EXTENSION OFFICE AT THE DC FAIRGROUNDS

A workshop on how to enter your flowers will be held, free of charge, to residents at the CSU Extension Office in Castle Rock (also on the Fairgrounds) on **Thursday, July 22nd from 9:30 am – 11:30**. Former

DC Fair Flower Judge and long-time Master Gardener, Lynda Dirkse, will be leading the class and providing residents with tips and ideas for entering their flowers.

So mark your calendars and attend the training class then enter your flowers, veggies, and agricultural crops at the Fair. There even is a category for Weed Displays with a cool prize of \$50 for first place!

FLOWER & VEGETABLE ENTRIES AT THE FAIR

Guidelines for Entering Items

APIARY

Honey – One jar, no debris or pollen. Judges will taste for freshness & quality.

Comb Honey – Display comb (approx. 4" x 4") in clear attractive container. Judges will taste for freshness & quality.

EGGS

Display in cartons. When cracked, egg white should not run, yolk should be high with no blood spots. A deep golden yellow yolk is preferred to a light yellow yolk.

FORAGE CROPS

Display in bundles the size as indicated.

FRUITS

Apples or crabapples – should be mature apples as indicated by their aroma & color. Stems must be attached.

Chokecherries – Color should be deep, dark purplish/red. Color, uniformity & proper maturity are critical factors.

Raspberries – Should not be exhibited without hulls. Collapsed fruit & dispersing aggregates are signs of overmaturity.

Strawberries – Should be mature, uniform, & exhibited without caps.

Rhubarb – Stalks should be uniform in size & color. Stalks should be pulled, not cut, from the plant. Leaf should be trimmed to show one inch of leaf at the end of each stalk.

VEGETABLES

Green or Yellow Snap Beans – Pods should be well-formed, tender, firm and stringless and should snap when broken. Color should be bright, seeds should be small, and the flesh should not have any voids. Pods should be uniform in shape & size with ½” of stem attached.

Table Beets – Should have 1” petioles. Beet should be tender, smooth, free of side roots, have a small crown, and should be rounded, symmetrical, & uniform. The root should not be removed. Size from 1” to 3.5” diameter.

Broccoli – Six inches long and the head at least 3” in diameter. Stem should be solid & loose leaves removed. Head should be compact and dark green with uniform buds of medium size. Over maturity, looseness in head, & damage to buds are to be avoided.

Cabbage – Heads should be firm & solid with 2-3 wrapper leaves per head. Stems should be cut ¼” below the head.

Carrots – Should have 1” petioles remaining. Carrots should be coreless and have a deep color. The root should be clean & free of side roots. Avoid large crowns & green shoulders.

Peas – ½ lb of podded peas with ½” stems attached. Select pods that are bright green & fully filled with well-sized but tender peas. Pods may carry the original bloom.

Cauliflower – Wrapper leaves trimmed even with the curd. The curd should be pure white, smooth, & compact. Avoid overmaturity & openness. Stem should be trimmed ½” below the last remaining leaf.

Garlic – Small well-dried necks, not dirty.

Dry Onions – Display with 2-3” of stem attached. Select solid, mature onions with intact dry skins and well-dried necks. Do not wash.

Green Onions – ½” – 1” diameter, clean purple or white color, dark green tops about 6” long. OK to wash. Trim roots to ½”.

Potatoes – Shallow eyes, smooth surface, clean but not washed.

Tomatoes (green) – Should be uniform and “mature green” with a slight pinkish color preferred to being too green. Exhibit without stems. Should be soil-free, but not washed or polished.

Tomatoes (ripe) – Fruits should be uniform in size and color, and the interior bright & meaty with no green gel around seeds. Exhibit without stems. Should be soil-free, but not washed or polished.



Eggplant – Fruit should retain calyx cap and ½” of stem. A good quality eggplant is firm, heavy in relation to size, with a uniform color. Should not be washed, but it should be cleaned with a soft cloth.

Turnips – Should be smooth, have a small crown, free of side roots, round, crisp, and a color pattern typical of variety. They should be 2” to 2.5” in diameter with 1” petioles. The taproot should be untrimmed.

Peppers – ½” of stem should be attached. Fruit should be clean, uniform in size, but not polished.

Vegetable Art – Use your creativity to come up with anything of your own choice using vegetables as your medium!

Cucumbers – Slicing cucumbers should not exceed 2.5” in diameter. Pickling cukes are either small (2” to 2.5” long), or large (3” to 4” long). ½” of stem should be attached and fruits should be uniform in size and shape. Flesh should be free of voids.

Field or Pie Pumpkins – Stem must be attached. Fruit should be smooth and mature, showing no green color.

Squash, Zucchini or Summer – Zucchini should be 6” to 9” long, yellow or straightneck should be 5” to 6” long, and scalloped or patty pan 3” to 4” in diameter. Each entry should have ½” of stem attached, with the skin tender and seeds immature and edible. Flesh should be solid, light colored, and free of voids.

Squash, Winter – Should be mature and have stems attached. Skin should be hard and soil free.

HERBS – Select sprigs with leaves that are clean and free of blemishes. Best flavor is found in the “bursting bud” stage with flower buds that are on the verge of opening.

Dill – Select large mature heads with green seeds “going” brown.

MASTER GARDENERS

Don’t forget to contact the Colorado Master Gardeners in Douglas County this summer if you have gardening questions. The helpful advice of Master Gardeners is available Monday through Friday, 8:30am-4:30pm by calling (720) 733-6935. You can get the same detailed responses via email by contacting them at mgardenr@douglas.co.us. If you are interested in becoming a Master Gardener, call the CSU Extension Office 720-733-6930 for more information.



HOW MANY ACRES OF PASTURE DOES IT TAKE TO SUPPORT A COW

By: Bruce Bosley, Cropping Styntmes/Natural Resource Extension Agent – Logan County

It all depends on the quality of the native range or improved pasture and whether it is irrigated or not and depending on the soil type, and whether it contains trees & shrubs or just grass and forbes (small non-woody non-grassy vegetation).

The following fits a landscape situation where it is a dryland pasture without sub-irrigation (where ground water is very shallow - 3 feet from the surface or less) and where soils aren’t restricted and where the landscape is a grass/forb:

Native range in excellent condition should provide enough forage for one cow/calf unit for every 12 to 15 acres.

However, excellent condition range is extremely rare. You may need as much as 40 acres per cow/calf unit if it is in poor condition.

It may be best to figure 20 or even 25 acres per cow/calf to start with and see how the animals respond and check the grass condition for 3 years or so.

This assumes that you are managing with a recommended rest-rotation grazing system.

I strongly suggest that you review CSU's grazing recommendation fact sheet:

<http://www.ext.colostate.edu/sam/pasture.html>

Small Acreage Seminar – Save the Date

The CSU Extension Office – Ag & Natural Resources Department, has reserved the Douglas County Events Center for Saturday, November 20th from 8:00 am - 2:00 pm to hold a Small Acreage Management Seminar. At this time, the following topics are being finalized with speakers:

- CSA’s - Community Supported Agriculture – What it is? How can it benefit residents? How do I get involved?
- Horses on Small Acreage – Hay and Pasture Grasses
- Weed Management on Small Acreage

If you are on the Small Acreage “Sagebrush Press” email list, there is no need to contact us as you will receive a flyer via email as the details come together. The November 20th date is the Saturday prior to Thanksgiving so mark your calendars

GRASSHOPPERS – NOT!

Apparently there has been widespread distribution by media about the potential for devastating grasshopper outbreaks. This has absolutely panicked many Coloradoans. And it is groundless, at least as far as our state is concerned. From what I can tell there is no greater nor lesser risk of grasshoppers anywhere in this state than on average. I expect, as occurs every year, that there may be an outbreak somewhere or, perhaps in a couple locations. But nothing widespread nor involving some single species. (There are over 100 species of grasshoppers in Colorado.)

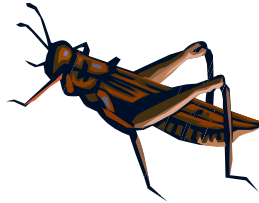
Frank Peairs put out the following note on the subject which puts the situation in perspective.

Whitney Cranshaw
Colorado State University

Colleagues,

There is a persistent rumor that there will be a serious outbreak of grasshoppers in Colorado this year. While it is true that an outbreak is predicted, it is expected only in central Nebraska and to the north and west of that area. There is a small extension of the Nebraska outbreak into northeastern CO, but most of the state is predicted to have little or no grasshopper activity in 2010.

2010 grasshopper predictions are based on 2009 surveys of adult activity (= egg laying) conducted by USDA-APHIS. You can see the 2010 prediction map at <http://www.sidney.ars.usda.gov/grasshopper/Extras/map09.htm>. Keep in mind that such maps show outbreak potential, but weather conditions will determine how much of that potential is realized.



Please let me know if you have any questions.

Frank B. Peairs, Professor of Entomology and Extension Specialist

Department of Bioagricultural Sciences and Pest Management

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SOIL TESTING Q&A

Why should I have my soil tested?

A soil test is the best way to check the growing potential of your garden. The CSU Soil Testing Laboratory’s “routine” Garden and Landscape test takes the guess work out of your garden’s growing potential. It will guide you in deciding which nutrients are deficient and sometimes more importantly, which nutrients you have too much of. Over-fertilizing is a common gardening problem. It is not only expensive, but also may harm your garden’s production and our environment. The soil test will also tell you whether your soil’s organic matter content is sufficient to support healthy plant growth; whether your soil is too salty; whether your soil’s pH is acceptable for the plants you want to grow.

Where can I have my soil tested?

The CSU Soil Testing Lab is located in the Natural and Environmental Sciences Building, Room A319, Colorado State University, Fort Collins CO. (Telephone: 970-491-5061). Soil sampling kits can be picked up at various nurseries in Fort Collins, at the Larimer County Extension Office (1525 Blue Spruce Drive, Fort Collins CO 80524), or at the CSU Soil Testing Lab. A sampling kit consists of: 1 sample bottle + 1 submission form and sampling instructions + 1 USPS mailer (optional).

Alternatively, a submission form and sampling instructions can be downloaded from the Lab’s website: www.soiltestinglab.colostate.edu, and the

sample can be collected in a zipper-lock plastic bag. Soil samples either can be dropped off at the Lab, or mailed to the Lab (address on the back of this page).

How much does it cost?

The “routine” Garden and Landscape soil test costs \$28.00. You may include a check when submitting your sample or the lab can bill you.

Why can't I just buy a home soil testing kit? They're cheaper.

Home soil test kits have questionable value. Most home test kits were designed for acidic soils and have questionable accuracy on the alkaline soils found along Colorado's Front Range. At best, home soil test procedures give ballpark readings, but are not precise enough to accurately determine soil pH or nutrient levels.

What information do I get with a soil test?

The CSU Soil Testing Lab's soil test provides soil pH, salinity, lime content, texture estimate, organic matter content, and plant-available N, P, K, iron, zinc, manganese and copper. Fertilizer recommendations, data interpretations, and management suggestions are also provided.

When should I sample?

Soil samples can be collected any time of the year, although spring and fall are usually the most convenient times. Avoid soil sampling within 30 days of an application of nitrogen fertilizer, compost, or manure.

How many samples should I collect?

One soil sample should represent a uniform area consisting of land that is similar in slope, drainage, texture, or other characteristics that make the soil properties uniform within the area. Submit a separate soil sample for each area that receives different fertilizer, amendments, and/or soil management treatments. For example, vegetable garden areas are managed differently from lawns, so the garden should be sampled separately from the lawn. Different garden beds, or different lawn areas that receive differing amounts of

fertilizers, soil amendments or irrigation, should also be sampled separately.

How often should I soil sample?

The first time you test your soil establishes base line soil properties. Soil testing should be repeated every 4 or 5 years to re-establish the base line, or, when dramatic changes have been made to the soil (e.g. addition of large quantities of manure or compost), or, when plant problems develop.

How do I collect a soil sample properly?

Use a clean, rust-free trowel, spade, soil tube or soil auger to collect your soil sample. Each sample should be a composite of 5 to 15 sub-samples (depending on the size of the area), collected randomly throughout the chosen area. Collect these sub-samples to a depth of 6 inches, and combine them in a clean plastic container. Try to dig straight down, rather than at an angle, so that equal amounts of soil are collected at each depth increment. Try to collect the same amount of soil from each sampling area.

Mix the sub-samples together thoroughly. Remove plant debris and break up clods. Remove about 2 cups of soil; spread on paper towels and air-dry (do not oven dry). Return the rest of the soil to the landscape. Place the dry soil sample into the CSU soil container (preferred), or a zipper-seal plastic bag. Seal the container and label the sample with name, address, and location of the sample (for example “Vegetable Garden”, “Lawn1”, “Lawn2”, etc.

If multiple samples are being submitted for analysis, including a map of your sampling procedure would be helpful in interpreting the laboratory analyses.

Complete the sample submission form as completely as possible. Use a separate form for each soil sample. Include the submission form(s) with the soil sample(s). Samples either can be dropped off at the lab, or, mailed to the lab:

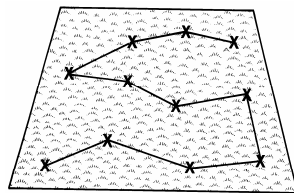
*Soil Water and Plant Testing Laboratory
Colorado State University
Room A319 NESB
Fort Collins CO 80523-1120*

For submittal by UPS or FedEx, please use:
Soil, Water and Plant Testing Laboratory
Colorado State University
200 West Lake Street
Fort Collins CO 80523-1120

Please keep samples cool before mailing. If samples heat up, the nitrogen readings can change dramatically.

How long does it take?

Test results are sent to the customer within 2 weeks of the lab's receiving the sample.



AREA TO BE SAMPLED
(x's are random sample spots)

ORNERY PURSLANE

By Kimberleigh Anders, Douglas County Master Gardener

Purslane is a garden weed that just keeps coming back. It is a summer annual that is abundant throughout the world. It invades vegetable and flower beds, bare areas, agricultural sites, sparse lawns and your garden. The aggravating problem about these weeds is the fleshy stems can remain moist for several days after hoeing and can re-root to form new plants when watered. Therefore, it is best not to hoe and to just pull them by hand. Pull the main plant carefully to avoid scattering the seeds and remove it and all broken stems out of your garden.

Another form of control is deep mulching. If they screen out all light, mulches can be used. To be effective, organic mulches should be at least 3 inches thick. Plastic and fabric mulches also work well.

To identify, look for a succulent plant that forms a dense flat mat. The stems can be as small as 1/2 inch when sprouting and up to 12 inches long. From the middle, the stems

grow in a spoke like fashion outward. Leaves are oval, shiny, smooth, have a reddish color on the underside and are succulent. They can vary from 1/2 to 2 inches in length. The very small flowers are yellow and only open in sunshine. Seeds are black, small and plentiful. A single plant may produce 240,000 seeds, and they can lie dormant and sprout the next spring. In late summer, large flat mats of mature Purslane can be turned over to reveal thousands of seeds on the soil surface.

When you are walking in your garden and you see even one of this weed, pull it and take it with you to the trash bag. Do not leave it on the ground or throw into a compost pile. You can keep it at bay by diligently pulling this summer and be one step ahead of it in the spring by mulching.

STOP THE JAPANESE BEETLE

How Landowners Can Help
By Christi Lightcap,

Thirty-five states to the east of Colorado are currently considered infested or partially infested with Japanese beetle; the Colorado Department of Agriculture is providing valuable tips to homeowners to help protect their property.

The Japanese beetle (*Popillia japonica*) is an insect pest that is not native to Colorado and can cause significant damage to landscape plants, turfgrass, and fruit trees. Originally introduced from Asia to the Eastern US in the early 1900's, the beetle has slowly managed to expand its range westward.

This pest is under quarantine in Colorado which is a regulatory activity that limits the transport of goods that spread pests or diseases. CDA, in conjunction with the Colorado Nursery and Greenhouse Association (CNGA) and the US Department of Agriculture, is working diligently to ensure that future introductions of this pest are prevented.

Japanese beetle is most frequently moved from state to state in infested nursery stock

and soil. Currently, all trees, shrubs, sod and ornamental grasses brought into Colorado from infested states to the east, must first be certified by the state of origin to be free of Japanese beetle. While it is illegal to knowingly move plants and soil infested with Japanese beetle *into* the state, it is also illegal to knowingly move plants and soil infested with Japanese beetle *within* the state.

What is a Japanese beetle?

Japanese beetle adults are scarab beetles, approximately, one-half inch long with a metallic green body and copper-colored wings. There are five distinct tufts of hair along each side of the beetle's abdomen. The larvae are white grubs that reside in the soil. Grubs are about an inch long and lie in a curled position or 'C' shape when at rest.

What are their favorite plants?

Japanese beetle larvae prefer to feed on the roots of grasses, such as those found in lawns or in ornamental beds. The adult beetle has a wide range of plants it prefers including grapes, roses, hollyhocks, black walnut, apples, crabapples, peach, cherry, plum, lindens, mountain ash and lombardy poplar.

How can the beetle be prevented?

Purchase landscape plants, trees, and turfgrass only from nurseries, garden centers and landscape contractors that are registered with the Colorado Department of Agriculture. Registered nurseries and sod farms are inspected and nursery stock is verified to be Japanese beetle free. A list of registered nurseries and landscape contractors can be found at www.colorado.gov/ag/dpi and click on "Nursery Program."

Quarantine

Don't bring uninspected plant materials into Colorado from infested states. Don't move plants and soil from your property to other portions of Colorado OR to states west of Colorado. This pest is under quarantine and those that bring uncertified plant material into Colorado are subject to fines.

What should one do if they find Japanese Beetle?

If you suspect Japanese beetle, collect it and contact the Colorado Department of Agriculture or your local Colorado State University Extension office. The insect's identity will be verified.

Follow best management strategies to manage the pest by watering your lawn as little as possible, avoid using plants in the landscape that are favored by the pest, and hire a licensed pesticide applicator, if you consider using a chemical control.

BINDWEED MITES **Tri River Extension Office**

Field bindweed (*Convolvulus arvensis*) is one of the most widespread and difficult to manage weeds growing throughout the United States. The vining plant produces an extensive root system that stores enough nutrients to fuel extensive growth. The plant thrives in the arid western states and will grow on many sites where other plants cannot exist. Control with herbicides is difficult. Bindweed can be successfully managed on some sites with fall applications of glyphosate containing herbicides. Control in localities with desirable vegetation, inaccessible areas, as well as many agricultural systems is nearly impossible with herbicides.

The bindweed mite, *Aceria malherbae*, is a microscopic eriophyid mite imported from southern Europe as a biological control agent for field bindweed. The bindweed mite feeds only on field bindweed and closely related wild morning glories. It does not damage other plant species, and it requires bindweed to survive. Bindweed mite feeding causes the formation of gall-like growth of plant leaves.



Leaves of infested plants become thickened, and have a “fuzzy” texture. In heavily infested plants, the shoots are misshapen and growth is severely stunted. Newly emerged leaves on recently infested plants appear folded with thickened midribs. The thickened texture and fuzzy appearance are good diagnostic characteristics to identify bindweed mite presence.

Bindweed mites have the potential to aid in suppression or control of field bindweed in many arid regions, and under many plant management regimes. It can be useful in wildland settings, pastures, roadsides, disturbed areas, landscape plantings, and other areas. The best results will be obtained with active management by mowing the bindweed, which moves the mites around and stimulates Figure 3.

Recently infested bindweed leaves (right) are folded with a thickened, reddish midrib. More heavily damaged leaves (left) have crumpled distortion of growth.



Figure 4. Nearly 100% of the bindweed on this site near Grand Junction is infested with

the bindweed mite. A new weed management challenge appears when other weeds move in as bindweed disappears from the system. New growth for the mites to feed on. Bindweed mites survive better in drier settings. Their impact in sprinkler irrigated settings, especially lawns, will probably be less than in nonirrigated sites.

Bindweed mites spend the winter on the underground buds of bindweed rhizomes. The protected overwintering site allows them to survive extreme winter conditions, and they have successfully overwintered in the harsh environments of Canada and Montana. Excessive moisture appears to be one of the environmental factors that limits its establishment. Attempts at establishing them have not been successful in areas with significant rainfall and high humidity. Bindweed mites can survive extended drought periods by actively moving to underground buds when plant tops die down. Initial establishment of bindweed mites has been most successful on the drier sites, as long as the bindweed is actively growing when the release is made.

Bindweed mites are available from collections of infested plant material. Several mite nursery sites have been established in western Colorado, and distribution of bindweed mites is coordinated by Tri River Cooperative Extension and the Colorado Department of Agriculture in Palisade. It is best to release mites in the cooler part of the day to maximize their survival. The infested plants should be placed in direct contact with the bindweed that is to be infested. It should be either tucked under the plants or twisted up with the bindweed vines to keep it in place and from blowing away. Newly infested galls (folded leaves) should be apparent within a week or so after spring releases. In many cases, establishment may take a full growing season.

Do not disturb the release site for a few weeks, then mow the area (if feasible) to distribute the mites and stimulate new bindweed growth. When galls are easily found, they can be harvested and spread to new areas. Success in managing field bindweed with bindweed.

Colorado State University Extension
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