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

Colorado State University Extension

AVERAGE LAST FROST DATE

Did you know that Douglas County could still receive a frost? Unfortunately, the frost-free date for Douglas County is not until May 24th. Although this fact is unbelievable to many, there are still things you can plant now. Hardy Annuals can survive a spring frost. Many vegetables can also withstand a few light freezes. These early spring crops--onions, lettuce, carrots, radishes, spinach, broccoli, broad bean, brussel sprouts, collard, garlic, horseradish, kohlrabi, leek, pea, rhubarb, turnip, and cauliflower--can tolerate cool soils and a few light freezes.

Garden veggies

Volume 1, Issue 1
April 14, 2011

Castle Rock Farmers Market (AKA Plum Creek Valley Farmers Market) Opens July 9th

Have you been missing those fresh fruits and vegetables? Are you wondering when the Castle Rock Farmers Market will open in 2011? Well, the first Farmers Market will be held on July 9th in Festival Park (same location as last year) on 2nd Street between Wilcox and Perry. The Board of Directors of the Market will be meeting to approve both new and past vendors in early May. There will be fresh fruit from Palisade as well as vegetable vendors from Pueblo and Northern Colorado and, of course, local vendors. There will be honey, and salsa, tamales and pastries, hot dogs and fresh pasta and breads along with all the various crafts and specialty items.

Gardening season is rapidly approaching. To help with any questions you might have, Douglas County Master Gardeners are available to answer questions from 8:30 am to 4:30 pm Monday through Friday.

To speak to a Master Gardener, call the Douglas County Extension Office, Master Gardener line at (720) 733-6935 or send an email to mgardner@douglas.co.us .

Colorado Master Gardener Extension

Calendar of Events

- *April 1st—Master Gardeners Available to answer questions*
- *May 1st—May Day*
- *May 8th—Mother's Day*
- *May 23rd—Average last frost date in Douglas County*
- *May 28th—Slash Mulch Site Opens*
- *May 30th—Memorial Day*

Inside this issue:

Growing Your Great Pumpkin Now

By Kimberleigh Anders, Douglas County Master Gardener

If you want to harvest pumpkins from your garden to carve at Halloween, then late May or early June is the time to plant seeds. Pumpkins are very easy to grow. They do well in low humidity and usually grow well in average soil. They need full sun and a large enough area to spread out.

Pumpkins can be grown for many reasons: carving, size and also for something out of the ordinary. The most commonly known variety is the Jack O'Lantern which is 10-20 pounds and has a bright orange color and classic pumpkin shape. Big Max can weigh in over 100 pounds in the right conditions and Munchkins are 3 inches at mature size. Baby Boo is a pure white mini, also 3 inches at mature size and fun for decorating.

For all pumpkins, plant in small hills or mounds that are about three feet in diameter. Plant in rows 4 to 6 feet apart for a large space and mounds that are at least 2 feet apart for a smaller growing area. Plant 5 or 6 seeds in a circle in the middle of the hill, and space the seeds about 6 to 8 inches apart.. When the seedlings emerge, thin to the strongest two or three after two weeks..

It's especially important to keep plants watered in late July and early August, when they bloom and set fruit. Pumpkins are ready for harvest when the rind (skin) has toughened and the stems are dry. Harvest before or just after the first frost leaving at least a 2-inch "handle" or stem on the fruit.

It is fun, especially for children, to personalize a pumpkin-- inscribe a name or draw a picture or face on the skin. When it is 3 to 4 weeks old or developed enough to have smooth, slightly toughened skin (all fuzz long gone), with a blunt instrument such as a large nail file or a ball point pen, break the skin and don't penetrate more than 1/8 inch. The plant will "bleed" so wipe the marking during the next few hours, and it should seal within a day. At first, it may be hard to see the results; but the scar will show in time and will grow in size along with the pumpkin.

Green and Growing

By Bruce Bosley, Extension Agent/Cropping Systems

To replant or not to replant is the question that many wheat producers are now pondering. Nearly all wheat growing areas in Colorado have poor patchy wheat stands. The dry fall and winter have kept wheat seed in some field areas from germinating and establishing a viable wheat sprout or allowed germinating wheat to dry out before becoming established. Now dryland wheat farmers are considering their replanting options for spots and entire fields.

Determining whether a field has an adequate stand in late winter is not always straight forward. Winter wind and freeze injury can make wheat plants look dead or non-existent. However, upon close inspection, these plants are often found to be viable.

I took the opportunity of looking at four wheat fields on Monday. One in particular looked very bare. However, on closer inspection, an adequate plant stand had been there at between six and ten plants per linear foot of row. Furthermore, those I dug had viable crowns and green tissues to the soil line. The surface leaves had been damaged and mostly removed by wind, frost, and sun-scald. I strongly suspect that these plants will probably recover and still produce reasonably well.

I've had wheat test plots that had little ground cover and had gotten beat up through the winter in a similar manner. One plot in particular after getting severe winter damage recovered well through the spring. Upon harvest, it was one of the best yielding fields in the area.

Nebraska Extension has published an excellent Fact Sheet "Estimating Winter Wheat Grain Yields". It includes a method for evaluating damaged wheat crowns and for determining plant yield based on plants per foot of row at different row spacings.

Wheat reseeding studies have been conducted by Extension researchers in Colorado and Kansas. Winter wheat that emerges in the late winter generally yields about half as much as fall emerged wheat. Furthermore, grain test

Continued: Green & Growing

points less on late winter plantings. Flowering and grain fill of early March planted wheat takes place seven to fourteen days later than fall wheat plantings. This increases the potential for exposing wheat heads in these critical growth stages to hotter and unfavorable summer conditions. Plant stand studies from Kansas and the Nebraska Panhandle Extension researchers complement these reseeding studies in helping determine when to keep a marginal wheat stand in favor of reseeding or interseeding. The gist of these studies is that when one has about a third of a wheat stand it is better to keep it than to reseed. Having five wheat crowns per foot of row for a 12 inch planting is about one third of the normal stand. If portions of a field suitable for interseeding have an average of three or fewer plants per linear foot, replanting is probably justified. Having four plants per foot of row at the break even point so replanting is at the farmer's discretion.

Make the decision whether or not to replant based on doing footwork weights are normally two to three in your fields assessing your plant stand. Make it soon. Your decisions should be made so that replanting can be completed by March 15th at the very latest.

Wacky Honey Bee Foraging Behavior

By Dr. Whitney Cranshaw, CSU Extension Entomologist

I have heard various reports in the past 3 weeks of honey bees engaging in some odd foraging behavior. Specifically people are seeing them cluster about and collect odd materials - chaff at the bottom of bird feeders, coffee grinds in a compost pile, sawdust, and grain dust of animal feed.

Occasional such reports have occurred in past years as well and I think what is happening is that this is a sort of missplaced foraging effort - basically they are collecting materials that sort of resemble pollen in the absence of there being any real pollen sources yet available (except a few crocuses now).

At this time of year honey bee colonies begin to ramp up their numbers as queens renew egg laying in late February/ early March to rear young in anticipation of the spring bloom. Pollen is the critical food used at this time - the source of the proteins, lipids and vitamins needed for larval rearing.

I don't know if the foraging on non-pollen material suggests desparation foraging by colonies that are in stages of imminent starvation. However, the collection of such materials is clearly of no food value to them.

Colorado Agriculture Leadership Foundation (CALF)

MISSION: CALF's mission is **Connecting People to Agriculture** through authentic educational programs, community projects, and special events.

VALUES: We are committed to the Lowell's work ethic and rural values of cooperation, discipline, responsibility and personal excellence.

GOALS: We promote an appreciation and increased awareness of the importance of agriculture in everyday life by:

Sustaining and maintaining the Lowell Ranch as a premier working agricultural education center

Promoting participation in agricultural activities such as 4-H and FFA livestock and gardening projects

Providing real life educational experiences that align with Douglas County School District and state standards of education

Sharing the significance of our agricultural heritage and rural lifestyle

Encouraging sound, scientific stewardship practices for agricultural lands

CALF continued:

and livestock

FACILITIES: CALF currently operates the 133-acre Lowell Ranch on Plum Creek located 3 miles south of Castle Rock in Douglas County. The Lowell Ranch is equipped with indoor and outdoor classroom facilities and a community meeting room with kitchen. We provide: 4-H and FFA members space to raise livestock projects, and land for food production, community gardens, and pumpkin patch which provides pumpkins for the community at our annual Harvest Day.

Our accessible facilities and strong community and industry connections position CALF to resourcefully connect people to agriculture.

Barn at CALF

Turf Management Recommendations

WATER – Clay soils take about 1”-1 ½ “ of water per week. Cycle through your system twice per day, applying half the needed water each time. This will allow for slow percolation of water in hard soils. Most areas allow for watering twice a week so apply ½” to ¾” twice during the week to encourage root development. Use small cans to determine how much water is being applied (tuna fish cans work well). Place several cans in the lawn sprinkling area.

Aerate the lawn in spring and/or fall. Always water the lawn prior to aeration to get a larger plug. Aerators are available from rental companies.

Fertilize established lawns as follows: (Nitrogen application rates are in pounds of nitrogen/1000 square feet of lawn area). These recommendations are mainly for Kentucky Bluegrass Lawns.

- Mid-March to April ½ to 1”
- May to Mid-June ½ to 1”
- July to Early August Not Required
- Mid-August to Mid-Sept. 1”
- October to Early Nov. 1”

The March/April nitrogen application may not be necessary if you fertilized late (Sept. to Nov.) the previous year. If spring green up and growth is sufficient, you can delay fertilizing until May or June.

The final fall nitrogen application (Oct/Nov) is made while grass is still green, and at least 2-3 weeks before ground begins to freeze (late Nov. for Douglas County).

Nitrogen application can be reduced by ¼ to 1/3 when grass clippings are returned to the lawn during mowing because nitrogen contained in the clippings is recycled into the lawn as it decomposes.

Use slow release fertilizers such as sulfur-coated urea, meythlene urea, IBDU, or other synthetic organic fertilizer.

Mow lawns at 2 ½ - 3” height, removing no more than 1/3 of the lawn’s height at each mowing. Lawns mowed shorter than 2 ½” are more susceptible to disease, drought, and insect problems. Sharpen mower blades at least once per year.

Control dandelions and other broadleaf weeds in spring (mid-April to early June) and late summer/fall (end of August to October). Use pre-emergent herbicides to control annual grasses such as crabgrass. For crabgrass, apply prior to April 15th.

Insects and diseases are usually secondary problems in a homeowner’s lawn. Manage insects and diseases only after the above practices have been implemented.

Gardening for Bees—or Not!!!!

By Dr. Whitney Cranshaw

HONEY BEE

Scientific Classification: *Apis mellifera* (Family: Apidae)

Social Structure: Social insects with distinct castes: queen (fertile female), workers (non-fertile female), drones (males)

Nest Construction: Wax produced from glands of the body and drawn into hexagonal cells. Almost all hives currently are maintained by beekeepers; feral (wild) colonies originating from swarms may occur in aboveground cavities such as hollow trees or in wall voids of buildings.

Life Cycle: Colonies are perennial. Queens may live for several years, workers and drones for months. Workers and drones are produced continuously from mid-winter through late summer. Queens are produced periodically during this period, particularly in response to overcrowding or decline of the existing queen. New colonies are formed by colonies splitting (swarming), with a single queen leaving with a large percentage of the workers.

Feeding Habits: Nectar and pollen are the primary foods. Other sweet materials may sometimes be taken such as honeydew and sugary drinks.

Sting: Stinger of the workers is barbed and is pulled out in the act of stinging. Queens have a barbless stinger. As the stinger is a modified ovipositor possessed only by females, drones do not sting. Sting is quite painful.

The issue of having honey bees as a garden visitor can be a bit more complex than with some other insects found in gardens. These insects are well recognized for their highly beneficial activities as pollinators and as producers of highly valued products such as honey and bees wax. In this regard one may wish to provide plantings that are utilized by honey bees.

On the other hand they sting. And, although while foraging they are not aggressive and will not sting unless confined (perhaps accidentally), they do often produce anxiety. Large numbers of honey bees foraging as some sites may not be desired.

To receive a list of plants that are highly visited by bees or a list of plants not visited by bees please call the Master Gardeners at 720-733-6935.

BUMBLE BEES

Scientific Classification: *Bombus* species (Family: Apidae/Subfamily: Bombinae)

Social Structure: Social insects with castes including queens (fertile female), workers (non-fertile female), drones (males). There is wide range in size of workers, sometimes described as being minor or major workers.

Nest Construction: Wax produced from abdominal glands drawn into jug-like containers. Nests are most often constructed below ground in abandoned rodent nests. Other sites of nesting might be stuffed furniture or walls with appropriate insulating debris of some sort.

Life Cycle: Colonies are annual. Fertilized queens are the only overwintering stage. Nest construction begins in spring. Since all rearing is done by the queen at this time the first bumble bees are almost all minor workers, quite small in size. After they emerge, the workers assist with colony functions and colonies increase rapidly. By late summer several hundred workers may be present and some fertile queens and drones are produced. These new queens mate and disperse, wintering in protected locations away from the nest. Drones and workers die at the end of the season and the colony dies out.

Feeding Habits: Nectar and pollen.

Sting: Queens and workers can sting, but the stinger is not barbed. Sting is quite painful.

Continued: Gardening for Bees—or not!

Honey bees and bumble bees may both visit many of the same flowers. However, bumble bees can access the nectar/pollen from some plants that honey bees do not. Usually these are somewhat deeper flowers or that have their pollen resources more hidden. For example, bumble bees will visit many night shade family plants (Solanaceae) that are avoided by honey bees since bumble bees "buzz pollinate" and can shake the pollen from blossom. To see a list of some of the plants often visted by bunble bees please call the Master Gardeners 720-733-6935

SOLITARY BEES

LEAFCUTTER BEES

Scientific Classification: Family Megachilidae. Most common are *Megachile* species. Another group are the mason bees (*Osmia* spp.)

Social Structure: Solitary insects with the female doing all nest construction and maintenance. Fertile females and males are produced.

Nest Construction: Nesting is done alone by the female which emerges in late spring; overwintering occurs as a larva within the nest cells. Nests usually are excavated out of soft, rotten wood or the pith of plants. However, they will nest in existing holes of the proper size, including holes in clay banks or stone walls. Some leafcutter bees are semidomesticated and are managed by providing them predrilled "bee boards".

After the nesting tunnels are constructed, the female cuts fragments of leaves or flower petals and uses them to line the tunnels. Individual nest cells are constructed in this manner, somewhat resembling cigar butts. The cells are filled with pollen and some nectar and sealed. A series of cells is produced in each tunnel.

The mason bees (*Osmia* spp.) similarly nest in holes excavated out of wood or pith. However, their cells are lined with mud and they do not cut leaf fragments.

The wool sower bee (*Anthidium manicatum*) nests in existing holes/cavities. The nest area is lined with plant hairs.

Life Cycle: Leafcutter bees have an annual life cycle, with one generation produced per year. Winter is spent as a full-grown larva in the cell. They pupate in spring and emerge in early summer.

Feeding Habits: Nectar and pollen.

Sting: Female leafcutter bees can sting, but are very non-aggressive and rarely do. The stinger is not barbed and is slightly painful.

A Note on Bee Mimics

There are several insects that will mimic bees and wasps. This mimicry may involve yellow and black or orange/black markings, which are generally used as warning colors. This mimicry may extend further, with some insects buzzing like bees or having a hairy appearance.

Most often insects that mimic bees are some kind of fly. The family Syrphidae, known as "flower flies" or syrphid flies, are particularly common in yards and gardens. However, certain beetles, moths and other insects may mimic a bee or wasp.

Known of these mimics can sting and all are harmless. The ability to sting is limited to female insects of the order Hymenoptera – the bees, wasps, and ants.

CSU Extension/Douglas County

410 Fairgrounds Rd.
Castle Rock, CO 80104

720-733-6951
jjulian@douglas.co.us

PRSRT STD
POSTAGE & FEES PAID
NON-PROFIT
CASTLE ROCK, CO 80104
PERMIT NO. 99

RETURN SERVICE REQUESTED

Colorado State University Extension

We're on the web?
Www.douglascounty extension.org

Crooked Willow Foundation

"Your Agriculture Connection"

Introducing the Crooked Willow Foundation where we deliver a team of experts that focus on the rural lifestyle in support of the agriculture industry at multiple levels. The Crooked Willow Foundation is a non-profit, public foundation servicing the agriculture community.

The Crooked Willow Foundation is here to serve all agriculture stewards of land, animal, plant and general management. Providing resources to meet your needs in the economic development, education and exploration of the Agriculture Industry, the Crooked Willow Foundation is your agriculture connection to industry experts.

CWF services the community by providing programs that support the education of how to live a more sustainable existence in Douglas County, as well as meet the initiative of enhancing every agriculture experience, near and far!

To see the full services available from the Crooked Willow Foundation go to:
www.crookedwillowfoundation.org

Crooked Willow CW Foundation