



**ELBERT COUNTY**  
COLORADO STATE UNIVERSITY  
EXTENSION

## Lettuce Inform You Spring 2019



It is only the farmer who faithfully plants seeds in the spring, who  
reaps a harvest in autumn.

B.C. Forbes



## How Can Extension Help You?

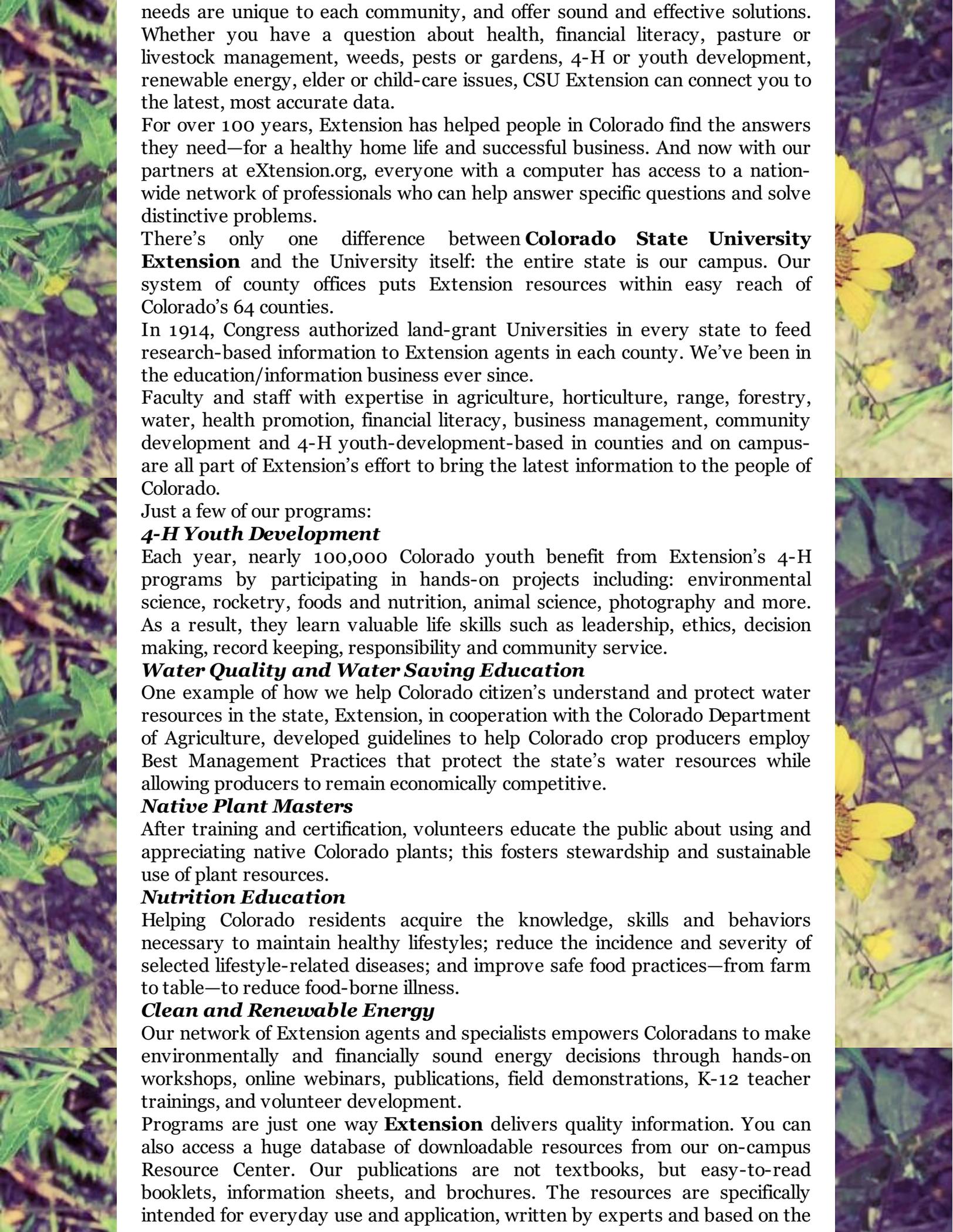
by Willie Wilkins Elbert County Extension Agent

### About CSU Extension

Do you sometimes feel like you're on information overload? With hundreds of television channels to choose from, social media options such as Twitter and Facebook, and more and more websites popping up every day, it's challenging to know which information to trust.

**Colorado State University Extension** can provide relief by offering reliable, research-based information to help you make informed decisions.

**Wherever you live**, Extension's job is to determine what issues, concerns and



needed to each community, and offer sound and effective solutions. Whether you have a question about health, financial literacy, pasture or livestock management, weeds, pests or gardens, 4-H or youth development, renewable energy, elder or child-care issues, CSU Extension can connect you to the latest, most accurate data.

For over 100 years, Extension has helped people in Colorado find the answers they need—for a healthy home life and successful business. And now with our partners at eXtension.org, everyone with a computer has access to a nationwide network of professionals who can help answer specific questions and solve distinctive problems.

There's only one difference between **Colorado State University Extension** and the University itself: the entire state is our campus. Our system of county offices puts Extension resources within easy reach of Colorado's 64 counties.

In 1914, Congress authorized land-grant Universities in every state to feed research-based information to Extension agents in each county. We've been in the education/information business ever since.

Faculty and staff with expertise in agriculture, horticulture, range, forestry, water, health promotion, financial literacy, business management, community development and 4-H youth-development-based in counties and on campus are all part of Extension's effort to bring the latest information to the people of Colorado.

Just a few of our programs:

#### ***4-H Youth Development***

Each year, nearly 100,000 Colorado youth benefit from Extension's 4-H programs by participating in hands-on projects including: environmental science, rocketry, foods and nutrition, animal science, photography and more. As a result, they learn valuable life skills such as leadership, ethics, decision making, record keeping, responsibility and community service.

#### ***Water Quality and Water Saving Education***

One example of how we help Colorado citizen's understand and protect water resources in the state, Extension, in cooperation with the Colorado Department of Agriculture, developed guidelines to help Colorado crop producers employ Best Management Practices that protect the state's water resources while allowing producers to remain economically competitive.

#### ***Native Plant Masters***

After training and certification, volunteers educate the public about using and appreciating native Colorado plants; this fosters stewardship and sustainable use of plant resources.

#### ***Nutrition Education***

Helping Colorado residents acquire the knowledge, skills and behaviors necessary to maintain healthy lifestyles; reduce the incidence and severity of selected lifestyle-related diseases; and improve safe food practices—from farm to table—to reduce food-borne illness.

#### ***Clean and Renewable Energy***

Our network of Extension agents and specialists empowers Coloradans to make environmentally and financially sound energy decisions through hands-on workshops, online webinars, publications, field demonstrations, K-12 teacher trainings, and volunteer development.

Programs are just one way **Extension** delivers quality information. You can also access a huge database of downloadable resources from our on-campus Resource Center. Our publications are not textbooks, but easy-to-read booklets, information sheets, and brochures. The resources are specifically intended for everyday use and application, written by experts and based on the

latest findings. To learn more, go to: <http://extension.colostate.edu/publications-2/>

### **Accurate and Unbiased Information**

Answers are as close as your nearest county [Extension office](#). When you are looking for straightforward, research-based, usable information, make your first stop CSU Extension. You won't need to go any further.

Call your nearest county extension office for more information. Let **Colorado State University Extension** help you to improve the quality of life for your family and your community.

**Colorado Revised Statutes Title 23, Article 34** outlines the objectives of CSU Extension, *"The objectives of the service's programs shall continue to be the dissemination of information to the people of this state in order to assist them in applying the results of scientific research and technological developments, as well as lessons from practical experience to the solution of individual, family and community problems, drawing on relevant knowledge from various fields, including but not limited to agriculture, natural resources, home economics, nutrition, health, citizenship, and community and economic development."*

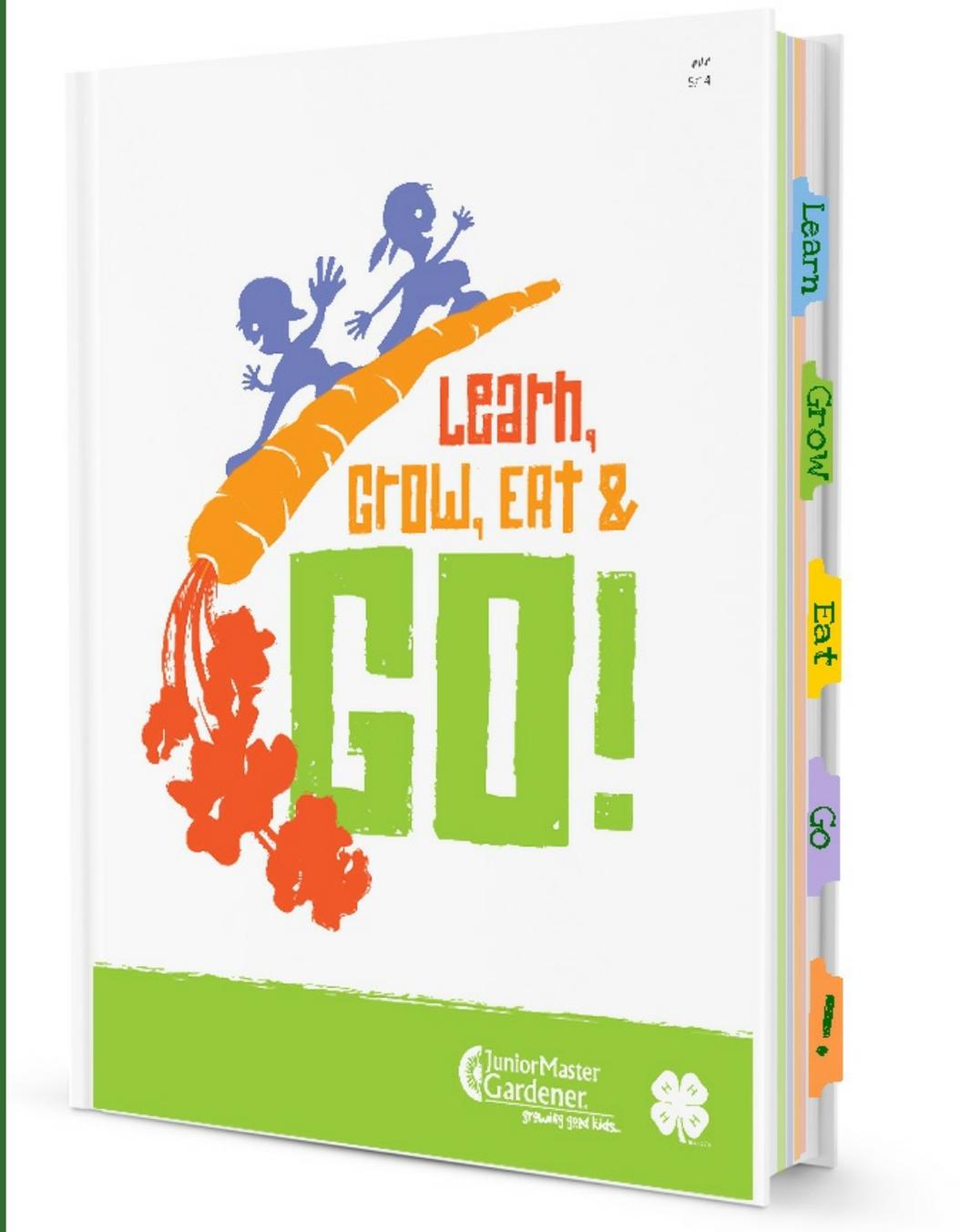
This act goes on to outline the authority to accomplish the purposes of the article. These include, under (e), "development of interstate and multi-county administrative or program arrangements, memoranda of understanding and agreements to achieve state extension objectives."

This article is from the CSU Extension about us page at: <https://extension.colostate.edu/about-us/>

Elbert County Extension 95 Ute Avenue Kiowa, CO 80117 (303) 621-3162  
County specific areas of focus include livestock, range, the Colorado Master Gardener program, 4-H/youth development and natural resources management.

## **Fresh Ideas for your Garden**

Can you believe it's almost March? We can't - time is just marching on this year! Here are a few ideas for your JMG group.



## Home

JMG is in the process of redeveloping the national JMG Training Calendar! Want to know about upcoming Featured JMG Training opportunities? Are you leading a JMG Teacher Workshop in your area?? Whether you are looking for an upcoming JMG workshop...

[Read more](http://jmgkids.us)  
jmgkids.us

## Spring Classes at the Extension

### March 25 6pm-8pm Growing in Elbert County

Join Carol O'Meara an extension agent in horticulture entomology for Colorado State University's Extension in Boulder County. It will be held at Kiowa at the Elbert County Fairgrounds as we learn about the challenges of

growing in Elbert County verify location when you RSVP to the Elbert County Extension Office 303-621-3162.

### April 6 Edible Landscapes

from 10 am-noon \$5 with Andy Hough the environmental resources coordinator for Douglas County's Division of Open Space and Natural Resources. Lunch at noon \$10, Master Food Safety preservation class 1-3 pm \$5 featuring recipes and freezer jam to take home at the end of class. This is the first in the series of the canning classes in Elbert County. RSVP to the Elbert County Extension Office or for more information. 303-621-3162.

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## What's Happening at the Hive

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### Plant native plants to support native bees

By Irene Shonle, Gilpin County It's no secret that honey bees are having a hard time. Farmers, beekeepers and biologists sometimes refer to it as the "beepocalypse." This worry has contributed to a huge national uptick in interest in backyard...

[Read more](http://csuhort.blogspot.com)  
[csuhort.blogspot.com](http://csuhort.blogspot.com)

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## Native Plants Spotlight

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A Happy Sedge growing in the ground taken in early Spring in Elbert County



## THE PLANT WITH THE EDGE: Threadleaf Sedge

By Raylene Owen Elbert County Master Gardener

The short grass prairies of Elbert County are made up of a wide and diverse group of narrow leafed, grass-like plants. There are three main grass-like families, the true Grasses (Poaceae), the Sedge family (Cyperaceae), and the Rush family (Juncaceae). While at a quick glance, they all might seem similar, but on closer inspection, they are different.

An old “rule of thumb” can help to identify each family. Not all plants will adhere to this poem, but it is helpful for general identification.

*Sedges have edges. Rushes are round.  
Grasses have nodes (joints) from the top to the ground.*

A sedge that makes it's home in Elbert County is threadleaf sedge, *Carex filifolia Nutt.* It is one of the earliest plants to grow in the spring, providing high nutritional forage for herbivores. It might be over looked or thought to be a grass, but a closer look will show that it is a sedge. The leaves are triangular in cross section, hence having edges. The leaves are basal, wiry, rolled inward, and narrow, only .25 mm to .5 mm wide (or about half the width of the wire of a standard paper clip). The thread-like leaves form a dense tangle. The stems are solid and have no joints. The basal sheaths surrounding the leaves are dark brown and fibrous.

Sedges have flowers, just not the kind you would find in a corsage. The regular flower structures are present, but are small, inconspicuous and modified. The flowers are arranged spirally in single spikes at the tip of a stalk. The male or staminate flowers make up the top 2/3 of the spike and start out light yellow and feathery, as they produce pollen. The female or pistillate flowers make up the bottom 1/3 of the spike, forming 5 to 15 fruit containing the seeds. At maturity the spike with the seeds dries to a dark red brown. These seeds are a favorite for many ground feeding birds.

Threadleaf sedges prefer dry, open prairie slopes. These plants are perennial and form dense clumps with short rhizomes. The rhizomes enable threadleaf sedge to be excellent at holding the soil and preventing erosion. Tichota and Stubbendieck of the University of Nebraska state, “Threadleaf sedge (*Carex*

filifolia Nutt.) is one of the most important dryland plants native to the grasslands of the northern Great Plains.” Along with providing valuable forage and seeds for wildlife, this plant is a beneficial and important part of our Elbert County prairie ecosystem.

Grasses an Identification Guide, Sponsored by the Roger Tory Peterson Institute, Lauren Brown, Houghton Mifflin Company, 1979.

Plants of the Rocky Mountains: Kershaw, MacKinnon, and Pojar, Lone Pine Press, 1998.

<https://www.minnesotawildflowers.info/grass-sedge-rush/thread-leaf-sedge>

*Germination of Threadleaf Sedge*, Gina Tichota and James Stubbendieck, Department of Agronomy and Horticulture University of Nebraska

## Fairy Trumpet (*Ipomopsis aggregata*)

Lesley Roper Master Gardener



### Scientific

**Name:** *Ipomopsis aggregata*

**Common Name:** Fairy Trumpet

**Other Common Names:** skyrocket, scarlet gilia (red form), white gilia

### Latin Name

**Meaning:** aggregate – clustered, referring to the flowers

**Family:** Polemoniaceae (Phlox)

**Class:** angiosperm (plant with covered seed)

**Subclass:** dicot (plants with two seed leaves and netted leaf veins)

**Key Characteristics:** ovary with 3 locules (compartments), corolla (petals) salverform (with a long narrow tube opening into a wider cup i.e. trumpet shaped).

**Flower Color:** red/pink/salmon/white

**Petal Number:** 5

**Season of Bloom:** spring (March-May).

**Fruit Type:** capsule (dry, multi-chambered fruit splitting at maturity)

**Leaf Type:** compound (divided into 2 or more similar parts).

**Growth Form:** herbaceous

**Growth Duration:** biennial

**Life Zone:** foothills/montane

**Habitat:** gravelly open areas

**Frequency:** common

**Origin:** native

**Mature Height:** to 5 ft.

**Eco-relationships:** seeds utilized by birds, flowers and foliage by small mammals and grazers

**Pollinators:** hummingbirds, like most birds can see red, and the red flowers of this species attracts hummingbirds. The long tubular flower prevents many insects from feeding at the flower because their tongues are too short and they cannot see the color red. Fairy trumpet has evolved to flower sequentially after Nelson's larkspur, another hummingbird pollinated flower. Also pollinated by native bees and bumblebees.

## Giving Colorado Natives a Place in Your Garden

Rachel Lee Elbert County Master Gardener



You might be asking the question Why native plants, when there are so many beautiful perennial plants readily available and suitable for gardening even in Elbert County? But let us step back and think about some of our wonderful Colorado native plants, that will grow without much help and even thrive in our dry and arid climate, and may even save you water one of our most precious recourses. Some native plants are vital to pollinator survival.

Take for instance the Silver Maple (*Acer saccharium*) a beautiful tree to grow in Colorado, but often times plagued with iron chlorosis. Not that our Colorado soils are depleted of iron, but iron is not

readily available to most plants. Colorado is blessed with a native plant that can easily access nutrients in our soils, as it has done before you or I or our grand and great-grandparents ever set foot in Colorful Colorado. The Bigtooth Maple (*Acer grandidentatum*). It can grow 10-15 feet or more is moderate on the amount of water it needs, and makes for attractive fall foliage. It grows well in both sandy and clay soils, both prevalent in Elbert County, and would be a suitable alternative to the Silver Maple.

If you are looking for a native alternative to some bushes in your yard, you might want to consider theses. Plant a Rockspirea (*Holodiscus dumosus*) instead of a lilac (*Syringa vulgaris*). It may be hard to think of anything more fragrant and beautiful than a lilac they can bring back so many happy and wonderful memories. Even as I write, the memories of bring in armfuls of lilacs and their wafting sent into the house to place in that certain vase set in the room. It's just heavenly. But we also have a Colorado native in the Rockspirea that will grow in the most difficult places and give you beautiful spring flowers that pollinators will love just as much. Another native bush that adds beauty and year round interest to your yard is the Red-osier dogwood (*Cormus sericea*) which would make a good replacement for a Burning Bush (*Euonymus*

*alatus*). Red-osier dogwoods make a great choice for your yard, and though deer may visit them, they respond well to pruning of any sort. Plus they have a year round interest with white flowers in the spring, and bluish white fruit that ripen in the summer for our birds and other animals. Even in winter when other plants have lost their leaves and color, the Red-osier dogwood has vivid red stems that stand out beautifully in our snowy Colorado winters.

Looking for native perennial flowers the following natives might well be worth considering. Instead of planting Zinnias (*Zinnia sp.*) plant the Blanketflower (*Gaillardia aristata*). The Blanketflower is a very useful plant to add diversity to your garden, they are attractive to our native and non-native pollinators, and once established will self seed freely. They are a low maintenance plant, and work well in a natural landscape. May Night Salvia (*Salvia nemorosa*) a great plant in the garden could be replaced with the Front Range Beardtongue (*Penstemon virens*). Penstemons are a great plant for Colorado, drought tolerant, and able to grow in our Colorado native soils. Of the 250 known varieties of Penstemons 62 species are native to Colorado. They are attractive to hummingbirds and butterflies and are easy to find in your local garden center. Finally as popular as Garden Phlox (*Phlox paniculata*) is, the Rocky Mountain Beeplant (*Clome serrulata*) is a great alternative. In so many ways the Rocky Mountain Beeplant is spectacular plant. Attracting many pollinators, hummingbirds, as well as a dramatic show stopper. It grows well even in poor soils, and blooms profusely and produces copious amounts of nectar. They can grow up to five feet, even in Colorado.

These are just a small sampling of the many wonderful native plants that will give you years of pleasure. I hope that you will explore the Colorado natives and try them for yourself.

<https://extension.colostate.edu/topic-areas/yard-garden/penstemon-a-colorful-choice-for-water-wise-gardening/>

<https://extension.colostate.edu/docs/pubs/native/FrontRangeSm.pdf>

<https://extension.colostate.edu/topic-areas/yard-garden/native-herbaceous-perennials-for-colorado-landscapes-7-242/>

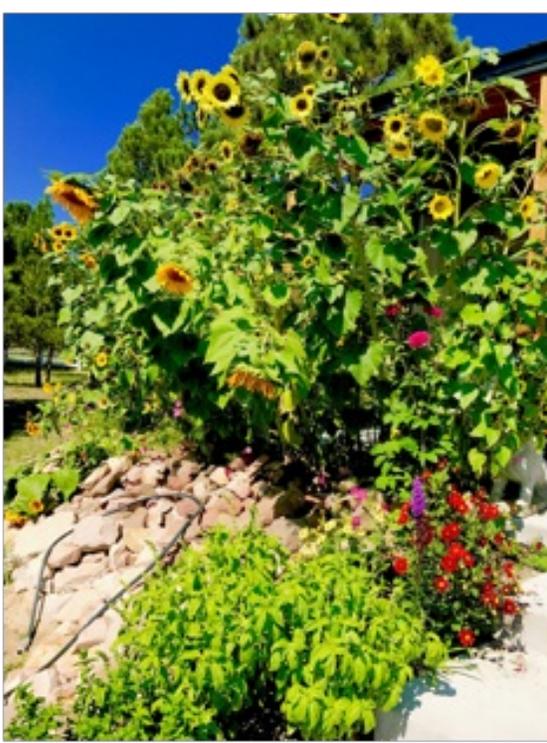
## Gardening Challenges in Elbert County

### The Most Important Task for a Gardener: PREPARE YOUR SOIL!

By Suni Mills, Elbert County Master Gardener



In the fall, after harvest is done, there is still work to do. First, make



sure you throw away any nightshade vegetable parts such as tomatoes. They are very acid and will encourage pathogens to grow in your garden, which will destroy your starts in the spring and not let your vegetables and flowers grow healthily. Other nightshade vegetables are potatoes, All other plants can be turned over into the soil to keep your earthworms and bacteria happy. To add some nitrogen to your garden, add a thin layer of manure or alfalfa pellets over that. Some people add bark or saw dust to break up clay, but this can be counter-productive unless you add a lot of manure. Adding a great deal of manure will also add salts to your

soil. It is almost impossible to get rid of salts in gardens once deposited and nothing will grow or it will grow poorly in soil heavy in salts. A layer of mulch from deciduous trees and straw should cover your soil. Some people use pine needles as well. It takes several years to breakdown pine needles and if your soil is already neutral, they can make your soil acid, which doesn't support most vegetables very well and can retard growth. Although most soils except clay are slightly alkaline, so pine needles can add some much needed humus and help make your soil more neutral which most vegetables like. Nightshade vegetables prefer slightly acid soils. You may want to grow them year after year in the same soil as long as you remove all stems and leaves in the fall so pathogens and larvae that attack them won't overwinter.

All winter long, I collect green waste with no citrus or tomatoes in blue paint buckets. The green waste includes coffee grounds, used tea leaves, carrot pieces, onion ends and peels, avocado seeds, broccoli, lettuce, cabbage, mushrooms, egg shells, banana peels, apple cores, etc. Mushrooms are wonderful because they produce mycelia (white, small fibers) that allow the absorption of nutrients by the roots. Some winters I am able to bury my waste one foot or more directly into the garden soil. I make a long trench and spread out the waste along the trench. I make sure I cover it completely and put the mulch back over the top. If you have an established compost pile, this works well too. If your compost pile is above ground, you will have to turn it to be sure all green waste is broken down. If your ground is too frozen, put the green waste in as soon as the ground can be worked. This is usually the 1st of March when it has warmed above freezing during the day for two weeks in a row.

In the spring, about April or May at the latest, you will want to double dig your garden. Double digging means taking one shovel full and placing it at the top of your row. Then continue down the row creating a deep furrow and a mound that runs just above it. Then go back to the beginning and dig a deeper furrow, but piling up the dirt on the bottom of your row in a second mound. You will notice that your green waste has mostly disappeared except perhaps some root vegetables like carrots. You will also notice that your soil is very soft and pliable. The worms and bacteria have been working for you all winter by



moving through and "eating" the green waste. Do not slice each shovel full with your shovel full more than 3 times. You don't want evenly broken apart soil. It is better to have small and large pieces. In the small spaces, water will collect and be used by your plants when needed. In the large spaces, your plants will have plenty of oxygen for photosynthesis. You also don't want to disturb your earthworms, mycelia or bacteria too much for they are what help protect your plants from disease. Pour any remaining green waste in the trench. Shovel the top mound, one shovel full at a time, into the bottom of the trench, being sure that the surface that was facing up all winter to the wind and elements is turned to the very deepest part of the trench bottom. The reason for this is that any weed seeds will be buried very deeply and most will not grow to the surface. The mulch, manure or alpha pellets will also be turned over on top of the green waste, which will add to making good humus (a must for robust plant growth). Go down the row until all green waste and weed seeds are deeply buried. Then scoop the remaining shovel loads on the bottom mound into the trench. When finished, begin the next row. Before long, your entire raised bed or garden space will be ready to plant!

Having great soil by having the right amount of 1% humus, 68% minerals and 20% water is the trifecta of good gardening! Your garden will perform at it's best with 2 - 3" of mulch (including green waste) to discourage weeds. You may need to pick up a soil kit at the Colorado Master Gardener's Office at the Fair Grounds and have your soil tested by the Colorado State University Extension Program Lab. The cost is \$30 and may be well worth it. In a small plot, this probably isn't necessary because you will be bringing most of the materials in yourself. They will give you an exact break down of your soil contents with suggestion of what nutrients or amendments you should add. In sandy soil, the humus will retain moisture. In clay soil, the humus will break apart heavy clay. Adding humus or green waste does take some work, but after a few years, your yields will be plentiful as long as you can keep the deer and bunnies out!

(Sources: Colorado State University Extension, Master Gardener, Colorado Master GardenNotes #211 Introduction to Soils, #212 The Living Soil, #213 Managing Soil Tilth, #215 Soil Compaction, #218 Earthworms, #234 Organic Fertilizers, #242 Using Manure in the Home Garden, #243 Using Compost in the Home Garden, #251 Asking Effective Questions About Soils, #711 Vegetable Gardens; Soil Management and Fertilization, #715 Mulches for the Vegetable Garden)

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## One Gardeners Perspective

Lesley Roper Elbert County Master Gardener

As Elbert County Master Gardener's, we often get questions about various aspects of gardening in this eastern, sometimes challenging, county. CSU Extension <https://extension.colostate.edu/> offers a wealth of information that will definitely help you (as it has helped me) in your gardening pursuits. The fact sheets referenced below can be found on this web site.

For those who want to get "serious" about gardening in Elbert County I would urge you to couple that with patience, flexibility, tolerance, and a healthy dose of perseverance. Don't forget to cultivate your sense of humor as you cultivate your garden. **Fact Sheet 7.220 Colorado Gardening; Challenges to**



**Newcomers** A soil test is a good idea and a great place to start. **Fact Sheet(s) 0.501 and 0.502.** It will tell you exactly where you stand, and what you need to do based on the plants you *attempt* to grow. The only thing of value I have accumulated in my 25 plus years' living in Elbert County is my vegetable garden soil (I may bequeath it). I have added composted manures from any animal that would contribute, and my own compost made from yard waste and veggie scraps. **Fact sheet 7.235.** I focus on growing a good soil, and hope my plants do well.... it takes time!

I vegetable garden organically so I do not add any chemicals and/or fertilizers to my vegetable garden. I share my garden with aphids, grasshoppers, flea beetles, leaf hoppers, although I will admit I could not tolerate the pocket gophers. My fence over the years, to exclude deer, went from 3 ft. to 6 ft. to 8 ft....I would suggest starting with 8 ft. fencing. To control weeds I pull, dig, hoe, mow and curse. Integrated Pest Management always a good approach. My vegetable gardening successes vary from year to year, but my challenges seem consistent...difficult soils, wind, fluctuating temperatures, wind, inconsistent rainfall, wind, early and late freezes, and (bite my tongue) hail. Tomatoes are the Goldilocks of my garden; hot but not too hot, wet but not too wet, fed but not too fed.... and sometimes it's just right...nothing better than a home-grown tomato. Heirloom varieties and varieties hybridized for shorter growing season are available and worth looking at. Fun to start your own seed, or purchase plants to get a head start. I have good luck with cool season veggies (peas, carrots, chard, broccoli, leafy greens). Potatoes, squash, cabbage, beets do well for me, and the rabbits love my beans.

I irrigate my gardens with a drip tape system that has a timer I can adjust frequently depending on the need. **Fact Sheet 4.702,** Drip Irrigation for the Home Gardens.

It's always a good idea to keep notes on what works well from year to year to build on those successes, but I am glad I did not keep track of how much money I spent on plants that did not survive.

My perennial beds are primarily native plants, if not native then xeric. I take the Darwinian approach to my plants.... survival of the fittest. See **CSU Extension publication Low Water and Native Plants for Colorado Gardens.** I encourage you to utilize the CSU Extension website, it provides well researched and fact-based science (not just what Grandma Lola taught me). Still have questions and want to talk to friendly and knowledgeable gardeners? The Elbert County Master Gardeners are in the office on Tues. and Thur. 1:00 p.m. to 4:30 p.m. and can be reached at 303-621-3162 or shoot us an email at [coopext\\_elbert@mail.colostate.edu](mailto:coopext_elbert@mail.colostate.edu).

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## High Altitude Gardening Challenging and Rewarding

Rachel Lee Elbert County Master Gardener

We garden for many reasons. We want to know where food comes from. We love to watch things grow and mature. It is even a satisfying and rewarding experience as we harvest our vegetables and fruits grown with our own hands. Yet living at a higher altitude, with shorter growing conditions, it's not always as simple as planting a seed in the ground and waiting for it to grow. Colorado has a wide diversity of growing conditions; it's enough to challenge even the most experienced gardener. But, if you are a newbie to gardening, don't be afraid to tackle these challenges that we face in Colorado, just know that it will take some thought and a bit of research, and perhaps just a few tools to make

your growing season a success.

First, let's discuss high altitude and what that means for you to be successful in your garden. In thinking about temperatures at high altitude, you can expect a drop in temperature 3.5 degrees for each 1,000 feet you go above sea level so with Elbert County being at 6,138 feet above sea level, we can assume that there will be a 21 degree drop in temperature where you are gardening. Also consider that if your garden is in a valley or lower spot, you can experience lower nighttime temperatures as well.

So, it is a good idea to find out what your growing zone is. Colorado has nine different growing zones. Plantmaps.com is a great site that gives you not only your growing season plant zone, but also other helpful information heat zones maps, drought index, and first and last frost dates. All these things are helpful tools to use as you navigate through the gardening season. By looking at the last frost date, you will see that we can get frost even in June, in Elbert County, where parts of the Denver area, Greeley and Fort Collins traditionally have last frost dates in May. That's why you may hear that it's safe to plant after Mother's Day in Colorado—not in Elbert County. Our last frost date is, for much of Elbert County, June 11-21. We aren't saying you can't plant in May or early June, just if you do, you need a plan in case we have a late frost/snow. I think you might begin to see why cooler season crops are an easier choice.

Once you have a general idea of how long your growing season is you can start deciding where to begin. At higher altitude you will find you have better luck with cool season crops such as beets, broccoli cabbage, carrots, cauliflower, kale, leeks, lettuce, onions, parsley, parsnips, peas, potatoes, radishes, spinach and turnips. But you do not have to give up on your more tender or warm season varieties, such as, beans, corn, cucumbers, eggplant, melons, peppers, squash and tomatoes. You just need to think of ways that you can make growing conditions more favorable for these plants.

To make sure all your plants are protected you can invest in some row covers, which will protect your plants from cooler nights, keeping out unwanted pests, and act as some what of a wind barrier for your crops. I would also consider planting in raised beds to elevate the soil and I would put down a plastic mulch or mulch film to keep the soil warmer and also to suppress weeds. Please keep in mind that Colorado State Extension has lots of great information for gardeners of all levels. High altitude gardening while it does present challenges to your garden, but the rewards you will reap far outweigh the obstacles you will encounter.

<https://extension.colostate.edu/topic-areas/yard-garden/vegetable-gardening-in-the-mountains-7-248/>

<https://extension.colostate.edu/topic-areas/yard-garden/colorado-mountain-gardening-basics-7-224/>

<https://www.plantmaps.com/index.php>

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# Get Ready to Plant

By Suni Mills, Colorado Master Gardener



You may think that beginning a garden on April 1st is planting by April's fools. But, in fact, it is exactly the right time to get started by going through seed catalogs. There is an excellent guide at [www.cmg.colostate.edu](http://www.cmg.colostate.edu), **CMG GardenNotes#712 Sample Vegetable Garden Seed Catalogs**. Before my seeds arrive, I begin gathering everything I will need for my starter beds. I use heating pads, starting soil, egg cartons and yogurt or sour cream cartons for my small starts to develop a good

root system. Then it's time to plant. First I soak my seeds for 24 hours, then plant them at the proper depth recommended on the seed packet. I save my chop sticks and use them to make the hole and they can then hold the seed packet so I know what I planted and where to place them as they move out to the garden; full sun, partial sun or shade. I water them with a spray bottle (this disrupts the soil the least) to keep them moist, twice a day. Wait two weeks after sprouting. Then cut the egg shells cartons apart, tear the bottom of the carton, being careful not to disturb the roots and plant the starts in small 2 - 3" containers with regular potting soil. While those plants are getting secondary growth and establishing their root systems, prepare your garden soil by adding amendments and turning your soil in your raised beds or garden. Double digging is a good technique to discourage weed growth. As May approaches, begin "hardening" your plants outside in a covered or protected part of your yard for an hour or two when it is sunny. Your plants need to get used to the wind and varying temperatures. Increase their time outside over a two-week period until they spend 2 nights outside, keeping them moist but not too wet. Once they are "hardened" (used to being outside 24/hrs. a day), they are ready to plant. Watering with little fish emulsion and water (following the directions on the bottle) while transplanting helps the plants' roots to adjust to the new soil. Enjoy and print the chart below. Then get ready for a productive year!!!

## Cold Weather Vegetable Germination, Planting, and Harvesting

Crops	May	June	July	August	September
Cole Crops, Leafy Vegetables	Will Germinate: Broccoli, Cauliflower, Lettuce, Cabbage Do best when sowed directly into the soil. Soil Temp. Can dip to 32 degrees without problem. Must be kept moist!	May pick when heads are formed and leave plant to produce further or reseed. Broccoli, Cauliflower, Lettuce, Cabbage Do NOT let your Cole Crops get dry!	Will begin to bolt when soil temperature is above 70	May cover with a shade cloth and continue to trim off flowers not allowing them to mature. Lettuce needs a constant supply of moisture especially when heading!	Can continue to harvest into October based on first severe frost or snow. You can use cold frames to extend growing time by a couple of weeks.
Onions, Shallots and Leeks	Can plant bulbs as soon as soil can be worked in May, or April, once establish will over-winter and begin grow in March! Can be planted from starts or sown directly into soil.	Grows best without competitors or weeds. Likes high nitrogen soils. Requires even moisture supply and rich soils high in nitrogen. When 3" - 4" tall, cut tops so bulb will be thicker and plant will be harder.	Grows best when soil is above 66 degrees. Onions are light sensitive and need 14 - 16 hours of light. Shallots can be clipped all summer.	Keep seed heads picked so that bulb will develop. Always harvest the larger sets first, giving the smaller sets time to grow.	Harvest only larger sets so they will keep well. Store in cool, dry place.
Shao Peas, Snow Peas, Sugar Peas	Higher yield for earlier planting. Soil must be at least 40 degrees. Do not plant if soil is saturated. Can be transplanted when VERY young (as soon as you see hairs on their stems!)	Well-drained soil, high in organic matter requiring well drained soil. Sweeter peas are produced in cool weather. Sensitive to the length of the night. Be sure to trellis at planting time (don't disturb the roots). Do NOT trim. Peas need lots of water during pod filling.	Can eat the pod. Harvest as pods grow large enough.	2nd Crop Fall crop produces reduced yields and are subject to powdery mildew if it is a wet fall.	Harvest before first frost. Can be frozen or canned.
Garlic	Bugs don't like garlic so it is a great crop to companion plant with cold weather crops that bugs love!				Plant bulbs in the fall.
Potatoes	thrive in soil rich in organic matter that holds water and nutrients. Plant 4" deep 12" between plants when soil temps are above 45 F. You can start indoors, but carefully get them used to sun and wind.	Tubers will become knobby if overly dry. Being slightly shaded by other plants produces sweeter potatoes. Leaves will yellow if not enough nitrogen so adds some throughout growing season.	Mounding or hilling the crop as it grows will produce more potatoes, straw mulch can be helpful. Too wet, and the tubers will rot.	Too much manure will make potatoes scab.	Harvest potatoes. Keep smaller potatoes in a cool dry place to be used in the spring for planting.
Rhubarb	Similar soil to potatoes. Prefers full sun. Poor coloration of stalks if too much shade, heat or water.	Keep seed stalks picked off. Last harvest when air temps are 15+ degrees.	Keep mulched. They will grow for 8 years. When the center of the plant dies cut, replant stalks and they will root.	Let rhubarb grow throughout the winter with 3 to 4" of organic mulch.	
Root Crops	Soil temps can be just after last snow about 35 degrees. Soak seed in a damp paper towel for 24 hours and plant directly in soil with high organic matter and well drained.	Give consistent moisture to avoid cracking hot flavor.	Harvest every 60 days. Continue planting until soil temp is above 80 degrees.		
Asparagus	Soak the roots in warm water for a couple of hours. Dig a trench 3" deep (deep planting up to 8" will reduce yield but keep roots safe from the cold. May start from seed in Jan. or Feb. indoors, but gently introduce to sun before planting.	Must have well drained soil with lots of organic matter and full sun. Fertilize when growth starts.	Harvest only larger spears. Don't choose pencil size spears or smaller. Leave the foliage to grow and stand through the winter.	Replant for tender crops in fall.	Mulch heavily in the winter and leave on all year. Re-mulch every year.
Leafy Vegetables and Salad Crops	Sow when soil is 60 degrees. Direct seeding best. Prefers loamy soil or lots of humus. Keep soil moist, otherwise will be bitter and tough.	Can withstand temps down to 24 degrees. Some varieties can be snipped as needed for salads. 2 weeks to maturity.	Heading varieties don't grow well in heat. A shade cloth can prolong growing season over the top of the lettuce.	Sow every 3 Wks. Cut off all flowers to prevent bolting. Sow every 3 wks.	Mulch will prolong growing season by keeping soil cool.
Swiss Chard	Can be started indoors. Germinates when soil is 40 degrees.	Will continue to produce up to 90 degrees.	Clip the outside leaves for salads. Continue to harvest through the Summer.	Can Blanch and freeze.	
Sprouts	Can survive at 28 degrees. Plant when soil is at 40 degrees. Soak seed overnight. Sow 1/2" to 1" full sun or light shade. Can be transplanted.	Prefers loamy soil or soil with a lot of humus. Mulch will prolong growing season by keeping soil cool. Keep soil moist with 1" - 1	25 - 30 days to maturity. 2nd Crop		

(Sources: Colorado State University, Colorado Master Gardener - GardenNotes #713 Block Style Layout in Raised Bed Vegetable Gardens, #719 Vegetable Garden Hints, #720 Vegetable Planting Guide)



## Elbert County Critters

Just living is not enough, said the butterfly, One must have sunshine, freedom and a little flower.  
~Hans Christian Andersen



## The Amazing Adaptations

## of Northern Flickers

By Rachel Lee and  
Raylene Owen Elbert  
County Master  
Gardeners



Spring has sprung in Elbert County, and, while we may be surprised by the hammering of these insect loving birds, flickers are our woodland friends. Its ringing calls of wicka-wicka-wicka, or a loud kleeer and short bursts of drumming can be heard in spring almost throughout North America. Flickers belong to the order Piciformes and the family Picidae, which also includes woodpeckers and sapsuckers.

Northern Flickers are widespread and common, but numbers have decreased by almost 1.5% per year between 1966 and 2012, resulting in a cumulative decline of 49%, according to the North American Breeding Bird Survey. They rate a 10 out of 20 on the Continental Concern Score and are listed as a “Common Bird in Steep Decline”. This declining trend should be viewed with concern because flickers have been recognized as “keystone” excavators that play a central role in the ecology of woodland communities where they excavate many of the cavities later used by other hole-nesting species. The decline of the flicker may influence the decline of secondary cavity-nesting species in forest systems, such as chickadees and blue birds. (Martin et al. 2004a)

Flickers are a medium sized woodpecker with a rounded slim head, a slightly down turned bill with a long flared tail that tapers to a point. Flickers have beautiful coloration. They have black spots on their tannish-white breasts and belly. Males have a black or red mustache extending from the gape of the beak to below the eyes.

There are two ways, the **northern flicker** (*Colaptes auratus*), can be identified in flight. One is by the orange or salmon color under the wings and tail feathers. Rarely, in Elbert County, will you see a flicker with bright yellow feathers. In the United States the northern flicker has 3 color variations, yellow, in the east and north, orange, mid continent, and red on the west coast. In areas where these color populations mingle, there are intergrades of the 3 colors. This area forms a long, narrow hybrid zone in the Great Plains that parallels the rain shadow of the Rocky Mountains and crosses the Canadian Rockies, extending to southern Alaska.

Another way to identify flickers is their very distinctive undulating “flap and glide” flight pattern. Flickers fly with a burst of flaps, carrying the bird upward, followed by wings folded against the body as the bird glides and drops a little, then followed by another burst of flaps.

Special adaptations of woodpeckers are short legs, with four sharp-clawed toes, two facing forward and two facing backward. This, along with their stiff tail feathers, which serve as a supportive prop, enable woodpeckers to cling easily to the trunks and branches of trees, wood siding, or utility poles while pecking to seek insects.

Spring is the most common time to hear the loud drumming of the male woodpecker as he tries to attract a mate, defend his territory, excavate a site for nesting, or searching for insects. Any material that will make a suitably loud noise is fair game for the flicker. Especially prized is anything metal, such as, down spouts, gutters, television antennas, chimney caps, and pipes, even the small metal tags on telephone poles. Drumming is most common during the early morning and late afternoon in the spring, usually ending by early summer.

Unlike most woodpeckers, flickers are mostly ground feeding birds and are thought to consume the most ants of any bird species. Flickers have stout, sharply pointed beaks for pecking into wood and a skull that is designed to absorb the impact of drumming and pecking.

Another unique adaptation is a long tongue that can be extended a considerable distance. The tongue is used to dislodge larvae or ants from their burrows in wood or bark. The flicker's long tongue is retracted into a sheath that wraps around the back and top of its skull, under the skin, and is attached in the right nostril. Hummingbirds store their long tongues in the same way. Flicker tongues are equipped with brush like barbs on the tips that, when lubricated with saliva, can capture insects and draw them directly into their beaks.

Flickers are avid eaters of many insects and larvae, especially the wood boring insects that infest our coniferous trees. Northern Flickers are a valuable asset to help keep these insect populations to more manageable levels.

<https://www.allaboutbirds.org/>

<https://www.audubon.org/bird-family/woodpeckers>

<https://birdsna.org/Species-Account/bna/species/norfli/introduction>

Oct 12, 2016 | Featured in: *Watching Backyard Birds*, October 2016 Where Does a Woodpecker Store Its Long Tongue? by Tom Gatz | Contributor

**Figure 2: The hyoid apparatus and skull of a flicker (genus *Colaptes*).**

In the living bird, the two long horns wrap around the head and come to rest in the nasal cavity. Photo courtesy of Jody Hildreth: [www.kidwings.com](http://www.kidwings.com)



If you are plagued by Russian knapweed, and have at least 1/8 of an acre infesting your property, you can contact the Extension office here in Elbert County for help. The Insectary is offering a program to introduce the Russian knapweed stem gall wasp *Aulacidea acroptilonica* to help control Russian knapweed on your property.

Contact Willie Wilkins at the Elbert County Extension Office

Sonya Daly CDA - Conservation Services - Biocontrol Program

750 37.8 Road, Palisade, CO 81526

Email: [sonya.daly@state.co.us](mailto:sonya.daly@state.co.us)



Photos credited to Joel Price

### ***Aulacidea acroptilonica* - Russian knapweed stem gall wasp**

**Taxonomy:** Species: *Acroptilonica*, Genus: *Aulacidea*, Family: *Cynipidae*, Order: *Hymenoptera*

**Origin:** Turkey, Georgia, southern Russia, Iran, Kazakhstan, and Uzbekistan

#### **Biology**

- Stem galling wasp (1.7 – 2.3 mm)
- Short lived adults (5 days)
- 1-2 year life cycle (A small number of larvae can pupate after a second winter)
- Overwinter as 3<sup>rd</sup> instar larvae (developed 3<sup>rd</sup> instar are found in late-July)
  - Pupate inside galls (early Spring)
  - Spring adult emergence (April or May)
  - 90% are females
- Nutrient diversion from flowers, seeds & growth (APHIS EA, 2008)



The adult gall wasp (*Aulacidea acroptilonica*) create galls in the stem



of the Russian knapweed (Rk) plant (*Rhaponticum repens*) by laying eggs into the meristematic tissue of the main and lateral shoots. The gall wasp adults prefer short tender shoots for gall development.

### **Release Site Requirements**

#### **Plot size:**

- At least 1/8 acre Rk infestation (less than 1/8 acre infestation is too small for release).
  - Other visual example is 25 meters by 25 meters plot or 27 yards by 27 yards
- If plot size is around 1/8 acre then need surrounding infestations for these moving organisms
- No concerns on sites being too large. Larger the better in this case.

#### **Site Recommendations:**

- Need an area with no disturbance
  - Avoid chemical use
  - Avoid mowing or plowing
  - Avoid heavy grazing
- Very low management after release. The gall wasps will move around your infestation. They can fly, move by wind or catch a ride on wildlife.

#### **Release Methods and Site Care**

- Release in the center of the Rk infestation.
- Optimal plant height to release on is 4 to 6 inches
- New forming galls observed approximate 2 weeks after release.
- Recommend flagging the point of release (POR) and new forming galls. This will give you a good census on the spread of the biocontrol. (I use a 4 to 6 foot fence post to mark POR and flagging new forming galls).
- Please be cautious on stepping on Rk stems due to potential gall development in future site checks.
- Recommend taking photos pre and post release. Taking GPS waypoint of POR.

Thank you for participating in the Russian knapweed Biocontrol Program.

750 37.8 Road, Palisade, CO 81526



## Asparagus and Mushroom Frittata

By Erin Rafferty Elbert County Master Gardener

Asparagus is a great spring vegetable with the advantage of it being a cool season perennial that will live from one growing season to the next. Similar vegetables are rhubarb, horseradish, shallots, and chives.

Farm fresh eggs are readily available out here in Elbert county, as most of us have chickens or access to friends or neighbors fresh eggs.

So, this spring recipe is a perfect use of both. Frittatas make great brunch or breakfast dishes or I use them for "Meatless Mondays". Eggs are versatile and the ingredients can be changed seasonally or a variety of meat or vegetables can be added.

### Simple Asparagus and Mushroom Frittata

- 1 1/2 c. Chopped Asparagus
- 1 1/2 c. Sliced Mushrooms
- 3/4 c. Chopped Onions
- 12 Eggs
- 1 tsp. Fresh or Dried Thyme
- 1 tbsp. Butter or Olive Oil
- 1/2 c. Shredded Cheddar Cheese
- 1/2 c. Shredded Swiss Cheese
- 1/2 c. Milk
- Salt and Pepper to taste

Preheat oven to 350 degrees

Melt butter or olive oil in pan. Add onions and saute until soft ( about 5 minutes). Add asparagus and saute for 2-3 minutes. Add mushrooms and saute another 2-3 minutes. In a bowl, whisk together the eggs, milk, salt, pepper, thyme, and cheeses.

Pour the egg and cheese mixture into a greased cast iron skillet or any oven - safe pan. Add the vegetable mixture to the top.

Cook for about 20 minutes until set and brown on the top.

Here is the link to CMG GardenNotes on growing asparagus and other cool season crops:

<http://www.cmg.colostate.edu/Gardennotes/719.pdf>



## Trending Colors for Spring Planting

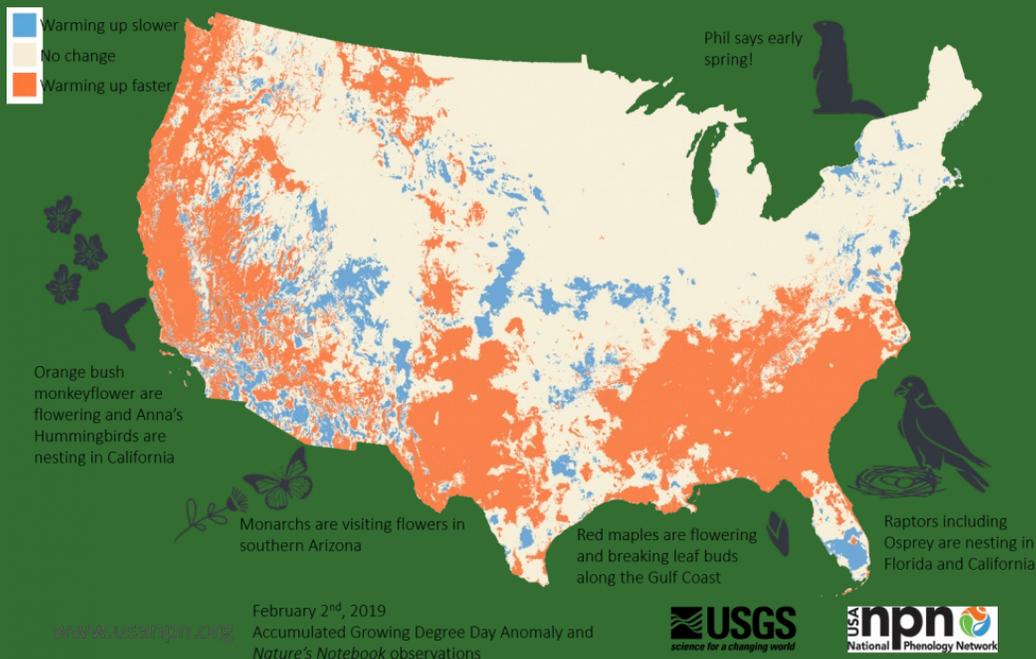
Margaret Koops Elbert County Master Gardener

While last years dark foliage and hot pinks and oranges made us all think tropical, this year's trending colors are cooler and pastel, evoking a dreamy hideaway. Look for corals and peaches with variegated leaves. The ever popular limey green of sweet potatoes vines coupling with just that right shade of blue. New varieties of coleus keeps us in color all year and check out the colorful heuchera for that shady spot.



## 2019 Heat Accumulation vs Groundhog Prognostication

Punxsutawney Phil predicts an early spring! Our map shows where things are warming up faster than normal across the country (orange) and plant and animal activity has already begun.



### When Will Spring Arrive This Year?

For me, February is always the longest month, even though it has the fewest number of calendar days. It's the month when winter has gone on long enough and I'm just done with it. It's the month I start looking for Spring. So - will it be early...

[Read more  
onpasture.com](http://onpasture.com)



## Watering your Trees — In the *WINTER????*

Debi Bredeson - Elbert County Master Gardener

As a person who grew up in the Midwest where moisture was plentiful, I must admit that I was surprised when I learned, that in Colorado, we needed to take steps to keep our trees hydrated in the wintertime. Where I had lived, Mother Nature took care of that herself!

Here are a few "Do's and Don'ts" of Winter Watering" which will help you give your trees the best chance to survive our dry winters in Colorado.

Many people believe that a tree goes dormant when winter weather approaches, yet the plant's roots do not become dormant as quickly as the stems, branches, and buds. When our winters are dry and cold and no moisture is available to the root system, the small fibrous roots suffer. Surprisingly, it can be months before the damage is seen.

The rules for watering are as follows: Water only when the air and soil temperature are above 40 degrees F with no snow cover. Water mid-day, so

the plant will have time to soak the moisture into the ground before possibly freezing at night. As a general survival rule, apply ten gallons of water for each diameter inch of the tree. In other words, if the diameter of the trunk of your tree is one inch across (measuring the trunk approximately six inches above the ground) - then your tree should receive 10 gallons of water. Thus, a three inch diameter tree would need approximately 30 gallons of water. Shrubs also benefit from winter watering - apply five gallons of water two times a month for newly planted shrubs.

Apply water to the most critical part of the root zone within the drip line - the area beneath the canopy of the tree. Monitor your weather conditions and water during extended dry periods without snow cover - one to two times per month. Windy areas result in faster drying of plants and require additional water.

It is important to observe how the water is being absorbed into the ground as you water. Don't apply the entire amount and then watch it run off without being absorbed in the area you're watering - simply give it some water, let it soak in and then give it some more. The majority of the roots are within the top 24-36" - we want the water to reach those thirsty roots. Soaker hoses work well - and the deep-root waterers are helpful as long as your do not push them into the ground too deeply. Remember, your thirsty roots are within a couple of feet below the surface, so you don't want to push the probe in too deeply and miss the roots all together!

Are your trees mulched? It's never too late to add mulch around your plants - this will reduce surface evaporation and help conserve the soil moisture that is available to your plants. Always keep the mulch an inch or two away from the actual trunk of the tree to help prevent decay.

Following these few simple guidelines will reap great benefits for your tree and shrub's vitality!



## Gardening's Little Tasks Throughout the Winter

By Suni Mills Colorado Master Gardener



I do keep busy throughout the year with my tasks that will help me keep motivated to attend to my gardening chores and keep my garden growing through the summer coming months.

First, I check on my root cellar. I don't really have one that is underground, but I have a garage that is heated just

above freezing. I store my flower bulbs that don't like weather below freezing such as dahlias and freezias in bins, which I cover with a loose plastic bags so they can "breathe" and don't dry out. I put any seeds I have collected in the fall to use in my vegetable or flower garden the following year, in paper envelopes (plastic bags don't breathe and many times, if there is the slightest moisture,



the seeds will get mildew). I check on them through out the winter; I keep them up high on a plastic shelf, away from a wall so they are not easily discovered by mice. My potatoes are stored in open bins, and enjoyed throughout the winter for meals. Any potatoes left over with eyes that begin to grow will be planted in the spring. My pumpkins and squash just lay out on the cold concrete floor. I check on them mid-winter to make sure they are not too cold or warm, which can lead to spoilage. If I haven't used them in cooking by March, they usually will begin to rot. I have 2 choices: Feed them to the deer, or Recycle in my compost bins. Keeping your storage clean and working for you is important.

That leads me to my green waste that I collect all year long. In my kitchen, I have a bowl I fill with coffee grounds, used tea leaves, carrot and onion ends, onion peels, avocado seeds, etc. Broccoli, salad (without tomatoes or dressing) and mushrooms that have started to go bad are also added. I put no citrus or anything acidic in my containers such as meat or eggs made of protein that breakdown into acids and add to deadly or detrimental pathogens. Anything acid will kill your earthworms and beneficial bacteria that work to breakdown the green waste into usable forms for your plants. If you don't have many earthworms, it is because you don't have enough green waste for them to devour in your soil. The green waste is also known as humus, which helps plants thrive. Add them to a compost pile throughout the winter as long as you turn it often. I am a lazy gardener, so I pour the bowl of green waste into buckets with lids and let them sit in my barn or garage all winter, ready for spring garden preparation.

Finally, I use all that I have stored in the fall to enrich my family's nutrition at our table during the winter months. I will collect my herbs before the first freeze and dry them on screens for a week or two depending on the humidity. When they are thoroughly dry, I crush them, removing the stems, place the crushed leaves and flowers in cleaned bottles, label them with the date they were bottled and put them in the door of my freezer. All flowers are edible. I use them for just about all my seasoning needs. In addition, I will make squash sweet bread, zucchini patties that I fry and freeze; I make basil cheese pesto that I freeze and then use in soups, pastas and homemade salad dressing; I steam pumpkin puree used in pumpkin pies, bread and soup; and I will mash, shred and cube potatoes, freeze and use as hash browns, in soups and bread.

Here is my recipe for pumpkin soup, which people have told me is delicious, but doesn't really taste like pumpkin even though there is a lot of pumpkin in this soup. First, I cut the pumpkin into large squares and put it in a tray with a 1/2" of water in the bottom to steam rather than boil it. I cook it in the oven at a low heat, about 250 degrees until the pumpkin with skins is soft, which preserves most of the nutrition. I use the shell with the "meat" of the pumpkin, pureeing them both with a little water in a food processor, mixer or blender. The color is a beautiful red orange. The shell of the pumpkin is edible. Put the following into the soup pot:

4 cups pumpkin puree

2 cups ground sausage sautéed with one large onion, 1/2 cup chopped celery, 1-2 cloves of garlic, 1 tsp. salt, 1/2 tsp. pepper, 1-2 chopped Serrano's (or your favorite pepper, possibly a bell, chili, or jalapeno)

4-6 cups of chicken stalk (readily available in the store or easily made by boiling what's left of a whole chicken on low for a 2 - 4 hours adding salt to taste)

Season with 1/2 tsp. nutmeg, 1 tbsp. basil, 1 tsp. tarragon, 1/2 tsp. sage

4 cups chopped or sliced fresh mushrooms

Just before serving, add and melt 1/4 lb. shredded Gruyere cheese (or cheese of choice). For an extra creamy taste, stir in one pkg. of cream cheese.

Enjoying the fruits of your garden from the previous year is a very exciting part of gardening. Without follow through, you might let these important winter activities go by the wayside. But there is nothing better than having used everything you harvested from the year before AND knowing that the seeds, bulbs and root starts will be ready when you start growing in the late spring!! Happy eating!

(Sources: Colorado State University Extension, Master Gardener, Colorado Master GardenNotes #246 Making Compost, #716 Water Conservation in the Vegetable Garden, #731 Herb Gardening)

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