





# Spring 2020 Issue 46

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# **Picking the Right Chicks for You**

By Kara Harders, Regional Small Acreage Management Specialist

When choosing chickens (or ducks or geese!) for a new flock the choices can feel a bit overwhelming. With so many kinds, it can be hard to determine which is right for you. While there may not technically be any "wrong" choices, some breeds will be much easier to manage in different climates/situations than others.

People choose to own poultry for many different reasons, including: egg production, meat production, pets, pest control, showing/

breeding, or even just something fun to watch outside.

Much like picking a new breed of dog to own, there are likely breeds that will suit your needs and desires better than others. You may have owned poultry in the past and remember some breeds more fondly than others. There is nothing wrong with choosing the familiar, but don't miss out on the many options available to you now either!

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Colorado Sustainable Small Acreage News is published and edited by Kara Harders, Small Acreage Management Coordinator, NRCS/CSU Extension, 248 Dozier Ave , Canon City, CO 81212 Kara.harders@colostate.edu

Please direct all inquiries regarding this publication to Kara Harders

Colorado State University Extension and U.S. Department of Agriculture programs are available to all without discrimination. Colorado State University Extension, U.S. Department of Agriculture and Colorado counties cooperating.

#### **Choosing Chicks continued from page 1**

#### Layers

These breeds have been bred to lay eggs but they are certainly not all the same. If you are going for the maximum eggs per hen consider the Pearl White Leghorn breed, who has one of the best feed to egg ratios and lays more consistently than most other breeds. The down side to these would be their sensitivity to extreme cold (not ideal for higher elevations) and if you are after "pretty eggs" you will only be getting white store-bought-looking eggs. If you need a chicken who will put up with the colder Colorado winters consider the Buff Orpington breed. These hens lay reasonably well and have larger bodies better able to handle cold. They also lay brown eggs.

#### Pets/Ornamental/Other

If eggs are not your main priority, there are many breeds which may suit your desires. Bantam breeds are much smaller than "regular" chickens and can be very enjoyable to watch. Cochens (feather footed chickens), Silkies, Frizzles, and Polish all have distinct looks and personalities that may be what you are after.

While all hens will lay eggs at some point, these will do so far less often and more seasonally (spring/summer, usually). These require the same coop set up and attention as laying breeds but may need more/less space based on their size and could be more or less docile depending on the breed. Also, keep in mind fancier varieties may be more fragile than their larger counterparts.

While you certainly don't need to buy chicks from McMurray Hatchery, they do have some great filters which allow you to sort breeds based on features like size, egg color, temperature tolerances and more. This search might give you some good breed ideas to start with:

https://www.mcmurrayhatchery.com/chicks.html Also, if you have other questions about raising chickens, check out this document:

https://sam.extension.colostate.edu/wp-content/uploads/sites/2/2017/01/backyard-chickens.pdf
Or this recorded webinar:

https://www.youtube.com/watch? v=d7sHsJChd88&feature=youtu.be



**Pearl White Leghorn Rooster and Hen** 



**Buff Orpington Hen** 



Clockwise, starting upper left: Polish, Frizzle, Bantam Cochen, Silkie

# **Fire-Resistant Landscaping**

By Mari Johnson, Jefferson County Extension

As spring approaches many of us get excited to spruce up our gardens, but now is also a great time to prepare your home and property for wildfire. In the foothills and mountains of Jefferson County it is not a question of if a wildfire will happen, it is when. In the aftermath of the fires in Paradise, CA, it is timely for homeowners to rethink their land-scape design. It is possible to create an aesthetically pleasing space while also reducing risk of wildfire.

Creating a defensible space around your home is one of the most important and effective steps you can take to protect you, your family and your home from catastrophic fire. Defensible space is the buffer you create between a building on your property and the grass, trees, and shrubs that surround it. Defensible space will help slow or stop the spread of wildfire and protect your home from catching fire – either from direct flame contact or radiant heat.

Defensible space is also important to help protect firefighters when they are defending your home. Defensible space is not fireproof but it improves your homes chance of surviving a wildfire. Fire resistant landscaping begins by creating and

maintaining a defensible space of 100 feet around your home that includes a lean, clean, and green zone of 30 feet and a reduced fuel zone of 70 feet. In the 30 feet immediately surrounding your home keep in mind the following:

- Keep trees trimmed at least 10 feet from chimneys and remove dead branches hanging over structure
- Remove build-up of needles and leaves from roof and gutter
- Don't stack or maintain a wood pile next to your house or out-buildings
- Remove dead and dying plants, fallen leaves, needles, twigs, bark, cones, pods, small branches, etc.
- Regular maintenance (pruning, weed control, adequate irrigation) is necessary to maintain fire resistance of your landscape
- Increase spacing between plants -- plants nearest your home should be more widely spaced and smaller than those farther away.
- Plant in small, irregular clusters and islands, not in large masses
- Break up the continuity of the vegetation (fuel) with decorative rock, gravel and stepping stone pathways. This will help modify fire behavior and slow its spread across your property.

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Photo Credit: Mari Johnson—Jefferson County Extension



Photo Credit: Mari Johnson—Jefferson County Extension

#### Fire-Resistant Landscaping continued from page 3

- Landscape with fire resistant plants low growing, open structured, and less resinous
- High moisture content in leaves (example: succulents)
- Little or no seasonal accumulation of dead vegetation (example: aspen)
- Open branching habits and fewer total branches and leave (example: currant and mountain mahogany)
- Slow growing, so less pruning required
- Low sap or resin content (many deciduous species)
- Short and grow close to the ground (wildflowers and groundcovers)

Next, create a reduces fuel zone adjacent to your home defense zone, extending out at least an additional 70 feet, or to your property line.

- Create horizontal spacing between plants to eliminate ladder fuels (vegetation that forms a way for fire on the ground to reach tree tops)
- Remove plants beneath large trees and remove lower limbs of trees to at least 6 feet, up to 15 feet (or the lower 1/3 of branches on smaller trees.)

- Remove annual, herbaceous plants after they have gone to seed or when the stems become overly dry.
- Rake up and dispose of litter as it builds up over the season.
- Mow or trim grasses to a low height within your defensible space. This is especially important as they begin to cure and dry.
- Remove plant parts damaged by snow, wind, frost or other agents.
- Timely pruning is critical. It not only reduces fuel volume but also maintains healthier plants with more succulent, vigorous growth.

For more information see these CSU Extension Fact Sheets. The following publications are available from The University Resource Center, 115 General Services Bldg., Fort Collins, CO 80523-4061; (970) 491-6198; resourcecenter@ucm.colostate.edu. Printed copies cost \$1; they are available free on our website at www.urc.colostate.edu:

6.303, Fire-Resistant Landscaping

6.304, Forest Home Fire Safety

6.305, FireWise Plant Materials

#### **Custom Rates for 2019**

Each year the CSU Extension Agricultural Business Management (ABM) Team compiles data and information of interest into a comprehensible report to help those in the ag sector with decision making. These are the custom rates found to be charged for various crop and livestock operations and lease arrangements in Colorado. This data is collected from agricultural producers, landowners and managers, lenders, agricultural consultants, machine operators, and Extension agents. You can access the report here:

# http://wr.colostate.edu/ ABM/2019CustomRates.pdf



# CSU Online Land Stewardship Short Courses

Take one or all of these self-paced online courses developed for the Colorado-arid west soil and climatic conditions.

Stewardship Planning—\$40
Soils—The Basics—\$50
Water—The Basics —\$50
Management of Forage Plants—\$50
Invasive and Noxious Weeds—\$50
Emergency Preparedness—\$50
Management of Wildlife in Colorado—\$50
\*Discounts for bundling classes

Each class aims to help small acreage audiences and takes 5—10 hours to complete at your own pace.

Participants will gain a better understanding of natural resources, localized land strategies, and build an effective long-term land management plan for their property.

More info and register here www.online.colostate.edu/badges/land -stewardship/

# Can Specialty Crops and Solar Thrive Together? By Anne Manning, Colorado State University

On a stretch of cultivated land at the CSU Horticultural Field Research Center, a neat row of solar panels towers over small plots of lettuce and other vegetables.

The gentle shadows that cast over the mini gardens are no accident. They're part of a carefully controlled experiment testing whether specialty crops like tomatoes, peppers, and kale can grow in, or even benefit from, close proximity with solar energy generation.

The research is a collaborative effort between Mark Uchanski, associate professor in Colorado State University's Department of Horticulture and Landscape Architecture, and Sandbox Solar, a Fort Collins solar energy startup with offices in the CSU Powerhouse Energy Campus. The team is supported by a grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture.

Awarded earlier this year to Sandbox Solar, the Small Business Innovation Research program grant is supporting a market study evaluating whether integrating photovoltaics into horticultural spaces — a burgeoning field known as agrivoltaics — would be a cost benefit to farmers and growers. To bring scientific validation to the premise, the Sandbox Solar team recruited Uchanski, who heads CSU's specialty crops research program, to partner on a controlled study of vegetables grown underneath and around different types of solar panels. USDA-designated "specialty crops" include fruits, vegetables, tree nuts and various nursery crops and flowers.

"How does solar co-locate with agricultural production? Are they in conflict? Is there a benefit? Quite frankly, I said, 'This is a little bit crazy, but let's try it,'" Uchanski said.

# It started with one panel

Preliminary data-gathering began about two years ago with one panel installed inside a CSU greenhouse, leading to the fuller-scale effort now ongoing at CSU's



Tom Hickey, Sandbox Solar employee and College of Agricultural Sciences alumnus.

Agricultural Research, Development and Education Center South (ARDEC South).

Earlier this year, Sandbox Solar installed solar panels above repeating plots of lettuce, tomatoes, kale, peppers, and spinach. Three panel-less plots act as experimental controls. The types of panels also vary, from traditional opaque polycrystalline-silicon ones, to newer-style "bifacial" ones that are semi-transparent and generate electricity from both the front and back. Others are made out of translucent cadmium telluride, a cutting-edge material with close ties to CSU engineering research that holds promise for increasing light-to-energy efficiency by orders of magnitude.

"The question is not only whether we can grow crops under these solar panels, but if we can create a business model where local farmers can benefit from symbiotically producing two resources out of the same piece of land," said Ian Skor, co-founder of Sandbox Solar.

To find out, Uchanski's team toiled over the summer planting, weeding, and taking detailed measurements. Data points include the temperature of the soil underneath and on top of the panels, as well as the quality of light coming through the panels and hitting the plants underneath.

#### **Continued on page 7**



Uchanski and Neale take measurements of panels and crops.

#### Solar and Specialty Crops continued from page 6

They are observing how the panels influence water distribution around the crops, and whether water lines created by the panels' edges might increase or decrease crop yield. Finally, they're monitoring whether the plants could also be good for the panels by creating a microenvironment that prevents the panels from overheating.

#### Better, or acceptable yields

The researchers are paying close attention to the plants directly under the panels, which are not exposed to direct sunlight. They hypothesize, for example, that light through a translucent panel might improve lettuce growth, which has shallow roots and prefers cooler temperatures.

But even if the panels prove to slightly decrease yield, the researchers are also helping to evaluate whether producing electricity and crops together makes sense at all.

"Even if we have a little bit of yield reduction, it may be within acceptable limits," Uchanski said.

Perhaps one day, Uchanski added, solar panels on farms will be like the high tunnels that provide partial cover for some crops, and that just a decade ago were not as ubiquitous as they are today. And here's an added benefit the researchers didn't necessarily expect: During a major hailstorm in early July, the crops under the panels were shielded from the golf balls raining from the sky.

"The panels were unscathed, and the crops under them were protected," Uchanski said. "This will show up in our data."

The researchers plan to complete the project by early 2020.

#### To see a short video on the project, visit:

https://www.youtube.com/watch?v=fau06YNW-sg#action=share

# Transplanting Warm Season Vegetables By Sherie Caffey, CSU Extension-Pueblo County Horticulture Agent

I don't know about you, but I am so excited that it's almost time to plant my vegetable garden! I love to grow pretty flowers and interesting native plants, but my veggie garden has always been my favorite. It makes me feel so proud to pick things from the garden and feed it to my family, not to mention there is nothing quite as tasty as home grown produce!

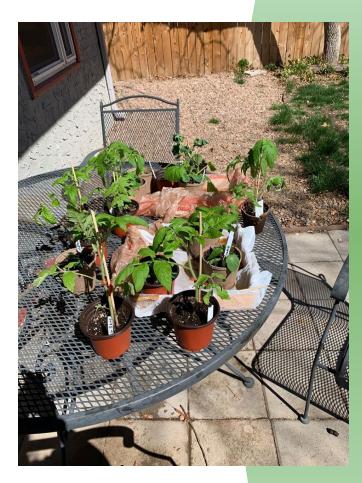


Plants under an LED light (Photo: Sherie Caffey)

Warm season vegetables such as tomatoes, peppers, and cucumbers can't be planted outside until the danger of frost has passed. Considering we live in Colorado, this can be quite the guessing game as to when it's safe to plant. To get a good idea, check out the <a href="CSU Extension ClimateSummary">CSU Extension ClimateSummary</a> for your area. This summary will give you

probabilities of having a frost on certain dates in your area.

For example, in Pueblo, on May 1, there is a 50% chance the temperature will get down to 32° F. The summary also has a nifty chart that shows you when to plant which crops based on normal temperatures. Although we don't know what the weather will bring, this is a good resource to help you take your best guess.



Getting the little plants used to the great outdoors (Photo: Sherie Caffey)

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# **Transplanting Warm Season Vegetables Continued** from page 8

Even when the danger of frost passes, you shouldn't just stick brand new transplants out into the garden without giving them some time to get used to being outdoors. I like to start my new plants outside for 10 minutes, and bump it up every day until they can handle being out there for hours.

Garden beds after adding new compost (Photo: Sherie Caffey)

Another thing you can do if you still have some time to wait before you can plant some of your vegetables, is to make sure your soil is ready! I have relatively new garden beds so I added a few inches of compost to my beds and incorporated that a couple inches into the existing soil. This will add organic matter and hopefully give me a bountiful harvest.

To get in depth information on when to plant a certain vegetable, spacing, germination days, days to maturity or really anything else check out this Vegetable Planting Guide from CSU Extension.

This article was originally featured at <a href="http://csuhort.blogspot.com/">http://csuhort.blogspot.com/</a>

## **Soil Testing**

If you want to get your soil tested for nutrients, organic matter, texture, and more consider sending in a sample for a soil report. CSU's soil lab is located on campus in Fort Collins, CO. Visit their site here: <a href="http://www.soiltestinglab.colostate.edu/">http://www.soiltestinglab.colostate.edu/</a>

\*Due to COVID the labs are only conducting analyses in the service of critical infrastructure, so you will need to hold off on sampling until the lab is running normally again.

Don't know how to gather soil for a soil test? Check out this page: <a href="https://extension.colostate.edu/topic-areas/agriculture/soil-sampling-0-500/">https://extension.colostate.edu/topic-areas/agriculture/soil-sampling-0-500/</a>



# **Upcoming Webinars and Educational Opportunities**

#### **Horse Biosecurity and Facility Sanitation**

Joe Lyman, DVM, will be discussing the fundamentals of establishing a biosecurity plan for horse facilities. Topics will include the foundations of biosecurity, disinfectant chemistries, and basic biosecurity measures that can be employed to maintain a healthy environment for horses and people within a facility.

https://www.youtube.com/watch? v=cuONqhwPlmQ&list=PLS\_j7MIcs2AEp5TEDW9GG R4GtIb6cc9Ae

# 6 Weeks to Improve Resiliency For Farmers (Non Farmers welcome too)

Why is it that some farmers can handle a lot of stress? Researchers have examined differences and the key is your capacity for stress resilience. Resilience is important, as we are all subject to the unknown. While we cannot always anticipate when risk factors or stressful events enter our lives we can learn how to manage our response to stress. This FREE webinar series will equip you with tools and skills to effectively manage aches and pains, increase your resilience towards crises and stressful situations such as COVID-19 related workforce, marketplace and business health challenges, plus help you maintain steady energy throughout the day with enhanced focus and confidence.

### Register here:

https://us02web.zoom.us/webinar/register/WN HWEwP4LcRdmV8iZztYu5kg

#### **ATTRA Podcasts**

Voices from the Field podcasts are the newest way to access our sustainable-agriculture expertise. With a broad range of topics this is a great one to check out!

https://attra.ncat.org/category/podcasts/

#### **Small Acreage Program Webinar Archive**

Over the years our program has put together many a webinar on all things small acreage. If you were hoping for a specific topic not included shoot me an email and I can see if we can make one in the future!

https://sam.extension.colostate.edu/recorded-webinars/recorded-webinars-password-page/

#### SARE's Videos from the Field

Sustainable Agricultural Research and Education (SARE), in partnership with Cooking Up A Story, has produced a series of how-to videos showcasing production and marketing practices used by some of the nation's most successful sustainable farmers and ranchers.

https://www.sare.org/Learning-Center/Multimedia/Videos-from-the-Field

#### **CSU's Horticulture Blog**

Colorado gardening for everyone! Advice and Observations from your CSU Extension Horticulture Agents and Specialists.

http://csuhort.blogspot.com/

## **Grazing Management for Small Acreages**

This live webinar is being hosted by CSU Extension in Morgan County on May 4th. Register here: <a href="https://www.eventbrite.com/e/morgan-county-extension-small-acreage-webinar-tickets-103533226668">https://www.eventbrite.com/e/morgan-county-extension-small-acreage-webinar-tickets-103533226668</a>

## **Goat and Sheep Management Series**

University of Minnesota Extension will host a fourpart evening webinar series on goat and sheep management for farmers, 4-H'ers and anyone managing goats or sheep. The first session features goat producer Jake Langeslag of Goat Dispatch. https://extension.umn.edu/event/goat-and-sheep-

https://extension.umn.edu/event/goat-and-sheepmanagement-webinar-series Do you have a question for extension but don't know who to ask? Try Ask an Expert!

EXTENSION

Follow @Colorado Stewardship on Instagram and Facebook

Upcoming Focus Cover Crops





Do you have a question about managing your small acreage?

Contact CSU Extension /NRCS Small Acreage Coordinator(s):

Kara Harders
San Luis and Arkansas Valleys
970-219-9903
kara.harders@colostate.edu





