

Newsletter



**COLORADO STATE UNIVERSITY
EXTENSION**



CSU EXTENSION WELCOMES THEIR NEW SAM SPECIALISTS:

KARLA MELGAR

The boulder county extension office will host Karla as she takes over the position of SAM specialist for the front Range Region. Karla has spent the last 3 years in Nebraska where she got a M.S. in Mechanized Systems Management with an emphasis on manure management and soil health. After that, she continued to work on manure management for livestock facilities in NE and surrounding states. -"I am looking forward to sharing my experiences working with soil health and hopefully building a community among Spanish speakers in agriculture within the front range region"- During her free time, Karla enjoys traveling and discovering the trails around Colorado with her dog.



BONFACE MANONO

Cañon City's NRCS office welcomes Bonface as the new SAM regional specialist for the Mountain Region. Previously, he has lectured classes for university and high school students and served as head of the Department of Environmental Science and Land Resource Management from the South Eastern Kenya University, he also has experience working on environmental management issues in Nairobi, Kenya. He is particularly passionate about agro-ecology, conservation and agricultural sustainability. "It is an honor for me to contribute towards meeting the education, research and dissemination needs of Colorado State University Extension Service and the nation through enhancing the economic potential and sustainability of Colorado agro-ecosystems."



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COMPOSTING HPAI MORTALITIES



Since the first reported date of HPAI outbreak in Colorado in 2022, over 6 million birds have been reported affected by this virus, according to the USDA. Backyard flocks being particularly affected by this disease due to the exposure to wild birds and other animals exposed. High mortality rates are not just a biosecurity issue, disposing large volumes of chicken mortalities can represent an additional expense for the producer, as commercial rendering can become costly. HPAI can kill large numbers of birds on a very short period of time, which makes composting a good alternative to rendering and burying mortalities and allows to kill some pathogens while serving as a source of nutrient for crops in the future.

The following guide summarizes the steps for composting bird mortalities on site.

IMPORTANT CONSIDERATIONS

Composting works by utilizing microorganisms to decompose and transform nitrogen and carbon-rich materials into forms that can be utilized by plants. High temperatures are achieved inside the compost pile that have the capacity to kill most pathogens, viruses and other potentially harmful substances. Composting requires a source of carbon, that can be added as sawdust, woodchips, straw leaves or other brown materials rich in carbon, and sources of nitrogen, in this case, the poultry mortalities from the farm or fresh litter.

A general rule for composting is maintaining a carbon/nitrogen ratio of 25:1, which means adding 25 parts of carbon for 1 part of nitrogen.

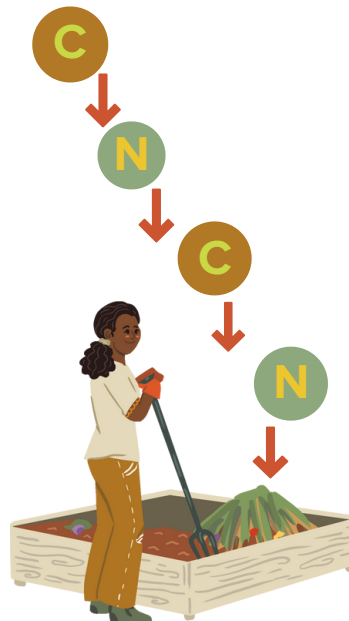
Some common sources of C are listed on the table below:

Material	C:N ratio
Sawdust / wood shavings	200-750 : 1
Straw	48-150 : 1
Corn stalks	60-73.1 : 1
Finished compost	30-50.1 : 1
Horse manure	22-50.1 : 1
Cattle manure	19 : 1
Turkey litter	16 : 1
Broiler litter	12 : 1

Source: Mississippi State University Extension

How to start?...

1. Choose the right location. Preferably away from water sources, protected from animals, on a compact surface and with enough spacing to access the pile and turn it with shovels or machinery.
2. Build a base. The first layer should be 12-15" tall high C, porous material such as woodchips, dry litter, compost, straw or wood shavings.
3. Add the N source. In this case, the poultry mortalities or any feed and litter suspected to be contaminated. The birds should be close to each other and placed at at least 6" from the wall of the pile. Water may need to be added.
4. Add another layer of C source. Make sure to cover the carcass and litter layer with 8-10 inches of C rich materials, similar to the ones described on step 2. Build as many layers as needed not to exceed 5-6 feet tall for the total pile. The last layer of the pile should be C materials of 8-10" tall.



COMPOSTING POULTRY MORTALITIES, CONTINUED...

5. Monitor the temperature. The average temperature of the pile should be around 140 F. Allow 3 -4 weeks for the carcasses to decompose and continue to monitor temperature. If temperatures go below or above 120 it might be time to turn the pile and add moisture as needed and wait for a temperature rise of 140 degrees F. The compost is safe to apply after 3 cycles of heat.



Monitoring moisture is just as important as temperature. The compost should leave a moist sensation when squeezed but not enough to drip water. Allow at least 6 months for the compost to curate before applying in the soil. Several methods for composting are available depending on the conditions and amounts of materials available. Additional information about composting methods, benefits and facts can be found at: <https://sam.extension.colostate.edu/topics/composting/>

Do you suspect your birds may have influenza or have been exposed? Report any signs immediately

- CSU Avian Health Hotline: 970-297-4008
- Colorado State Veterinarian Office: 303-869-9130
- USDA Bird Hotline: 1-866-536-7593



STRENGTH OUTSIDE OF THE FARM

How exercising can help you stay active and strong for more years

Nothing compares to a farmer's ability and endurance when it comes to hard work, farm and ranch work are some of the most physically demanding jobs. From walking on uneven, sometimes muddy fields, carrying heavy and bulky objects, working long hours, and often, not stopping for holidays, these repetitive movements can eventually lead to injuries and diminished quality of life, not to mention other health issues like stress.



Performing some sort of physical movement that is not work-related can bring several benefits for overall well-being, from increasing strength, flexibility and mental health, there are endless benefits to taking a few hours a week to focus on body movement. AgWell spokesperson, Tayler Patterson is someone who understands first hand the benefits of incorporating fitness into managing a ranch's daily chores. Tayler grew up ranching with her family in Walden, Colorado. She credits her experience growing up on a cattle ranch with giving her the strength, passion and determination to pursue Crossfit, and rank among the best athletes in North America.

"When I think about farmers and ranchers I think of them as athletes"

Tayler Patterson, AgWell's spokesperson

Exercise is important for all human beings, but its particularly beneficial for the farm and ranch community because it's a really active profession. Lifting heavy and bulky objects and even animals, walking long distances on uneven terrains, crouching down and fitting into confined spaces are just some of the things that farm workers do daily. For those reasons, being strong in this field is a given, but muscle and form building are often overlooked, which leads to injuries. According to Tayler, working out at the gym has given her much of the foundation to properly perform daily tasks like lifting objects properly and she assures that it can benefit producers in many ways as well. If following an exercise routine seems intimidating and time consuming, performing compound movements such as dead lifts, squats, bench press, pull ups and push ups can exercise multiple muscles at a time, and require minimal equipment. Additionally, consuming nutritious and balanced foods, staying hydrated and getting enough sleep are fundamental for overall health.

RESEEDING TIPS FOR THE FRONT RANGE REGION

By Adams County Extension Office



Winter months usually allow more time to think and prepare future crops and seedint strategies for small acreages. Adams county extension office has prepared a guide to facilitate the process of selecting the right grass seeds for the eastern front range region. Climate factors particular to the region have a huge influence in making grass fields successful. The Front Range has the characteristics of being a low rainfall area with predominantly loamy textured soils that can grow mid-sized and short sized grasses but are very limiting for tall grasses without irrigation.

The typical front range climate gives 12-14 inches of precipitation annually, which is challenging for a lot of plants that are not well adapted to this limitations. However, the amount of water available on an average year is certainly enough to support many of the native grass species in the area, although some varieties of introduced species of grasses might be well adapted to the dry conditions on the front range region. Check the table below to make a decision about seeds and seed mixes appropriate to your area.

Dryland grass seeding can be done between November 15th and April 30th when the ground is not frozen. A seeding depth of $\frac{1}{4}$ to $\frac{3}{4}$ inches is recommended. For irrigated fields, the seeding period may extend up to June 30th. A grass drill is the best option for both scenarios. A row spacing of 7-12" is recommended.

If the area to be seeded is small, broadcast methods might be an option, but be sure to double the seeding rates and to rake and pack the soil for a good soil-seed contact. Last but not least, weed control is one of the most important factors in establishing frass after seeding. Timely mowing operations before grass establishment are extremely helpful and mowing throughout the season several times may be necessary after seeding. If perennial invasive or noxious weeds exist spot chemical control might be most effective. Be sure to consult with a local licensed chemical representative or Extension office for assistance and recommendations.

STRENGTH OUTSIDE OF THE FARM.



Furthermore, farmers strength is often not limited to lifting heavy objects and working long hours, ranchers and farmers face the daily stress of their work being subject to weather conditions, economic crisis and more, so it is important to count on a network and a community to reach out to in times of stress. Although exercising is a great way to decompress, there are many resources available to reach out for help in cases of anxiety, stress, depression and substance abuse, or just to find like minded people going through the ups and downs of farm life. Make sure to visit AgWell website to find contact numbers, training and webinars about wellbeing at the farm.

Visit: <https://agwell.org/> for more information



Recommended grasses for the Front Range Region

By Adams County Extension Office

Species	Season	Origin	Preferred soil type/ Characteristics
Pubescent wheatgrass Variety: Luna	Cool season	Introduced	Loam and heavier soils Sod forming, mid-grass
Intermediate wheatgrass Variety: Amour or Oahe	Cool season	Introduced	Loam and Heavier soil Sod-forming, mid- grass
Western wheatgrass	Cool season	Native	Loamy soils Open sod-forming, mid-grass
Sideoats grama	Warm season	Native	Loamy soils Bunch, mid-grass
Blue grama Variety: Vaughn or Niner	Warm season	Native	Loamy soils Sod-forming and bunch, short grass
Green needlegrass Variety: Lowdorm	Cool season	Native	Loamy soils Bunch grass, mid-tall grass
Western wheatgrass Variety: Arriba or Barton	Cool season	Native	Clay soils, sandy soils Open sod-forming, mid-grass
Sideoats grama Variety: Vaughn or Niner	Cool season	Native	Clay soils Bunch mid-grass

Species	Season	Origin	Preferred soil type/ characteristics
Blue grama Variety: Lovington or Hachita	Warm season	Native	Clay soils Bunch, mid-grass
Buffalo Grass Variety: Texoka or Sharps' improved	Warm season	Native	Clay soils Sod-forming, short-grass
Green Needlegrass Variety: Lodorm	Cool season	Native	Clay soils Mid-tall grass
Sand bluestem Variety: Elida, Garden	Warm season	Native	Sandy soils Mild sod- forming
Yellow Indiangrass Variety: Llano	Warm season	Native	Sandy soils bunch, tall-grass
Switchgrass Variety: Grenville or Blackwell	Warm season	Native	Sandy soils Bunch, tall grass
Pairie sandreed Variety: Goshen	Warm season	Native	Sandy soils Sod-forming, tall grass
Meadow brome Variety: Regar	Cool season	Introduced	Irrigated pClay and Loam Mild sod-forming mid-grass
Orchard grass Variety: Latar, Potomac	Cool season	Introduced	Irrigatede Clay and Loamy soils Bunch-type mid-grass

Resources and events



Colorado AgrAbility Winter

workshops:

February 10, 2023 – Colorado Springs, State Extension Office, 10:00 a.m. – 2:30 p.m.

February 17, 2023 – Sterling County Extension Office, 10:00 a.m. – 2:30 p.m.

February 23, 2023 – Pierce Fire Station, 3:00 p.m. – 7:30 p.m.

March 1st, 2023 – Limon, Community Building, 10:00 a.m. – 2:30 p.m.

Free to attend, register here.
Light lunch or meal will be provided



Soil Testing Lab. How to test your soils In-Person

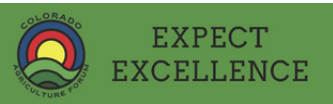
Sat, March 25, 2023, 9:30 AM – 11:30 AM MDT

Price: \$20

Colorado State University Extension El Paso County
17 North Spruce Street 2nd Floor
Colorado Springs, CO 80905

Register at:

<https://www.eventbrite.com/e/soil-testing-lab-how-to-test-your-own-soil-in-person-tickets-524020919677?aff=ebdsoporgprofile>



31st Annual Colorado Agriculture Forum

February 23, 2023

The Westin Westminster
10600 Westminster Boulevard
Westminster, CO 80020

Register at:

<https://www.coloradoagforum.com/register-online.html>



For more information about protecting your flock from HPAI go to:
<https://ag.colorado.gov/animals/reportable-diseases/avian-influenza>

For more information about forage and pastures download the Colorado Forage Guide:
<https://sam.extension.colostate.edu/wp-content/uploads/sites/2/2016/07/forage-guide.pdf>

Find more information about composting:
<https://sam.extension.colostate.edu/topics/composting/>