



Southern Colorado Ag and Range Newsletter

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Office Hours:

Monday—Friday 8 a.m.—5 p.m.
(excluding holidays)

CSU Extension Pueblo County
701 Court St., Suite C
Pueblo, CO 81003

Phone:

(719) 583-6566

Fax:

(719) 583-6582

<http://pueblo.colostate.edu>



www.facebook.com/PuebloAg

All articles written by Tom Laca unless otherwise indicated.

Ag Agent Greeting

What a difference a season makes! Just take a look at the most current drought monitor on page 2. All of Eastern Colorado has had all drought designations removed. The Western Slope is still listed as “abnormally dry,” but ¾ of the state is drought free. El Niño has taken hold in the Pacific and forecasts continue to show good precipitation for our area. This edition also includes the long range precipitation and temperature forecast maps from the National Weather Service Climate Prediction Center. Both maps are a prediction for July, August and September weather. You will notice that this forecast remains favorable for cool wet conditions to persist throughout the summer. Looking forward on these same maps, we remain in an area of above average precipitation through March of 2016. I sure hope they are accurate in their predictions and adequate moisture remains and allows for the healing of this drought-stressed land.



In the last month we have had a number of concerns come into the office with most of them water related. The rains have brought about issues with insects that we have not seen in quite some time. I recently discovered Mormon crickets in the Colorado City area and have included information on identifying and controlling them.

Vesicular Stomatitis is present in neighboring states and will be watched closely to monitor its movement. Tularemia or “rabbit fever” has been found in neighboring counties and brings about the warning of “don’t handle dead animals you find.” I know it feels like a doomsday report as several things have all come up at once but look at the bright side, when was the last time you saw it this green around here?

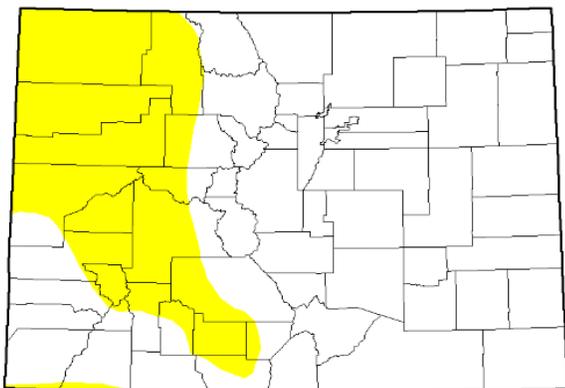
As always, feel free to call me with any questions or concerns you may have. If I don’t know the answer, I will be happy to help you to find it. The number here at the office is 719-583-6566 or you can send me an email at lacat@co.pueblo.co.us. We are also on Facebook now where we will post current happenings and other educational information as we see fit. Like our page at www.facebook.com/PuebloAg.

Tom Laca is the Extension Agent for Small Acreage/Range/Natural Resources Management in the Colorado State University Extension Pueblo County office. He can be reached at (719) 583-6566 or Tom.Laca@colostate.edu

U.S. Drought Monitor Colorado

June 30, 2015
(Released Thursday July 2, 2015)
Valid 8 a.m. EDT

Statistics type: **Traditional Percent Area** Export table: [PNG](#) [CSV](#) [XLS](#)



Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 2015-06-30	74.22	25.78	0.00	0.00	0.00	0.00
Last Week 2015-06-23	74.22	25.78	0.00	0.00	0.00	0.00
3 Months Ago 2015-03-31	32.22	67.78	51.74	39.75	0.00	0.00
Start of Calendar Year 2014-12-30	69.87	30.13	21.26	12.26	0.00	0.00
Start of Water Year 2014-09-30	68.96	31.04	22.94	13.82	2.31	0.00
One Year Ago 2014-07-01	54.12	45.88	25.85	17.30	9.32	1.89

Population Affected by Drought: **0**

Intensity:
■ D0 (Abnormally Dry) ■ D2 (Severe Drought) ■ D4 (Exceptional Drought)
■ D1 (Moderate Drought) ■ D3 (Extreme Drought)

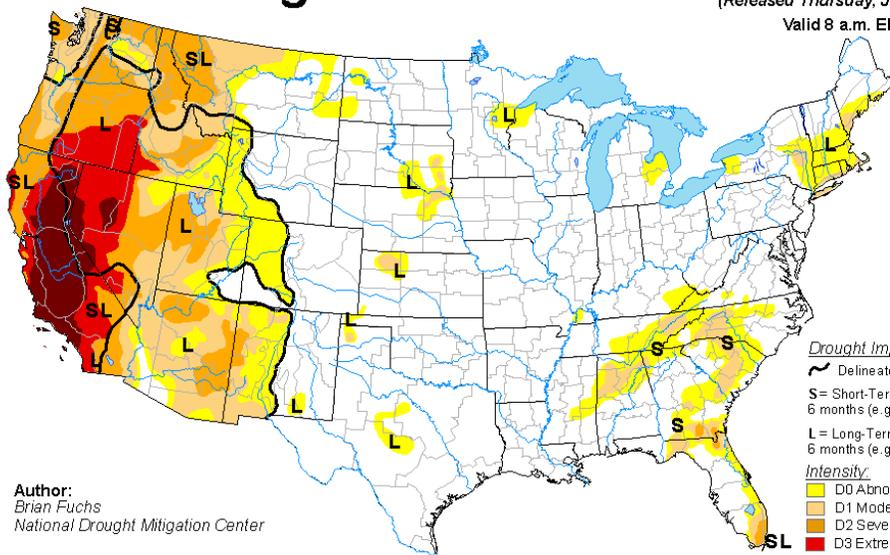
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements.

Author(s):
Brian Fuchs, National Drought Mitigation Center

For more details and maps go to:
http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.html

U.S. Drought Monitor

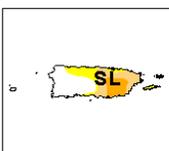
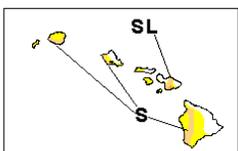
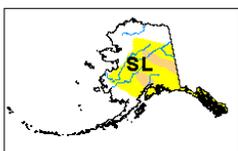
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Author:
Brian Fuchs
National Drought Mitigation Center

Drought Impact Types:
 ~ Delineates dominant impacts
 S= Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
 L= Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
■ D0 Abnormally Dry
■ D1 Moderate Drought
■ D2 Severe Drought
■ D3 Extreme Drought
■ D4 Exceptional Drought

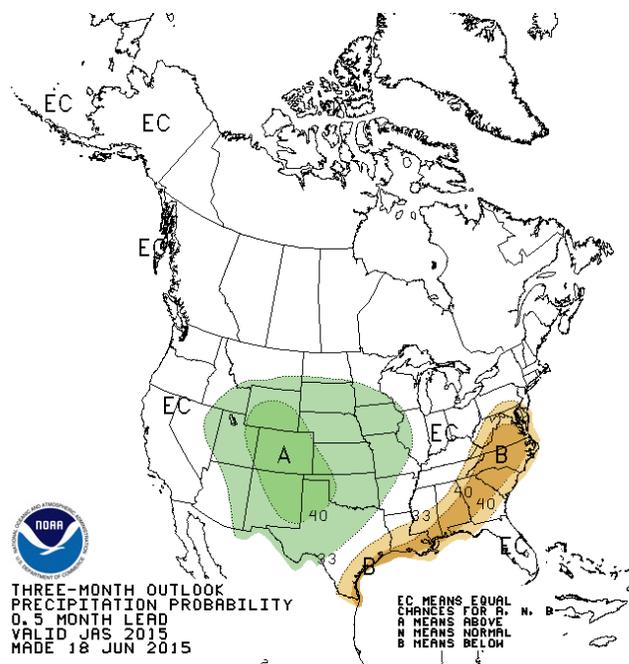
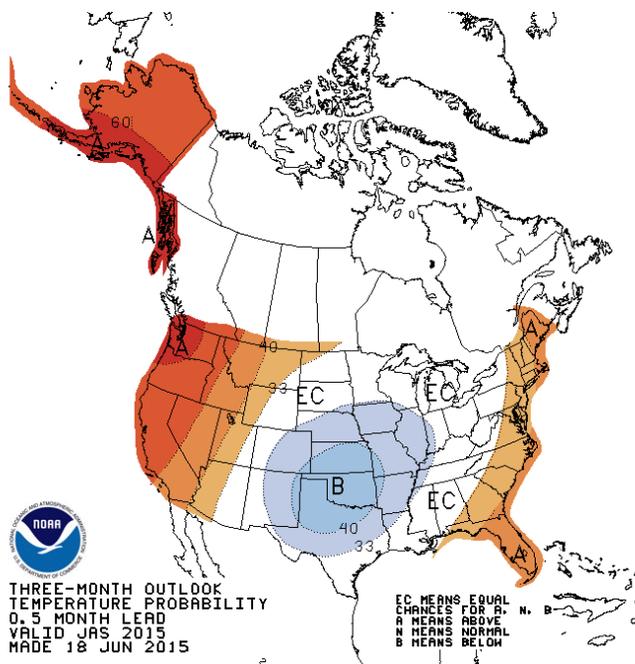
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

This map is updated weekly and can be viewed at <http://droughtmonitor.unl.edu/>

From this website, if you are viewing the US map, click on the state of Colorado to view a more detailed map.



Know a Native— Red/Purple Three-awn- *Aristida purpurea*

Facts:

- ▶ Native, warm season, perennial
- ▶ Drought tolerant
- ▶ Spreads readily by seed
- ▶ Good spring forage, it is not preferred after seeding due to awns
- ▶ Compact bunchgrass
- ▶ Seeds stick to fur and clothing
- ▶ Prefers dry coarse or sandy soils
- ▶ Grows 6 to 30 inches tall
- ▶ Increases under grazing as other grasses are preferred
- ▶ Each seed has three awns $\frac{3}{4}$ to 4 inches in length



Photos courtesy of:
Nevada FFA Range ID Flashcard and
Texas A&M



AgriLIFE EXTENSION
Texas A&M System

Noxious Weed Control Plan

- 50% **Cost Share** is available to property owners who apply and are afflicted with a species of weed listed on the Colorado Noxious Weed A or B List.
- Turkey Creek Conservation District highlights their role in Pueblo County's **Noxious Weed Control Program**.
- User friendly method of making this cost share an easy reality for landowners.
- Contact Turkey Creek Conservation District at 719-543-8386 ext. 116 or email: info@puebloweeds.com

Anabrus simplex, commonly known as the Mormon cricket, is a large, flightless insect. It is not actually a cricket but is a shield-backed, short-winged katydid. It received its name from the Mormon settlers who first encountered this insect in Utah as it plagued their crops in the 1800's. Mormon crickets are native to Western North American rangeland and are most commonly found in the Great Basin from Western Colorado to Nevada. Although not common they have been found at times in the plains. We have recently been seeing more of them present in the Southeast part of the county. Though not unheard of, this is an uncommon occurrence and warrants an opportunity for education.

Mormon crickets resemble a large, fat grasshopper that cannot fly. They are generally 1 ½ to 2-inches long but can be up to 3 inches. They have a smooth, shiny exoskeleton that can be in a variety of colors and patterns but mostly earth tones black, brown, purple or green. Antennae are very long, being body length or longer. Females have a long, upward curving ovipositor that extends from the posterior portion of the abdomen which is used to deposit eggs in the soil.



Photos courtesy of Tom Laca

After mating eggs are deposited in the soil by the female where they lay dormant until hatching the following spring. Nymphs will emerge in the spring when soil temperatures reach 40°F. They go through eight growth stages to reach the adult stage and, depending on environmental conditions, this could take 60-90 days. First instar nymphs start out at about ¼-inch long and tend to be black. As they molt, the color may become various shades of brown, orange and green. Courting and mating starts again 10 to 12 days after the final molting and adulthood is reached.

Mormon Crickets prefer succulent forbs for the major portion of their diet. They will eat more than 400 different species of plants and are also cannibalistic eating their dead. I have even seen them eating on a dead mouse in a roadway. Most of the time they move about individually, seeking food and shelter. They are most active at temperatures from 65° to 95°F and seek shelter under plants in hot cloudy or cold conditions.

During times of drought is when the biggest damages from these insects occur. As food supplies become short, the Mormon crickets tend to band together and begin migrating. As they travel in these large groups, they mow down most any plant in their path. These plants include weeds, grasses, flowers, ornamentals, gardens, lawns and crops. They will travel one-half to one mile per day, 25 to 50 miles in a season.



With the moisture we have received this spring and the bumper crop of annual forbs present on the rangelands; it is not likely that we will see the mass migrations that have been witnessed in the Great Basin. None the less, they are still annoying and can cause issues with homeowners even at low numbers. There are several control methods available to help mitigate the issues of these insects. Exclusion from areas with a physical barrier is one option. A slick, vertical barrier that is 18 to 20-inches high placed around an area to be protected can keep most crickets out. They are unable to climb smooth surfaces and, being flightless, they will not fly into the area. This will work around small gardens and flower beds but is not feasible for large parcels. Biological control measures include natural predators of

Mormon crickets. Wild birds and poultry consume grasshoppers and crickets. There is a black wasp that is reported as a major cricket predator as well as a natural parasite that infects the nymph stages. These are not commercially available at this time. Culturally, raking and/or tilling soil where eggs may be present will expose them to the elements and kill them.

Chemical control of Mormon crickets can be achieved as well. The most common chemical recommended is Carbaryl (Sevin®). This is available over the counter at most home and garden stores. In most grasshopper and cricket treatment protocols the Reduced Area and Agent Treatment (RAAT) method is used. This involves alternating treated swaths with untreated swaths. As these insects travel, they will pass through treated areas thereby eliminating the need to treat every bit of the land. An added benefit in Mormon crickets is the fact that they will cannibalize their dead. The chemical consumed by one cricket that dies can also kill a second or third cricket on subsequent feedings. Insect growth regulators and other pesticides such as malathion are also available.

As of the printing of this article, I don't foresee a major problem with Mormon crickets this year. We will continue to monitor their presence and movement throughout the summer. I have scheduled an informational meeting at the Greenhorn Valley Library in Colorado City on Tuesday, July 14, 2015, at 7:30 p.m. to discuss this issue of grasshoppers and Mormon crickets in that area. If you have any questions or want to report crickets in your area, please feel free to give me a call at the Extension Office. Tom Laca Ag and Natural Resources Agent, 719-583-6566.

Links to more information:

<http://www.unce.unr.edu/publications/files/ag/2006/fs0616.pdf>

http://utahpests.usu.edu/IPM/files/uploads/Veg_IPM_6-22-2015.pdf

http://www.aphis.usda.gov/publications/plant_health/content/printable_version/fs_grasshoppers.pdf

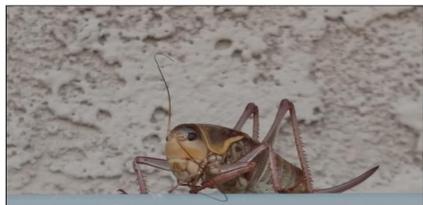
Events and Classes

Grasshoppers and Mormon Crickets Informational Meeting

DATE: Tuesday, July 14, 2015

TIME: 7:30 p.m.

PLACE: Greenhorn Valley Library,
4801 Cibola Drive, Colorado City, CO



Grasshoppers and Mormon crickets have led to concerns among the residents of Southern Pueblo County. CSU Extension/Pueblo County is organizing a meeting for those concerned residents to learn more about grasshoppers and Mormon crickets and what they can do about them. There will be an opportunity for questions and discussion about the current situation. Control options will also be discussed. I am looking forward to meeting you and hopefully shedding some light on what can be done to combat these pests.

Please RSVP by calling
CSU Extension/Pueblo County,
719-583-6566.

Highlights

- Identification of grasshoppers and Mormon crickets.
- Education on lifecycle and habits of these insects.
- Presentation of control possibilities including integrated pest management.
- Discussion among peers about what has been and what can be done to mitigate the issue.

Colorado
State
Extension



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

PUEBLO COUNTY STOCKMEN'S ASSOCIATION RANCH RODEO SATURDAY, JULY 18, 2015

BBQ DINNER AT 3:00 PM
SERVED BY THE 4 BAR S GATHERING
COWBOY CHURCH
\$6.00 PER PLATE

CALCUTTA STARTS AT 4:00 PM

IN CONJUNCTION WITH THE STOCKMEN'S ASSOCIATION RANCH RODEO THERE IS A COWBOY CHURCH CHALLENGE RANCH RODEO, SAME FORMAT AS STOCKMEN'S RODEO

RANCH RODEO SPONSORED BY THE PUEBLO CO STOCKMEN'S ASS'N AND 4 BAR S GATHERING

WALK-A-MILE ARENA
AVONDALE, COLORADO

4 MAN TEAMS,
\$280 TEAM ENTRY FEE,
60% PAY-OUT
ENTRIES CLOSE JULY 6TH,
25 TEAM LIMIT

ALL PROCEEDS GO TO PCSA SCHOLARSHIP PROGRAM AND 4 BAR S GATHERING COWBOY CHURCH
CONTACT-DOUG THACKER (719)568-3699
MIKE HILL (719)251-0931,
JOHN LEVAR (719)485-3304
DENNY ALEE (719)485-3312

by Michael Fisher, Pueblo County Extension Director

While it is nice to see the rain following a lengthy drought, there are also issues that excess moisture can create or enhance. One of those issues is an increase in bothersome insects. Standing and stagnant water can be a breeding habitat for many of the biting insects. With that in mind, here is an excerpt from an article that I wrote several years ago. It addresses the affliction of sweet itch in horses and how this is caused by biting midges.

Sweet itch is a skin condition that can affect some horses. It is caused when a susceptible horse is bitten by biting midges called *Culicoides*, the same parasites that are responsible for transmitting bluetongue among cattle and sheep. These very small gnats (1 to 3 mm) swarm together for feeding. Typically, the midges are nectar feeders; however, the female of the species requires a blood meal in order to mature her eggs. The saliva that is left behind following the insect's bite contains a specific protein molecule that the horse's immune system considers to be a threat. In sweet itch cases, the immune system over reacts and releases an overload of the antibody IgE. This is followed by a cascade production of both cytokins and histamine to kill the invader. However, the overproduction of histamine inflames the skin and causes intense, uncontrolled itching.



Photo courtesy of CSU Extension

Hypersensitive horses may pace endlessly and seek an unusual amount of mutual grooming from other horses penned with them. They are also prone to excessive yawning and may be easily distracted when being ridden. Additionally, they will rub, roll, paw, and bite at the affected area in an effort to relieve the itch. In turn, this activity tears away at their skin causing hair loss, abrasions, weeping soars, open wounds, and leading to secondary infections. Often times the inflamed area will be around the tail, over the withers and through the mane, or about the ears and face. Additionally, some cases may be along the spine or belly. This variability is a result of a difference in feeding preference among the various varieties of midges.

As is the case with many allergens, a horse may develop a greater intolerance to sweet itch the more that it is exposed to the allergen. Therefore, it is possible that the symptomatic horse's condition may worsen with each passing summer.

There currently is no real good treatment for the condition. Steroids and antihistamines have been used to relieve the itching; however, these are only masking the condition and may lead to side effects that can be more harmful, such as laminitis. Prevention is the best chance of avoiding a problem. This may include the use of insect repellants in the horse's stall or topical repellants regularly applied to the pastured horse. Insecticides that appear to work the best in these situations are those that use either a permethrin or benzyl benzoate as an active ingredient. Additionally, some equine enthusiasts will place a blanket or hood over the horse to prevent the midges from being able to bite into the horse. Another successful tactic is to understand the midge in question and manage around it. Most of the *Culicoides* will do their feeding from 4 a.m. to 10 a.m. and 4 p.m. to 10 p.m. Therefore, it is possible to keep your horse stalled during those times, in the airflow of a strong fan. Midges are poor fliers and require calm air to be able to fly. It is also advisable to drain still or stagnant water and remove decaying vegetation near the horse, as these are considered prime breeding habitat to the midges.

Horses on two Montrose and one Delta County premises tested positive for the disease and have been placed under quarantine. Colorado has become the fourth state in the country to have confirmed cases of vesicular stomatitis (VS) in 2015. Previous positive cases of vesicular stomatitis this year have been diagnosed in Arizona, New Mexico and Texas.

On July 2nd, the National Veterinary Services Laboratory reported positive tests on samples submitted from horses in Montrose and Delta Counties. The initial Colorado disease investigations were accomplished by field veterinarians from the State Veterinarian's Office at the Colorado Department of Agriculture.



Photo courtesy of eXtension

"The primary spread of VS is thought to occur through insect vectors; the horses involved in these cases have no history of travel," said State Veterinarian, Dr. Keith Roehr. "Vesicular stomatitis can be painful for animals and costly to their owners. The virus typically causes oral blisters and sores that can be painful causing difficulty in eating and drinking."

A 2014 outbreak of VS created 556 livestock investigations in Colorado resulting in 370 quarantines with the final quarantines released in January 2015.

Livestock owners who suspect an animal may have VS or any other vesicular disease should immediately contact their local veterinarian. Livestock with clinical signs of VS are isolated until they are determined to be of no further threat for disease spread. There are no USDA approved vaccines for VS. While rare, human cases of VS can occur, usually among those who handle infected animals. VS in humans can cause flu-like symptoms and only rarely includes lesions or blisters.



Photo courtesy of CSU College of Veterinary Medicine

New for 2015 VS Investigations:

A notable change in the 2015 State response to VS has come from the US Department of Agriculture (USDA) delisting of VS as a foreign animal disease in horses; VS continues to be listed as a foreign animal disease for cattle and other livestock. This USDA procedural change will allow greater flexibility in how VS is managed in respect to equine cases. The primary change will now be that quarantines may be released as soon as 14 days after the onset of clinical signs of the last affected horse on a premises.

"Science has shown that the transmission of the virus is for a brief period of time after the initial clinical signs of VS. Our goal is to appropriately adjust our response to this disease to reduce the negative economic impact to the equine community," continued Roehr. With the delisting of VS as a foreign animal disease, Colorado veterinarians may now take a lead role in the management of the disease in equine cases. In earlier cases, CDA or USDA field vets were required to perform the disease investigations on horses; the delisting now allows local veterinarians to perform the initial investigations, collect samples, and collaborate with animal health officials regarding movement restrictions and quarantines.

