RANGE BULLETIN

Livestock & Natural Resources Newsletter

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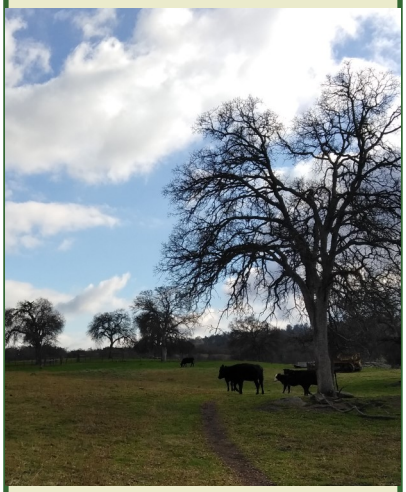

Editor
Rebecca Ozeran

Phone
559-241-6564

Email
rkozeran@ucanr.edu

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Find us on Facebook! Search for **@UCCEFresnoMaderaLivestock** or visit the page directly at **https://www.facebook.com/UCCEFresnoMaderaLivestock/** for weekly updates on upcoming events, recent news, and research information.

News Briefs

100th Annual California Ram Sale

Now happening online!

Bidding opens April 17, 2020, at 8 AM and closes on April 18 at 3 PM

Online viewing of all lots begins Sunday, April 12.

Check out the website here for more information:
http://californiawoolgrowers.org/calendar/ca-ram-sale/

Teaching Teachers About Fire

A team of UCCE educators is updating and adapting the FireWorks K-12 curriculum to Oak Woodlands, from the Sierra Nevada Mixed Conifer Forest curriculum. These curricula are aligned with modern science education standards and are intended for teachers to incorporate fire ecology and wildfire resilience into their lessons. Lessons can be used by formal and informal educators. Both curricula are free to use.

Trainings will be offered in Northern and Central California throughout 2020. Contact Rebecca at rkozeran@ucanr.edu if you would like to have a training for the educators in your community.

Coronaviruses in human and animal health

By Dr. Gabriele Maier, CE Specialist for Beef Cattle Herd Health and Production

April 2020

Now that we are in the midst of the Covid19 outbreak, you might wonder about how this virus is different from coronaviruses that infect livestock and other animals. Let's try and answer some questions you might have with regards to this topic.

How widespread are coronaviruses?

Disease from coronaviruses is very common in humans and animals. Many species have their own version of coronavirus. In fact, one of the causes of the common cold in people is a coronavirus. What's important to understand is that in general, these viruses stick with a species based on how their surface proteins fit receptors on the cells of their target species, in a lock and key fashion. The reason this novel corononavirus is such a threat is because it is new to our species, there is no immunity to it in the population, it spreads easily, and it can cause severe disease.

What is the source of the novel coronavirus?

SARS-CoV-2, the official name of the new coronavirus, is thought to have jumped from animals to humans. The exact source is still unknown, but, at the moment, the most likely explanation is that it came from bats. You probably remember the SARS outbreak from 2003, which was caused by a similar coronavirus. Bats were found to be the likely source of the virus in the 2003 SARS outbreak, and probably passed it on to other animals that were sold in markets in China, such as the palm civet, a cat-like animal. Along the way the virus underwent mutations and finally was able to infect a new host – humans. Most importantly, it was able to spread from person to person. A similar mechanism was likely at play for this new coronavirus outbreak but with new information coming forward, this idea may change.

How is the novel coronavirus different from coronavirus in cattle?

The good news is that the bovine coronavirus we have in the US belongs to a **different strain** of coronaviruses than the SARS-CoVs that have jumped to humans during the 2003 SARS and the current Covid19 outbreaks. Bovine coronavirus is a cause of calf diarrhea, winter dysentery in adult cattle and is thought to cause respiratory disease, for example as part of the shipping fever complex. There is no expectation that the novel coronavirus can infect cattle or that the bovine coronavirus that is endemic in the US causes disease in people.

This article continues ►

Animals and COVID19 cont'd

There is also **no evidence** that imported animals or animal products pose a risk for spreading Covid19, according to the CDC. Overall, there is no connection between coronavirus in cattle and SARS-CoV-2.

What about coronaviruses in other animals?

Epidemiologists are often worried about pigs as a mixing vessel for viruses that affect people and animals, e.g. for influenza viruses. Pigs have their own versions of coronaviruses that are the cause of Porcine Epidemic Diarrhea (PED) and Transmissible Gastroenteritis (TGE). However, just like in cattle, the coronaviruses in pigs are different and there is no evidence that pigs can get infected with SARS-CoV-2 or that they can transmit and spread it.

Should I worry about my pets?

At this time, there are also no reports that pets can get infected with or transmit SARS-CoV-2. However, the CDC cautions to restrict contact with pets while you are sick from Covid19 because there is still a lot we don't know about this new virus.

Would the coronavirus vaccine we have for cattle work in people?

Unfortunately, the corona virus vaccine for cattle would not work for people in the current pandemic because of the difference in strains. In fact, intentional or unintentional injections of animal vaccines in people can have adverse effects such as toxic inflammation or allergic reactions and must be avoided.

Additional resources

It is hard to escape information about Covid19 during this time. While there is a lot of information out there, not everything may be accurate. A reliable and up to date source is the CDC webpage including a page about animals:

https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html

As time goes by, we may find out more about the source of the virus and other important facts, so check back occasionally for the latest information and recommendations.

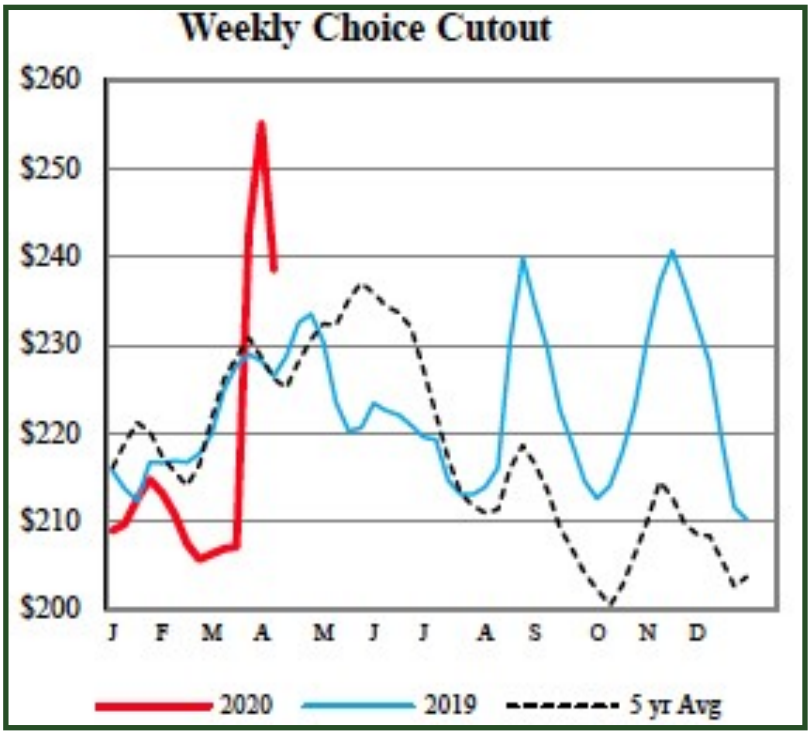
Short-Term Impacts of COVID-19 for the Beef Industry

By Dr. Tina Saitone, CE Specialist for Livestock and Rangeland Economics

This is an excerpt from an article posted as a blog on April 7, 2020.

Highlights

1. How will changes in consumer buying patterns impact wholesale beef prices?
    - Spikes in consumer grocery purchases caused wholesale beef prices to rise rapidly; moderating more recently as grocery retailers have restocked and schools and food service operations have shuttered.
2. Are beef packers using their market power and this black swan event to take advantage of cattle producers?
    - There is no evidence this is occurring; packers increased their slaughter volumes and simultaneously paid producers premiums for the fed cattle they procured.
3. Why are wholesale beef prices increasing while live cattle prices are falling?
    - Beef prices and cattle prices are correlated over longer periods of time; prices for calves and yearlings today are more influenced by buyer expectations than current beef prices.
4. If beef packing plants are temporarily shut down due to employee heath concerns, how will that impact beef and cattle prices?
    - Past events suggest that the closure of an individual packing plant will cause temporary market-wide disruptions, increasing wholesale beef prices and causing live cattle prices to fall.



Continue reading this article by visiting:

https://livestockecon.ucdavis.edu/blog/2020/04/07/short-term-impacts-of-covid-19-for-the-beef-industr/

Webinars, Workshops, and other Web-based Resources

UCCE is working to ensure you can access a variety of resources remotely. Below are several upcoming learning opportunities you may be interested in.

All of these webinars, workshops, and websites are free to access. If you have any trouble accessing our online resources, please email rkozeran@ucanr.edu.

COVID-19 Information

April 6th blog post here: **Spring cattle work calls for COVID-19 precautions**

FAQs and other resources for agricultural employers, growers, and workers: **COVID-19 Resources for Agriculture**

UC ANR information about COVID-19 and things you can still do: **Coronavirus and COVID-19**

Upcoming Virtual Workshops

California Oak Health Virtual Workshop, April 21, 10am-12pm: **Read more and register here** by April 13

Two-part Prescribed Fire for Foresters, April 28-29: **Read more and register here** by April 20th

Pre-existing and Ongoing Resources

Check out the **UCANR YouTube channel** for How-To videos, nutrition education, horticulture and vegetable growing, 4-H, and much more.. The **UCANR Twitter feed** also has links to recent articles, blogs, and research.

Presentation slides and videos from recent in-person or virtual workshops, and information from UCCE personnel across the state can be found in various places. Check your local county UCCE website (such as **cefresno.ucanr.edu** or **cemadera.ucanr.edu**) for past event information, as well as:

- **Prescribed Fire on Private Lands Workshop materials**
- **Ranching in the Sierra Foothills Blog** (based in Placer & Nevada Counties)
- **Livestock & Range Blog** (based in San Benito, Monterey, & Santa Cruz Counties)

For more regular updates about events, new research, and interesting resources, follow this program on Facebook: **@UCCEFresnoMaderaLivestock**

Publication Corner

UC has dozens of publications on everything from agritourism to weed management. Starting this spring, this newsletter will highlight two to three publications that you may find interesting.
To view all UC publications, visit: https://anrcatalog.ucanr.edu/

Cattle, Sheep, Goats, and Horses: What's the Difference for Working Rangelands?***, 2015

Excerpt: Because of their differences in dietary preference, livestock species can have a significant impact on achieving conservation objectives, especially those related to vegetation management. For example, controlling broadleaf weedy plants may best be achieved using sheep or goats. Alternatively, controlling annual grass to enhance native forbs, including wildflowers, may be best achieved by cattle grazing, especially since sheep and goats may prefer forbs over grasses.

Download here

Livestock-Poisoning Plants of California***, 2011

Excerpt: With few exceptions, livestock will not eat poisonous plants unless forced to by hunger. The single most important way to prevent poisoning is to use proper range and pasture management practices to provide ample forage, encouraging consumption of nontoxic plants.

Download here

Drought Strategies for Feeding Cattle Grazing Annual Grassland***, 2015

Excerpt: Removing animals from the herd is the most direct method of reducing forage consumption on drought-stricken rangeland. Strategic culling requires the ability to navigate the current year's challenges while considering the necessity to rebuild cattle numbers in the future.

Download here

***Free PDF:** These publications can be downloaded at any time. Visit the link to download the document.

$$$ **Handbook for Sale**: You can order this publication online and have it mailed directly to you, or you can call your local UC Cooperative Extension office to request one and purchase in person (once offices reopen). Visit the link to order the publication or view the book summary.