



Did You Know?

With breeding season approaching, now is a good time to conduct a breeding soundness exam.

By Theresa Becchetti
Livestock & Natural
Resources Advisor

Horse Day 2016

Saturday, October 22, 2016

10:00 am - 4:00 pm

Horse Barn, University of California Davis

A Hands-On Approach to Equine Topics

Join us for the annual UC Davis Horse Day! Held at our Animal Science Horse Barn facility on Saturday, October 22, 2016, from 10:00 am to 4:00 pm, it will be a day filled with hands-on workshops dedicated to continuing education for the horse owner and enthusiast. This day gives you the chance to interact with the animals, talk to the experts and be more involved with the materials.

A special presentation by Dr. Robert Miller will occur at lunchtime; and at the end of the day, make sure not to miss the Knights of Mayhem jousting show.

Whether your interests lie with reproduction, nutrition or emergency aid, there is sure to be something to attract you to Horse Day.

The Annual UC Davis Horse Day is right around the corner! Be sure to register before October 7 to receive the discounted rate: <http://animalscience.ucdavis.edu/events/horse-day>

If you have a group of 10 or more, please email Kathryn at knraley@ucdavis.edu for further information.

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University of California Cooperative Extension Wild Pig Survey

In managed rangelands and agricultural areas, feral or wild pigs are a significant pest species. However, estimates of total damaged area occurring on these lands are ill-defined and subject to a high degree of variability. Wild pigs can be important vectors of disease, can cause forage and crop loss and set up sites for erosion effecting water quality and allow invasive plant species to establish. They can also prey on livestock. The geographical extent of wild pig damage in California is currently unknown making it difficult to mitigate and manage losses, and estimate the economic impact on private landowners and public lands.

UCCE Livestock and Range Advisors and Wildlife Specialists need your help by filling out a short statewide survey on wild pig damage found at: <http://ucanr.edu/survey/survey.cfm?surveynumber=16522>. It should only take about 15 minutes to complete. Individual identities and survey responses will be kept confidential. Participation in the survey is entirely voluntary.

In conjunction with the survey we have developed a smart phone or tablet app that will help landowners and managers identify and record feral pig damage so that we can estimate the land area and economic impacts of feral pig damage over a longer time period. If you are interested in participating in data collection using our mobile application, please fill out the survey and indicate your interest at the end.

If you have questions about the survey or would like a paper copy, please contact either UCCE Livestock & Natural Resources Advisor, John Harper, at 707-463-4495 or jmharper@ucanr.edu or UCCE Wildlife Specialist, Roger Baldwin, at (530) 752-4551 or rabaldwin@ucdavis.edu.

Pasture Management Reminders

As we start to head into fall, remember to start checking your pastures for any weeds that start to germinate with our first rains this fall. The easiest time to kill weeds is when they are young. For those on irrigated pastures, remember that hairy fleabane, mare's tail, and pigweed are all becoming resistant to glyphosate, the chemical most commonly known as Roundup®. For best control, try another chemical or for small populations hand pulling may be an option.

Edible Bale Wrapping

Who out there does not end up with twine all over the ranch after feeding all season long? Well, a few PhD students in London have developed an alternative. Sparked by his family's waste of "bale wraps" and after losing an animal, three students have developed an edible bale wrap that can be used for silage and hay. The plastic base product can also be injected with different nutrients and probiotics. It still needs to be officially tested (the students have tested it on themselves as well as their family's cow herd), and scaled up, but the students are confident they can produce an affordable, edible bale wrap and have it on the market in Europe within five years. But then, we will have to figure out what to use to fix everything that right now is fixed by baling twine!

Livestock's Carbon Footprint

Recently, the Food and Agriculture Organization of the United Nations (FAO) released a new tool to help assess livestock farming's carbon footprint. It is Excel based and anyone, anywhere can use it to see how to maximize their production while minimizing their resource use. Or governments' can use it to see what practices could be used to minimize greenhouse gas emissions. In theory, this is a great idea, but in reality, the livestock industry is a very dynamic industry with many different opportunities and limitations depending on what segment and where it is located. To this point, there has not been an accurate accounting of the variables within the California beef cattle industry, let alone differences across the country or in other countries to accurately reflect the carbon footprint. And how do you take advantage of low quality feeds like so many in California do and then be told that you produce too much methane because your diet is too low in quality? While efforts to minimize impact are good, there needs to be better understanding of the complexity of the industry and the trade-offs between reducing methane in one segment of ag and how that may impact another segment. For example, if almond hulls were not utilized by ruminant livestock as a feed source, what would happen to them? Landfills? Burning? What would be the environmental impact? There are tradeoffs in every decision made and a broader view needs to be taken when considering the environmental impact of any industry, but especially the different segments of the livestock industry. If you would like to download the program yourself, GLEAM-i (Global Livestock Environmental Assessment Model interactive) can be found here: <http://www.fao.org/gleam/resources/en/>.

Senate Bill 1383 was recently signed by Governor Brown. It is written to specifically address methane emissions from dairy and livestock. The bill requires a 40% reduction in methane production from 2013 levels by 2030. Currently, the focus will be more on dairies, but beef cattle are mentioned.

Antibiotics Use as of January 2017

As of January 1, 2017, the U.S. Food and Drug Administration will be implementing a voluntary approach to limiting the use of “medically important antimicrobials” in livestock production. The FDA goal is to have pharmaceutical companies voluntarily change the labeling on antimicrobials and antibiotics such as penicillin, tetracycline, and erythromycin, from over-the-counter (OTC) to Veterinary Feed Directive (VFD). What this means is that once the labeling has been changed, to obtain any of the drugs to use for prevention or treatment for your livestock you will have to have a veterinarian prescribe the drug for you. The FDA guidelines requires that you keep records for two years.

California has our own antibiotic legislation that was passed and signed by Governor Brown. Senate Bill 27 has a timeline of January 2018 for implementation. It will follow the FDA guidelines but will have more teeth for California Department of Food and Ag to enforce the legislation. There will be more oversight, inspections and fines if ranches are found in violation of the law (\$250 per day in violation for the first offense, and \$500 per day for each subsequent violation).

You will still be able to have access to drugs needed to treat your animals, but instead of being able to purchase them over-the-counter, you will now have to have a relationship with a veterinarian and have the vet write a prescription for you. More information will be coming shortly, but there will be a meeting at the Stanislaus County Ag Center (Harvest Hall) on November 5th with more information concerning the changes that will start in January. Be sure to save the date on your calendar!

Bull Management — Fall Breeding

With breeding season approaching, now is a good time to conduct a breeding soundness exam. A basic breeding soundness evaluation consists of:

- Physical examination of the animal
- Semen evaluation
- Measurement of scrotal size
- Examination of reproductive organs

The physical exam should ensure that the bull is able to see, eat, smell, and move freely to successfully breed cows. Structural soundness is important if the bull is expected to travel across a range of conditions and mount a cow. Also many structural defects are hereditary and may be passed on to the calves. Body condition should also be examined to ensure the bull has enough condition to breed the cows, with a score of 7 recommended for range bulls entering the breeding season.

Internal reproductive organs should be examined for any inflammation, adhesions, or fibrosis. The spermatic cord, scrotum, testicles, and epididymides are examined for evidence of abscess, injury, frost bite damage, or tumors. The testicles are the factory where sperm cells are produced, and they should be firm, resilient, equal in size, and adequate to large for the bull's age. Degenerative change in any of these organs is a frequent cause of reduced fertility. Testicular hypoplasia (underdevelopment) is also evaluated at this time. Hypoplasia reduces fertility and is highly heritable. With this condition one or both testicles are one-third of normal size.

The penis and sheath should be examined for any sores, lacerations, abscesses, scar tissue, or adhesions. On erection with the electro-ejaculator, the penis should come from the sheath in a straight line with the body of the bull. Persistent penile frenulum (tied back penis) is occasionally found during this part of the examination. Injuries to the penis usually occur during the active breeding season, but may be resolved enough to be missed until the breeding soundness exam. Old lacerations and adhesions usually prevent the penis from being fully extended or cause pain during breeding. Bulls with any type of painful lesion will usually quit trying to breed cows. Warts on the tip of the penis are a relatively common finding in young bulls.

Scrotal size is important because it correlates not only to sperm production, but is also a heritable trait. Bulls with larger testicles reach puberty at an earlier age and produce more semen. They will sire heifers and sons who will reach puberty at an earlier age, and their sons will have larger testicles.

A bull can be normal on general physical and reproductive organ examination and still have low fertility due to poor semen quality. Sperm cell concentration (number of normal sperm cells), motility (vigorous, active sperm), and morphology (shape of the sperm cells) evaluations are the basis for the scoring system developed by the Society of Theriogenology. This scoring system has become the standard across the country and is used by almost all veterinary practitioners.

In addition, the following tests or procedures may be included in a breeding soundness evaluation:

- Mating ability: Some assessment of the bull's desire (libido) and ability to breed a female in heat (termed serving capacity)
- Pelvic measurement; believed to be a heritable trait and predictor of early maturity in heifers as well as reducing calving problems
- Trichomonosis testing

Small –Scale Livestock Producers Workshop

MAINTAINING HEALTHY LIVESTOCK IN THE NEW ERA OF ANTIBIOTIC RESTRICTIONS

Stanislaus County Agricultural Center

3800 Cornucopia Way, Harvest Hall

Modesto, CA 95358

November 5, 2016, 8:00 am—1:00 pm

Lunch provided

INTRODUCTION:

~**Hear** from experts with UC Cooperative Extension, UC Davis School of Veterinary Medicine, and Lander Vet Clinic.

~**Learn** best practices for animal health and husbandry, antibiotic resistance and use.

~**Connect** with other small-scale livestock producers in the region.

Who should attend:

The growing consumer interest in local food production and sustainability, and increased preference for fresh, local and organic products in the last years has been linked to an increase the number of small-scale farms. One of the recognized challenges faced by small-scale livestock producers is the lack of access to technical information and veterinary oversight. Beginning Jan. 2017, all antimicrobials that are medically important and administered in feed or water will require a prescription from a veterinarian with a valid veterinary-client-patient relationship. In CA, beginning in Jan.1, 2018, SB 27, all antimicrobials over-the-counter will need a prescription. This workshop will provide information regarding animal health and husbandry, antibiotic resistance and use in small-scale livestock farms.

Topics:

- Antibiotic Resistance and Implications of the New Law
Richard Pereira, UC Davis
- Reducing the Need for Antibiotics...Maximizing the Health of Your Beef Herd
Bret McNabb, UC Davis
- Zoonoses, Keeping Goats and People Healthy
Alda Pires, UC Davis
- Pasture Poultry Farm: Lessons Learned and Biosecurity
Myrna Cadena, UC Davis
- Healthy Goats Without Breaking the Bank: Building a Veterinary-Client-Patient-Relationship
Thomas Bauman, Lander Vet Clinic
- Outdoor Pork Production and Pasture Management
Theresa Becchetti, ANR UCCE, Modesto

RSVP: Pre-registration available http://ucanr.edu/sites/Small_Farms/_Events/

Questions: Contact Theresa Becchetti at 209-525-6800 or tabecchetti@ucanr.edu; or Dr. Thomas Bauman, LanderVet, at 530-634-5801 or tabauman@gmail.com

Small –Scale Livestock Producers Workshop

MAINTAINING HEALTHY LIVESTOCK IN THE NEW ERA OF ANTIBIOTIC RESTRICTIONS

November 5, 2016

8:00 a.m. – 1:00 p.m.

AGENDA

Time	Topic	Presenter
8:30 am	Morning refreshments	
8:55 am	Welcome & Housekeeping	Alda /Theresa
9:00 am	Antibiotic Resistance and Implications of the New Law	Richard Pereira <i>School of Veterinary Medicine, UC Davis</i>
9:30 am	Reducing the Need for Antibiotics...Maximizing the Health of Your Beef Herd	Bret McNabb <i>School of Veterinary Medicine, UC Davis</i>
10:00 am	Zoonoses, Keeping Goats and People Healthy	Alda Pires <i>Specialist in Cooperative Extension, School of Veterinary Medicine, UC Davis</i>
10:30 am	Break	
10:45 am	Pasture Poultry Farm: Lessons Learned and Biosecurity	Myrna Cadena <i>Jr. Specialist, School of Veterinary Medicine, UC Davis</i>
11:15 am	Healthy Goats Without Breaking the Bank: Building a Veterinary-Client-Patient-Relationship	Thomas Bauman <i>DVM, Lander Vet Clinic</i>
11:45 am	Outdoor Pork Production and Pasture Management	Theresa Becchetti <i>Farm Advisor Advisor, ANR UCCE</i>
12.30 pm	Lunch	

Look What's Inside:

- ◆ **Horse Day 2016**
- ◆ **Wild Pig Survey**
- ◆ **Pasture Management**
- ◆ **Edible Bale Wrapping**
- ◆ **Livestock's Carbon Footprint**
- ◆ **Antibiotics Use as of January 2017**
- ◆ **Bull Management – Fall Breeding**
- ◆ **Small-Scale Livestock Producers Workshop**

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