UC CE University of California Agriculture and Natural Resources Cooperative Extension

2017 Southern San Joaquin Livestock Symposium

Fresno, California

February 16, 2017

MULTIMIN

Master Stockman Consulting

USDA

UC CE University of California Agriculture and Natural Resources Cooperative Extension

Research Update

- **Vaccine trials** at Sierra Foothill Research and Extension Center (Browns Valley, Yuba County)

  Foothill Abortion (Epizootic Bovine Abortion, EBA)
  Pinkeye

- Upcoming **targeted grazing** study

UC CE University of California Agriculture and Natural Resources Cooperative Extension

Research Update

Researcher: Dr. Jeffrey Stott, jlstott@ucdavis.edu

Foothill Abortion Vaccine Trial

- Foothill Abortion (EBA) can terminate 60-90% of pregnancies in heifers and cows infected during the first 6 months of pregnancy
  - Embryo loss, stillborn or weak calves
- **5-10**% calf crop loss each year

- Transmitted by Pajaroello tick; Spray repellents not effective
- Grazing management for EBA: graze cows in tick infested areas before breeding or after 6+ months pregnancy, to build immunity

UC CE University of California Agriculture and Natural Resources Cooperative Extension

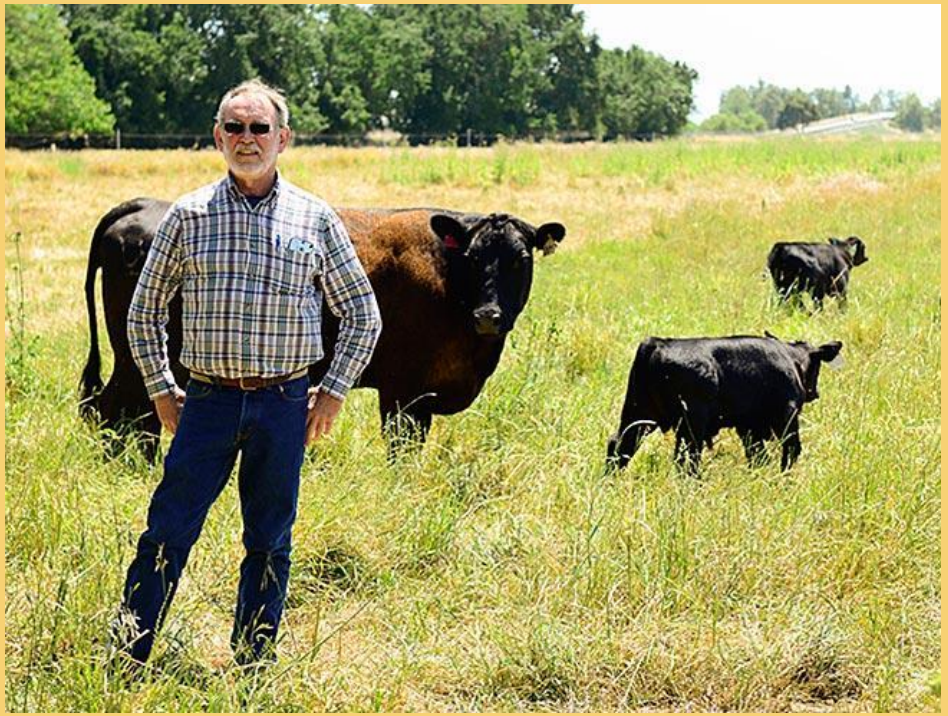
Research Update

Researcher: Dr. Jeffrey Stott, jlstott@ucdavis.edu

Foothill Abortion Vaccine Trial

- Live vaccine: More than 95% effective at preventing foothill abortion in trials
  No EBA abortions in vaccinated cows

- Currently testing impact on embryo development for USDA approval, then vaccine will be developed commercially



UC CE University of California Agriculture and Natural Resources Cooperative Extension

Research Update

Researcher: Dr. John A. Angelos,
jaangelos@ucdavis.edu

Pinkeye Intranasal Vaccine Trial

- Most common cattle eye disease
  - Eye discharge, irritation/reddening, sensitivity to sunlight, loss of appetite and can cause blindness
- Contagious; flies on the face transfer bacteria to others
- Expensive antibiotic treatment

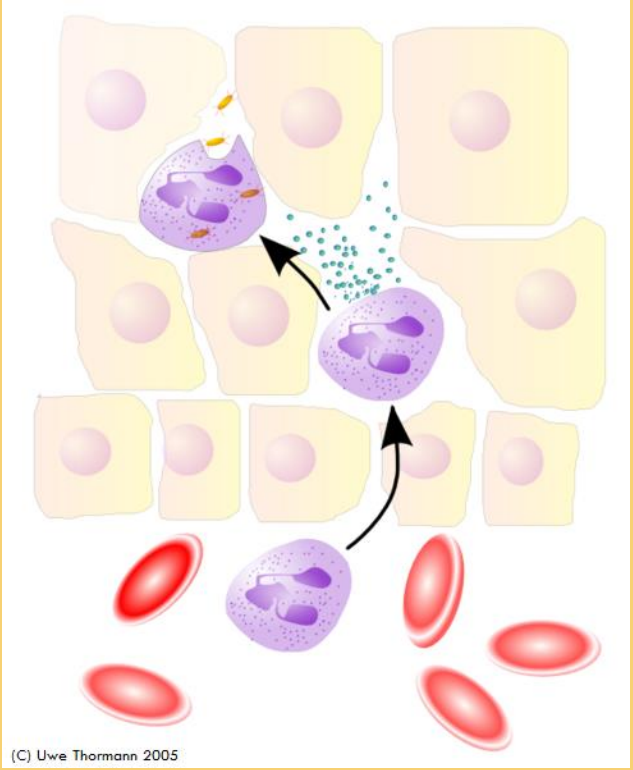
UC CE University of California Agriculture and Natural Resources Cooperative Extension

Research Update

Researcher: Dr. John A. Angelos,
jaangelos@ucdavis.edu

Pinkeye Intranasal Vaccine Trial

- Existing vaccines not very effective; some make eye damage worse
  - IgG antibodies attract neutrophils (white blood cells) to the eye
  - Neutrophils release digestive enzymes which worsen ulcers and scarring on the eye
- Intranasal vaccine triggers IgA antibodies, already in tears
- Waiting for data on relative eye damage, illness reduction



UC CE University of California Agriculture and Natural Resources Cooperative Extension

Research Update

Researchers: Julie Finzel & Rebecca Ozeran

Targeted Grazing of Italian Thistle

- Italian thistle is not a common threat but may be spreading
- Reasonably palatable, non-toxic, but spiny when mature
- Goat and sheep grazing may be useful tools to reduce or eradicate local populations

UC CE University of California Agriculture and Natural Resources Cooperative Extension

Research Update

Researchers: Julie Finzel & Rebecca Ozeran

Targeted Grazing of Italian Thistle

- Will begin study this spring on a ranch in Kern Co.
- 2 treatments: Milestone herbicide vs. sheep grazing, vs. no treatment
- Hoping to see grazing as effective as herbicide

Questions?

More on Foothill Abortion (EBA):
http://cetehama.ucanr.edu/files/184682.pdf (grazing management)
http://ucanr.edu/sites/UCCE_LR/files/151942.pdf (about the tick)

More on pinkeye:
http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=10861

More on Italian thistle:
http://www.cal-ipc.org/ip/management/plant_profiles/Carduus_pycnocephalus.php

UC CE University of California Agriculture and Natural Resources Cooperative Extension

Upcoming field tour of San Joaquin Experimental Range - Tentatively **April 15** (Saturday)

Subscribe to my newsletter for more information – http://ucanr.edu/rangebulletin, or follow us on Facebook!

https://www.facebook.com/UCCEFresnoMaderaLivestock/