

# A Hybrid Model Approach to Livestock Use for Research



Dustin Flavell, Superintendent  
Sierra Foothill Research & Extension Center





# A Little Background

- ❧ 5700 plus acres of oak-studded annual grass rangeland
- ❧ Growing season Nov. thru. May
- ❧ Dry June through Oct.
- ❧ Historically grazed annually (don't leave) by mature fall calving cows
- ❧ Weaned heifers & steers retained through summer on irrigated pasture



# Cattle Use Background



- ❧ Since 1960 grazed exclusively by ~350 commercial cows.
- ❧ Cattle owned by Campus Dept. and charged rent of 2 AUM (as of 2013)
- ❧ Cows available for research with some limitations if production was severely effected
- ❧ Calves retained post weaning available for research



# Cattle Use Background



- ❧ Historically this made sense
  - ❧ Cow/calf management
  - ❧ Cow health
  - ❧ Nutrition
  - ❧ Feeding trials





# As the Center Progressed

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## ❧ Changes in Research

- ❧ Natural resources

- ❧ Weed Control

- ❧ Vaccine Development

- ❧ Average Daily Gains

❧ Demand was for the cow's calves and less on the cows themselves



# Limitations with a Resident Herd

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- ❧ Resource Limitations
- ❧ Calves post weaning were in demand
- ❧ Higher amount of calves needed for research than we could support
- ❧ Demand for same sex calves for studies





# Basically The Cows Had Become a Factory for the Research Samples Desired



# Effects of this on the ANS herd

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- ❧ Foothill Abortion (EBA)
  - ❧ All heifers calves born kept and bred
  - ❧ 60 day calving season shifted to 150 day
  - ❧ Research team not happy either





# Something had to be Done

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- ❧ Researchers not getting what they needed
- ❧ Herd nowhere near industry
- ❧ Negative effects on Natural Resources
- ❧ Only a few livestock projects

# Pilot that lead to the Hybrid model

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- ❧ Large Grazing study that started using Cows
  - ❧ Not enough critters
  - ❧ Not enough impact & treatment effects at key times
  - ❧ Animal management activities interfering with study



# Contract with Industry



- ❧ Researcher input
- ❧ Floated these needs to industry to see if anyone could support this project
- ❧ First year: SUCCESS!!!



# Strategic Planning Process

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- ❧ Was this the direction we wanted to go
- ❧ Stakeholder driven process
- ❧ Results
  - ❧ \*\*Need More Capacity for Research\*\*
  - ❧ Stability for the ANS cow herd





# ANS Herd



- ❧ Reduced to 150 Cows
- ❧ Sustainable number year to year
- ❧ Guaranteed support for their animals regardless of research
- ❧ Livestock only used for research if it made sense



# Hybrid Approach



- ❧ Current Researchers
- ❧ Grazing, EBA & Pinkeye
- ❧ Other Researchers





# Hybrid Approach



- ❧ Grazing study added numbers
- ❧ EBA
  - ❧ 150 bred heifers
- ❧ Pink eye
  - ❧ 170 steers for 4 months
- ❧ Rice Straw feeding
  - ❧ Fall, 100 heifers for 2 months



# Hybrid model



- ❧ Never would have been able to carry enough animals to support the research demand
  - ❧ Pink eye
  - ❧ EBA
- ❧ Increased our capacity through efficiency
  - ❧ Here when needed
  - ❧ Piggy backing animals



# Hybrid Approach - Conclusion

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- ❧ Thus Far it is not perfect, but its better than where we were and where we were headed
- ❧ Increased amount of research we could support without additional capital or resources
- ❧ Infused money into the Center/Division
- ❧ Stakeholder buy in was, and will be critical to the success
- ❧ KEY: Getting what the researchers need for the time they need it



Thank you for having me

