

# Management and Restoration of California's Coastal Prairie

## Effects of High Intensity - Short Duration Cattle Grazing on Oak Woodland/Savanna Rangeland



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## Proper Management



## Objectives

- Brief Background
- About the Research
- Results
- Research Summary



## High Intensity-Short Duration

What is it?



## History

- Alan Savory-inventor
- Grazing Styles of natural herds



## Animal Impact

- Trampling of lignified feed
- Improved water cycle
- Increased mineral cycling



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## Downfalls

- Heavy impact areas
- Missed foliage
- Increased cost



## Absence of grazing

- Role of climate
- Effects on plants
- Effects on mineral cycle
- Time



## Research Background

- Comparison of High Intensity - Short Duration cattle grazing and complete livestock exclusion
- Conducted at Sedgwick Reserve in Santa Ynez, CA
- Part of Oak Tree Regeneration study

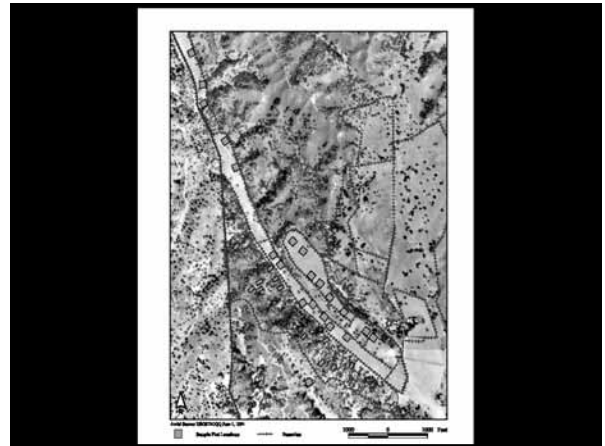
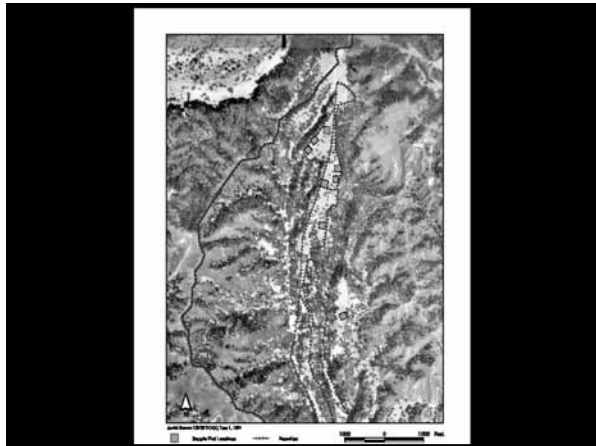


## About the Research

- Rotated 100 cow/calf pairs through 23 HISD grazing pastures - seasonal grazing Nov-April
- Sampled 52 - 50 by 50 meter plots
- Half of the plots are fenced to exclude grazing, half of plots are open to allow grazing



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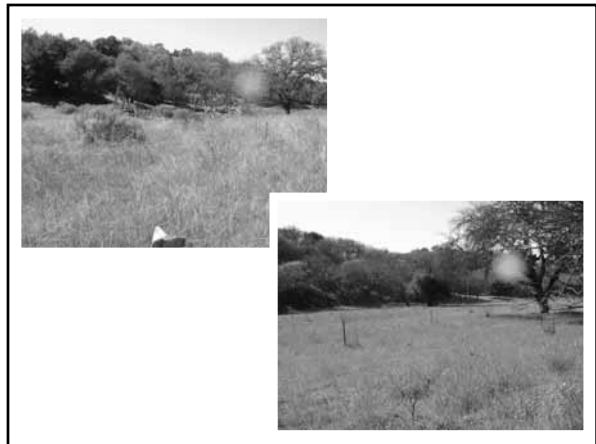
## Sampling

- 52 plots – half grazed, half ungrazed
- Grass clippings
  - Forage production
  - Forage quality
- Transects
  - Plant species
  - Bare ground



## Results

- |                      |  |
|----------------------|--|
| • Production         | Grazed = Ungrazed                        |
| • Species Diversity  | Grazed > Ungrazed<br>Increased in grazed |
| • Desirable Forage   | Grazed > Ungrazed<br>Increased in grazed |
| • Undesirable Forage | Ungrazed > Grazed                        |



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## Results

- Native Plants                      Grazed > Ungrazed  
    Increased in grazed
- Native Grass                      Grazed = Ungrazed
- Native Forbs                      Grazed > Ungrazed  
    Increased in grazed
- Bare Ground                      Grazed = Ungrazed  
    Decreased in grazed
- Relative Feed Value              Grazed > Ungrazed  
    Growing season & dormant  
    Increased in grazed



## Research Summary

- Positive effect on Ca. annual rangeland
- Improvement of forage quality, desirable forages and plant species diversity
- Decreased undesirable forages
- Enhanced perennial vegetation
- Production of higher quality rangelands than the absence of grazing

