

# Fire, Weeds, and Prescribed Burn Associations

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# Medusahead and Fire

Previous research:

- Fire is effective at controlling medusahead, but timing is important
- Follow-up treatments needed after 3 years in Tehama County (Davy 2018)
- Size of project matters (Berleman et al. 2016)



# UCCE Medusahead Research in Tehama/Humboldt

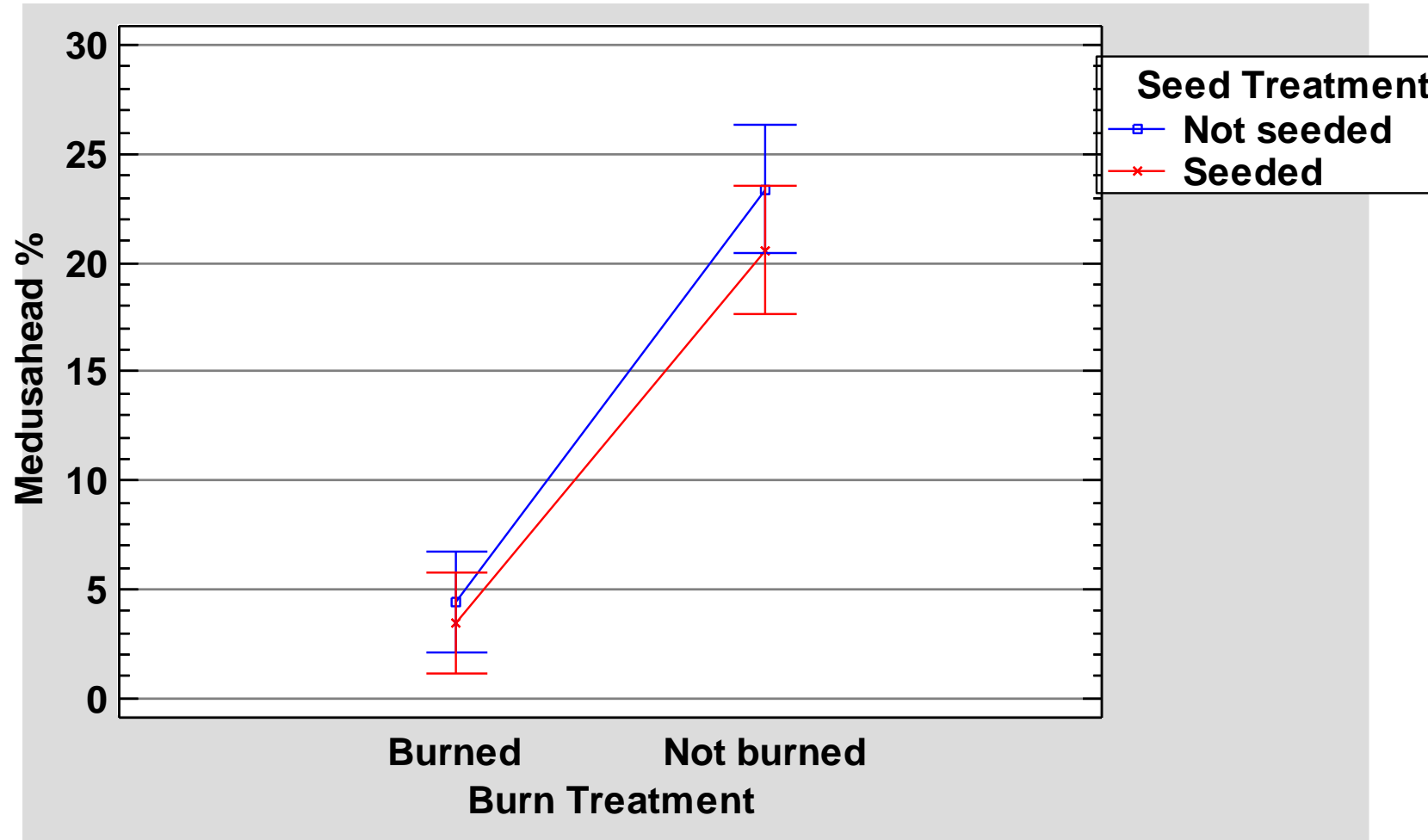
*How does site and seeding affect treatment?*

Research sites in 2 counties:

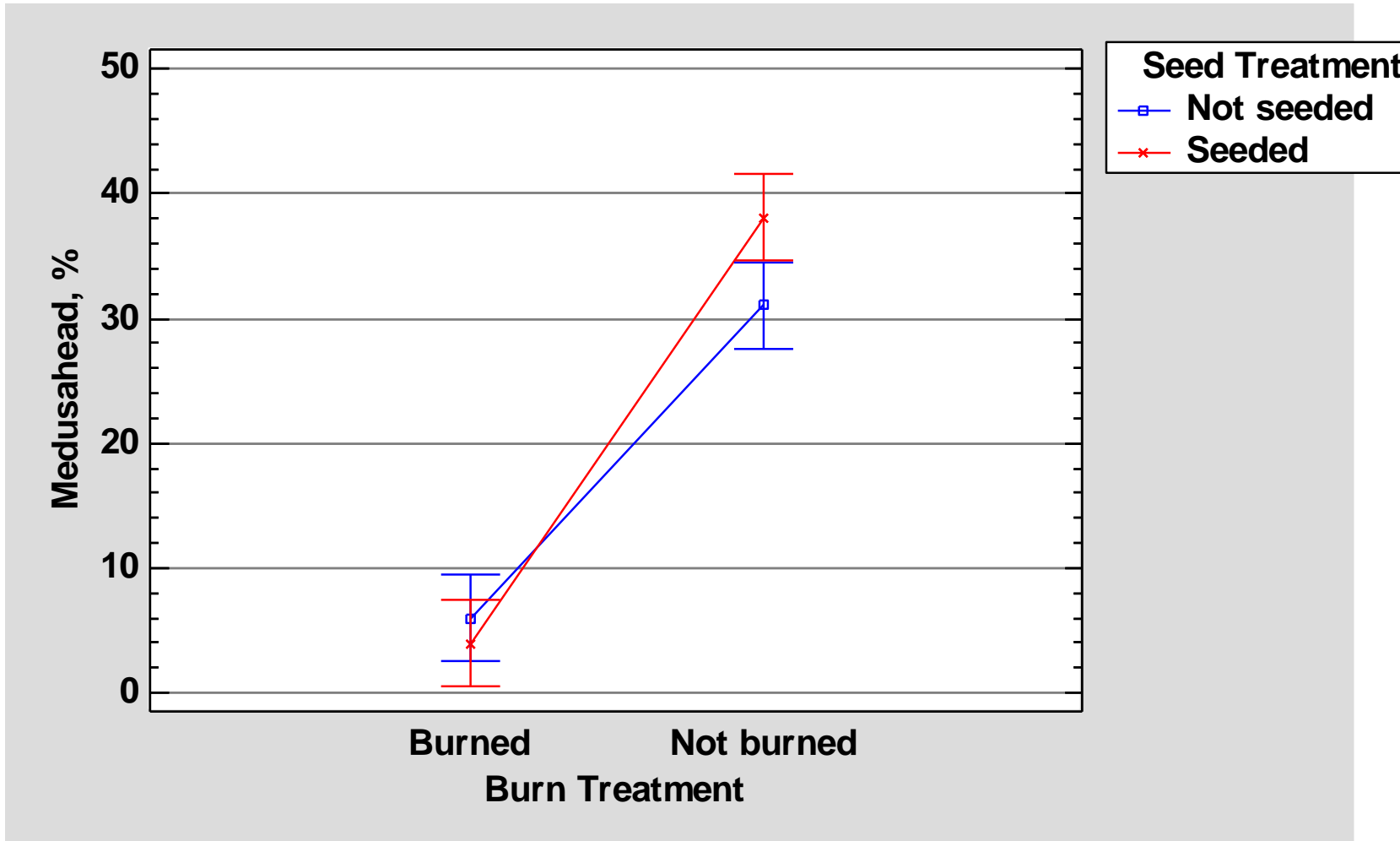
- 200 ft permanent transects measured every 10 ft
  - Total cover using 1 m<sup>2</sup> frame
  - At the center of this frame a 1 sqft frame was used for comparative yield
- Seeded half of the transects
- Monitored cover prior to burn and annually afterward



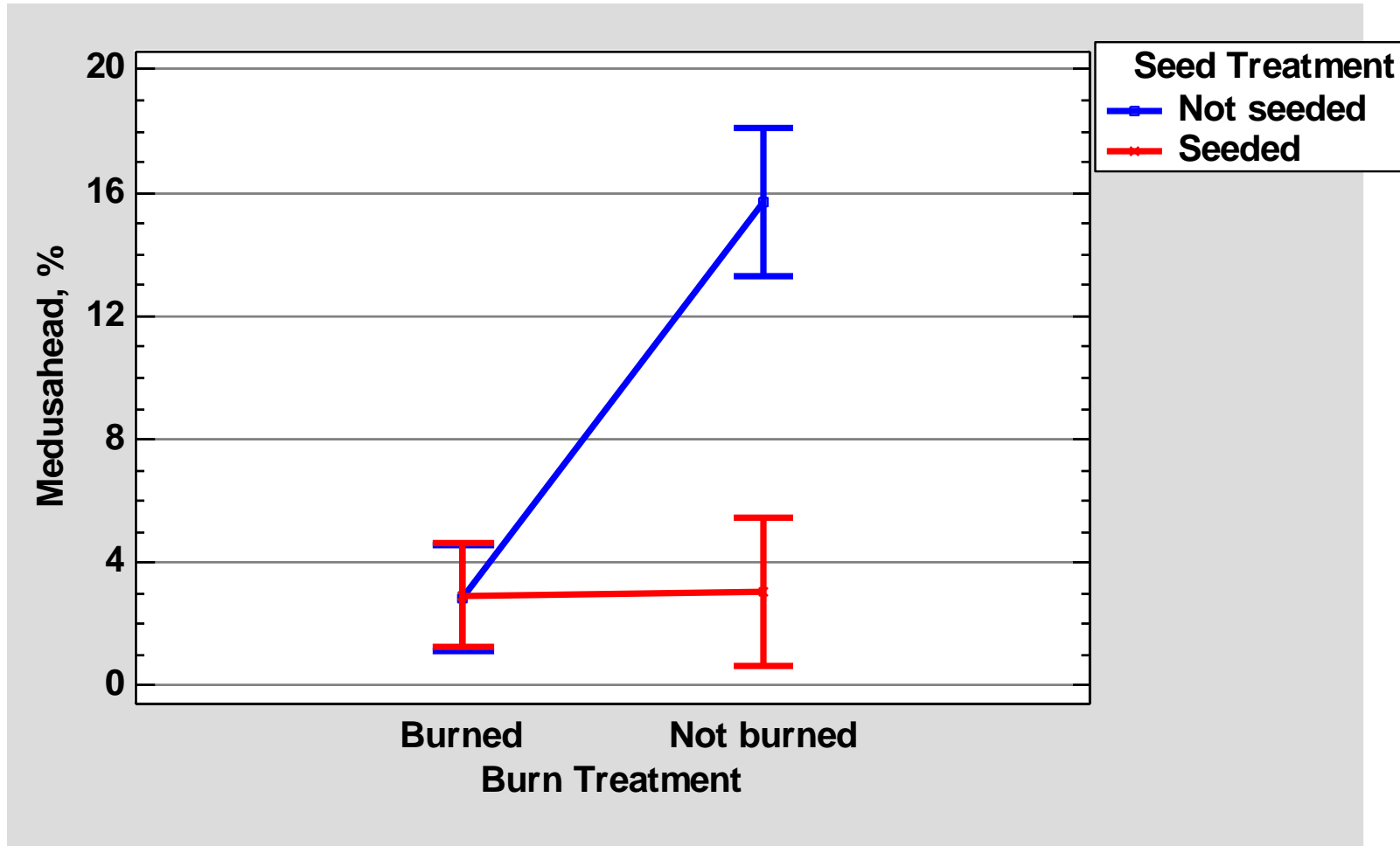
# Medusahead Cover 1 Year Post-Burn (both counties)



# Medusahead Cover 1 Year Post-Burn - Humboldt

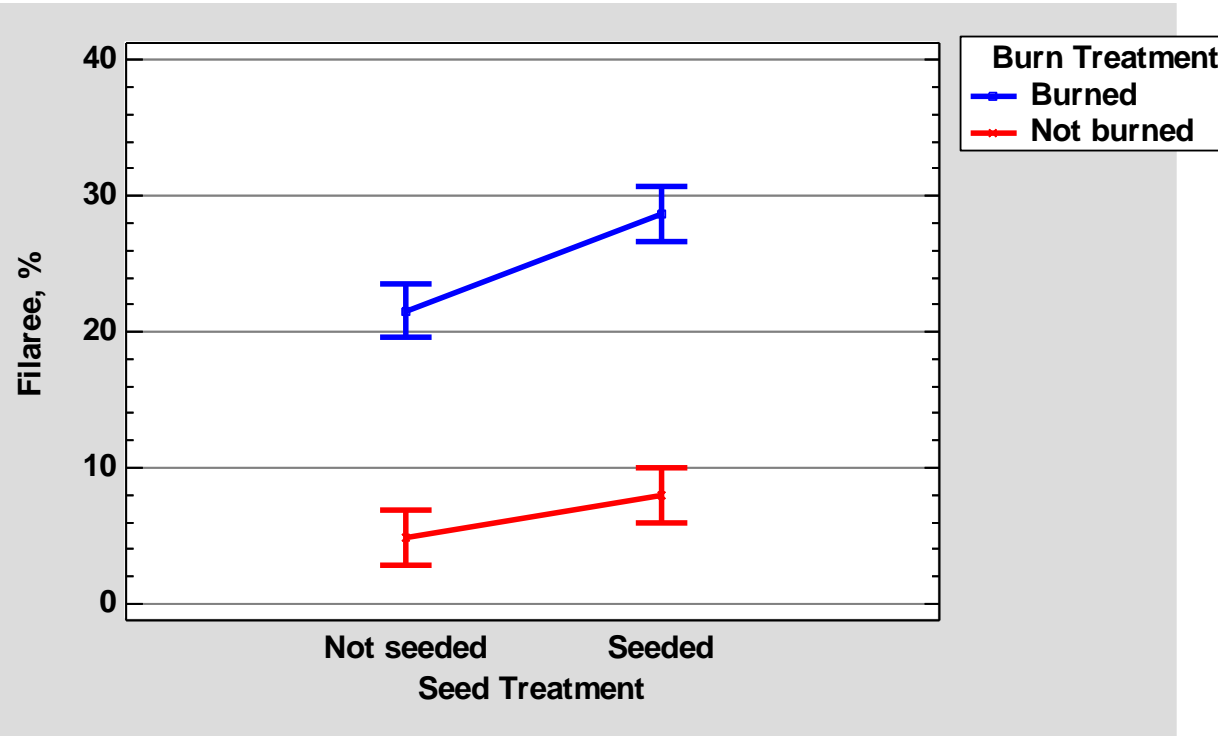


# Medusahead Cover 1 Year Post-Burn - Tehama

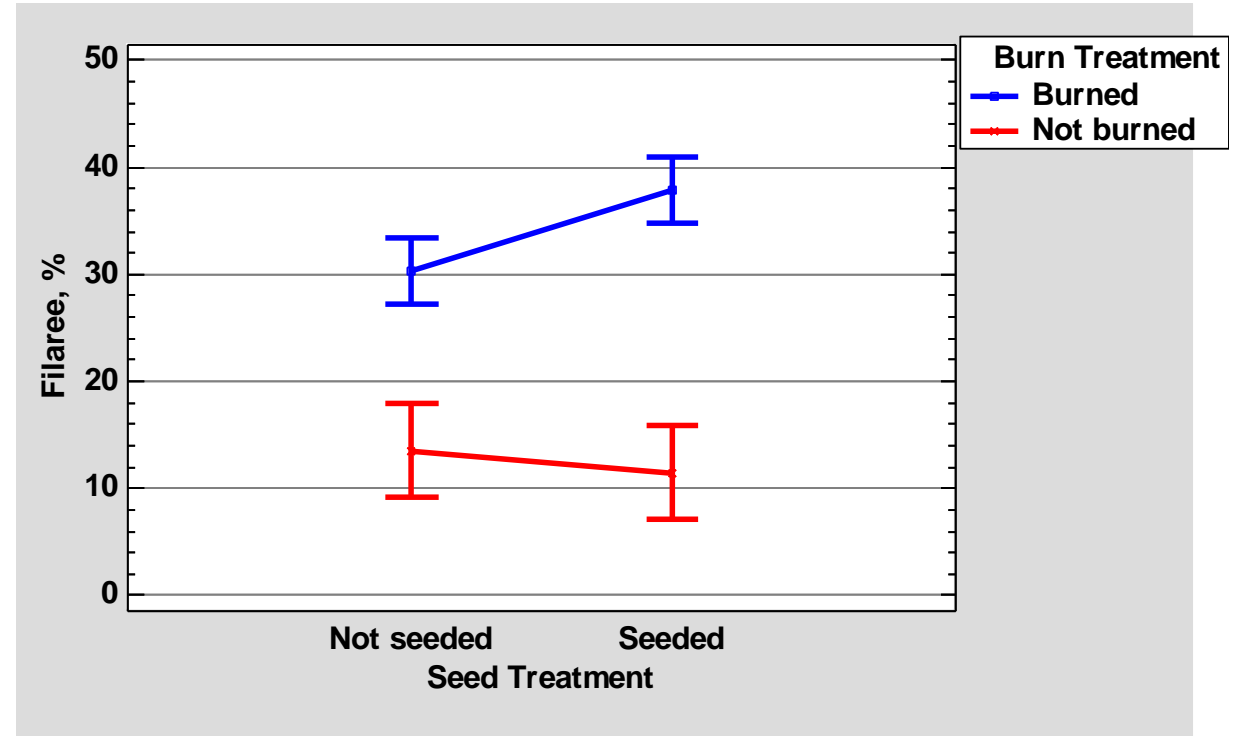


# Filaree 1 Year Post-Burn – Both Counties

## Humboldt



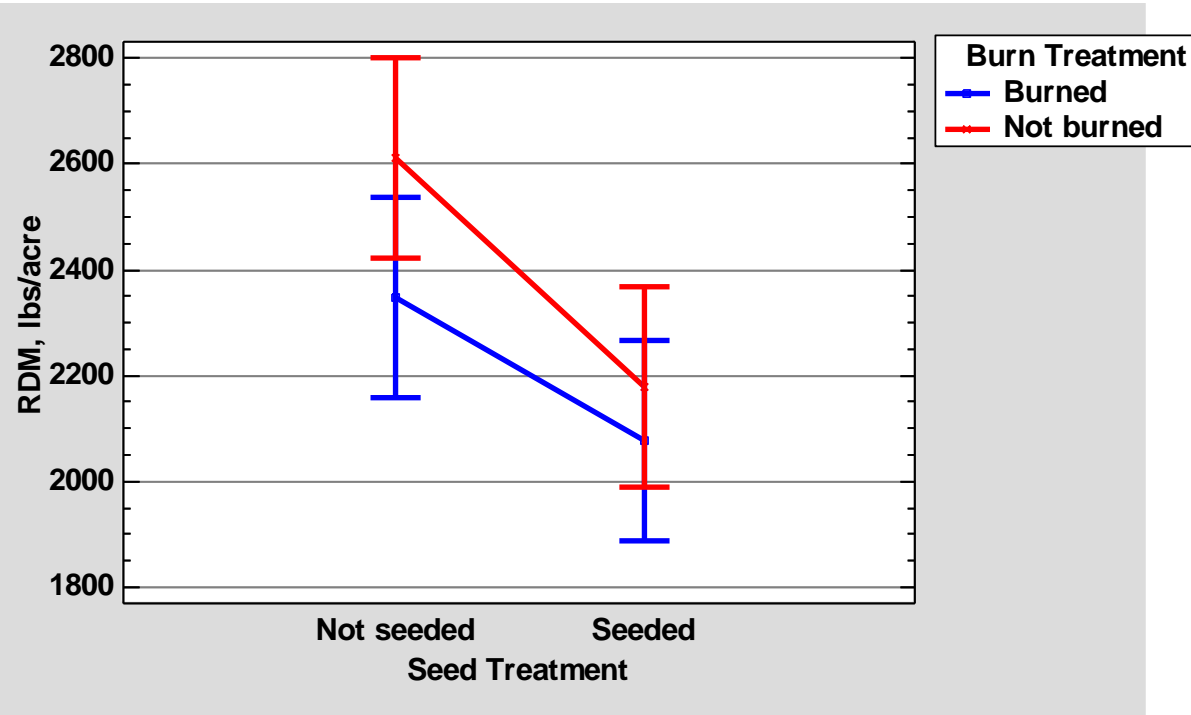
## Tehama



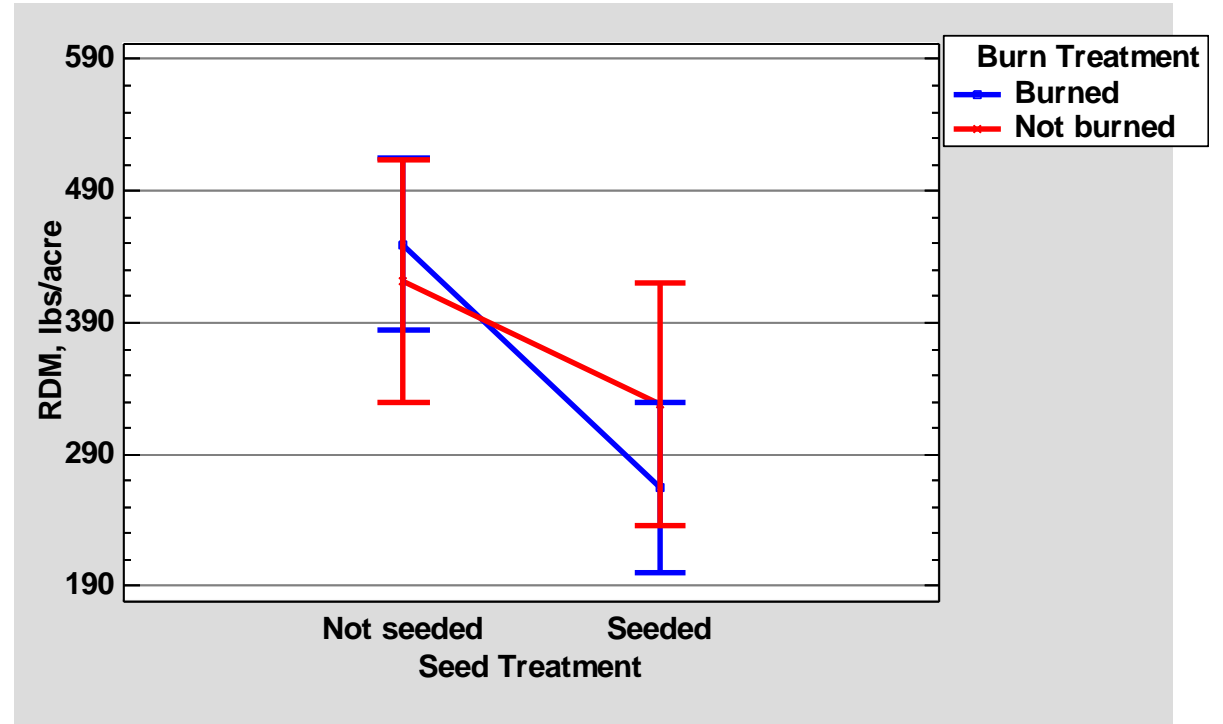


# Lbs/acre 1 Year Post-Burn – Both Counties

## Humboldt



## Tehama



## Medusahead and Fire: Key Take-Aways

- Burning severely decreases medusahead in year 1
- Seeding appears to increase consumption
- Site is important
- Time will tell longevity...project to be continued





# Permitted ranch burning in CA 1945-1977

200,000  
acres!

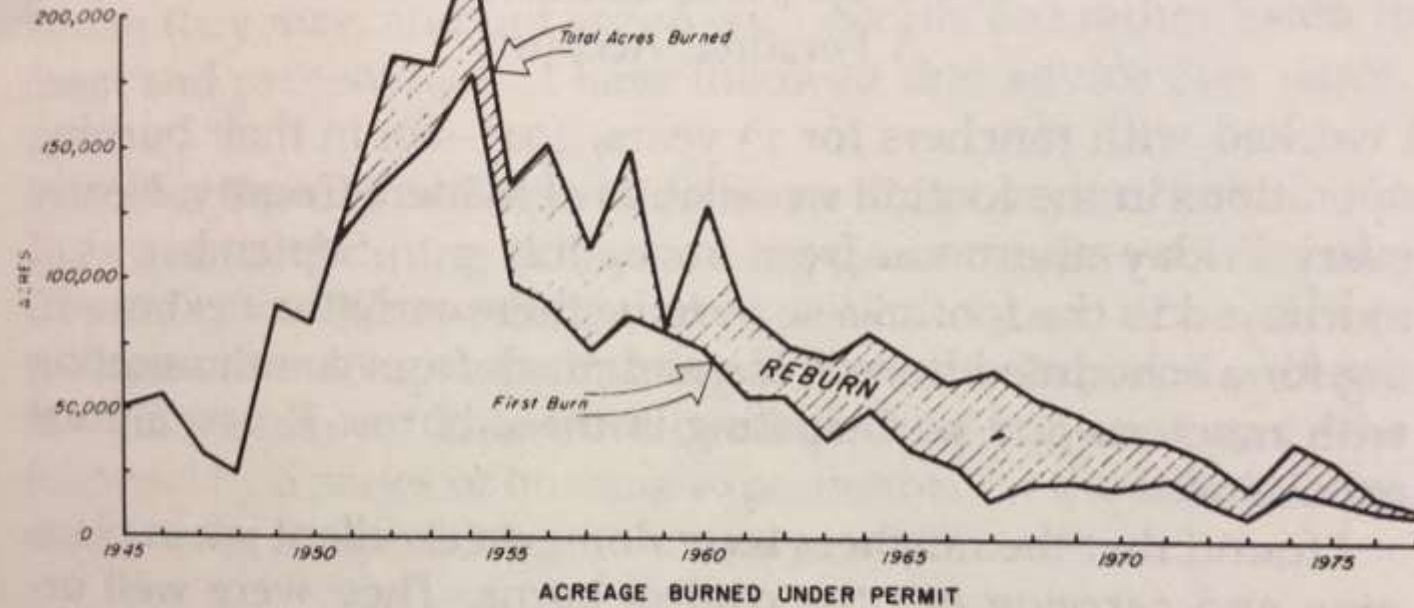
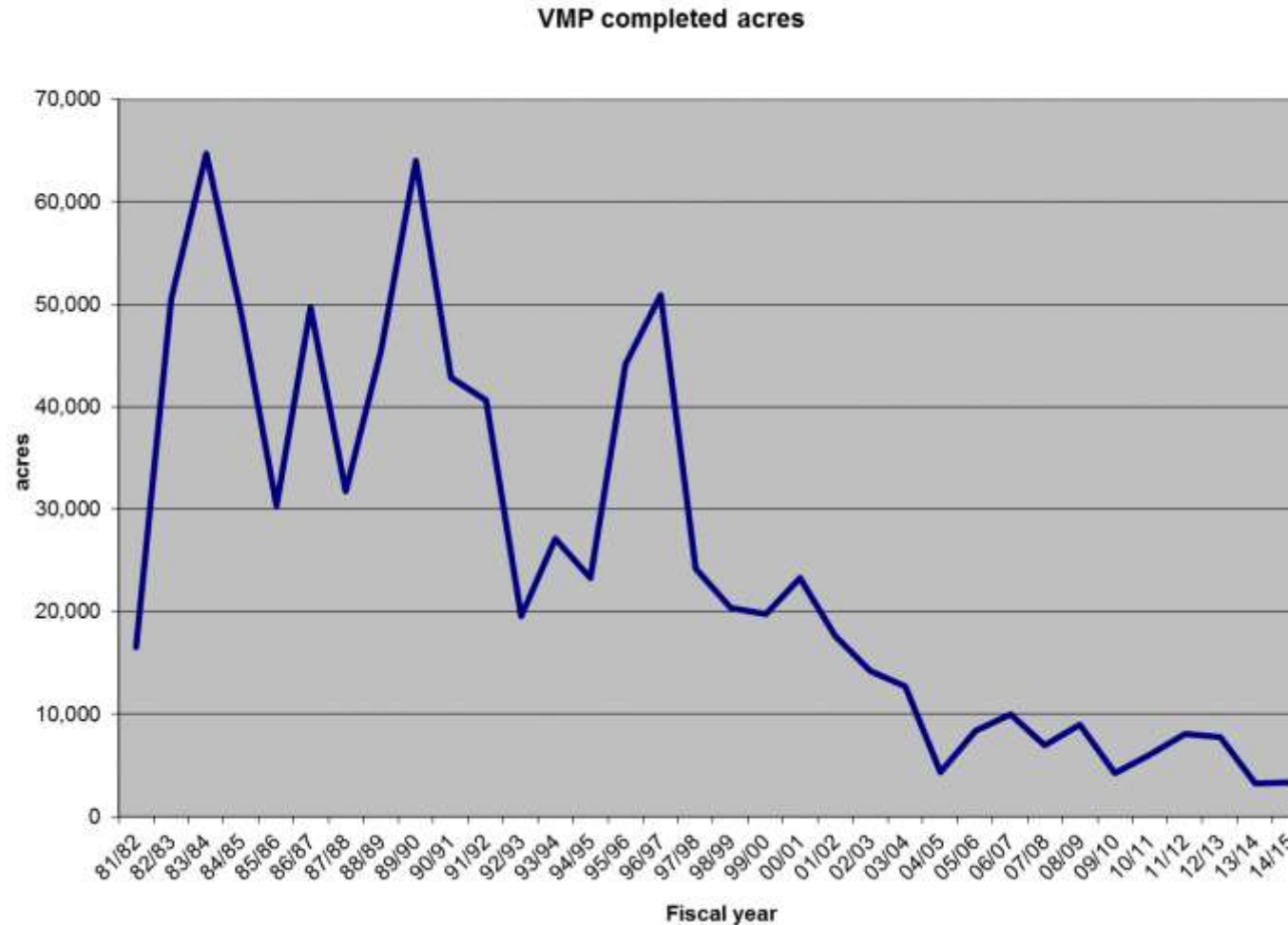
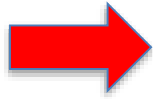


Figure 41. Acreage burned by California ranchers under permit from 1945 to 1977 to reduce fire hazard and improve grazing for livestock and wildlife. (Graph from the California Department of Forestry.)

\*From Biswell 1999

# CAL FIRE private lands prescribed fire acres, 1981-2015

65,000  
acres at  
height of  
VMP



<10k  
acres/year  
in last 15  
years

# Great Plains PBAs – 2015 survey

- 27 PBAs conducted **1,094 burns covering 472,235 acres** in 8 years
- Only one official report of injury
- Escape rate of 1.5%, with no insurance claims or lawsuits

*From Weir et al. 2015*







# Humboldt County Prescribed Burn Association

- Formed March 9, 2018
- Board of Directors & by-laws established
- 60 paying members;  
200-person mailing list
- 2,500 acres of projects identified on local ranches and timberlands





# Humboldt County Prescribed Burn Association



- Neighbors helping neighbors—similar to old rangeland associations
- VFD involvement + training
- CAL FIRE support, but limited involvement
- Grants and equipment
- Private burn bosses as needed
- UCCE: research, education, and outreach on burning

# Burn trailer!

- California Deer Association donated \$24k in 2017 for purchase of a burn trailer and 3 slip-in units.
- Cal Deer donated another 12k this year for radios.
- Redwood National Park also donated used hand-tools, hose, and other items



This fall: 500 acres in 3 weeks!



# Largest EQIP-funded burn ever in California



# Bringing the PBA model to other parts of CA

- First step: get clear on rules and regulations
- Host prescribed fire workshops
- Identify local leaders and partners (and cast a wide net!)
- Small successes build momentum
- Engage agencies (like CAL FIRE), but maintain a landowner-led model



# Questions?

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