


A satellite map of a region in California, showing a large area affected by a wildfire. The affected area is highlighted in shades of red and orange, with a yellow border. The map includes labels for various locations such as Amador City, Sutter Creek, Jackson, Paloma, San Andreas, Calaveritas, and others. The text "Weed Management after Wildfire – It's Necessary!" is overlaid in large white font.

# Weed Management after Wildfire – It's Necessary!



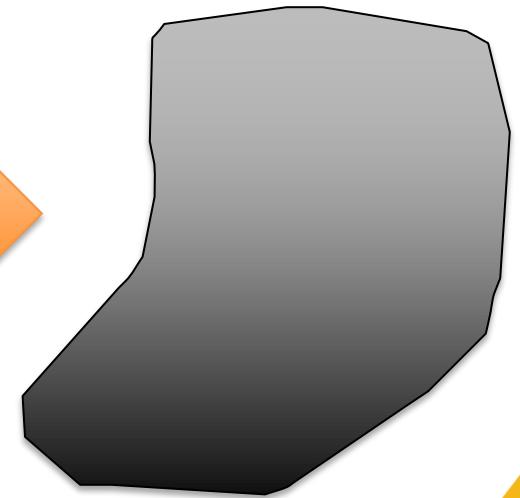
**University of California**  
Agriculture and Natural Resources

Scott Oneto  
Farm Advisor  
[sroneto@ucanr.edu](mailto:sroneto@ucanr.edu)  
209-223-6834



# Resources Increase after Disturbance

- Increase in resource availability occurs because:
  1. Pulse in resource supply
  2. Decline in resource uptake



# Weeds and Disturbance

Disturbance  
results in an  
increase in  
resource  
availability

High resource  
availability  
favors weeds

Weeds  
increase after  
disturbance

# Pre-Fire Knowledge

## 12 Worst weeds found in the area, Pre-Fire

1. Yellow starthistle
2. Medusahead
3. Oblong spurge
4. Skeletonweed
5. Klamath weed
6. Spiny plumeless thistle
7. Smooth distaff thistle
8. Gorse
9. Broom – French and Spanish
10. Tree of Heaven
11. Stinkwort
12. Barbed goatgrass

# Yellow starthistle

- Responds to fire disturbance
- Germinates with first fall rains –Now!
- Looks like a dandelion during the winter
- Annual - persists by seeds



# Medusahead

- Responds to fire disturbance
- Germinates with first fall rains –Now!
- Blue-green color, very small and wimpy early on
- Annual - persists by seeds



*Pennisetum caput-medusae* (exotic)  
Medusa-head  
Polk Co., Wainwright  
Photo by Bruce Neill Newhouse June 5, 2007 CFP confirmed  
© 2012 Bruce Neill Newhouse, part of the Oregon Flora Project



UGA1459335

# Oblong spurge



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- Responds to fire disturbance
- Exude milky-white latex
- Found mostly in drainage ditches, riparian areas
- Toxic to livestock
- Perennial / reproduces by underground stems and by seeds

# Skeletonweed

- Responds to disturbance
- Mature plants are mostly leafless
- Toxic to livestock
- Perennial – persists by seeds



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# Klamath weed

- Responds to disturbance
- Bright yellow flowers
- Toxic to livestock
- Perennial / reproduces by creeping stems and by seeds



# Spiny plumeless thistle

- Responds to disturbance
- Spiny throughout
- Grows 6 – 8 ft tall
- Can form dense stands
- Biennial – flowers during second year  
First year only produces basal leaves



# Smooth distaff thistle

Smooth Distaff Thistle 7/73  
CDFA/IPC - W.J. Ferlatte

- Responds to disturbance
- Bright yellow flowers
- Spiny throughout
- Annual - persists by seeds



# Gorse

- Responds to fire disturbance
- Forms dense impenetrable thickets
- Spiny throughout
- Bright yellow flowers
- Shrub / reproduces by seeds



# Broom – Spanish & French

- Responds to fire disturbance
- Forms dense impenetrable thickets
- Bright yellow flowers
- Shrub / reproduces by seeds



# Tree of Heaven

- Responds to disturbance
- Forms dense stands
- Can grow to 70 ft
- Tree/ reproduces by underground stems and by seeds



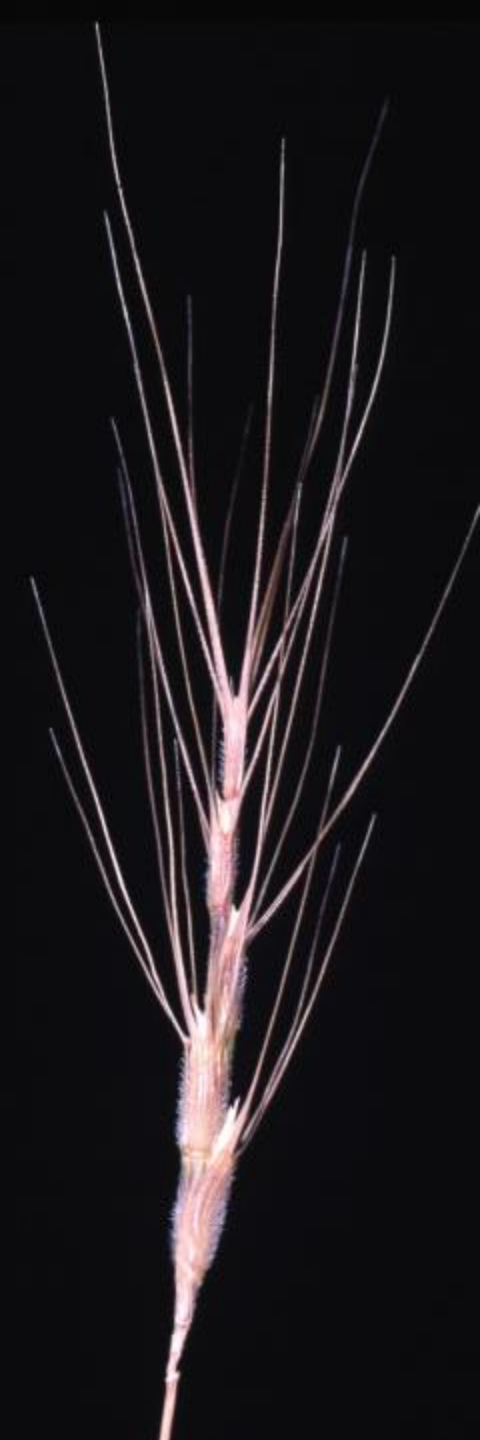
# Stinkwort

- Responds to disturbance
- Forms dense plants up to 3 ft tall and wide
- Very sticky and smells musty
- Annual - persists by seeds



# Barbed goatgrass

- Responds to disturbance
- Germinates with fall rains – Now!
- Matures late season, July - August
- Annual - persists by seeds





# Post – Fire Assessment



# Burn Area Weed Management Plan

1. Know weedy species present prior to the fire
2. Become familiar with other potential weed invaders
  - Weeds present prior to fire but dormant
  - Introduced through equipment (dozers, fire trucks, emergency responders, tree crews)
  - Introduced via workers (fire personnel, tree fallers, clean-up crews)
  - Introduced through erosion control efforts (contaminated seed/straw)
  - Introduced through contaminated construction materials (road base, gravel, soil)



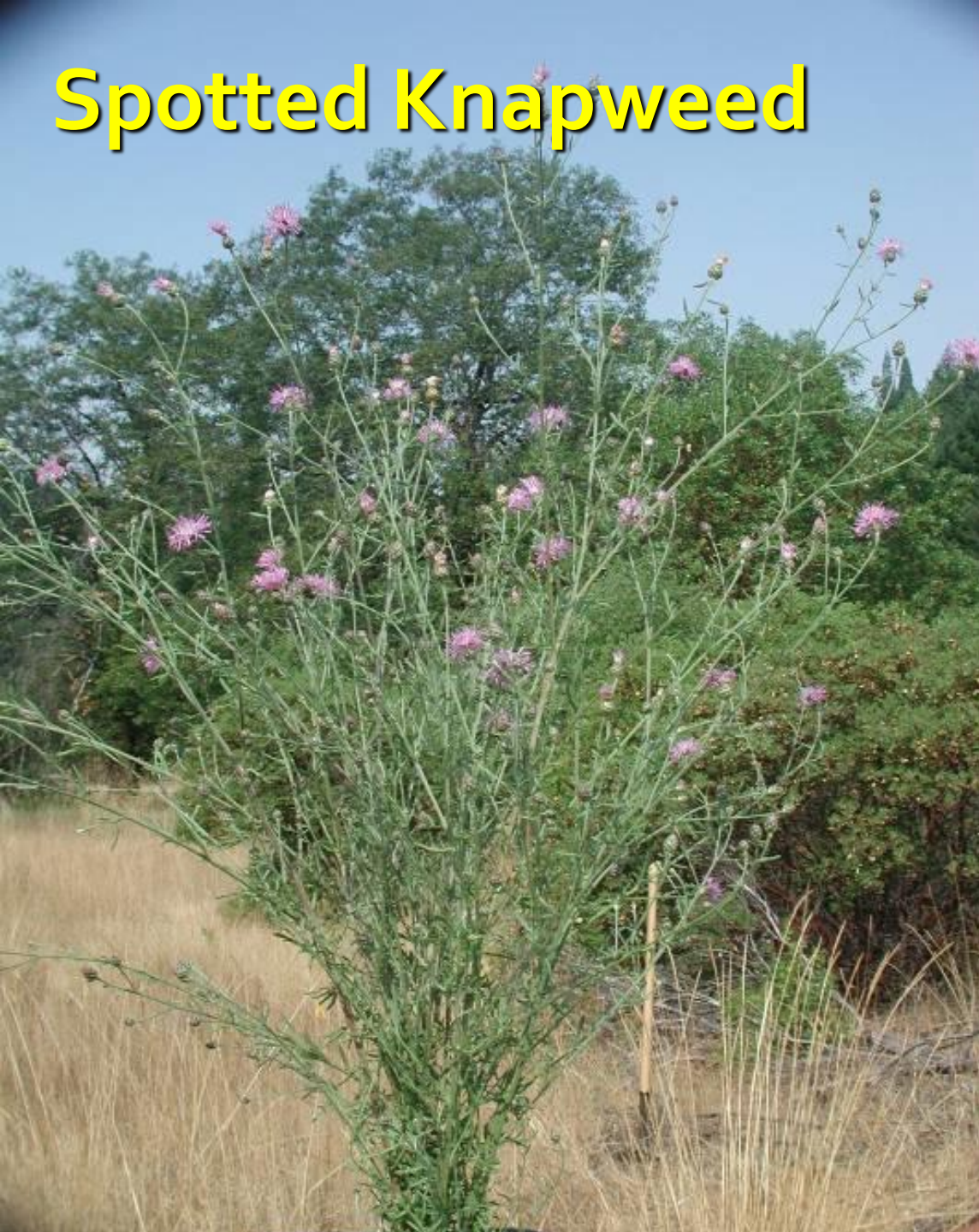
# Burn Area Weed Management Plan

3. Early Detection Rapid Response Approach
4. Use certified weed free materials
  - Seed mixes
  - Erosion control materials
5. Clean equipment before entering burned areas
6. Survey for new weeds
  - For any unknown plants bring them to us!
7. Treat weeds utilizing all the tools
8. This is not the year to not control weeds!

# Goathead or Puncturevine



# Spotted Knapweed





# Improving Rangelands After Fire

# Conditions Prior to Fire

- Understory dominated by non-native annual grasses and forbs.
- Some CA natives but sparse.
- In most places the fire moved through quickly and didn't kill the soil seedbank.

A landscape photograph showing a hillside with a mix of green and brown trees, suggesting a fire-affected area. The foreground is a dark, charred ground with sparse green grass. The text is overlaid in red, italicized font.

*In many cases... you don't  
need to seed!!!!*



# Conditions for Seeding on Annual Range

- Prior to fire, range was dominated by weeds (medusahead, yellow starthistle, ripgut brome)
  1. Consider controlling weeds this growing season and then reseeding with a dryland pasture mix (DPM) next fall, 2016.
  2. Consider seeding with DPM this fall and monitoring weed pressure next spring.

# Conditions for Seeding on Annual Range

- Prior to fire, range had lots of bare ground
  - Consider seeding with DPM this fall and monitoring weed pressure next spring.
- Prior to fire, lots of brush with little herbaceous cover
  - Consider seeding with DPM this fall and monitoring weed pressure next spring.

# What is DPM – Dryland Pasture Mix

- Depending on the source it can vary. Many seed companies carry a dryland pasture mix.
  - Annual ryegrass
  - Blando brome
  - Perennial ryegrass
  - Mix of clovers

# How to Seed Annual Range

- In most cases, seed can be broadcast at a rate of 20 lbs/acre.
- This can be done with a variety of broadcast seeders.
- Seed with first few fall rains
- If a major goal is forage production, consider fertilizing at time of seeding. Foothills can be low in nitrogen and phosphorous.

# Weed Control Resources

<http://cecentralsierra.ucanr.edu>

Selected Invasive Weeds of the Central Nevada – A Field Guide

<http://ucanr.org/sites/csnce/files/57609.pdf>

## Contacts

University of California Cooperative Extension – 209-223-6482

Calaveras County Agricultural Department – 209-754-6504 ext. 3

Amador County Agricultural Department – 209-223-6487

USDS Natural Resources Conservation Service – 209-223-6535

