

Bark Beetle Update

San Bernardino & San Jacinto Mtns.

Kevin Turner

CDF Riverside Unit

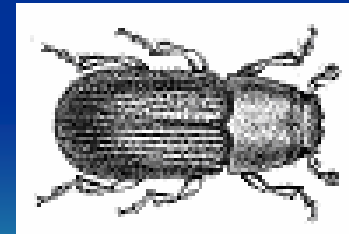
Glenn Barley

CDF San Bernardino Unit



Bring on the Drought

- 3 Years of Drought
 - Current drought began in 1998-99
 - 2000-2001 Began to see increased mortality
 - Driest year ever recorded 2001-2002
 - 2002-2003 Beetle populations explode



Where Are We at Today?

- 2003-04 below average precipitation
 - Significant decline in mortality summer 2004
 - Why?
- 2004-05 well above average precipitation
 - Mortality low until last couple of weeks
 - Large diameter trees being attacked
 - J.P. in San Jacintos succumbing to FHWB
 - RTB early in 2005....most not fatal



What Is Being Done?

- CDF
 - Consultation with NRCS-County on projects
 - Forest Practice oversight on non-fed lands
 - Fuel reduction on transportation corridors, safety zone, demonstration sites
 - Service forestry with private landowners
 - \$11 million Forest Health Enhancement Program
- USFS
 - BDF Fuels budget \$30 million in 2005
 - \$5 million in 2006...salaries, very little project \$
 - Projects completed include road corridors, community fuelbreaks and TSI, safety zones...

- Southern California Edison, SDG&E
 - Ordered by CPUC to remove trees threatening their facilities
 - Removed over 140,000 trees for \$139 million
- Natural Resources Conservation Service
 - Brings \$140 million to southern California (Rep. Lewis)
 - Removing much of the remaining trees on private land
 - Covering cost of removal on state highways and county roads
- Riverside, San Bernardino, San Diego Counties received fuel hazard mitigation grants (SFA, EAP, FEMA, \$20 million total)

An aerial photograph of a mountainous landscape. The foreground and middle ground are covered in dense forest, with some areas showing brownish patches, possibly indicating dead or dying trees. In the background, there are more mountains and a large body of water, likely a lake or reservoir, under a clear blue sky.

It's a Forest Health Problem, NOT a Bark Beetle Problem

- Need to create a forest resilient to disturbance (fire, insect, disease)
- How do you do that?

THIN IS IN!

What is a Healthy Forest?

- A forest that is resilient to disturbance



Aging & Overstocked Forest

- Ideal stocking 40-140 trees/acre
- Western portion of range up to 568 trees/acre
- Eastern portion of range up to 250+ trees/acre



Green Tree Thinning

- CDF/SBNFA Small Parcel Thinning
 - Cost share 75/25 with land owner
 - RPF provides professional management advice
 - Land owner responsible for work, RPF verifies work, SBNFA reimburses costs at completion
- NRCS/County Large Parcel Thinning
 - Large parcels
 - Follows MAST/FAST priority treatment areas



Current/Future Issues

- **Disease Issues**
 - Annosus Root Rot (Borax or not to Borax?)
- **Fuel Loading**
 - Do chips burn?
 - Nutrient balances?
- **Green Tree Thinning**
 - Will thinning increase beetle activity?
 - Brood material
 - Chips with terpenes





Wind Firmness



Snake Oil?

- Acecaps
- Worm Gold
- Organic Shield
- “Tree Rescue Solution” injected
- Tree Life Organic and Biodegradable
- Greengo
- Only Proven Treatments
 - Permethrin (Dragnet, Astro)
 - Carbaryl (Sevin)



ACECAPS

LOTS DONE

LOTS TO DO

