Strategic Approaches to Prevention

Steve Schoenig
CA Dept. of Fish and Wildlife
Why focus on Prevention When the House is already on Fire?

It’s a good question. Here are some considerations:

• You may have a lot of bad weeds, but there are hundreds of other really, really nasty ones out there.

• The state and many county programs to fight noxious weeds have been de-funded recently and the historic safety-net is essentially no longer there.

• As with Early Detection and Rapid Response the cost of prevention measures are vastly cheaper that controlling an established infestation.
Prevention For un-infested areas

- Identify **potential invaders** in your region
  calweedmapper.cal-ipc.org

- Assess **pathways** for entry of new invasive weeds

Vehicles, equipment, animals, footwear, seed, plants, materials-straw, sand, gravel, fill, roads, paths, recreation, ........................
Propagules
Vectors
Site Conditions
Prevention in Containment Projects

**Weed Free Zones and No-spread Lines**

- **PREVENTING** large infestations from spreading to adjacent weed-free areas
- Treating outer edges of heavy zones
- Variety of treatment methods can be used
- Long-term containment strategy can shrink the infestation or protect weed-free zones
Containment of Spread – The Corridor & Outlier Connection
Early Detection and Eradication
When strict prevention fails

- Eliminating every individual plant from the population (eradication vs. extirpation - depends on boundaries)
- Minimum 5 years without any plants up before detection reduction
- Best suited for small-scale populations or outliers
- Requires prevention of weed survival and reproduction through very effective tools and people power. (i.e. you better be able to easily kill the plant and frequently)
1) Whitestem distaff thistle – *Carthamus leucocaulos*.
2) Dudaim melon – *Cucumis melo var. dudaim*
3) Giant dodder – *Cuscuta reflexa*
4) Serrate spurge – *Euphorbia serrata*
5) Russian salttree – *Halimodendron halodendron*
6) Blueweed – *Helianthus ciliaris*
7) Tanglehead – *Heteropogon contortus*
8) Creeping mesquite – *Prosopis strombulifera*
9) Meadowsage – *Salvia virgata*
10) Heartleaf nightshade – *Solanum cardiophyllum*
11) Austrian peaweed – *Sphaerophysa salsula*
12) Wild marigold – *Tagetes minuta*
13) Syrian beancaper – *Zygophyllum fabago*
14) Perennial sowthistle - *Sonchus arvensis*
Effective Adoption of Prevention Strategies in your Site or Program

Working Together Against Weeds
(Christy Brigham, Sylvia Hautain, Jay Goldsmith NPS)

2009 Workshops

• Workshop goals
• Workshop format
  – One day workshop
  – introductory power points
  – scenarios and discussions
  – Small working groups focused on specific operations
  – Next steps and recommendations
  – Report to management
Cal-IPC Training Manuals

Preventing the Spread of Invasive Plants:

Best Management Practices for Land Managers
3rd Edition
California Invasive Plant Council

Preventing the Spread of Invasive Plants:

Best Management Practices for Transportation and Utility Corridors
California Invasive Plant Council
Cal-IPC produced a 42-minute training video based on our Best Management Practices manuals, covering movement, disturbance, planning and awareness for land managers and utility/transportation corridor managers.
Certified Weed Free Forage and Straw Resources
Weed-Free Aggregate Resources

Amazing 14-page online manual on getting a contract for weed-free gravel.
Don’t Plant a Pest

Cal-IPC has led the charge on Don’t Plant a Pest
SPRAWLING
Invasive plants damage California’s landscapes, and increase fire danger and flooding
How you can help

Which plants are invasive in your area of California?
Find out here

California Retail Nurseries: Join us today!

Get the facts on invasive plants
Continuing Education
Impacts | Research | Spread the word

Or, find a PlantRight Partner near you
Cal-IPC Offered an awesome class!

Preventing the Introduction and Spread of Invasive Weeds Workshop

**Opening Remarks and Introduction**
- Wendy West, University of California Cooperative Extension (3 mins.)

**What is the Issue? Invasive Plant Biology and Vectors of Spread**
- Sue Donaldson, University of Nevada Cooperative Extension (27 mins.)

**Controlling Invasive Weeds through an Aggregate Quarry Inspection Program**
- Garrett Dickman, Yosemite National Park (30 mins.)

**Weed Control, Mine Reclamation, and the Surface Mining and Reclamation Act**
- Leah Gardner, Office of Mine Reclamation, CA Dept. of Conservation (16 mins.)

**USFS Lake Tahoe Basin Management Unit Aggregate Inspection Program**
- Rena Escobedo, LTBMU, US Forest Service (18 mins.)

**Best Management Practices for Work in Utility & Transportation Corridors**
- Wendy West, University of California Cooperative Extension (19 mins.)

**Stop the Spread of YST into the Sierra Nevada Mountains Project**
- Wendy West, University of California Cooperative Extension (34 mins.)
Invasive Plant Management: Prevention

The most effective, economical, and ecologically sound approach to managing invasive plants is to prevent them from invading in the first place. Land managers often concentrate on fighting well-established infestations, at which point management is expensive and eradication is unlikely. Infestations must be managed to limit the spread of invasive plants, but weed management that controls existing infestations while focusing on prevention and early detection of new invasions can be far more cost-effective.

Invasive plant prevention depends on:

- Limiting the introduction of invasive plant seeds
- Early detection and eradication of small patches of invasive plants
- Minimizing the disturbance of desirable plants along trails, roads, and waterways
- Maintaining desired plant communities through good management
- Monitoring high-risk areas such as transportation corridors and bare ground
- Revegetating disturbed sites with desired plants
- Evaluating the effectiveness of prevention efforts and adapting plans for the following year.

Websites
California Invasive Plant Council: Prevention
Don't Move Firewood
Prevention Training Videos
Weed Prevention Areas: Protecting Montana from Invasive Weeds
Weed Prevention and Management Guidelines for Public Lands

Articles and Publications
Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers
California Invasive Plant Council | 2012

Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors
California Invasive Plant Council | 2012

Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species
USDA Bureau of Reclamation | 2012

www.weedcenter.org/management/prevention.html