

A small yellow flower with a green stem and leaves is positioned in the top-left corner of the slide.

An ounce of prevention...

Protecting Your Lands from Plant
Invasion

Brent Johnson

Pinnacles National Park





Invasive Management Program

- # Early detection
 - # Prevention
 - # Control
 - # Other items
 - Monitoring
 - Prioritization
 - Research
 - Outreach and education
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Invasive Program Components

- # Early detection
 - # Prevention
 - # **CONTROL**
 - # Other items
 - Monitoring
 - Prioritization
 - Research
 - Outreach and education
-

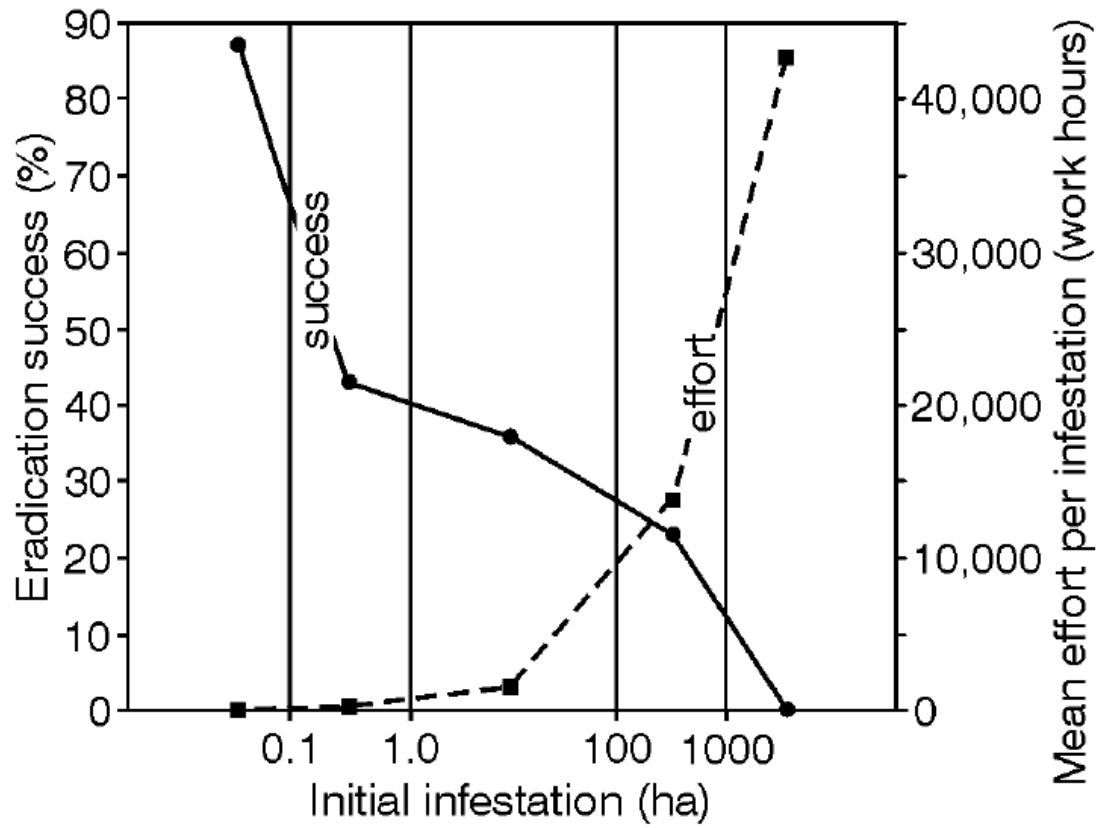


Invasive Plant Control

- # expensive
 - # greater secondary impacts – herbicide, ground dist.
 - # results may vary
-



Success of Control



Rejmánek and Pitcairn 2002



Invasive Program Components

- # Early detection
 - # **PREVENTION**
 - # Control
 - # Other items
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-



How did that get here??

Accidental

- fill material – soil, gravel
- hay, straw
- contaminated seed (YST)
- Animals
- Vehicles, equipment, shoes
- Water (i.e. streams)
- Air/wind







How did that get here??

Intentional

- # ornamentals / horticulture
- # forage seed
- # erosion control





Invasive plant spread

mechanism of spread

- seeds
- other propagule source (e.g. white top from root fragments)

hospitable conditions

- bare soil
- moisture
- light
- nutrients





Prevention tools: Fill Material

- # know your fill material
- # inspect sources of fill
- # keep staging areas and borrow pits weed free
- # 'sterile' straw (e.g. rice)









Prevention tools: Equipment

- # Use clean equipment
 - from off-site
 - site to site – especially when you are going from a known infested site to a uninfested site





LOAD

MURRAY TRAILERS

WANTED
CASH ON DELIVERY



Prevention tools: Weed Free Feed

- # certified weed free feed
 - # inspect fields – tough to figure it out from bales
 - # work with growers
 - # If you are a grower, think about becoming certified weed-free
 - # Talk to county ag-commissioner
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Prevention tools: Don't plant a pest

Know what you are planting

- Ask specialists (Nurseries, Ag-commissioner, BLM, NPS, etc.).
 - Seed mix can be called 'wildflowers', but can include invasives.
 - There are always alternatives
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Invasive Program Components

EARLY DETECTION

Prevention

Control

Other items

- Monitoring
 - Prioritization
 - Research
 - Outreach and education
-



Early Detection

- # find plants before they become a problem
 - # back-up to prevention
 - # cost-effective – less impact
 - # more likely to successfully eradicate
 - # must know how to ID the plants
 - get a list and learn it
 - have your staff trained to ID critical plants
 - get help
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Questions?

