Determining Acres Protected

A need for managers of noxious weeds

Travis Ziehl
Assistant Supervisor – Invasive Species Program
Teton County Weed & Pest District
Teton County, WY

Photo: Amy Collett
• New Resource Manager at the Bridger Teton National Forest
• Why fund us when we treat so few acres?
• Different measurements of success – acres treated vs. acres protected

The Problem...
INVASIVE IMPACTS ON ECOSYSTEMS
Invasions over time & biological potential

Biological potential

Time
Ecosystem State Transition

Level of invasion and biological potential
WHAT DO WE HAVE TO PROTECT ACRES?
• Dr. Steven Dewey (1995) – USU, managing weeds like a biological wildfire.

• The Nature Conservancy (2011) - Cost and Benefits of Alternative Weed Management Strategies on a Landscape Scale.

Fundamental Strategies

Early Detection

Rapid Response

• New invaders
• Incipient populations
Invasions over time & biological potential

Control Costs

Acres Infested

EDRR

Time & Biological Potential
Prevention

• Cheapest weeds to control...

• Education

• Regulation

Credit: My nephew Jack
• **Multiple disciplines**
• Modeling invasions and susceptibility
• Rate of spread
• Economic and ecological impacts
• Economics
  • Inputs
  • Value to prevention
  • Value to intact
  • Value of invaded areas
• Prioritization of areas to protect

How do we start to determine acres protected?
• The strategies work.
• We can measure acres treated but, that doesn’t always equal success.
• We need to be able to measure that the effort of EDRR and prevention is valuable.

Photo: Steven Dewey
Ecosystem State Transition

Level of invasion and biological potential
Thanks & ?’s