



# Land Management and its Relationship to Weed Management

# A long long time ago...

- Everything was native
- Grazing was done by large moving herds of native herbivores
- No fences
- No development
- No plants from Europe/Asia/Africa/Australia

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# A long time ago



- ▶ European settlement
- ▶ Import of crops/beloved plants from home/unintentional plants from home
- ▶ Development of farm ground
- ▶ Human-managed livestock and grazing begins

# Today

- ▶ A patchwork of land management styles
- ▶ A variety of problematic plants
- ▶ Beaten land
- ▶ Imbalance of resources, animals, plants, and soil.






## Sidetrack about Bindweed

- ▶ First mentioned by a Greek medical herbalist in the 100's (yes, at least 1922 years ago), bindweed has been affecting human agriculture for centuries.
- ▶ Bindweed seeds most likely arrived in the U.S. as contaminant in farm and garden seeds. Also known as, "wild morning glory" it has been planted ornamentally as groundcover or in hanging baskets, an Oregon settler even tried to use the weed as a cover crop in his orchard.
- ▶ The weed was first noted in Virginia in 1739 and by the 1880's most of the states west of the Mississippi river were infested.
- ▶ Construction of the railroads and travel from the East to the West likely contributed to the spread, however, a larger catalyst was the import of seed every time immigrants settled in a new area.

A photograph showing a small, green, feathery-leaved plant growing out of a pile of smooth, light-colored rocks. The rocks are of various sizes and shades of tan, brown, and grey. The plant is the central focus, growing from a crevice between the rocks.

## How does this impact weed control?

- ▶ Requires methods not previously needed because we are fighting problems that “shouldn’t” be present
- ▶ Even perfect maintenance can suddenly have an invasion



# Land management to help with weed control



Keep it  
Covered



Manage  
Change



Reduce  
Spread



Manage  
Livestock

# Keep it covered!

- All plants need a space to start, reducing bare ground with good plants helps keep weeds from become established
- In a field in this condition, new plants would be struggling to get enough space and light to establish.







## Respond to Changes

- Any major changes can harm existing plants.
- Sudden dry-ups can reduce or kill existing plants making space for more drought hardy weeds
- Pooling water can kill existing plants and more flexible weeds came move in
- Construction disturbs soil surface, can bring weed seeds up from underground


# Reduce spread

- ▶ Weeds travel in many ways, some we can control, some we cannot.
- ▶ Consider how new plants may get to your property:
  - ▶ Hay
  - ▶ Vehicles
  - ▶ Clothing
  - ▶ Pets
  - ▶ Wildlife?





# Manage livestock

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- ▶ One of the most common ways to go from good to bad is to over-graze.
  - ▶ No only does over grazing reduce good, but it helps the bad.
  - ▶ One animal confined to a large enough space for a long period will result in the increase of the plants it likes eating the least.
  - ▶ Animals contained to too small of an area for too long results in over grazing and trampling.

# Constant problems requires constant vigilance

- ▶ Believing you won't have a weed problem in the future because you don't have one now is foolish.
- ▶ Even all these years after colonization new weeds are still happening. Elongated mustard.
- ▶ Droughts, heavy rains, erosion and other events create space for weeds.
- ▶ If you have a "weed free" property, always be on the lookout and ready to stop an invasion early on.



# Thank you! Any Questions?

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