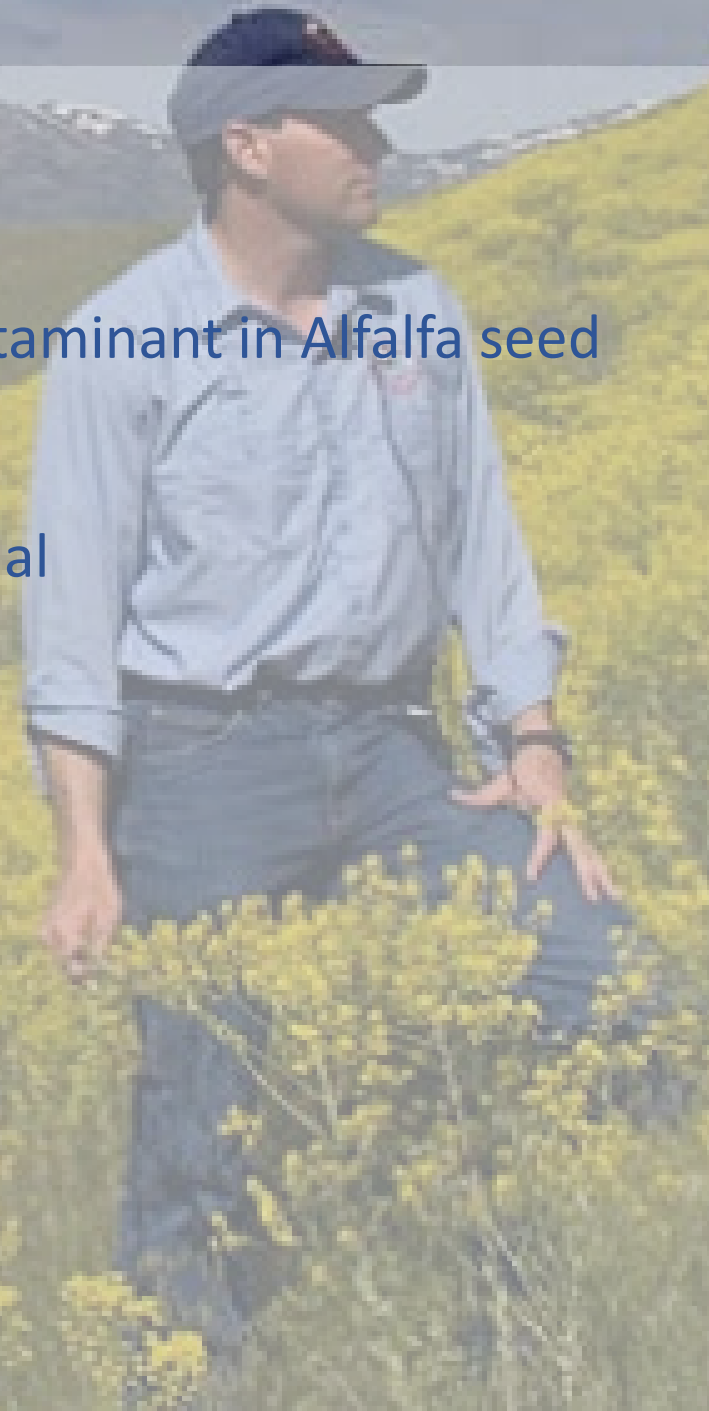




Dyer's woad
(*Isatis tinctoria*)

- Native to Southeast Russia
- Widely cultivated in England as a source of blue dye
- Used in traditional Chinese medicine as a medicinal herb
- Introduced to the United States in the early 1900s as a contaminant in Alfalfa seed
- Spread throughout the West
 - highly adaptable to alkaline soils and arid climate
- Grows as a winter annual, biennial, or a short-lived perennial
- Has been found at elevations as high as 8000 feet
- Establishes along roadways, gravel pits, and railroads
 - once established easily invades rangelands, forests, crops
- Has an accelerated growth rate
 - Up to 10 cm or 4 inches in one week
 - Rosette to seed in as little as 2 weeks
- Deep tap roots
 - highly competitive and able to dominate plant communities
- Prolific seed producer
 - average approx. 400, but can be up to 10,000 seeds per plant



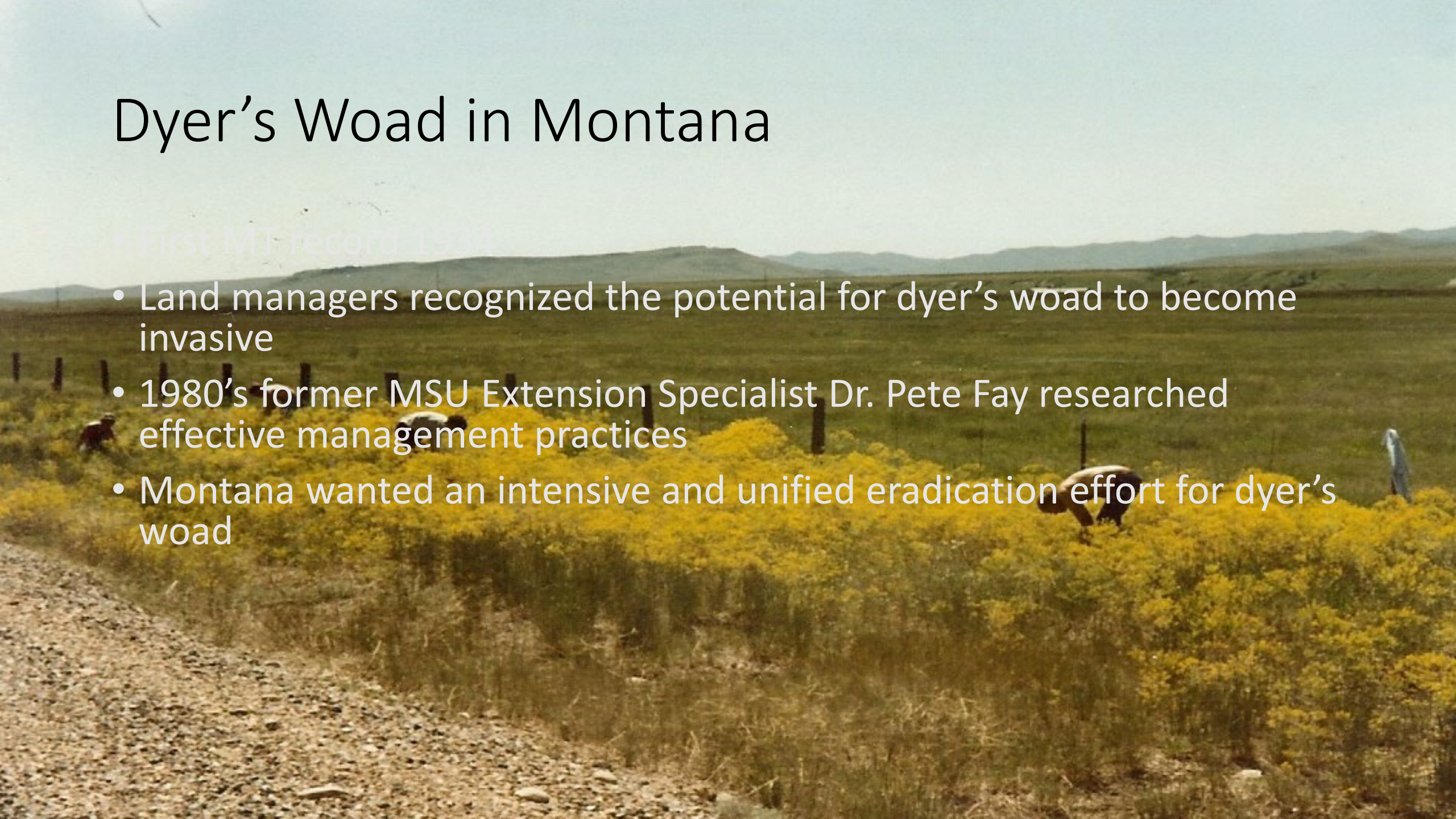
Status as a Noxious Weed in Montana

- Dyers woad is a designated Priority 1A Noxious Weed
- From [2019 Montana Noxious Weed list](#), along with yellow star thistle, common reed and medusahead:

'These weeds are not present or have a very limited presence in Montana. Management criteria will require eradication if detected, education, and prevention'

Dyer's Woad in Montana

- First MT record 1934
- Land managers recognized the potential for dyer's woad to become invasive
- 1980's former MSU Extension Specialist Dr. Pete Fay researched effective management practices
- Montana wanted an intensive and unified eradication effort for dyer's woad



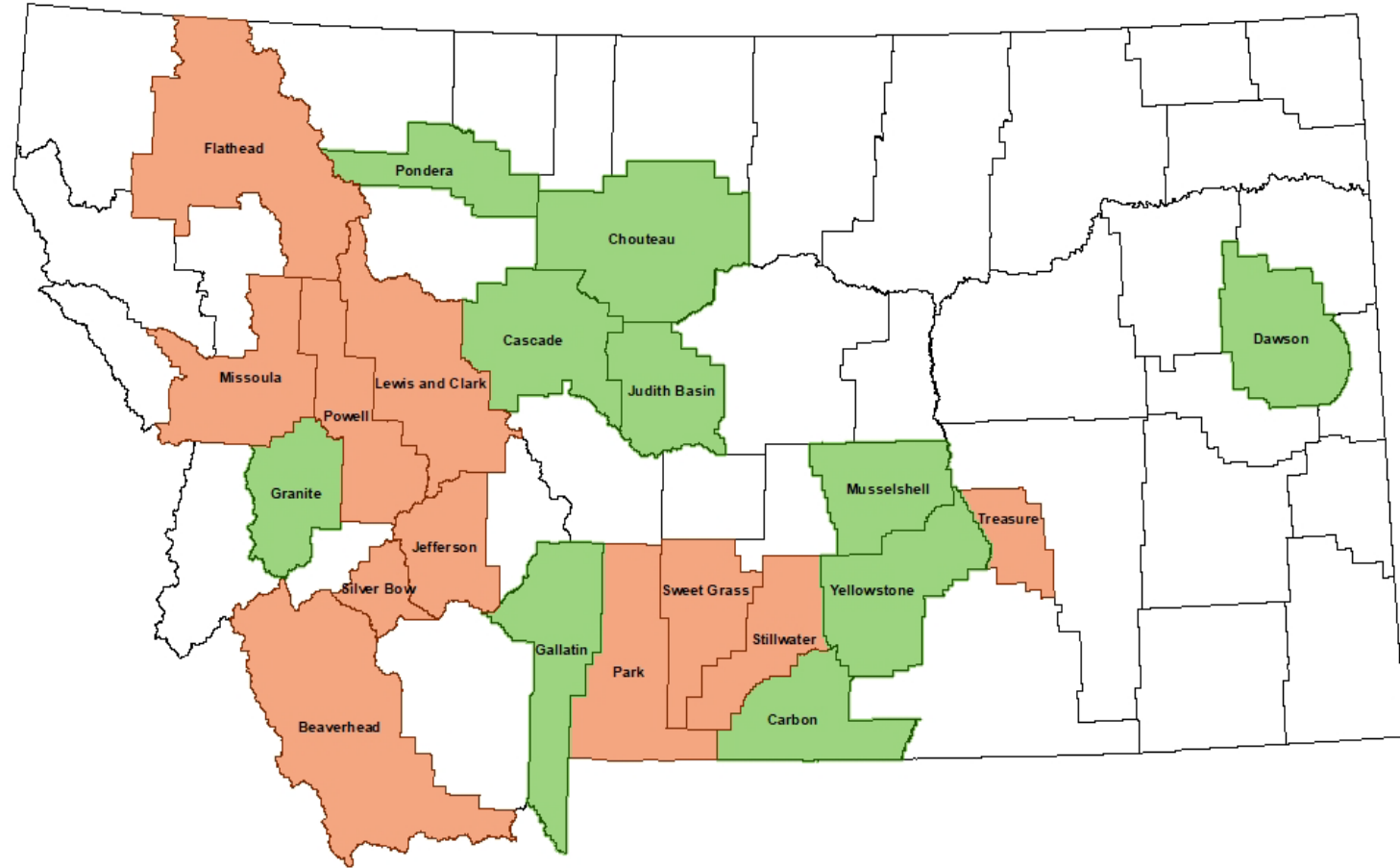
Montana Dyer's Woad Cooperative Project

- First established in 1984
- Governed by the Montana Dyer's Woad Task Force
 - Provides line of communication
 - Sets a statewide goal and management plan
- Funding from
 - Montana Noxious Weed Trust Fund
 - Matching funds
 - Counties and University of Montana



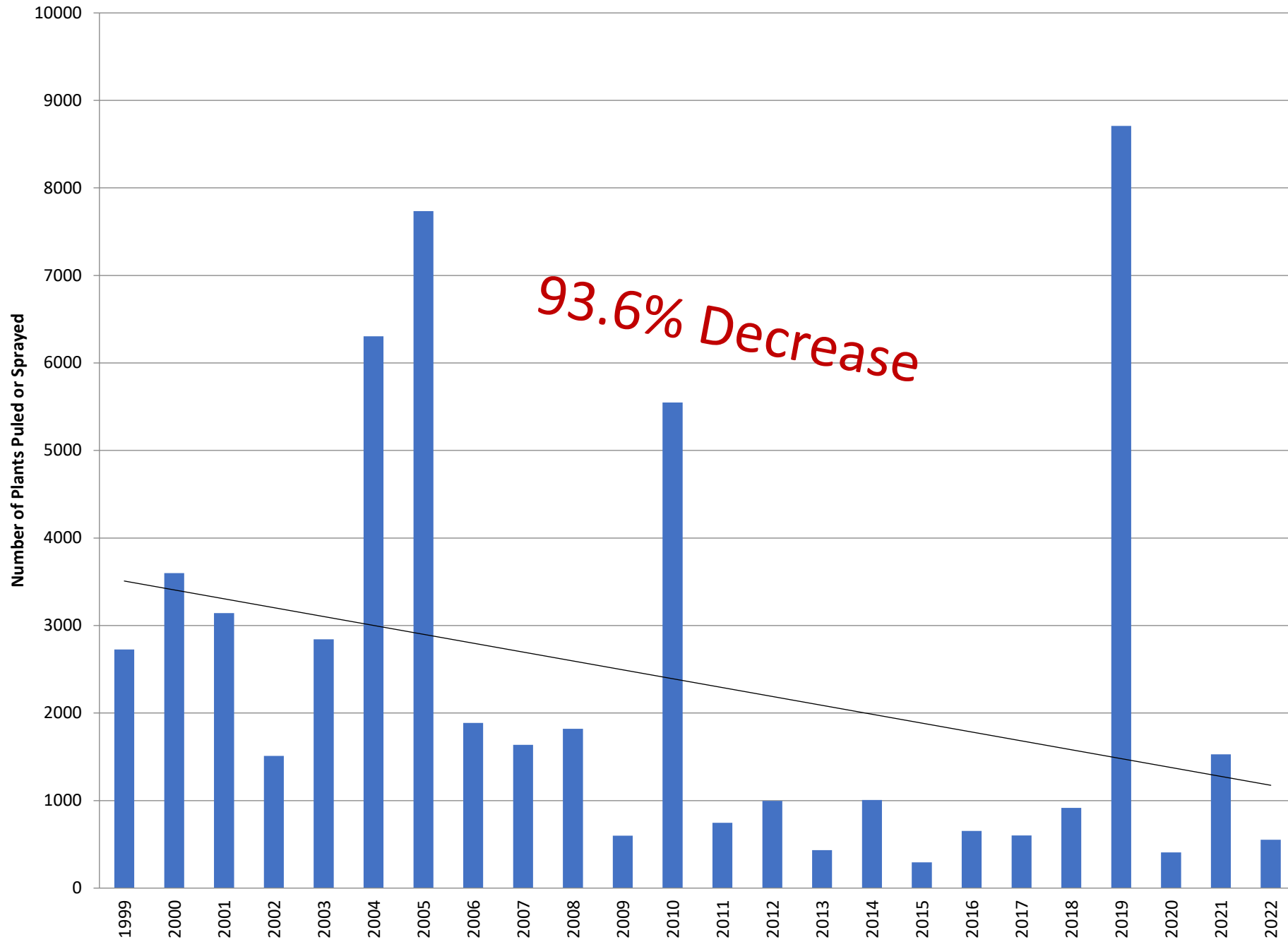
Project Objectives

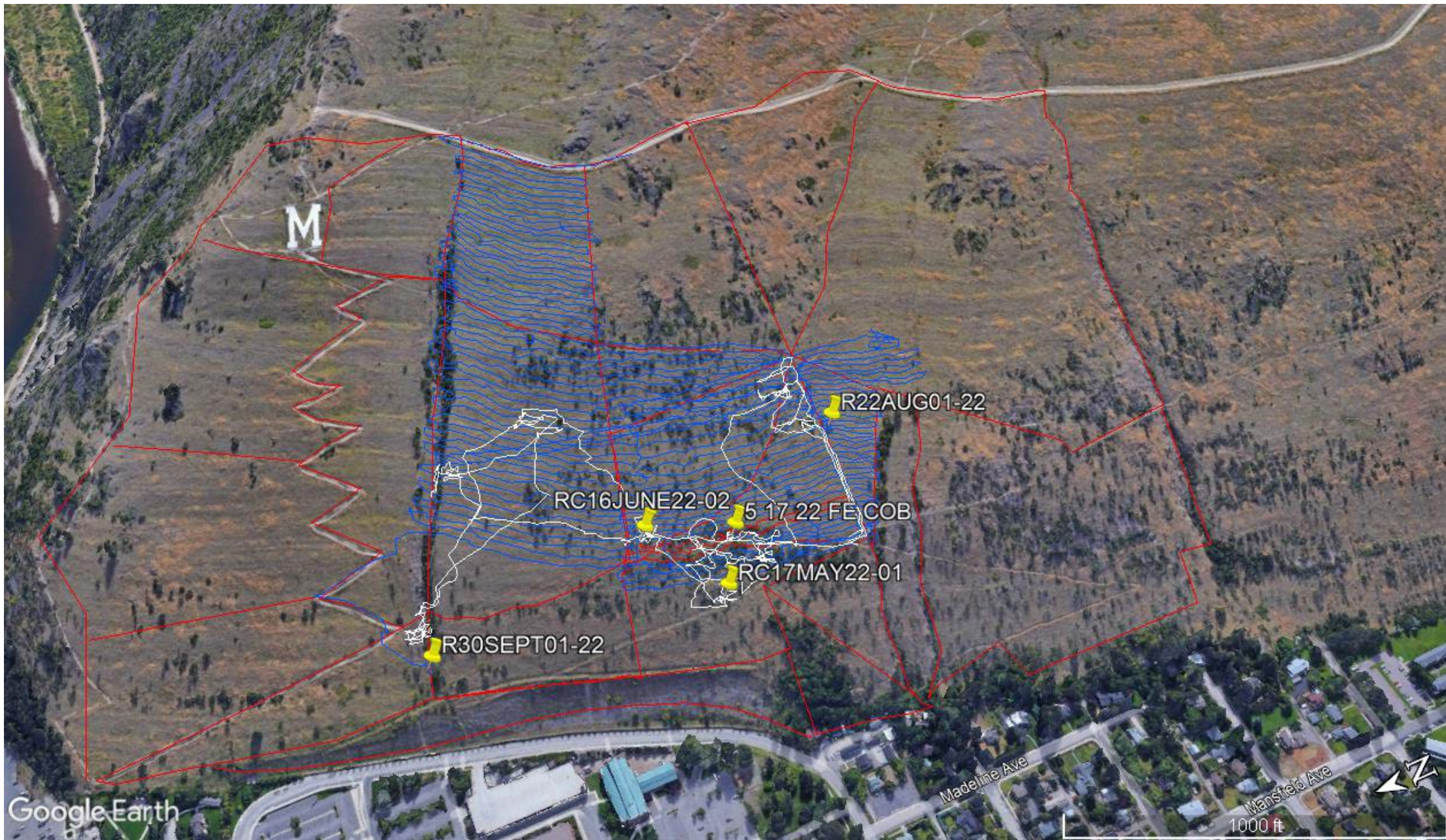
- Prevent Dyer's Woad from Spreading
 - Early Detection & Rapid Response
 - Managing & Monitoring Infestations
 - Education



Eradication of Dyer's woad from the State of Montana!

Montana





Google Earth

Madeline Ave

Manfield Ave

1000 ft



Seeding



Rosettes

Note: woads encountered at the various survey locations can look VERY different, depending on drainage, microclimate etc!

