

United States Department of Agriculture

"Proactively managing invasive annual grasses through the Sage Grouse Initiative



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Sage Grouse Initiative

"Wildlife conservation through sustainable ranching"



1. Remove habitat-fragmenting threats to grouse while improving ranch sustainability

Implement enough of the right conservation in the right places to benefit populations

- 3. Assess effectiveness, quantify benefits and adapt program delivery
- 4. Cooperatively work with landowners and partners in delivery







"Defend the Core"





Invasive annuals are on the move



Since 1990: 8-fold increase in annual grass dominance at rate of over half a million acres per year

"Invasive Annual Grasses And Fire In The Great Basin: New Insights From Remote Sensing" - Joe Smith, SRM "Exotic Annual Grasses Session"

How quickly is annual grass cover increasing on BLM lands in the West?



"Long-term trends in vegetation on Bureau of Land Management rangelands in the western U.S." Andy Kleinhesselink – SRM "Plant Ecology Session"

Kleinhesselink et al. 2023

Where do we usually work? Where should we work?



- Density/cover of invasive species +



Which landscape is annual grass control more likely to be more effective in?

Are we rearranging furniture in a house that's burning down?





Technology Breakthrough



The Cheatgrass Challenge

A proactive strategy for halting conversion of sagebrush rangelands to annual grasslands





"Defend the core, grow the core, mitigate impacts"



Credit: USDA-NRCS Working Lands for Wildlife

Flipping the script

Defend the core ----- Grow the core ----- Mitigate impacts

- **1. Defend the Core:** Defend intact rangeland cores from annual grass conversion through early detection and rapid response to eradicate invasions. Maintain healthy native plant communities to bolster defenses.
- 2. Grow the Core: Grow rangeland cores over time through aggressive management and restoration of invaded lands.
- **3.** *Mitigate Impacts:* Help communities cope with the most severe effects of invasions on life and property by mitigating impacts of the cheatgrass-fire cycle.



Cores can be defined at multiple scales

Biome – Region – State



County – District – Watershed





Allotment – Pasture



Identify cores to anchor conservation efforts!

Right actions, right place, right time



Early Detection Rapid Response (EDRR)

Core

Keep weed seeds out

Eradicate early infestations

Seedbank depletion

Aggressive restoration

Manage vectors of spread

Post-fire rehabilitation

Promote perennial plant health and vigor

Fine fuels reduction (e.g., targeted grazing, fuel breaks)



Idaho's Cheatgrass Challenge Strategy

Regions for Invasive Grass Management:

- 1. Core
- 2. Annual Grass Region
- 3. Transition Zone







This is a Plant Ecology Problem

We all need to work together to address the invasion process

Seedling

Mature Plant **WITH** Seed

Maestas et al. 2022 https://doi.org/10.1016/j.rala.2021.12.008

"Defend the Core" in Action







A Toolkit for Invasive Annual Grass Management in the West

JULY 2020





Prepared in cooperation with the Western Association of Fish and Wildlife Agencies and the U.S. Fish and Wildlife Service

A Sagebrush Conservation Design to Proactively Restore America's Sagebrush Biome



USDA United States Department of Astriculture

Open-File Report 2022–1081



A FRAMEWORK FOR CONSERVATION ACTION

2021-2025