

The Great Plains Lost 11.9 Million Tons of Rangeland Production to Woody Encroachment in 2022

Rangelands are the economic and cultural backbone of the Great Plains. Healthy, resilient rangelands power rural communities, host diverse wildlife, support recreation, and provide critical services like water and carbon storage.

Grazing is the common thread that sustains these rangelands for people and wildlife. In 2022, rangelands in the 10-state Great Plains region produced 236.1 million tons of forage.

Today, woody encroachment is one of the greatest threats facing rangelands in the Great Plains. Invading trees

outcompete and displace grasses and forbs, reducing rangeland production by up to 75 percent. Scattered woody plants may look harmless, but their expansion in rangelands results in major consequences to livestock production and wildlife. When we lose healthy rangelands, we lose the cultural, economic, and life-sustaining resources they provide.

According to scientists working alongside the NRCS's Working Lands for Wildlife efforts, every state in the Great Plains lost rangeland production due to woody encroachment in 2022 – a loss of 11.9 million tons.



RANGELAND PRODUCTION LOST TO TREES EQUATES TO:

- \$175+ million in lost forage¹
- 19.9 million round bales² – enough to circle $\frac{3}{4}$ of the globe!
- Yearly forage need of 2.5 million cows³

1. Calculation is based on cash rental rates

2. Calculation is based on a 1,200-lb round bale

3. Calculation is based on 790-lb of forage per AUM for a 12-month period

Production losses are derived from a 1990 baseline and are the result of increasing woody cover in 2022 versus 1990. Natural events, like drought, also impact forage production. For example, during drought years, there is less forage overall, so production losses due to woody encroachment tend to be smaller.

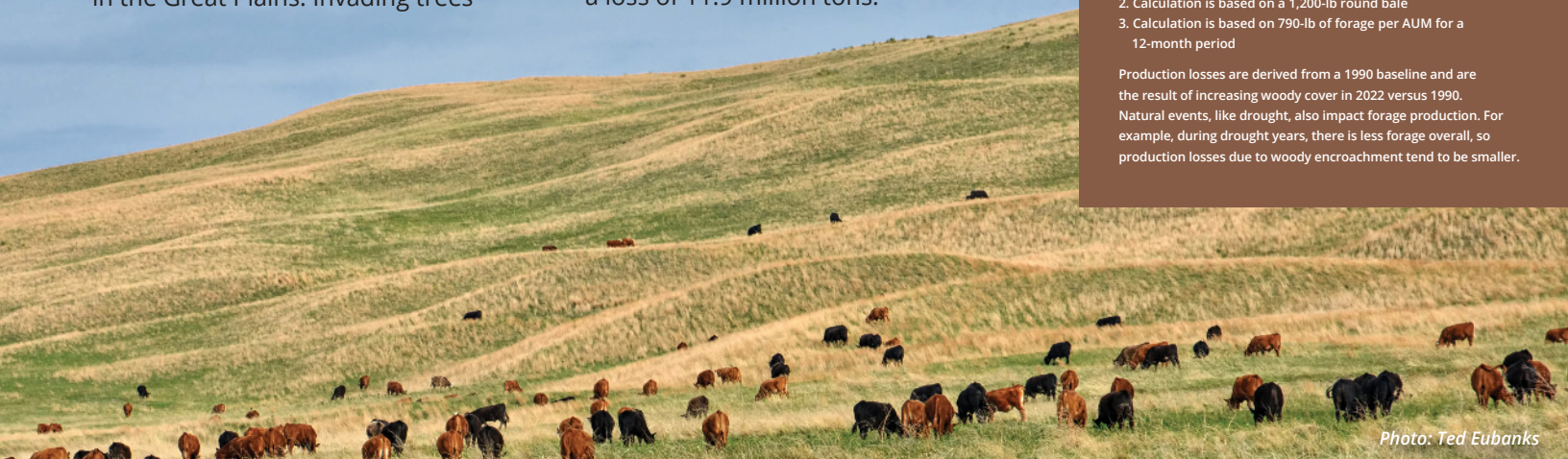


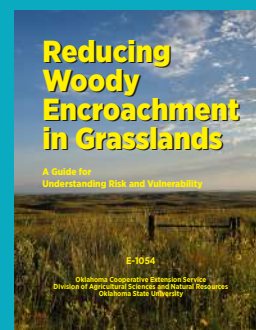
Photo: Ted Eubanks

NEW GUIDANCE FOR REVERSING AND PREVENTING WOODY ENCROACHMENT

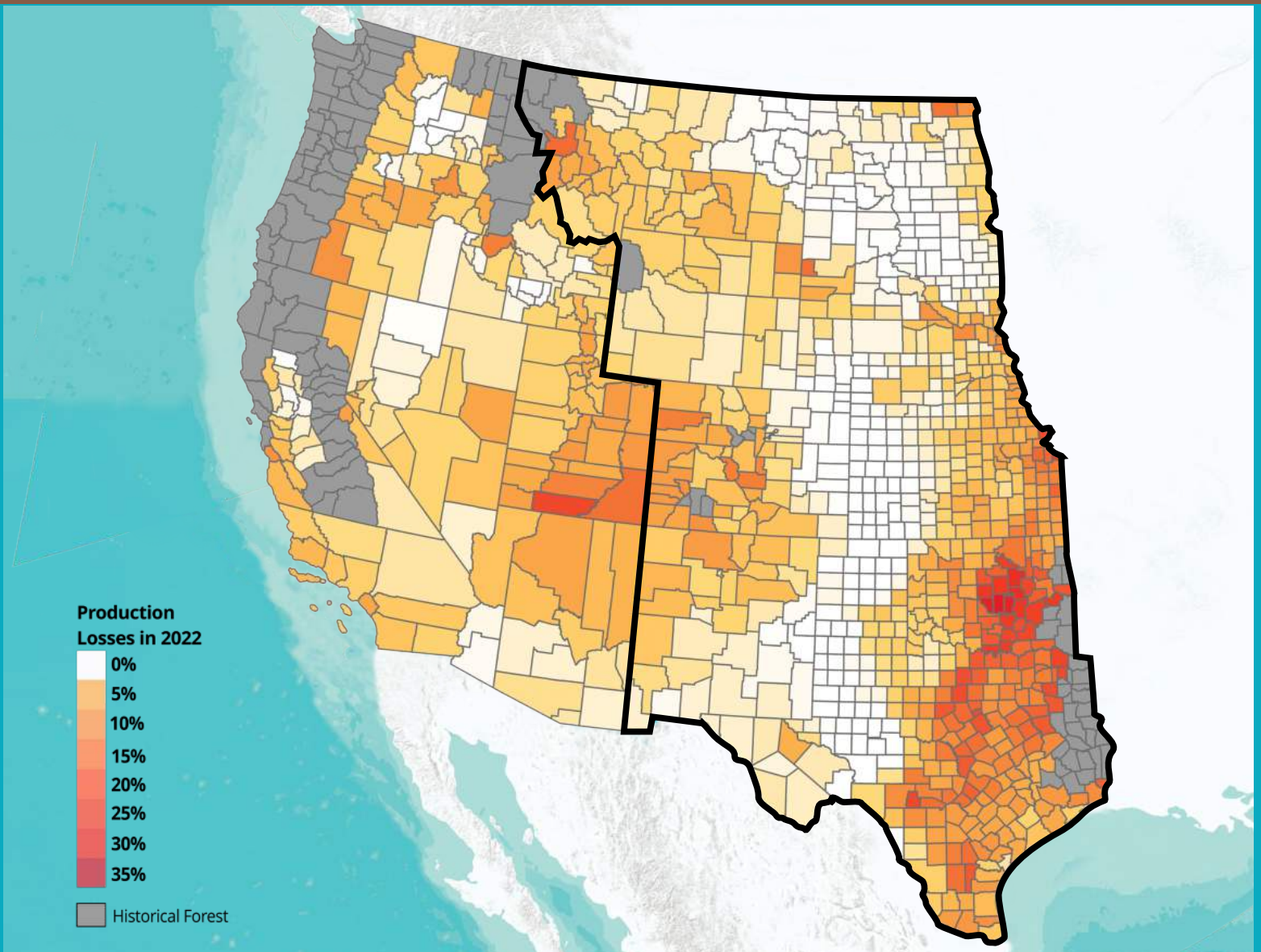
Reacting to woody encroachment after trees have taken over makes it impossible to avoid rangeland production losses, perpetuating the problem as trees simply keep expanding into formerly treeless grasslands.

New guidance, developed as a collaborative effort among rangeland scientists in the Great Plains, outlines a more cost-efficient and proactive strategy to keep rangelands productive and reverse losses due to woody encroachment.

Learn more at: <https://www.wlfw.org/great-plains/woodland-expansion/>



Rangeland Production Losses



CONSEQUENCES OF ENCROACHMENT IN THE GREAT PLAINS

- Loss of productive grazing lands
- Decreased stocking rates
- Reduced water supplies
- Increased wildfire risk
- Increase human allergen potential
- Collapses in grassland biodiversity
- Increased risk of plant and animal species becoming threatened or endangered

Go to www.wlfw.org/yieldgap to learn more about forage production losses in your state or county.

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