USDA United States Department of Agriculture
Natural Resources Conservation Service

ECONOMICS OF LOW DENSITY JUNIPER CONTROL IN EASTERN OREGON

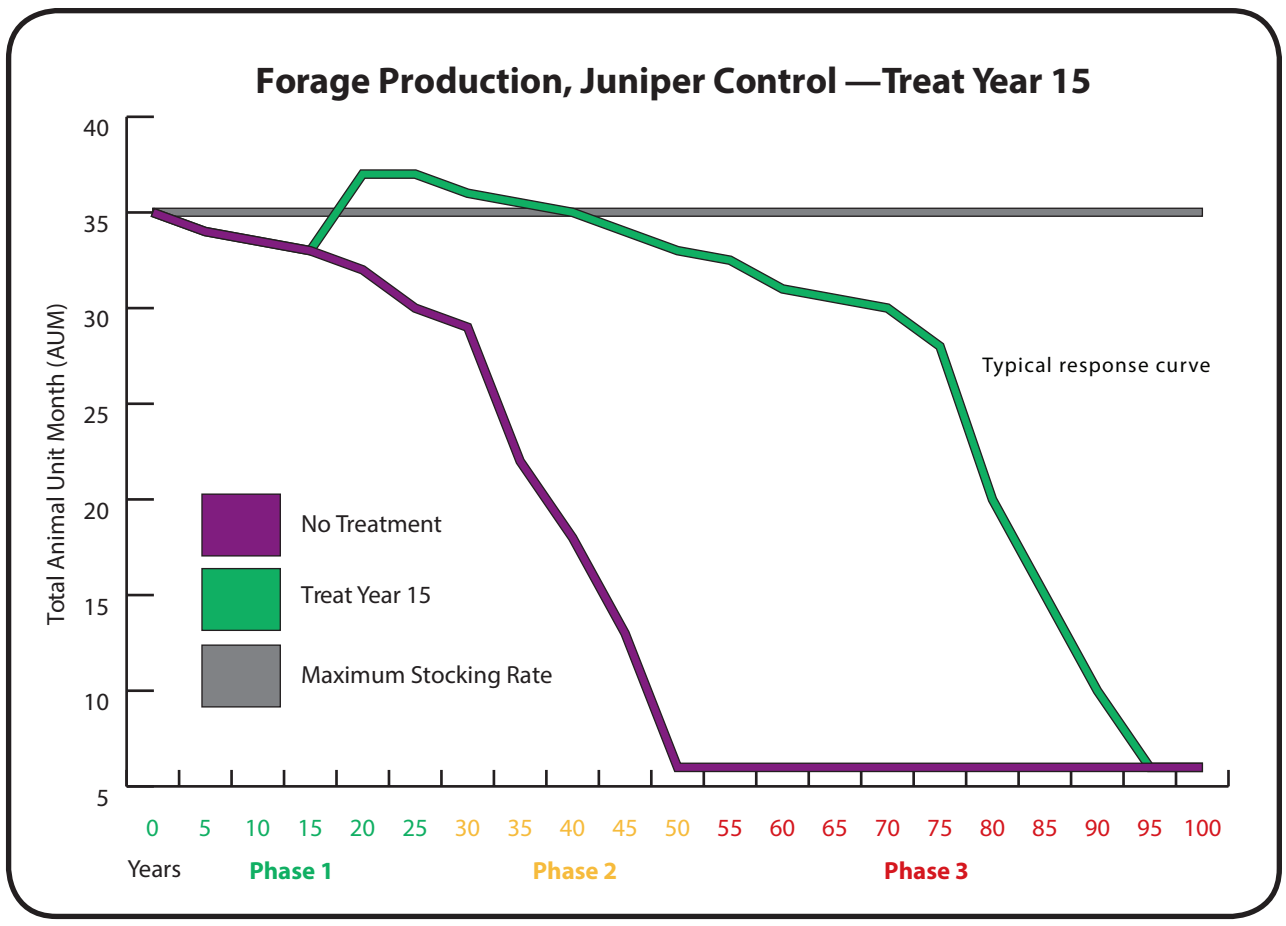
Single Treatment, 15 years after juniper establishment

- **Total Treatment Cost ($/acre): $40**
- **Evaluation Period: 75 years**
- **Increased Carrying Capacity (average AUMs/acre/year): 0.125**
- **Cost per AUM ($/AUM): $24**
- **Annual Net Benefits ($/acre/year): $0.97**

Phase I Juniper:
Juniper trees are present on-site but are a very minor component. Desirable deep-rooted perennial bunchgrass, forbs and shrubs dominate the site.

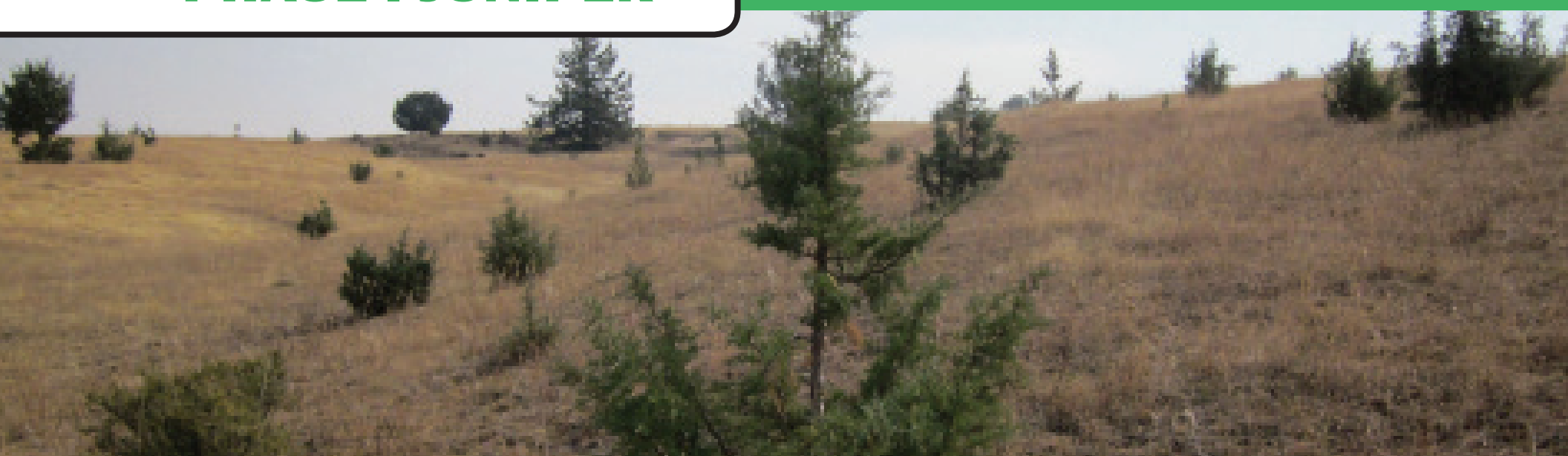
Treat During Year 15:

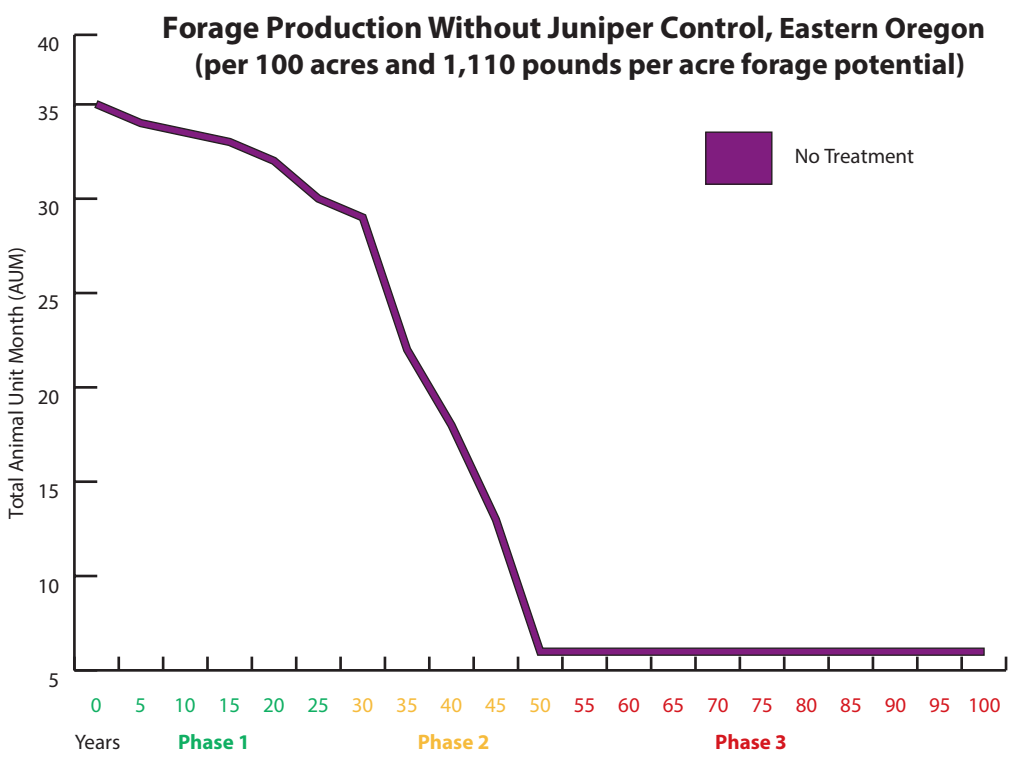
- Remove encroaching juniper and prevent juniper re-establishment
- Burn or hand-cut juniper
- Forage production will remain at or near site potential
- Net forage benefits are about $.97 per acre/year



Graph: On JD Clayey ecosite per 100 acre and 1,100 pound/acre forage potential "Year 0" represents juniper establishment.

PHASE I JUNIPER





Not Treating Juniper

Evaluation Period: 75 Years

Decreased Carrying Capacity (Avg. AUMs/Ac/Yr): -0.17

Annual Net Lost Benefits ($/Ac/Yr): -$2.27

Recommendations (Phase I): The optimal treatment period for juniper control to maximize forage production, based on the scenario described, occurs during Phase I before entering Phase II. Typically, it will take a relatively juniper-free range site about 30 years to enter Phase II. Note: Juniper treatment costs, forage response, timelines and actual numbers will vary with specific site conditions.

Phase I Treatment Benefits:

- Maintain forage quality and quantity
- Improve or maintain soil health
- Maintain water infiltration
- Enhance real estate values and the scenic viewshed
- Maintain or improve wildlife habitat for a variety of species

Phase I Treatment Risks:

- Short term costs of treatment
- Labor and time commitment
- Fire treatment and liability