

Native Warm Season Grasses & Fire - Benefits

1. Fire can kill annual and biennial weeds, especially winter annuals.
2. Fire can completely kill eastern red cedars or top-kill brush.
3. Fire can recycle nutrients to act as fertilizer.
4. Fire can improve palatability of plants.
5. Fire can manipulate where cattle prefer to graze.
6. Fire can remove excessive thatch.
7. Fire can increase yields and prolong the growing season.
8. Fire can improve forage protein content.
9. Fire increases plant growth by mass and volume.
10. Fire can suppress weeds after the burn.
11. Fire doesn't decrease carbon or nitrogen in the soil.
12. Fire creates bio-char. Watch our video: <https://youtu.be/n5m19QpVEJQ>
13. Fire does NOT reduce mycorrhizal fungus colonization rates.
14. Fire helps create quail and wildlife habitat. Watch our video: <https://youtu.be/JHFEnFce-Sc>

Downsides to Fire

1. **Escaped Fire.** To lessen this risk:
 - a. Pay up your fire dues and see if a local fire department would like a training opportunity.
 - b. Hire a contractor.
 - c. Burn during manageable conditions, for example burn during high humidity, low wind speed, predictable wind direction and when neighboring fields are not volatile.

Types of Burns – Choose a type of burn based on management goals

1. **Backfire** – A fire that backs into the prevailing wind, it burns slow and hot.
2. **Forward Fire** – A fire that goes with the prevailing wind, it burns fast and is cooler on the soil and less intense on brush.
3. **Snow or Wet Fire** – A fire done when snow is on the ground or the thatch is wet, it is easier to control and doesn't completely burn the thatch on the ground.

When Should I Burn -

1. **Dormant season** (first frost of fall till the first plants green up in spring.)
Pros: Best time for diverse native plantings that include Native Cool Season Grasses & Forbs.
Cons: Soil bare for a longer period. Can encourage invading cool season plants.
2. **Early spring** (Up to when the NWSG shoots are 3-4 inches tall.)
Pros: Best timing for NWSG only plantings, shorter period of bare soil, more likely to kill winter annual weeds and discourage invading cool season plants.
Cons: Can hurt some Native Cool Season Grasses & Forbs that are actively growing.
3. **Late Summer Burns** (Late August to September.)
Pros: Used mostly to control brush because root reserves are low at this time, and it can benefit Native Cool Season Grasses and some Forbs and Legumes.
Cons: Burning at this time of year can set back the NWSG and encourage invasion by non-native cool season competitors.