

What is a Prescribed Fire and Why Do I Want One?

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Historical Context

- Midwest tallgrass prairies are a type of ecosystem/biome that predominately covered central parts of the United States.
- The tallgrass prairies are native to Northern America and contained a large diversity of plant species.
- Fire, both naturally occurring and Native American induced, occurred throughout the region for thousands of year.
- Consequently, many prairie and woodland species became adapted to (if not wholly dependent upon) the regular disturbance that fires presented.¹
- Historically, most prairies burned on a 2-3 year rotation. Woodlands likely burned on a 3-5 year rotation. Good fire management plans emulate these fire return intervals.

Prescribed Fires

- This is a common procedure that is used in restoration projects or land management when trying to control invasive plants or encourage a healthy ecosystem.
- A prescribed burn is when a group of individuals work together to set fire to a specific section of a prairie or woodland in a controlled and manageable fashion.
- The technique is to use rivers, trails, tree lines and fire suppression equipment (such as water pumps) to keep the fire contained to a desired area.
- This is a process that generally takes a lot of effort to plan, coordinate, and execute safely.
- Heat and smoke inhalation can pose serious risks to the well-being of the prescribed fire crew, so protective clothing and safety gear should always be worn.
- Prescribed burns are also mainly performed in cooler months to limit erratic fire behavior.²

Ecological Benefits to Prescribed Burns

- There are many benefits to a prescribed burn, such as weed control, promotion of native plants, and recycling of nutrients.

¹ National Park Service. "A Complex Prairie Ecosystem." *Tallgrass Prairie*. N.p., n.d. Web. 23 July 2016. <https://www.nps.gov/tapr/learn/nature/a-complex-prairie-ecosystem.htm>.

² US Forest Service. "Prescribed Fire." *Managing Wildland Fires*. N.p., n.d. Web. 23 July 2016. <http://www.fs.fed.us/fire/management/rx.html>.

- Some applications of fire may slow the spread of certain diseases and can act as a method for pest control (mainly for insects).
- Many invasive plant species are not fire-adapted and will not take well to being burned.
- Prescribed fire is a potent tool for managing the spread of brush through a prairie.
- There are many plants and animals that depend on periodic burning for either germination or grazing improvement. There is typically an increase in plant growth, flowering, and seed production in the year following a burn.
- There is also a large benefit in the recycling of nutrients after a burn. This is due to the breaking down of organic matter near the surface of the soil, which causes changes to the microbiology of the soil. As a result, the nutrients are recycled and made more readily available to the next cycle of growth.³



<http://wildfiretoday.com/wp-content/uploads/2016/04/Tall-Grass-Prairie-Rx.jpg>



<http://news.wisc.edu/prescribed-burns-planned-in-lakeshore-nature-preserve/>

³ DeBano, Leonard F. "A Guide to Soil Quality Monitoring for Long Term Ecosystem Sustainability on Northern Region National Forests." *THE EFFECT OF FIRE ON SOIL PROPERTIES*. US Forest Service, 10 Apr. 1990. Web. 23 July 2016. <http://forest.moscowsl.wsu.edu/smp/solo/documents/GTRs/INT_280/DeBano_INT-280.php>.