

Prescribed Fire

Prescribed fire is one of the many tools we use to manage restorations at Driftless Prairies. We are pragmatic with our burning regime. There are positives and negatives to fire management. Habitat creation is the reason for our work, therefore we do not ignore the fauna when we plan management activities. We never burn annually and never burn 100% of our land. We also never burn by rote; since nature doesn't do anything by rote, why would we?

Prescribed fire needs to be done with a purpose and with knowledge. Putting a match to the ground is not something we do "just because we have a prairie" – be it a remnant, a planting, a savanna or woods. Defining your goals and desired outcomes needs to be the first step of your restoration plan.

We don't find mimicking historic fire regimes helpful either. Aside from the inability to substantiate what the regime might have been for a particular parcel of land a lot has changed in the last few decades. The Driftless Area is unique because of the topography. A ridge top could have been burned any number of years while the adjacent valley may seldom if ever been burned. It can be that specific.

Prescribed fire cannot magically change degraded habitat to pristine. One simply cannot burn their way to quality habitat, nor can one burn once and expect success. Burning requires follow up whether it's the first time burned or the fifth because burning stimulates the growth of invasive plants and [unwanted woody plants](#), too! After a burn, plan to monitor for these.

Consideration needs to be given to other management tools and methods and time resources must be well thought-out; research is necessary. Often mowing can be done successfully. Follow up activities at Driftless Prairie consist of foliar spot

herbicide, overseeding, hand pulling, mowing, and/or cutting and treating. Often we need to do all of these. If there is no time for research or follow-up activities then re-evaluate your goals and your plan because follow up is vital.

All management practices have consequences; prescribed burning is no different. Understanding these consequences is the only way to make informed decisions. As a means to this, we maintain a [bio inventory](#) of the property. These lists are ongoing and as we learn about the biota living on our property, we change our management practices to accommodate them. Our goal is to create habitat and biodiversity. The habitat is for the critters – the biota. To ignore them and their needs and focus only on the plants would defeat our goals. Our management plans always include substantive [refugia](#).

It is well known that annual burns increase the C4 grasses (e.g. Indian grass, big blue, switch grass) at the expense of the forbs. It's the forbs that generate invertebrate diversity and it's this diversity that "feeds the world" so to speak. Insects are essential to the growth and health of baby birds, baby reptiles, baby amphibians, and baby small mammals. They are also nutrition for many adult reptiles, amphibians, and mammals. They serve the ecosystem in many other ways as well; their frass and exuviae return nutrients to the soil. It's a system with many linkages. Changes to the habitat structure cause indirect negative effects on the biota. There is less cover which results in an increase in predation and a decrease in moisture levels necessary for herptiles. Recently, I found several studies showing prescribed fire on infertile land is ineffective and does not increase plant productivity but does diminish nutrients in the soil.



A good picture of the typical inverted "V" that a fire makes.



One of the last sections to burn.

Personal Protection Equipment (PPE)

We definitely subscribe to the need for PPE! One of the best pieces of equipment is the shield on the hard hat – never burn without it!! We use it when we do brush piles in the winter as well. The shield is an incredible barrier to the heat.

We have the fire resistant pants and shirt as well. Jim wears Nomex® while I found women's clothing at FireResistantWear.com. Be sure the clothing is large enough to fit cotton long underwear underneath. Not only will this keep you warm in the cooler burn season, it provides one more barrier should you find yourself on fire! ACK!!

Burn Breaks for Prescribed Fire

Most of the time we use the maintenance paths as burn breaks and widen them by mowing as needed. Occasionally, we need to create firebreaks though, such as when we want to burn a triangle section next to the woods but we aren't burning the woods or visa versa. To create these, we use the backpack blower to blow away the leaves and debris. Then, if needed, we follow up with a rake. When creating a firebreak in this manner, it's important to blow or rake the additional material away from the unit you plan to burn. This prevents additional fuel buildup at the edge which can increase the possibilities of an escape fire.



This mowed path is a typical burn break that we will widen by mowing.



Burn Plans and Maps

Jim has become quite proficient in creating professional burn maps that attach to our burn plans. Even though Driftless Prairies is privately owned, meaning there is not specific paperwork requirement, we follow best management practices and burn within appropriate prescriptions for the various habitats.

If you want to look at the burn maps, click on the prairie name:

- [Sunset Prairie Burn Map](#)
- [Berry Prairie Burn Map](#)
- [5 Acre Prairie Burn Map](#)
- [Deer Camp Prairie Burn Map](#)
- [North Prairie Burn Map](#)

Resources

If you want to learn more about prescribed burning, the best value and information comes from [Aldo Leopold](#) Foundation. Unlike the certification classes (S-190 and S-130), this one is tailored specifically to prescribed burns whereas the others are for wildland burns. These are very different and techniques are different.

The Aldo Leopold Foundation also has great classes for increasing your knowledge of other nature and safety issues.