

# EXTENSION NOTES

# MAINTAINING YOUR TALLGRASS PRAIRIE

A lot of time and resources have gone into your project and now it is up to you to ensure its success by carrying out routine maintenance. A schedule of regular maintenance during the first few years will give your prairie time to get established. Prairie plants spend the first few years of their growth cycle putting most of their energy into root development and therefore, do not grow very tall during this time. In contrast, most annual weeds, 'grow like a weed' and quickly establish in an open area. Mowing and the use of a herbicide (if needed) must be done to prevent weeds from shading out the prairie plants and from setting seed. If the weeds are kept under control, the prairie plants will establish and then require very little future maintenance. However, getting them to this point is one of the most important steps in your project. The following outlines the short-term and long-term maintenance requirements for prairie.

# · Short-term Maintenance

# Mowing:

Weeds will appear in your planting regardless of the amount of site preparation that has been done. As these weeds reach a height of 38-45 centimeters (15 to 18 inches) they should be mowed to about a 20 centimeter (8 inch) height. It is important not to be mowing the warm season grasses in your planting (big bluestem, Indian, switch, and little bluestem) so keep raising the mower above these plants as the summer progresses. As August approaches, discontinue mowing to permit unrestricted growth and root development in the late summer/fall.

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# Post Planting Maintenance Requirements

Short-term Maintenance		
Method	Instructions	Comments
Mowing	- set mower height to 20 cm (8 inches) to ensure weed cover is removed and prairie plants are not harmed	-mowing must be done frequently and consistently (2-3 times per year) during the first few years or else weeds will overcome your planting
Chemical herbicide	-to control invasive weeds using two methods, spot spray or wick a chemical herbicide according to label instructions	-use only for spot treatment not as a general application. Pay close attention to the type of herbicide used since most are not selective and will kill your prairie plants if touched
Long-term Mainte	nance	
Fire	-planting area should be divided into sections which are burned in a rotation -best months to burn are April and May -burn when there is enough build-up of dry grasses to maintain the fire, usually by the second or third year of planting.	-need to contact an experienced consultant for more information on how to successfully conduct a prescribed burn
Discing strips	-serpentine strips throughout the prairie by discing -it encourages the growth of early successional forbs adding to habitat diversity and assists in the decomposition of thatch	-pay attention to the proximity of invasive plants to your prairie planting as they will quickly take the opportunity to occupy the newly disced areas

### For more information contact:

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# This fact sheet is one in a series about Tallgrass Prairie restoration. Others included are:

- -What is Tallgrass Prairie?
- -Planning Your Project
- -Tallgrass Prairie and Agricultural Practices

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## Herbicides:

For hard-to-control species, including perennials such as red clover and Canada thistle, spot spraying using a glyphosate-based herbicide is recommended. Keep in mind that this herbicide will kill all plants it comes in contact with so avoid spraying any tallgrass prairie plants. Based on your planting composition and the time of year you can use different types of herbicides. For example, a broad-leaved herbicide can be used if only grasses were planted. Or if you have planted both grasses and forbs, you can spray in early spring using a grass herbicide (e.g. Select herbicide) to kill unwanted cool season grasses since it will not harm forbs or your prairie grasses as they are dormant (not actively growing) at this time. However, it is very important to pay attention to what type of herbicide you are using and if they have residual effects.

# Long-term Maintenance

After your planting becomes established and the amount of bare ground exposed diminishes, the amount of maintenance required will be reduced. The deep roots of prairie plants will help them in competing against weedy species. However, as time goes on, woody species and non-native cool season grasses may threaten the health of your prairie. Fire can be used as a tool to keep your prairie healthy and thriving. It accomplishes this by directly killing or at least suppressing non-prairie species. Fire prevents woody species from moving in and turning the prairie into a woodland. Fire can increase forb (wildflowers) production and remove dead plant matter (thatch) that has accumulated to levels that choke off the growth of prairie plants. Fire will also increase light availability for the prairie plants, release nutrients and blacken the soil to stimulate plant growth. Removing the level of thatch increases the amount of critical brood rearing habitat for ground birds.

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Only sections of your planting should be burned at one time, thus providing diversified types of habitat for wildlife at all times. Dividing the planting into three to four units and rotating the units burned is desirable. The best month to burn is April. Caution must be taken to have sufficient size and amount of fire breaks to protect adjacent crops and buildings. Exposed mineral soil (can be accomplished by discing); water, winter wheat and roads make good fire breaks. Always adhere to local burning ordinances and advise your local fire department before burning. Have sufficient help and resources available, consider the wind direction, nearby hazards, communities and your neighbours.



For new plantings, fire should be used when there is enough build -up of dry grasses (residue) to maintain the fire, usually by the second or third year of planting. Initially you may want to burn every year. As the prairie matures (once non-native plants are largely removed and the prairie plants have covered the bare ground), conduct burns as needed (every three to five years).



CAUTION: this fact sheet does not provide enough detailed information to successfully conduct a prescribed burn.

Please contact an experienced consultant for more information

# Alternatives to Burning

Burning may not be an option at all locations. If this is the case, haying (preferred method) or mowing can be used as a partial substitute. Mow in late summer to avoid disrupting nesting birds and after most plants have set their seed. Use a rotating schedule as well to make sure there is always habitat during all seasons, especially during winter when wildlife need the protection from the elements provided by the prairie plants. It is important to remove the cut stems because the dead grass (thatch) will accumulate and restrict the growth of new prairie plants. Discing strips throughout your prairie will also enhance the diversity of habitat types and encourage the decomposition of thatch in your planting area.