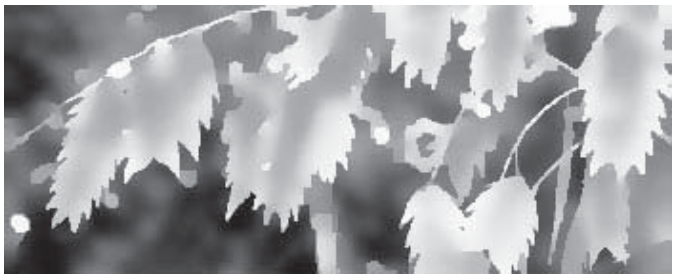
Gardening With The Natives

By gardeners possessing a passion for Missouri's diverse indigenous flora

Notes on Prairie Planting

By James C. Trager



There is plenty of good advice out there on prairie planting these days. Of the variety of books available, my two favorites are the minimalist and attractively illustrated "A Practical Guide to Prairie Reconstruction" by Carl Kurtz, and the exhaustively detailed "Tallgrass Restoration Handbook" by Steve Packard and Connie Mutel. But, having just completed 14 years as a prairie planter (among other things) at Shaw Nature Reserve, I have come to use a set of guidelines in my own work I think are more broadly applicable, and I offer them to *Petal Pusher*-ers everywhere.

First and foremost, get rid of the weeds before you plant. The worst weeds of the prairie include the old standbys: foxtail, mare's tail, ragweed, tall fescue and Eurasian creeping clovers *(Trifolium*). Though in some cases, chiefly where the soil is relatively fertile, these can be competitive against immature prairie plants, they generally decline as taller prairie vegetation becomes established and has been burned a few times. Other detrimental weeds are Asian shrubs and vines such as autumn olive, privet and Japanese honeysuckle vine and Euarasian legumes such as sweetpea and the sweet clovers. The most pernicious grassland weeds are Johnson grass in rich alluvial soils and especially sericea (or silky) lespedeza (*L. cuneata*) in a wide variety of soil and moisture conditions. The shrubs and honeysuckle vine are particular problems on rough ground or near trees (cedars and other conifers) where mowing is difficult or impossible, and fire often doesn't penetrate. The legumes are favored by burning and thus, must be controlled with herbicides. Glyphosate (Roundup® and Buccaneer®) has proven, over decades of use, to be the most broad-spectrum plant-killer (when timing and dosage are correct) as well as, least toxic to non-plants of the readily available herbicides, but one may choose to use herbicidal "bigger guns" against these very tough plants. Okay, this is really an impossible goal. You'll always have to watch for weed invasion, but it's a good idea to do your best to eliminate and anticipate problems before planting.

Sow a diverse seed mix, preferably on bare ground, in fall or winter. Cool season sowing gives many forbs and early-flowering grasses and sedges an edge. It can often result in a more diverse vegetation compared to the same seed mix put out as a warm-season sowing. On the other hand, don't waste seed of species that probably won't do well in your setting. Plants needing constant adequate soil moisture will not persist, if they even survive the seedling stage, on a dry rocky soil. Plants that thrive in sandy or gravelly prairies, or in glades, will not compete in better watered and more fertile soils. Also, watch out for the aggressive natives. Indian grass is a beautiful native species, but is quite an aggressive colonizer, while little bluestem is much less competitive, and perhaps, more desirable for a small planting since it is shorter and more colorful in winter. You'll need to do some careful study of the growing condition preferences of each species you intend to use in a planting. Learn about soils, pH, drainage and fertility, too.

Maintain your new planting. Young prairie plants often grow best when exposed to full sun throughout their first growing season. This means keeping your new prairie planting mowed during the full first growing season, and on fertile soils, the beginning of the second growing season. This is also a primary means of controlling short-lived weeds such as foxtail and ragweed. However, a mowing regimen can favor fescue, bluegrass and clover in the early years of your prairie. Research your local ordinances, and if possible, burn off your prairie planting every so often. *Don't burn alone, and don't do it without training*. At least attend one or more of the Missouri Department of Conservation prescribed burning workshops, offered every year in January through March at various convenient locations around the state. The most important things about burning are preparation of fire breaks, staffing with people who are in good physical condition and have some understanding of fire behavior in grassy fuels, and the right weather conditions.

Special note on maintenance if you are overseeing a schoolyard prairie or urban prairie demonstration. I recommend asking your school's or city's grounds maintenance staff to cut down the teaching/demonstration prairie annually to a six-inch height. Have this done *not* in fall, winter, or spring, *but during the first half of July.* This will result in a shorter, sturdier prairie during the early part of the school year with more species in bloom simultaneously at a height suitable for viewing by small people and generally, more acceptable to the public not familiar with prairies.

Most of all, be patient. Look at and walk about in your prairie frequently. Watch for the progress of the native plants, and for the gradual arrival of pollinators, seed eaters, burrowers, nesters and flyover critters that prefer this habitat. Developing a prairie planting to anything resembling maturity takes years, anywhere from three to seven or more, depending on site conditions. Even once well established, your prairie will vary from year to year. Help it manage its problems, but learn to love its natural vicissitudes.