

Technical Bulletin





This custom mixture of wildflowers is made up of species that are specifically native to our area in the Midwest. The mixture is comprised of approximately 75% Perennials, 15% Annuals, 5% Bi-annuals and 5% Low Growing Annuals for first year color. The majority of the perennials need two to three years to bloom. Mixture includes:

	Botanical Name	% of Mixture	<u>Type</u>	Mature HT.	<u>Color</u>	Bloom Color
Annual Low Growing Flower Mixture		7.50%	Α	10-15"	All	Spring
Black-eyed Susan	Rudbeckia hirta	6.50%	A/B/P	12-24"	Yellow	Summer/Fall
Blanketflower	Gallardia aristata	5.00%	Р	14-20"	Yellow/Red	Summer
Blue Flax	Linum Lewisii	8.50%	Р	16-20"	Blue	Summer/Spring
False Sunflower	Heliopsis helianthoides	3.50%	Р	16-24"	Yellow	Summer/Fall
Foxglove Beardtongue	Penstemon digitalis	1.50%	Р	20-36"	White	Summer
Greyhead Pr. Coneflower	Ratibida pinnata	4.50%	Р	16-24"	Yellow	Summer
Illinois Bundleflower	Desmanthus illinoense	3.00%	Р	18-24"	White/Pink	Fall
Indian Blanket	Gallardia puchella	7.50%	А	18-24"	Red/Yellow	Summer
Lanceleaf Coreopsis	Coreopsis lanceolata	3.15%	Р	12-16"	Yellow	Summer/Fall
Lead Plant	Amorpha canescens	1.75%	Р	18-30"	Sky Blue	Summer
Maximillian Prairie Sunflower	Helianthus maximiliani	1.50%	Р	24-30"	Yellow	Summer/Fall
Mexican Red Hat	Ratibida columnifera	3.00%	B/P	12-24"	Red	Summer
New England Aster	Aster novae-angliae	0.50%	Р	12-24"	Purple	Summer
Pale Purple Coneflower	Echinacea pallida	3.50%	Р	20-30"	Lavender	Summer
Partridge Pea	Chamaecrista fasciculata	7.50%	Р	12-24"	Yellow	Spring
Plains Coreopsis	Coreopsis tinctoria	6.30%	Α	12-18"	Yellow/Maroon	Summer
Prairie Blazingstar	Liastris pycnostachya	0.75%	Р	24-30"	Purple	Summer
Prairie Sage	Artemisia Ludov iciana	2.50%	Р	18-24"	White	Summer
Purple Coneflower	Echinacea purpurea	7.50%	Р	16-24"	Purple	Summer
Purple Prairie Clover	Dalea purpurea	5.00%	Р	12-16"	Rose/Purple	Spring/Summer
Shasta Daisy	Chrysanthemum maximum	1.75%	Р	16-20"	White	Summer
Upright Prairie Coneflower	Ratibida columnifera	5.00%	B/P	12-24"	Yellow	Summer
White Prairie Clover	Dalea candidum	0.75%	Р	18-24"	White	Summer
White Yarrow	Achillea millefolium	0.80%	Р	12-24"	White	Summer
Wild Bergamot	Monarda fistulosa	1.25%	Р	24-48"	Lavender	Summer

Type - A = Annual Seeding Rate - 16 to 32 Lbs/Acre

(1/2 to 1 Lb/1,350 Sq. Ft.



ESTABLISHMENT AND MAINTENANCE



ESTABLISHMENT

Native wildflowers can be established from a number of effective methods. Regardless of the method however, the rate of establishment is directly related to amount of seed-to-soil contact that is achieved. Most native wildflower seeds have a natural dormancy that must be broken in order to germinate. Seed-to-soil contact is one way to break dormancy with the scratching of the seed coat. Once this takes place, then water can be absorbed and thus begin the germination process.

Native wildflowers can be inter-seeded into existing vegetation, drill seeded, broadcast seeded or frost seeded. Again, regardless of the method, finding a way to get the seed into the soil, past any dead (or living) vegetative matter and into the soil is crucial.

For inter-seeding into existing (living) vegetation, a "no-till" mechanical drill is best. The drill can cut past the vegetative matter and place the seed into the soil and pack the soil to achieve good seed-to-soil contact. This method disturbs the existing soil the least amount, thus not disturbing as many weed seeds. If a drill is not an option, then wildflower seed can be broadcast into existing vegetation and worked in lightly to disturb the soil and cover the seed. This can be done with a disk harrow or spike harrow with the spikes turned the opposite direction of the travel path. Although weed seeds will be disturbed and be a potential problem, existing vegetation will be only minimally affected yet still provide "cover" for the young wildflower seedlings. Inter-seeding into an existing native grass stand is the perfect way to add separation for the wildflowers and give that "natural" appearance.

Seeding into bare ground follows much the same premise. Drill seeding is best, broadcast seeding will work fine if the seed can be covered with no more than a ¼ of soil. Covering the seeded area with straw or mulch will help to retain soil moisture.

Another highly effective seeding method is dormant (frost) seeding. This is done when the ground is either frozen with or without snow cover or just when the ground is too cold to facilitate germination. It can be seeded by using a mechanical drill, or broadcasting. Much like in established native settings, wildflower seeds will be dispersed by wind or birds, and once the freeze/thaw cycle is complete in the spring, the seeds have gone through a physiological stage that breaks dormancy.

Weeds will be an issue. The more the soil is disturbed, the more the weeds will become a problem. Controlling weeds before they produce seed will shorten the amount of time that the wildflower stand will eventually take over. If the area is large, hand weeding may not be the most viable option, so mowing the weeds may be the only option. With no commercially available herbicides for post-emergence weed control. Weed control during establishment will be the biggest challenge. For larger areas, this can be somewhat alleviated by seeding the wildflowers with native grasses. Weed control becomes easier when the wildflowers become well rooted and are not easily pulled out with the weeds.

MAINTENANCE The whole idea behind the Native Wildflower mix is low maintenance. Once established, the wildflowers will reseed themselves, further thickening the stand. Fertilizer is not generally needed unless is the soils are deficient; Water is generally not needed, although in exceptionally dry weather to prevent death watering is recommended. The wildflower stand can be mowed down in the spring to help encourage new growth and distribute seeds. Weeding may be needed, but as time goes by, the wildflower stand will thicken and increase.

OTHER CONSIDERATIONS Creating a native setting cannot be mimicked in one, or even two years. Above all else, patience is the biggest factor in creating native wildflower (and native grass) habitat that looks like the real thing. To help "speed-up" the establishment we would encourage incorporating native grasses within the area as well. Native grasses add separation to the wildflowers, which add to the

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authentic native look, as well as helping to control weeds and retain moisture. A suggested course of action would be to establish the native