

Woodland Enhancement Seed Mixes

Kanati

Kanati Land Management’s Woodland Enhancement Seed Mixes will do well in medium-wet to medium-dry soils & partial/to nearly full shade.



Grass Only Mix

Broadly adaptable and quick to establish. Dubbed as our “Buckthorn Reclamation Mix,” this mix of native grasses deters the invasive species, buckthorn, from taking over your woodlands. After an infested area has been treated and managed for buckthorn, it is ALWAYS recommended to plant native species to replace and prevent buckthorn from making a comeback.

<u>Scientific Name</u>	<u>Common Name</u>	<u>PLS LB/Acre</u>
Avena Sativa	Oats	5.000
Elymus hystrix	Bottlebrush Grass	0.250
Elymus canadensis	Canada Wildrye (Local Ecotype)	1.000
Schizachyrium scoparium	Little Bluestem (Local Ecotype)	1.000
Bouteloua curtipendula	Sideoats Grama (Local Ecotype)	1.000
Elymus villosus	Silky Wildrye	1.000
Panicum virgatum	Switchgrass (Local Ecotype)	1.100
Elymus virginicus	Virginia Wildrye	3.000
Carex molesta	Field Oval Sedge	0.100
Carex sprengelii	Long Beaked Sedge	0.050
		Total: 13.500

Price \$332.00 per acre

Grass & Forbs Mix



No shady woodland would be complete without a variety of blossoms and berries to attract pollinators, as well as sedges and grasses to keep things lush and lively throughout the seasons.

<u>Scientific Name</u>	<u>Common Name</u>	<u>PLS LB/Acre</u>
Avena Sativa	Oats	5.000
Gaillardia aristata	Blanketflower	0.050
Asclepias syriaca	Common Milkweed	0.050
Zizia aurea	Golden Alexanders	0.100
Verbena stricta	Hoary Vervain	0.100
Dalea purpurea	Purple Prairie Clover	0.100
Monarda fistulosa	Wild Bergamot	0.100
Elymus hystrix	Bottlebrush Grass	0.250
Elymus canadensis	Canada Wildrye (Local Ecotype)	1.000
Schizachyrium scoparium	Little Bluestem (Local Ecotype)	1.000
Bouteloua curtipendula	Sideoats Grama (Local Ecotype)	1.000
Elymus villosus	Silky Wildrye	1.000
Panicum virgatum	Switchgrass (Local Ecotype)	1.100
Elymus virginicus	Virginia Wildrye	3.000
Carex molesta	Field Oval Sedge	0.100
Carex sprengelii	Long Beaked Sedge	0.050
		Total: 14.000

Price \$364.00 per acre



Building your 'Native Defense Team'

Research suggests that seeding native plants alongside invasive removal efforts may turn the tables in the battle against buckthorn.



What is Buckthorn?

Buckthorn (*Rhamnus cathartica*) is one of Minnesota's most aggressive and damaging invasive plants. The shrub, or small tree, is especially noticeable in woodlands when it forms dense thickets where few other plant species can co-exist.

Despite its invasive nature, buckthorn can be successfully managed, manipulated, and reduced by choosing the appropriate management and monitoring techniques.

New research from the University of Minnesota showed that heavily seeding native grasses alongside buckthorn removal efforts greatly reduces the number and size of new buckthorn trying to reclaim the site.

Key findings:

- Returning buckthorn were 47% less abundant and 81% smaller in areas where grasses were established — **about a 90% decrease returning from seed overall.**
- Seeding is most effective in woodlands with enough light to support vigorous grass growth. Grasses do not establish well in dark forests but can form nearly impenetrable thickets in more open woodlands.
- To be effective, seeding must be paired with other management strategies that prevent larger trees from resprouting (prescribed grazing, hand-pulling/cutting, forestry mulching, herbicide treatments, etc.).
- Buckthorn poses the biggest threat to forest restoration in the first couple of years after mature trees are removed. Establishing cover of grasses or other native species needs to happen as quickly as possible to prevent buckthorn from exploiting this critical period.

The research was funded by the University's Minnesota Invasive Terrestrial Plants and Pests Center, supported by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR).

Article Credit: University of Minnesota News and Events

The nature-based approach can make our natural areas more resistant to invasion in a way that means less time and money combating those invaders, fewer herbicides put into our environment, and creating healthier ecosystems overall. Seed native species in the early spring following fall or winter buckthorn removal and treat resprouting buckthorn the following summer.

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