

IOWA DOT NATIVE VEGETATION UPDATE



Bureau of Design Roadside Development

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 - Erosion Control Plans

IOWA DOT NATIVE SEEDING IN A NUTSHELL



Project Types

- Erosion Control Insert Plans
- Final Erosion Control Plans
- Revegetation Plans

Native Seed Purchase Types
DOT Standard Native Mix
Custom Native Mixes

IA DOT STANDARD NATIVE MIX

Table 2601.03-5: Native Grass Seed Rates

Species (Scientific Name)	Application Rate (PLS)
Furnish seed certified as Source Identified Class (Yellow Tag) Source G0-Iowa. Oats are excluded from this requirement.	
*Big bluestem (<i>Andropogon gerardii</i>)	6 lbs. per acre
*Canada wildrye (<i>Elymus canadensis</i>)	2 lbs. per acre
*Indiangrass (<i>Sorghastrum nutans</i>)	6 lbs. per acre
*Little bluestem (<i>Schizachyrium scoparium</i>)	6 lbs. per acre
Blackeyed susan (<i>Rudbeckia hirta</i>)	4 oz. per acre
Blue vervain (<i>Verbena hastata</i>)	1/2 oz. per acre
Gray-headed coneflower (<i>Ratibida pinnata</i>)	3 oz. per acre
Ironweed (<i>Vernonia fasciculata</i>)	3 oz. per acre
New England aster (<i>Symphotrichum novae-angliae</i>)	2 oz. per acre
Pale purple coneflower (<i>Echinacea pallida</i>)	6 oz. per acre
Partridge pea (<i>Chamaecrista fasciculata</i>)	4 lbs. per acre
Side-oats grama (<i>Bouteloua curtipendula</i>)	4 lbs. per acre
Switchgrass (<i>Panicum virgatum</i>)	1 lbs. per acre
Oats (<i>Avena sativa</i>)	32 lbs. per acre
Butterfly weed (<i>Asclepias tuberosa</i>)	3 oz. per acre
*Note: Canada wildrye, Big bluestem, Indiangrass, and Little bluestem shall be debarbed or equal to facilitate the application.	

CUSTOM NATIVE SEED MIX

RATE PER ACRE	TOTAL ACRES/ MIX	TOTAL LBS.	GRASS SPECIES
	33 ACRES		
	TOTAL LBS. PER MIX		
3 lbs.	99	99	Big bluestem (Andropogon gerardii)
4 lbs.	132	132	Side-oats grama (Bouteloua curtipendula)
1 lbs.	33	33	Blue grama (Bouteloua gracilis)
1 lbs.	33	33	Canada wildrye (Elymus canadensis)
1 lbs.	33	33	Virginia wildrye (Elymus virginicus)
4 lbs.	132	132	Little bluestem (Schizachyrium scoparium)
3 lbs.	99	99	Indiangrass (Sorghastrum nutans)
1 lbs.	33	33	Rough dropseed (Sporobolus compositus (Poir.) Merr. var. compositus)
4 oz.	8.3	8.3	Prairie dropseed (Sporobolus heterolepis)

LISTING OF SEED MIXES
PROVIDED FOR
MIXING AND APPLICATION PURPOSES
SEED FURNISHED BY THE CONTRACTING AUTHORITY
RATES AND SPECIES SUBJECT TO CHANGE

RATE PER ACRE	TOTAL ACRES/ MIX	TOTAL LBS.	WILDFLOWERS SPECIES
	33 ACRES		
	TOTAL LBS. PER MIX		
1/4 oz.	0.52	0.52	Canada anemone (Anemone canadensis)
1/2 oz.	1.1	1.1	Pale indian plantain (Arnoglossum atriplicifolium)
1/2 oz.	1.1	1.1	White Sage (Artemisia ludoviciana)
1 oz.	2.1	2.1	Swamp Milkweed (Asclepias incarnata)
1 oz.	2.1	2.1	Common Milkweed (Asclepias syriaca)
2 oz.	4.2	4.2	Butterfly Milkweed (Asclepias tuberosa)
2 oz.	4.2	4.2	Canadian milkvetch (Astragalus canadensis)
1 oz.	2.1	2.1	White Wild Indigo (Baptisia alba (L.) Vent. var. macrophylla)
1/8 oz.	0.26	0.26	Blue Wild Indigo (Baptisia australis)
1/4 oz.	0.52	0.52	False boneset (Kuhnia eupatorioides)
8 oz.	16.5	16.5	Partridge pea (Chamaecrista fasciculata)
2 oz.	4.2	4.2	Purple prairie clover (Dalea purpurea)
2 oz.	4.2	4.2	Illinois bundle flower (Desmanthus illinoensis)
1 oz.	2.1	2.1	Showy tick trefoil (Desmodium canadense)
2 oz.	4.2	4.2	Pale purple coneflower (Echinacea pallida)
2 oz.	4.2	4.2	Rattlesnake master (Eryngium yuccifolium)
1/4 oz.	0.52	0.52	Tall boneset (Eupatorium altissimum)
1/2 oz.	1.1	1.1	Sneezeweed (Helenium autumnale)
1/2 oz.	1.1	1.1	Prairie sunflower (Helianthus pauciflorus)
1 oz.	2.1	2.1	Oxeye / False-sunflower (Heliopsis helianthoides)
1/8 oz.	0.26	0.26	Rough blazing-star (Liatris aspera)
1/2 oz.	1.1	1.1	Prairie blazing star (Liatris pycnostachya)
1/2 oz.	1.1	1.1	Wild bergamot (Monarda fistulosa)
1/2 oz.	1.1	1.1	Stiff goldenrod (Oligoneuron rigidum)
1 oz.	2.1	2.1	Foxglove beardtongue (Penstemon digitalis)
1 oz.	2.1	2.1	Large-flowered beardtongue (Penstemon grandiflorus)
1/4 oz.	0.52	0.52	Prairie cinquefoil (Potentilla arguta)
1/4 oz.	0.52	0.52	Mountain mint / Virginia mountain mint (Pycnanthemum virginianum)
2 oz.	4.2	4.2	Gray-headed coneflower (Ratibida pinnata)
3 oz.	6.2	6.2	Black-eyed susan (Rudbeckia hirta)
1 oz.	2.1	2.1	Sweet Coneflower (Rudbeckia subtomentosa)
2 oz.	4.2	4.2	Compass plant (Silphium laciniatum)
1/2 oz.	1.1	1.1	Showy goldenrod (Solidago speciosa)
1 oz.	2.1	2.1	Smooth blue aster (Symphyotrichum laevis)
1/2 oz.	1.1	1.1	New England aster (Symphyotrichum novae-angliae)
1/2 oz.	1.1	1.1	Prairie spiderwort (Tradescantia bracteata)
1/2 oz.	1.1	1.1	Ohio spiderwort (Tradescantia ohioensis)
1/2 oz.	1.1	1.1	Blue vervain (Verbena hastata)
1/2 oz.	1.1	1.1	Ironweed (Veronica fasciculata)
1/8 oz.	0.26	0.26	Culver's root (Veronicastrum virginicum)
3 oz.	6.2	6.2	Golden Alexander (Zizia aurea)

RECENT SPENDING HISTORY

Year	Spend	Projects	Pounds of Seed	Grass/Sedge	Forbs	Winning Bidders
2023		2	2132	30	68	
2022	\$97,514.00	2	6472	31	50	2
2021	\$536,207.00	9	13968	11	45	2
2020	\$93,191.00	5	3669	23	71	4
2019	\$1,346,963.00	9	37418	31	76	3
2018	n/a	3	37295	8	41	n/a
2017	\$699,279.00	6	13455		71	6
2016*	\$1,509,166.00	10	n/a		106	6
2015	\$284,467.00	8	n/a	n/a	n/a	n/a

*\$71,711 was purchased for the IA DNR

Possible Future Issues?

- Shift away from large corridor projects
- Construction delays
- Budgets
- Establishment issues
- Weed control

Solutions?

We are possibly looking at doing a statewide survey of the IA DOT right-of-way to:

- Identify which areas have actual established native stands that need to be actively managed.
- Identify native species that have done well and species that have not.

A roadside landscape featuring a paved road with yellow double lines curving through the scene. The foreground and middle ground are dominated by a dense field of purple flowers, likely Monarda, with some yellow flowers interspersed. The background shows a line of green trees and a clear sky.

QUESTIONS?