

MASSDOT UPLAND NATIVE SEED MIXES

DESIGNER: Please review the **MassDOT Native Upland Seeding Guidance** when selecting a mix. Please consult with MassDOT Landscape Design regarding changes to the mixes, substituting species due to lack of availability or other reasons, and/or for custom mixes to accommodate specific site conditions. The mix compositions will be periodically updated but the intent of the mix shall remain the same.

Per the Seeding Specifications, all species shall be closest available ecotype to Massachusetts.

765.411 Short Grassland Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Schizachyrium scoparium	Little Bluestem	55.0%
Elymus virginicus	Virginia Wild Rye	27.6%
Festuca rubra	Creeping Red Fescue	7.0%
Agrostis perennans	Upland Bentgrass	1.5%
Eragrostis spectabilis 'RI Ecotype'	Purple Lovegrass 'RI Ecotype'	1.5%
Dichanthelium clandestinum 'Tioga'	Deertongue grass 'Tioga'	1.0%
		93.6%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	3.0%
Penstemon digitalis	Beard-tongue	1.5%
Achillea millefolium	Common Yarrow	0.4%
Solidago nemoralis	Grey Goldenrod	0.3%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.2%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.2%
Aster lateriflorus	Calico Aster	0.2%
Solidago bicolor	White Goldenrod	0.2%
Aster pilosus	Heath Aster	0.2%
Zizia aurea	Golden Alexanders	0.1%
Euthamia graminifolia	Grass-leaved Goldenrod	0.1%
		6.4%
Seeding Rate: 15.0 lbs PLS/Acre		100.0%

765.412 Short Grassland Mix-Sandy Soil

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Festuca ovina	Sheep Fescue	44.0%
Schizachyrium scoparium	Little Blue Stem	34.5%
Elymus canadensis	Canada Wild Rye	13.0%
Eragrostis spectabilis 'RI Ecotype'	Purple Lovegrass 'RI Ecotype'	2.0%
Agrostis perennans	Upland Bentgrass	1.0%
		94.5%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	2.0%
Rudbeckia hirta-VT ecotype	Black-eyed Susan-VT ecotype	0.8%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.4%
Achillea millefolium	Common Yarrow	0.4%
Asclepias tuberosa	Butterfly Milkweed	0.4%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.3%
Aster pilosus	Heath Aster	0.3%
Eurybia spectabilis	Eastern Showy Aster	0.3%
Lespedeza capitata	Roundhead Bush Clover	0.2%
Solidago odora	Licorice Scented Goldenrod	0.2%
Solidago nemoralis	Grey Goldenrod	0.2%
		5.5%
Seeding Rate: 30.0 lbs PLS/Acre		100.0%

765.413 Roadside Pollinator Meadow Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Schizachyrium scoparium	Little Blue Stem	40.0%
Elymus virginicus	Virginia Wild Rye	23.0%
Eragrostis spectabilis 'RI Ecotype'	Purple Lovegrass 'RI Ecotype'	3.0%
Agrostis perennans	Upland Bentgrass	1.2%
		67.2%
Herb/Forb		
Echinacea purpurea	Purple Coneflower	8.0%
Rudbeckia hirta-VT ecotype	Black-eyed Susan-VT ecotype	7.0%
Coreopsis lanceolata	Lance-leaf Coreopsis	4.0%
Penstemon digitalis	Beard-tongue	3.0%
Chamaecrista fasciculata	Partridge Pea	3.0%
Zizia aurea	Golden Alexanders	1.5%
Liatris scariosa	Northern Blazing Star	1.0%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.8%
Asclepias tuberosa	Butterfly Milkweed	0.6%
Achillea millefolium	Common Yarrow	0.6%
Monarda fistulosa	Wild Bergamot	0.5%
Aster pilosus	Heath Aster	0.5%
Solidago nemoralis	Grey Goldenrod	0.5%
Aster lateriflorus	Calico Aster	0.4%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.4%
Verbena hastata	Blue Vervain	0.3%
Symphotrichum ericoides	White Heath Aster	0.3%
Solidago juncea	Early Goldenrod	0.2%
Euthamia graminifolia	Grass-leaved Goldenrod	0.2%
		32.8%
Seeding Rate: 18.0 lbs PLS/Acre		100.0%

765.415 Native Short Grassland Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Schizachyrium scoparium	Little Blue Stem	54.5%
Elymus virginicus	Virginia Wild Rye	27.2%
Dichanthelium clandestinum 'Tioga'	Deertongue grass 'Tioga'	4.0%
Eragrostis spectabilis 'RI Ecotype'	Purple Lovegrass 'RI Ecotype'	3.0%
Agrostis perennans	Upland Bentgrass	1.5%
Juncus tenuis	Path Rush	1.0%
		91.2%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	4.0%
Zizia aurea	Golden Alexanders	2.0%
Penstemon digitalis	Beard-tongue	1.0%
Achillea millefolium	Common Yarrow	0.5%
Solidago nemoralis	Grey Goldenrod	0.3%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.2%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.2%
Solidago bicolor	White Goldenrod	0.2%
Aster lateriflorus	Calico Aster	0.2%
Euthamia graminifolia	Grass-leaved Goldenrod	0.1%
Aster pilosus	Heath Aster	0.1%
		8.8%
Seeding Rate: 15.0 lbs PLS/Acre		100.0%

765.442 Roadside Riverbank Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Elymus virginicus	Virginia Wild Rye	27.0%
Schizachyrium scoparium 'Albany Pine'	Little Bluestem 'Albany Pine'	22.5%
Andropogon gerardii NY Eco	Big Bluestem NY Eco	14.0%
Elymus riparius	Riverbank Wild Rye	14.0%
Panicum virgatum	Switch Grass	5.0%
Dichanthelium clandestinum 'Tioga'	Deertongue grass 'Tioga'	5.0%
Carex vulpinoidea	Fox Sedge	2.0%
Agrostis perennans	Upland Bentgrass	1.5%
Carex vulpinoidea	Fox Sedge	0.5%
Poa palustris	Fowl Bluegrass	0.3%
Juncus effusus	Soft Rush	0.1%
Juncus tenuis	Path Rush	0.1%
		92.0%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	3.0%
Penstemon digitalis	Beard-tongue	1.0%
Vernonia noveboracensis	New York Ironweed	0.6%
Helenium autumnale	Common Sneezeweed	0.5%
Verbena hastata	Blue Vervain	0.4%
Aster puniceus	Aster - Swamp	0.4%
Aster cordifolius	Blue Wood Aster	0.3%
Asclepias incarnata	Swamp Milkweed	0.3%
Monarda fistulosa	Wild Bergamot	0.2%
Aster novae-angliae	New England Aster	0.2%
Solidago odora	Licorice Scented Goldenrod	0.2%
Desmodium canadense	Showy Tick Trefoil	0.2%
Eupatorium perfoliatum	Boneset	0.2%
Eupatorium maculatum	Spotted Joe Pye Weed	0.2%
Solidago juncea	Early Goldenrod	0.1%
Euthamia graminifolia	Grass-leaved Goldenrod	0.1%
Lobelia cardinalis	Cardinal Flower	0.1%
		8.0%
Seeding Rate: 15.0 lbs PLS/Acre		100.0%

765.421 Mid-Height Grassland Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Schizachyrium scoparium 'Albany Pine'	Little Bluestem 'Albany Pine'	47.5%
Elymus virginicus	Virginia Wild Rye	22.0%
Elymus canadensis	Canada Wild Rye	8.0%
Tridens flavus	Purpletop	6.0%
Panicum virgatum	Switch Grass	5.0%
Dichanthelium clandestinum 'Tioga'	Deertongue grass 'Tioga'	2.0%
Agrostis perennans	Upland Bentgrass	1.2%
		91.7%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	3.0%
Geum canadense	White Avens	1.0%
Liatris scariosa	Northern Blazing Star	0.5%
Monarda fistulosa	Wild Bergamot	0.5%
Asclepias syriaca	Common Milkweed	0.3%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.3%
Baptisia tinctoria	Wild Indigo	0.3%
Lespedeza capitata	Roundhead Bush Clover	0.3%
Verbena hastata	Blue Vervain	0.3%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.2%
Aster lateriflorus	Calico Aster	0.2%
Solidago juncea	Early Goldenrod	0.2%
Solidago nemoralis	Grey Goldenrod	0.2%
Penstemon digitalis	Beard-tongue	0.2%
Asclepias incarnata	Swamp Milkweed	0.2%
Solidago bicolor	White Goldenrod	0.2%
Aster prenanthoides	Zig Zag Aster	0.2%
Euthamia graminifolia	Grass-leaved Goldenrod	0.1%
Aster pilosus	Heath Aster	0.1%
		8.3%
Seeding Rate: 18.0 lbs PLS/Acre		100.0%

765.423 Mid-Height Roadside Pollinator Meadow

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Grass		
Schizachyrium scoparium 'Albany Pine'	Little Bluestem 'Albany Pine'	38.0%
Elymus virginicus	Virginia Wild Rye	25.0%
Panicum virgatum	Switch Grass	7.0%
Tridens flavus	Purpletop	5.0%
Panicum clandestinum 'Tioga'	Deer Tongue 'Tioga'	0.8%
Agrostis perennans	Upland Bentgrass	0.8%
		76.6%
Herb/Forb		
Echinacea purpurea	Purple Coneflower	8.0%
Coreopsis lanceolata	Lance-leaf Coreopsis	4.0%
Chamaecrista fasciculata	Partridge Pea	2.5%
Penstemon digitalis	Beard-tongue	1.3%
Desmodium canadense	Showy Tick Trefoil	1.2%
Rudbeckia triloba	Brown Eyed Susan	0.8%
Zizia aurea	Golden Alexanders	0.6%
Liatris scariosa	Northern Blazing Star	0.6%
Rudbeckia hirta-VT ecotype	Black-eyed Susan-VT ecotype	0.6%
Verbena hastata	Blue Vervain	0.5%
Monarda fistulosa	Wild Bergamot	0.5%
Aster novae-angliae	New England Aster	0.3%
Aster pilosus	Heath Aster	0.3%
Asclepias syriaca	Common Milkweed	0.3%
Aster lateriflorus	Calico Aster	0.3%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.3%
Achillea millefolium	Common Yarrow	0.3%
Solidago odora	Licorice Scented Goldenrod	0.2%
Solidago nemoralis	Grey Goldenrod	0.2%
Solidago juncea	Early Goldenrod	0.2%
Solidago bicolor	White Goldenrod	0.2%
Pycnanthemum muticum	Bigleaf Mountain Mint	0.1%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.1%
		23.4%
Seeding Rate: 20.0 lbs PLS/Acre		100.0%

765.431 Tall Grassland Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Elymus virginicus	Virginia Wild Rye	28.0%
Andropogon gerardii NY Eco	Big Bluestem NY Eco	26.0%
Schizachyrium scoparium	Little Blue Stem	18.0%
Sorghastrum nutans New England 2 Ecotype	Indiangrass New England 2 Ecotype	10.0%
Panicum virgatum	Switchgrass	8.0%
Agrostis perennans	Upland Bentgrass	0.6%
		90.6%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	2.0%
Desmodium canadense	Showy Tick Trefoil	2.0%
Penstemon digitalis	Beard-tongue	0.8%
Vernonia noveboracensis	New York Ironweed	0.6%
Verbena hastata	Blue Vervain	0.4%
Heliopsis helianthoides	Ox-Eye Sunflower	0.4%
Asclepias syriaca	Common Milkweed	0.4%
Eupatorium purpureum	Purple Joe Pye Weed	0.3%
Aster lateriflorus	Calico Aster	0.3%
Rudbeckia triloba	Brown Eyed Susan	0.3%
Asclepias syriaca	Common Milkweed	0.3%
Monarda fistulosa	Wild Bergamot	0.2%
Asclepias incarnata	Swamp Milkweed	0.2%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.2%
Aster novae-angliae	New England Aster	0.2%
Oenothera biennis	Evening Primrose	0.2%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.2%
Solidago odora	Licorice Scented Goldenrod	0.1%
Aster pilosus	Heath Aster	0.1%
Solidago juncea	Early Goldenrod	0.1%
Solidago speciosa	Showy Goldenrod	0.1%
		9.4%
Seeding Rate: 18.0 lbs PLS/Acre		100.0%

765.451 Part Shade Roadside Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
<i>Elymus virginicus</i>	Virginia Wild Rye	35.0%
<i>Schizachyrium scoparium</i>	Little Blue Stem	20.0%
<i>Tridens flavus</i>	Purpletop	10.0%
<i>Panicum virgatum</i>	Switch Grass	8.0%
<i>Agrostis perennans</i>	Upland Bentgrass	5.0%
<i>Panicum clandestinum</i> 'Tioga'	Deer Tongue 'Tioga'	5.0%
<i>Carex vulpinoidea</i>	Fox Sedge	3.0%
<i>Juncus tenuis</i>	Path Rush	2.0%
<i>Carex lurida</i>	Shallow Sedge	1.5%
		89.5%
Herb/Forb		
<i>Chamaecrista fasciculata</i>	Partridge Pea	4.0%
<i>Penstemon digitalis</i>	Beard-tongue	1.0%
<i>Zizia aurea</i>	Golden Alexanders	0.8%
<i>Rudbeckia hirta</i> -VT ecotype	Black-eyed Susan-VT ecotype	0.6%
<i>Aster divaricatus</i>	White Wood Aster	0.5%
<i>Solidago caesia</i>	Woodland Goldenrod	0.4%
<i>Pycnanthemum tenuifolium</i>	Slender Mountain Mint	0.3%
<i>Monarda fistulosa</i>	Wild Bergamot	0.3%
<i>Heliopsis helianthoides</i>	Ox-Eye Sunflower	0.3%
<i>Desmodium canadense</i>	Showy Tick Trefoil	0.3%
<i>Verbena hastata</i>	Blue Vervain	0.3%
<i>Eupatorium purpureum</i>	Purple Joe Pye Weed	0.3%
<i>Solidago bicolor</i>	White Goldenrod	0.3%
<i>Solidago odora</i>	Licorice Scented Goldenrod	0.2%
<i>Eupatorium perfoliatum</i>	Boneset	0.2%
<i>Aster lateriflorus</i>	Calico Aster	0.2%
<i>Aster novae-angliae</i>	New England Aster	0.2%
<i>Aquilegia canadensis</i>	Eastern Columbine	0.2%
<i>Lobelia cardinalis</i>	Cardinal Flower	0.1%
		10.5%
Seeding Rate: 25.0 lbs PLS/Acre		100.0%

765.453 Woodland Edge Shade Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Elymus virginicus	Virginia Wild Rye	32.0%
Elymus riparius	Riverbank Wild Rye	28.0%
Schizachyrium scoparium 'Albany Pine'	Little Bluestem 'Albany Pine'	10.0%
Panicum clandestinum 'Tioga'	Deer Tongue 'Tioga'	5.0%
Cinna arundinacea	Sweet Woodreed	2.0%
Glyceria canadensis	Manna Grass	2.0%
Carex vulpinoidea	Fox Sedge	2.0%
Agrostis perennans	Upland Bentgrass	1.6%
Juncus tenuis	Path Rush	0.8%
Carex scoparia	Broom sedge	0.5%
Juncus effusus	Soft Rush	0.5%
		84.4%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	4.0%
Heliopsis helianthoides	Ox-Eye Sunflower	3.0%
Zizia aurea	Golden Alexanders	2.0%
Geum canadense	White Avens	1.0%
Penstemon digitalis	Beard-tongue	1.0%
Aster divaricatus	White Wood Aster	0.6%
Aster macrophyllus	Bigleaf Aster - PA Ecotype	0.6%
Solidago caesia	Woodland Goldenrod	0.5%
Anemone virginiana	Thimbleweed	0.5%
Monarda fistulosa	Wild Bergamot	0.4%
Verbena hastata	Blue Vervain	0.4%
Solidago bicolor	White Goldenrod	0.3%
Aster prenanthoides	Zig Zag Aster	0.3%
Rudbeckia hirta-VT ecotype	Black-eyed Susan-VT ecotype	0.3%
Solidago odora	Licorice Scented Goldenrod	0.3%
Eupatorium fistulosum	Joe Pye Weed	0.3%
Lobelia cardinalis	Cardinal Flower	0.1%
		15.6%
Seeding Rate: 15.0 lbs PLS/Acre		100.0%

765.472 Steep Slope Mid-Height Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Cover Crop - Secale cereale/Avena	Cover Crop - Grain Oats/Rye	40.0%
Schizachyrium scoparium 'Albany Pine'	Little Bluestem 'Albany Pine'	30.0%
Elymus virginicus	Virginia Wild Rye	8.0%
Elymus canadensis	Canada Wild Rye	5.0%
Panicum virgatum	Switch Grass	4.5%
Agrostis perennans	Upland Bentgrass	3.0%
Dichanthelium clandestinum 'Tioga'	Deertongue grass 'Tioga'	2.3%
		92.8%
Herb/Forb		
Echinacea purpurea	Purple Coneflower	3.0%
Chamaecrista fasciculata	Partridge Pea	2.0%
Penstemon digitalis	Beard-tongue	0.7%
Monarda fistulosa	Wild Bergamot	0.3%
Asclepias syriaca	Common Milkweed	0.2%
Lespedeza capitata	Roundhead Bush Clover	0.2%
Rudbeckia hirta-VT ecotype	Black-eyed Susan-VT ecotype	0.1%
Aster prenanthoides	Zig Zag Aster	0.1%
Solidago nemoralis	Grey Goldenrod	0.1%
Aster pilosus	Heath Aster	0.1%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.1%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.1%
Solidago juncea	Early Goldenrod	0.1%
Asclepias incarnata	Swamp Milkweed	0.1%
		7.2%
Seeding Rate: 75.0 lbs PLS/Acre		100.0%

765.473 Steep Slope Tall Mix

Botanical Name	Common Name	% Mix By Weight (PLS)
Grass		
Cover Crop - Secale cereale/Avena	Cover Crop - Grain Oats/Rye	40.0%
Andropogon gerardii NY Eco	Big Bluestem NY Eco	20.0%
Elymus virginicus	Virginia Wild Rye	15.0%
Schizachyrium scoparium 'Albany Pine'	Little Bluestem 'Albany Pine'	8.0%
Sorghastrum nutans New England 2 Ecotype	Indiangrass New England 2 Ecotype	7.0%
Panicum virgatum	Switchgrass	3.3%
Agrostis perennans	Upland Bentgrass	1.0%
Panicum clandestinum 'Tioga'	Deer Tongue 'Tioga'	0.8%
		95.1%
Herb/Forb		
Chamaecrista fasciculata	Partridge Pea	2.0%
Echinacea purpurea	Purple Coneflower	1.0%
Penstemon digitalis	Beard-tongue	0.5%
Monarda fistulosa	Wild Bergamot	0.1%
Desmodium canadense	Showy Tick Trefoil	0.1%
Asclepias syriaca	Common Milkweed	0.1%
Solidago odora	Licorice Scented Goldenrod	0.1%
Oenothera biennis	Evening Primrose	0.1%
Aster pilosus	Heath Aster	0.1%
Solidago juncea	Early Goldenrod	0.1%
Heliopsis helianthoides	Ox-Eye Sunflower	0.1%
Pycnanthemum tenuifolium	Slender Mountain Mint	0.1%
Asclepias incarnata	Swamp Milkweed	0.1%
Lespedeza capitata	Roundhead Bush Clover	0.1%
Aster laevis NY Ecotype	Smooth Aster NY Ecotype	0.1%
Oenothera biennis	Evening Primrose	0.1%
Aster lateriflorus	Calico Aster	0.1%
		4.9%
Seeding Rate: 75.0 lbs PLS/Acre		100.0%