



Buffalo Grass Lawn Seed Mix (Dry - Mesic Soils)

MIX STATISTICS	
Base Mix Without Supplemental Plugs	
Average Mix Height	5"
Median Mix Height	5"
Mix Height Mode (# of Occurrences in Mix)	5" (1)
Number of Native Species in Mix	1
Lbs/Acre of Native Seed	100.00
Propagules per Square Foot	0.00
Native FQI	0
Native Mean C Value	0
Native Mean W Value	3
National Wetland Category	Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occasionally found in wetlands (estimated probability 1 - 33 %)

Mix Description: Pizzo's Buffalo Grass Lawn Mix provides an alternative to traditional high-maintenance turf grass, such as Kentucky Bluegrass, Fescue, and Rye. While not thought to be locally native to the Chicago Region (it is known to be native to Southern Illinois and in the Western U.S.), Bowie is a cultivar that has the ability to survive colder northern climates. Unlike traditional high-maintenance turf grass, Buffalo Grass is a slow grower with a maximum height of 4-8" requiring little or no mowing and less than 1" of water per week. It prefers full sun, however it will survive in partial or dappled shade conditions. Buffalo Grass is a warm-season grass, which means it will go dormant (turns golden brown) in the fall and takes approximately a month longer to green-up in the spring when compared to traditional turf grass. Seeding of this mix should only occur in late spring - early summer when the soil temperatures reach 60-70° (typically late May - early July).

Grasses, Sedges, & Rushes																	
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME					SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A				S	O
BOUDAB	<i>Bouteloua dactyloides</i> 'BOWIE'	BOWIE BUFFALO GRASS	0	3	FACU	4-8" (5")	N/A						3,600	1600.0000	100.00	100.00%	100.00%
												Grass/Sedge Subtotals	100.00	100.00%	100.00%		
												SEED MIX TOTALS	100.00	100.00%	100.00%		

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) Best results will occur with a spring seeding, Pizzo **does not** recommend seeding this mix in the fall
- 3.) Prepare soil seedbed the same as for traditional turf seeding
- 4.) Apply starter fertilizer the same as for traditional turf seeding
- 5.) Because of the seeding timeframe, temporary irrigation should be provided until establishment
- 6.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 7.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Transitional Buffer Seed Mix (Dry - Mesic Soils)

MIX STATISTICS		
Base Mix Without Supplemental Plugs		
Average Mix Height	1.5'	Mix Description: Pizzo's Transitional Buffer Mix is designed as a short-grass native planting that can be installed between low, flat areas (turf grass areas, sidewalks, etc.) and the taller, more diverse prairie areas. Providing this buffer achieves multiple things; 1.) Since some taller prairie species can "flop" and/or look "leggy" at the base, this short-grass buffer provides space so that taller plants will not flop onto the lawn or pavement, and it will also provide a visual screen to the lower, unattractive portion of the prairie; 2.) This buffer is easy to maintain with broadleaf herbicides, which gives a neat, "cared for" appearance that establishes a defined edge to the prairie; and 3.) Provides an all-grass buffer between lawn and prairie that will protect the broadleaf wildflowers in the prairie from annual "ween n'feed" applications (which contain a broadleaf herbicide) to the lawn. The grasses in this mix are warm-season grasses, which means they will go dormant (turn golden brown) in the fall. Seeding of this mix should only occur in spring (typically before June 15th).
Median Mix Height	n/a	
Mix Height Mode (# of Occurrences in Mix)	2.5' (1), 0.5" (1)	
Number of Native Species in Mix	2	
Lbs/Acre of Native Seed	65.0	
Propagules per Square Foot	0.0	
Native FQI	5.7	
Native Mean C Value	4.0	
Native Mean W Value	4.0	
National Wetland Category	Facultative Upland / Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occur almost always (estimated probability >99 %) under natural conditions in non-wetlands	

Grasses, Sedges, & Rushes																	
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME					SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A				S	O
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A						6,000	960.0000	60.00	92.31%	95.24%
BOUDAB	<i>Bouteloua dactyloides</i> 'BOWIE'	BOWIE BUFFALO GRASS	0	3	FACU	4-8" (5")	N/A						3,600	80.0000	5.00	7.69%	4.76%
												Grass/Sedge Subtotals	65.00	100.00%	100.00%	100.00%	
												SEED MIX TOTALS	65.00	100.00%	100.00%	100.00%	

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) Best results will occur with a spring seeding, Pizzo **does not** recommend seeding this mix in the fall
- 3.) Prepare soil seedbed the same as for traditional turf seeding
- 4.) Apply starter fertilizer the same as for traditional turf seeding
- 5.) Because of the seeding timeframe, temporary irrigation should be provided until establishment
- 6.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 7.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Transitional Buffer Seed Mix (Mesic-Wet Soils)

MIX STATISTICS	
Base Mix Without Supplemental Plugs	
Average Mix Height	2.3'
Median Mix Height	3.0'
Mix Height Mode (# of Occurrences in Mix)	3' (2), 2.5' (1), 5.0' (1)
Number of Native Species in Mix	4
Lbs/Acre of Native Seed	21.0
Propagules per Square Foot	0.0
Native FQI	7.5
Native Mean C Value	3.8
Native Mean W Value	2.0
National Wetland Category	Facultative Upland / Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occur almost always (estimated probability >99 %) under natural conditions in non-wetlands

Grasses, Sedges, & Rushes																	
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME					SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A				S	O
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A						6,000	240.0000	15.00	71.43%	20.79%
BOUDAB	<i>Bouteloua dactyloides</i> 'BOWIE'	BOWIE BUFFALO GRASS	0	3	FACU	4-8" (5")	N/A						3,600	80.00000	5.00	23.81%	4.16%
CXVULP	<i>Carex vulpinoidea</i>	BROWN FOX SEDGE	2	-3	FACW	2-4' (3')	N/A						100,000	16.00000	1.00	4.76%	23.09%
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A						15,000	240.00000	15.00	71.43%	51.96%
												Grass/Sedge Subtotals	21.00	100.00%	48.04%		
												Broadleaf Subtotals	0.00	0.00%	0.00%		
												SEED MIX TOTALS	21.00	100.00%	48.04%		

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) Best results will occur with a spring seeding, Pizzo **does not** recommend seeding this mix in the fall
- 3.) Prepare soil seedbed the same as for traditional turf seeding
- 4.) Apply starter fertilizer the same as for traditional turf seeding
- 5.) Because of the seeding timeframe, temporary irrigation should be provided until establishment
- 6.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 7.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Low Profile Prairie Seed Mix (Dry - Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height	3.2'	Mix Description: Pizzo's Low Profile Prairie Seed Mix is designed for sunny areas that remain mesic-dry for most of the growing season. This mix is composed of a diverse collection of shorter-profile prairie grass and wildflower species, and is ideal for areas where taller vegetation is not appropriate. Over 82% of the seeds in this mix typically grow to an average high of 3' or less and nearly 50% of the mix is composed of wildflowers that will provide an array of blooms from April through October. When installed and maintained correctly this mix will typically begin flowering in its second growing season, starting with the yellow blooms of annual Partridge Pea and biennial Black-Eyed Susan, with additional more colorful permanent species appearing in years 3-5. This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your prairie.
Median Mix Height	3.0'	
Mix Height Mode (# of Occurrences in Mix)	3.0' (11), 4.0' (9), 2.0' (7), 2.5' (3), 5.0' (3), 3.5' (2), 1.5' (1)	
Number of Native Species in Mix	36	
Lbs/Acre of Native Seed	28.7	
Propagules per Square Foot	0.0	
Native FQI	35.5	
Native Mean C Value	5.9	
Native Mean W Value	3.3	
National Wetland Category	Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99%), but occasionally found in wetlands (estimated probability 1 - 33%)	

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME							SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O				by Weight	by Seed Count
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A							6,000	192,000	12.00	41.83%	21.13%	
ELYCAN	<i>Elymus canadensis</i>	CANADA WILD RYE	4	3	FACU	2-5' (3.5')	N/A							5,200	16,000	1.00	3.49%	1.53%	
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A							14,000	4,000	0.25	0.87%	1.03%	
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A							15,000	96,000	6.00	20.92%	26.41%	
Grass/Sedge Subtotals																19.25	67.10%	50.09%	

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME							SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O				by Weight	by Seed Count
ALLCER	<i>Alliumcernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink							7,600	3,000	0.19	0.65%	0.42%	
AMOGAN	<i>Amarophacanesens</i>	LEAD PLANT	9	5	UPL	1-3.5' (3')	Purple							16,000	1,000	0.06	0.22%	0.29%	
ASTCUB	<i>Asclepias tuberosa</i>	BUTTERFLY WEED	7	5	UPL	1-3.5' (2.5')	Orange							4,300	12,000	0.75	2.61%	0.95%	
ASTCAN	<i>Astragalus canadensis</i>	CANADIAN MILK VETCH	10	0	FAC	2-4' (3')	Cream							17,000	1,000	0.06	0.22%	0.31%	
BAPALB	<i>Baptisia alba</i>	WHITE WILD INDIGO	8	3	FACU	2-5' (4')	White							1,700	6,000	0.38	1.31%	0.19%	
BAPAFAS	<i>Chamaecrista fasciculata</i>	PARTRIDGE PEA	5	3	FACU	1-3' (2')	Yellow							2,700	16,000	1.00	3.49%	0.79%	
CORPAL	<i>Careopsis palmata</i>	PRAIRIE CORNOPSIS	6	5	UPL	1-2.5' (2')	Yellow							10,000	4,000	0.25	0.87%	0.73%	
DALPUR	<i>Dalea purpurea</i>	PURPLE PRAIRIE CLOVER	9	5	UPL	1.5-3' (2')	Purple							15,000	12,000	0.75	2.61%	3.30%	
DESILS	<i>Desmanthus illinoensis</i>	ILLINOIS SENSITIVE PLANT	3	3	FACU	2-5' (4')	Yellow							4,200	1,500	0.09	0.33%	0.12%	
ECHPAL	<i>Echinacea pallida</i>	PALE PURPLE CONEFLOWER	8	5	UPL	2-4' (3')	Pink							5,200	16,000	1.00	3.49%	1.53%	
ECHPUR	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	3	5	UPL	2-5' (4')	Purple							6,600	8,000	0.50	1.74%	0.97%	
ERYUCC	<i>Eryngium yuccifolium</i>	RATTLESNAKE MASTER	9	0	FAC	2-5' (4')	White							7,500	3,000	0.19	0.65%	0.41%	
EUPCOR	<i>Euphorbia corollata</i>	FLOWERING SPURGE	2	5	FACU	1-4' (3')	White							8,000	2,000	0.13	0.44%	0.29%	
HELHEL	<i>Helianthus helianthoides</i>	FALSE SUNFLOWER	5	3	FACU	3-6' (5')	Yellow							6,300	8,000	0.50	1.74%	0.92%	
LESCAP	<i>Lespedeza capitata</i>	ROUND-HEADED BUSH CLOVER	4	3	FACU	2-4' (3')	Green							8,000	8,000	0.50	1.74%	1.17%	
LIASP	<i>Liatris aspera</i>	ROUGH BLAZING STAR	6	5	FACU	2.5-5' (3')	Purple							16,000	4,000	0.25	0.87%	1.17%	
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple							70,000	1,000	0.06	0.22%	1.28%	
PARINT	<i>Parthenium integrifolium</i>	WILD QUININE	8	5	UPL	3-5' (4')	White							7,000	8,000	0.50	1.74%	1.03%	
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	White							130,000	3,000	0.19	0.65%	7.15%	
POTARU	<i>Potentilla arguta</i>	PRAIRIE CINQUEFOIL	9	5	UPL	1-3' (2')	Yellow							230,000	0,250	0.02	0.05%	1.05%	
PYCEN	<i>Pycnanthemum tenuifolium</i>	SLENDER MOUNTAIN MINT	7	0	FAC	1-3' (2')	White							220,000	0,250	0.02	0.05%	1.01%	
RATPIN	<i>Ratibida pinnata</i>	YELLOW CONEFLOWER	4	5	UPL	3-6' (5')	Yellow							30,000	2,000	0.13	0.44%	1.10%	
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow							92,000	8,000	0.50	1.74%	13.50%	
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWIFT BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow							43,000	1,000	0.06	0.22%	0.79%	
SOLJUN	<i>Solidago juncea</i>	EARLY GOLDENROD	5	5	UPL	2-4' (3')	Yellow							290,000	0,250	0.02	0.05%	1.33%	
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow							41,000	0,500	0.03	0.11%	0.38%	
SYMERI	<i>Symphoricarpon ericoides</i>	HEATH ASTER	9	3	FACU	1-3' (2')	White							200,000	0,250	0.02	0.05%	0.92%	
SYMEL	<i>Symphoricarpon laeve</i>	SMOOTH BLUE ASTER	5	3	FACU	2.5-5' (4')	Blue							55,000	1,000	0.06	0.22%	1.01%	
SYMOL	<i>Symphoricarpon oolentangiense</i>	SKY-BLUE ASTER	8	5	UPL	2-5' (3')	Blue							80,000	1,000	0.06	0.22%	1.47%	
TRAOHI	<i>Tradescantia ohioensis</i>	COMMON SPIDERWORT	2	3	FACU	2-4' (3')	Blue							8,000	8,000	0.50	1.74%	1.17%	
VERSTR	<i>Verbena stricta</i>	HOARY VERVAIN	4	5	UPL	1-3' (2')	Blue							28,000	3,000	0.19	0.65%	1.54%	
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow							11,000	8,000	0.50	1.74%	1.61%	
Broadleaf Subtotals																9.44	32.90%	49.91%	
SEED MIX TOTALS																28.69	100.00%	100.00%	

Recommended Plug Species to Supplement Low Profile Prairie Seed Mix

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME							PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S	O					
ANECAN	<i>Anemone canadensis</i>	MEADOW ANEMONE (1, 3)	4	-3	FACW	1-2' (1.5')	White							38	43.0	1,634.00	0.04	5.44%	
ASCVER	<i>Asclepias verticillata</i>	WHORLED MILKWEED (2, 3)	1	3	FACU	1-2' (1.5')	White							38	20.0	760.00	0.02	2.53%	
BAPLEO	<i>Baptisia leucophaea</i>	CREAM WILD INDIGO (1, 2, 3)	10	5	UPL	1-3' (2')	Cream							38	20.0	760.00	0.02	2.53%	
CEAAME	<i>Ceanothus americanus</i>	NEW JERSEY TEA (1, 3)	6	5	UPL	1-3' (2')	White							38	15.0	570.00	0.01	1.90%	
DODMEA	<i>Dodecatheon meadia</i>	SHOOTING STAR (1, 2)	6	3	FACU	1-2' (1.5')	Pink							38	86.0	3,268.00	0.08	10.89%	
GENALB	<i>Gentiana alba</i>	YELLOWISH GENTIAN (1, 4)	9	3	FACU	2-4' (3')	Cream							38	15.0	570.00	0.01	1.90%	
GENAND	<i>Gentiana andrewsii</i>	BOTTLE GENTIAN (1, 2, 4)	8	-3	FACW	1-3' (2')	Blue							38	20.0	760.00	0.02	2.53%	
GENPUB	<i>Gentiana puberulenta</i>	PRAIRIE GENTIAN (1, 2, 4, 5)	10	5	UPL	6"-2' (1')	Blue							38	15.0	570.00	0.01	1.90%	
GEUTRI	<i>Geum triflorum</i>	PRAIRIE SMOKE (1, 2)	10	3	FACU	6-12" (9")	Pink							38	86.0	3,268.00	0.08	10.89%	
HEURIC	<i>Heuchera richardsonii</i>	PRAIRIE ALUM ROOT (1, 2)	8	3	FACU	1-3' (2')	Green							38	20.0	760.00	0.02	2.53%	
LIAPYC	<i>Liatris pycnostachya</i>	PRAIRIE BLAZING STAR (1, 2)	8	0	FAC	1-2' (1.5')	Magenta							38	86.0	3,268.00	0.08	10.89%	
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow							38	20.0	760.00	0.02	2.53%	
PENPAL	<i>Penstemon pallidus</i>	PALE BEARD TONGUE (5)	6	5	UPL	1-2' (1')	Cream							38	20.0	760.00	0.02	2.53%	
PHLPI	<i>Phlox pilosa</i>	SAND PRAIRIE PHLOX (1, 2, 5)	7	3	FACU	1-3' (2')	Pink							38	20.0	760.00	0.02	2.53%	
ROSLBA	<i>Rosa blanda</i>	EARLY WILD ROSE (1, 3)	5	3	FACU	3-6' (5')	Pink							1	15.0	15.00	0.00	0.05%	
ROSCAR	<i>Rosa carolina</i>	PASTURE ROSE (1, 3)	5	3	FACU	1-3' (2')	Pink							1	25.0	25.00	0.00	0.08%	
RUDFUS	<i>Rudbeckia fulgida var. sullivantii</i>	SHOWY BLACK-EYED SUSAN (5)	8	-5	OB	2-4' (3')	Yellow							38	25.0	950.00	0.02	3.16%	
RUEHUM	<i>Ruellia humilis</i>	HAIRY RUELLIA (3)	7	3	FACU	6-12" (9")	Purple							38	20.0	760.00	0.02	2.53%	
SISALB	<i>Sisyrinchium albidum</i>	COMMON BLUE-EYED GRASS (2)	7	3	FACU	4-9" (6")	Blue							38	43.0	1,634.00	0.04	5.44%	
SPOHET	<i>Sporobolus heterolepis</i>	PRAIRIE DROPSIED (1, 2)	10	3	FACU	1-2.5' (2')	N/A							38	86.0	3,268.00	0.08	10.89%	
VERVIR	<i>Veronicastrum virginicum</i>	CULVER'S ROOT (1)	7	0	FAC	2-5' (3')	White							38	43.0	1,634.00	0.04	5.44%	
VIOPEL	<i>Viola pedata lineariloba</i>	BIRD'S FOOT VIOLET (1, 5)	9	5	UPL	2-6" (3")	Purple							38	86.0	3,268.00	0.08	10.89%	
829.0																30,022.00	0.69	100.00%	

SUPPLEMENTED MIX STATISTICS

Base Seed Mix Including Supplemental Plugs

Number of Native Species in Mix	58	Some species are not appropriate for inclusion into a seed mix, however they may be very desirable to have as part of the permanent plant matrix because of their ecological, habitat, and/or aesthetic value. The plug species listed above are appropriate for supplementing this seed mix. Following are the common reasons for not including these species within the seed mix: 1-Does not germinate well from seed in the field, 2-Seed is very expensive, 3-Low number of seeds per ounce, 4-Requires specialized microclimate, 5-Seed is not commercially available or is only available in small quantities
Native FQI	49.0	



Dunes, Sand, and Hill Prairie Seed Mix (Dry Soils)

MIX STATISTICS		Mix Description: Pizzo's Dune, Sand, and Hill Prairie Seed Mix is designed for sunny areas with sandy soils that remain dry for most of the growing season. This mix contains species that are typically found as the foundation plant components of Sand Prairies, Hill Prairies, and the Dune ecosystems of Lake Michigan. It may also be well suited for very open Black Oak Savannas within the Dunes of Lake Michigan, however more dense Black Oak Savannas may require Pizzo's Savanna Mix. Since this is a basic mix with species typically associated within these specialized ecosystems, these mixes may require customization to meet the needs of your particular site. This mix will stay very low, with over 91% of seeds typically averaging 3.0' high or less at maturity and will be a grass heavy mix, with less than 32% of the seeds being wildflowers. This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your prairie.
Base Mix Without Supplemental Plugs		
Average Mix Height	2.8'	
Median Mix Height	3.0'	
Mix Height Mode (# of Occurrences in Mix)	3.0' (9), 2.0' (7), 4.0' (4), 2.5' (3), 1.5' (2), 5.0' (1)	
Number of Native Species in Mix	26	
Lbs/Acre of Native Seed	25.2	
Propagules per Square Foot	0.0	
Native FQI	31.0	
Native Mean C Value	6.1	
Native Mean W Value	3.9	
National Wetland Category	Facultative Upland / Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occur almost always (estimated probability >99 %) under natural conditions	

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME											SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count							
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A											6,000	96.0000	6.00	23.82%	7.93%	
ERASPE	<i>Eragrostis spectabilis</i>	PURPLE LOVE GRASS	3	5	UPL	1-3' (2')	Purple										280,000	2.0000	0.13	0.50%	7.71%		
KOEMAC	<i>Koeleria macrantha</i>	JUNE GRASS	7	5	UPL	1-2' (1.5')	N/A										200,000	2.0000	0.13	0.50%	5.51%		
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A										14,000	16.0000	1.00	3.97%	3.08%		
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A										15,000	160.0000	10.00	39.70%	33.04%		
SPOCRY	<i>Sporobolus cryptandrus</i>	SAND DROPSSEED	7	3	FACU	2-4' (3')	N/A										200,000	4.0000	0.25	0.99%	11.01%		
																Grass/Sedge Subtotals		17.50	69.48%	68.29%			

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME											SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count							
ALLCER	<i>Allium cernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink										7,600	8.0000	0.50	1.99%	0.84%		
AMOCAN	<i>Amarpha canescens</i>	LEAD PLANT	9	5	UPL	1-3.5' (3')	Purple										16,000	6.0000	0.38	1.49%	1.32%		
ASCTUB	<i>Asclepias tuberosa</i>	BUTTERFLY WEED	7	5	UPL	1-3.5' (2.5')	Orange										4,300	10.0000	0.63	2.48%	0.59%		
BAPALB	<i>Baptisia alba</i>	WHITE WILD INDIGO	8	3	FACU	2-5' (4')	White										1,700	6.0000	0.38	1.49%	0.14%		
CORPAL	<i>Coreopsis palmata</i>	PRAIRIE COREOPSIS	6	5	UPL	1-2.5' (2')	Yellow										10,000	4.0000	0.25	0.99%	0.55%		
DALPUR	<i>Dalea purpurea</i>	PURPLE PRAIRIE CLOVER	9	5	UPL	1.5-3' (2')	Purple										15,000	8.0000	0.50	1.99%	1.65%		
ECHPAL	<i>Echinacea pallida</i>	PALE PURPLE CONEFLOWER	8	5	UPL	2-4' (3')	Pink										5,200	8.0000	0.50	1.99%	0.57%		
ERYYUC	<i>Eryngium yuccifolium</i>	RATTLESNAKE MASTER	9	0	FAC	2-5' (4')	White										7,500	8.0000	0.50	1.99%	0.83%		
EUPCOR	<i>Euphorbia corollata</i>	FLOWERING SPURGE	2	5	UPL	1-4' (3')	White										8,000	6.0000	0.38	1.49%	0.66%		
LESCAP	<i>Lespedeza capitata</i>	ROUND-HEADED BUSH CLOVER	4	3	FACU	2-4' (3')	Green										8,000	5.0000	0.31	1.24%	0.55%		
LIAASP	<i>Liatris aspera</i>	ROUGH BLAZING STAR	6	5	UPL	2.5-5' (3')	Purple										16,000	4.0000	0.25	0.99%	0.88%		
LUPPEO	<i>Lupinus perennis occidentalis</i>	WILD LUPINE	7	5	UPL	1-3' (2')	Purple										1,100	16.0000	1.00	3.97%	0.24%		
MONPUN	<i>Monarda punctata</i>	HORSE MINT	5	5	UPL	1-3' (2')	Purple										90,000	2.0000	0.13	0.50%	2.48%		
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow										92,000	8.0000	0.50	1.99%	10.13%		
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow										41,000	4.0000	0.25	0.99%	2.26%		
SOLSPE	<i>Solidago speciosa</i>	SHOWY GOLDENROD	7	5	UPL	3-6' (5')	Yellow										95,000	2.0000	0.13	0.50%	2.62%		
SYMOOL	<i>Symphotrichum oolentangiense</i>	SKY-BLUE ASTER	8	5	UPL	2-5' (3')	Blue										80,000	2.0000	0.13	0.50%	2.20%		
TRAOHI	<i>Tradescantia ohioensis</i>	COMMON SPIDERWORT	2	3	FACU	2-4' (3')	Blue										8,000	6.0000	0.38	1.49%	0.66%		
VERSTR	<i>Verbena stricta</i>	HOARY VERVAIN	4	5	UPL	1-3' (2')	Blue										28,000	4.0000	0.25	0.99%	1.54%		
ZIZAPT	<i>Zizia aptera</i>	HEART-LEAVED MEADOW PARSNIP	10	3	FACU	1-3' (2')	Yellow										12,000	6.0000	0.38	1.49%	0.99%		
																Broadleaf Subtotals		7.69	30.52%	31.71%			
																SEED MIX TOTALS		25.19	100.00%	100.00%			

Recommended Plug Species to Supplement Dune, Sand, & Hill Prairie Seed Mix

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME											PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S	O									
BAPLEO	<i>Baptisia leucophaea</i>	CREAM WILD INDIGO (1, 2, 3)	10	5	UPL	1-3' (2')	Cream										38	20.0	760.00	0.02	3.22%		
DODMEA	<i>Dodecatheon meadia</i>	SHOOTING STAR (1, 2)	6	3	FACU	1-2' (1.5')	Pink										38	86.0	3,268.00	0.08	13.84%		
GENPUB	<i>Gentiana puberulenta</i>	PRAIRIE GENTIAN (1, 2, 4, 5)	10	5	UPL	6"-2' (1')	Blue										38	20.0	760.00	0.02	3.22%		
HESSPA	<i>Hesperostipa spartea</i>	PORCUPINE GRASS (1, 3)	7	5	UPL	3-5' (4')	N/A										38	43.0	1,634.00	0.04	6.92%		
LIACYL	<i>Liatris cylindracea</i>	CYLINDRICAL BLAZING STAR (1, 2)	8	5	UPL	1-2' (1')	Purple										38	20.0	760.00	0.02	3.22%		
LITCAN	<i>Lithospermum canescens</i>	HOARY PUCCOON (1, 5)	8	5	UPL	1-2' (1')	Orange										38	20.0	760.00	0.02	3.22%		
OENCLE	<i>Oenothera clelandii</i>	SAND EVENING PRIMROSE (1)	7	5	UPL	1-3' (2')	Yellow										38	43.0	1,634.00	0.04	6.92%		
OPUHUM	<i>Opuntia humifusa</i>	EASTERN PRICKLY PEAR (1, 2, 3, 4)	5	5	UPL	6-12" (8")	Yellow										1	300.0	300.00	0.01	1.27%		
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow										38	20.0	760.00	0.02	3.22%		
PENPAL	<i>Penstemon pallidus</i>	PALE BEARD TONGUE (5)	6	5	UPL	1-2' (1')	Cream										38	20.0	760.00	0.02	3.22%		
PHLPIP	<i>Phlox pilosa</i>	SAND PRAIRIE PHLOX (1, 2, 5)	7	3	FACU	1-3' (2')	Pink										38	20.0	760.00	0.02	3.22%		
ROSCAR	<i>Rosa carolina</i>	PASTURE ROSE (1, 3)	5	3	FACU	1-3' (2')	Pink										1	20.0	20.00	0.00	0.08%		
SISALB	<i>Sisyrinchium albidum</i>	COMMON BLUE-EYED GRASS (2)	7	3	FACU	4-9" (6")	Blue										38	86.0	3,268.00	0.08	13.84%		
SPOHET	<i>Sporobolus heterolepis</i>	PRAIRIE DROPSSEED (1, 2)	10	3	FACU	1-2.5' (2')	N/A										38	86.0	3,268.00	0.08	13.84%		
SYMOBL	<i>Symphotrichum oblongifolium</i>	AROMATIC ASTER (1)	10	5	UPL	1-3' (2')	Purple										38	43.0	1,634.00	0.04	6.92%		
VIOPEL	<i>Viola pedata lineariloba</i>	BIRD'S FOOT VIOLET (1, 5)	9	5	UPL	2-6" (3")	Purple										38	86.0	3,268.00	0.08	13.84%		
																		933.0	23,614.00	0.54	100.00%		

SUPPLEMENTED MIX STATISTICS

Base Seed Mix Including Supplemental Plugs		Some species are not appropriate for inclusion into a seed mix, however they may be very desirable to have as part of the permanent plant matrix because of their ecological, habitat, and/or aesthetic value. The plug species listed above are appropriate for supplementing this seed mix. Following are the common reasons for not including these species within the seed mix: 1-Does not germinate well from seed in the field, 2-Seed is very expensive, 3-Low number of seeds per ounce, 4-Requires specialized microclimate, 5-Seed is not commercially available or is only available in small quantities
Number of Native Species in Mix	42	
Native FQI	43.5	
Native Mean C Value	6.7	
Native Mean W Value	4.0	
National Wetland Category	Facultative Upland / Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occur almost always (estimated probability >99 %) under natural conditions	

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
- 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Economy Prairie Seed Mix (Dry - Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height	3.5'
Median Mix Height	3.5'
Mix Height Mode (# of Occurrences in Mix)	3.0' (5), 5.0' (5), 4.0' (4), 2.0' (3), 3.5' (3), 2.5' (2)
Number of Native Species in Mix	22
Lbs/Acre of <i>Native Seed</i>	28.9
Propagules per Square Foot	0.0
Native FQI	22.4
Native Mean C Value	4.8
Native Mean W Value	2.7
National Wetland Category	Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occasionally found in wetlands (estimated probability 1 - 33 %)

Mix Description: Pizzo's Economy Prairie Seed Mix is our most economical way to establish an ecologically functional prairie while maintaining the high aesthetic value Pizzo is known for. This mix includes quick-establishing prairie species for a more immediate naturalized setting in sunny areas that remain mesic - dry for the most of the growing season. Over 40% of this mix is composed of wildflowers that will provide an array of blooms from April through October. When installed and maintained correctly this mix will typically begin flowering in its second growing season, starting with the yellow blooms of annual Partridge Pea and biennial Black-Eyed Susan, with additional colorful, permanent species appearing in years 3-5. This is a medium height prairie with over 61% of seeds typically averaging 3.0' high or less at maturity.

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A							6,000	160.0000	10.00	34.59%	18.08%
ELYCAN	<i>Elymus canadensis</i>	CANADA WILD RYE	4	3	FACU	2-5' (3.5')	N/A							5,200	64.0000	4.00	13.84%	6.27%
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A							14,000	48.0000	3.00	10.38%	12.66%
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A							15,000	80.0000	5.00	17.30%	22.60%
												Grass/Sedge Subtotals		22.00	76.11%	59.60%		

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
ASCSYR	<i>Asclepias syriaca</i>	COMMON MILKWEED	0	3	FACU	2-5' (3')	Purple							4,000	6.0000	0.38	1.30%	0.45%
ASCTUB	<i>Asclepias tuberosa</i>	BUTTERFLY WEED	7	5	UPL	1-3.5' (2.5')	Orange							4,300	2.0000	0.13	0.43%	0.16%
CHAFAS	<i>Chamaecrista fasciculata</i>	PARTRIDGE PEA	5	3	FACU	1-3' (2')	Yellow							2,700	16.0000	1.00	3.46%	0.81%
DALPUR	<i>Dalea purpurea</i>	PURPLE PRAIRIE CLOVER	9	5	UPL	1.5-3' (2')	Purple							15,000	6.0000	0.38	1.30%	1.69%
DESCAA	<i>Desmodium canadense</i>	SHOWY TICK TREFOIL	4	3	FACU	3-6' (5')	Purple							5,500	2.5000	0.16	0.54%	0.26%
ECHPAL	<i>Echinacea pallida</i>	PALE PURPLE CONEFLOWER	8	5	UPL	2-4' (3')	Pink							5,200	6.0000	0.38	1.30%	0.59%
ECHPUR	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	3	5	UPL	2-5' (4')	Purple							6,600	16.0000	1.00	3.46%	1.99%
HELHEL	<i>Helianthus helianthoides</i>	FALSE SUNFLOWER	5	3	FACU	3-6' (5')	Yellow							6,300	20.0000	1.25	4.32%	2.37%
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple							70,000	2.5000	0.16	0.54%	3.30%
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	White							130,000	1.5000	0.09	0.32%	3.67%
PYCVIR	<i>Pycnanthemum virginianum</i>	COMMON MOUNTAIN MINT	5	-3	FACW	1-4' (3')	White							220,000	0.5000	0.03	0.11%	2.07%
RATPIN	<i>Ratibida pinnata</i>	YELLOW CONEFLOWER	4	5	UPL	3-6' (5')	Yellow							30,000	5.0000	0.31	1.08%	2.82%
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow							92,000	8.0000	0.50	1.73%	13.86%
SILINI	<i>Silphium integrifolium</i>	ROSIN WEED	5	3	FACU	2-6' (5')	Yellow							1,200	6.0000	0.38	1.30%	0.14%
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow							41,000	2.0000	0.13	0.43%	1.54%
SYMNOV	<i>Symphyotrichum novae-angliae</i>	NEW ENGLAND ASTER	4	-3	FACW	4-6' (5')	Purple							65,000	1.5000	0.09	0.32%	1.84%
VERSTR	<i>Verbena stricta</i>	HOARY VERVAIN	4	5	UPL	1-3' (2')	Blue							28,000	3.0000	0.19	0.65%	1.58%
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow							11,000	6.0000	0.38	1.30%	1.24%
												Broadleaf Subtotals		6.91	23.89%	40.40%		
												SEED MIX TOTALS		28.91	100.00%	100.00%		

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
- 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Tallgrass Prairie Seed Mix (Dry - Mesic Soils)

MIX STATISTICS		
Base Mix Without Supplemental Plugs		
Average Mix Height		3.8'
Median Mix Height		3.5'
Mix Height Mode (# of Occurrences in Mix)	3.0' (11), 5.0' (9), 4.0' (8), 2.0' (7), 2.5' (3), 6.0' (3), 3.5' (2), 1.5' (1), 7.0' (1), 8.0' (1), 9.0' (1)	
Number of Native Species in Mix		47
Lbs/Acre of Native Seed		28.4
Propagules per Square Foot		0.0
Native FQI		40.1
Native Mean C Value		5.9
Native Mean W Value		3.1
National Wetland Category	Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99%), but occasionally found in wetlands (estimated probability 1 - 33%)	

Mix Description: Pizzo's Tallgrass Prairie Seed Mix is your path to restoring a highly diverse prairie ecosystem with a classic prairie aesthetic...these are the beautiful tallgrass prairies that the pioneers wrote about as they settled the "wild west." This mix includes taller profile prairie species suited for sunny areas that remain mesic to dry for the most of the growing season. Over 52% of this mix is composed of wildflowers that will provide an array of blooms from April through October! When installed and maintained correctly this mix will typically begin flowering in its second growing season, starting with the yellow blooms of annual Partridge Pea and biennial Black-Eyed Susan, with additional colorful, permanent species appearing in years 3-5. This is a tall height prairie with almost 22% of seeds typically averaging 5.0' high or more at maturity...now that's a prairie! This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your prairie.

Grasses, Sedges, & Rushes																						
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count						
ANDGER	<i>Andropogon gerardii</i>	BIG BLUESTEM GRASS	5	0	FAC	6-8' (7')	N/A										10,000	48.0000	3.00	10.58%	7.44%	
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A										6,000	80.0000	5.00	17.63%	7.44%	
ELYCAN	<i>Elymus canadensis</i>	CANADA WILD RYE	4	3	FACU	2-5' (3.5')	N/A										5,200	32.0000	2.00	7.05%	2.58%	
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A										14,000	32.0000	2.00	7.05%	6.94%	
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A										15,000	80.0000	5.00	17.63%	18.59%	
SORNTU	<i>Sorghastrum nutans</i>	INDIAN GRASS	5	3	FACU	3-7' (6')	N/A										12,000	24.0000	1.50	5.29%	4.46%	
Grass/Sedge Subtotals																18.50	65.22%	47.44%				

Flowers & Other Broadleaves																						
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count						
ALLCER	<i>Allium cernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink										7,600	4.0000	0.25	0.88%	0.25%	
AMOCAN	<i>Amarpha canescens</i>	LEAD PLANT	9	5	UPL	1-3.5' (3')	Purple										16,000	1.0000	0.06	0.22%	0.25%	
ARNATR	<i>Araglossum atriplicifolium</i>	PALE INDIAN PLANTAIN	8	5	UPL	4-8' (6')	White										6,000	1.5000	0.09	0.33%	0.14%	
ASCYR	<i>Asclepias syriaca</i>	COMMON MILKWEED	0	3	FACU	2-5' (3')	Purple										4,000	3.0000	0.19	0.66%	0.19%	
ASCTUB	<i>Asclepias tuberosa</i>	BUTTERFLY WEED	7	5	UPL	1-3.5' (2.5')	Orange										4,300	6.0000	0.38	1.32%	0.40%	
ASTCAN	<i>Astragalus canadensis</i>	CANADIAN MILK VETCH	10	0	FAC	2-4' (3')	Cream										17,000	2.0000	0.13	0.44%	0.53%	
BAPAL	<i>Baptisia alba</i>	WHITE WILD INDIGO	8	3	FACU	2-5' (4')	White										1,700	4.0000	0.25	0.88%	0.11%	
CHAFAS	<i>Chamaecrista fasciculata</i>	PARTRIDGE PEA	5	3	FACU	1-3' (2')	Yellow										2,700	16.0000	1.00	3.53%	0.67%	
CORPAL	<i>Coreopsis palmata</i>	PRAIRIE COREOPSIS	6	5	UPL	1-2.5' (2')	Yellow										10,000	2.0000	0.13	0.44%	0.31%	
DALPUR	<i>Dalea purpurea</i>	PURPLE PRAIRIE CLOVER	9	5	UPL	1.5-3' (2')	Purple										15,000	8.0000	0.50	1.76%	1.86%	
DESCAA	<i>Desmodium canadense</i>	SHOWY TICK TREFOIL	4	3	FACU	3-6' (5')	Purple										5,500	1.0000	0.06	0.22%	0.09%	
DESILE	<i>Desmodium illinoense</i>	ILLINOIS TICK TREFOIL	6	5	UPL	3-6' (5')	Purple										4,300	1.0000	0.06	0.22%	0.07%	
DESISL	<i>Desmanthus illinoensis</i>	ILLINOIS SENSITIVE PLANT	3	3	FACU	2-5' (4')	Yellow										4,200	1.0000	0.06	0.22%	0.07%	
ECHPAL	<i>Echinacea pallida</i>	PALE PURPLE CONEFLOWER	8	5	UPL	2-4' (3')	Pink										5,200	12.0000	0.75	2.64%	0.97%	
ERYUCR	<i>Eryngium yuccifolium</i>	RATTLENAKE MASTER	9	0	FAC	2-5' (4')	White										7,500	4.0000	0.25	0.88%	0.46%	
EUPCOR	<i>Euphorbia corollata</i>	FLOWERING SPURGE	2	5	UPL	1-4' (3')	White										8,000	1.0000	0.06	0.22%	0.12%	
HELHEL	<i>Helianthus helianthoides</i>	FALSE SUNFLOWER	5	3	FACU	3-6' (5')	Yellow										6,300	16.0000	1.00	3.53%	1.56%	
HELPA	<i>Helianthus pauciflorus subsp. pauciflorus</i>	SHOWY SUNFLOWER	8	5	UPL	3-6' (5')	Yellow										4,000	1.0000	0.06	0.22%	0.06%	
LESCAP	<i>Lespedeza capitata</i>	ROUND-HEADED BUSH CLOVER	4	3	FACU	2-4' (3')	Green										8,000	2.0000	0.13	0.44%	0.25%	
LIAASP	<i>Liatis aspera</i>	ROUGH BLAZING STAR	6	5	UPL	2.5-5' (3')	Purple										16,000	2.0000	0.13	0.44%	0.50%	
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple										70,000	4.0000	0.25	0.88%	4.34%	
PARINT	<i>Parthenium integrifolium</i>	WILD QUININE	8	5	UPL	3-5' (4')	White										7,000	2.0000	0.13	0.44%	0.22%	
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	Yellow										130,000	4.0000	0.25	0.88%	8.06%	
POTARU	<i>Potentilla arguta</i>	PRAIRIE CINQUEFOIL	9	5	UPL	1-3' (2')	Yellow										230,000	0.1250	0.01	0.03%	0.45%	
RATPIN	<i>Ratibida pinnata</i>	YELLOW CONEFLOWER	4	5	UPL	3-6' (5')	Yellow										30,000	8.0000	0.50	1.76%	3.72%	
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow										92,000	8.0000	0.50	1.76%	11.40%	
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWEET BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow										43,000	2.0000	0.13	0.44%	1.33%	
SILINI	<i>Silphium integrifolium</i>	ROSNIN WEED	5	3	FACU	2-6' (5')	Yellow										1,200	8.0000	0.50	1.76%	0.15%	
SILLAC	<i>Silphium laciniatum</i>	COMPASS PLANT	5	5	UPL	6-9' (8')	Yellow										660	1.5000	0.09	0.33%	0.02%	
SILTER	<i>Silphium terebinthaceum</i>	PRAIRIE DOCK	5	0	FAC	6-12' (9')	Yellow										1,000	1.0000	0.06	0.22%	0.02%	
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow										41,000	4.0000	0.25	0.88%	2.54%	
SOLSPE	<i>Solidago speciosa</i>	SHOWY GOLDENROD	7	5	UPL	3-6' (5')	Yellow										95,000	1.0000	0.06	0.22%	1.47%	
SYMERI	<i>Symphoricarpon ericoides</i>	HEATH ASTER	5	3	FACU	1-3' (2')	White										200,000	0.2500	0.02	0.06%	0.77%	
SYMMLA	<i>Symphoricarpon laeve</i>	SMOOTH BLUE ASTER	9	3	FACU	2.5-5' (4')	Blue										55,000	2.0000	0.13	0.44%	1.70%	
SYMNOV	<i>Symphoricarpon novae-angliae</i>	NEW ENGLAND ASTER	4	-3	FACW	4-6' (5')	Purple										65,000	1.0000	0.06	0.22%	1.01%	
SYMOOD	<i>Symphoricarpon oolentangiense</i>	SKY-BLUE ASTER	8	5	UPL	2-5' (3')	Blue										80,000	1.0000	0.06	0.22%	1.24%	
THADAD	<i>Thalictrum dasycarpum</i>	PURPLE MEADOW RUE	5	-3	FACW	4-7' (6')	Cream										11,000	2.0000	0.13	0.44%	0.34%	
TRAOHI	<i>Tradescantia ohioensis</i>	COMMON SPIDERWORT	2	3	FACU	2-4' (3')	Blue										8,000	4.0000	0.25	0.88%	0.50%	
VERSTR	<i>Verbena stricta</i>	HOARY VERVAIN	4	5	UPL	1-3' (2')	Blue										28,000	6.0000	0.38	1.32%	2.60%	
ZIAPAT	<i>Zizia aptera</i>	HEART-LEAVED MEADOW PARSNIP	10	3	FACU	1-3' (2')	Yellow										12,000	1.5000	0.09	0.33%	0.28%	
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow										11,000	8.0000	0.50	1.76%	1.36%	
Broadleaf Subtotals																9.87	34.78%	52.56%				
SEED MIX TOTALS																28.37	100.00%	100.00%				

Recommended Plug Species to Supplement Tallgrass Prairie Seed Mix																						
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S	O								
ASCUL	<i>Asclepias sullivantii</i>	PRAIRIE MILKWEED (5)	8	5	UPL	2-5' (3.5')	Pink										38	86.0	3,268.00	0.08	13.90%	
DODMEA	<i>Dodecatheon meadia</i>	SHOOTING STAR (1, 2)	6	3	FACU	1-2' (1.5')	Pink										38	86.0	3,268.00	0.08	13.90%	
GENALB	<i>Gentiana alba</i>	YELLOWISH GENTIAN (1, 4)	9	3	FACU	2-4' (3')	Cream										38	20.0	760.00	0.02	3.23%	
GENAND	<i>Gentiana andrewsii</i>	BOTTLE GENTIAN (1, 2, 4)	8	-3	FACW	1-3' (2')	Blue										38	20.0	760.00	0.02	3.23%	
GENPUB	<i>Gentiana puberulenta</i>	PRAIRIE GENTIAN (1, 2, 4, 5)	10	5	UPL	6"-2' (1')	Blue										38	20.0	760.00	0.02	3.23%	
GEUTRI	<i>Geum triflorum</i>	PRAIRIE SMOKE (1, 2)	10	3	FACU	6-12" (9")	Pink										38	86.0	3,268.00	0.08	13.90%	
HEURIC	<i>Heuchera richardsonii</i>	PRAIRIE ALUM ROOT (1, 2)	8	3	FACU	1-3' (2')	Green										38	20.0	760.00	0.02	3.23%	
LIAPYC	<i>Liatis pycnostachya</i>	PRAIRIE BLAZING STAR (1, 2)	8	0	FAC	1-2' (1.5')	Magenta										38	86.0	3,268.00	0.08	13.90%	
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow										38	20.0	760.00	0.02	3.23%	
PENHIR	<i>Penstemon hirsutus</i>	HAIRY BEARD TONGUE (5)	9	5	UPL	1-3' (1.5')	Purple										38	86.0	3,268.00	0.08	13.90%	
PHLPIP	<i>Phlox pilosa</i>	SAND PRAIRIE PHLOX (1, 2, 5)	7	3	FACU	1-3' (2')	Pink															



Mesic Prairie Seed Mix (Mesic Soils)

MIX STATISTICS	
Base Mix Without Supplemental Plugs	
Average Mix Height	3.6'
Median Mix Height	3.5'
Mix Height Mode (# of Occurrences in Mix)	4.0' (8), 3.0' (7), 5.0' (7), 2.0' (6), 2.5' (2), 3.5' (2), 1.0' (1), 1.5' (1), 7.0' (1), 8.0' (1)
Number of Native Species in Mix	36
Lbs/Acre of Native Seed	34.4
Propagules per Square Foot	0.0
Native FQI	31.3
Native Mean C Value	5.2
Native Mean W Value	1.9
National Wetland Category	Facultative / Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99%), but occur almost always (estimated probability >99%) under natural conditions

Mix Description: Pizzo's Mesic Prairie Seed Mix is designed for sunny areas that range from moist to moderately dry throughout the year. Certain species in this mix can take moderately saturated soils for wetter years, while others are adapted for dry periods. Over 40% of this mix is composed of wildflowers that will provide an array of blooms from April through October. This wildflower-packed seed mix will attract a plethora of native butterflies and birds. This is a medium height prairie with 64% of seeds typically averaging 3' high or less and just over 11% of seeds typically averaging 5' high or more at maturity. This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your prairie.

Grasses, Sedges, & Rushes																	
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME					SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A				S	O
BOUCUR	<i>Bouteloua curtipendula</i>	SIDE-OATS GRAMA	8	5	UPL	2-3' (2.5')	N/A						6,000	80.0000	5.00	14.53%	5.95%
CXBREV	<i>Carex brevior</i>	PLAINS OVAL SEDGE	4	0	FAC	6"-18" (12")	N/A						29,000	6.0000	0.38	1.09%	2.16%
CXSCOP	<i>Carex scoparia</i>	LANE-FRUITED OVAL SEDGE	7	-3	FACW	1-3' (2')	N/A						84,000	2.0000	0.13	0.36%	2.08%
ELYCAN	<i>Elymus canadensis</i>	CANADA WILD RYE	4	3	FACU	2-5' (3.5')	N/A						5,200	80.0000	5.00	14.53%	5.15%
ELYVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	2-5' (4')	N/A						4,200	48.0000	3.00	8.72%	2.50%
JUNDUD	<i>Juncus dudleyi</i>	DUDLEY'S RUSH	4	-3	FACW	1-3' (2')	N/A						3,200,000	0.1250	0.01	0.02%	4.96%
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A						14,000	32.0000	2.00	5.81%	5.55%
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A						15,000	160.0000	10.00	29.06%	29.74%
												Grass/Sedge Subtotals	25.51	74.12%	58.09%		

Flowers & Other Broadleaves																	
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME					SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A				S	O
ALLCER	<i>Allium cernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink						7,600	4.0000	0.25	0.73%	0.38%
ASCSYR	<i>Asclepias syriaca</i>	COMMON MILKWEED	0	3	FACU	2-5' (3')	Purple						4,000	8.0000	0.50	1.45%	0.40%
BAPALB	<i>Baptisia alba</i>	WHITE WILD INDIGO	8	3	FACU	2-5' (4')	White						1,700	4.0000	0.25	0.73%	0.08%
CHAFAS	<i>Chamaecrista fasciculata</i>	PARTRIDGE PEA	5	3	FACU	1-3' (2')	Yellow						2,700	16.0000	1.00	2.91%	0.54%
CORPAL	<i>Coreopsis palmata</i>	PRAIRIE COREOPSIS	6	5	UPL	1-2.5' (2')	Yellow						10,000	4.0000	0.25	0.73%	0.50%
CORTRP	<i>Coreopsis tripteris</i>	TALL COREOPSIS	5	0	FAC	5-8' (7')	Yellow						14,000	2.0000	0.13	0.36%	0.35%
DALPUR	<i>Dalea purpurea</i>	PURPLE PRAIRIE CLOVER	9	5	UPL	1.5-3' (2')	Purple						15,000	9.0000	0.56	1.63%	1.67%
DESCAA	<i>Desmodium canadense</i>	SHOWY TICK TREFOIL	4	3	FACU	3-6' (5')	Purple						5,500	2.5000	0.16	0.45%	0.17%
ECHPAL	<i>Echinacea pallida</i>	PALE PURPLE CONEFLOWER	8	5	UPL	2-4' (3')	Pink						5,200	8.0000	0.50	1.45%	0.52%
ECHPUR	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	3	5	UPL	2-5' (4')	Purple						6,600	6.0000	0.38	1.09%	0.49%
ERYUC	<i>Eryngium yuccifolium</i>	RATTLESNAKE MASTER	9	0	FAC	2-5' (4')	White						7,500	6.0000	0.38	1.09%	0.56%
HELHEL	<i>Heliopsis helianthoides</i>	FALSE SUNFLOWER	5	3	FACU	3-6' (5')	Yellow						6,300	16.0000	1.00	2.91%	1.25%
LESCAP	<i>Lespedeza capitata</i>	ROUND-HEADED BUSH CLOVER	4	3	FACU	2-4' (3')	Green						8,000	4.0000	0.25	0.73%	0.40%
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple						70,000	3.0000	0.19	0.54%	2.60%
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	White						130,000	4.0000	0.25	0.73%	6.44%
POTARU	<i>Potentilla arguta</i>	PRAIRIE CINQUEFOIL	9	5	UPL	1-3' (2')	Yellow						230,000	0.5000	0.03	0.09%	1.43%
PYCVIR	<i>Pycnanthemum virginianum</i>	COMMON MOUNTAIN MINT	5	-3	FACW	1-4' (3')	White						220,000	0.5000	0.03	0.09%	1.36%
RATPIN	<i>Ratibida pinnata</i>	YELLOW CONEFLOWER	4	5	UPL	3-6' (5')	Yellow						30,000	8.0000	0.50	1.45%	2.97%
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow						92,000	8.0000	0.50	1.45%	9.12%
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWEET BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow						43,000	4.0000	0.25	0.73%	2.13%
RUDTRI	<i>Rudbeckia triloba</i>	BROWN-EYED SUSAN	3	3	FACU	4-6' (5')	Yellow						34,000	2.0000	0.13	0.36%	0.84%
SILLAC	<i>Silphium laciniatum</i>	COMPASS PLANT	5	5	UPL	6-9' (8')	Yellow						660	2.0000	0.13	0.36%	0.02%
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow						41,000	4.0000	0.25	0.73%	2.03%
SYMLAE	<i>Symphotrichum laeve</i>	SMOOTH BLUE ASTER	9	3	FACU	2.5-5' (4')	Blue						55,000	1.5000	0.09	0.27%	1.02%
SYMNOV	<i>Symphotrichum novae-angliae</i>	NEW ENGLAND ASTER	4	-3	FACW	4-6' (5')	Purple						65,000	2.5000	0.16	0.45%	2.01%
TRAOHI	<i>Tradescantia ohioensis</i>	COMMON SPIDERWORT	2	3	FACU	2-4' (3')	Blue						8,000	4.0000	0.25	0.73%	0.40%
VERHAS	<i>Verbena hastata</i>	BLUE VERVAIN	4	-3	FACW	4-7' (5')	Blue						93,000	1.0000	0.06	0.18%	1.15%
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow						11,000	8.0000	0.50	1.45%	1.09%
												Broadleaf Subtotals	8.91	25.88%	41.91%		
												SEED MIX TOTALS	34.41	100.00%	100.00%		

Recommended Plug Species to Supplement Mesic-Wet Prairie Seed Mix																	
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME					PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A					
ASCPUR	<i>Asclepias purpurascens</i>	PURPLE MILKWEED (2, 5)	8	3	FACU	2-4' (3')	Purple						38	15.0	570.00	0.01	7.71%
GENALB	<i>Gentiana alba</i>	YELLOWISH GENTIAN (1, 4)	9	3	FACU	2-4' (3')	Cream						38	15.0	570.00	0.01	7.71%
HEURIC	<i>Heuchera richardsonii</i>	PRAIRIE ALUM ROOT (1, 2)	8	3	FACU	1-3' (2')	Green						38	15.0	570.00	0.01	7.71%
LIAPYC	<i>Liatriis pycnostachya</i>	PRAIRIE BLAZING STAR (1, 2)	8	0	FAC	1-2' (1.5')	Magenta						38	43.0	1,634.00	0.04	22.09%
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow						38	20.0	760.00	0.02	10.27%
ROSSSET	<i>Rosa setigera</i>	ILLINOIS ROSE (1, 2, 3, 5)	7	3	FACU	5-12' (6')	Pink						1	25.0	25.00	0.00	0.34%
RUDFUS	<i>Rudbeckia fulgida var. sullivantii</i>	SHOWY BLACK-EYED SUSAN (5)	8	-5	OBL	2-4' (3')	Yellow						38	43.0	1,634.00	0.04	22.09%
VERVIR	<i>Veronicastrum virginicum</i>	CULVER'S ROOT (1)	7	0	FAC	2-5' (3')	White						38	43.0	1,634.00	0.04	22.09%
												219.0	7,397.00	0.17	100.00%		

SUPPLEMENTED MIX STATISTICS	
Base Seed Mix Including Supplemental Plugs	
Number of Native Species in Mix	44
Native FQI	38.0
Native Mean C Value	5.7
Native Mean W Value	1.8
National Wetland Category	Facultative / Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99%), but occur almost always (estimated probability >99%) under natural conditions

Some species are not appropriate for inclusion into a seed mix, however they may be very desirable to have as part of the permanent plant matrix because of their ecological, habitat, and/or aesthetic value. The plug species listed above are appropriate for supplementing this seed mix. Following are the common reasons for not including these species within the seed mix: 1-Does not germinate well from seed in the field, 2-Seed is very expensive, 3-Low number of seeds per ounce, 4-Requires specialized microclimate, 5-Seed is not commercially available or is only available in small quantities

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
- 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Dry-Bottom Detention Basin Seed Mix (Mesic-Wet Soils at the Bottom of Basins or Swales)

MIX STATISTICS	
Base Mix Without Supplemental Plugs	
Average Mix Height	4.0'
Median Mix Height	4.0'
Mix Height Mode (# of Occurrences in Mix)	3.0' (10), 4.0' (9), 5.0' (7), 2.0' (2), 3.5' (2), 6.0' (2), 7.0' (2), 1.0' (1), 1.5' (1), 2.5 (1), 8.0' (1)
Number of Native Species in Mix	38
Lbs/Acre of Native Seed	30.3
Propagules per Square Foot	0.0
Native FQI	30.2
Native Mean C Value	4.9
Native Mean W Value	-0.4
National Wetland Category	Facultative - Equally likely to occur in wetlands or non-wetlands (estimated probability 34 - 66%)

Mix Description: Pizzo's Dry Bottom Detention Basin Mix is designed for sunny areas that flood periodically for short periods of time, ranging from 24 48 hours, but remain mesic-dry for most of the growing season. It is composed of species that tolerate fluctuating water levels & poor water quality, and is ideal for planting in the bottom of dry-bottom detention basins, within the "Bounce Zone" on detention basin slopes, dry-bottom bioswales, large rain gardens, and within open floodplains. This is a medium height prairie with over 56% of seeds typically averaging 3.0' high or less at maturity and about 18% of seeds typically averaging 5.0' high or more. While this mix does provide flowering species from April-October, it is designed to be a bit grass heavy (particularly long-term) with nearly 60% of seeds being grass & sedge species. Pizzo designed the mix in this fashion to ensure excellent erosion control when used in stormwater applications. This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your naturalized basin.

Grasses, Sedges, & Rushes																						
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count						
ANDGER	<i>Andropogon gerardii</i>	BIG BLUESTEM GRASS	5	0	FAC	6-8' (7')	N/A										10,000	64,000	4.00	13.20%	4.91%	
CXBEBB	<i>Carex bebbii</i>	BEBB'S OVAL SEDGE	6	-5	OBL	2-4' (3')	N/A										34,000	2,000	0.13	0.41%	0.52%	
CXBREV	<i>Carex brevior</i>	PLAINS OVAL SEDGE	4	0	FAC	6"-18" (12")	N/A										29,000	4,000	0.25	0.82%	0.89%	
CXHYST	<i>Carex hystericina</i>	PORCUPINE SEDGE	5	-5	OBL	2-4' (3')	N/A										30,000	4,000	0.25	0.82%	0.92%	
CXVULP	<i>Carex vulpinoidea</i>	BROWN FOX SEDGE	2	-3	FACW	2-4' (3')	N/A										100,000	8,000	0.50	1.65%	6.13%	
ELEPAL	<i>Eleocharis palustris</i>	GREAT SPIKE RUSH	10	-5	OBL	6"-18" (12")	N/A										51,000	4,000	0.25	0.82%	1.56%	
ELYCAN	<i>Elymus canadensis</i>	CANADA WILD RYE	4	3	FACU	2-5' (3.5')	N/A										5,200	32,000	2.00	6.60%	1.28%	
ELYVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	3-5' (4')	N/A										4,200	48,000	3.00	9.90%	1.55%	
JUNDUD	<i>Juncus dudleyi</i>	DUDLEY'S RUSH	4	-3	FACW	1-3' (2')	N/A										3,200,000	1,000	0.06	0.21%	24.54%	
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A										14,000	80,000	5.00	16.49%	8.59%	
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A										15,000	64,000	4.00	13.20%	7.36%	
SORNUT	<i>Sorghastrum nutans</i>	INDIAN GRASS	5	3	FACU	3-7' (6')	N/A										12,000	16,000	1.00	3.30%	1.47%	
Grass/Sedge Subtotals																20.44	67.42%	59.72%				

Flowers & Other Broadleaves																						
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count						
ALLCER	<i>Allium cernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink										7,600	4,000	0.25	0.82%	0.23%	
ASCINC	<i>Asclepias incarnata</i>	SWAMP MILKWEED	4	-5	OBL	3-5' (4')	Magenta										4,800	24,000	1.50	4.95%	0.88%	
CHAFAS	<i>Chamaecrista fasciculata</i>	PARTRIDGE PEA	5	3	FACU	1-3' (2')	Yellow										2,700	16,000	1.00	3.30%	0.33%	
CORTRP	<i>Coreopsis tripteris</i>	TALL COREOPSIS	5	0	FAC	5-8' (7')	Yellow										14,000	6,000	0.38	1.24%	0.64%	
DESCAA	<i>Desmodium canadense</i>	SHOWY TICK TRÉFOIL	4	3	FACU	3-6' (5')	Purple										5,500	4,000	0.25	0.82%	0.17%	
ECHPUR	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	3	5	UPL	2-5' (4')	Purple										6,600	16,000	1.00	3.30%	0.81%	
ERYYUC	<i>Eryngium yuccifolium</i>	RATTLESNAKE MASTER	9	0	FAC	2-5' (4')	White										7,500	12,000	0.75	2.47%	0.69%	
EUPPER	<i>Eupatorium perfoliatum</i>	COMMON BONESET	4	-5	OBL	3-6' (4')	White										160,000	0,500	0.03	0.10%	0.61%	
EUTGRA	<i>Euthamia graminifolia</i>	COMMON GRASS-LEAVED GOLDENROD	4	-3	FACW	2-4' (3')	Yellow										350,000	1,000	0.06	0.21%	2.68%	
EUTMAC	<i>Eutrochium maculatum</i>	SPOTTED JOE PYE WEED	4	-5	OBL	4-7' (5')	Pink										95,000	2,000	0.13	0.41%	1.46%	
HELAUT	<i>Helenium autumnale</i>	SNEEZEWEED	5	-3	FACW	2-5' (4')	Yellow										130,000	3,000	0.19	0.62%	2.99%	
KUHEUC	<i>Kuhnia eupatorioides corymbulosa</i>	FALSE BONESET	6	5	UPL	2-5' (3')	White										32,000	4,000	0.25	0.82%	0.98%	
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple										70,000	4,000	0.25	0.82%	2.15%	
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	White										130,000	4,000	0.25	0.82%	3.99%	
PYCVIR	<i>Pycnanthemum virginianum</i>	COMMON MOUNTAIN MINT	5	-3	FACW	1-4' (3')	White										220,000	2,000	0.13	0.41%	3.37%	
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow										92,000	8,000	0.50	1.65%	5.64%	
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWEET BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow										43,000	4,000	0.25	0.82%	1.32%	
RUDTRI	<i>Rudbeckia triloba</i>	BROWN-EYED SUSAN	3	3	FACU	4-6' (5')	Yellow										34,000	3,000	0.19	0.62%	0.78%	
SILLAC	<i>Silphium laciniatum</i>	COMPASS PLANT	5	5	UPL	6-9' (8')	Yellow										660	1,000	0.06	0.21%	0.01%	
SOLRID	<i>Solidago riddellii</i>	RIDDELL'S GOLDENROD	7	-5	OBL	2-4' (3')	Yellow										93,000	2,000	0.13	0.41%	1.43%	
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow										41,000	1,500	0.09	0.31%	0.47%	
SYMNOV	<i>Symphoricarpon novae-angliae</i>	NEW ENGLAND ASTER	5	-3	FACW	4-6' (5')	Purple										65,000	6,000	0.38	1.24%	2.99%	
THADAD	<i>Thalictrum dasycarpum</i>	PURPLE MEADOW RUE	4	-3	FACW	4-7' (6')	Cream										11,000	4,000	0.25	0.82%	0.34%	
VERFAS	<i>Vernonia fasciculata</i>	COMMON IRONWEED	5	-3	FACW	4-6' (5')	Purple										24,000	6,000	0.38	1.24%	1.10%	
VERHAS	<i>Verberna hastata</i>	BLUE VERVAIN	4	-3	FACW	4-7' (5')	Blue										93,000	4,000	0.25	0.82%	2.85%	
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow										11,000	16,000	1.00	3.30%	1.35%	
Broadleaf Subtotals																9.88	32.58%	40.28%				
SEED MIX TOTALS																30.31	100.00%	100.00%				

Recommended Plug Species to Supplement Dry Bottom Detention Basin Seed Mix																						
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S	O								
ELEACI	<i>Eleocharis acicularis</i>	NEEDLE SPIKE RUSH (5)	2	-5	OBL	6-12' (8")	N/A										38	43.0	1,634.00	0.04	8.41%	
ELEERY	<i>Eleocharis erythropoda</i>	RED-ROOTED SPIKE RUSH (5)	2	-5	OBL	2-4' (3')	N/A										38	20.0	760.00	0.02	3.91%	
FILRUB	<i>Filipendula rubra</i>	QUEEN OF THE PRAIRIE (1, 2, 5)	10	-5	OBL	4-6' (5')	Pink										38	43.0	1,634.00	0.04	8.41%	
GALBOR	<i>Galium boreale</i>	NORTHERN BEDSTRAW	7	0	FAC	1.5-3' (2')	White										38	20.0	760.00	0.02	3.91%	
GENAND	<i>Gentiana andrewsii</i>	BOTTLE GENTIAN (1, 2, 4)	8	-3	FACW	1-3' (2')	Blue										38	20.0	760.00	0.02	3.91%	
HEURIC	<i>Heuchera richardsonii</i>	PRAIRIE ALUM ROOT (1, 2)	8	3	FACU	1-3' (2')	Green										38	20.0	760.00	0.02	3.91%	
LIAPYC	<i>Liatris pycnostachya</i>	PRAIRIE BLAZING STAR (1, 2)	8	0	FAC	1-2' (1.5')	Magenta										38	86.0	3,268.00	0.08	16.83%	
LIASPI	<i>Liatris spicata</i>	MARSH BLAZING STAR (1, 2)	6	0	FAC	3-5' (4')	Purple										38	86.0	3,268.00	0.08	16.83%	
PHYVIV	<i>Physostegia virginiana</i>	OBEDIENT PLANT (2, 3)	6	-3	FACW	3-5' (4')	Purple										38	86.0	3,268.00	0.08	16.83%	
ROSSET	<i>Rosa setigera</i>	ILLINOIS ROSE (1, 2, 3, 5)	7	3	FACU	5-12' (6')	Pink										1	20.0	20.00	0.00	0.10%	
RUDFUS	<i>Rudbeckia fulgida var. sullivantii</i>	SHOWY BLACK-EYED SUSAN (5)	8	-5	OBL	2-4' (3')	Yellow										1	20.0	20.00	0.00	0.10%	
VERVIR	<i>Veronicastrum virginicum</i>	CULVER'S ROOT (1)	7	0	FAC	2-5' (3')	White										38	86.0	3,268.00	0.08	16.83%	
Subtotal																550.0	19,420.00	0.45	100.00%			

SUPPLEMENTED MIX STATISTICS	
Base Seed Mix Including Supplemental Plugs	
Number of Native Species in Mix	50
Native FQI	37.5
Native Mean C Value	5.3
Native Mean W Value	-0.7
National Wetland Category	Facultative Wetland / Facultative - Usually occur in wetlands (estimated probability 67 - 99%), but occasionally found in non-wetlands (estimated probability 34 - 66%)

Notes:
 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Wet-Mesic Prairie Seed Mix (Wet-Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height	4.2'
Median Mix Height	4.0'
Mix Height Mode (# of Occurrences in Mix)	4.0' (13), 3.0' (9), 5.0' (9), 7.0' (3), 2.0' (2), 6.0' (2), 8.0' (2), 0.5' (2), 0.75' (1), 2.5' (1), 3.5' (1)
Number of Native Species in Mix	44
Lbs/Acre of Native Seed	18.3
Propagules per Square Foot	0.0
Native FQI	34.5
Native Mean C Value	5.2
Native Mean W Value	-2.0
National Wetland Category	Facultative Wetland / Facultative - Usually occur in wetlands (estimated probability 67 - 99%), but occasionally found in non-wetlands (estimated probability 34 - 66%)

Mix Description: Pizzo's Wet-Mesic Prairie Seed Mix is designed for sunny areas that are moist to fairly wet; without drying out completely except in the height of summer and more extensively in particularly dry years. Most of the species in this mix can take consistently saturated soils, while about 1/3 of the species are adapted to facultative - upland conditions. Over 50% of this mix is composed of wildflowers that will provide an array of blooms from April through October. This is a medium-tall height prairie with about 35% of seeds typically averaging 3.0' high or less and just over 16% of seeds typically averaging 5.0' high or more at maturity. This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your prairie.

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
ANDGER	<i>Andropogon gerardii</i>	BIG BLUESTEM GRASS	5	0	FAC	6-8' (7')	N/A							10,000	24,000.00	1.50	8.19%	2.32%
CALCAN	<i>Calamagrostis canadensis</i>	BLUE JOINT GRASS	3	-5	OBL	3-5' (4')	N/A							280,000	2,500.00	0.16	0.85%	6.77%
CXBREV	<i>Carex brevior</i>	PLAINS OVAL SEDGE	4	0	FAC	6"-18" (12")	N/A							29,000	4,000.00	0.25	1.36%	1.12%
CXSOP	<i>Carex scoparia</i>	LANCE-FRUITED OVAL SEDGE	7	-3	FACW	1-3' (2')	N/A							84,000	2,000.00	0.13	0.68%	1.62%
CXVULP	<i>Carex vulpinoidea</i>	BROWN FOX SEDGE	2	-3	FACW	2-4' (3')	N/A							100,000	6,000.00	0.38	2.05%	5.80%
ELEPAL	<i>Eleocharis palustris</i>	GREAT SPIKE RUSH	10	-5	OBL	6"-18" (12")	N/A							51,000	4,000.00	0.25	1.36%	1.97%
ELVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	3-5' (4')	N/A							4,200	48,000.00	3.00	16.38%	1.95%
GLVSTR	<i>Glyceria striata</i>	FOWL MANNIA GRASS	4	-5	OBL	2-4' (3')	N/A							90,000	2,000.00	0.13	0.68%	1.74%
JUNDUJ	<i>Juncus dudleyi</i>	DUDLEY'S RUSH	4	-3	FACW	1-3' (2')	N/A							3,200,000	0.1250	0.01	0.04%	3.87%
PANVIR	<i>Panicum virgatum</i>	SWITCH GRASS	5	0	FAC	3-5' (4')	N/A							14,000	48,000.00	3.00	16.38%	6.50%
SCIATR	<i>Scirpus atrovirens</i>	DARK GREEN RUSH	4	-5	OBL	3-6' (5')	N/A							460,000	1,000.00	0.06	0.34%	4.45%
SCICYP	<i>Scirpus cyperinus</i>	WOOL GRASS	6	-5	OBL	3-5' (4')	N/A							1,700,000	0.5000	0.03	0.17%	8.22%
SORNUT	<i>Sorghastrum nutans</i>	INDIAN GRASS	5	3	FACU	3-7' (6')	N/A							12,000	16,000.00	1.00	5.46%	1.86%
SRAPEC	<i>Spartina pectinata</i>	PRAIRIE CORD GRASS	4	-3	FACW	5-9' (7')	N/A							6,600	16,000.00	1.00	5.46%	1.02%
												Grass/Sedge Subtotals		10.88	59.40%	49.22%		

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
ASCINC	<i>Asclepias incarnata</i>	SWAMP MILKWEED	4	-5	OBL	3-5' (4')	Magenta							4,800	16,000.00	1.00	5.46%	0.74%
BIDCER	<i>Bidens cernua</i>	NODDING BUR MARI GOLD	5	-5	OBL	2-4' (3')	Yellow							21,000	3,000.00	0.19	1.02%	0.61%
BOLASR	<i>Boltonia asteroides var. recognita</i>	FALSE AUSTER	9	-5	OBL	3-5' (4')	White							160,000	1,000.00	0.06	0.34%	1.55%
SENHEB	<i>Senna hebecarpa</i>	WILD SENNA	9	-3	FACW	3-6' (5')	Yellow							1,400	9,000.00	0.56	3.07%	0.12%
CORTRP	<i>Careopsis tripteris</i>	TALL COREOPSIS	5	0	FAC	5-8' (7')	Yellow							14,000	2,000.00	0.13	0.68%	0.27%
DESCAA	<i>Desmodium canadense</i>	SHOWY TICK TREFOIL	4	3	FACU	3-6' (5')	Purple							5,500	2,500.00	0.16	0.85%	0.13%
DOELUMB	<i>Doellingeria umbellata</i>	FLAT-TOP ASTER	9	-3	FACW	3-5' (4')	Cream							67,000	1,500.00	0.09	0.51%	0.97%
ECHPUR	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	3	5	UPL	2-5' (4')	Purple							6,600	8,000.00	0.50	2.73%	0.51%
ERYIUC	<i>Eryngium yuccifolium</i>	RATTLESNAKE MASTER	9	0	FAC	2-5' (4')	White							7,500	8,000.00	0.50	2.73%	0.58%
EUPPER	<i>Eupatorium perfoliatum</i>	COMMON BONESET	4	-5	OBL	3-6' (4')	White							160,000	1,000.00	0.06	0.34%	1.55%
EUTGRA	<i>Euthamia graminifolia</i>	GRASS-LEAVED GOLDENROD	4	-2	FACW	2-4' (3')	Yellow							350,000	0.5000	0.03	0.17%	1.69%
EUTMAC	<i>Eutrochium maculatum</i>	SPOTTED JOE PYE WEED	4	-5	OBL	4-7' (5')	Pink							95,000	3,000.00	0.19	1.02%	2.76%
HELAUT	<i>Helenium autumnale</i>	SNEEZEWEED	5	-3	FACW	2-5' (4')	Yellow							130,000	1,000.00	0.06	0.34%	1.26%
IRIVIS	<i>Iris virginica shrevei</i>	BLUE FLAG	5	-5	OBL	2-4' (3')	Blue							1,000	16,000.00	1.00	5.46%	0.15%
LOBSIP	<i>Lobelia siphilitica</i>	GREAT BLUE LOBELIA	6	-5	OBL	2-4' (3')	Blue							500,000	1,000.00	0.06	0.34%	4.84%
MIMRIN	<i>Mimulus ringens</i>	MONKEY FLOWER	6	-5	OBL	2-4' (2.5')	Purple							2,300,000	0.5000	0.03	0.17%	11.12%
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple							70,000	3,000.00	0.19	1.02%	2.03%
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-3.5' (3.5')	White							130,000	4,000.00	0.25	1.36%	5.03%
PYCVIR	<i>Pycnanthemum virginianum</i>	COMMON MOUNTAIN MINT	5	-3	FACW	1-4' (3')	White							220,000	2,000.00	0.13	0.68%	4.26%
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWEET BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow							43,000	4,000.00	0.25	1.36%	1.66%
RUDTRI	<i>Rudbeckia triloba</i>	BROWN-EYED SUSAN	3	3	FACU	4-6' (5')	Yellow							34,000	2,000.00	0.13	0.68%	0.66%
SILLAC	<i>Silphium laciniatum</i>	COMPASS PLANT	5	5	UPL	6-9' (8')	Yellow							660	1,000.00	0.06	0.34%	0.01%
SILPER	<i>Silphium perfoliatum</i>	CUP PLANT	5	-3	FACW	5-10' (8')	Yellow							1,400	0.5000	0.03	0.17%	0.01%
SOLRID	<i>Solidago riddellii</i>	RIDDELL'S GOLDENROD	7	-5	OBL	2-4' (3')	Yellow							93,000	1,000.00	0.06	0.34%	0.90%
SOLRIG	<i>Solidago rigida</i>	STIFF GOLDENROD	4	3	FACU	3-6' (4')	Yellow							41,000	2,000.00	0.13	0.68%	0.79%
SYMNOV	<i>Symphytichium novae-angliae</i>	NEW ENGLAND ASTER	4	-3	FACW	4-6' (5')	Purple							65,000	4,000.00	0.25	1.36%	2.51%
THADAD	<i>Thalictrum dasyacarpum</i>	PURPLE MEADOW RUE	5	-3	FACW	4-7' (6')	Cream							11,000	2,000.00	0.13	0.68%	0.21%
VERFAS	<i>Vernonia fasciculata</i>	COMMON IRONWEED	5	-3	FACW	4-6' (5')	Purple							24,000	1,500.00	0.09	0.51%	0.35%
VERHAS	<i>Verbena hastata</i>	BLUE VERVAIN	4	-3	FACW	4-7' (5')	Blue							93,000	2,000.00	0.13	0.68%	1.80%
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow							11,000	16,000.00	1.00	5.46%	1.70%
												Broadleaf Subtotals		7.44	40.60%	50.78%		
												SEED MIX TOTALS		18.32	100.00%	100.00%		

Recommended Plug Species to Supplement Mesic-Wet Prairie Seed Mix

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S					
ASCPUR	<i>Asclepias purpurascens</i>	PURPLE MILKWEED (2, 5)	8	3	FACU	2-4' (3')	Purple							38	15.0	570.00	0.01	3.57%
SENHEB	<i>Senna hebecarpa</i>	WILD SENNA (2, 3)	9	-3	FACW	3-6' (5')	Yellow							38	15.0	570.00	0.01	3.57%
ELEACI	<i>Eleocharis acicularis</i>	NEEDLE SPIKE RUSH (5)	2	-5	OBL	6-12' (8')	N/A							38	15.0	570.00	0.01	3.57%
ELEERY	<i>Eleocharis erythropoda</i>	RED-ROOTED SPIKE RUSH (5)	2	-5	OBL	2-4' (3')	N/A							38	15.0	570.00	0.01	3.57%
FILRUB	<i>Filipendula rubra</i>	QUEEN OF THE PRAIRIE (1, 2, 5)	10	-5	OBL	4-6' (5')	Pink							38	20.0	760.00	0.02	4.77%
GENAND	<i>Gentiana andrewsii</i>	BOTTLE GENTIAN (1, 2, 4)	8	-3	FACW	1-3' (2')	Blue							38	20.0	760.00	0.02	4.77%
HEURIC	<i>Heuchera richardsonii</i>	PRAIRIE ALUM ROOT (1, 2)	8	3	FACU	1-3' (2')	Green							38	15.0	570.00	0.01	3.57%
JUNTOR	<i>Juncus torreyi</i>	TORREY'S RUSH (5)	4	-3	FACW	6" - 18" (12")	N/A							38	43.0	1,634.00	0.04	10.25%
LIAPYC	<i>Liatris pycnostachya</i>	PRAIRIE BLAZING STAR (1, 2)	8	0	FAC	1-2' (1.5')	Magenta							38	43.0	1,634.00	0.04	10.25%
LIASPI	<i>Liatris spicata</i>	MARSH BLAZING STAR (1, 2)	6	0	FAC	3-5' (4')	Purple							38	86.0	3,268.00	0.08	20.50%
NAPDIO	<i>Napaea dioica</i>	GLADE MALLOW (1, 3)	10	-3	FACW	5-8' (7')	White							38	20.0	760.00	0.02	4.77%
ONOSEN	<i>Onoclea sensibilis</i>	SENSITIVE FERN (5)	8	-3	FACW	1-2' (1.5')	N/A							1	150.0	150.00	0.00	0.94%
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow							38	20.0	760.00	0.02	4.77%
PHYVIV	<i>Physostegia virginiana</i>	OBEDIENT PLANT	6	-3	FACW	3-5' (4')	Purple							38	20.0	760.00	0.02	4.77%
ROSSET	<i>Rosa setigera</i>	ILLINOIS ROSE (1, 2, 3, 5)	7	3	FACU	5-12' (6')	Pink							1	25.0	25.00	0.00	0.16%
RUDFUS	<i>Rudbeckia fulgida var. sullivantii</i>	SHOWY BLACK-EYED SUSAN (5)	8	-5	OBL	2-4' (3')	Yellow							38	25.0	950.00	0.02	5.96%
VERVIR	<i>Veronicastrum virginicum</i>	CULVER'S ROOT (1)	7	0	FAC	2-5' (3')	White							38	43.0	1,634.00	0.04	10.25%
														590.0	15,945.00	0.37	100.00%	



Wetland Seed Mix (Saturated Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height	3.5'	Mix Description: Pizzo's Wetland Seed Mix is designed for consistently saturated soil that does not dry out or areas with shallow standing water (up to 2" of consistent water depth). In addition to the traditional wetland application, this mix is also ideal for use directly adjacent to the waterline of pond and stream shorelines where the soil remains saturated and the water level consistently fluctuates 1-2". Over two-thirds of the seeds in this mix are sedges, rushes, and grasses. To complement this dark green aesthetic, the remaining third of the mix is composed of wildflowers which will provide an array of blooms from May through October. This Wetland mix will result in a short-medium profile with about 40% of seeds typically averaging 3.0' high or less at maturity. This mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your wetland.
Median Mix Height	3.0'	
Mix Height Mode (# of Occurrences in Mix)	3.0' (12), 4.0' (8), 5.0' (8), 2.0' (7), 0.75' (1), 2.5' (1), 7.0' (1), 8.0' (1)	
Number of Native Species in Mix	39	
Lbs/Acre of Native Seed	12.4	
Propagules per Square Foot	0.0	
Native FQI	33.0	
Native Mean C Value	5.3	
Native Mean W Value	4.3	
National Wetland Category	Obligate Wetland / Facultative Wetland - Occur almost always (estimated probability >99%) but occasionally found in non-wetlands (estimated probability 1 - 33%)	

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count						
CALCAN	<i>Calamagrostis canadensis</i>	BLUE JOINT GRASS	3	-5	OBL	3-5' (4')	N/A										280,000	2,000	0.13	1.01%	4.01%	
CXCOMO	<i>Carex comosa</i>	BRISTLY SEDGE	5	-5	OBL	1-3' (2')	N/A										30,000	2,000	0.13	1.01%	0.43%	
CXCRIS	<i>Carex cristatella</i>	CRESTED OVAL SEDGE	4	-3	FACW	2-4' (3')	N/A										58,000	1,000	0.06	0.50%	0.42%	
CXFRAN	<i>Carex frankii</i>	BRISTLY CATTAIL SEDGE	8	-5	OBL	1-3' (2')	N/A										17,000	2,500	0.16	1.26%	0.30%	
CXHST	<i>Carex hystericina</i>	PORCUPINE SEDGE	5	-5	OBL	2-4' (3')	N/A										30,000	2,000	0.13	1.01%	0.43%	
CXLUPN	<i>Carex lupulina</i>	COMMON HOP SEDGE	7	-5	OBL	2-4' (3')	N/A										3,300	16,000	1.00	8.05%	0.38%	
CXSCOP	<i>Carex scoparia</i>	LANCE-FRUITED OVAL SEDGE	7	-3	FACW	1-3' (2')	N/A										84,000	3,000	0.19	1.51%	1.81%	
CXSTIP	<i>Carex stipata</i>	COMMON FOX SEDGE	3	-5	OBL	2-4' (3')	N/A										34,000	1,000	0.06	0.50%	0.24%	
CXVULP	<i>Carex vulpinoidea</i>	BROWN SPIKE SEDGE	2	-3	FACW	2-4' (3')	N/A										100,000	4,000	0.25	2.01%	2.87%	
ELEPAL	<i>Eleocharis palustris</i>	GREAT SPIKE RUSH	10	-5	OBL	6"-18" (12")	N/A										51,000	3,000	0.19	1.51%	1.10%	
ELYVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	3-5' (4')	N/A										4,200	48,000	3.00	24.14%	1.44%	
GLYSTR	<i>Glyceria striata</i>	FOWL MANNA GRASS	4	-5	OBL	2-4' (3')	N/A										90,000	2,000	0.13	1.01%	1.29%	
JUNDUD	<i>Juncus dudleyi</i>	DUDLEY'S RUSH	4	-3	FACW	1-3' (2')	N/A										3,200,000	0.2500	0.02	0.13%	5.73%	
JUNEFF	<i>Juncus effusus</i>	COMMON RUSH	7	-5	OBL	1-3' (2')	N/A										1,000,000	1,000	0.06	0.50%	7.16%	
LEEORY	<i>Leersia oryzoides</i>	RICE CUT GRASS	4	-5	OBL	3-5' (4')	N/A										34,000	8,000	0.50	4.02%	1.95%	
SCIATR	<i>Scirpus atrovirens</i>	DARK GREEN RUSH	4	-5	OBL	3-6' (5')	N/A										460,000	4,000	0.25	2.01%	13.18%	
SCICYP	<i>Scirpus cyperinus</i>	WOOL GRASS	6	-5	OBL	3-5' (4')	N/A										1,700,000	2,000	0.13	1.01%	24.36%	
SPAPEC	<i>Spartina pectinata</i>	PRAIRIE CORD GRASS	4	-3	FACW	5-9' (7')	N/A										6,600	6,000	0.38	3.02%	0.28%	
Grass/Sedge Subtotals																6.73	54.20%	67.38%				

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count						
ALISUB	<i>Alisma subcordatum</i>	COMMON WATER PLANTAIN	4	-5	OBL	1-3' (2')	White										60,000	4,000	0.25	2.01%	1.72%	
ASCINC	<i>Asclepias incarnata</i>	SWAMP MILKWEED	4	-5	OBL	3-5' (4')	Magenta										4,800	24,000	1.50	12.07%	0.83%	
BOLASR	<i>Boltonia asteroides var. recognita</i>	FALSE ASTER	9	-5	OBL	3-5' (4')	White										160,000	0.7500	0.05	0.38%	0.86%	
SENHEB	<i>Senna hebecarpa</i>	WILD SENNA	9	-3	FACW	3-6' (5')	Yellow										1,400	1,000	0.06	0.50%	0.01%	
CHEGLB	<i>Chelone glabra</i>	TURTLEHEAD	8	-5	OBL	3-6' (5')	Cream										92,000	1,000	0.06	0.50%	0.66%	
EUPPER	<i>Eupatorium perfoliatum</i>	COMMON BONESET	4	-5	OBL	3-6' (4')	White										160,000	1,000	0.06	0.50%	1.15%	
EUTGRA	<i>Euthamia graminifolia</i>	COMMON GRASS-LEAVED GOLDENROD	4	-3	FACW	2-4' (3')	Yellow										350,000	0.5000	0.03	0.25%	1.25%	
EUTMAC	<i>Eutrachium maculatum</i>	SPOTTED JOE PYE WEED	4	-5	OBL	4-7' (5')	Pink										95,000	3,000	0.19	1.51%	2.04%	
HELAUT	<i>Helenium autumnale</i>	SNEEZEWEED	5	-3	FACW	2-5' (4')	Yellow										130,000	2,000	0.13	1.01%	1.86%	
HIBLAE	<i>Hibiscus laevis</i>	HALBERD-LEAVED ROSE MALLOW	6	-5	OBL	3-6' (5')	Pink										2,800	6,000	0.38	3.02%	0.12%	
IRIVIS	<i>Iris virginica shrevei</i>	BLUE FLAG	5	-5	OBL	2-4' (3')	Blue										1,000	24,000	1.50	12.07%	0.17%	
LOBSIP	<i>Labelia siphilitica</i>	GREAT BLUE LOBELIA	6	-5	OBL	2-4' (3')	Blue										500,000	0.5000	0.03	0.25%	1.79%	
LYTALA	<i>Lythrum alatum</i>	WINGED LOOSESTRIFE	7	-5	OBL	2-4' (3')	Purple										3,000,000	0.0625	0.00	0.03%	1.34%	
MIMRIN	<i>Mimulus ringens</i>	MONKEY FLOWER	6	-5	OBL	2-4' (2.5')	Purple										2,300,000	0.2500	0.02	0.13%	4.12%	
PENSED	<i>Penthorum sedoides</i>	DITCH STONECROP	5	-5	OBL	1-3' (2')	Green										1,300,000	0.5000	0.03	0.25%	4.66%	
SAGLAT	<i>Sagittaria latifolia</i>	COMMON ARROWHEAD	4	-5	OBL	2-4' (3')	White										61,000	2,000	0.13	1.01%	0.87%	
SILPER	<i>Silphium perfoliatum</i>	CUP PLANT	5	-3	FACW	5-10' (8')	Yellow										1,400	0.5000	0.03	0.25%	0.01%	
SOLRID	<i>Solidago riddellii</i>	RIDDELL'S GOLDENROD	7	-5	OBL	2-4' (3')	Yellow										93,000	2,000	0.13	1.01%	1.33%	
SYMNOV	<i>Symphoricarpon novae-angliae</i>	NEW ENGLAND ASTER	4	-3	FACW	4-6' (5')	Purple										65,000	6,000	0.38	3.02%	2.79%	
VERFAS	<i>Veronica fasciculata</i>	COMMON IRONWEED	5	-3	FACW	4-6' (5')	Purple										24,000	6,000	0.38	3.02%	1.03%	
VERHAS	<i>Verbena hastata</i>	BLUE VERVAIN	4	-3	FACW	4-7' (5')	Blue										93,000	6,000	0.38	3.02%	4.00%	
Broadleaf Subtotals																5.69	45.80%	32.62%				
SEED MIX TOTALS																12.43	100.00%	100.00%				

Recommended Plug Species to Supplement Wetland Seed Mix

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME										PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SPF	% OF TOTAL PLUGS
								A	M	J	J	A	S	O								
CXLUPN	<i>Carex lupulina</i>	COMMON HOP SEDGE (2, 3)	7	-5	OBL	2-4' (3')	N/A										38	20.0	760.00	0.02	3.04%	
CXSTRI	<i>Carex stricta</i>	COMMON TUSSOCK SEDGE (2, 3)	5	-5	OBL	2-4' (3')	N/A										38	20.0	760.00	0.02	3.04%	
SENHEB	<i>Senna hebecarpa</i>	WILD SENNA (2, 3)	9	-3	FACW	3-6' (5')	Yellow										38	15.0	570.00	0.01	2.28%	
DOEUMB	<i>Doellingeria umbellata</i>	FLAT-TOP ASTER (1, 2)	9	-3	FACW	3-5' (4')	Cream										38	20.0	760.00	0.02	3.04%	
ELEACI	<i>Eleocharis acicularis</i>	NEEDLE SPIKE RUSH (5)	2	-5	OBL	6-12' (8')	N/A										38	15.0	570.00	0.01	2.28%	
ELEERY	<i>Eleocharis erythropoda</i>	RED-ROOTED SPIKE RUSH (5)	2	-5	OBL	2-4' (3')	N/A										38	20.0	760.00	0.02	3.04%	
FILRUB	<i>Filipendula rubra</i>	QUEEN OF THE PRAIRIE (1, 2, 5)	10	-5	OBL	4-6' (5')	Pink										38	20.0	760.00	0.02	3.04%	
GENAND	<i>Gentiana andrewsii</i>	BOTTLE GENTIAN (1, 2, 4)	8	-3	FACW	1-3' (2')	Blue										38	15.0	570.00	0.01	2.28%	
JUNTOR	<i>Juncus torreyi</i>	TORREY'S RUSH (5)	4	-3	FACW	6" - 18" (12")	N/A										38	20.0	760.00	0.02	3.04%	
LIASPI	<i>Liatis spicata</i>	MARSH BLAZING STAR (1, 2)	6	0	FAC	3-5' (4')	Purple										38	20.0	760.00	0.02	3.04%	
LOBCAR	<i>Labelia cardinalis</i>	CARDINAL FLOWER (1, 2, 4)	7	-5	OBL	3-5' (4')	Red										38	86.0	3,268.00	0.08	13.09%	
LYCAME	<i>Lycopus americanus</i>	COMMON WATER HOREHOUND (5)	5	-5	OBL	1-3' (2')	White										38	86.0	3,268.00	0.08	13.09%	
MENARV	<i>Mentha arvensis villosa</i>	WILD MINT (5)	5	-3	FACW	1-3' (2')	White										38	20.0	760.00	0.02	3.04%	
ONOSEN	<i>Onoclea sensibilis</i>	SENSITIVE FERN (5)	8	-3	FACW	1-2' (1.5')	N/A										1	250.0	250.00	0.01	1.00%	
PEDLAN	<i>Pedicularis lanceolata</i>	FEN BETONY (1, 2, 5)	9	-5	OBL	2-4' (3')	Yellow										38	15.0	570.00	0.01	2.28%	
PELVIR	<i>Pedicularis virginica</i>	ARROW ARUM (2, 3)	10	-5	OBL	2-5' (4')	Green										38	86.0	3,268.00	0.08	13.09%	
PHYVIV	<i>Physostegia virginiana</i>	OBEDIENT PLANT (2, 3)	6	-3	FACW	3-5' (4')	Purple										38	86.0	3,268.00	0.08	13.09%	
SPAEUR	<i>Sparganium eurycarpum</i>	COMMON BUR REED (1)	6	-5	OBL	3-5' (4')	White										38	86.0	3,268.00	0.08	13.09%	
SPIALB	<i>Spiraea alba</i>	MEADOWSWEET (1, 5)	7	-3	FACW	3-5' (4')	White										1	25.0	25.00	0.00	0.10%	
SEED MIX TOTALS																925.0	24,975.00	0.57	100.00%			

SUPPLEMENTED MIX STATISTICS

Base Seed Mix Including Supplemental Plugs

Number of Native Species in Mix	58	Some species are not appropriate for inclusion into a seed mix, however they may be very desirable to have as part of the permanent plant matrix because of their ecological, habitat, and/or aesthetic value. The plug species listed above are appropriate for supplementing this seed mix. Following are the common reasons for not including these species within the seed mix: 1-Does not germinate well from seed in the field, 2-Seed is very expensive, 3-Low number of seeds per ounce, 4-Requires specialized microclimate, 5-Seed is not commercially available or is only available in small quantities
Native FQI	43.5	
Native Mean C Value	5.7	
Native Mean W Value	4.2	
National Wetland Category	Obligate Wetland / Facultative Wetland - Occur almost always (estimated probability >99%) but occasionally found in non-wetlands (estimated probability 1 - 33%)	

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
- 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Emergent Seed Mix (2-6" Water Depth)

MIX STATISTICS	
Base Mix Without Supplemental Plugs	
Average Mix Height	3.3'
Median Mix Height	3.0'
Mix Height Mode (# of Occurrences in Mix)	3.0' (12), 2.0' (4), 4.0' (4), 5.0' (3), 5.5' (1), 2.5' (1)
Number of Native Species in Mix	25
Lbs/Acre of Native Seed	6.9
Propagules per Square Foot	0.0
Native FQI	28.0
Native Mean C Value	5.6
Native Mean W Value	-4.9
National Wetland Category	Obligate Wetland - Occur almost always (estimated probability >99%) under natural conditions in wetlands

Mix Description: Pizzo's Emergent Seed Mix is designed to grow in shallow water 2" to 6" deep. It is ideal for shallow water wetlands and within the emergent zone of a pond or stream shoreline. Over 73% of the seeds in this mix are sedges, rushes, and grasses. To complement this dark green aesthetic, about a fourth of the mix composed of wildflowers, which provide an array of blooms from May through October. This emergent mix will result in a medium-tall profile with approximately 44% of seeds typically averaging 3.0' high or less. To achieve appropriate seed-to-soil contact for germination this mix must be planted prior to establishing normal water levels, or the water body must be drained in order to expose the soil within the targeted seeding area prior to seeding. We recommend installing appropriate temporary erosion control blanket over areas seeded with this mix. The Emergent seed mix can be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your wetland.

Grasses, Sedges, & Rushes																			
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX		
								A	M	J	J	A	S				O	by Weight	by Seed Count
CXCOMO	<i>Carex comosa</i>	BRISTLY SEDGE	5	-5	OBL	1-3' (2')	N/A								30,000	8,000	0.50	7.21%	2.27%
CXHST	<i>Carex hystericina</i>	PORCUPINE SEDGE	5	-5	OBL	2-4' (3')	N/A								30,000	4,000	0.25	3.60%	1.14%
CXLACU	<i>Carex lacustris</i>	COMMON LAKE SEDGE	6	-5	OBL	2-4' (3')	N/A								11,000	2,500	0.16	2.25%	0.26%
CXLUPN	<i>Carex lupulina</i>	COMMON HOP SEDGE	7	-5	OBL	2-4' (3')	N/A								3,300	8,000	0.50	7.21%	0.25%
CXSTRI	<i>Carex stricta</i>	COMMON TUSSOCK SEDGE	5	-5	OBL	2-4' (3')	N/A								53,000	1,000	0.06	0.90%	0.50%
CXVULP	<i>Carex vulpinoidea</i>	BROWN FOX SEDGE	2	-3	FACW	2-4' (3')	N/A								100,000	4,000	0.25	3.60%	3.78%
ELEPAL	<i>Eleocharis palustris</i>	GREAT SPIKE RUSH	10	-5	OBL	6"-18" (12")	N/A								51,000	4,000	0.25	3.60%	1.93%
JUNEFF	<i>Juncus effusus</i>	COMMON RUSH	7	-5	OBL	1-3' (2')	N/A								1,000,000	1,000	0.06	0.90%	9.46%
LEEORY	<i>Leersia oryzoides</i>	RICE CUT GRASS	4	-5	OBL	3-5' (4')	N/A								34,000	6,000	0.38	5.41%	1.93%
SCHTAB	<i>Schoenoplectus tabernaemontani</i>	GREAT BULRUSH	5	-5	OBL	4-7' (5.5')	N/A								31,000	8,000	0.50	7.21%	2.35%
SCIATR	<i>Scirpus atrovirens</i>	DARK GREEN RUSH	4	-5	OBL	3-6' (5')	N/A								460,000	4,000	0.25	3.60%	17.41%
SCICYP	<i>Scirpus cyperinus</i>	WOOL GRASS	6	-5	OBL	3-5' (4')	N/A								1,700,000	2,000	0.13	1.80%	32.16%
												Grass/Sedge Subtotals		3.28	47.30%	73.44%			

Flowers & Other Broadleaves																			
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX		
								A	M	J	J	A	S				O	by Weight	by Seed Count
ACOCAL	<i>Acorus calamus</i>	SWEET FLAG	7	-5	OBL	1-3' (2')	Green								6,600	12,000	0.75	10.81%	0.75%
ALISUB	<i>Alisma subcordatum</i>	COMMON WATER PLANTAIN	4	-5	OBL	1-3' (2')	White								60,000	4,000	0.25	3.60%	2.27%
ASCINC	<i>Asclepias incarnata</i>	SWAMP MILKWEED	4	-5	OBL	3-5' (4')	Magenta								4,800	4,000	0.25	3.60%	0.18%
BIDCER	<i>Bidens cernua</i>	NODDING BUR MARIGOLD	5	-5	OBL	2-4' (3')	Yellow								21,000	4,000	0.25	3.60%	0.79%
BIDTRC	<i>Bidens trichosperma</i>	TALL SWAMP MARIGOLD	9	-5	OBL	3-5' (4')	Yellow								6,500	2,000	0.13	1.80%	0.12%
EUTMAC	<i>Eutrochium maculatum</i>	SPOTTED JOE PYE WEED	4	-5	OBL	4-7' (5.5')	Pink								95,000	0.7500	0.05	0.68%	0.67%
HIBLAE	<i>Hibiscus laevis</i>	HALBERD-LEAVED ROSE MALLOW	6	-5	OBL	3-6' (5')	Pink								2,800	6,000	0.38	5.41%	0.16%
IRIVIS	<i>Iris virginica shrevei</i>	BLUE FLAG	5	-5	OBL	2-4' (3')	Blue								1,000	16,000	1.00	14.41%	0.15%
LUDALT	<i>Ludwigia alternifolia</i>	SEEDBOX	6	-5	OBL	2-4' (3')	Yellow								1,300,000	0.1250	0.01	0.11%	1.54%
LYTALA	<i>Lythrum alatum</i>	WINGED LOOSESTRIFE	7	-5	OBL	2-4' (3')	Purple								3,000,000	0.1250	0.01	0.11%	3.55%
MIMIRIN	<i>Mimulus ringens</i>	MONKEY FLOWER	6	-5	OBL	2-4' (2.5')	Purple								2,300,000	0.5000	0.03	0.45%	10.88%
SAGLAT	<i>Sagittaria latifolia</i>	COMMON ARROWHEAD	4	-5	OBL	2-4' (3')	White								61,000	8,000	0.50	7.21%	4.62%
SOLRID	<i>Solidago riddellii</i>	RIDDELL'S GOLDENROD	7	-5	OBL	2-4' (3')	Yellow								93,000	1,000	0.06	0.90%	0.88%
												Broadleaf Subtotals		3.66	52.70%	26.56%			
												SEED MIX TOTALS		6.94	100.00%	100.00%			

Recommended Plug Species to Supplement Emergent Seed Mix																			
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS	
								A	M	J	J	A	S						O
CXEMOR	<i>Carex emoryi</i>	RIVERBANK SEDGE (5)	6	-5	OBL	2-4' (3')	N/A								38	43.0	1,634.00	0.04	9.09%
ELEERY	<i>Eleocharis erythropoda</i>	RED-ROOTED SPIKE RUSH (5)	2	-5	OBL	2-4' (3')	N/A								38	43.0	1,634.00	0.04	9.09%
LOBCAR	<i>Lobelia cardinalis</i>	CARDINAL FLOWER (1, 2, 4)	7	-5	OBL	3-5' (4')	Red								38	43.0	1,634.00	0.04	9.09%
LYCAME	<i>Lycopus americanus</i>	COMMON WATER HOREHOUND (5)	5	-5	OBL	1-3' (2')	White								38	86.0	3,268.00	0.08	18.18%
PELVIR	<i>Peltandra virginica</i>	ARROW ARUM (2, 3)	10	-5	OBL	2-5' (4')	Green								38	86.0	3,268.00	0.08	18.18%
PONCOR	<i>Pontederia cordata</i>	PICKEREL WEED (1, 3, 5)	10	-5	OBL	1-3' (2')	Purple								38	86.0	3,268.00	0.08	18.18%
SPAEUR	<i>Spartanum eurycarpum</i>	COMMON BUR REED (1)	6	-5	OBL	3-5' (4')	White								38	86.0	3,268.00	0.08	18.18%
														473.0	17,974.00	0.41	100.00%		

SUPPLEMENTED MIX STATISTICS	
Base Seed Mix Including Supplemental Plugs	
Number of Native Species in Mix	32
Native FQI	32.9
Native Mean C Value	5.8
Native Mean W Value	-4.9
National Wetland Category	Obligate Wetland Occur almost always (estimated probability >99%) under natural conditions in wetlands

Some species are not appropriate for inclusion into a seed mix, however they may be very desirable to have as part of the permanent plant matrix because of their ecological, habitat, and/or aesthetic value. The plug species listed above are appropriate for supplementing this seed mix. Following are the common reasons for not including these species within the seed mix: 1-Does not germinate well from seed in the field, 2-Seed is very expensive, 3-Low number of seeds per ounce, 4-Requires specialized microclimate, 5-Seed is not commercially available or is only available in small quantities

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
- 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**



Savanna Seed Mix (Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height	3.1'
Median Mix Height	3.0'
Mix Height Mode (# of Occurrences in Mix)	3.0' (13), 2.0' (9), 4.0' (4), 5.0 (3), 3.5' (3), 6.0' (2), 2.5' (2), 1.5' (2)
Number of Native Species in Mix	36
Lbs/Acre of Native Seed	26.1
Propagules per Square Foot	0.0
Native FQI	31.7
Native Mean C Value	5.3
Native Mean W Value	3.4
National Wetland Category	Facultative Upland - Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occasionally found in wetlands (estimated probability 1 - 33 %)

Mix Description: Pizzo's Savanna Seed Mix is designed for areas with scattered native trees (typically 5-7 mature trees/acre) that provide light - part shade and have soils that remain mesic - dry for most of the growing season. This mix will help establish a historic native ground cover when re-creating the picturesque open tree native savannas that were so heavily sought after by the pioneers as they made their way west. Over 47% of this mix is composed of wildflowers that will provide an array of blooms from April through October. This is a short - medium height prairie with over 71% of seeds typically averaging 3.0' high or less at maturity. Pizzo highly recommends that this seed mix be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your savanna, especially in order to establish many of the spring ephemeral wildflowers historically associated with the savanna ecosystem.

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
ELYCAN	<i>Elymus canadensis</i>	CANADA WILD RYE	4	3	FACU	2-5' (3.5')	N/A							5,200	80.0000	5.00	19.13%	6.72%
ELYHYS	<i>Elymus hystrix</i>	BOTTLEBRUSH GRASS	5	3	FACU	2-5' (3.5')	N/A							7,600	16.0000	1.00	3.83%	1.96%
ELYVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	3-5' (4')	N/A							4,200	48.0000	3.00	11.48%	3.25%
SCHSCO	<i>Schizachyrium scoparium</i>	LITTLE BLUESTEM GRASS	5	3	FACU	2-3' (3')	N/A							15,000	160.0000	10.00	38.25%	38.75%
													Grass/Sedge Subtotals		19.00	72.68%	50.68%	

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
ALLCER	<i>Allium cernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink							7,600	4.0000	0.25	0.96%	0.49%
ANECYL	<i>Anemone cylindrica</i>	THIMBLEWEED	6	5	UPL	1-3' (2')	White							26,000	1.5000	0.09	0.36%	0.63%
AQUCAN	<i>Aquilegia canadensis</i>	WILD COLUMBINE	6	3	FACU	2-4' (3')	Red							38,000	2.0000	0.13	0.48%	1.23%
ARNATR	<i>Arnoglossum atriplicifolium</i>	PALE INDIAN PLANTAIN	8	5	UPL	4-8' (6')	White							6,000	1.0000	0.06	0.24%	0.10%
ASCTUB	<i>Asclepias tuberosa</i>	BUTTERFLY WEED	7	5	UPL	1-3.5' (2.5')	Orange							4,300	8.0000	0.50	1.91%	0.56%
CORPAL	<i>Coreopsis palmata</i>	PRAIRIE COREOPSIS	6	5	UPL	1-2.5' (2')	Yellow							10,000	4.0000	0.25	0.96%	0.65%
DESGLU	<i>Desmodium glutinosum</i>	POINTED TICK TREFOIL	5	5	UPL	1-3' (2')	Pink							840	8.0000	0.50	1.91%	0.11%
ECHPUR	<i>Echinacea purpurea</i>	PURPLE CONEFLOWER	3	5	UPL	2-5' (4')	Purple							6,600	6.0000	0.38	1.43%	0.64%
EUPCOR	<i>Euphorbia corollata</i>	FLOWERING SPURGE	2	5	UPL	1-4' (3')	White							8,000	2.0000	0.13	0.48%	0.26%
GERMAC	<i>Geranium maculatum</i>	WILD GERANIUM	4	3	FACU	1-3' (2')	Purple							5,000	4.0000	0.25	0.96%	0.32%
HELSTR	<i>Helianthus strumosus</i>	PALE-LEAVED SUNFLOWER	5	3	FACU	2-4' (3')	Yellow							4,200	3.0000	0.19	0.72%	0.20%
LESCAP	<i>Lespedeza capitata</i>	ROUND-HEADED BUSH CLOVER	4	3	FACU	2-4' (3')	Green							8,000	2.0000	0.13	0.48%	0.26%
LIASCP	<i>Liatris aspera</i>	ROUGH BLAZING STAR	6	5	UPL	2.5-5' (3')	Purple							16,000	2.0000	0.13	0.48%	0.52%
MAIRAC	<i>Maianthemum racemosum</i>	FEATHERY FALSE SOLOMON'S SEAL	3	3	FACU	1-3' (2')	White							400	16.0000	1.00	3.83%	0.10%
MONFIS	<i>Monarda fistulosa</i>	WILD BERGAMOT	4	3	FACU	3-5' (4')	Purple							70,000	2.0000	0.13	0.48%	2.26%
MONPUN	<i>Monarda punctata</i>	HORSE MINT	5	5	UPL	1-3' (2')	Purple							90,000	1.0000	0.06	0.24%	1.45%
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	White							130,000	1.5000	0.09	0.36%	3.15%
RATPIN	<i>Ratibida pinnata</i>	YELLOW CONEFLOWER	4	5	UPL	3-6' (5')	Yellow							30,000	6.0000	0.38	1.43%	2.91%
RUDHIR	<i>Rudbeckia hirta</i>	BLACK-EYED SUSAN	1	3	FACU	2-3' (2.5')	Yellow							92,000	8.0000	0.50	1.91%	11.88%
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWEET BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow							43,000	2.0000	0.13	0.48%	1.39%
SILSTE	<i>Silene stellata</i>	STARRY CAMPION	6	5	UPL	2-4' (3')	White							30,000	1.5000	0.09	0.36%	0.73%
SOLIUN	<i>Solidago juncea</i>	EARLY GOLDENROD	5	5	UPL	2-4' (3')	Yellow							290,000	1.0000	0.06	0.24%	4.68%
SOLSPE	<i>Solidago speciosa</i>	SHOWY GOLDENROD	7	5	UPL	3-6' (5')	Yellow							95,000	1.0000	0.06	0.24%	1.53%
SOLLUM	<i>Solidago ulmifolia</i>	ELM-LEAVED GOLDENROD	5	5	UPL	1-3' (2.5')	Yellow							130,000	0.7500	0.05	0.18%	1.57%
SYMFOR	<i>Symphoricarpos racemosa</i>	ARROW-LEAVED ASTER	5	5	UPL	2-4' (3')	Blue							135,000	0.5000	0.03	0.12%	1.09%
SYMLAE	<i>Symphoricarpos laevis</i>	SMOOTH BLUE ASTER	9	3	FACU	2.5-5' (4')	Blue							55,000	2.0000	0.13	0.48%	1.78%
SYMNOV	<i>Symphoricarpos novae-angliae</i>	NEW ENGLAND ASTER	4	-3	FACW	4-6' (5')	Purple							65,000	2.5000	0.16	0.60%	2.62%
SYMCOO	<i>Symphoricarpos oolentangiense</i>	SKY-BLUE ASTER	8	5	UPL	2.5' (3')	Blue							80,000	2.0000	0.13	0.48%	2.58%
SYMASHO	<i>Symphoricarpos shortii</i>	SHORT'S ASTER	8	5	UPL	2-4' (3')	Blue							60,000	1.0000	0.06	0.24%	0.97%
THADIO	<i>Thalictrum dioicum</i>	EARLY MEADOW RUE	7	3	FACU	1-3' (2')	Green							7,300	4.0000	0.25	0.96%	0.47%
TRAOHI	<i>Tradescantia ohiensis</i>	COMMON SPIDERWORT	2	3	FACU	2-4' (3')	Blue							8,000	6.0000	0.38	1.43%	0.77%
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow							11,000	8.0000	0.50	1.91%	1.42%
													Broadleaf Subtotals		7.14	27.32%	49.32%	
													SEED MIX TOTALS		26.14	100.00%	100.00%	

Recommended Plug Species to Supplement Savanna Seed Mix

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S					
ALLCAN	<i>Allium canadense</i>	WILD GARLIC (3)	2	3	FACU	1-2' (1.5')	Pink							38	20.0	760.00	0.02	2.10%
ANEVIR	<i>Anemone virginiana</i>	TALL ANEMONE (2, 3)	5	3	FACU	2-4' (3')	White							38	20.0	760.00	0.02	2.10%
CXBLAN	<i>Carex blanda</i>	COMMON WOOD SEDGE (5)	1	0	FAC	2-3' (2.5')	N/A							38	43.0	1,634.00	0.04	4.52%
CXPENS	<i>Carex pensylvanica</i>	COMMON OAK SEDGE (1, 2, 5)	5	5	UPL	6-12' (8')	N/A							38	86.0	3,268.00	0.08	9.05%
CXROSE	<i>Carex rosea</i>	CURLY-STYLED WOOD SEDGE (2, 5)	4	3	FACU	1-2' (1')	N/A							38	43.0	1,634.00	0.04	4.52%
CEAAME	<i>Ceanothus americanus</i>	NEW JERSEY TEA (1, 3)	6	5	UPL	1-3' (2')	White							38	10.0	380.00	0.01	1.05%
DODMEA	<i>Dodecatheon meadia</i>	SHOOTING STAR (1, 2)	6	3	FACU	1-2' (1.5')	Pink							38	86.0	3,268.00	0.08	9.05%
ERYALB	<i>Erythronium albidum</i>	WHITE TROUT LILY (5)	5	3	FACU	4-8' (6')	White							38	86.0	3,268.00	0.08	9.05%
GENAND	<i>Gentiana andrewsii</i>	BOTTLE GENTIAN (1, 2, 4)	8	-3	FACW	1-3' (2')	Blue							38	20.0	760.00	0.02	2.10%
HELDIV	<i>Helianthus divaricatus</i>	WOODLAND SUNFLOWER (3, 5)	5	5	UPL	4-7' (6')	Yellow							38	43.0	1,634.00	0.04	4.52%
HESSPA	<i>Hesperostipa spartea</i>	PORCUPINE GRASS (1, 3)	7	5	UPL	3-5' (4')	N/A							38	43.0	1,634.00	0.04	4.52%
HEURIC	<i>Heuchera richardsonii</i>	PRAIRIE ALLUM ROOT (1, 2)	8	3	FACU	1-3' (2')	Green							38	15.0	570.00	0.01	1.58%
IONLIN	<i>Ionactis linariaefolia</i>	FLAX-LEAVED ASTER (2, 3, 5)	10	5	UPL	1-2' (1')	Purple							38	20.0	760.00	0.02	2.10%
MAISTE	<i>Maianthemum stellatum</i>	STARRY FALSE SOLOMON'S SEAL (2, 3, 5)	5	0	FAC	1-3' (2')	White							38	20.0	760.00	0.02	2.10%
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow							38	20.0	760.00	0.02	2.10%
PENPAL	<i>Penstemon pallidus</i>	PALE BEARD TONGUE (5)	6	5	UPL	1-2' (1')	Cream							38	20.0	760.00	0.02	2.10%
PHLDIV	<i>Phlox divaricata</i>	WOODLAND PHLOX (1, 2, 5)	5	3	FACU	1-2' (1')	Blue							38	86.0	3,268.00	0.08	9.05%
PHLPIP	<i>Phlox pilosa</i>	SAND PRAIRIE PHLOX (2)	7	3	FACU	1-3' (2')	Pink							38	86.0	3,268.00	0.08	9.05%
POLREP	<i>Polemonium reptans</i>	JACOB'S LADDER (2, 3)	5	0	FAC	1-2' (1')	Blue							38	86.0	3,268.00	0.08	9.05%
POLBIC	<i>Polygonatum biflorum var. commutatum</i>	SMOOTH SOLOMON'S SEAL (3)	3	3	FACU	2-4' (3')	Green							1	100.0	100.00	0.00	0.28%
ROSCAR	<i>Rosa carolina</i>	PASTURE ROSE (1, 3)	5	3	FACU	1-3' (2')	Pink							1	25.0	25.00	0.00	0.07%
ROSSET	<i>Rosa setigera</i>	ILLINOIS ROSE (1, 2, 3, 5)	7	3	FACU	5-8' (6')	Pink							1	15.0	15.00	0.00	0.04%
SOLCAE	<i>Solidago caesia</i>	BLUE-STEMMED GOLDENROD (5)	7	3	FACU	1-3' (2')	Yellow							1	150.0	150.00	0.00	0.42%
TRIREC	<i>Trillium recurvatum</i>	RED TRILLIUM (5)	5	3	FACU	1-2' (1.5')	Red							1	150.0	150.00	0.00	0.42%



Woodland Seed Mix (Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height	3.3'
Median Mix Height	3.0'
Mix Height Mode (# of Occurrences in Mix)	3.0' (7), 2.0' (6), 5.0' (4), 6.0' (2), 4.0' (2), 3.5' (2), 1.0' (2), 7.0' (1), 2.5' (1), 1.5' (1)
Number of Native Species in Mix	28
Lbs/Acre of Native Seed	23.3
Propagules per Square Foot	0.0
Native FQI	29.9
Native Mean C Value	5.6
Native Mean W Value	2.0
National Wetland Category	Facultative / Facultative Upland - Usually occur in non-wetlands (estimated probability 67 - 99 %), but occur almost always (estimated probability >99 %) under natural conditions

Mix Description: Pizzo's Woodland Seed Mix is designed for areas with moderate-dense native tree populations (10+ mature trees/acre) that have a mostly closed canopy and a light-moderate understory tree/shrub layer providing part-full shade and that have soils which remain mesic for most of the growing season. This mix will help establish a diverse herbaceous understory that will provide habitat and a fuel source for conducting regular prescribed fire. Over 65% of this mix is composed of wildflowers that will provide an array of blooms from April through October. This is a short-medium height prairie with over 42% of seeds typically averaging 3.0' high or less at maturity. Pizzo highly recommends that this seed mix be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your woodland, especially in order to establish many of the beautiful spring ephemeral wildflowers historically associated with the woodland ecosystem.

Grasses, Sedges, & Rushes

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME											SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count							
BROPUB	<i>Bromus pubescens</i>	WOODLAND BROME	5	3	FACU	3-5' (4')	N/A										7,600	32.0000	2.00	8.60%	4.47%		
CXDAVI	<i>Carex davisi</i>	AWNED GRACEFUL SEDGE	7	0	FAC	1-3' (2')	N/A										9,000	16.0000	1.00	4.30%	2.65%		
CXFRAN	<i>Carex frankii</i>	BRISTLY CATTAIL SEDGE	8	-5	OBL	1-3' (2')	N/A										17,000	8.0000	0.50	2.15%	2.50%		
CXRADI	<i>Carex radiata</i>	STRAIGHT-STYLED WOOD SEDGE	6	0	FAC	1-2' (1')	N/A										41,000	3.0000	0.19	0.81%	2.26%		
ELYHYS	<i>Elymus hystrix</i>	BOTTLEBRUSH GRASS	5	3	FACU	2-5' (3.5')	N/A										7,600	48.0000	3.00	12.90%	6.71%		
ELYVIL	<i>Elymus villosus</i>	SILKY WILD RYE	5	3	FACU	2-4' (3')	N/A										5,500	32.0000	2.00	8.60%	3.24%		
ELYVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	3-5' (4')	N/A										4,200	160.0000	10.00	43.01%	12.36%		
Grass/Sedge Subtotals																18.69	80.38%	34.19%					

Flowers & Other Broadleaves

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME											SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S	O	by Weight	by Seed Count							
AGASCR	<i>Agastache scrophulariaefolia</i>	PURPLE GIANT HYSSOP	5	5	UPL	5-7' (6')	Purple										93,000	4.0000	0.25	1.08%	6.84%		
ALLCER	<i>Allium cernuum</i>	NODDING WILD ONION	7	3	FACU	1-2' (1.5')	Pink										7,600	3.0000	0.19	0.81%	0.42%		
AQUCAN	<i>Aquilegia canadensis</i>	WILD COLUMBINE	6	3	FACU	2-4' (3')	Red										38,000	4.0000	0.25	1.08%	2.80%		
ASCEXA	<i>Asclepias exaltata</i>	POKE MILKWEED	9	5	UPL	4-6' (5')	White										3,000	2.0000	0.13	0.54%	0.11%		
CAMAME	<i>Campanulastrum americanum</i>	TALL BELLFLOWER	3	0	FAC	3-6' (5')	Blue										170,000	1.0000	0.06	0.27%	3.13%		
EUTPUR	<i>Eutrachium purpureum</i>	PURPLE JOE PYE WEED	7	0	FAC	5-8' (7')	Pink										42,000	1.0000	0.06	0.27%	0.77%		
GERMAC	<i>Geranium maculatum</i>	WILD GERANIUM	4	3	FACU	1-3' (2')	Purple										5,000	1.5000	0.09	0.40%	0.14%		
HELSTR	<i>Helianthus strumosus</i>	PALE-LEAVED SUNFLOWER	5	3	FACU	2-4' (3')	Yellow										4,200	4.0000	0.25	1.08%	0.31%		
MAIRAC	<i>Maianthemum racemosum</i>	FEATHERY FALSE SOLOMON'S SEAL	3	3	FACU	1-3' (2')	White										400	16.0000	1.00	4.30%	0.12%		
MERVIR	<i>Mertensia virginica</i>	VIRGINIA BLUEBELLS	5	-3	FACW	1-3' (2')	Blue										9,700	1.5000	0.09	0.40%	0.27%		
PENDIG	<i>Penstemon digitalis</i>	FOXGLOVE BEARD TONGUE	4	0	FAC	2.5-5' (3.5')	White										130,000	4.0000	0.25	1.08%	9.56%		
PENPAL	<i>Penstemon pallidus</i>	PALE BEARD TONGUE	6	5	UPL	1-2' (1')	Cream										180,000	1.0000	0.06	0.27%	3.31%		
PERVIR	<i>Persicaria virginiana</i>	WOODLAND KNOTWEED	2	0	FAC	1-3' (2')	White										3,500	4.0000	0.25	1.08%	0.26%		
RUDSUB	<i>Rudbeckia subtomentosa</i>	SWEET BLACK-EYED SUSAN	9	3	FACU	3-6' (5')	Yellow										43,000	2.0000	0.13	0.54%	1.58%		
SCRMAR	<i>Scrophularia marilandica</i>	LATE FIGWORT	4	3	FACU	5-7' (6')	Green										170,000	4.0000	0.25	1.08%	12.51%		
SOLFLE	<i>Solidago flexicaulis</i>	BROAD-LEAVED GOLDENROD	7	3	FACU	2-4' (3')	Yellow										84,000	2.0000	0.13	0.54%	3.09%		
SOLULM	<i>Solidago ulmifolia</i>	ELM-LEAVED GOLDENROD	5	5	UPL	1-3' (2.5')	Yellow										130,000	2.0000	0.13	0.54%	4.78%		
SYMMSG	<i>Symphoricarpon sagittifolius</i>	ARROW-LEAVED ASTER	5	5	UPL	2-4' (3')	Blue										135,000	4.0000	0.25	1.08%	9.93%		
SYMMSH	<i>Symphoricarpon shortii</i>	SHORT'S ASTER	8	5	UPL	2-4' (3')	Blue										60,000	4.0000	0.25	1.08%	4.41%		
THADIO	<i>Thalictrum dioicum</i>	EARLY MEADOW RUE	7	3	FACU	1-3' (2')	Green										7,300	2.0000	0.13	0.54%	0.27%		
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow										11,000	6.0000	0.38	1.61%	1.21%		
Broadleaf Subtotals																4.56	19.62%	65.81%					
SEED MIX TOTALS																23.25	100.00%	100.00%					

Recommended Plug Species to Supplement Woodland Seed Mix

ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME											PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S	O									
ALLCAN	<i>Allium canadense</i>	WILD GARLIC (3)	2	3	FACU	1-2' (1.5')	Pink										38	20.0	760.00	0.02	2.91%		
ALLTRT	<i>Allium tricoccum</i>	WILD LEEK (2, 3)	7	3	FACU	6-12' (8')	White										38	20.0	760.00	0.02	2.91%		
ANEVIR	<i>Anemone virginiana</i>	TALL ANEMONE (2, 3)	5	3	FACU	2-4' (3')	White										38	15.0	570.00	0.01	2.18%		
ARITRI	<i>Arisaema triphyllum</i>	JACK-IN-THE-PULPIT (1, 3)	4	-3	FACW	1-3' (2')	Green										1	150.0	150.00	0.00	0.57%		
ASACAN	<i>Asarum canadense</i>	WILD GINGER (1, 2, 3, 5)	7	3	FACU	to 8"	Red										1	200.0	200.00	0.00	0.77%		
BLEHIR	<i>Blephilia hirsuta</i>	WOOD MINT (5)	8	3	FACU	2-4' (3')	White										38	43.0	1,634.00	0.04	6.25%		
CLAVIR	<i>Claytonia virginica</i>	SPRING BEAUTY (1, 2, 5)	2	3	FACU	to 6"	Pink										1	300.0	300.00	0.01	1.15%		
CXPENS	<i>Carex pensylvanica</i>	COMMON OAK SEDGE (1, 2, 5)	5	5	UPL	6-12' (8')	N/A										38	20.0	760.00	0.02	2.91%		
CXROSE	<i>Carex rosea</i>	CURLY-STYLED WOOD SEDGE (2, 5)	4	3	FACU	1-2' (1')	N/A										38	20.0	760.00	0.02	2.91%		
DICCCU	<i>Dicentra cucullaria</i>	DUTCHMAN'S BREECHES (5)	6	5	UPL	6-12' (8')	White										1	150.0	150.00	0.00	0.57%		
DODMEA	<i>Dodecatheon meadia</i>	SHOOTING STAR (1, 2)	6	3	FACU	1-2' (1.5')	Pink										38	20.0	760.00	0.02	2.91%		
ENEBIT	<i>Ernemion biternatum</i>	FALSE RUE ANEMONE (1, 2, 3)	8	0	FAC	6-12' (8')	White										38	20.0	760.00	0.02	2.91%		
ERYALB	<i>Erythronium albidum</i>	WHITE TROUT LILY (5)	5	3	FACU	4-8" (6")	White										38	86.0	3,268.00	0.08	12.50%		
EURMAC	<i>Eurybia macrophylla</i>	BIG-LEAVED ASTER	8	3	FACU	1-2' (1')	White										38	43.0	1,634.00	0.04	6.25%		
HELDIV	<i>Helianthus divaricatus</i>	WOODLAND SUNFLOWER (3, 5)	5	5	UPL	4-7' (6')	Yellow										38	20.0	760.00	0.02	2.91%		
HYDVIR	<i>Hydrophyllum virginianum</i>	VIRGINIA WATERLEAF (5)	5	0	FAC	1-3' (2')	Purple										1	150.0	150.00	0.00	0.57%		
MITDIP	<i>Mitella diphylla</i>	BISHOP'S CAP (1, 2, 5)	10	3	FACU	6-18" (12")	White										38	20.0	760.00	0.02	2.91%		
OSMCLI	<i>Osmunda claytoniana</i>	INTERRUPTED FERN (5)	9	0	FAC	3-5' (4')	N/A										1	100.0	100.00	0.00	0.38%		
PEDCAN	<i>Pedicularis canadensis</i>	WOOD BETONY (1, 5)	9	3	FACU	1-2' (1')	Yellow										38	20.0	760.00	0.02	2.91%		
PHLDIV	<i>Phlox divaricata</i>	WOODLAND PHLOX (1, 2, 5)	5	3	FACU	1-2' (1')	Blue										38	86.0	3,268.00	0.08	12.50%		
PODPEL	<i>Podophyllum peltatum</i>	MAY APPLE (3)	4	3	FACU	1-2.5' (2')	White										1	300.0	300.00	0.01	1.15%		
POLBIC	<i>Polygonatum biflorum var. commutatum</i>	SMOOTH SOLOMON'S SEAL (3)	3	3	FACU	2-4' (3')	Green										1	150.0	150.00	0.00	0.57%		
POLREP	<i>Polemonium reptans</i>	JACOB'S LADDER (2, 3)	5	0	FAC	1-2' (1')	Blue										38	86.0	3,268.00	0.08	12.50%		
SANCAD	<i>Sanguinaria canadensis</i>	BLOODROOT (1, 2, 3)	6	3	FACU	6-18" (12")	White										1	200.0	200.00	0.00	0.77%		
SILSTE	<i>Silene stellata</i>	STARRY CAMPION (2)	6	5	UPL	2-4' (3')	White										38	20.0	760.00	0.02	2.91%		
SOLCAE	<i>Solidago caesia</i>	BLUE-STEMMED GOLDENROD (5)	7	3	FACU	1-3' (2')	Yellow										38	20.0	760.00	0.02	2.91%		
TRIGRA	<i>Trillium grandiflorum</i>	LARGE-FLOWERED TRILLIUM (5)	8	5	UPL	1-2' (1.5')	White										1	100.0	100.00	0.00	0.38%		
TRIREC	<i>Trillium recurvatum</i>	RED TRILLIUM (5)	5	3	FACU	1-2' (1.5')	Red										1	250.0	250.00	0.01	0.96%		
UVUGRA	<i>Uvularia grandiflora</i>	BELLWORT (1, 3)	7	5	UPL	6-18" (12")	Yellow										38	15.0	570.00	0.01	2.18%		
VERGIG	<i>Vernonia gigantea</i>	SMOOTH TALL IRONWEED (5)	3	0	FAC	4-6' (5')	Purple										38						



Wooded Floodplain Seed Mix (Mesic-Wet Soils)

MIX STATISTICS		
Base Mix Without Supplemental Plugs		
Average Mix Height	3.9'	Mix Description: Pizzo's Wooded Floodplain Seed Mix is designed for areas with moderate-dense native tree populations (10+ mature trees/acre) that have a mostly closed canopy and a light-moderate understory tree/shrub layer providing part-full shade and that flood periodically for short periods of time ranging from 24-48 hours, but remain wet-mesic for most of the growing season. This mix will help establish a herbaceous understory that will provide erosion control, habitat, and a fuel source for conducting regular prescribed fire. Over 35% of this mix is composed of wildflowers that will provide an array of blooms from April through October. This is a medium-tall height seed mix with only 56% of seeds typically averaging 3.0' high or less and over 15% of seeds typically averaging 5.0' high or more at maturity. Pizzo highly recommends that this seed mix be supplemented with the recommended plug list provided below to add diversity, color, and resilience to the long-term health of your wooded floodplain, especially in order to establish many of the beautiful spring ephemeral wildflowers historically associated with the woodland ecosystem.
Median Mix Height	3.0'	
Mix Height Mode (# of Occurrences in Mix)	2.0' (5), 3.0' (5), 5.0' (4), 4.0' (2), 7.0' (2), 8.0' (1), 2.5' (1)	
Number of Native Species in Mix	20	
Lbs/Acre of Native Seed	32.2	
Propagules per Square Foot	0.0	
Native FQI	22.1	
Native Mean C Value	5.0	
Native Mean W Value	-0.6	
National Wetland Category	Facultative - Equally likely to occur in wetlands or non-wetlands (estimated probability 34 - 66%)	

Grasses, Sedges, & Rushes																		
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
CXGRAY	<i>Carex grayi</i>	COMMON BUR SEDGE	7	3	FACW	2-4' (3')	N/A							1,200	8,000.00	0.50	1.55%	0.16%
ELYVIR	<i>Elymus virginicus</i>	VIRGINIA WILD RYE	4	-3	FACW	3-5' (4')	N/A							4,200	400,000.00	25.00	77.67%	28.29%
GLYSTR	<i>Glyceria striata</i>	FOWL MANNA GRASS	4	-5	OBL	2-4' (3')	N/A							90,000	24,000.00	1.50	4.66%	36.37%
Grass/Sedge Subtotals															27.00	83.88%	64.81%	

Flowers & Other Broadleaves																		
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
								A	M	J	J	A	S				O	by Weight
CAMAME	<i>Campanulastrum americanum</i>	TALL BELLFLOWER	3	0	FAC	3-6' (5')	Blue							170,000	2,000.00	0.13	0.39%	5.72%
GERMAC	<i>Geranium maculatum</i>	WILD GERANIUM	4	3	FACU	1-3' (2')	Purple							5,000	2,000.00	0.13	0.39%	0.17%
IMPPAL	<i>Impatiens pallida</i>	YELLOW JEWELWEED	6	-3	FACU	3-5' (4')	Yellow							1,600	6,250.00	0.39	1.21%	0.17%
MAIRAC	<i>Maianthemum racemosum</i>	FEATHERY FALSE SOLOMON'S SEAL	3	3	FACU	1-3' (2')	White							400	16,000.00	1.00	3.11%	0.11%
MERVIR	<i>Mertensia virginica</i>	VIRGINIA BLUEBELLS	5	-3	FACW	1-3' (2')	Blue							9,700	3,000.00	0.19	0.58%	0.49%
OSMCLO	<i>Osmorhiza claytonii</i>	HAIRY SWEET CICELY	3	3	FACU	1-3' (2.5')	White							2,400	4,250.00	0.27	0.83%	0.17%
PERVIR	<i>Persicaria virginiana</i>	WOODLAND KNOTWEED	2	0	FAC	1-3' (2')	White							3,500	3,000.00	0.19	0.58%	0.18%
RUDLAC	<i>Rudbeckia laciniata</i>	WILD GOLDEN GLOW	5	-3	FACW	5-8' (7')	Yellow							14,000	6,000.00	0.38	1.17%	1.41%
RUDTRI	<i>Rudbeckia triloba</i>	BROWN-EYED SUSAN	3	3	FACU	4-6' (5')	Yellow							34,000	9,000.00	0.56	1.75%	5.15%
SENHEB	<i>Senna hebecarpa</i>	WILD SENNA	5	-3	FACW	3-6' (5')	Yellow							1,400	8,000.00	0.50	1.55%	0.19%
SILPER	<i>Silphium perfoliatum</i>	CUP PLANT	5	-3	FACW	5-10' (8')	Yellow							1,400	1,000.00	0.06	0.19%	0.02%
SOLFLE	<i>Solidago flexicaulis</i>	BROAD-LEAVED GOLDENROD	7	3	FACU	2-4' (3')	Yellow							84,000	1,000.00	0.06	0.19%	1.41%
SYMLAT	<i>Symphotrichum lateriflorum</i>	SIDE-FLOWERING ASTER	4	-3	FACW	1-3' (2')	White							250,000	0.5000	0.03	0.10%	2.10%
SYMPUN	<i>Symphotrichum puniceum</i>	BRISTLY ASTER	8	-5	OBL	4-6' (5')	White							110,000	1,000.00	0.06	0.19%	1.85%
SYMSAG	<i>Symphotrichum sagittifolius</i>	ARROW-LEAVED ASTER	5	5	UPL	2-4' (3')	Blue							135,000	6,000.00	0.38	1.17%	13.64%
VERALT	<i>Verbesina alternifolia</i>	WINGSTEM	5	-3	FACW	4-9' (7')	Yellow							9,000	6,000.00	0.38	1.17%	0.91%
ZIZAUR	<i>Zizia aurea</i>	GOLDEN ALEXANDERS	7	0	FAC	2-4' (3')	Yellow							11,000	8,000.00	0.50	1.55%	1.48%
Broadleaf Subtotals															5.19	16.12%	35.19%	
SEED MIX TOTALS															32.19	100.00%	100.00%	

Recommended Plug Species to Supplement Wooded Floodplain Seed Mix																		
ACRONYM	SCIENTIFIC NAME	COMMON NAME	C-Value	W-Value	WETNESS	HEIGHT Min-Max (Typical)	COLOR	BLOOM TIME						PLUGS/FLAT	FLATS/ACRE	PLUGS/ACRE	PLUGS/SF	% OF TOTAL PLUGS
								A	M	J	J	A	S					
ARITRI	<i>Arisaema triphyllum</i>	JACK-IN-THE-PULPIT (1, 3)	4	-3	FACW	1-3' (2')	Green							1	150.0	150.00	0.00	0.84%
ASACAN	<i>Asarum canadense</i>	WILD GINGER (1, 2, 3, 5)	7	3	FACU	to 8"	Red							1	300.0	300.00	0.01	1.67%
CALTPA	<i>Caltha palustris</i>	MARSH MARIGOLD (5)	5	-5	OBL	1-3' (2')	Yellow							38	20.0	760.00	0.02	4.24%
CXBLAN	<i>Carex blanda</i>	COMMON WOOD SEDGE (5)	1	0	FAC	2-3' (2.5')	N/A							38	43.0	1,634.00	0.04	9.12%
HYDVIR	<i>Hydrophyllum virginianum</i>	VIRGINIA WATERLEAF (5)	5	0	FAC	1-3' (2')	Purple							1	150.0	150.00	0.00	0.84%
IMPCAP	<i>Impatiens capensis</i>	ORANGE JEWELWEED (2, 5)	3	-3	FACW	2-5' (4')	Orange							38	43.0	1,634.00	0.04	9.12%
LYSCIL	<i>Lysimachia ciliata</i>	FRINGED LOOSESTRIFE (5)	4	-3	FACW	1-3' (2')	Yellow							38	43.0	1,634.00	0.04	9.12%
NAPDIO	<i>Napaea dioica</i>	GLADE MALLOW (1, 3)	10	-3	FACW	5-8' (7')	White							38	20.0	760.00	0.02	4.24%
ONOUSEN	<i>Onoclea sensibilis</i>	SENSITIVE FERN (5)	8	-3	FACW	1-2' (1.5')	N/A							1	250.0	250.00	0.01	1.39%
PHLDIV	<i>Phlox divaricata</i>	WOODLAND PHLOX (1, 2, 5)	5	3	FACU	1-2' (1')	Blue							38	86.0	3,268.00	0.08	18.23%
POLBIC	<i>Polygonatum biflorum var. commutatum</i>	SMOOTH SOLOMON'S SEAL (3)	3	3	FACU	2-4' (3')	Green							1	200.0	200.00	0.00	1.12%
POLREP	<i>Polemonium reptans</i>	JACOB'S LADDER (2, 3)	5	0	FAC	1-2' (1')	Blue							38	86.0	3,268.00	0.08	18.23%
RANHIN	<i>Ranunculus hispidus var. nitidus</i>	SWAMP BUTTERCUP (5)	5	0	FAC	1-2' (1')	Yellow							38	20.0	760.00	0.02	4.24%
SAUCER	<i>Saururus cernuus</i>	LIZARD'S TAIL (5)	9	-5	OBL	2-4' (3')	White							38	20.0	760.00	0.02	4.24%
SOLPAT	<i>Solidago patula</i>	SWAMP GOLDENROD (5)	9	-5	OBL	3-6' (5')	Yellow							38	20.0	760.00	0.02	4.24%
VIOPUB	<i>Viola pubescens</i>	YELLOW VIOLET (3, 5)	5	3	FACU	to 6"	Yellow							38	43.0	1,634.00	0.04	9.12%
Subtotals															1494.0	17,922.00	0.41	100.00%

SUPPLEMENTED MIX STATISTICS		
Base Seed Mix Including Supplemental Plugs		
Number of Native Species in Mix	36	Some species are not appropriate for inclusion into a seed mix, however they may be very desirable to have as part of the permanent plant matrix because of their ecological, habitat, and/or aesthetic value. The plug species listed above are appropriate for supplementing this seed mix. Following are the common reasons for not including these species within the seed mix: 1-Does not germinate well from seed in the field, 2-Seed is very expensive, 3-Low number of seeds per ounce, 4-Requires specialized microclimate, 5-Seed is not commercially available or is only available in small quantities
Native FQI	31.2	
Native Mean C Value	5.2	
Native Mean W Value	-0.8	
National Wetland Category	Facultative - Equally likely to occur in wetlands or non-wetlands (estimated probability 34 - 66%)	

Notes:

- 1.) Pizzo recommends installing a Mycorrhizal Inoculant with the above seed mix at 40 lbs/acre
- 2.) For spring planting, Pizzo recommends installing a cover crop of Seed Oats (*Avena sativa*) with the above seed mix at 40 lbs/acre
- 3.) For fall planting, Pizzo recommends installing a cover crop of ReGreen (a Winter Wheat x Wheatgrass Sterile Hybrid) with the above mix at 50 lbs/acre
- 4.) **At no time should Annual nor Perennial Rye (*Lolium multiflorum* or *perenne*) be utilized as a cover crop**