

Planting #108
Schafer Redo
Prepared by Cody Considine

Approximately **10 Acres Total**
Characterized as Dry Habitat

Site Conditions

Location:

General location – located just north and slightly west of Schafer knob

GPS: 41°52'31.49"N
89°20'52.64"W

County: Lee

Average rainfall per year: 38"

Average monthly rainfall average: 1.57" in February to 4.9" in June

Soil Types

According to the Web Soil Survey for the planting are in Lee County, soils include:

290C2 Warsaw loam, 5-10 percent slopes, eroded – 1%

440A Jasper loam, 0-2 percent slopes – 58%

440C2 Jasper loam, 5-10 percent slopes, eroded – 41%

These are basic soil descriptions, a complete soil test is needed to determine specific soil characteristics. For more information, log onto the Soil Web Survey website: <http://websoilsurvey.nrcs.usda.gov/app/>

Topography

The general topography of the planting is not flat but gently sloping from the north down to the south. The north section of the planting is distinguishably higher than the south. Elevation at the north 750' and lowest on the south section 727'.

Agricultural History

The planting site was intensively row cropped for many decades. Then in 1995 (planting #19) it was planted to prairie. The majority of this initial planting has done well except for the 10 acre east section. Due to the limited population of native plants, native diversity, and the population of non-native plants, it was decided to turn these 10 acres back to row.

2012-10 acres was planted (drilled) to round-up ready beans. 2012 was a drought year. Two applications of round-up were sprayed by commercial applicators. Due to the drought, the beans never produced a yield. By the end of 2012, patches of little blue still sprouted throughout the planting.

2013-beans were planted (drilled) again into the 10 acres. At least two applications of round-up were sprayed by commercial applicators. 2013 was a decent year and yielded a bean crop. After close visual

inspection of the area, it was decided to convert the 10 acre bean field back to prairie. Prairie was planted in the fall of 2013.

Site Preparations

After the soy beans were harvested, Damian harrowed the planting. The harrowing created mounds/piles of bean stubble. Damian then mowed the planting with the batwing to distribute/break up the bean piles. We did not want to disc the planting like we did for planting #107 because of the thought of bringing up weed seeds. It was planted to bean for two growing seasons by a no-till drill. This method of planting did not disturb the soil.

Planting the Seed

Weather and Planting Conditions- Sunny and extremely windy with seasonable temperatures, the weekend after planting was unseasonably warm with extreme weather conditions.

Date Planted- November 14-15, 2013

The 10 acres were planted by Ben Adams, Kevin Helenthal, Jess Richert, Damian Considine, and Cody Considine. The first pass was completed driving in concentric circles with all seeders set to half open. The second pass was completed driving in horizontal lines with seeders set to three quarters open. The third pass was completed in a free for all, laying down seed where needed until seeders were empty. Approximately 600 lbs of seed was planted. Total planting time was ~4 hours.

Planting Mixes

Schafer redo was planted with the 2013 Dry Mix at 60.075lbs/acre. Then after planting was complete, Bernie and Giovanni hand planted 4 barrels of combine *Liatris aspera*. Each barrel weighed ~22lbs. The combined *Liatris aspera* was harvested by Cody Considine. I felt the combined seed was 99% pure *Lia asp*, with very little if any weedy golden rod. Bernie and Giovanni originally planned on concentrating most of the *Lia asp* on the hills toward the north section of the planting. After they saw they were getting immense coverage, they meandered throughout the whole planting. In combination of the *Lia asp* and regular seed mix, Schafer redo was planted at **68lbs/acre**.

Species Richness: 85

SCIENTIFIC NAME	COMMON NAME	DRY lbs/acre
Agrostis hymenalis	Tickle Grass	0.200
Allium cernuum	Nodding Wild Onion	0.168
Amorpha canescens	Leadplant	2.676
Andropogon gerardii	Big Blue and Indian	0.000
Anemone canadensis	Meadow Anemone	0.000

<i>Anemone cylindrica</i>	Thimbleweed	0.324
<i>Anemone patens</i> (<i>Pulsatilla</i> p.)	Pasque Flower	0.000
<i>Antennaria neglecta</i>	Field Cat's Foot	0.100
<i>Antennaria plantaginifolia</i>	Pussy Toes (Everlasting)	0.324
<i>Apocynum cannabinum</i> (X medium)	Dogbane (Indian Hemp)	0.000
<i>Aristida longiseta</i>	3 awn grass	0.124
<i>Artemisia caudata</i> (<i>campestris</i>)	Beach Wormwood	0.027
<i>Asclepias amplexicaulis</i>	Sand Milkweed	0.000
<i>Asclepias tuberosa interior</i>	Butterfly Weed	0.000
<i>Asclepias verticillata</i>	Whorled Milkweed	0.078
<i>Asclepias viridiflora</i>	Short Green Milkweed	0.000
<i>Aster azureus</i> (<i>oolentangiensis</i>)	Sky-blue Aster	0.027
<i>Aster ericoides</i> (<i>prostratus</i>)	Heath Aster	0.868
<i>Aster linariifolius</i>	Stiff Aster (Flax-Leaved)	0.041
<i>Aster oblongifolius</i>	Aromatic Aster	0.027
<i>Aster ptarmicoides</i>	White Aster (Stiff Aster)	0.065
<i>Aster sericeus</i>	Silky Aster	0.211
<i>Astragalus canadensis</i>	Canadian Milk Vetch	0.054
<i>Baptisia leucantha</i>	White Wild Indigo	2.270
<i>Baptisia leucophaea</i>	Cream Wild Indigo	0.892
<i>Bidens comosa</i> (<i>tripartia</i>)	Swamp Tickseed	0.000
<i>Bouteloua curtipendula</i>	Side-Oats Grama	0.270
<i>Carex medeii</i>	Meads sedge	0.000
<i>Castilleja sessiliflora</i> **	Downy Yellow Painted Cup	0.108
<i>Ceanothus americanus</i>	New Jersey Tea	0.016
<i>Chrysopsis camporum</i> (<i>Heterotheca</i>)	Golden Prairie Aster	0.114
<i>Coreopsis lanceolata</i>	Sand Coreopsis	0.000
<i>Coreopsis palmata</i>	Prairie Coreopsis	1.378
<i>Coreopsis tripteris</i>	Tall Coreopsis	0.000
<i>Cyperus filiculmis</i>	Slender Sand Sedge	0.011
<i>Danthonia spicata</i>	Poverty Oat Grass	0.289
<i>Desmodium illinoense</i>	Ill. Tick Trefoil	0.054
<i>Dodecatheon meadia</i>	Shooting Star	0.319
<i>Echinacea pallida</i>	Pale Purple Coneflower	10.811
<i>Elymus canadensis</i>	Prairie Wild Rye	0.446
<i>Eragrostis spectabilis</i>	Purple Love Grass	0.027
<i>Erigeron strigosus</i>	Daisy Fleabane	0.000
<i>Eryngium yuccifolium</i>	Rattlesnake Master	0.432
<i>Eupatorium perfoliatum</i>	Boneset	0.000
<i>Euphorbia corollata</i>	Flowering Spurge	1.362

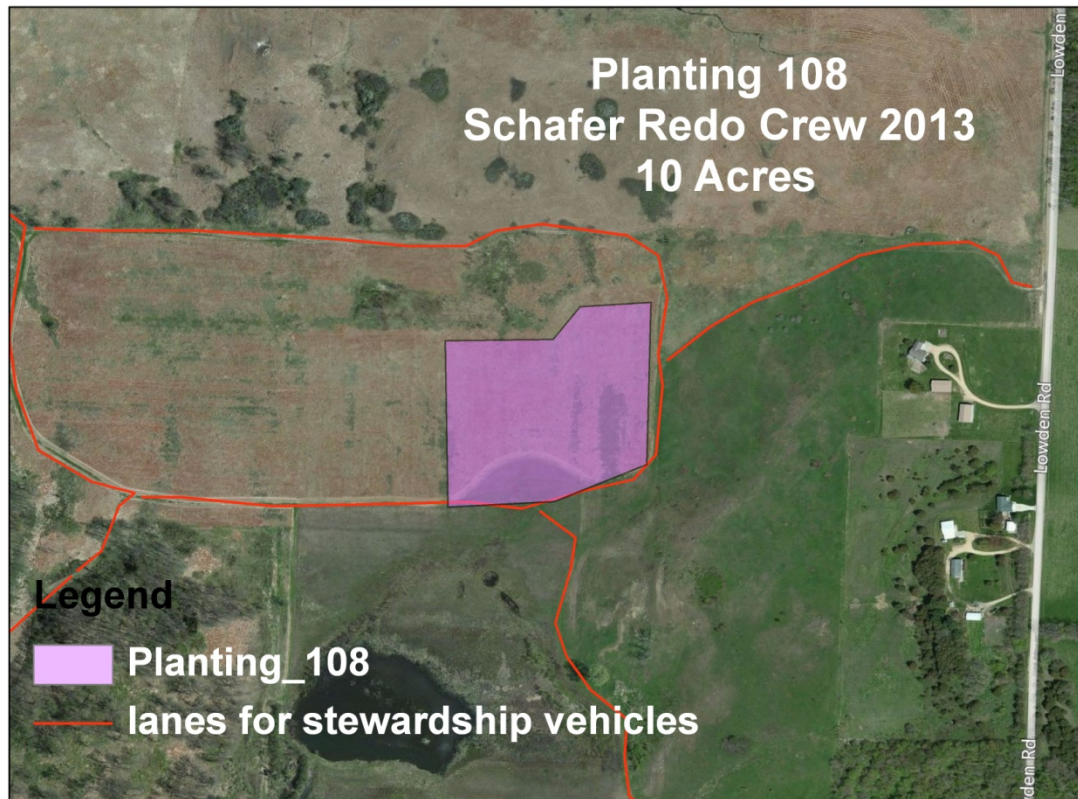
<i>Gaura biennis</i> pitcheri (longiflora)	Common Gaura	0.030
<i>Gentiana (alba) flavida</i>	Cream Gentian	0.432
<i>Gentiana purberulenta</i>	Prairie Gentian	0.000
<i>Gnaphalium obtusifolium</i>	Sweet Everlasting (Old-Field Balsam)	0.070
<i>Helianthemum canadense</i>	Common Rockrose (Frostweed)	0.000
<i>Helianthus occidentalis</i>	Western Sunflower; Naked S.	0.892
<i>Helianthus rigidus (laetiflorus)</i>	Prairie Sunflower	0.027
<i>Heliopsis helianthoides</i>	False Sunflower; " Ox-eye "	0.000
<i>Heuchera richardsonii grayana</i>	Rough Heuchera; Alum root	0.000
<i>Hieracium gronovii</i>	Hairy Hawkweed	0.008
<i>Juncus greenei</i>	Greene's Rush	0.424
<i>Juncus interior</i>	Inland Rush	0.027
<i>Juncus tenuis</i>	Path Rush	0.054
<i>Koeleria cristata (macrantha)</i>	Prairie June Grass	1.784
<i>Krigia virginica</i>	Dwarf Dandelion	0.000
<i>Kuhnia (Brickellia)</i> <i>eupatoroides corymbulosa</i>	False Boneset	0.622
<i>Lespedeza capitata --</i>	Round-headed Bush Clover	2.432
<i>Liatris aspera</i>	Rough Blazing-star (Rough Gayfeather)	4.432
<i>Liatris cylindracea</i>	Dwarf Blazingstar	0.062
<i>Liatris pycnostachya</i>	Tall Gayfeather; Prairie Blazing Star	0.649
<i>Lithospermum incisum</i>	Fringed (Narrow-leaved) Puccoon	0.017
<i>Lobelia spicata</i>	Pale-spike Lobelia	0.000
<i>Monarda fistulosa</i>	Wild Bergamot	0.027
<i>Oenothera biennis canescens</i>	Common Evening Primrose	0.000
<i>Oenothera clelandii</i> (rhombipetala)	Sand Evening Primrose	0.000
<i>Onosmodium hispidissimum</i>	Marbleseed	0.054
<i>Oxalis violacea</i>	Violet Wood-sorrel	0.000
<i>Panicum leibergii</i>	Prairie Panic Grass	0.005
<i>Panicum oligosanthes</i> <i>scribneria</i>	Scribner's Panic Grass	0.865
<i>Panicum villosissimum</i>	White-Haired Panic Grass	0.027
<i>Panicum virgatum</i>	Prairie Switch Grass	0.000
<i>Parthenium integrifolium</i>	Wild Quinine (Feverfew)	4.459
<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.000
<i>Penstemon grandiflorus</i>	Large Flowered Beardtongue	0.000
<i>Penstemon hirsutus</i>	Hairy Beard tongue	0.341
<i>Petalostemum (Dalea)</i>	White Prairie Clover	0.892

candidum		
Petalostemum (Dalea)		
purpureum	Purple Prairie Clover	4.459
Phlox bifida	Sand Phlox	0.000
Polygala polygama obtusata	Purple Milkwort	0.000
Polygala sanguinea	Field Milkwort	0.000
Polytaenia nuttallii	Prairie Parsley	0.024
Potentilla arguta	Prairie Cinquefoil	0.003
	Narrow-leaved Mountain	
Pycnanthemum tenuifolium	Mint	0.000
	Mountain mint (Prairie	
Pycnanthemum virginianum	Hyssop)	0.027
Ratibida pinnata	Yellow Coneflower	0.000
Rhus aromatica	fragrant sumac	0.108
Rosa carolina	Pasture Rose	0.892
Rudbeckia hirta	Black-eyed Susan	0.054
Ruellia humilis	Wild Petunia	0.143
Scutellaria parvula leonardi	Small Skullcap	0.000
Senecio pauperculus	Balsam Ragwort	0.022
Silene antirrhina	Sleepy Catchfly	0.005
Silphium integrifolium	Rosinweed	0.000
Silphium laciniatum	Compass plant	0.897
Silphium perfoliatum	Cup-plant	0.000
Silphium terebinthaceum	Prairie Dock	0.054
Sisyrinchium albidum	Common Blue-eyed Grass	0.000
Solidago (Euthamia)		
graminifolia nuttallii	Grass-leaved Goldenrod	0.892
Solidago missouriensis		
fasciculata	Missouri Goldenrod	0.432
Solidago nemoralis	Gray Goldenrod; Oldfield	0.892
Solidago rigida	Stiff Goldenrod	0.000
Solidago speciosa	Showy Goldenrod	0.000
Sporobolus heterolepis	Prairie Dropseed	1.419
Stipa spartea	Porcupine Grass	0.022
Talinum rugospermum ***	Sand Fameflower	0.000
Tephrosia virginiana	Goat's Rue	1.784
Tradescantia ohiensis	Ohio Spiderwort	0.892
	Horse Gentian	
Triosteum perfoliatum	(Feverwort)(Tinker's Weed)	0.000
Verbena stricta	Hoary Vervain	0.054
Verbena urticifolia	Hairy White Vervain	0.027
Veronicastrum virginicum	Culver's Root	0.000
Viola pedata lineariloba	Birdsfoot Violet	0.000
Viola pedatifida	Prairie Violet	0.000

Viola sagittata	Arrow-leaved violet	0.000
Wulfenia bullii *** (Besseyia)	Kittentails	0.049
	Heart-leaved Meadow	
Zizia aptera	Parsnip	0.049
Zizia aurea	Golden Alexanders	0.000
		0.000
		0.000
		0.000
ODD MIXES		0.000
mo gr grass leaved gr oldfield		0.000
Aster mix: smooth, sky blue		0.514
Little blue with cut stems no pure seed in 2012 and 2013		2.795
prairie coreopsis and w sunflower		0.170
bicnells sedge and Sally's sedgemoadow crew mistake mixed them together		0.892
TOTAL Pounds/Acre		60.075

The excel spreadsheet where this list was copied from is found T:\Nachusa Project\Stewardship\PLANTING HISTORIES & INVENTORIES\Planting 108 Schafer Redo Crew 2013. The total species diversity is not completely reflected in the spreadsheet. See the section before the long list species for the most accurate amount of species that were planted in the planting. There was numerous times where we combined several species into one mix.

Map:



Map saved in T:\Nachusa Project\Stewardship\PLANTING HISTORIES & INVENTORIES\Planting 108
Schafer Redo Crew 2013

Lessons Learned: Planting was fairly easy; we did not run into any major problems. The cones worked well for marking where we planted.