

Planting # 112
2014 Planting History
7 Knobs Unit Re-do Planting
Prepared by Heather Baker 11/25/14

20.7 Acres Total – all in soy field

Dry: 12.7

Mesic: 8

(Waiting to plant the rest of our mesic mix and wet mix until corn stubble is burned and wetland scrapes created)

Site Conditions

Location:



General location – located just north of Hook Larson 2004 planting and west of the big hills at Holland.
GPS: 41.884915N 89.347310W Elevation: 712 - 751ft

County: Lee

Soil Types

88B2 Sparta loamy sand, 1 to 7% slopes. This gently sloping, excessively drained soil is on dunes. Individual areas are long and narrow, crescent shaped, or irregular in shape and range from 5 to 60 acres. Planting has a few acres of this.

93E. Rodman gravelly sandy loam, 12 to 20 % slopes. This moderately steep, excessively drained soil is on kames, eskers, and ream terrace breaks. Individual areas re elongated or oval and range from 3 to 40 acres in size. Planting has a lot of this, maybe 5 acres.

102A La Hogue loam. This nearly level, somewhat poorly drained soil is on broad low areas on outwash plains. This is about ten acres of this planting and means we need to collect wet species

125A Selma loam. This nearly level, poorly drained soil is in broad depressions and narrow drainageways on outwash plains and lake plains. It is occasionally flooded or ponded for brief periods. Planting 112 should have just a bit of this, maybe an acre. Wet species.

332C2 Billett fine sandy loam, 5 to 12 % slopes, eroded. This sloping, well drained soil is on side slopes along drainageways in the uplands. There are several acres of this in planting 112.

440A Jasper silt loam, 0 to 2% slopes. This nearly level, well drained soil is on outwash plains. There are several acres of this in planting 112.

SEED NEEDED: We need dry, dry-mesic, mesic, and wet. This is a challenge to get the wet too!

Mary and Jim Vieregg picked and planted seed for the west knob of this planting, and Lisa Lanz and John Ayres picked 104 pounds of the seed that we added to the dry mix and spread on the six knobs.

*All of the soils have been under intensive agriculture. Above are basic descriptions, a complete soil test is needed to determine specific soil characteristics. For more additional information see Soil Web Survey website: <http://websoilsurvey.nrcs.usda.gov/app/>

Topography

The general topography of the 2014 planting are seven knobs that make up this gently undulating long unit. The mesic areas are the swales between each knob and north bottoms of each knob.

Agricultural History

The planting site was in soy beans the last two years with the farmer being Dave Henry. Before that it was a prairie planting done in 1990. The original planting looked ok on the knob tops, but the rest of it was weak in native plants. The west two knobs and their swales had BFT problems in discreet patches. Some Asian bush clover was found on the south end of the west most knob. There was at times heavy white sweet clover on the west most three knobs. There is some transect data we collected from the east most knob from about 2008. We hope that our decision was right to re-do this planting.

Site Preparations

The soy beans were harvested in mid-October. The 2014 season was typical with farmers remarking that corn yields were very high this year.

Winter came early this year and we had frozen ground since the first week of November. We finally decided to plant the seed without harrowing the soy stubble.

Planting the seed

Heather Baker, Jocelyn Frazelle, Zach Storck, and Mike Saxton planted the dry hills as well as the mesic swales around them in the former soy bean field part of the planting. There is still more mesic and wet mix to plant in the section of the planting that was corn crop. We are waiting to burn off the corn stubble and create wetland scrapes before we do so.

Weather: We planted on Friday, November 21. The high temp for the day was in the mid 30's, with light wind and no precipitation. The few days before the planting were frigid with high temps in the 20's, strong winds, and no precipitation. The following Saturday and Sunday were warmer, with highs in the low 50's with light rain. Temperatures dropped Monday, the 24th, and we got around 3 inches of snow.

Dry Hills (6 hills) -12 acres. 60 lbs/acre, 762 lbs total planted. 606 lbs left over.

We had two seed mixes to plant on the dry hills. First, we planted a mix of combined little bluestem, prairie dropseed, and thimbleweed (grass mix). We followed with our regular big mix of upland seeds (dry mix). Bill Kleiman and Jocelyn Frazelle divided the barrels of mixes between the six hills. We used our best judgment to differentiate between dry and mesic sections (no flagging on boundaries), and made sure to overlap our mixes. We started around 9am.

The two eastern most hills were planted by Zach Storck and Mike Saxton. Each of these hills had one barrel of grass mix and three barrels of dry mix. 1/3 of one barrel of dry mix from each hill was saved for the next two hills to the west. Zach planted the first hill on the eastern edge, but due to an injury, Zach went home early. The seeder handle whacked Zack on the head when he was adjusting the opening. Mike Saxton finished the second hill. He first planted the grass, then moved onto the dry mix. He covered the area at least twice with grass mix, seeder half open, doing concentric circles on the hill. He then opened his seeder all the way and drove around until the grass mix was done. He did the same with the dry mix, doing mostly concentric circles. Planting was done with the green truck and an antique seeder. This seeder dropped seed quicker than the other two being used that day.

The two middle hills were planted by Heather Baker. Each hill had two barrels of dry mix PLUS 2/3 of a barrel from both Zach/Mike and Jocelyn's barrels. Because these hills were smaller, only one barrel of grass mix was split between the two. I started by planting the grass mix on my eastern most hill with my seeder half of the way open. I did one pass, going in concentric circles until I reached the top of the hill. I used white buckets at each turn as markers to be sure I covered the ground evenly. I then moved to my second hill and did one pass in the same fashion. I ended up opening my seeder all the way towards the end of this pass as the seed was dropping at a very slow rate. I went over both hills two more times with the grass mix, driving again in concentric circles, and then in a grid pattern, but did not use buckets. Since I still had seed left, I went over the hills in a less uniform fashion to empty my seeder. Then I moved on to the dry mix. I did my western most hill first, doing two passes driving in concentric circles around the hill until I got to the top. I used buckets for guides. I then Drove around the hill multiple times in both concentric circles and grid patterns, without the buckets as guides, until my seeder was empty. I then moved onto the eastern most of my hills. I did one pass using buckets and going in concentric circles. After that, I stopped using the buckets to save time, and did multiple passes in both concentric circles and grid patterns until my seeder was empty. Although my seeder was open all the way, I felt the seed was dropping at a fairly slow rate. I drove the red diesel truck.

The two western most hills of the planting were seeded by Jocelyn Frazelle. (Remember that the Viereggs did the western most knob, the 7th knob. So our two most western knobs would be the 5th and 6th) Each of her hills had one barrel of grass mix and three barrels of dry mix. 1/3 of one barrel of dry mix from each hill was saved for the middle two hills. Jocelyn First seeded both of her hills with the grass mix, then followed with the dry mix. She mainly drove in concentric circles around the hills. Each hill was covered multiple times with the grass mix as well as the dry mix with the seeder all the way open. One of her hills had a rocky spot that she had to seed by hand. She drove the new white truck.

We finished the dry hills around 2pm. (with our regular ½ hour lunch break). The Southern most edge of the planting was also covered with dry mix.

Mesic – 8 acres. 60 lbs/acre. 480 lbs total. 999 lbs left over for the rest of the mesic planting.

After the dry hills were planted, Heather, Jocelyn, and Mike continued to plant the mesic swales around the hills. Jocelyn and Mike divided thirteen barrels of mesic mix between six different areas. The five smaller mesic areas got one barrel each, and the large mesic section in the middle of the planting got eight barrels.

Heather, Jocelyn, and Mike did three grid pattern passes together over the largest mesic section; two passes going East/West and one North/South. We did not use buckets as guides. We overlapped the mesic with the dry hills a bit.

The two eastern most mesic sections were planted by Mike Saxton, The two western sections by Jocelyn Frazelle, and the third section from the west was planted by Heather Baker. Heather and Jocelyn's seeders were open all the way, Mike's was open half way. Each planted their sections doing multiple passes in a variety of different patterns. They were all small sections between dry hills, no guide buckets were used. The mesic overlapped with the dry hills a bit.

We finished the mesic mix by 4pm.

Step In

The dry and mesic step in mixes were planted by Heather Baker. The dry and most of the mesic step in were planted on Wednesday, Nov. 19. The high temp for the day was in the 20's, overcast, with strong winds. The rest of the mesic step in was planted the next day, with similar weather conditions. The dry step in, which was about 1 five gallon bucket full, was divided as evenly as possible between the 6 hills. The bird's foot violet was planted separately, with most of it on the hill with soil type 88BZ, and some of it on the hill just west of it where sandy soils were found (3rd hill from the east). Prickly pear cactus seeds were also stepped in separately on the sandiest spot on the 3rd hill from the east. There was only about ½ of a 5 gallon bucket worth of mesic step in. Much of it was planted in the large mesic section in the middle of the planting. Some was planted on the north edge of the western side of the planting where the soy bean field met with up with the prairie. Some was planted around the northern edge of the planting on the east side where the soy bean field met the corn field. The seeds were dropped by hand, very low to the ground. The wind help carry the seed a little ways. Some was smeared into the soil with my hand or foot, some was not.

*There is still wet step in mix to plant once the scrapes have been created.

Planting Mixes

A total of 3323.12 lbs of seed was collected for the planting this year. Four mixes were created out of this seed;

1495.33 lbs of dry

1502.15 lbs of mesic

286.915 lbs of wet

36.245 lbs of savanna

Step in mixes were also created for dry, mesic, and wet from these totals.

Plants were sorted into mixes using Swink and Wilhelm's Plants of the Chicago Region, as well as our own knowledge of where we collected our plants and frequently see them on the preserve.

As with last year, bison prep took away from seed collecting, but the crew was able to plant a high diversity planting at a good seeding rate per acre. The savanna mix still needs to find a place to be planted.

Species Richness

Dry: 114

Mesic: 108

Wet: 59

Total Species for Holland Planting: 185

SCIENTIFIC NAME	COMMON NAME	Dry - 12.7 ac lbs/acre	Mesic - 22.9 ac lbs/acre	Wet - 12.5 ac lbs/acre	Savanna
<i>Acorus Calamus</i>	Sweet Flag				
<i>Actinomeris (Verbesina) alternifolia</i>	Wingstem	0.000	0.000	0.088	1.100
<i>Agastache scrophulariaefolia</i>	Purple Giant Hyssop	0.000	0.000	0.000	0.450
<i>Agrimonia parviflora</i>	Swamp Agrimony	0.000	0.146	0.560	
<i>Agalinis purpurea</i>	Purple false foxglove	0.000	0.009	0.040	
<i>Agalinis tenuifolia</i>	Slender False foxglove	0.000	0.000	0.340	
<i>Agrostis hymenalis</i>	Tickle Grass	0.000	0.000	0.000	
<i>Alisma subcordatum</i> (<i>Plantagoaquatica amer.</i>)	Common Water Plantain	0.000	0.000	0.032	
<i>Allium cernuum</i>	Nodding Wild Onion	0.000	0.522	0.000	
<i>Amphicarpa bracteata comesa</i>	Lowland hog peanut	0.000	0.000	0.000	
<i>Amelanchier humilis</i>	Serviceberry	0.000	0.000	0.000	
<i>Amelanchier leavis</i>	Allegheny Shadblow	0.000	0.000	0.000	
<i>Amorpha canescens</i>	Leadplant	2.362	1.310	0.000	
<i>Amorpha fruticosa</i>	Indigo Bush	0.000	0.000	0.000	
<i>Andropogon gerardii</i>	Big Bluestem; Turkeyfoot	0.000	0.000	0.000	
<i>Schizachyrium scoparium</i>	Little Bluestem	0.000	0.000	0.000	
<i>Angelica grandifolia</i>	Great Angelica	0.000	0.000	0.000	
<i>Anemone canadensis</i>	Meadow Anemone	0.000	0.022	0.008	
<i>Anemone caroliniana</i>	Caroline Anemone	0.000	0.000	0.000	
<i>Anemone cylindrica</i>	Thimbleweed	0.000	0.000	0.000	

<i>Anemone patens</i> (<i>Pulsatilla</i> p.)	Pasque Flower	0.000	0.000	0.000	
<i>Anemone quinquefolia</i>	Wood Anemone	0.000	0.000	0.000	
<i>Anemone virginiana</i>	Tall Thimbleweed	0.000	0.000	0.000	
<i>Angelica atropurpurea</i>	Alexander's Angelica; Great Angelica	0.000	0.000	0.000	
<i>Antennaria neglecta</i>	Field Cat's Foot	0.000	0.000	0.000	
<i>Antennaria plantaginifolia</i>	Pussy Toes (Everlasting)	0.709	0.000	0.000	2.550
<i>Apocynum androsaemifolium</i>	Spreading Dogbane	0.000	0.000	0.000	
<i>Apocynum cannabinum</i> (X medium)	Dogbane (Indian Hemp)	0.031	0.087	0.000	
<i>Apocynum sibiricum</i>	Prairie Indian Hemp	0.000	0.000	0.000	
<i>Aquilegia canadensis</i>	Wild Columbine	0.000	0.000	0.000	
<i>Arenaria</i> (<i>Minuartia</i>) <i>stricta</i>	Stiff Sandwort	0.000	0.000	0.000	
<i>Arenaria</i> (<i>Moehringia</i>) <i>lateriflora</i>	Wood Sandwort	0.000	0.000	0.000	
<i>Arisaema dracontium</i>	Green dragon	0.000	0.000	0.000	
<i>Arisaema triphyllum</i> (<i>atrorubens</i>)	Jack-in-the-Pulpit	0.000	0.000	0.000	
<i>Aristida longiseta</i>	3 awn grass	0.945	0.000	0.000	
<i>Aristida purpurascens</i>	Arrow Feather	0.000	0.000	0.000	
<i>Aronia</i> (<i>Pyrus</i>) <i>prunifolia</i> (<i>melanocarpa</i>)	Black Chokeberry	0.000	0.000	0.000	
<i>Artemisia caudata</i> (<i>campestris</i>)	Beach Wormwood	1.181	0.487	0.000	
<i>Asclepias amplexicaulis</i>	Sand Milkweed	0.000	0.000	0.000	
<i>Asclepias hirtella</i>	Hairy / tall Green Milkweed	0.000	0.000	0.000	
<i>Asclepias incarnata</i>	Swamp Milkweed	0.000	0.000	0.076	
<i>Asclepias lanuginosa</i> **	Woolly Milkweed	0.000	0.000	0.000	
<i>Asclepias purpurascens</i>	Purple Milkweed	0.000	0.000	0.000	
<i>Asclepias syriaca</i>	Common Milkweed	0.049	0.027	0.000	
<i>Asclepias tuberosa</i> interior	Butterfly Weed	0.000	0.000	0.000	
<i>Asclepias verticillata</i>	Whorled Milkweed	0.236	1.150	0.000	
<i>Asclepias hirtella</i>		0.000	0.000	0.000	
<i>Asclepias sullivantii</i>	Prairie Milkweed	0.000	0.000	0.000	
<i>Asclepias viridiflora</i>	Short Green Milkweed	0.000	0.000	0.000	
<i>Aster azureus</i> (<i>oolentangiensis</i>)	Sky-blue Aster	0.472	0.044	0.000	0.800
<i>Aster ericoides</i> (<i>prostratus</i>)	Heath Aster	1.575	0.131	0.000	
<i>Aster furcatus</i> ***	Forked Aster	0.000	0.000	0.000	
<i>Aster laevis</i>	Smooth (Blue) Aster	0.000	1.469	0.000	
<i>Aster lateriflorus</i>	Calico (Starved) Aster	0.000	0.000	0.000	
<i>Aster linariifolius</i>	Stiff Aster (Flax-Leaved)	0.287	0.000	0.000	
<i>Aster novae-angliae</i>	New England Aster	0.000	0.000	0.000	
<i>Aster oblongifolius</i>	Aromatic Aster	0.409	0.000	0.000	
<i>Aster ontarionis</i> (<i>missouriensis</i>)	Ontario Aster	0.000	0.000	0.000	

<i>Aster pilosus</i>	Hairy Aster	0.000	0.000	0.000	
<i>Aster praealtus</i>	Willow Aster	0.000	0.000	0.000	
<i>Aster ptarmicoides</i>	White Aster (Stiff Aster)	0.028	0.000	0.000	
<i>Aster puniceus</i>	Swamp (Purple-stemmed) Aster	0.000	0.000	0.000	
<i>Aster puniceus firmus</i> (?)	Shining Aster	0.000	0.000	0.000	
<i>Aster sagittifolius drummondii</i>	Drummond's Aster	0.000	0.000	0.000	
<i>Aster sericeus</i>	Silky Aster	0.709	0.105	0.000	
<i>Aster shortii</i>	Short's Aster	0.000	0.000	0.000	
<i>Aster umbellatus</i>	Flat-topped Aster	0.000	0.000	0.144	
<i>Astragalus canadensis</i>	Canadian Milk Vetch	0.000	0.000	0.000	
<i>Athyrium filix-femina michauxii</i> (angustum)	Lady Fern	0.000	0.000	0.000	
<i>Aureolaria</i> (Gerardia) <i>grandiflora pulchra</i>	Yellow False Foxglove	0.000	0.000	0.000	
<i>Aureolaria</i> (Gerardia) <i>pedicularia ambigens</i>	Clammy False Foxglove	0.000	0.000	0.000	
<i>Baptisia leucantha</i>	White Wild Indigo	6.850	3.799	0.000	
<i>Baptisia leucophaea</i>	Cream Wild Indigo	0.535	0.437	0.000	
<i>Bidens comosa</i> (tripartia)	Swamp Tickseed	0.000	0.000	0.056	
<i>Boltonia latisquama</i> ** (asteroides)	False Aster	0.000	0.000	0.944	
<i>Botrychium virginianum</i>	Rattlesnake Fern	0.000	0.000	0.000	
<i>Bouteloua curtipendula</i>	Side-Oats Grama	0.768	0.000	0.000	
<i>Bouteloua hirsuta</i>	Hairy Grama	0.114	0.000	0.000	
<i>Brachyelytrum erectum</i>	long awned wood grass	0.000	0.000	0.000	2.250
<i>Bromus kalmii</i>	Prairie brome	0.000	0.000	0.000	
<i>Cacalia atriplicifolia</i>	Pale Indian Plantain	0.315	0.441	0.000	
<i>Cacalia plantaginea</i> (tuberosa)	Indian Plantain	0.000	0.011	0.008	
<i>Cacalia suaveolens</i>	Sweet-scented Indian Plantain	0.000	0.000	0.332	
<i>Calamagrostis canadensis</i>	Blue Joint Grass	0.000	0.000	0.000	
<i>Callirhoe triangulata</i>	Clustered Poppy Mallow	0.000	0.000	0.000	
<i>Caltha palustris</i>	Marsh Marigold	0.000	0.000	0.000	
<i>Carex annectens xanthocarpa</i>	Small Yellow Fox Sedge	0.000	0.000	0.000	
<i>Carex bicknellii</i>	Copper-shouldered oval Sedge	4.094	0.286	0.000	
<i>Carex blanda</i>	Common wood sedge	0.000	0.000	0.000	
<i>Carex hystencinia</i>		0.000	0.000	0.000	
<i>Carex haydenii</i> (stricta)	Long-scaled Tussock sedge	0.000	0.000	0.000	
<i>Carex medeii</i>	Meads sedge	0.000	0.000	0.000	
<i>Carex muhlenbergii</i> (enervis)	Sand Bracted Sedge (Muhlenberg's)	0.118	0.046	0.000	
<i>Carex normalis</i>	Spreading Oval sedge	0.000	0.000	0.000	
<i>Carex pellita</i> (lanuginosa)	Broad-leaved Woolly Sedge	0.000	0.000	0.000	
<i>Carex pennsylvanica</i>	Common Oak (Penn) Sedge	0.000	0.000	0.000	

Carex richardsonii	Prairie Hummock sedge	0.000	0.000	0.000	
Carex Springelii	Long-beaked sedge	0.000	0.000	0.000	0.010
Cares spp.		0.000	0.000	0.000	
Carex stipata	Common Fox Sedge	0.000	0.000	0.000	
Carya ovata	shag bark hickory	0.000	0.000	0.000	
Carex scopana		0.000	0.000	0.000	
Carex stipata		0.000	0.000	0.000	
Carex stricta	Tussock Sedge	0.000	0.000	0.000	
Carex vulpoides		0.000	0.000	0.000	
Cassia fasciculata	Partridge Pea	0.315	0.306	0.000	
Cassia hebecarpa	Wild Senna	0.000	0.000	0.280	
Cassia nictitans	Wild sensitive plant	0.000	0.000	0.000	
Castilleja sessiliflora **	Downy Yellow Painted Cup	0.583	0.044	0.000	
Ceanothus americanus	New Jersey Tea	0.008	0.000	0.000	
Cephalanthus occidentalis	Buttonbush	0.000	0.000	0.672	
Chelone glabra	Turtlehead	0.000	0.002	0.024	
Chrysopsis camporum (Heterotheca)	Golden Prairie Aster	0.213	0.044	0.000	
Cinna arundinacea	Common Wood Reed	0.000	0.000	0.000	
Circaea lutetiana canadensis	Enchanter's Nightshade	0.000	0.000	0.000	
Cirsium discolor	Pasture Thistle	0.000	0.000	0.000	
Cirsium hillii *** (pumilum)	Hill's Thistle	0.000	0.000	0.000	
Cirsium muticum	Swamp Thistle	0.000	0.000	0.008	
Claytonia virginica	Spring Beauty	0.000	0.000	0.000	
Clematis virginiana	Virgin's Bower	0.000	0.000	0.000	
Comandra umbellata (richardsiana)	False Toadflax	0.000	0.000	0.000	
Convolvulus (Calystegia) sepium	Hedge Bindweed	0.000	0.000	0.000	
Coreopsis lanceolata	Sand Coreopsis	0.457	0.000	0.000	
Coreopsis palmata	Prairie Coreopsis	0.630	0.199	0.000	
Coreopsis tripteris	Tall Coreopsis	0.787	1.144	0.400	
Corylus americana	American Hazelnut	0.000	0.000	0.000	
Cuscuta campestris	field dodder	0.000	0.000	0.000	
Crataegus sp	Hawthorn	0.000	0.000	0.000	
Cyperus filiculmis	Slender Sand Sedge	0.135	0.000	0.000	
Danthonia spicata	Poverty Oat Grass	0.157	0.000	0.000	
Desmanthus illinoensis	Ill. Bundle Flower	0.000	0.000	0.000	
Desmodium canadense	Showy Tick Trefoil	0.000	0.000	0.000	
Desmodium glutinosum	Pointed Tick Trefoil	0.000	0.000	0.000	0.150
Desmodium illinoense	Ill. Tick Trefoil	0.024	0.000	0.000	
Dicentra cucullaria	Dutchman's Breeches	0.000	0.000	0.000	

<i>Diarrhena americana</i>	beak grass	0.000	0.000	0.000	
<i>Dodecatheon meadia</i>	Shooting Star	0.425	0.000	0.000	0.100
<i>Echinacea pallida</i>	Pale Purple Coneflower	9.587	2.620	0.000	
<i>Echinocystis lobata</i>	Wild Cucumber	0.000	0.000	0.000	
<i>Elymus canadensis</i>	Prairie Wild Rye	1.941	1.048	0.000	
<i>Elymus riparius</i>	Riverbank Wild Rye	0.000	0.000	0.000	
<i>Elymus villosus</i>	Silky Wild Rye	0.000	0.000	0.000	
<i>Elymus virginicus</i>	Va. Wild Rye	0.000	0.000	0.000	1.200
<i>Epilobium coloratum</i>	Cinnamon Willow Herb	0.000	0.000	0.036	
<i>Eragrostis spectabilis</i>	Purple Love Grass	0.272	0.000	0.000	
<i>Erechtites hieracifolia</i>	Fireweed	0.000	0.028	0.050	
<i>Erigeron annuus</i>	Annual Fleabane	0.000	0.000	0.000	
<i>Erigeron philadelphicus</i>	Marsh Fleabane	0.000	0.000	0.000	
<i>Erigeron strigosus</i>	Daisy Fleabane	0.823	0.218	0.000	
<i>Eryngium yuccifolium</i>	Rattlesnake Master	0.000	3.930	1.920	
<i>Eupatorium altissimum</i>	Tall Boneset	0.236	0.190	0.080	
<i>Eupatorium maculatum</i>	Spotted Joe Pye Weed	0.000	0.000	1.068	
<i>Eupatorium perfoliatum</i>	Boneset	0.000	0.437	0.384	
<i>Eupatorium purpureum</i>	Purple Joe-Pye Weed	0.000	0.000	0.080	2.000
<i>Eupatorium rugosum</i>	White Snakeroot	0.000	0.000	0.000	
<i>Eupatorium serotinum</i>	Late Boneset	0.000	0.000	0.000	
<i>Euphorbia corollata</i>	Flowering Spurge	1.260	0.105	0.000	
<i>Festuca obtusa (subverticillata)</i>	Nodding Fescue	0.000	0.000	0.000	0.450
<i>Filipendula rubra **</i>	Queen-of-the-Prairie	0.000	0.000	0.000	
<i>Galium boreale</i>	Northern Bedstraw	0.000	0.105	0.192	
<i>Gaura biennis pitcheri (longiflora)</i>	Common Gaura	0.185	0.100	0.000	
<i>Gentiana (alba) flavida</i>	Cream Gentian	0.000	0.961	0.416	
<i>Gentiana (Gentianopsis) crinita</i>	Fringed Gentian	0.000	0.022	0.140	
<i>Gentiana andrewsii</i>	Bottle (or Closed) Gentian	0.000	0.044	0.280	
<i>Gentiana purberulenta</i>	Prairie Gentian	0.016	0.007	0.000	
<i>Gentiana saponaria</i>	Soapwort Gentian	0.000	0.000	0.000	
<i>Geranium maculatum</i>	Wild Geranium	0.000	0.000	0.000	
<i>Geum aleppicum strictum</i>	Yellow Avens	0.000	0.000	0.000	
<i>Geum canadense</i>	White Avens; Wood Avens	0.000	0.000	0.000	
<i>Geum triflorum</i>	Prairie Smoke (Long-plumed Purple Avens)	0.001	0.000	0.000	
<i>Gnaphalium obtusifolium</i>	Sweet Everlasting (Old-Field Balsam)	0.220	0.000	0.000	
<i>Habenaria leucophea</i>	E. Prairie Fringed Orchid	0.000	0.000	0.000	
<i>Hedoma hispida</i>	Rough Pennyroyal	0.000	0.000	0.000	

<i>Helenium autumnale</i>	Sneezeweed	0.000	0.087	0.876	
<i>Helianthemum bicknellii</i>	Rock Rose	0.028	0.000	0.000	0.350
<i>Helianthemum canadense</i>	Common Rockrose (Frostweed)	0.748	0.000	0.000	2.400
<i>Helianthus divaricatus</i>	Woodland Sunflower	0.000	0.000	0.132	
<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	0.000	0.031	0.000	
<i>Helianthus hirsutus</i>	Hispid sunflower	0.000	0.000	0.000	
<i>Helianthus mollis</i>	Hairy Sunflower	0.000	0.000	0.000	
<i>Helianthus occidentalis</i>	Western Sunflower; Naked S.	1.220	0.655	0.000	
<i>Helianthus rigidus (laetiflorus)</i>	Prairie Sunflower	0.197	0.022	0.000	
<i>Helianthus spp.</i>	Sunflower Woods	0.000	0.000	0.000	
<i>Helianthus tuberosus</i>	Jerusalem Artichoke	0.000	0.000	0.000	
<i>Heliopsis helianthoides</i>	False Sunflower; " Ox-eye "	0.063	0.013	0.000	
<i>Hepatica acutiloba</i>	Sharp-lobed Hepatica	0.000	0.000	0.000	
<i>Heuchera richardsonii grayana</i>	Rough Heuchera; Alum root	0.012	0.000	0.000	0.050
<i>Hibiscus palustris</i>	Swamp Rose Mallow	0.000	0.000	0.000	
<i>Hieracium gronovii</i>	Hairy Hawkweed	0.000	0.000	0.000	
<i>Hieracium longipilum</i>	Long-Bearded Hawkweed	0.020	0.000	0.000	
<i>Hieracium scabrum</i>	Rough Hawkweed	0.000	0.000	0.000	0.010
<i>Hierochloa odorata</i>	Sweet or Vanilla Grass	0.000	0.000	0.000	
<i>Houstonia (Hedyotis) longifolia (canadense)</i>	Long-Leaved Bluets	0.000	0.000	0.000	
<i>Humulus lupulus</i>	Common Hop	0.000	0.000	0.000	
<i>Hypericum mutilum</i>	Weak St. Johnswort	0.000	0.000	0.008	
<i>Hypericum majus</i>	Sand St. Johnswort	0.000	0.000	0.000	
<i>Hypericum punctatum</i>	Spotted St. Johnswort	0.000	0.000	0.000	
<i>Hypericum pyramidatum</i>	Great St. Johnswort	0.000	0.087	0.064	
<i>Hypericum spaerocarpum</i>	Round-fruited St. Johnswort	0.000	0.000	0.000	
<i>Hypoxis hirsuta</i>	Yellow Star Grass	0.000	0.000	0.000	
<i>Hystrix patula (Elymus hystrix)</i>	Bottlebrush Grass	0.000	0.000	0.000	1.300
<i>Impatiens capensis (biflora)</i>	Spotted Touch-Me-Not (Jewelweed)	0.000	0.000	0.000	
<i>Impatiens pallida</i>	Pale Touch-Me-Not (Jewelweed)	0.000	0.000	0.000	
<i>Iris versicolor</i>	tall blue flag iris	0.000	0.000	0.000	
<i>Iris virginica shrevei</i>	Blue Flag	0.000	0.000	0.000	
<i>Juglans Cinerea</i>	butternut	0.000	0.000	0.000	1.400
<i>Isanthus (Trichostema) brachiatus (m)</i>	False Pennyroyal	0.000	0.000	0.000	
<i>Juncus dudleyi</i>	Dudley's Rush	0.000	0.000	0.000	
<i>Juncus greenei</i>	Greene's Rush	0.000	0.000	0.000	
<i>Juncus interior</i>	Inland Rush	0.224	0.242	0.000	

<i>Juncus tenuis</i>	Path Rush	0.000	0.000	0.000	
<i>Juncus torreyi</i>	Torrey's Rush	0.000	0.013	0.012	
<i>Koeleria cristata (macrantha)</i>	Prairie June Grass	2.362	1.310	0.000	
<i>Krigia biflora</i>	Two-flowered Cynthia (False Dandelion)	0.000	0.000	0.000	
<i>Krigia virginica</i>	Dwarf Dandelion	0.000	0.000	0.000	
<i>Kuhnia (Brickellia) eupatoroides corymbulosa</i>	False Boneset	0.980	0.172	0.000	
<i>Lactuca canadensis</i>	Wild Lettuce	0.000	0.000	0.000	
<i>Lactuca floridana</i>	Blue Lettuce	0.000	0.000	0.000	
<i>Leachea minor</i>		0.000	0.000	0.000	
<i>Lechea stricta</i>	Bushy Pinweed	0.000	0.000	0.000	
<i>Lechea tenuifolia</i>	Slender-Leaved Pinweed	0.122	0.000	0.000	0.200
<i>Lechea villosa (mucronata)</i>	Hairy Pinweed	0.110	0.066	0.000	0.200
<i>Leersia oryzoides</i>	Rice Cut Grass	0.000	0.000	0.000	
<i>Leptoloma cognatum</i>	Fall Witch Grass	0.000	0.000	0.000	
<i>Lespedeza capitata</i> --	Round-headed Bush Clover	6.402	3.550	0.000	
<i>Lespedeza leptostachya</i> ****	Prairie Bush Clover	0.000	0.000	0.000	
<i>Liatris aspera</i>	Rough Blazing-star (Rough Gayfeather)	5.453	1.397	0.000	
<i>Liatris cylindracea</i>	Dwarf Blazingstar	0.008	0.000	0.000	
<i>Liatris pycnostachya</i>	Tall Gayfeather; Prairie Blazing Star	0.000	1.727	0.660	
<i>Lilium michiganense</i>	Turk's Cap lily	0.008	0.013	0.000	
<i>Lilium philadelphicum andinum</i>	Prairie Lily; Wood Lily; Western Lily	0.000	0.000	0.000	
<i>Linaria canadensis</i>	Blue Toadflax	0.000	0.000	0.000	
<i>Linum sulcatum</i>	Groved Yellow Flax	0.000	0.000	0.000	
<i>Lithospermum croceum</i>	Hairy Puccoon	0.001	0.000	0.000	
<i>Lithospermum canescens</i>	Hoary Puccoon	0.000	0.000	0.000	
<i>Lithospermum incisum</i>	Fringed (Narrow-leaved) Puccoon	0.071	0.004	0.000	
<i>Lobelia cardinalis</i>	Cardinal Flower	0.000	0.000	0.000	
<i>Lobelia inflata</i>	Indian Tobacco	0.000	0.000	0.000	
<i>Lobelia siphilitica</i>	Great Lobelia	0.000	0.000	0.124	
<i>Lobelia spicata</i>	Pale-spike Lobelia	0.000	0.004	0.000	
<i>Lonicera prolifera</i>	Yellow Honeysuckle	0.000	0.000	0.000	
<i>Ludwigia alternifolia</i>	Seed Box	0.000	0.000	0.000	
<i>Lupinus perennis</i>	Wild Lupine	0.035	0.000	0.000	2.500
<i>Lycopus americanis</i>	common horehound	0.000	0.000	0.008	
<i>Lysimachia ciliata</i>	Fringed Loosestrife	0.000	0.000	0.000	
<i>Lysimachia lanceolata</i>	Lance-Leaved Loosestrife	0.000	0.000	0.000	
<i>Lysimachia quadriflora</i>	Narrow-Leaved (Whorled)	0.000	0.004	0.060	

	Loosestrife				
<i>Lysimachia thrysiflora</i>	Tufted Loosestrife	0.000	0.000	0.000	
<i>Lythrum alatum</i>	Winged Loosestrife	0.000	0.000	0.000	
<i>Malus ioensis</i>	Iowa Crab	0.000	0.000	0.000	
<i>Menispermum canadense</i>	Moonseed	0.000	0.000	0.000	
<i>Mertensia virginica</i>	Virginia Bluebells	0.000	0.000	0.000	
<i>Mimulus glabratus fremontii</i> **	Yellow Monkey Flower	0.000	0.000	0.000	
<i>Mimulus ringens</i>	Monkey Flower	0.000	0.003	0.006	
<i>Monarda fistulosa</i>	Wild Bergamot	0.157	0.131	0.033	
<i>Monarda punctata villicualis</i>	Horse Mint	0.370	0.000	0.000	
<i>Napaea dioica</i>	Glade Mallow	0.000	0.087	0.032	
<i>Oenothera biennis canescens</i>	Common Evening Primrose	0.079	0.234	0.000	
<i>Oenothera clelandii (rhombipetala)</i>	Sand Evening Primrose	0.000	0.000	0.000	
<i>Onoclea sensibilis</i>	Sensitive Fern	0.000	0.000	0.000	
<i>Onosmodium hispidissimum</i>	Marbleseed	0.047	0.009	0.000	1.200
<i>Opuntia humifusa (compressa)</i>	Prickly Pear Cactus	0.008	0.000	0.000	
<i>Orchis (Galearis) spectabilis</i>	Showy Orchis	0.000	0.000	0.000	
<i>Osmorhiza claytonii</i>	Hairy Sweet Cicely	0.000	0.000	0.000	
<i>Osmorhiza longistylis</i>	Smooth Sweet Cicely	0.000	0.000	0.000	
<i>Osmunda claytoniana</i>	Interrupted Fern	0.000	0.000	0.000	
<i>Oxalis stricta (dillenii)</i>	Yellow Wood Sorrel	0.000	0.000	0.000	
<i>Oxalis violacea</i>	Violet Wood-sorrel	0.059	0.000	0.000	
<i>Oxypolis rigidior</i>	Cowbane	0.000	0.000	0.000	
<i>Panicum implicatum (languinosa)</i>	Old-field Panic Grass	0.000	0.000	0.000	
<i>Panicum latifolium (bosci)</i>	Broad-leaved Panic Grass	0.000	0.000	0.000	
<i>Panicum leibergii</i>	Prairie Panic Grass	0.002	0.001	0.000	
<i>Panicum lindheimeri</i>	Smooth Wolly Panic Grass	0.000	0.000	0.000	
<i>Panicum oligosanthos scribneria</i>	Scribner's Panic Grass	0.394	0.000	0.000	
<i>Panicum perlongum</i>	Long-stalked Panic Grass	0.001	0.000	0.000	
<i>Panicum villosissimum</i>	White-Haired Panic Grass	0.701	0.000	0.000	
<i>Panicum virgatum</i>	Prairie Switch Grass	0.051	0.061	0.000	
<i>Parnassia glauca</i>	Grass of Parnassus	0.000	0.000	0.000	
<i>Parthenium integrifolium</i>	Wild Quinine (Feverfew)	5.433	0.616	0.000	
<i>Paspalum ciliatifolium muhlenbergii</i>	Hairy Lens Grass	0.142	0.000	0.000	
<i>Pedicularis canadensis</i>	Wood Betony	0.031	0.017	0.000	
<i>Pedicularis lanceolata</i>	Fen (Swamp) Betony; Lousewort	0.000	0.007	0.560	
<i>Penthorum sedoides</i>	Ditch Stone crop	0.000	0.000	0.000	
<i>Penstemon digitalis</i>	Foxglove Beardtongue	0.059	0.262	0.000	

<i>Penstemon grandiflorus</i>	Large Flowered Beardtongue	0.012	0.000	0.000	
<i>Penstemon hirsutus</i>	Hairy Beard tongue	0.106	0.000	0.000	
<i>Penstemon pallidus</i>	Pale Beard Tongue	0.000	0.000	0.000	
<i>Petalostemum (Dalea) candidum</i>	White Prairie Clover	2.134	2.368	0.000	
<i>Petalostemum (Dalea) purpureum</i>	Purple Prairie Clover	6.551	2.135	0.000	
<i>Phlox bifida</i>	Sand Phlox	0.000	0.000	0.000	
<i>Phlox divaricata</i>	Woodland Phlox (Blue Phlox)	0.000	0.000	0.000	
<i>Phlox maculata</i>	Sweet William Phlox	0.000	0.000	0.000	
<i>Phlox pilosa</i>	Prairie phlox	0.021	0.012	0.000	
<i>Phyrma leptostachya</i>	Lopseed	0.000	0.000	0.000	
<i>Physocarpus opulifolius</i>	Ninebark	0.000	0.072	0.000	
<i>Physostegia virginiana arenaria</i>	Prairie Obedient Plant	0.000	0.000	0.000	
<i>Polemonium reptans</i>	Jacob's Ladder	0.000	0.000	0.000	
<i>Polygala incarnata</i> **	Pink Milkwort	0.000	0.000	0.000	
<i>Polygala polygama obtusata</i>	Purple Milkwort	0.047	0.000	0.000	
<i>Polygala sanguinea</i>	Field Milkwort	0.000	0.004	0.000	
<i>Polygala verticillata isocycla</i>	Short Whorled Milkwort	0.000	0.000	0.000	
<i>Polygonatum canaliculatum (commutatum)</i>	Smooth Solomon's Seal	0.000	0.000	0.000	
<i>Polygonum tenue</i>	Slender Knotweed	0.000	0.000	0.000	
<i>Polypodium virginianum (vulgare)</i>	Polypody	0.000	0.000	0.000	
<i>Polytaenia nuttallii</i>	Prairie Parsley	0.000	0.000	0.000	
<i>Potentilla arguta</i>	Prairie Cinquefoil	0.079	0.210	0.000	
<i>Prenanthes aspera</i>	rough white lettuce	0.000	0.000	0.000	
<i>Prunus americana</i>	Wild Plum	0.024	0.011	0.000	0.050
<i>Ptelea trifoliata</i>	Wafer Ash, Hop Tree	0.000	0.000	0.000	
<i>Pycnanthemum tenuifolium</i>	Narrow-leaved Mountain Mint	0.000	0.000	0.000	
<i>Pycnanthemum virginianum</i>	Mountain mint (Prairie Hyssop)	0.394	1.266	1.200	
<i>Quercus alba</i>	White Oak	0.000	0.000	0.000	
<i>Quercus coccinea (ellipsoidalis)</i>	Scarlet Oak	0.000	0.000	0.000	
<i>Quercus macrocarpa</i>	Bur Oak	0.000	0.000	0.000	
<i>Quercus rubra</i>	Red Oak	0.000	0.000	0.000	
<i>Quercus velutina</i>	Black Oak	0.000	0.000	0.000	0.200
<i>Ratibida pinnata</i>	Yellow Coneflower	0.000	0.000	0.000	
<i>Rhexia virginica</i>	Meadow Beauty	0.000	0.000	0.000	
<i>Rhus aromatica</i>	fragrant sumac	0.039	0.000	0.000	0.200
<i>Rhus glabra</i>	Smooth Sumac	0.000	0.000	0.000	
<i>Rosa blanda</i>	Early wild Rose	0.000	0.000	0.000	
<i>Rosa carolina</i>	Pasture Rose	0.551	0.183	0.000	

Rudbeckia hirta	Black-eyed Susan	0.118	0.218	0.000	
Rudbeckia laciniata	Wild Golden Glow	0.000	0.000	0.000	
Rudbeckia subtomentosa	Sweet Blackeyed Susan	0.079	0.262	0.080	0.750
Ruellia humilis	Wild Petunia	0.067	0.000	0.000	
Rumex orbiculatus	Great Water dock	0.000	0.000	0.200	
Salix humilis	Prairie Willow	0.000	0.000	0.000	
Sambucus canadensis	Elderberry	0.000	0.000	0.008	
Saxifraga pennsylvanica	Swamp Saxifrage	0.000	0.000	0.000	
Scirpus atrovirens	Dark Green Rush	0.000	0.000	0.000	
Scirpus cyperinus	Wool Grass	0.000	0.000	0.000	
Scirpus fluviatilis	River Bulrush	0.000	0.000	0.000	
Scirpus validus creber (tabernaemontanii)	Great Bulrush	0.000	0.000	0.000	
Scrophularia lanceolata	Early figwort	0.000	0.000	0.000	2.200
Scrophularia marilandica	Late Figwort	0.000	0.000	0.000	
Scutellaria lateriflora	Mad-dog Skullcap	0.000	0.000	0.000	
Scutellaria ovata versicolor	Heart-leaved Skullcap	0.000	0.000	0.000	
Scutellaria parvula leonardi	Small Skullcap	0.000	0.000	0.000	
Selaginella rupestris	Sand Club moss	0.000	0.000	0.000	
Senecio pauperculus	Balsam Ragwort	0.000	0.131	0.044	
Senecio plattensis	Prairie Ragwort	0.000	0.000	0.000	
Sicyos angulatus	Bur Cucumber	0.000	0.000	0.000	
Silene antirrhina	Sleepy Catchfly	0.000	0.000	0.000	
Silene stellata	Starry Champion	0.000	0.007	0.000	1.000
Silphium integrifolium	Rosinweed	0.000	2.031	0.000	
Silphium integrifolium deamii	Rosinweed	0.000	0.000	0.000	
Silphium laciniatum	Compass plant	1.917	1.083	0.000	
Silphium perfoliatum	Cup-plant	0.000	0.238	0.436	
Silphium terebinthaceum	Prairie Dock	0.378	0.448	0.000	
Sisyrinchium albidum	Common Blue-eyed Grass	0.079	0.017	0.000	
Sisyrinchium angustifolium	Narrow-leaved Blue-eyed Grass	0.000	0.000	0.000	
Smilacina stellata	Starry False Solomons plume	0.000	0.000	0.000	
Smilacina racemosa	Solomons Plume	0.000	0.000	0.000	
Solidago (Euthamia) graminifolia	Viscid Bushy Goldenrod	0.000	0.000	0.000	
Solidago (Euthamia) graminifolia nuttallii	Grass-leaved Goldenrod	0.000	0.000	1.060	
Solidago (Euthamia) gymnospermoides	Viscid Grass-leaved Goldenrod	2.969	0.502	0.000	
Solidago missouriensis fasciculata	Missouri Goldenrod	2.252	0.537	0.000	
Solidago nemoralis	Gray Goldenrod; Oldfield	1.575	0.814	0.000	
Solidago ohioensis	Ohio Goldenrod	0.000	0.000	0.000	

<i>Solidago patula</i>	Swamp Goldenrod	0.000	0.000	0.336	
<i>Solidago riddellii</i>	Riddell's goldenrod	0.000	0.004	0.072	
<i>Solidago rigida</i>	Stiff Goldenrod	0.315	0.218	0.164	
<i>Solidago speciosa</i>	Showy Goldenrod	1.417	0.299	0.000	
<i>Solidago ulmifolia</i>	Elm-leaved Goldenrod	0.000	0.000	0.000	
<i>Sorghastrum nutans</i>	Indian Grass	0.000	0.000	0.000	
<i>Spartina pectinata</i>	Prairie Cord Grass	0.000	0.175	0.800	
<i>Specularia (Triodanis) perfoliata</i>	Venus' Looking Glass	0.000	0.000	0.000	
<i>Spiraea alba</i>	Meadowsweet	0.000	0.020	0.192	
<i>Spiranthes cernua</i>	Nodding Ladies Tresses	0.000	0.000	0.000	
<i>Spiranthes lacera</i>	Slender Ladies Tresses	0.002	0.000	0.000	0.025
<i>Sporobolus cryptandrus</i>	Sand Dropseed	0.000	0.000	0.000	
<i>Sporobolus heterolepis</i>	Prairie Dropseed	0.000	0.000	0.000	
<i>Stachys palustris homotricha</i>	Woundwort	0.000	0.002	0.032	
<i>Stipa spartea</i>	Porcupine Grass	0.465	0.000	0.000	
<i>Symplocarpus foetidus</i>	Skunk Cabbage	0.000	0.000	0.000	
<i>Talinum rugospermum</i> ***	Sand Fameflower	0.008	0.000	0.000	
<i>Tephrosia virginiana</i>	Goat's Rue	2.579	0.000	0.000	2.950
<i>Teucrium canadense</i>	American Germander (Wood Sage)	0.000	0.000	0.000	
<i>Teucrium occidentale</i>	Gray Germander	0.000	0.000	0.000	
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	0.000	0.000	0.000	
<i>Tradescantia ohiensis</i>	Ohio Spiderwort	2.343	0.838	0.000	1.600
<i>Trillium recurvatum</i>	Red (Prairie) Trillium	0.000	0.000	0.000	
<i>Triosteum aurantiacum</i>	Early Horse Gentian (Orange-fruited)	0.000	0.000	0.000	
<i>Triosteum perfoliatum</i>	Horse Gentian (Feverwort)(Tinker's Weed)	0.142	0.079	0.000	
<i>Verbena hastata</i>	Blue Vervain	0.000	0.655	0.428	
<i>Verbena stricta</i>	Hoary Vervain	0.945	0.203	0.000	
<i>Verbena urticifolia</i>	Hairy White Vervain	0.059	0.031	0.000	3.000
<i>Vernonia fasciculata</i>	Common Ironweed	0.000	3.600	0.000	
<i>Veronicastrum virginicum</i>	Culver's Root	0.000	0.568	0.920	
<i>Viburnum lentago</i>	Nannyberry Viburnum	0.000	0.000	0.000	
<i>Viburnum prunifolium</i>	Black Haw	0.000	0.000	0.000	
<i>Viola fimbriatula</i>	Sand Violet	0.000	0.000	0.000	
<i>Viola lanceolata</i>	Lance-leaved Violet	0.000	0.000	0.000	
<i>Viola pedata lineariloba</i>	Birdsfoot Violet	0.016	0.000	0.000	
<i>Viola pedatifida</i>	Prairie Violet	0.118	0.000	0.000	
<i>Viola sagittata</i>	Arrow-leaved violet	0.000	0.000	0.000	
<i>Viola sororia (pratincola) (</i>	Common blue Violet	0.000	0.000	0.000	

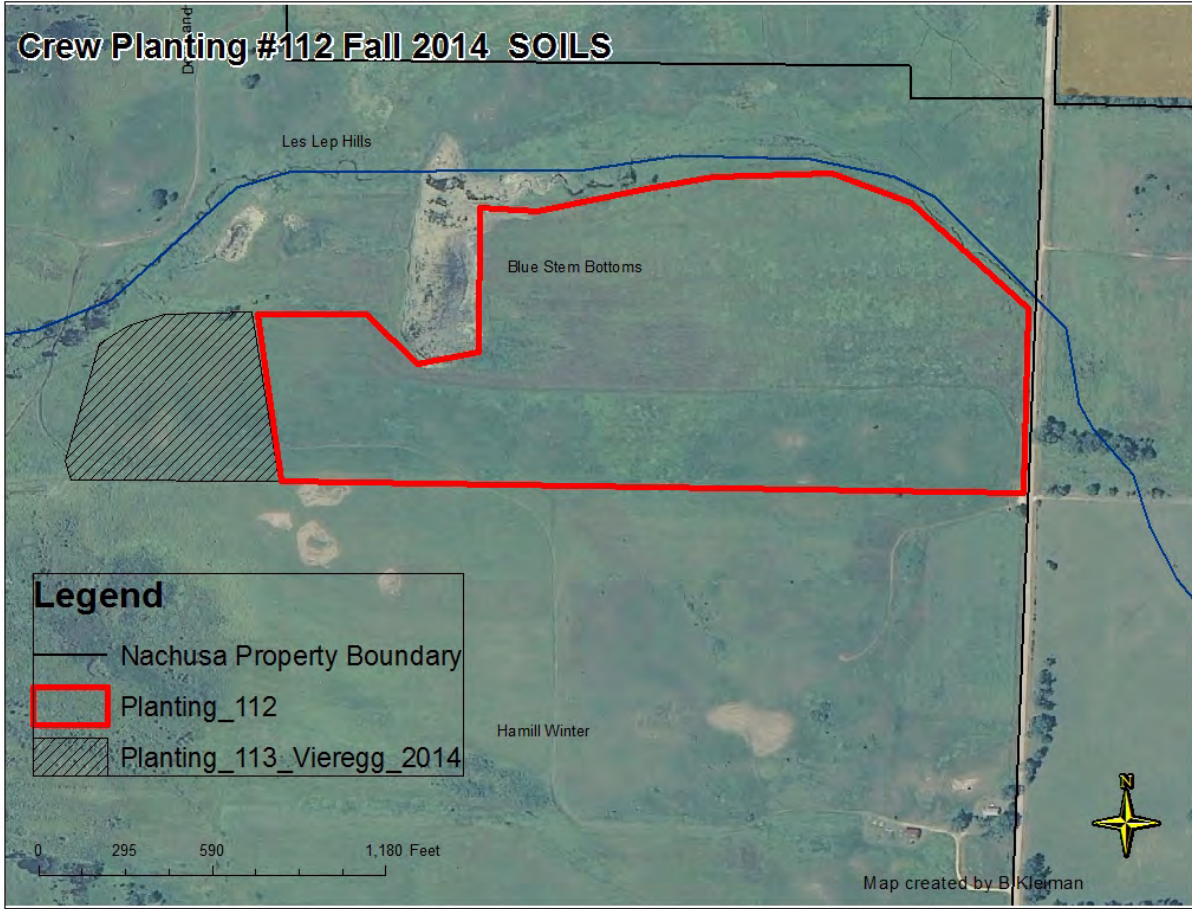
papilionacea)				
Viola subsinuata (triloba)	Lobed Blue Violet	0.000	0.000	0.000
Wulfenia bullii *** (Besseyia)	Kittentails	0.000	0.000	0.000
Zizia aptera	Heart-leaved Meadow Parsnip	0.024	0.000	0.000
Zizia aurea	Golden Alexanders	0.000	1.310	1.536
	Common Water Plantain	0.000	0.000	0.000
		0.000	0.000	0.000
		0.000	0.000	0.000
ODD MIXES		0.000	0.000	0.000
mo gr grass leaved gr oldfield		0.000	0.000	0.000
TCP - Dry, dry mesic, Cor pal, Amo can, Par int, great mix		0.000	0.000	0.000
TCP - Aster mix		0.000	0.000	0.000
Wet sedges and juncus		0.000	0.000	0.000
WET MIX 2011	14 species	0.000	0.000	3.760
Wet Aster mix		0.000	0.131	0.452
Mesic mix		0.000	0.000	0.000
Savanna mix 2011 -Eup pur, Ast sho, Pre alt, Hie can, Cin arv	5 species	0.000	0.000	0.000
Bills Mesic mix		0.000	0.000	0.000
Mesic mix		0.000	0.000	0.000
dry mix		0.114	0.000	0.000
dry mesic mix		0.000	0.000	0.000
Aster mix: smooth, sky blue		0.173	0.000	0.000
solidago miss, oldfield, grassleaved		0.000	0.000	0.000
Wool grass and Bullrush		0.000	0.000	0.000
Weedy species-Rat pin, Men fit, etc		0.000	0.000	0.000
Seed stripped Little blue		0.000	0.000	0.000
Combine Little blue yellow house		8.189	8.199	0.000
Little blue mixed with thimble		2.362	1.417	0.000
little blue mixed with il ticktrefoil		0.000	0.000	0.000
Little blue with cut stems no pure seed in 2012 and 2013		0.000	0.000	0.000
Thimble weed mixed with little blue		0.000	0.000	0.000
Dropseed Garden Combine Mix		5.232	5.240	0.000
Northern Drop seed cut with stems		0.000	0.000	0.000
bushy, hairy pin weed and frost weed		0.000	0.000	0.000
sweet ever, lia asp, rose, purple love,		0.000	0.000	0.000
woodland grass mix		0.000	0.000	0.000
prairie coreopsis and w sunflower		0.000	0.000	0.000
bicnells sedge and Sally's sedgemeanow crew mistake mixed them together		0.000	0.000	0.000
				3.500
				0.100

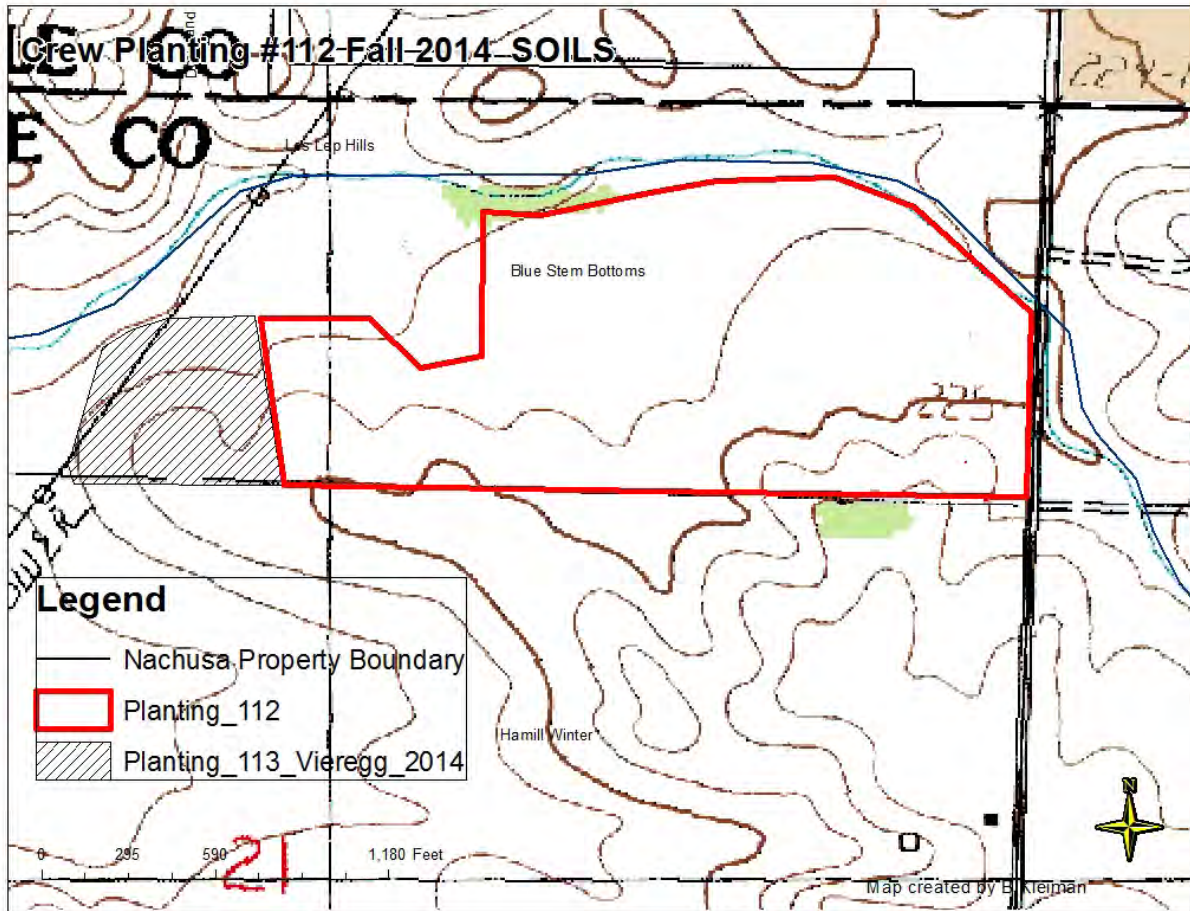
tall grasses combine - big blue and indian	0.000	0.249	0.000
woodland grass mix	0.000	0.000	0.000
Ayres Hallowell mix 37 species for uplands	8.189	0.000	0.000
TOTAL Pounds	39.350789	81.1972973	286.915
NUMBER OF SPECIES	114	108	59

The excel spreadsheet where this list was copied from is found T:\Nachusa Project\Stewardship\PLANTING HISTORIES & INVENTORIES\Planting 112. 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.

Maps:

Crew Planting #112 Fall 2014 SOILS





Map saved in T:\Nachusa Project\Stewardship\PLANTING HISTORIES & INVENTORIES\Planting 112

Lessons Learned:

Time will tell if putting a poor planting back to row crops to plant again to prairie was a good use of time. Winter came early, in the future harrow and burn corn stubble ASAP. In this case the corn came out so late the lower planting is not done as we can't burn the stubble since there is snow on the ground. We should ask our farmer to plant an early harvest variety, or have them to harvest it early in their rotations. We put most of the porcupine grass in the seed mix by simply cutting off the long awns. I expect that will work. We had a small amount of step in.



Photo of Heather Baker, Zach Storc, and Jocelyn Frazelle mixing seed for this planting.