



Fall Crew, pictured left to right: Riley Berner, Olivia Freiberg, Zach Skubiszewski, and Jacob Churlo

FCNA HEL FIELD

Prepared By: Zach Skubiszewski

PLANTING #140

2024 Planting History

Site Conditions

General Location – Just north and east of the intersection of Detour Rd. and Robbins Rd. West of the Franklin Creek Grist Mill.

GPS: 41°51'22.0"N, 89°21'43.1"W

Acreage: ~5 acres

County: Lee

Soil Types



Figure 1. Map of relevant soil types in the planting AOI. See Table 1 for more information.

Map Unit Symbol	Soil Type	Acres in AOI	% of AOI
363D2	Griswold loam, 6 – 12% slopes, eroded	3.5	67.9
570B	Martinsville silt loam, 2 – 5% slopes	.6	11.6
622C2	Wyanet silt loam, 5 – 10% slopes, eroded	1	20.5
Totals in AOI:		5.1	100

Table 1. Key for Map 1. Soil types present within the planting AOI. Source: NRCS.

Topography

The topography of this site consists of a hill in the southeast corner that slopes towards a stream just outside of the planting to the northwest. This creates a gradient of north and west slopes potentially providing some habitat variability in this small site.

Site History

This site is owned by Franklin Creek State Natural Area (FCNA) and has historically been a row crop field. Because of the sloping of the field, it is considered highly erodible land (HEL), which is why DNR was interested in restoring it this year. In the spring of 2024, it was planted to soybeans. After harvest, the farmer planted a rye cover crop.

Site Preparations

Soybeans were harvested from the site this fall and immediately followed with a rye cover crop. The rye grew to be 6 inches tall before it was sprayed with glyphosate in early November in preparation for the planting.

Some weed work was done on the bordering sites by the Soderholm Stewards and Susan Kleiman, primarily targeting Canada thistle, poison hemlock, and non-native *Lonicera*.

Planting the Seed

This planting was started and completed on December 6th. The temperature was around 30° F and sunny with modest winds.

The entire planting was completed using the pendulum seeder. The dry-mesic mix was planted first on the higher elevation spots near the southeast corner of the planting. The perimeter of this area was seeded first. After planting the borders our drivers found the terrain too difficult to drive directly north-south or east-west and chose to follow the slopes or drive in random patterns instead. Drivers utilized the streaming feature on Field Maps to do this.

The remaining area of the planting was seeded with our mesic mix. A similar process was used, again relying on the location streaming feature to track where we had been and what areas needed to be filled in further. By 4:30pm the HEL field had been planted with just over 250 pounds of seed.

Planting Mixes

The crew collected around 240 different species this year, hand-picked around 835 pounds of seed, and when incorporating mixed seeds and seed collected with the combine the total for this year is about 960 pounds. The Soderholm Stewards also collected just under 140 pounds of seed. Of this approximately 1100 pounds, 251 were used to plant the 5-acre HEL field. This means that on average there was about 49lbs/acre spread. The rest of our seed was used for our main crew planting at the Holland Savanna and overseeding.

2024 Seed Mixes				
	Species Diversity	Total lbs	Acres in AOI	Total lbs/acre
Dry-Mesic	~42	68	1.3	52.31

Mesic	~45	183	3.8	48.16
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Table 2. This table shows a summary of the two seed mixes used in the planting.

Dry Mesic Seed Mix

The dry-mesic mix was made up of seed collected by the Soderholm Stewards. This mix was planted at a rate of around 52lbs/acre and was focused on the southeast corner as this was the area with the highest elevation.

Mesic Seed Mix

The mesic mix was made up of seed collected by the crew. This mix was planted at a rate of around 48lbs/acre and filled in the remaining gaps to the north and west. Planting was focused on the lower slopes and areas closer to a stream running along the northern border.

Seed Species Mix

SCIENTIFIC NAME	COMMON NAME	Dry Mesic	Mesic	Total lbs
Agalinis auriculata	Earleaf false foxglove		0.045	0.05
Antennaria plantaginifolia	Pussy Toes (Everlasting)	0.430		0.43
Arnoglossum plantaginea	Prairie Indian Plantain		1.250	1.25
Asclepias verticillata	Whorled Milkweed	0.012		0.01
Astragalus canadensis	Canadian Milk Vetch	9.137	2.000	11.14
Baptisia alba	White Wild Indigo		7.700	7.70
Bouteloua curtipendula	Side-Oats Grama	0.619		0.62
Calamagrostis canadensis	Blue Joint Grass		0.500	0.50
Chamecrista fasciculata	Partridge Pea	0.090	0.228	0.32
Coreopsis lanceolata	Sand Coreopsis	2.219		2.22
Coreopsis palmata	Prairie Coreopsis	0.495	2.650	3.15
Crocantemum bicknellii	Rock Rose	0.189		0.19
Dalea candidum	White Prairie Clover	1.870		1.87
Dalea purpureum	Purple Prairie Clover	0.536		0.54
Dichanthelium pseudopubescens	White-Haired Panic Grass	0.009		0.01
Drymocalis arguta	Prairie Cinquefoil	5.360	2.000	7.36
Echinacea pallida	Pale Purple Coneflower	11.010	21.050	32.06
Elymus canadensis	Prairie Wild Rye	0.758		0.76
Eryngium yuccifolium	Rattlesnake Master		5.000	5.00
Eupatorium perfoliatum	Boneset		1.490	1.49
Euthamia graminifolia	Smooth Grass-leaved Goldenrod		3.050	3.05
Gentiana alba	Cream Gentian	3.850	10.250	14.10
Helenium autumnale	Sneezeweed		3.200	3.20
Helianthus grosseserratus	Sawtooth Sunflower	1.358	0.800	2.16
Heterotheca camporum	Plains Golden Aster	0.043		0.04
Heuchera richardsonii	Prairie Alum root	0.096		0.10
Koeleria macrantha	Prairie June Grass	3.950		3.95
Lechea tenuifolia	Slender-Leaved Pinweed	0.286		0.29
Lespedeza capitata	Round-headed Bush Clover	22.250	19.350	41.60

<i>Liatris pycnostachya</i>	Gayfeather; Prairie Blazing Star		3.500	3.50
<i>Linaria canadensis</i>	Blue Toadflax	0.001		0.00
<i>Lobelia spicata</i>	Pale-spike Lobelia	0.001	0.008	0.01
<i>Lupinus perennis</i>	Wild Lupine	4.050		4.05
<i>Monarda fistulosa</i>	Wild Bergamot		0.431	0.43
<i>Monarda punctata villicualis</i>	Horse Mint	0.327		0.33
<i>Oligoneuron rigidum</i>	Stiff Goldenrod		0.950	0.95
<i>Parthenium integrifolium</i>	Wild Quinine (Feverfew)	6.815	13.000	19.82
<i>Pedicularis canadensis</i>	Wood Betony		1.000	1.00
<i>Penstemon digitalis</i>	Foxglove Beardtongue	3.056	20.000	23.06
<i>Penstemon hirsutus</i>	Hairy Beard tongue	0.049		0.05
<i>Physostegia virginiana arenaria</i>	Prairie Obedient Plant		0.030	0.03
<i>Polygala polygama obtusata</i>	Purple Milkwort	0.001		0.00
<i>Polygala sanguinea</i>	Field Milkwort	0.009	0.025	0.03
<i>Polytaenia nuttallii</i>	Prairie Parsley	0.081		0.08
<i>Pycnanthemum virginianum</i>	Mountain mint	1.000	5.750	6.75
<i>Rudbeckia hirta</i>	Black-eyed Susan	0.489	1.000	1.49
<i>Rudbeckia subtomentosa</i>	Sweet Blackeyed Susan		16.050	16.05
<i>Schizachyrium scoparium</i>	Little Bluestem	9.250		9.25
<i>Senna hebecarpa</i>	Wild Senna		0.479	0.48
<i>Silphium integrifolium</i>	Rosinweed		14.100	14.10
<i>Silphium laciniatum</i>	Compass plant	4.278	3.850	8.13
<i>Silphium perfoliatum</i>	Cup-plant		5.000	5.00
<i>Silphium terebinthaceum</i>	Prairie Dock		2.000	2.00
<i>Sisyrinchium albidum</i>	Common Blue-eyed grass	0.046		0.05
<i>Stachys pilosa</i>	Prairie woundwort		0.409	0.41
<i>Symphyotrichum novae-angliae</i>	New England Aster		1.950	1.95
<i>Symphyotrichum pilosum</i>	Hairy Aster		3.650	3.65
<i>Tradescantia ohiensis</i>	Ohio Spiderwort	3.710	10.000	13.71
<i>Triodanis perfoliata</i>	Venus' Looking Glass	0.078		0.08
<i>Verbena hastata</i>	Blue Vervain		1.550	1.55
<i>Veronicastrum virginicum</i>	Culver's Root		9.500	9.50
<i>Viola pedata lineariloba</i>	Birdsfoot Violet	0.018		0.02
<i>Zizia aurea</i>	Golden Alexander	3.177	5.350	8.53
Dry Carex spp.	dry sedge	0.244		0.24
	dropseed garden		10.000	10.00
	blue aster mix		2.850	2.85
Juncus spp.	inland/path rush		0.788	0.79
TOTALS:	~70	101.25	213.78	315.03

Table 3. This table shows the individual species and how many pounds were collected of them, both in total and in each mix.

***Note: This is for the total pounds of each mix. The Soderholm's dry-mesic and the Crew's mesic were split between the HEL field and other planting sites. Table 2 shows how many pounds of each mix were used solely on the HEL field.*

Lessons Learned

- The crew appreciated getting trained on a new piece of equipment and being able to use it. It would be good in the future to make sure each person has a chance to drive the pendulum seeder, even if only briefly.
- The streaming feature on Field Maps is extremely useful, especially when working in an area with fluctuating terrain. Great when you're the only person planting too.
- It would be good to have radios. Even when only one person is planting at a time, calling on a phone is more difficult and easier for the person driving to miss.
- Remember to take photos of the work being done. We were left with only one photo for this entire planting (thanks Molly).

Maps



Figure 2. A Map showing the planting AOI. The purple polygon displays the area that our dry-mesic mix was planted. The blue area shows where our mesic mix was planted.



Figure 3. Shows the results of the location streaming feature in Field Maps.



Photo 1. Riley Berner standing with the pendulum seeder used for this planting.