

PLANTING #92

2009 PLANTING HISTORY

Dewitt Holland Prairie

Prepared by Cody Considine 12/9/09

Updated:

~30 Acres

Site Conditions:

Location: T22N R10E Section 17

GPS: 41°54'03.64"N 89° 21'55.20"W elevation 755ft.

Lee County IL

Soil Types:

According to the Web Soil Survey for Ogle County, IL soils include:

#440B Jasper Loam, 2-5 percent slopes.

#361D2 Kidder silt loam, 6-12% slopes eroded.

#363D2 Griswold loamy fine sand, 6-12% slopes, eroded.

#397D Boone loamy fine sand, 7-15% slopes.

#727A Waukee loam, 0-2% slopes.

#761D Eleva fine sandy loam, 7-15 % slopes.

*All of the soils have been under intensive agriculture. Above are basic descriptions, a complete soil test is needed to determine current soil characteristics. For more additional information see Soil Web Survey website:

<http://websoilsurvey.nrcs.usda.gov/app/>

Topography:

The 2009 Dewitt Holland Prairie has a slightly rolling topography. The east section is pretty flat and between the south and north boundary has a gentle bowl shape.

Agricultural History:

I think it is safe to assume the planting site has been intensively row cropped for many decades. Corn and soy bean the main crop. No drainage tiles exist in the planting.

Site Preparations:

Soy beans were harvested in early November.

1. Harrowed unit (Chris Sonnier) harrowing the bean stubble created thousands of clumps.
2. Mowed harrowed bean stubble.
3. Planted

Seed Planting:

The planting was planted with one mix: dry and dry mesic. Weather conditions: slight mist/moist soil.

Planting Rate (lbs/acre): **45.19 lbs/acre**

Dewitt Holland 2009 Planting History -prepared by Mike Saxton

30 acres planted November 19 & 20, 2009

Dewitt Holland '09 planting was in soy beans for the 2009 harvest. The field was harrowed and the resulting chaff clumps were mowed with the 4020 tractor and batwing mower. The 30 acre planting is bordered to the North by Lost Nation/Flagg Road, the East by soy beans, to the South by the 2008 planting, and the west by row crop 2009 was winter wheat.

Brian Dugan and Mike Saxton planted the remaining acreage with the 10-foot and 12-foot antique seed spreaders, pulled by the White Truck and Little Red.

The shape and topography of the field made planting much more difficult than the square, relatively flat Stone Barn Prairie. Mike and Brian first planted the square 10 acre piece.

Using radios and orange cones, they used the same planting method as they used at the SBF. One truck led while the other truck marked the inside seeder tire on the corners of the passes. They completed 1 full pass at “half” seed rate planting the 10 acre square. They then proceeded to do the same thing on the remaining 20 acre.

Once the entire 30 acres had one “half” rate of seed down, Mike and Brian opened to “full” and completed a 2nd full pass. After estimating the amount of seed remaining, they were able to do a full 3rd pass on “half,” giving the entire 30 acres 3 full passes.

Buffer

Cody Considine did 3 passes of Can Rye/tallgrass mix around the east, north and west boundaries.

Drag IN

10lbs of “drag in”. The “step in” method was created by Jay Stacey, but modified to “drag in” for crew size plantings. The very conservative or species in low abundance on the preserve were planted using this technique. See plant list for a complete list of “step in” species. This technique required two people. Since we could not use the harrow because of clumping we decided to hand spread the seed from the RTV. Although we could not harrow, we at least had the peace of mind that the seed was in the planting and spread throughout. Porcupine grass was planted the same.

Seed List:

The planting included 155 species that were separated into one mix: dry, dry mesic, with a small portion of mesic mix.

Little blue stem was planted at 3.44 lbs/acre. Our seed stripper broke down along with the combine. We managed to get some seed before this equipment broke. Mechanical seed harvest was down this year. We added some combine HQ to the planting, some little blue was present. Tallgrass was planted at 2.5lbs/acre. However, this is not pure tallgrass as other species were present.

Complete seed list is saved as 2009 Seed Harvest in Stewardship file under seeds, seed harvest.

Here is a list of the highlights from the 2009 harvest. However, not all the seeds amounts were planted in the planting. See excel spreadsheet for specific rates of seed.

Arrow leaved violet – 5 x more than in years past

Zizia aurea – Doubled
 Spiderwort – doubled 135lbs
 Drop seed – 5 x more
 Old field – doubled 47 lbs
 Grass leaved – doubled 60 lbs
 Prairie dock – 2.5 x more 45 lbs
 Wild petunia – 40 x more 4.71 lbs
 Quinine – record
 Flowering spurge – doubled record 37 lbs
 Pale purple coneflower – record 252.85 lbs
 Bicknell sedge – record
 Can. milk vetch – record
 Whorled milkweed – record 19.5 lbs

Below is a list of all the species and weight for 50 acres (Stonebarn and Holland)

SCIENTIFIC NAME	COMMON NAME	2009 TOTAL LBS
Amelanchier leavis	Allegheny Shadblow	0.01
Callirhoe triangulata	Clustered Poppy Mallow	0.01
Corylus Americana	American Hazelnut	0.01
Desmodium canadense	Showy Tick Trefoil	0.01
Elymus villosus	Silky Wild Rye	0.01
Krigia virginica	Dwarf Dandelion	0.01
Penstemon digitalis	Foxglove Beardtongue	0.01
Phlox maculate	Sweet William Phlox	0.01
Phlox pilosa	Prairie phlox	0.01
Ratibida pinnata	Yellow Coneflower	0.01
Rhus aromatic	fragrant sumac	0.01
Aster ptarmicoides	White Aster (Stiff Aster)	0.05
Panicum leibergii	Prairie Panic Grass	0.05
Polygala polygama obtusata	Purple Milkwort	0.05
Smilacina stellata	Starry False Solomons plume	0.05
Cirsium hillii *** (pumilum)	Hill's Thistle	0.06
Lithospermum canescens	Hoary Puccoon	0.06
Amorpha canescens	Leadplant	0.1
Aster praealtus	Willow Aster	0.1
Helianthemum canadense	Common Rockrose (Frostweed)	0.1
Hystrix patula (Elymus hystrix)	Bottlebrush Grass	0.1
Leptoloma cognatum	Fall Witch Grass	0.1
Lobelia inflata	Indian Tobacco	0.1
Monarda fistulosa	Wild Bergamot	0.1
Oenothera biennis canescens	Common Evening Primrose	0.1
Oenothera clelandii (rhombipetala)	Sand Evening Primrose	0.1

Panicum virgatum	Prairie Switch Grass	0.1
Polygala sanguine	Field Milkwort	0.1
Polygonum tenue	Slender Knotweed	0.1
Antennaria neglecta	Field Cat's Foot	0.15
Asclepias hirtella	Hairy Green Milkweed	0.15
Lactuca floridana	Blue Lettuce	0.15
Lupinus perennis	Wild Lupine	0.15
Panicum villosissimum	White-Haired Panic Grass	0.15
Wulfenia bullii *** (Bessey)	Kittentails	0.15
Paspalum ciliatifolium muhlenbergii	Hairy Lens Grass	0.2
Polytaenia nuttallii	Prairie Parsley	0.2
Anemone Canadensis	Meadow Anemone	0.25
Gentiana purberulenta	Prairie Gentian	0.25
Linum sulcatum	Groved Yellow Flax	0.25
Scutellaria parvula leonardi	Small Skullcap	0.25
Viola sagittata	Arrow-leaved violet	0.25
Asclepias tuberosa interior	Butterfly Weed	0.3
Heuchera richardsonii grayana	Rough Heuchera; Alum root	0.3
Agrostis hymenalis	Tickle Grass	0.35
Gaura biennis pitcheri (longiflora)	Common Gaura	0.35
Lobelia spicata	Pale-spike Lobelia	0.35
Bouteloua hirsute	Hairy Grama	0.4
Coreopsis lanceolata	Sand Coreopsis	0.4
Hieracium gronovii	Hairy Hawkweed	0.45
Zizia aptera	Heart-leaved Meadow Parsnip	0.45
Houstonia (Hedyotis) longifolia (canadense)	Long-Leaved Bluets	0.5
Rudbeckia subtomentosa	Sweet Blackeyed Susan	0.5
Viola pedata lineariloba	Birdsfoot Violet	0.55
Gentiana andrewsii	Bottle (or Closed) Gentian	0.6
Monarda punctata villicualis	Horse Mint	0.6
Oxalis violacea	Violet Wood-sorrel	0.6
Aristida purpurascens	Arrow Feather	0.66
Cacalia suaveolens	Sweet-scented Indian Plantain	0.7
Liatris cylindracea	Dwarf Blazingstar	0.7
Lysimachia lanceolata	Lance-Leaved Loosestrife	0.75
Cyperus filiculmis	Slender Sand Sedge	0.9
Stipa spartea	Porcupine Grass	0.95
Artemisia caudata (campestris)	Beach Wormwood	9
Senecio pauperculus	Balsam Ragwort	1
Erigeron annuus	Annual Fleabane	1.05
Helianthus rigidus (laetiflorus)	Prairie Sunflower	1.1
Sisyrinchium albidum	Common Blue-eyed Grass	1.15
Solidago rigida	Stiff Goldenrod	1.35
Aster oblongifolius	Aromatic Aster	1.4
Penstemon hirsutus	Hairy Beard tongue	1.4
Allium cernuum	Nodding Wild Onion	1.5
Apocynum sibiricum	Prairie Indian Hemp	1.55
Castilleja sessiliflora **	Downy Yellow Painted Cup	1.75

Eupatorium perfoliatum	Boneset	1.75
Juncus tenuis	Path Rush	1.75
Smilacina racemosa	Solomons Plume	1.75
Gentiana (alba) flavida	Cream Gentian	1.8
Aster sericeus	Silky Aster	1.85
Lechea tenuifolia	Slender-Leaved Pinweed	2.25
Panicum oligosanthes scribneria	Scribner's Panic Grass	2.25
Aster laevis	Smooth (Blue) Aster	2.3
Liatris pycnostachya	Tall Gayfeather; Prairie Blazing Star	2.3
Cassia fasciculate	Partridge Pea	2.35
Coreopsis tripteris	Tall Coreopsis	2.45
Heliopsis helianthoides	False Sunflower; " Ox-eye "	2.8
Physocarpus opulifolius	Ninebark	3.15
Chrysopsis camporum (Heterotheca)	Golden Prairie Aster	3.2
Danthonia spicata	Poverty Oat Grass	3.25
Lechea villosa (mucronata)	Hairy Pinweed	3.5
Petalostemum (Dalea) candidum	White Prairie Clover	3.6
Dodecatheon meadia	Shooting Star	3.8
Solidago missouriensis fasciculata	Missouri Goldenrod	3.8
Juncus greenii	Greene's Rush	4.25
Onosmodium hispidissimum	Marbleseed	4.5
Ruellia humilis	Wild Petunia	4.7
Stachys palustris homotricha	Woundwort	4.7
solidago miss, oldfield, grassleaved		5.2
Sporobolus heterolepis	Prairie Dropseed	5.3
Veronicastrum virginicum	Culver's Root	5.45
Anemone cylindrical	Thimbleweed	5.85
Lechea stricta	Bushy Pinweed	6.5
Coreopsis palmate	Prairie Coreopsis	6.55
TCP mix		7
Kuhnia (Brickellia) eupatorioides		
corymbulosa	False Boneset	7.1
Tephrosia virginiana	Goat's Rue	7.35
Desmodium illinoense	Ill. Tick Trefoil	7.5
Antennaria plantaginifolia	Pussy Toes (Everlasting)	7.55
Aster linariifolius	Stiff Aster (Flax-Leaved)	7.6
Eragrostis spectabilis	Purple Love Grass	7.75
Rudbeckia hirta	Black-eyed Susan	8
Verbena stricta	Hoary Vervain	8.2
Silphium integrifolium	Rosinweed	8.4
Amorpha fruticosa	Indigo Bush	8.6
Solidago speciosa	Showy Goldenrod	8.95
Baptisia leucophaea	Cream Wild Indigo	9.4
	Horse Gentian (Feverwort)(Tinker's Weed)	9.45
Triosteum perfoliatum	Whorled Milkweed	10
Asclepias verticillata	Sweet Everlasting	10.25
Gnaphaleum obtusifolium	Western Sunflower; Naked S.	10.5
Helianthus occidentalis	Cup-plant	11.5
Silphium perfoliatum		

Aster azureus (oolentangiensis)	Sky-blue Aster	12.05
Aster ericoides (prostratus)	Heath Aster	13.2
Bouteloua curtipendula	Side-Oats Grama	13.95
Rhus glabra	Smooth Sumac	14
Rosa Carolina	Pasture Rose	15.25
Aster mix: silky, smooth, sky blue		16.1
Eryngium yuccifolium	Rattlesnake Master	19.2
Carex bicknellii	Copper-shouldered oval Sedge	21.4
Zizia aurea	Golden Alexanders	22.25
CCK Mix - monarda, foxglove, false sunflower, etc		28.6
Wahl Prairie mix: lead plant, golden aster, slender pinweed,		29.8
Wahl prairie continued above: Callirhoe,fragrant sumac, etc		
Pycnanthemum virginianum	Mountain mint (Prairie Hyssop)	16
Euphorbia corollata	Flowering Spurge	37.95
Silphium laciniatum	Compass plant	42.05
Silphium terebinthaceum	Prairie Dock	45
Solidago nemoralis	Gray Goldenrod; Oldfield	46.95
Solidago (Euthamia) graminifolia nuttallii	Grass-leaved Goldenrod	60.71
Parthenium integrifolium	Wild Quinine (Feverfew)	65.1
Koeleria cristata (macrantha)	Prairie June Grass - 54.65	68.9
Liatris aspera	Rough Blazing-star (Rough Gayfeather)	74.5
Petalostemum (Dalea) purpureum	Purple Prairie Clover	82.05
Astragalus canadensis	Canadian Milk Vetch	91.6
Elymus Canadensis	Prairie Wild Rye	116.5
Baptisia leucantha	White Wild Indigo	131.1
Tradescantia ohiensis	Ohio Spiderwort	135.8
Lespedeza capitata --	Round-headed Bush Clover	142.11
Echinacea pallid	Pale Purple Coneflower	252.85
Combine Headquarters		94
Combine Little blue yellow house		64.4
Andropogon (Schizachyrium) scoparium	Little Bluestem	78.55
Tall grass mix		31
Little blue seed stripper		50

Map:



Photos:



Bean stubble after harrow – not too bad in this photo (top)



Bean stubble pile pretty thick.



Mike Saxton and Brian Dugan prairie heroes.



Chris Sonnier the other prairie hero mowing the bean stubble clumps.



Lessons Learned:

Never plant into beans. We decided to plant into beans since we thought there was not a lot of prep work needed. However, the planting needed to be harrowed to break the soil crust. Doing so created thousands of bean piles. We used the 4020 to mow the piles to help break them up and it work well. However, this was a waste of time and will not do it again. **Plant into harvested corn field, burn stubble, harrow, and plant.