
Planting 65 – West Portion of the “North Field” Clear Creek Unit

Text and Map by Chris Hauser

Written September 24, 2008, updated September 2014

Site Description:

Location:

Planting # 65 is located on the southern edge of Ogle County in Taylor Township (T22N, R10E). This is in the NW quarter of the SE quarter of Section 15. This approximately 5-acre rectangular planting is located in the western 5 acres of the “north field” at the north edge of the 80-acre Clear Creek Unit. The west boundary of the planting is the old gravel driveway that accessed the homesite. The north boundary is the fenceline along Stone Barn Road, which at the time of planting was mostly smooth brome and reed canary grass. The east boundary cuts through the middle of the agricultural field, and was marked with wire flags at the time of planting. The southwest boundary is formed by a small grove of weedy trees.

These approximate coordinates were obtained from the Ogle County GIS website:

NW corner: N 41.89533° W 89.32991°

NE corner: N 41.89529° W 89.32915°

SW corner: N 41.89335° W 89.32993°

SE corner: N 41.89312° W 89.32902°

Soils and Topography:

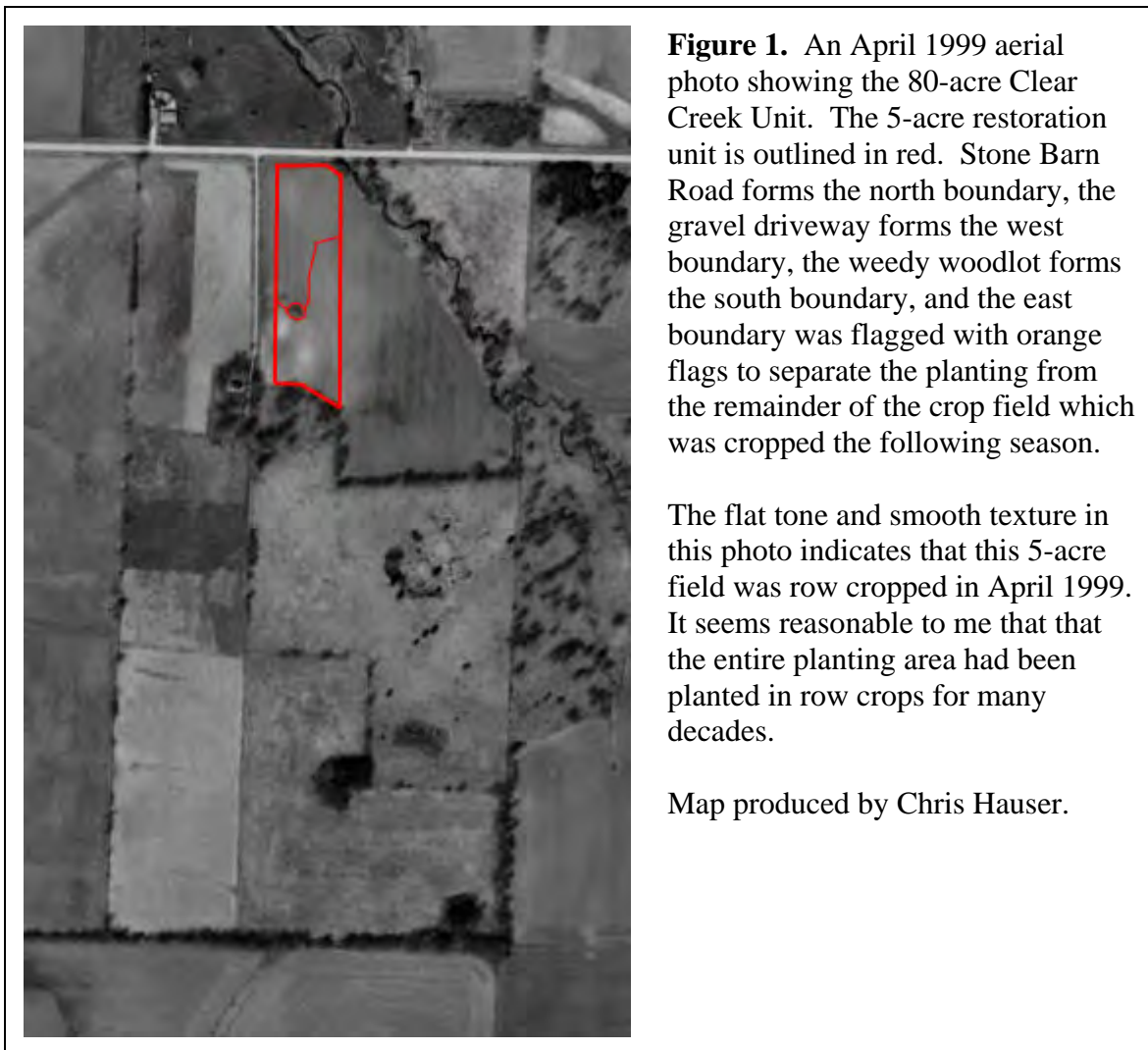
This planting area consists of two approximately equal areas of soil type: (1) a dry-mesic slope, and (2) a mesic flat area. Within these 2 areas, there were two small micro-sites: a small wet spot, and a small dry sand area:

1. “dry-mesic slope”: about 1.5 acres of light-colored subsoil on a southwest-facing slope in the NE corner of the field. I considered this portion of the planting to be mostly dry-mesic, with one half-acre of very dry sandy subsoil. Soils maps show this area to be Wyanet silt loam (5 to 10 percent slopes, eroded).
2. “mesic flat”: about 2.5 acres of darker and finer textured soil on flat ground parallel to the riparian corridor along the SW boundary of the field. Due to the flat dark soil, and proximity to the creek, I considered this portion to be mesic. Soils maps show this area to be a mix of two soil types: La Hogue loam (0 to 2 percent slopes) and Waukee loam (2 to 5 percent slopes).
3. “wet spot”: about 400 square feet of what may have been a seep or spring at the bottom of the dry-mesic slope, but was partially drained by a field tile in years past. This moist spot shows up as a dark spot in all aerial photos. This area may regain its wetland hydrology following the removal of the field drain tiles in spring 2007. Approximately N 41.89401° W 89.32959°
4. “dry sand”: on the steepest, sandiest portion of the south-facing “dry-mesic slope” there about a quarter acre of very well-drained dry sandy soil. In this area, I hand seeded a few dry species, such as porcupine grass and golden aster. These dry sandy areas show up as white spots on the aerial photo. Approximately N 41.89368° W 89.32961°

Site History:

The pre-settlement history of this field was investigated using the General Land Office 1839 survey records, which show this field to be prairie. I would imagine the dry hill portion of the field was dry-mesic prairie, of course with more topsoil than is currently present. The mesic flats portion was probably more hydric in presettlement times. Since many small creeks eroded deeply into their streambeds following first cultivation, it is likely that the small Clear Creek tributary to the northeast has eroded downward since settlement, it is likely that originally the creek was only about 2 feet below the adjacent prairie, so the flat portion of this field was probably wet prairie or even sedge meadow similar to the remnant wetland areas along Wade Creek. Currently, the stream is 4-6 feet below the adjacent fields, which has likely resulted in a lower water table, and drier soil, than originally existed.

The recent history of this field is not well-known to me, but I believe that it was row cropped continuously for many decades. This portion of the field was planted in Roundup Ready soybeans during the 2005 growing season (and probably for several years before that), and Jennifer and I seeded into the soybean stubble in late fall 2005.



2005 Restoration Activities:

2005 Seed Harvest:

In spring 2005, Becky Hartman, Jennifer Hauser, and I were contracted by the Prairie Preservation Society of Ogle County (PPSOC) to harvest the seed, prep the field, and sow the seed. The PPSOC contract was identical to their previous contracts, stipulating that seed of a given list of species was to be harvested only from Nachusa remnants, and nothing was harvested from any Nachusa plantings, nor from nearby remnant prairies off the preserve. We were a little more liberal than the contract stipulated, by harvesting from Nachusa plantings if we knew those plants had originally come from Nachusa remnants, and by harvesting a few species from nearby remnants (especially Track Road). The total weight of hand-harvested seed allocated to this planting totaled over 450 pounds. A summary is included in Table 1 below, and the complete seed list is given in Table 2.

By the end of the harvest season, for this planting, we had harvested 103 species with total seed weight (hand-harvested plus combine harvested) totaling nearly 500 pounds – 36 pounds of “dry” species, 48 pounds of “mesic species”, 3 pounds “wet”, and 313 pounds of “entire” species, plus 40 pounds of combine-harvested tall grass mix, and 55 pounds of Canada Wild Rye. All the seed was processed using the hammer mill, and a few species with difficult fluffy seeds were mixed with other species using the hammer mill (for example, the processed Thimbleweed was mixed/diluted with processed Canada Rye to reduce clumping problems). Most mixes were seeded using the tractor-mounted pendulum broadcaster, and the 2 micro-sites were hand seeded, as shown in Table 1.

Table 1. Summary of total seed weights, allocated to different habitat mixes.

36 pounds of “dry” mix, seeded into the 2.5-acre dry and dry-mesic hill and slopes.
48 pounds of “mesic” mix, seeded into the 2.5-acre mesic flat along the creek.
3 pounds of “wet” mix, seeded into the ~400 square foot potential “seep” at base of slope.
313 pounds of “entire” mix, seeded very evenly across the entire 5-acre field.
40 pounds “tall grass” mix, combine-harvested tall grasses, seeded over the entire field.
55 pounds of Canada Rye, hand-harvested Canada Rye, seeded over the entire field.

Note: due to a shortage this year, there was no Little Bluestem seeded, and we thought we would be able to seed in Little Bluestem following the 2006 fall harvest. That didn't happen.

2005 Field Prep and Seed Broadcasting:

Following the harvest of soybeans in the fall of 2005, I sowed the harvested native seed over several weekends in November and December, using the tractor-mounted pendulum broadcaster. Depending on the day, the soil surface was moist, muddy or snowy. Overall seeding rate was very heavy, and one afternoon, following the primary seed broadcasting, the surface of the snow was brown with seed. I took great effort to sow the seed very evenly across the planting, making many passes to ensure a very even coverage of all the mixes, and overlapping the mesic-and dry-mesic planting zones.

Unlike most other plantings at Nachusa, in which the seed broadcast is usually followed by a light harrowing, we did not harrow this planting follow the seeding. Besides the fact that the soil was either muddy or snow-covered following seeding, I thought harrowing would not be necessary, due to the early winter seeding and the good (bare ground) soil conditions.

Table 2. 103 species of seed harvested in summer 2005 and sown in early winter 2005. “Mix” designates where the seed was sown: “dry” for the dry-mesic hill, “mesic” for the mesic flat along the creek, “wet” for the small wet spot at the base of the hill, or “entire” for the entire field. These various mixes were sown separately with the pendulum broadcast seeder in December over soybean stubble with snowy or muddy soil conditions.

Latin Name	Common Name	Habitat	Amount
<i>Amorpha canescens</i>	Leadplant	dry	trace
<i>Andropogon gerardii</i>	Big Bluestem	entire	20.00
<i>Anemone canadensis</i>	Canada Anemone	mesic	trace
<i>Anemone cylindrica</i>	Thimbleweed	dry	0.40
<i>Angelica atropurpurea</i>	Great Angelica	wet	0.40
<i>Antennaria plantaginifolia</i>	Pussytoes	dry	trace
<i>Apocynum sibiricum</i>	Dog Bane	mesic	trace
<i>Aristida purpurascens</i>	Three Awn Grass	dry	5.30
<i>Asclepias syriaca</i>	Common Milkweed	entire	1.00
<i>Asclepias verticillata</i>	Whorled Milkweed	dry	trace
<i>Aster azureus</i>	Sky Blue Aster	dry	trace
<i>Aster ericoides</i>	Heath Aster	entire	10.00
<i>Aster laevis</i>	Blue Aster	mesic	1.75
<i>Aster lineariifolius</i>	Flax Leaved Aster	dry	trace
<i>Aster sericeus</i>	Silky Aster	dry	trace
<i>Baptisia leucantha</i>	White Wild Indigo	entire	100.00
<i>Baptisia leucophaea</i>	Cream Wild Indigo	dry	0.50
<i>Bouteloua curtipendula</i>	Side-Oats Grama	dry	0.60
<i>Cacalia tuberosa</i>	Indian Plantain	mesic	1.50
<i>Carex annectens</i>	Fox Sedge	wet	trace
<i>Carex bicknellii</i>	Bicknell's Sedge	dry	0.10
<i>Carex brevior</i>	Plains Oval Sedge	dry	0.10
<i>Carex cristatella</i>	Crested Oval Sedge	wet	trace
<i>Carex molesta</i>	Field Oval Sedge	dry	0.10
<i>Carex muhlenbergii</i>	Muhlenberg's Sedge	dry	0.10
<i>Carex stipata</i>	Fox Sedge	wet	trace
<i>Carex vulpinoidea</i>	Fox Sedge	wet	trace
<i>Chrysopsis camporum</i>	Golden Aster	dry	trace
<i>Cirsium hillii</i>	Hill's Thistle	dry	trace
<i>Coreopsis palmata</i>	Prairie Coreopsis	dry	1.80
<i>Coreopsis tripteris</i>	Tall Coreopsis	mesic	0.50
<i>Dalea purpurea</i>	Purple Prairie Clover	dry	6.25
<i>Desmodium illinoiense</i>	Illinois Tick Trefoil	dry	0.25
<i>Dodecatheon meadia</i>	Shooting Star	dry	trace
<i>Echinacea pallida</i>	Pale Purple Coneflower	dry	28.35
<i>Elymus canadensis</i>	Canada Wild Rye	entire	55.10
<i>Eryngium yuccafolium</i>	Rattlesnake Master	mesic	6.30
<i>Eupatorium altissimum</i>	Tall Boneset	entire	10.00
<i>Eupatorium maculatum</i>	Spotted Joe-Pye Weed	wet	2.75
<i>Euphorbia corollata</i>	Flowering Spurge	entire	2.00

<i>Galium boreale</i>	Northern Bedstraw	mesic	trace
<i>Gaura biennis</i>	Biennial Gaura	entire	trace
<i>Gentiana andrewsii</i>	Bottle Gentian	Mesic	2.25
<i>Gentiana flavida</i>	Cream Gentian	Entire	0.30
<i>Gentiana puberulenta</i>	Prairie Gentian	Dry	trace
<i>Gnaphalium obtusifolium</i>	Sweet Everlasting	Entire	trace
<i>Helianthemum canadense</i>	Frost Weed	Dry	trace
<i>Helianthus occidentalis</i>	Western Sunflower	Dry	trace
<i>Helianthus rigidus</i>	Stiff Sunflower	Entire	trace
<i>Heliopsis helianthoides</i>	False Sunflower	mesic	0.50
<i>Heuchera richardsonii</i>	Alum Root	dry	trace
<i>Hieraceum longipilum</i>	Hairy Hawkweed	dry	trace
<i>Hypericum pyramidatum</i>	Great St. John's Wort	mesic	1.00
<i>Juncus dudleyi</i>	Upland Rush	dry	0.40
<i>Juncus tenuis</i>	Path Rush	dry	trace
<i>Kohleria cristata</i>	June Grass	dry	trace
<i>Kuhnia eupatorioides</i>	False Boneset	entire	5.00
<i>Lechea tenuifolia</i>	Narrow Leaf Pinweed	dry	trace
<i>Lechea villosa</i>	Hairy Pinweed	dry	2.00
<i>Lespedeza capitata</i>	Round -headed Bush Clover	entire	15.40
<i>Liatris aspera</i>	Rough Blazing Star	entire	3.10
<i>Linum sulcatum</i>	Groved Yellow Flax	dry	trace
<i>Lithospermum canescens</i>	Hoary Puccoon	dry	trace
<i>Lithospermum incisum</i>	Fringed Puccoon	dry	trace
<i>Lobelia spicata</i>	Pale Spiked Lobelia	mesic	trace
<i>Monarda fistulosa</i>	Wild Bergamot	entire	5.25
<i>Oxalis violacea</i>	Violet Wood Sorrel	dry	trace
<i>Panicum oligosanthes</i> var <i>scrib.</i>	Scribner's Panic Grass	dry	trace
<i>Panicum virgatum</i>	Prairie Switch Grass	dry	trace
<i>Parthenium integrifolium</i>	Wild Quinine	entire	12.20
<i>Pedicularis canadensis</i>	Wood Betony	mesic	trace
<i>Penstemon digitalis</i>	Foxglove Penstemon	mesic	14.50
<i>Penstemon hirsuta</i>	Hairy Penstemon	dry	trace
<i>Polygala polygama</i>	Purple Milkwort	dry	trace
<i>Polygala sanguinea</i>	Field Milkwort	dry	trace
<i>Potentilla arguta</i>	Prairie Cinquefoil	entire	9.75
<i>Ptelea trifoliata</i>	Wafer Ash	entire	1.50
<i>Pycnanthemum tenuifolium</i>	Narrow Leaf Mountain Mint	dry	trace
<i>Pycnanthemum virginianum</i>	Common Mountain Mint	mesic	2.50
<i>Ratibida pinnata</i>	Yellow Coneflower	entire	5.25
<i>Rosa carolina</i>	Pasture Rose	dry	trace
<i>Rudbeckia hirta</i>	Black-eyed Susan	entire	3.50
<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	mesic	5.65
<i>Scirpus atrovirens</i>	Dark Green Bullrush	wet	trace
<i>Silphium integrifolium</i>	Rosinweed	entire	14.85
<i>Silphium laciniatum</i>	Compass Plant	entire	6.75
<i>Sisyrinchium campestre</i>	Blue-eyed Grass	dry	trace

<i>Solidago gymnospermoides</i>	Grass-leaved Goldenrod	entire	10.00
<i>Solidago missouriensis</i>	Missouri Goldenrod	entire	10.00
<i>Solidago nemoralis</i>	Gray Goldenrod	entire	10.00
<i>Solidago rigida</i>	Stiff Goldenrod	entire	7.00
<i>Solidago speciosa</i>	Showy Goldenrod	entire	7.00
<i>Sorghastrum nutans</i>	Indian Grass	entire	20.00
<i>Spiranthes cernuua</i>	Lady's Tresses	dry	trace
<i>Stachys tenuifolia</i>	Hedge Nettle	mesic	0.40
<i>Stipa spartea</i>	Porcupine Grass	dry	trace
<i>Tephrosia virginiana</i>	Goat's Rue	dry	trace
<i>Tradescantia ohiensis</i>	Common Spiderwort	entire	8.25
<i>Verbena stricta</i>	Hoary Vervain	dry	0.10
<i>Vernonia fasciculata</i>	Common Ironweed	mesic	trace
<i>Veronicastrum virginicum</i>	Culver's Root	mesic	6.65
<i>Viola pedata</i>	Bird's Foot Violet	dry	trace
<i>Zizia aurea</i>	Golden Alexanders	mesic	4.50

2006 and 2007 Restoration Activities:

2006 and 2007 Weed Control:

The summer crews and Becky Hartman spent some time in this planting spading Wild Parsnip.

2006 Observations:

During summer 2006, I walked this planting a number of times. One of the first times was with Jay Stacey, and we had a nice time on our hands and knees, identifying all the tiny seedlings as they were germinating. His impression was that this would turn out to be a nice planting.

2008 Observations:

In early September, 2008 I walked this planting for the first time in a couple of years. My first impression was that the seed had been very evenly spread on the field, with no evident rows or missed spots. I was very proud of the smoothness I got in this planting, and attribute it to the great efforts I took to sow the seed very evenly. I recommend that people sow seed as evenly as possible, to avoid creating weed patches in missed spots.

My second impression was that there might be too much tall grass, especially Big Bluestem. I had planted the combine mix at a heavy rate of 10 pounds per acre, so about 5 pounds per acre each of Indian Grass and Big Bluestem. Little Bluestem was in short supply that year, so there was none planted in the initial seed mixes. At the time, I had considered this heavy tall grass seeding as an insurance against a failed planting, but in hindsight I should have seeded all three grasses at 1 pound per acre each. I think seeding the Canada Rye at 10 pounds per acre was probably about right.

I was happily surprised to see a good recruitment of Golden Aster, Bottle Gentain, Cream Gentian, Sky Blue Aster and Smooth Blue Aster, despite relatively low seeding rates. On the other hand, I was disappointed to see a low recruitment of the conservative goldenrods, Golden Alexanders,

Culvers Root, Spiderwort, Bush Clover, Common Mountain Mint and Rattlesnake Master despite very high seeding rates for all these species.

I did not see an over-abundance of Foxglove Penstemon, Stiff Goldenrod, Showy Goldenrod, Mondarda, or Ratibita. Big Bluestem will probably be the only dominator in the long run, but I am hopeful that the good diversity of aggressive forbs will keep this grass at bay.

2009 Observations:

In late September 2009 I walked this planting a couple of times. I was surprised at the number of Cream and Bottle Gentians, Smooth Blue Aster, and I was surprised by the lack of Spiderwort. Somehow, despite the fact that it was not added to the mixes, a small amount of little bluestem was growing in the two dry sandy spots.

2009 Restoration Activities:

To correct for the lack of Little Bluestem, I hand broadcast about 5 pounds of seed over most of the dry sandy portion, and about 5 pounds in a half-acre section in the middle of the mesic portion of the planting.

2010 Observations:

During the mid-June 2010 visit, I walked this planting several times. My first impression was that the Canada Goldenrod was too abundant in the mesic portion, but then noticed that there are a lot of aggressive native “stay put” plants evenly mixed with the Canada Goldenrod (no large goldenrod monocultures), so I am hopeful that the goldenrod will gradually fade as the aggressive natives begin to dominate. Also, I noticed that there were essentially no other weeds in the planting, thanks to several years of aggressive weed sweeps by the Nachusa summer crew. I was pleased by the large number of Spiderwort, White Baptisia, Golden Alexanders, and Rattlesnake Master, and was surprised by the large number of secondary seedlings of several species, especially Golden Alexanders and Prairie Cinquefoil.

I was surprised by the lack of Culver’s Root, considering the large amount of seed I had used in the initial planting, and found that there was only one small patch growing near the wet spot. Also, I was a bit concerned about the thickness of the Big Bluestem, and I didn’t notice any Wood Betony plants from the initial seeding. These two observations prompted me to plant the Wood Betony and Culver’s Root as mentioned below.

Both the wet spot and the two very dry sandy spots look good, and there is a striking difference in plant species growing in these two spots.

2010 Restoration Activities:

To correct for the lack of these species in the planting, during mid-June 2010, I planted Culver’s Root and Wood Betony in the flat mesic portion of the field.

(1) About 140 Culver’s Root stems were harvested from restoration areas in the Prairie Potholes Unit. An effort was made to harvest a mix of genetic stock, so half of these stems came from a patch of plants in the Potholes Unit that had originated from seed from a railroad prairie remnant in central DeKalb county, and the other half of these stems came from a patch of plants in the

Potholes Unit that had originated from seed from the Nachusa Fen Unit. The stems were mixed so these two genetic stocks would be mixed evenly. Stems were about 8 inches long, under pencil diameter, any young flower buds were removed from the top, and the leaves from the bottom half of the stem were removed. Four blue-painted wooden stakes were evenly placed in the mesic portion of the planting, and then 35 stems were planted, evenly spaced, in gaps in the vegetation, throughout a ~20 foot diameter circle around each stake. Culver's Root stems were planted by first creating a guide hole using a small-diameter screwdriver, then pushing the stems into a narrow screwdriver guide hole, and finally the soil was pinched around the stem to prevent moisture loss from around the stem. The soil was very moist at the time of planting, and steady rains followed two days later, and regular summer rains continued the rest of the summer.

(2) About 60 regularly-spaced Wood Betony "spots" were planted in regular 25-35 foot spacing throughout the mesic portion of the planting, with the exception of my avoiding a 40 foot buffer along the west edge parallel to the weedy section along the old gravel driveway. These spots were planted by using a Parsnip Predator to scrape the top half-inch of soil away from the base of a large clump of Big Bluestem to expose the grass roots over an area of about 2 inches by 2 inches, and then sprinkling 6-8 Wood Betony seeds (harvested a month earlier by Hank and Becky Hartman) onto the freshly scraped soil and exposed grass roots. A tall plant nearby was sprayed with blue marking paint to mark that planting spot, to help maintain the 25-35 foot spacing, and to allow me to check germination success the following year.

2011 Observations:

On June 21, 2011, Jennifer and I visited this planting with Bill Kleiman, Hank and Becky Hartman, and perhaps a couple of other Nachusa volunteers. Overall the planting looks good, with a good diversity of conservative forbs, in the dry, mesic, and wet portions of the planting. Canada Goldenrod is common in the planting, but nowhere is it a dominant species and the entire planting is covered with aggressive perennial prairie plants that will hopefully limit the long term survival of the Canada Goldenrod.

We searched for, and found, the 4 blue stakes that marked the centers of the 4 Culver's Root circular planting areas 12 months prior, and we found that at least 60-80% of the stems survived. However, we could only find a handful of the 40 to 50 blue-painted plants that marked the Wood Betony planting areas, and we could not find any first-year Wood Betony seedlings that had been planted 12 months prior.

2012 Observations:

On October 10, 2012, Jennifer and I visited this planting with Hank and Becky Hartman. Although nearly all the plants were dormant, we could identify all the species, and we thought the diversity and balance of all the species was overall pretty good. When first entering the prairie, I thought there was a ton of Canada Goldenrod stems out there, but most of those stems were actually different species that looked similar in a dormant state: Rosinweed, Showy Goldenrod, Tall Coreopsis, Sky Blue Aster, Smooth Blue Aster, etc, which are dominant in the prairie, and holding the Canada Goldenrod in check.

During this visit, I walked past the tiny (20ft x 20ft) seep area that had been hand seeded with a 5-gallon bucket full of "wet" mix. At the time of the initial planting, this spot was not any wetter than the other parts of the field, and so I seeded this spot with wetland seed in the hope that it

would regain its wetland hydrology following the removal of field tiles in the planting, which ultimately was the case. During our 2012 visit, everyone agreed that it looked pretty good, and that there was a nice mix of wetland Carex species, Dark Green Bulrush, and a fair number of obligate wetland forbs, as shown on the list. For such a small patch of ground (perhaps 20 feet by 20 feet) this tiny seep adds a nice amount of diversity to this planting. However, given the opportunity, I would over-seed this spot again, to add a better diversity of wetland species.

2014 Observations:

On September 7, 2014, Bill Kleiman visited the prairie and wrote to me in an email: “So, I was out in that planting you did that we want to hay. It is awesome! You did a great job with it. It has nice wet spots with cool things like a big patch of giant st johns wort. And then close by are those sandy uplands with cylindric blazing star, Very well done! We will only hay it this one time. Bottle gentians, cream gentians...”