

Sowing Seeds of Change

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Summary

The native plant production and education program at Natives in Harmony nursery are described. This includes plant selection, propagation and nursery production.

In addition, their educational outreach program is described.

INTRODUCTION

Most of my work has been centered around the Sandusky Plains, a small residual plains area in Ohio that is threatened by development and “progress” on all sides. It encompasses Wyandot, Green Camp and Upper

Sandusky municipalities in Ohio. This area is well within reach of the I-80 corridor and its associated businesses.

Many endemic native plants abound around Trella Romine Prairie with some being quite rare. *Asclepias tuberosa* of various colored forms, *Echinacea purpurea*, *Baptisia alba*, *Silphium species*, and numerous grasses can be found in this environment. It is important to know that plants are found in communities and rarely is a plant an island, the community aspects are varied but one key ingredient is a shard microflora

heavily dependent upon mycorrhizal associations.

The Claridon Prairie, in Marion County, Ohio is one of the few surviving remnants of the once extensive grass land prairies that were part of pioneer Marion County (Fig. 1). An isolated strip between a railroad track and a highway has over 75 species of significant prairie grasses and forbs.



Figure 1. Claridon Prairie.

Remnant prairies are often fragile and are susceptible to numerous threats in addition to road, railroad and general construction activities.

An example of this is the royal catchfly (*Silene regia*) in the 95 West Remnant prairie that was destroyed by the illicit dumping of driveway debris and asphalt which eliminated the very small population found on the railroad remnant of the prairie (Fig. 2)



Figure 2. Royal catchfly before being eliminated by dumping debris on the site.

Remnant prairies are often refuges for rare plants. Reasons for this vary, but part of the occurrence of rare plants is an interdependence upon specific soils, water relationships and as mentioned earlier the shared use of mycorrhizal affiliations. This of course does not take away from the competitive effects of woody plant intrusion which is significant in the alteration of water relationships, removal of critical nutrients and the alteration of fungal populations. Prairies are unique eco-systems and require diligent efforts of observation, understanding and preservation.

Across the road from an industrial plant on 95 West Remnant prairie (**Fig. 3**) a

brief survey turned up a myriad of rare species including:

Purple rattlesnake root - *Nabalus racemosus* (*Prenanthes racemosa*)

Savannah blazing star- *Liatris scariosa* var. *niewlandii*

White false indigo - *Baptisia alba*

Culvers root- *Veronicastrum virginicum*

Michigan lily- *Lilium michiganense*

Virginia mountain mint - *Pycnanthemum virginicum*

Wild hyacinth- *Camassia scilloides*

Stiff goldenrod- *Solidago rigida*

Prairie phlox- *Phlox pilosa*

Canada anemone- *Anemone canadense*

Golden alexander- *Zizia aruea*

Black eyed Susan – *Rudbeckia* sp.



Purple rattlesnake root



Savannah Blazing Star



White False Indigo



Culvers root



Michigan lily



Virginia mountain mint

Figure 3. Native species in the 95 West Remnant prairie.

Prairies Are Not Just Homes for Plants

Prairies are reservoirs for not only plant species but also for the myriad of insects, other arthropods, small and larger mammals, reptiles and in some cases amphibians. It is essential to recognize prairies for the enormous potential they represent, and it is not sufficient to just restrict our activities to observation and recognition. The much troubled Monarch butterfly (*Danaus plexippus*) is but one of many examples of the value of a prairie ecosystem. *Asclepias* species are its primary food source, and prairies often serve as the stockpile for those plants (Fig. 4).



Figure 4. Monarch butterfly on *Asclepias* (above) and American Lady (lower) caterpillars on sweet everlasting (*Pseudognaphalium obtusifolium*) production material.

Propagation Facilities

Natives in Harmony Nursery was established to address some of the shortages of endemic native plants that have been forsaken by the mainstream horticultural world (Fig. 5). We do extensive research and scouting for native populations with a keen eye towards the collection of seed for propagation. We take care to ensure that sufficient quantities of seed are left in place to allow the endemic population to prosper.



Figure 5. Production facilities for propagation of native species.

As our endeavors increased, we saw a need for closer observation and a means for harboring certain species so that they would not meet the fate of the *Silene regia*.

We decided to implement a grow your own program starting with a raised bed (Fig. 6). This allowed us to see how our plants do

when planted out and we have the bonus of more available seeds to collect, always a plus.



Figure 6. Raised bed planting for plant evaluation and seed production.

Germination may be variable with some seeds germinating immediately while others germinate irregularly over a period of weeks, months or even years.

This reproductive strategy is advantageous for a wild plant because offspring are dispersed over time, a better strategy for dealing with weather fluctuations.

As is the case with many northern U.S. and Canadian species stratification is a must to achieve significant seed germination (Fig. 8). Again, conditions vary from species to species, some requiring more elaborate treatment than others.



Seeds arrive from all across Ohio

This endangered striped gentian is just one of the state-listed species we grow from seed acquired via plant enthusiasts who want to help us preserve Ohio genetics.

Figure 7. Striped gentian (*Gentiana villosa*).



Figure 8. Cooler facilities for seed storage and chilling stratification.

We have grown significantly since our early days.

This includes product diversity and the ability to deliver plants (**Fig. 9**).



Figure 9. Plant delivery.

Educational Outreach

We hold a number of educational events; we have to spread to word. Teaching children about the native world and what can be done to help it is an ongoing process (**Fig. 10**). And an important one too!

Future Directions

Hugelkultur or Hügelkultur is a Germanic word describing an old European system that tried to mimic some of the natural processes one can find in the forests.

This concept also applies to prairies and prairie management. The quickest way to really “see” a plant is to go look for yourself. Nothing surpasses on the spot observation and analysis. If you want to know how a plant grows, go find where and how it grows. It could well be an eye opener and will assist greatly with learning how to produce it.



Figure 10. Educational outreach.