

*A Guide to Establishing Prairie and Meadow  
Communities in Southern Ontario*









## What Is a Prairie?

A *prairie* is an *ecological community* (a group of plants and animals that live together in a particular area).



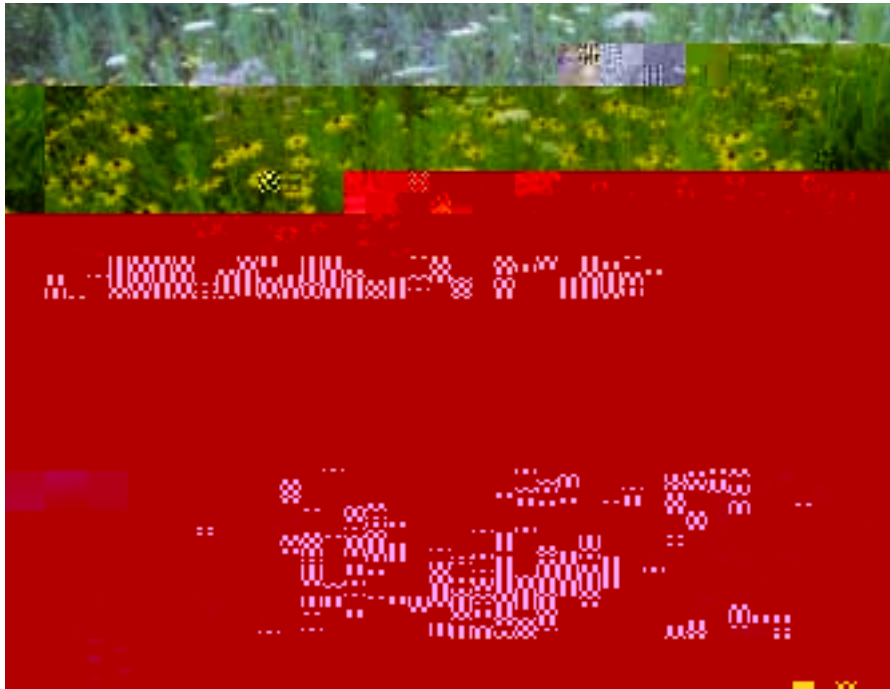


### Historical and Current Range









Black-eyed Susan (*Rudbeckia hirta*), wild bergamot (*Monarda sp.*) and butterfly

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## Identifying Goals



## My Goals Are ...



## Understanding Plant Communities



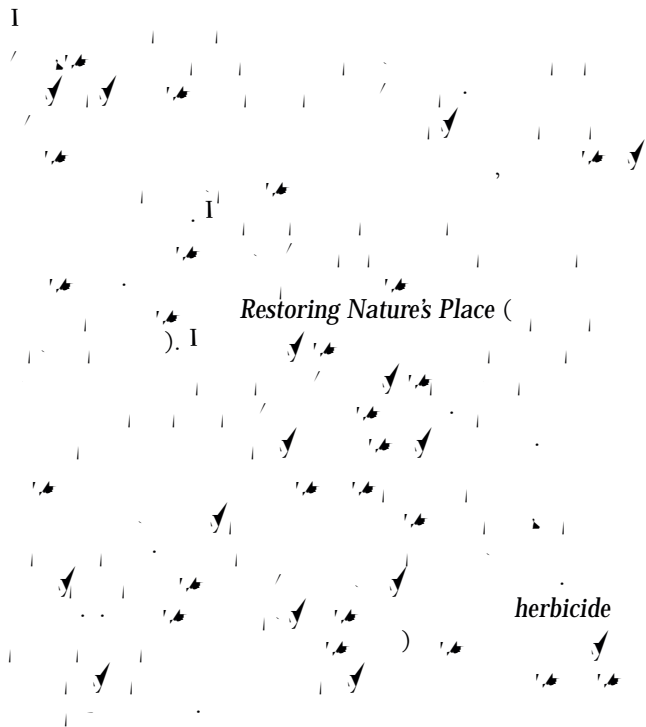




## A Roadside Prairie Planting



## Involving Others



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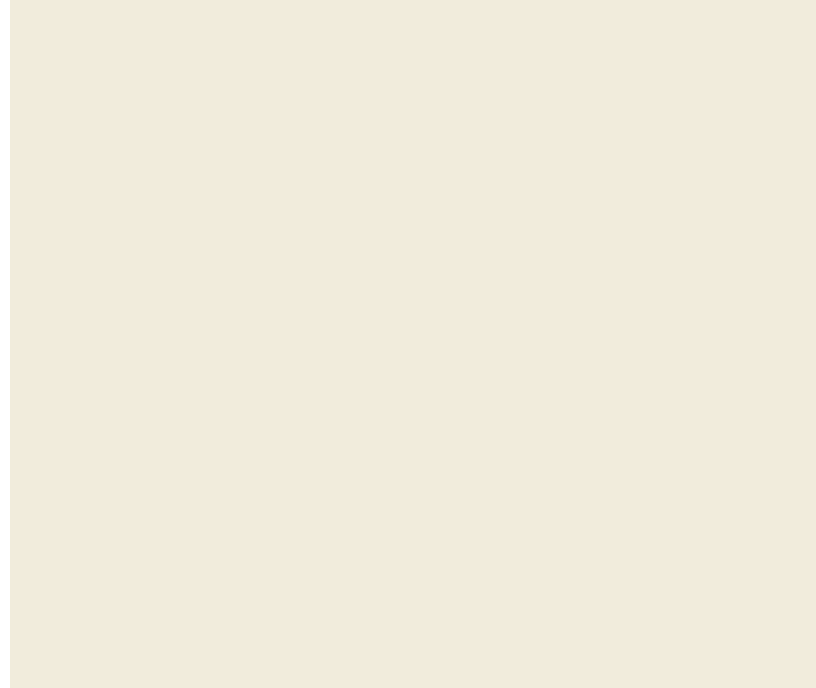


## Analyzing the Site



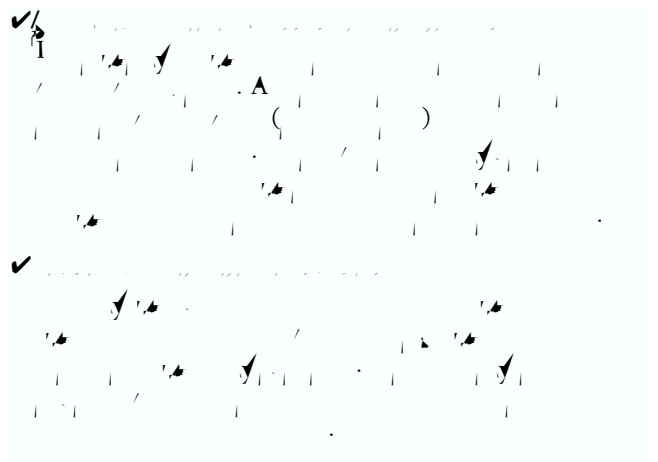
## Making a Site Plan

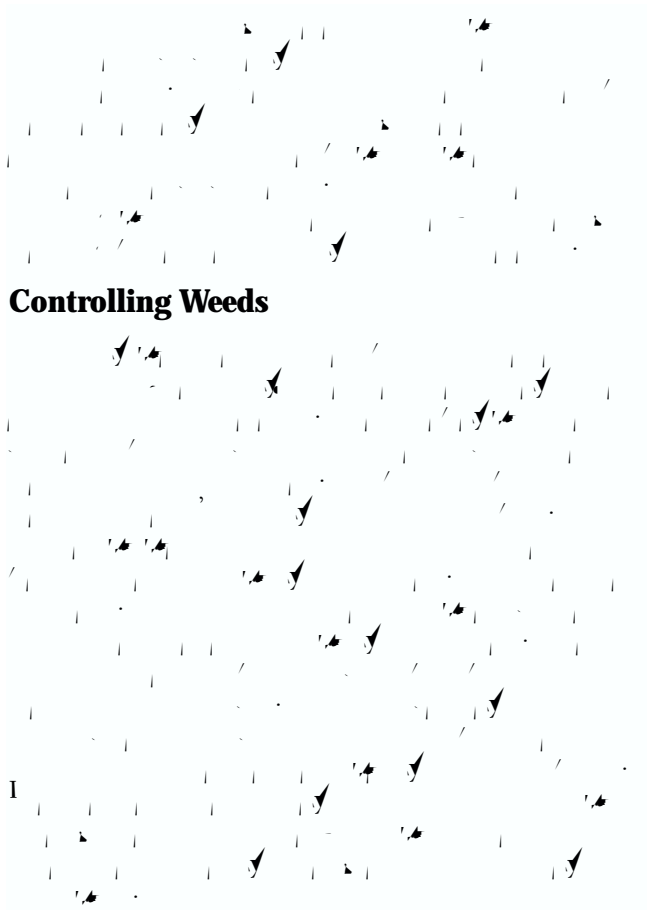
*The best designed prairie restorations look like they were not designed at all. They simply look like a natural part of the landscape. They fit the contours of the land, enhance other natural features and human made structures and hide their faults. ( )*





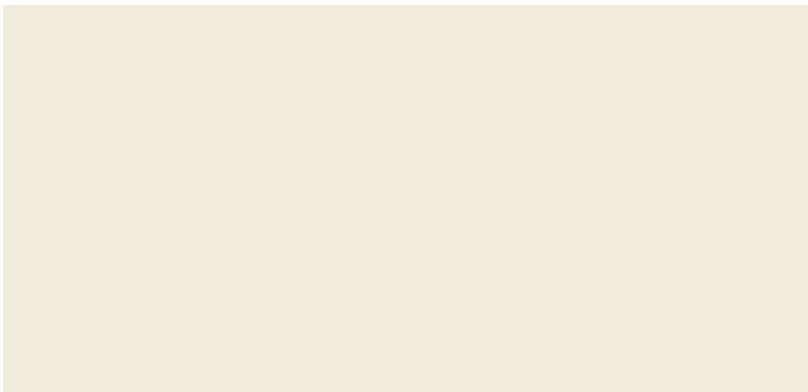




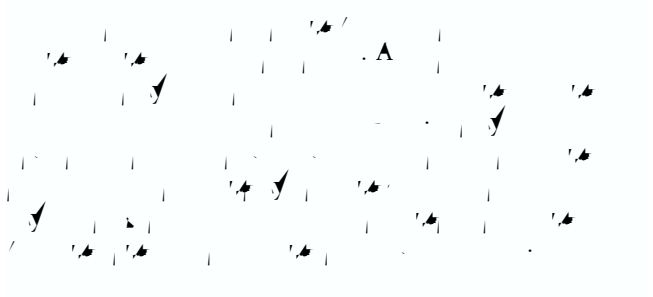
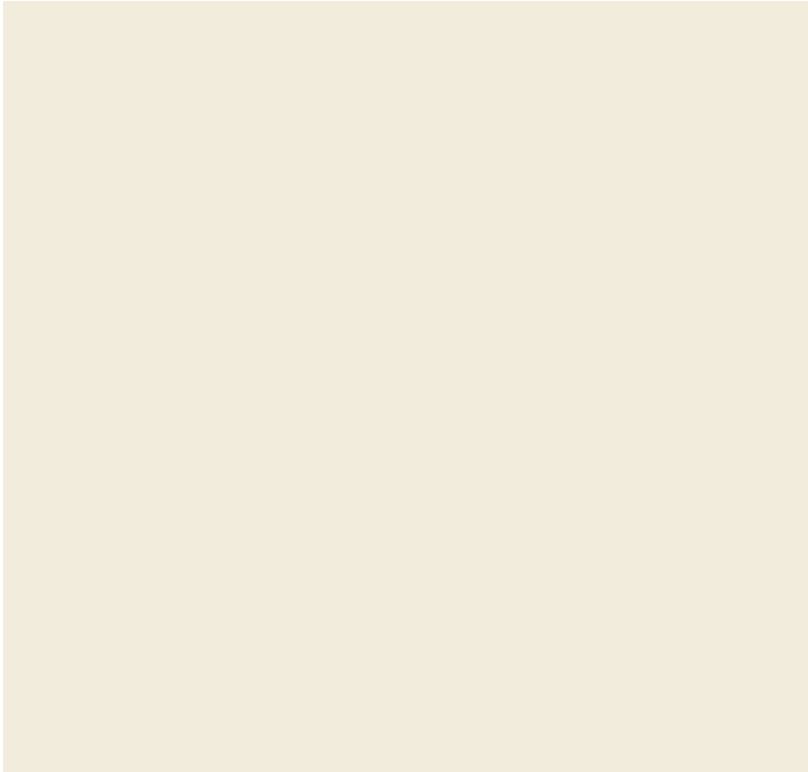


### Controlling Weeds

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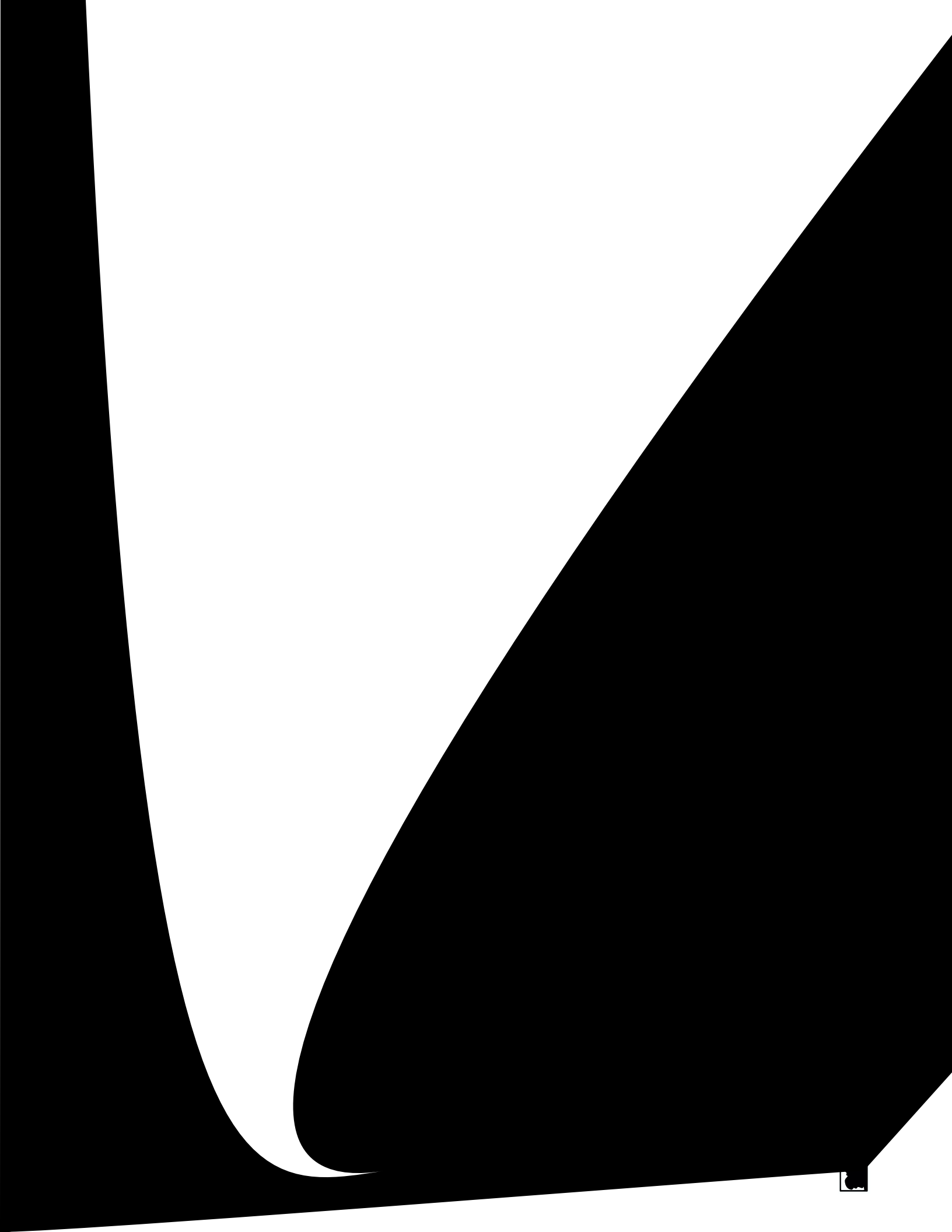
This 8-hectare site is free from weed competition and ready for planting.



**Table 1: Weed-Control Techniques**

Technique	Annual Weeds	Perennial Weeds
Hand Weeding	Effective for small areas and early-stage infestations. Requires frequent monitoring and removal of weeds before they set seed.	Less effective for large areas. Best used for targeted removal of individual plants or small patches.
Mechanical Weeding	Using tools like hoes or weed whackers can be effective for larger areas. Timing is crucial to avoid soil disturbance that promotes weed growth.	Can be used for perennial weeds, but may require repeated treatments to exhaust root systems.
Chemical Weeding	Herbicides like glyphosate are highly effective for annual weeds. Application must be timed correctly, often during the seedling stage.	Some herbicides, like triclopyr, are effective for perennial weeds. Careful application and follow-up are necessary.
Cultural Weeding	Planting dense, competitive crops can suppress annual weed growth. Mulching is also effective for preventing weed seeds from germinating.	Deep tilling can bring perennial weed roots to the surface, where they may die or be easier to remove.
Biological Weeding	Introducing natural predators or pathogens can help control weed populations over time.	Biological control is more complex and often species-specific, but can be a long-term solution for certain perennial weeds.
Preventive Measures	Regular maintenance, such as mowing and edge trimming, can prevent weeds from establishing in the first place.	Inspecting new plants and soil for weed seeds before introducing them to a garden is a key preventive strategy.











These dry, black-eyed Susans (*Rudbeckia hirta*) have ripe seed ready to be harvested. *L* = *R*

### Seed-Collecting Tips



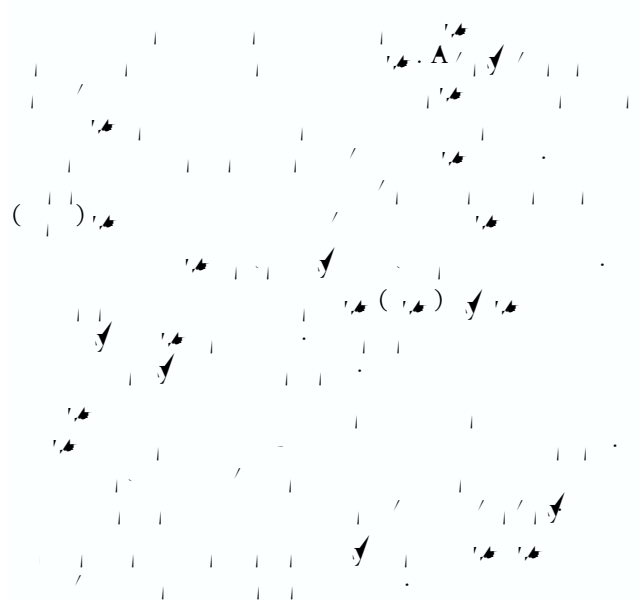
### Seed Drying and Cleaning



viability.



This pink form of the typically purple New England aster (*Aster novae-angliae*) has begun to produce ripe seed. *J* = *R*









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**Table 3: Seeding Techniques**



## Table 4: Planting Techniques

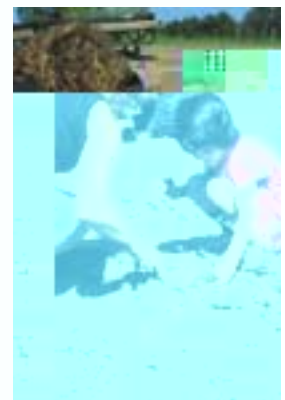
Technique	Advantages	Disadvantages
Hand planting	• Precise placement of seed or plug • Immediate feedback on placement	• Labor intensive • Slow
Drill seeding	• Efficient • Consistent depth and spacing	• Limited to certain soil types • May require specialized equipment
Broadcast seeding	• Simple • Quick	• Uneven distribution • Higher seed requirements
Hydroseeding	• Fast • Good for erosion control	• High cost • Limited to certain areas
Direct seeding	• Efficient • Good for large areas	• Limited to certain soil types • May require specialized equipment

## Seeding and Planting Rates

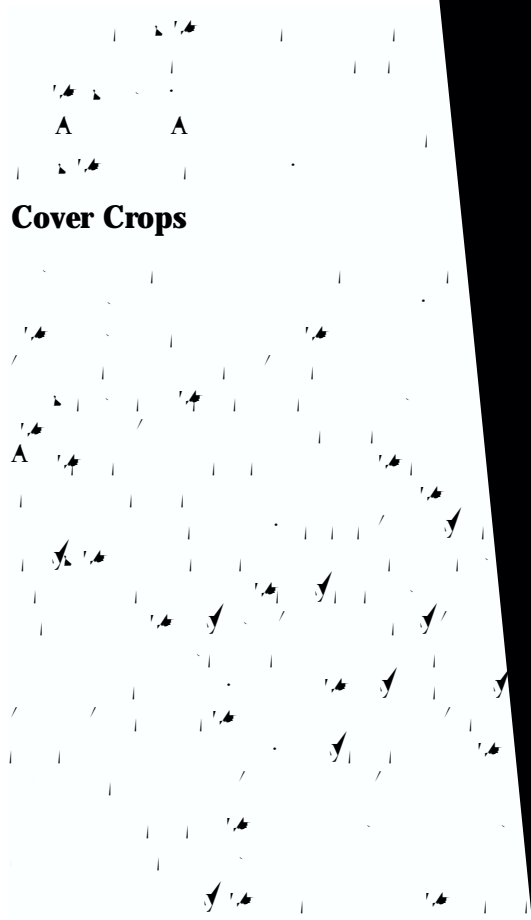
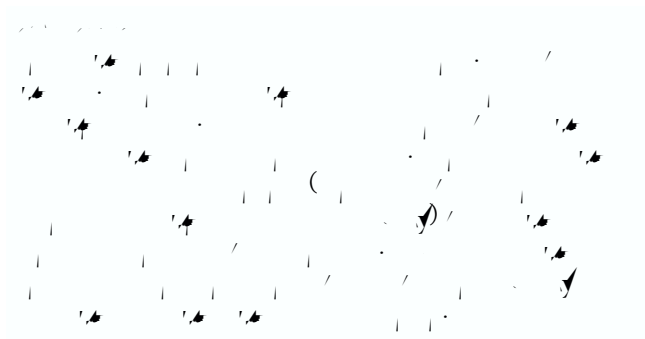
Technique	Seeding/Planting Rate	Notes
Hand planting	100-200 plugs/m <sup>2</sup>	Depends on plug size and species
Drill seeding	10-20 kg/ha	Depends on seed quality and soil conditions
Broadcast seeding	20-40 kg/ha	Higher rates due to uneven distribution
Hydroseeding	10-20 kg/ha	Includes mulch and fertilizer
Direct seeding	10-20 kg/ha	Similar to drill seeding



Prairie grass seed destined for a restoration project in Southern Ontario.  
P. A.



Hand planting plugs is an enjoyable activity for all ages.  
L. R.



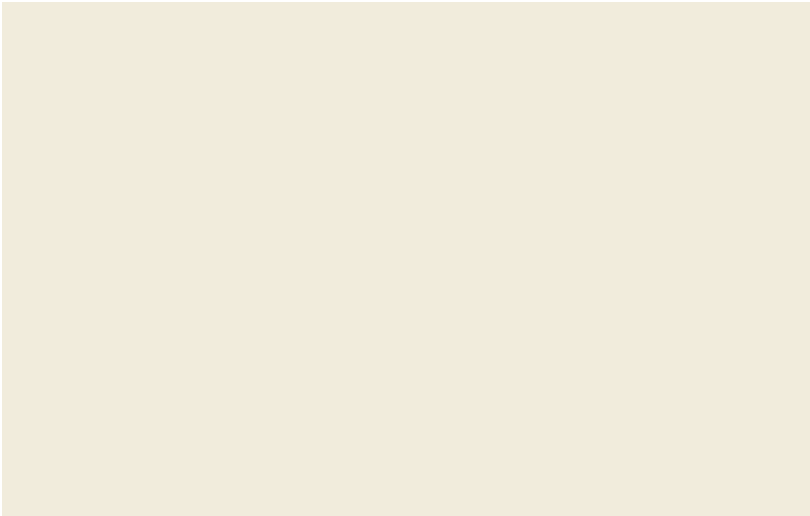
### Cover Crops

### Successional Planting



season

**Many Hands Make Light Work**





1. *Chlorophyll a* (Chl a)

2. *Chlorophyll b* (Chl b)

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4. *Chlorophyll d* (Chl d)

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6. *Chlorophyll f* (Chl f)

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9. *Chlorophyll i* (Chl i)

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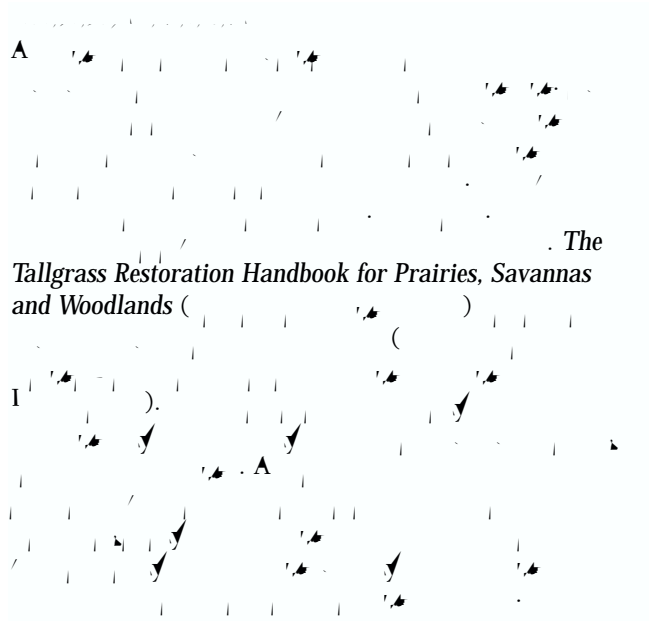




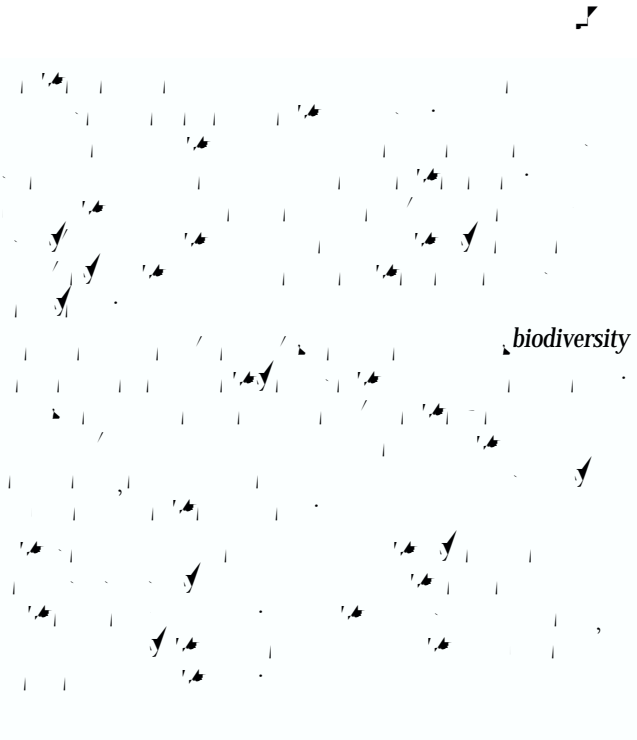


Monitoring your project closely helps you notice and troubleshoot any problems and keep track of ongoing changes and successes.

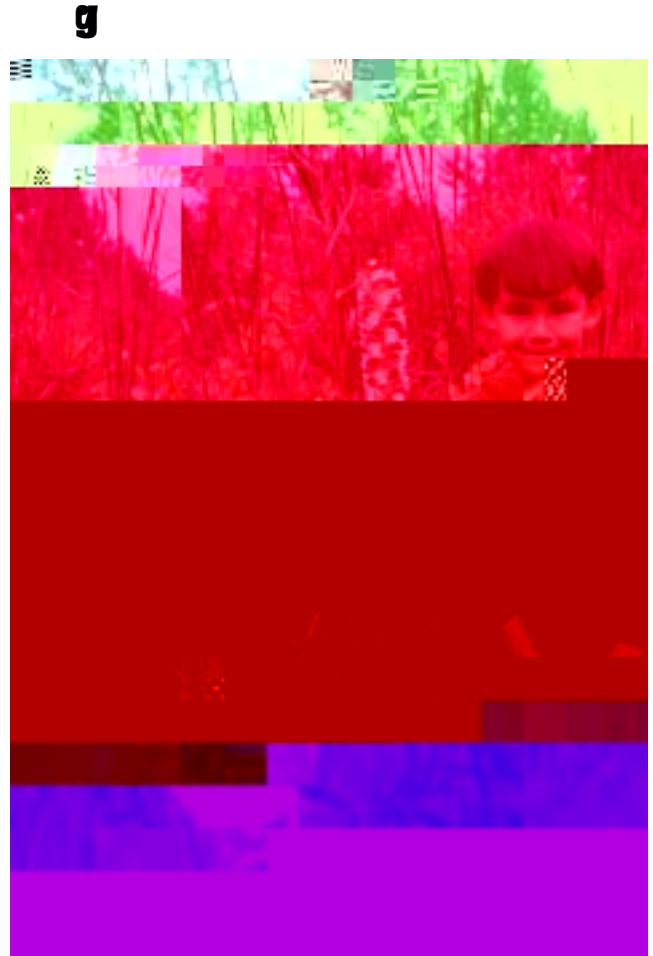
K. D.



The Tallgrass Restoration Handbook for Prairies, Savannas and Woodlands



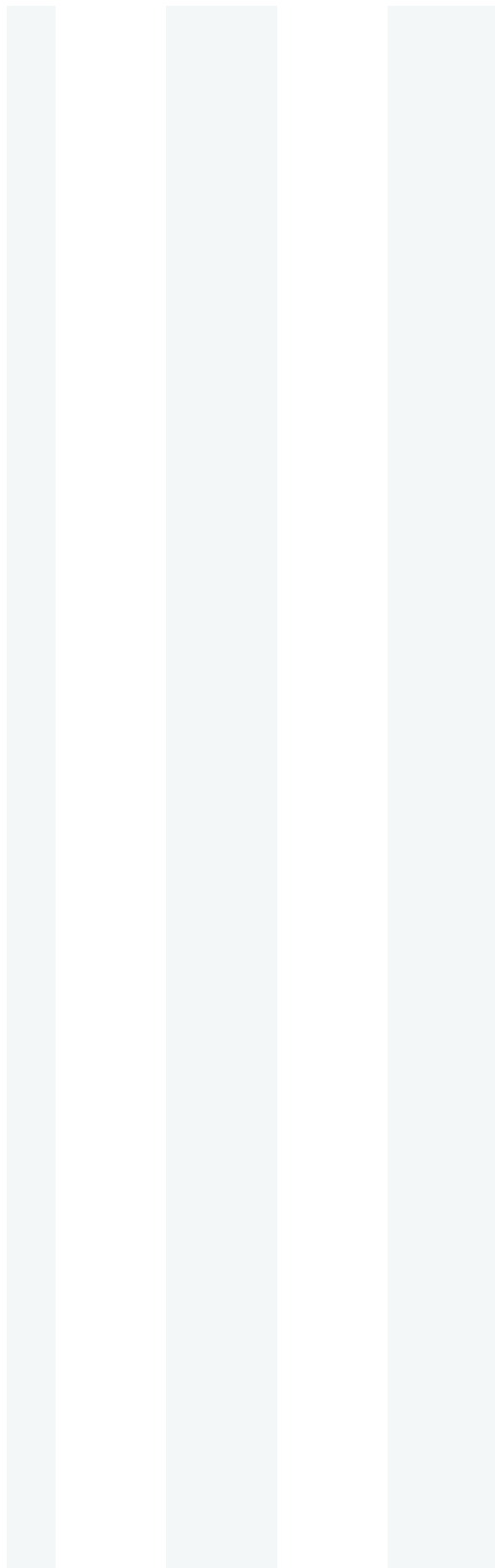
biodiversity



P. A.









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*Asclepias incarnata*

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<i>Eupatorium perfoliatum</i>	•						1
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<i>Euthamia graminifolia</i>	•						
<i>Fragaria virginiana</i>	•	•	•	•	•	•	
<i>Gentiana andrewsii</i>	•	•	(not)				0
<i>Gentianopsis crinita</i>	•	•	Widespread (not)				0
<i>Helenium autumnale</i>	•		(not)				0

























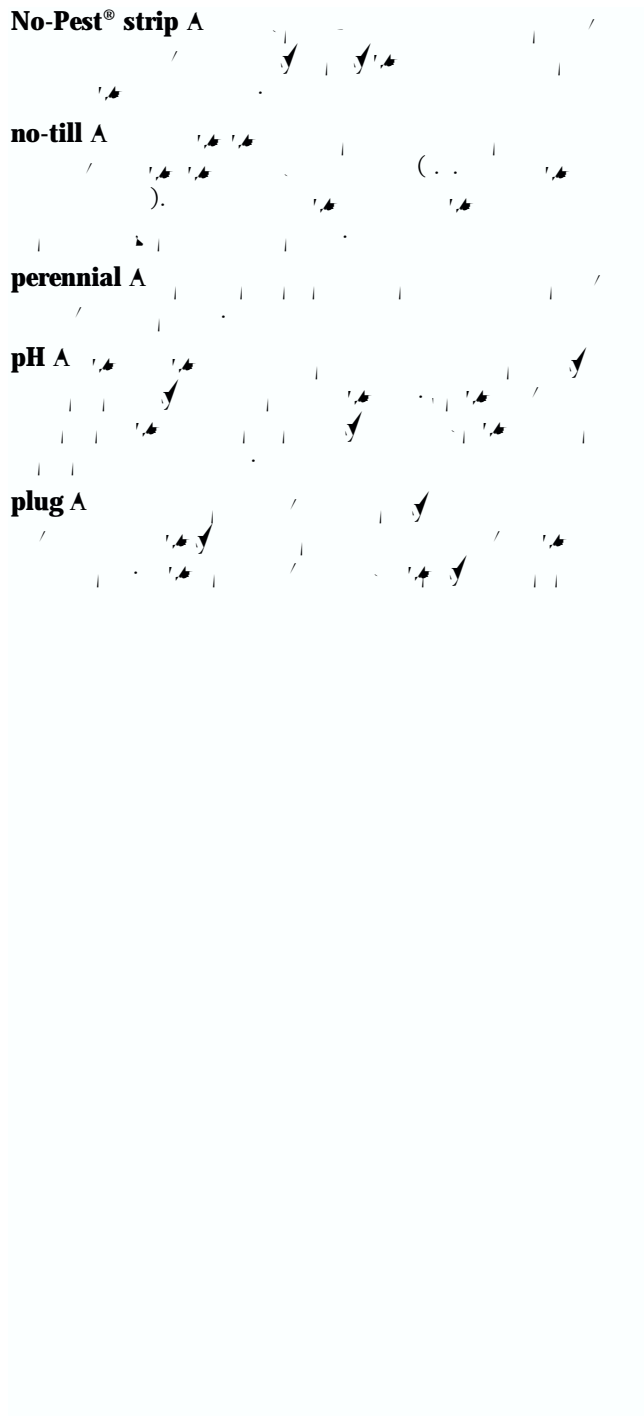
**No-Pest® strip A**

**no-till A**

**perennial A**

**pH A**

**plug A**



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*Miracle Under the Oaks: The Revival of Nature in America.*

**Restoration, Naturalization and Management**

**A** *A Life Zone Approach to School Yard Naturalization: The Carolinian Life Zone.*

Available from University of Guelph Arboretum (Helpful Organizations) (\$31).

**A** *Ontario Weeds.*  
Available from Ontario Ministry of Agriculture, Food and Rural Affairs, 1 Stone Road West, Guelph, ON N1G 4Y2. 519-826-3700.

**A** *Habitat Restoration: A Guide for Proactive Schools.*



*Prairie Propagation Handbook.*

Available from Wehr Nature Center, Whitnall Park,  
9701 West College Avenue, Franklin, WI, 53132  
(\$7 US).

*Growing Wildflowers: A Gardener's  
Guide.*

*Handbook of  
Wildflower Cultivation.*

*Landscaping with Wildflowers  
& Native Plants.*

Available from Ortho Books, Chevron Chemical  
Company, Consumer Products Division, Box 5047,  
San Ramon, CA, 94583.

*Collecting,  
Processing, and Germinating Seeds of Wildland Plants.*

**Native Plant Identification**

*An Illustrated Flora  
of the Northern United States and Canada ( ).*

Available from General Publishing Company,  
30 Lesmill Road, Don Mills, Toronto, ON M3B 2T6.

*Grasses: An Identification Guide*

*The Asters*  
of Ontario.  
Available from Department of Biology, University of  
Waterloo, Waterloo, ON N2L 3G1 (\$15).

*The Wildflower Book*  
East of the Rockies







