



Prairie Strips

Native Vegetation to Capture Soil and Nutrients with Multiple Benefits to Pollinators and Wildlife



What Is a Prairie Strip?

A prairie strip is a linear planting of native perennial forbs and grasses within or along the edge of a row crop field. Seed mixes include wildflower species that bloom in the spring, summer, and fall, providing habitat for pollinating insects across the growing season. The stiff stems and deep roots of these diverse species filter nutrients and sediment from water moving through the strip.

Why Prairie Vegetation?

- Perennial
- Deep roots
- Stiff stems
- Diverse
- Native

BENEFITS (based on research of 10% prairie cover within no-till corn-bean fields)¹

Nutrient Retention	77% reduction in phosphorus loss and 70% reduction in nitrogen loss 70% reduction in subsurface nitrate loss (without drainage)
Erosion Control	95% reduction in sediment loss 37% reduction in water runoff
Pollinators	3x more pollinators and increased pollinator diversity Additional honey bee forage and productivity
Birds	2x more birds, especially grassland birds
Greenhouse Gasses	Increased soil organic carbon and reduced nitrous oxide emissions
Soil Health	Increased microbial biomass and soil enzyme activity

Placement Considerations:

- Prairie strips can be placed in various locations based on farmer preference and site characteristics.
- Strips at least 30' in width covering at least 10% of a field provide optimal runoff reduction.
- Strips may be used as perimeter turn-rows for machinery once the vegetation is fully established.



Photo: Iowa State University

Edge of Field placement.



Photo: Iowa State University

In-field placement.

Management

Prairie strip maintenance is required to ensure proper establishment of the slow-growing native prairie species. Weed issues can quickly get out of hand if not addressed.

Years 1 and 2	Years 3 and 4	Years 5+
<ul style="list-style-type: none">• Monitor strip every other week for weed pressure.• Mow 2-5 times each year, depending on weed growth.	<ul style="list-style-type: none">• Monitor strip every month for weed pressure.• Mow 1-2 times each year, depending on weed growth.	<ul style="list-style-type: none">• Monitor strip every few months for weed pressure.• If feasible, burn every 2-3 years.

Prairie Strips vs Grassed Waterways

Grassed Waterways

Grassed waterways *convey* water to move it quickly through the field while protecting the soil from gully erosion. They should be planted *with* the direction of water flow. Grassed waterways typically utilize cool season grasses that flatten to transport water.

Prairie Strips

Prairie strips *intercept* water to filter sediment and nutrients displaced by sheet and rill erosion. They should be planted *perpendicular* to water flow. Prairie strips use a diverse mix of native plants with varying structure to slow water flow.



Photo: Iowa State University

Grassed waterways among on-contour prairie strips.

Funding

There are multiple sources of technical and financial assistance to plan and install prairie strips on your farm. This includes incentives from Sand County Foundation and programs of the United States Department of Agriculture. Pheasants Forever or your local county conservation department may also offer resources.

¹ Prairie strips improve corn-soybean croplands, Proceedings of the National Academy of Sciences Oct 2017, <https://www.pnas.org/content/114/42/11247>

FOR MORE INFORMATION CONTACT:

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Sand County Foundation inspires and empowers a growing number of land owners and managers to ethically care for the land to sustain water resources, build healthy soil, enhance wildlife habitat, and support outdoor recreation.

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