

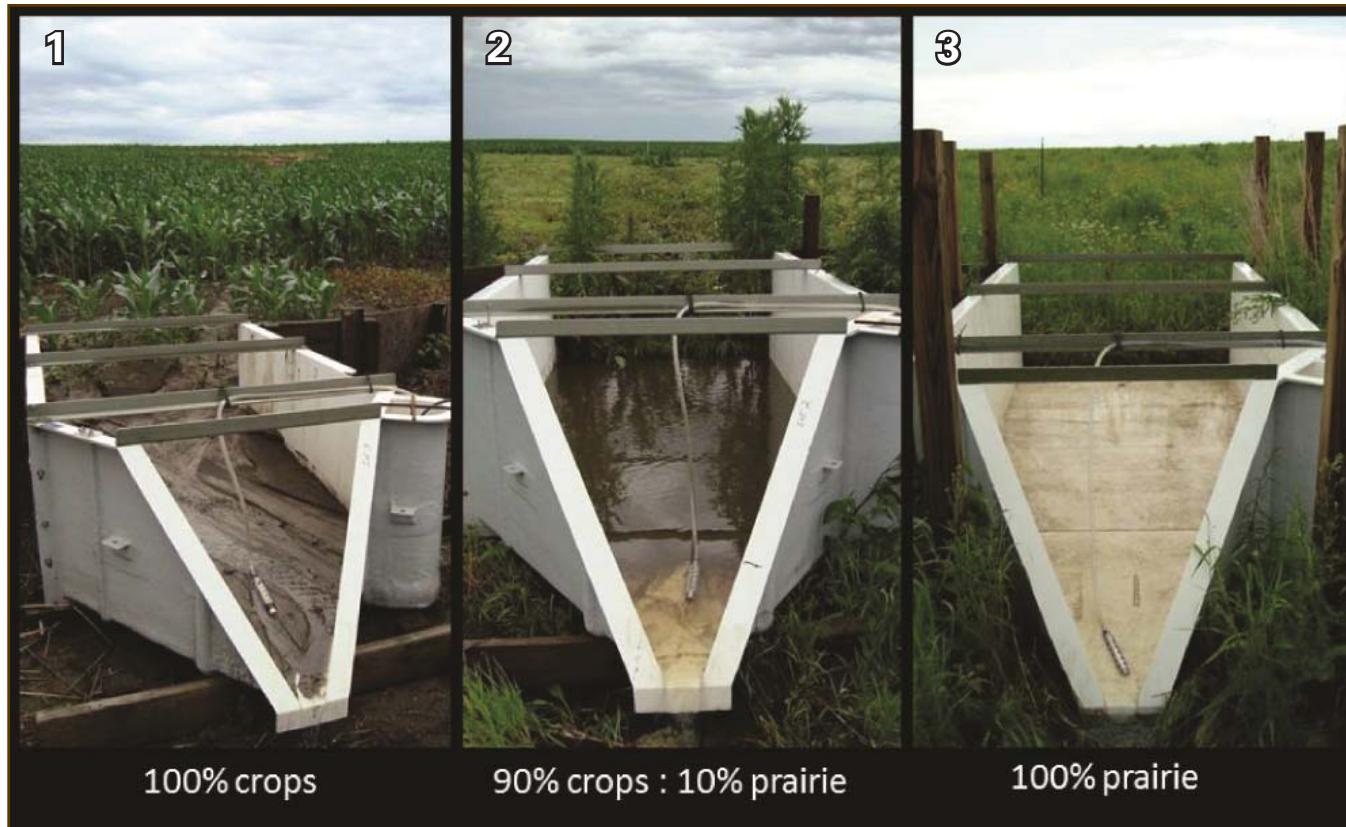


May 2015

Prairie Strips On My Land: Frequently Asked Questions

Prairie strips is a conservation practice that uses strategically placed native prairie plantings in crop fields. The practice was developed and tested by the STRIPS (Science-based Trials of Rowcrops Integrated with Prairie Strips) team at the Neal Smith National Wildlife Refuge in Iowa.

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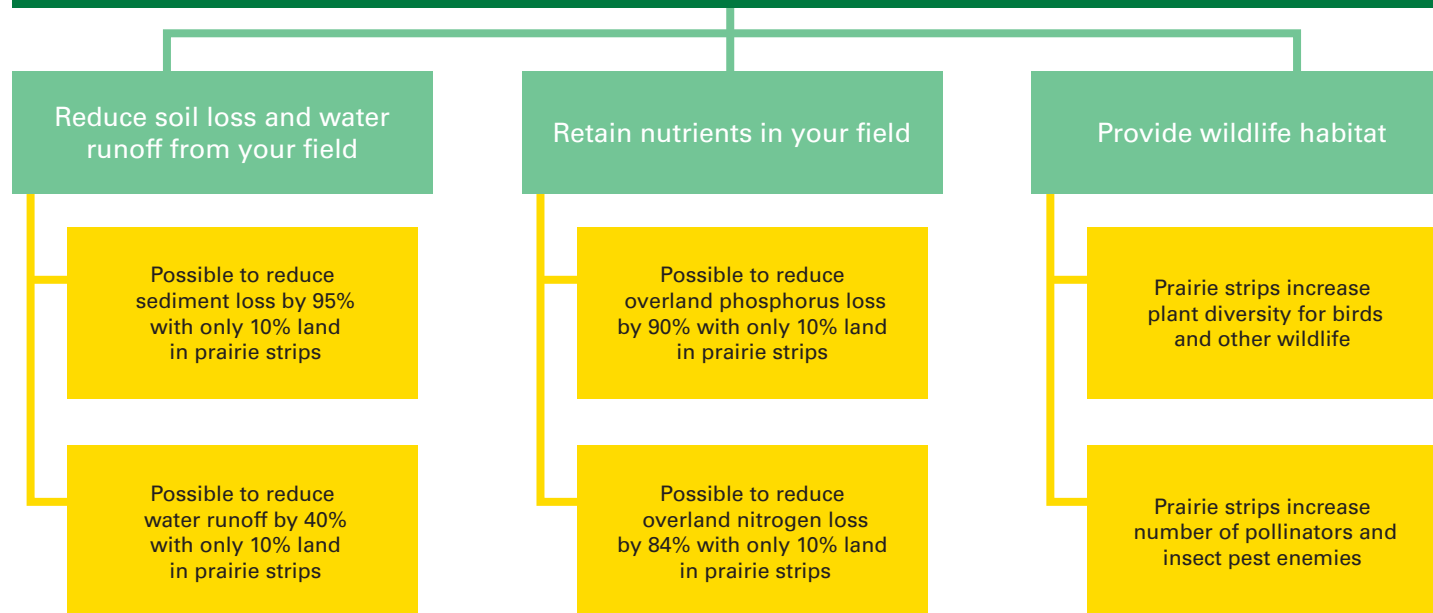
These flumes measure surface water movement and soil, nitrogen and phosphorus export from field experiment plots at the Neal Smith National Wildlife Refuge. Compare the transport of these resources from:

1) A 100% no-till, corn-soybean crop field

2) A field treated with a 10% prairie strip

3) A 100% prairie

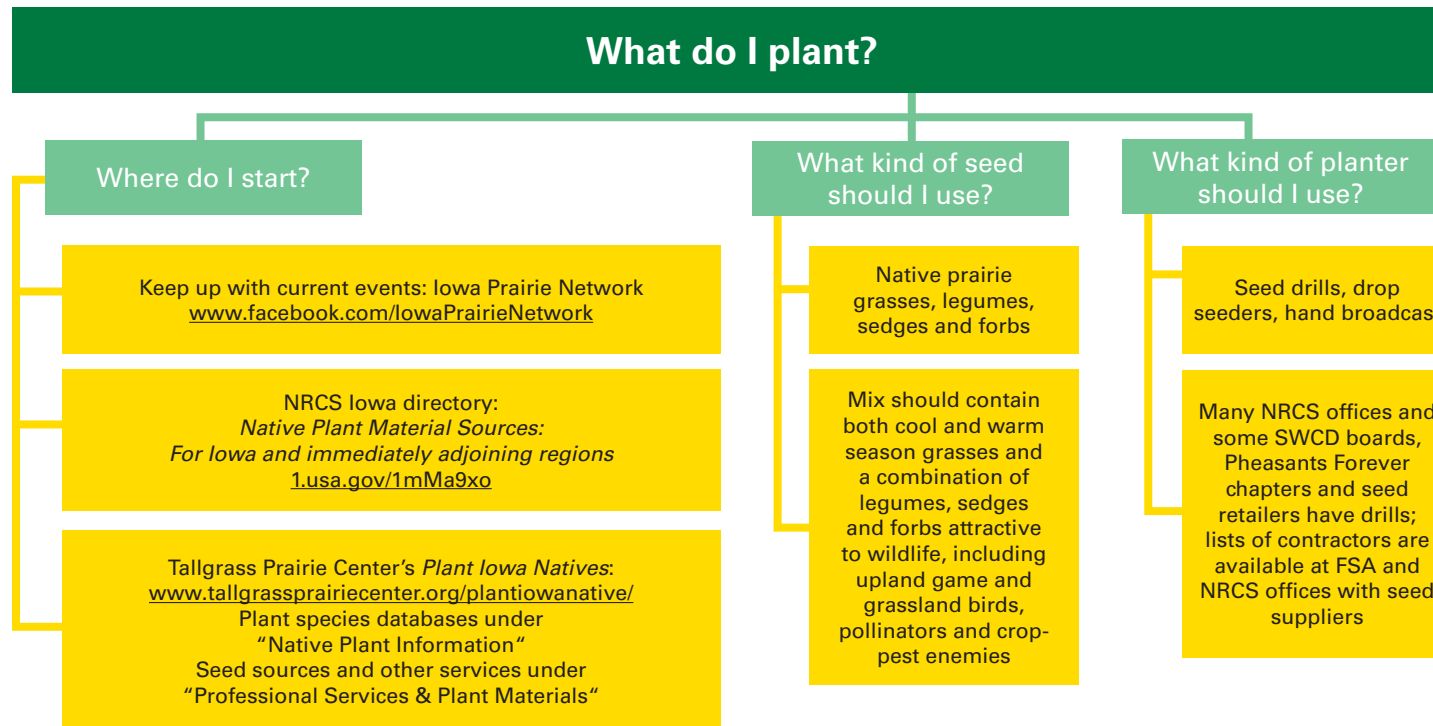
Why should I put 10% of my field into prairie strips?



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- 1) Prairie seed contains numerous native plant species. Once established, prairie strips add diverse habitat to landscapes dominated by row crops.
- 2) In diverse, multifunctional landscapes, even if an individual plant species performs poorly due to yearly nutrient or water fluctuations, the community as a whole thrives, staying resilient when faced with extreme weather.



NRCS: Natural Resources Conservation Service
SWCD: Soil and Water Conservation District
FSA: USDA Farm Service Agency

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- 1) In the first few years after planting, strips may not look much like prairie. They may contain weedy grasses or forbs (such as thistles). Depending on the size of the farm, weed suppression options include hoeing, mowing, spot treatment or burning to promote prairie seedling establishment.
 - 2) Mature prairie plants outcompete weedy plants, and do not require much maintenance.
 - 3) Prairie plants do not move into the crop fields, but become valuable adjacent habitat for pollinators and predators of crop pests.



What should I expect after prairie strips are planted?

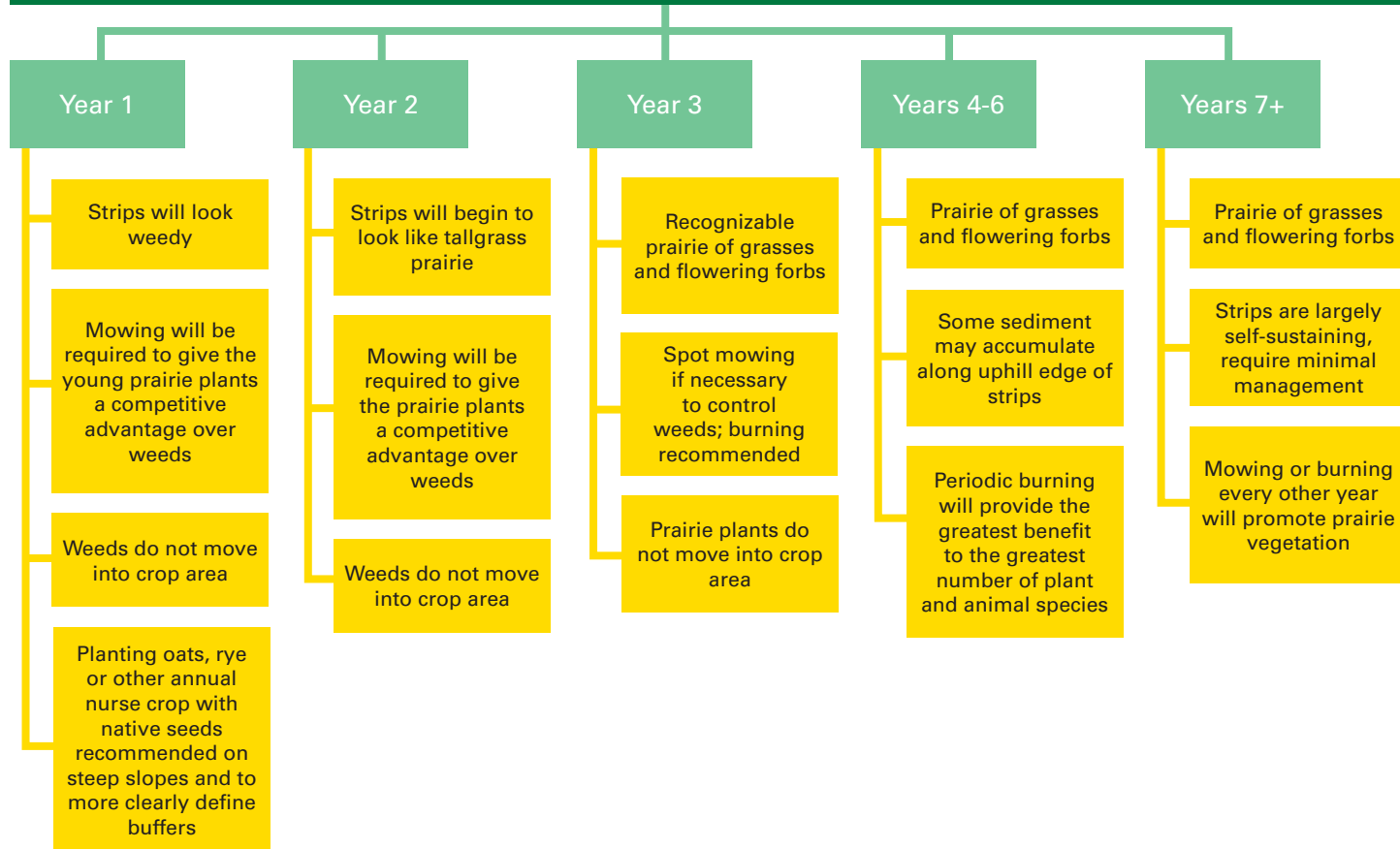
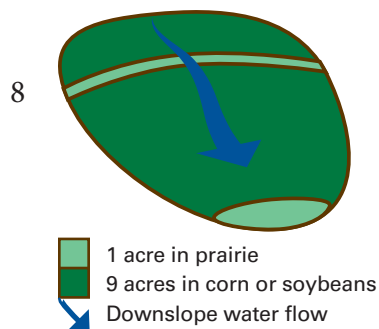


Table: Estimated range of costs for a 15-year management plan of 10% prairie strip planting after soybean (in 2014 dollars).

Figure:



Treatment costs are calculated over the entire field area. One acre of prairie treats the corresponding 9 acres of row crops. The cost of prairie strips is therefore spread out over 10 acres, 90% of which remain in crop production.

Mean price per acre		
Site preparation		
Year 0:		
Tillage	\$6–31 per acre	\$19
Herbicide	\$41–82 per gallon	\$15
Herbicide application	\$21–88 per acre	\$55
Establishment		
Year 0:		
Seed	\$124–\$258 per acre	Variable
Seed drilling	\$10–49 per acre	\$15
Seed packing	\$5–31 per acre	\$18
<i>On average, site preparation and establishment are less than 10% of the total cost per year per treated crop acre</i>		
Management		
Annual:		
General operating costs	1–3% of upfront costs	Variable
AND		
Years 1–15:		
Mowing	\$5–57 per acre	\$31
3 times in year 1, annually years 2–15		
Years 2–15:		
Baling	\$9–16 per acre	\$11
OR		
Years 2–15:		
Burning	\$31–103 per hour	\$37
Annually years 2–6, every 2 years thereafter		
<i>Management costs are about 10–15% of the total cost per year per treated crop acre</i>		
Opportunity costs		
Annual:		
Land rent	Variable	\$82–541
<i>Opportunity costs are up to 90% of the total cost per year per treated crop acre</i>		

How much will prairie strips cost?

Site preparation and establishment costs

Variable depending on site quality. Preparation generally includes the purchase of native seed, herbicide to control weeds, and may include rental of seeding and tillage equipment. Establishment involves site preparation, seeding and regular mowing over the first 2 years

Annual and periodic management costs

Annual baling or burning

Annual opportunity costs

Annual land rent and/or foregone revenue

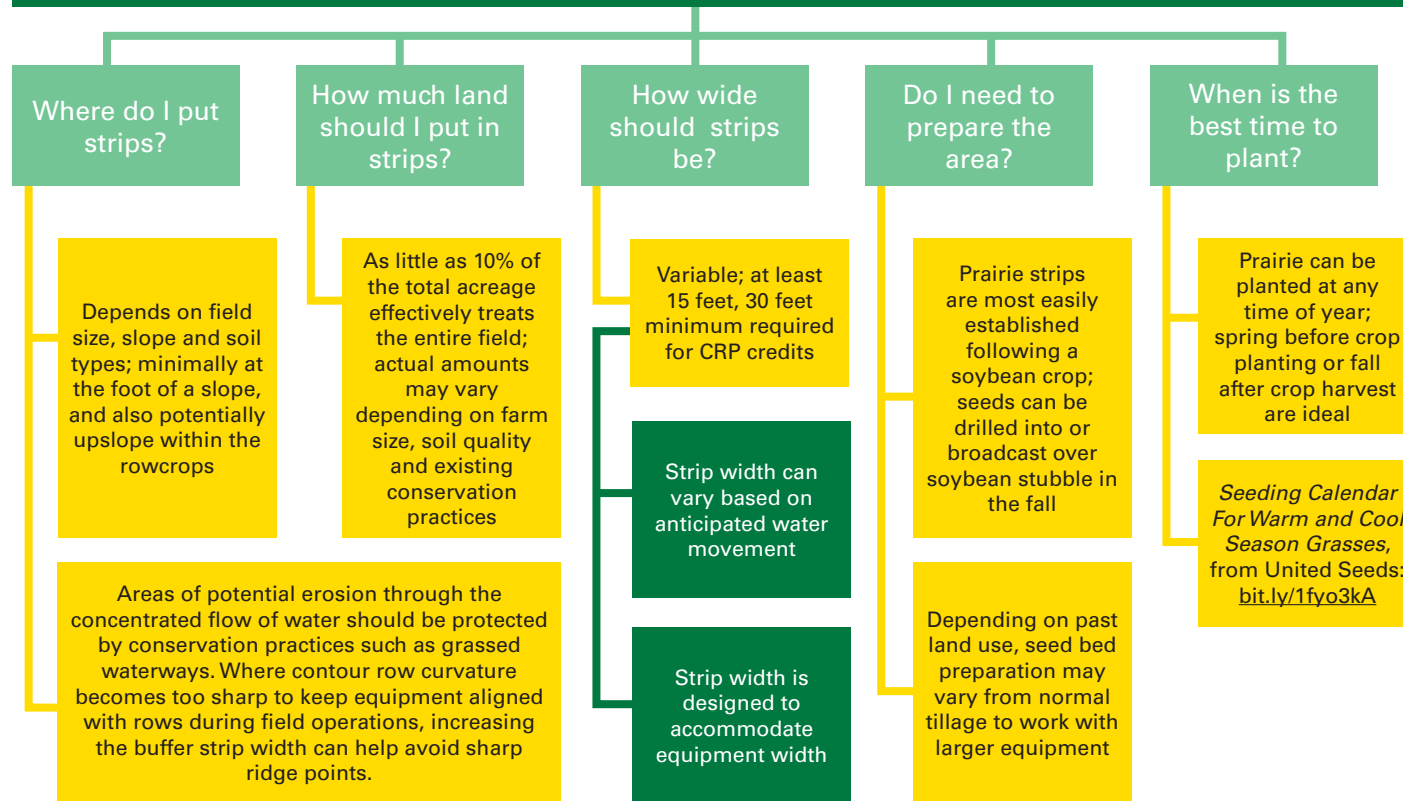
Taken together, the cost to a farmer of using prairie strips to **treat the runoff** from 9 acres of corn or soybeans is between \$25 to \$36 per year. Several cost-share opportunities are available. For example, the cost to the farmer can be reduced by up to 85% with Conservation Reserve Program (CRP) payments

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Apart from prairie planting equipment (above), you should be able to establish and maintain prairie strips with standard farm equipment.

How do I put prairie strips on my land?

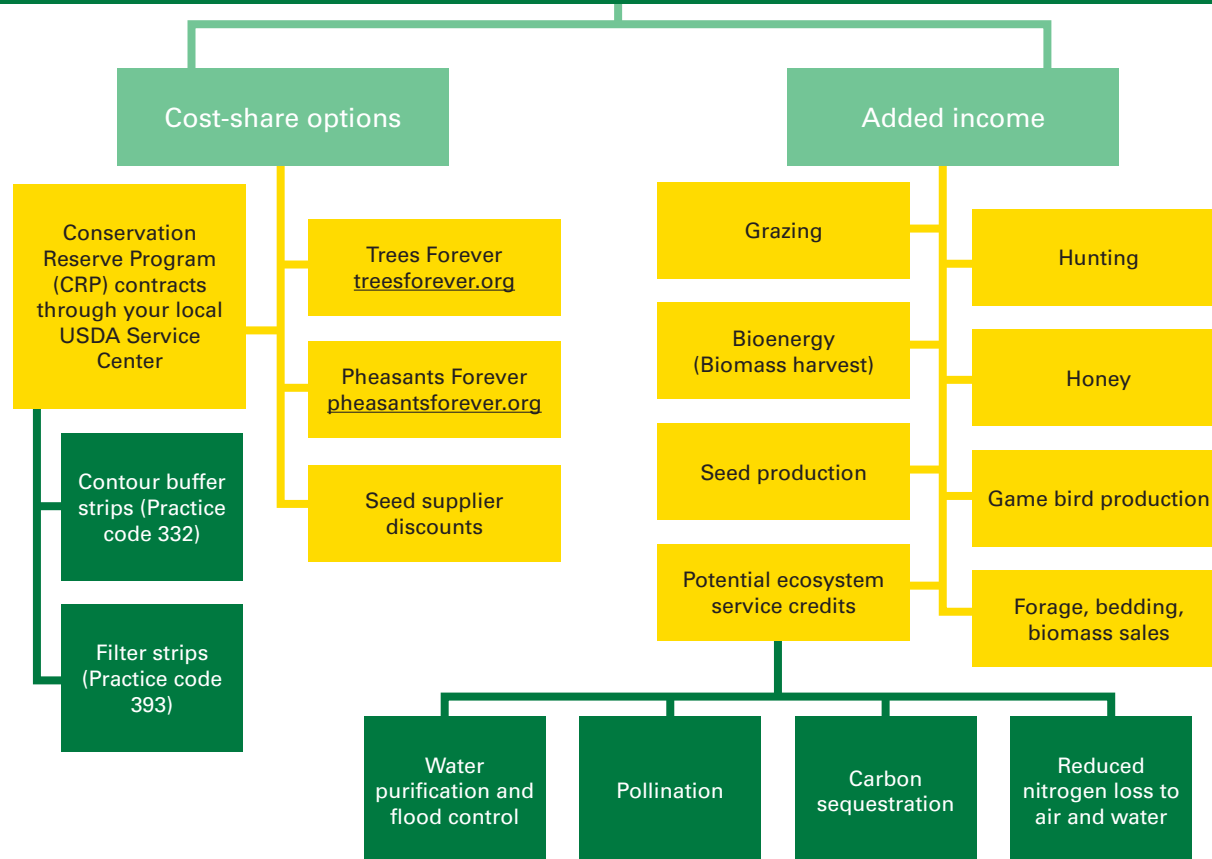


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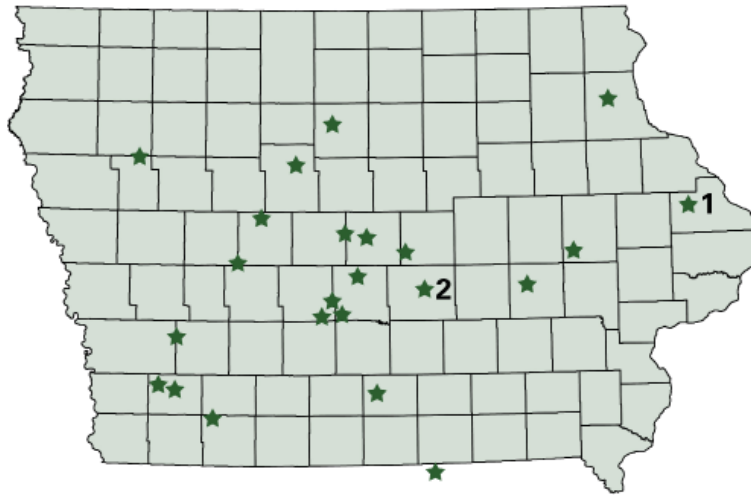


1) Strips of prairie between row crops create healthier, diverse habitat for numerous plant and animal species. They support species of ecological, commercial and recreational significance, including 2) native pollinators, 3) cattle and 4) potentially game birds.

What are some possible cost reduction and income sources with prairie strips?



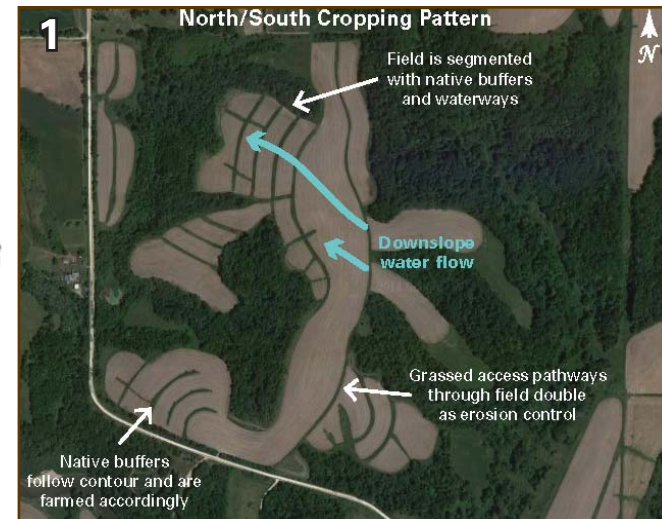
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The above map shows current STRIPS research collaborators in 2015. Each of the 23 sites is unique since prairie strip placement varies based on field type and maintenance needs.

1) An aerial view of strips on a 600-acre property in eastern Iowa.

2) You also may see STRIPS in action at the long-running experimental site at the Neal Smith National Wildlife Refuge in Jasper County.



Where can I find more information about prairie strips?

VISIT STRIPS in Jasper County

Neal Smith National Wildlife Refuge
9981 Pacific Street, Prairie City, Iowa
(515) 994-3400, NealSmith@fws.gov

DISCOVER more resources on the web

The STRIPS research team website includes information on partners and participants, as well as upcoming field days and demonstration site locations. Find more: www.prairiestrips.org.

The Leopold Center for Sustainable Agriculture has compiled various multimedia resources, including:

- » *A Landowner's Guide to Prairie Conservation Strips*
- » *The Cost of Prairie Conservation Strips*
- » *Small Changes, Big Impacts: Prairie Conservation Strips*

Find more: www.leopold.iastate.edu/strips-research-team.

LEARN more about prairie restoration

The following resources may be helpful:

- » *Incorporating Prairies into Multifunctional Landscapes* by Meghann Jarcow and Matthew Liebman (available online from ISU Extension)
- » *The Tallgrass Prairie Center Guide to Prairie Restoration in the Upper Midwest* by Daryl Smith, Dave Williams, Greg Houseal and Kirk Henderson
- » *A Practical Guide to Prairie Reconstruction* by Carl Kurtz

FIND financial support

The following U.S. Department of Agriculture programs offer financial and technical assistance to Iowa landowners.

- » Conservation Reserve Program (CRP) offers 10-15 year contracts
- » Environmental Quality Incentives Program (EQIP) may assist with prairies you plan to harvest or graze, depending on county.
- » Wildlife Habitat Incentive Program (WHIP) offers a maximum of \$30,000 to install and maintain habitat on private land. Funds are limited and vary by state.

Contact your local USDA Service Center for more information.



You also can receive assistance from these programs:

- » U.S. Fish and Wildlife Partners Program works with landowners to restore wildlife habitat: www.fws.gov/midwest/partners
- » Resource Enhancement and Protection (REAP) gives small grants for soil and water protection: www.iowadnr.gov/Environment/REAP
- » Trees Forever funds community projects: www.treesforever.org
- » Pheasants Forever offers cost-share options: www.pheasantsforever.org
- » Plant Iowa Natives offers a seed suppliers directory under "Professional Services & Plant Materials": www.tallgrassprairiecenter.org/plantiowanative/

Science-based Trials of Rowcrops Integrated with Prairie Strips



Project partners include Iowa State University, the U.S. Fish and Wildlife Service, Neal Smith National Wildlife Refuge, Leopold Center for Sustainable Agriculture, Tallgrass Prairie Center, Iowa Department of Agriculture and Land Stewardship, U.S. Department of Agriculture, U.S. Forest Service Northern Research Station, National Science Foundation, Trees Forever, McKnight Foundation, Wallace Foundation, Walton Family Foundation, Eastern Iowa Airport, Whiterock Conservancy and a growing number of farmers and farmland owners.

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May 2015