

STRIPS Cooperator Survey: 2017 Results

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The research summarized in this report was conducted as part of the STRIPS project. STRIPS stands for Science-based Trials of Rowcrops Integrated with Prairie Strips. Since 2007, the long-term project has been measuring the impacts of strategically planting prairie strips in crop fields at the Neal Smith National Wildlife Refuge in Prairie City, Iowa. Results have shown that small amounts of prairie can yield disproportionate, multi-functional benefits to soils, watersheds, wildlife habitat and biodiversity.

Find more information about the STRIPS project online at <http://www.prairiestrips.org>.

Learn more about the Neal Smith National Wildlife Refuge at https://www.fws.gov/refuge/neal_smith.

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Introduction

The STRIPS (Science-based Trials of Rowcrops Integrated with Prairie Strips) project has developed collaborative partnerships with more than 35 farmers and landowners who have integrated prairie strips into their farm landscapes. One of the STRIPS project's guiding principles is to "create and maintain feedback loops for information sharing among team members, farmer/farm landowner adopters, and other stakeholders." A major goal of these feedback loops is to learn from cooperators who have adopted prairie strips so project staff can help current (and future) cooperators to successfully establish and manage prairie strips.

An important component of those feedback loops is an annual, on-line survey of STRIPS cooperators who have established prairie strips. The purpose of the survey is to learn about collaborating landowners' experiences with the establishment and management of prairie strips to help project staff understand (1) what positive and negative experiences they have had, (2) what information and technical assistance needs they may have, and (3) to learn from their ideas about how the STRIPS team can improve outreach and promotional efforts. The 2017 survey consisted of 10 open-ended questions and two yes/no questions (Q11-12):

Experiences with prairie strips:

- Q1. What have been some of your positive experiences with your prairie strips this past year?
- Q2. What have been some of the challenges with your prairie strips this past year?
- Q3. What would you do differently if you planted new prairie strips?
- Q4. What advice would you give someone who is getting ready to plant prairie strips?
- Q5. What have other people said to you about your prairie strips – positive, negative or questions?

How else can we help?

- Q6. What are some of the questions you have about prairies and prairie management?
- Q7. What else can the Iowa State University STRIPS project do to help?
- Q8. What educational events that you attended this past year– formal or informal – have helped you to improve your understanding of prairie strips? In what ways were they helpful?

Prairie Strips Promotion

- Q9. How did you first hear about prairie strips?
- Q10. What can Iowa State University do to more effectively promote prairie strips with farmers and landowners?
- Q11. Would you be interested in hosting a field day in 2018?
- Q12. Would you be willing to show your prairie strips to potential adopters in your area and share your knowledge and experiences?

The web-based survey was sent by email to 37 cooperators in mid-December 2017, and several reminders were sent in December and January. A final reminder was sent in late January 2018. Fifteen cooperators completed the survey for a response rate of 40 percent. This document presents the responses to the questions.

ID Q1. What have been some of your positive experiences with your prairie strips this past year?

- 1 Seeing how the plants are getting established and seeing the diversity in the landscape. Family and guests seem to enjoy walking to the strips to look at them.
- 2 Seeing and identifying a greater number of grass and forb species following our prescribed burn last winter. In our 4th year of our strips, we have now identified 28 of 32 species that we planted in our prairie mix.
- 3 Starting to look like prairie. Greater bird and pollinator numbers.
- 4 The sedges and forbs have begun to better establish and the bunch grasses are doing well. After a prescribed burn this winter the STRIPS should be showy in 2018!
- 5 We continue a good stand in our 2nd year of strips. No erosion, but then not much rain.
- 6 It just feels like the right thing to do.
- 7 My three-year old and two-year old strips were fabulous in all of the blooming flowers. Also lots of birds and bees, and great quail cover.
- 9 Tim helped me with my first prairie burn, about 1/2 of my acres. It was good to see how fast everything can take off afterward, and helped me spot invaders. Morgan sent me a bee survey that they had found 29 species and included some great photos. I've been able to promote them to farmers and others at water quality meetings.
- 10 I have expanded my other prairie and pollinator habitat plantings including some in waterways. I am developing custom seed mixes for using on regular in-field buffers, waterways and buffers that get some traffic from farm vehicles. I expect to seed experimental areas for each of those three on a portion of my south farm in the spring.
- 12 Learning more about bird species on my farm in the prairie strips. Learning how to properly burn my prairie strips areas
- 14 This is our second year since starting the strips. We're getting a good stand of prairie species. I mowed the strips twice.
- 15 Yes, increased habitat on the farm, cut down on erosion, increased pollinator plants, decreased invasive grasses.
- 16 To see prairie species crowd our weedy species, and to see the strips LOOK like prairie. To get positive comments from people. To have the feeling – even if no hard data – that we are reducing runoff.
- 17 Pride of seeing the progress of the prairie grasses and wildflowers established, pride of having people in the local community notice and comment on its beauty, personal pride in knowing it was helping out in some small way our water quality, and enjoying walking through with my dog and getting up a few pheasants here and there. Oh, and by the way, seeing the song birds flit in and out of the grasses.

ID Q2. What have been some of the challenges with your prairie strips this year?

- 1 Dealing with thistles mainly and looking at what I need to do long term to maintain the strips.
- 2 Wish we had more strips intermixed with our row crops.
- 3 Non-native grass and clover pressure.
- 4 Maretail was a problem later in the growing season and required a late-season maintenance mowing cycle.
- 5 None.
- 6 Keeping weeds at bay until the prairie is fully established and functioning.
- 7 Getting them established with little rain in June and July.
- 9 Making time to pull trees or spray weeds when I have crops to tend.
- 10 Control of brome grass.
- 13 It has been inconvenient to plant around the strips. The strips looks like they are full of fox tail.
- 14 Canadian thistle.
- 15 Thistles still a problem. Brome comes back in weak prairie areas.
- 16 Challenging for chemical applicator to avoid damaging STRIPS. A few weed problems.
- 17 Neverending, the thistles. A little bit of weed pressure in a low, wet spot, but mostly just the thistles.

ID Q3. What would you do differently if you planted new prairie strips?

- 1 Lay them out with GPS so they fit into the farmer's scale of farming or perhaps plant them straight across the field.
- 2 Not use a seed drill; simply broadcast seed.
- 3 Better seed bed preparation, more strategic layout, and pack the seed with a cultipacker.
- 4 I would change the design moderately to avoid all point rows.
- 5 Just needed them years earlier.
- 6 A little better luck with the weather at seeding time would have been nice.
- 7 Maybe put an oats nurse crop with them?
- 9 I would lay them out with RTK geosteer so that one A/B line would work on the whole field. I would dormant plant in November.
- 10 I will use custom mixes in different areas and be more diligent in killing back the brome prior to seeding.
- 13 Try to get a better stand.
- 14 We have strips at the ... farm and the ... farm. Each place the stands are excellent. At this point I wouldn't change planting procedures.
- 15 Start with better kill on brome and reed canary grass.
- 16 Try to make the contours more user-friendly for farm operator, with fewer point rows.
- 17 Make the one field border a little bit wider. Other than that, completely satisfied with the way this one turned out.

ID Q4. What advice would you give someone who is getting ready to plant prairie strips?

- 1 Use quality diverse seed and make sure you have control over when and how the crops nearby get sprayed.
- 2 Do lots of research in advance. Talk with as many people as possible, read as much as possible, plant a prairie mix well adapted to your specific soils/part of the state, prepare the strip seedbed well and seed your strips in the winter or very early spring to help the strip establish well in the first year.
- 3 Get assistance from the STRIPS team. Look into funding and seed sources through USDA and Pheasants Forever. Use Ag Solver data to help monetize your acres and balance your decisions on the best place for your STRIPS.
- 4 Pay attention to the size of your equipment, slopes, and avoid head rows. If you keep these three things in mind while laying out the prairie strips you will have few issues in the future.
- 5 High encouragement to do it. Lay them out well and seed them well.
- 6 Get local eco-type seed if possible and try to not buy weed seeds.
- 7 The first year, mow off weeds several times and hope you get plants established for the second year. Start with a weed-free seedbed.
- 9 If you are going to dormant plant in the fall, watch what herbicides you are using in the preceding crop and the planting intervals suggested, which might not be enough. Don't ever let anyone drive across them.
- 10 Use as many different species in the mix as possible. Hold costs down by buying individual species from multiple suppliers. Burn and then spray glyphosate multiple times to really kill the brome. Use annual rye as a nurse crop and to hold the soil till natives get established.
- 13 Seed heavy or reseed multiple times.
- 14 You need to mow the first year on a regular basis.
- 15 Give them a try.
- 16 Use as diverse as seed mix as possible, with local eco-type seed. Be sure to mow often the first two years for weed control. Seeding into soybean stubble probably the best, although possible into corn stalks.
- 17 Seed in the fall after crops are out. And, make sure there is plenty of diversity.

ID Q5. What have people (e.g., neighbors, friends, crop advisers) said to you about your prairie strips, whether positive, negative, or questions?

- 1 Friends love it but otherwise no other input.
- 2 People are very supportive of us adding prairie to our farm. People ask about how concerned we are about weeds during the first 2-3 years. Foxtail isn't a problem...serves almost like a nurse crop. But, after the first year, we aggressively hand weed noxious weeds before they head out in our strips. That takes time and work, which we luckily have since we are retired, and our farm operator doesn't have time to do.
- 3 Primarily positive. Very well accepted by urban visitors to the farm. My neighbors like them. However, I think they are concerned that if they openly admit we have a problem it could mean being forced to do something about it...
- 4 People have largely been complimentary and look forward to seeing the strips fully establish.
- 5 They haven't really figured out what they are.
- 6 Not much of anything. Maybe they just think I'm crazy.
- 7 They love seeing all of the flowers blooming. They wondered what I was doing the first year!
- 9 Not much, maybe tease about "weeds" I get asked about the bare earth nesting sites, but only the people on my farm see them (commercial applicators, friends making hay). Positive responses from people I bring to the farm for educational programs or field days.
- 10 Not much. Mostly hidden unless I take someone there to look.
- 13 Looks like weeds.
- 14 They take out productive ground. Question? What do terraces do?
- 15 N/A
- 16 Main negative has been the way NRCS laid out STRIPS, making point rows that were difficult to farm when in corn. A challenge for custom chemical applicator, but they were willing to work with us. Generally positive reaction - or curiosity - from neighbors.
- 17 No negative responses, all favorable from people in the neighborhood. At this point, the tenant for the balance of the farmland has given me neither positive or negative feedback.

ID Q6. What are some of the questions you have about prairies and prairie management?

- 1 We will see but I am hoping these narrow strips will stay robust over a long period of time.
- 2 None at this time.
- 3 None about prairie. I am interested in learning more about perennial farming systems.
- 4 Are seed treatment pesticides being found in the prairie strips? If so, is there an effect on the pollinator community using the prairie strips?
- 5 Really appreciate all your help. Hope to protect them from dicamba spray.
- 6 How important is it to burn them eventually?
- 7 Would it help hold down weed competition if I seeded some oats with the prairie seed?
- 9 I guess I'm getting pretty comfortable with them. I was glad to hear your report on tile lines under prairie.
- 10 We need to go the next step and convert waterways and trafficked buffers.
- 14 Does prairie need to be removed each year?
- 15 N/A
- 16 Particularly with STRIPS in an otherwise conventional corn/beans rotation, we're concerned about the STRIPS being a sink that attracts pollinators, which subsequently are killed by pesticides on treated seeds or applied to nearby fields.
- 17 The best way to handle the thistle problem.

ID Q7. What else can the Iowa State University STRIPS project do to help?

- 1 Nothing right now.
- 2 Work with the USDA offices to better educate the NRCS and FSA staff about STRIPS. Their benefits, challenges, research results, how they work well with a traditional row crop operation, etc.
- 3 I think they are doing an outstanding job. If you really want to make this perfect, free tickets to a football game would be nice.
- 5 Just keep up the good work. Tim was most helpful.
- 6 I would like to know how far the beneficial insects move out into the crop.
- 7 You're doing a great job!
- 9 I have been asked, how can we claim great reductions in tile water nitrate loads when it seems there would be little interaction between the tile flow and the prairie? Unlike prairie in a saturated buffer situation, we have tile lines running downhill through 180 feet of corn and then 30 feet of prairie and etc. flowing fast.
- 10 More local field days for those considering.
- 13 Reseed.
- 14 I'm very satisfied with the support given by the strips project team.
- 15 Keep us informed of new developments.
- 16 We would like to participate in additional studies to measure runoff reduction, improvement in organic matter, beneficial insect populations, and other hoped-for benefits of STRIPS.
- 17 As this farm has water testing units on it, helping me make better sense of what the output numbers actually mean and represent.

ID Q8. What educational events that you attended this past year—formal or informal—have helped you to improve your understanding of prairie strips? In what ways were they helpful?

- 1 The 10 year anniversary celebration was excellent.
- 2 STRIPS 10-year anniversary meeting (cooperator meeting), a PFI Field Day (which Tim Youngquist attended and shared lots of information with attendees and me during the day).
- 3 STRIPS stakeholders meeting; Green Lands Blue Waters Conference.
- 5 10 year celebration at Neal Smith refuge. Very helpful.
- 7 The meeting at the Neal Smith center helped to know that all weeds the first year is a common sight.
- 9 The 10 year celebration – what a lot of people are helping with this project! Diversity of Life! Experts still learning!
- 14 Have not attended any.
- 15 N/A
- 16 Visiting with Tim Youngquist at the site to see that prairie is doing well.
- 17 Not this past summer but the summer before, going to White Rock Conservancy for their strips field day.

ID Q9. How did you first hear about prairie strips?

- 1 Through Mary Harris.
- 2 Read an article in some publication about Lisa Schulte-Moore and the STRIPS project (can't remember the publication since it was several years ago).
- 3 Through my NRCS director.
- 4 Word of mouth.
- 5 Article in Wallace's Farmer magazine – then looked at videos.
- 6 Leopold Center project reports.
- 7 I don't remember.
- 9 At a Leopold Center Program.
- 10 Not sure.
- 13 From the landlord.
- 14 Through a project done here on the farms.
- 15 Iowa State newsletters.
- 16 News media and/or ISU reports on STRIPS at Neal Smith NWR.
- 17 Read an article about it in the Des Moines register several years ago.

ID Q10. What can Iowa State University do to more effectively promote prairie strips with farmers and landowners?

- 1 Like cover crops, it needs to have more publicity of its effectiveness. For example in Wallace's farmer and in articles in the Des Moines Register, they talk about water quality and the options of improving it. Strips are never or seldom mentioned. Buffer strips, bioreactors, etc. are mentioned but not the strips.
- 2 Reach out to more organizations, such as the Farm Bureau, more Iowa County Fairs. Issue more press releases to local newspapers across Iowa and neighboring states. Use more cooperators as spokespeople for STRIPS. Offer a short course through ISU Extension (online and/or in classroom at regional Community College campuses) on STRIPS, Soil Health and Clean Water Conservation.
- 3 Stay on your current course.
- 4 The trainings to promote the broader adoption of prairie strips have been well received with conservation-oriented landowners I have met. The word is getting out to landowners that are interested!
- 5 More field days.
- 6 Is it possible to put numbers on the economic benefits, such as disease and insect control in neighboring crops?
- 7 Keep doing what you're doing.
- 9 I am sure you could cut any farmers soil loss to 25% of what it currently is without changing tillage practices. You might have to think about harvesting patterns with those guys unloading on the go. The strips just don't fit every field. Partner with Pheasants Forever, those groups.
- 10 Local field days and work with local conservation departments and NRCS, both at the county level.
- 14 Keep having field days and communicating through websites.
- 15 Keep the information out there in media.
- 16 More field days. Promote results of studies that show benefits, and that suggest the benefits of STRIPS may out-weigh the potential loss of crop production from the land idled in STRIPS.
- 17 Have more field days or neighborhood get-togethers to talk about the program. Also, do what you can to help with the funding and paperwork sign-up process, as that can be daunting and or confusing.

Q11. Would you be interested in hosting a field day in 2018?

	Frequency	Percent
Yes.....	5	35.7%
No.....	6	42.9%
Maybe.....	3	21.4%

Q12. Would you be willing to show your prairie strips to potential adopters in your area and share your knowledge and experiences?

	Frequency	Percent
Yes.....	11	78.6%
No.....	1	7.1%
Maybe.....	2	14.3%

ID Do you have any additional comments?

- 1 Not at this time.
- 2 I plan to convert a dilapidated fence row/brome grass buffer into another prairie strip on my farm in 2018.
- 5 Thank you very much for all your help.
- 7 No.
- 14 No.
- 15 Keep up good work.
- 16 We hope for good feedback from recent Corn and Soybean Digest feature.



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The Science-based Trials of Rowcrops Integrated with Prairie Strips (STRIPS) has many project partners. These presently include Iowa State University College of Agriculture and Life Sciences, Leopold Center for Sustainable Agriculture, Iowa Department of Agriculture and Land Stewardship, Iowa Flood Center, Iowa Soybean Association, Prairie Rivers of Iowa, The Eastern Iowa Airport, The McKnight Foundation, Trees Forever, University of Iowa Biomass Fuel Project, University of Northern Iowa Tallgrass Prairie Center, USDA-ARS National Laboratory for Agriculture and the Environment, USDA Farm Service Agency, USDA Forest Service, USDA National Institute of Food and Agriculture, USDA North Central SARE, U.S. Fish and Wildlife Service, U.S. Geological Survey, Walton Family Foundation, Whiterock Conservancy, as well as over 35 private farmers and farmland owners. Our partner list is updated over time at www.nrem.iastate.edu/research/STRIPS/content/partners.