STRIPS 2019 LANDOWNER REPORT

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

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SMALL CHANGES, BIG IMPACTS!

2019 LANDOWNER REPORT

FUNDERS:

Bayer Crop Science
Corteva
Foundation for Food and Agriculture Research
ISU College of Agriculture and Life Sciences
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Iowa Department of Agriculture and Land Stewardship: Division of Soil Conservation and Water Quality
Iowa Department of Natural Resources
Iowa Nutrient Research Center
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USDA Forest Service
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US Geological Survey
Whiterock Conservancy

Thanks to you, the landowner! For 13 years the STRIPS team has worked with landowners to more fully understand the assembly, management, function, and value of prairie strips. To date the STRIPS team has produced 98 publications (52 peer-reviewed), 19 theses and four disserations (with more coming in 2020). We've presented on our research 473 times in 33 states, 8 countries, reaching a total of 18,477 attendees. Then, on December 9th, 2019, prairie strips became a practice available for cost-share via the Conservation Reserve Program. Today, you can walk into any USDA Service Center in the United States and ask about prairie strips. Be warned! You may just get paid to farm alongside birds, bees, butterflies, and flowers while you reduce soil erosion and improve water quality. Say, that sounds like a pretty dang good deal!

The 2019 Landowner Report covers some of the questions that STRIPS was asking over the last year and it features eight different research areas. Thanks to you, the landowner, our partners, and our funders, we've made small changes to the land and we've made a big impact.

Rock on!

Omar de Kok-Mercado
STRIPS Project Coordinator

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ON THE COVER:
Birds, bee, and cloud photos courtesy of Carl Kurtz*
On this page, Dickcissel*

W A T E R Q U A L I T Y

RESEARCH SUMMARY

Matt Helmers and I are studying change in water quantity and quality on fields with and without prairie strips. Measurements include flow duration, flow rate, and nitrate-nitrogen, orthophosphate, and sediment concentrations and loads. Our measurements are collected using hydrologic flumes equipped with automated water samplers located where runoff water exits the field (see next page). We are also monitoring monthly changes in ground water depth and quality (nitrate-nitrogen and orthophosphate) using shallow wells installed to a depth of 15 feet. We are collecting data on 14 fields at seven locations across Iowa; each location has paired treatment (with prairie strips) and control (without prairie strips) fields.

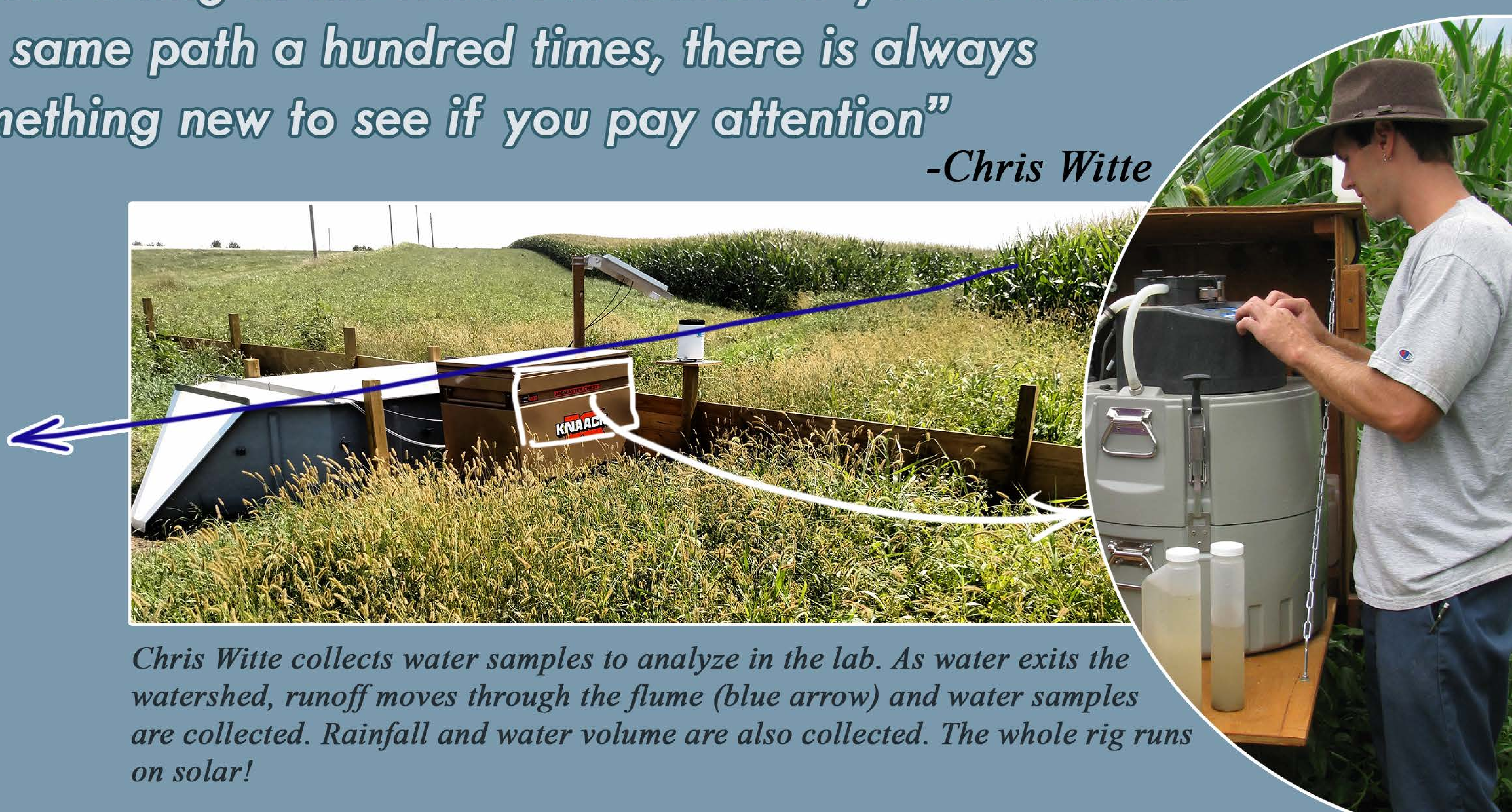
In 2019, we were able to get into the field early thanks to warm spring temperatures, and began runoff monitoring the first week of April. The previous two years we weren't able to begin until the end of April, a pattern we will be returning to in 2020. While farmers and soil scientists generally think of runoff as a bad thing, we need it to do our work. We were excited there was enough runoff to collect at least one water sample at every location in 2019. The total number of samples collected was substantially greater than in 2016 or 2017, but less than 2018. Sorry, but we're hoping for lots of runoff again in 2020.

-Chris Witte
Assistant Scientist
ISU Agricultural and Biosystems Engineering

An example of a hydrologic flume at a control site (no prairie strips).

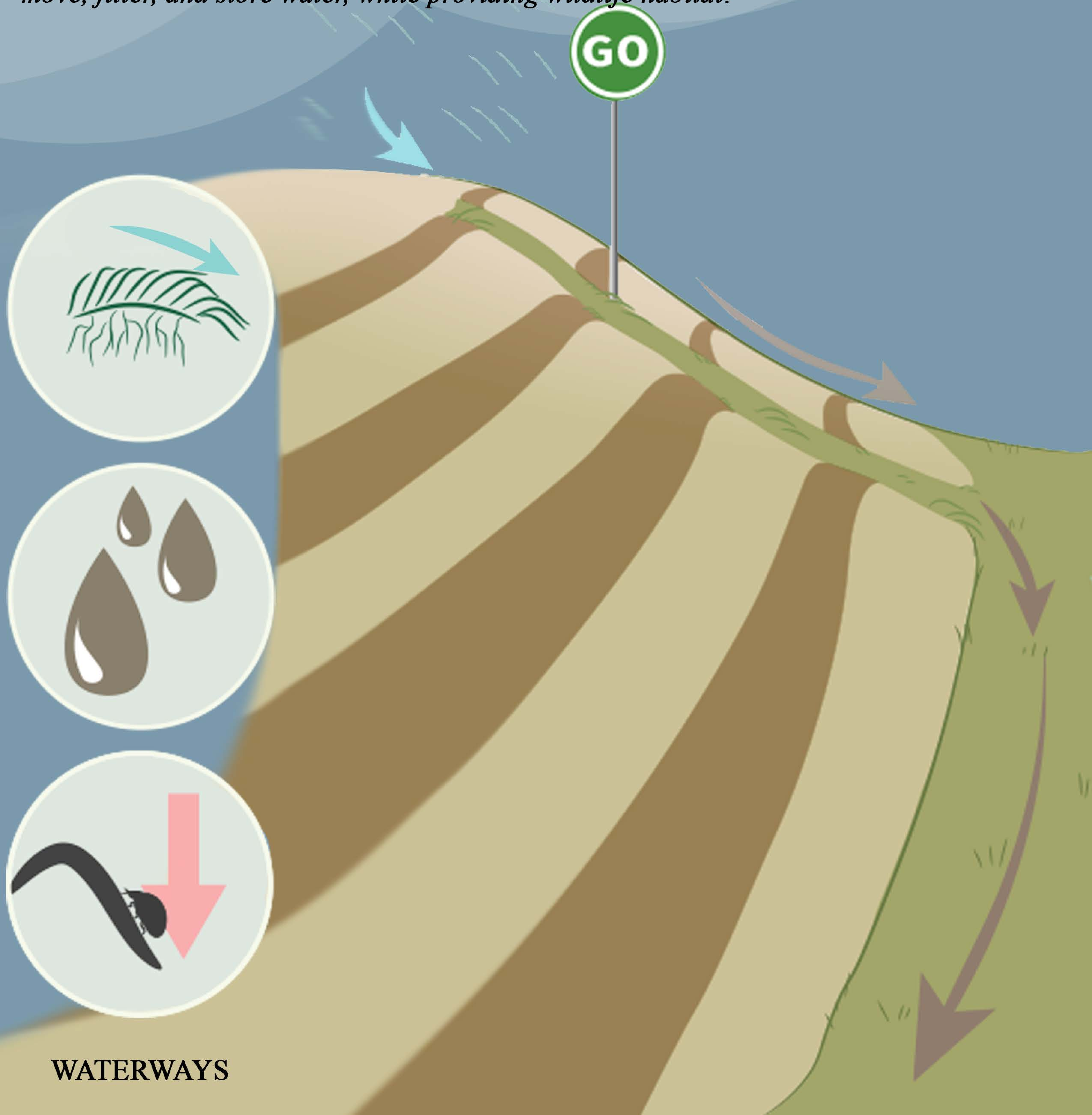
Figure 1. Example of a monitored site comprised of a catchment with prairie strips (treatment) and a catchment without prairie strips (control). This site is located at ISU's Armstrong research farm.

> "I love being in the field. No matter if you've walked the same path a hundred times, there is always something new to see if you pay attention"
>
> -Chris Witte



Chris Witte collects water samples to analyze in the lab. As water exits the watershed, runoff moves through the flume (blue arrow) and water samples are collected. Rainfall and water volume are also collected. The whole rig runs on solar!

This infographic was created by Katrina Ruff, an undergraduate at Iowa State in the Biological and Premedical Illustration program. Katrina was our design intern during the summer of 2019. This infographic demonstrates how prairie strips can work with waterways. Waterways are designed to convey water off of a crop field while prairie strips slow the movement of water and allow infiltration, due to the stiff, upright stems and deep roots characteristic of prairie vegetation. Prairie strips have a greater number of plant species and flowering plants that provide wildlife and pollinator habitat. Together, grassed waterways and prairie strips can move, filter, and store water, while providing wildlife habitat!



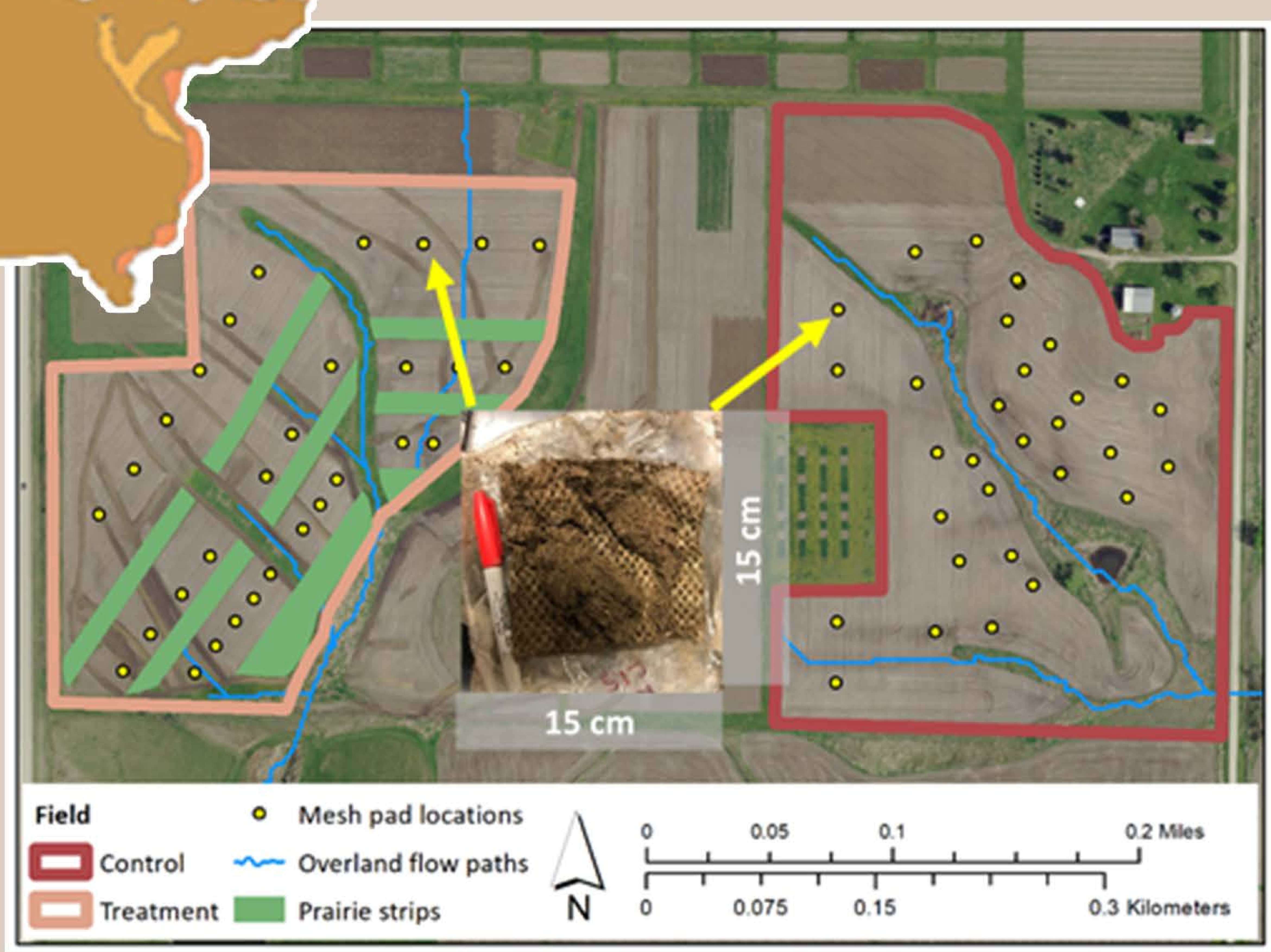
PRAIRIE STRIPS

RESEARCH SUMMARY

Managing soil in agricultural landscapes is essential for sustaining farming. Important processes occur within the soil that support farming and regulate overall watershed health, including nutrient cycling, maintenance of structure to support the crop and its root system, and water infiltration and storage. This study was intitiated in 2016 throughout Iowa to improve our understanding of how prairie strips affect in-field soil movement. The methods of this study are relatively unique and provided valuable information on where the soil is being intercepted and deposited. Sixty 15 x 15-cm mesh pads were pinned to the soil surface within each paired watershed site following a method described by Hsieh et al.(2009), with 30 mesh pads distributed in the control field (prairie strips absent) and 30 mesh pads in the treatment field (prairie strips present). The farm management of the paired control and treatment sites were the same. A total of 11 paired watershed sites were studied in 2019 (map of Iowa below). The pads were placed above the top strip (top slope), between the strips (mid-slope), and below the prairie strip system (foot slope) (bottom right image). Soil collected on each pad was weighed to determine soil movement per acre per day and per inch of rain throughout the growing season (April-August).

-Jessica Nelson
Graduate Student
Agronomy Department

11 paired watershed sites across several landforms in Iowa.



Distribution of mesh pads in paired treatment and control fields.

FIVE STEPS TO MEASURING IN-FIELD SOIL MOVEMENT

with Jessica Nelson

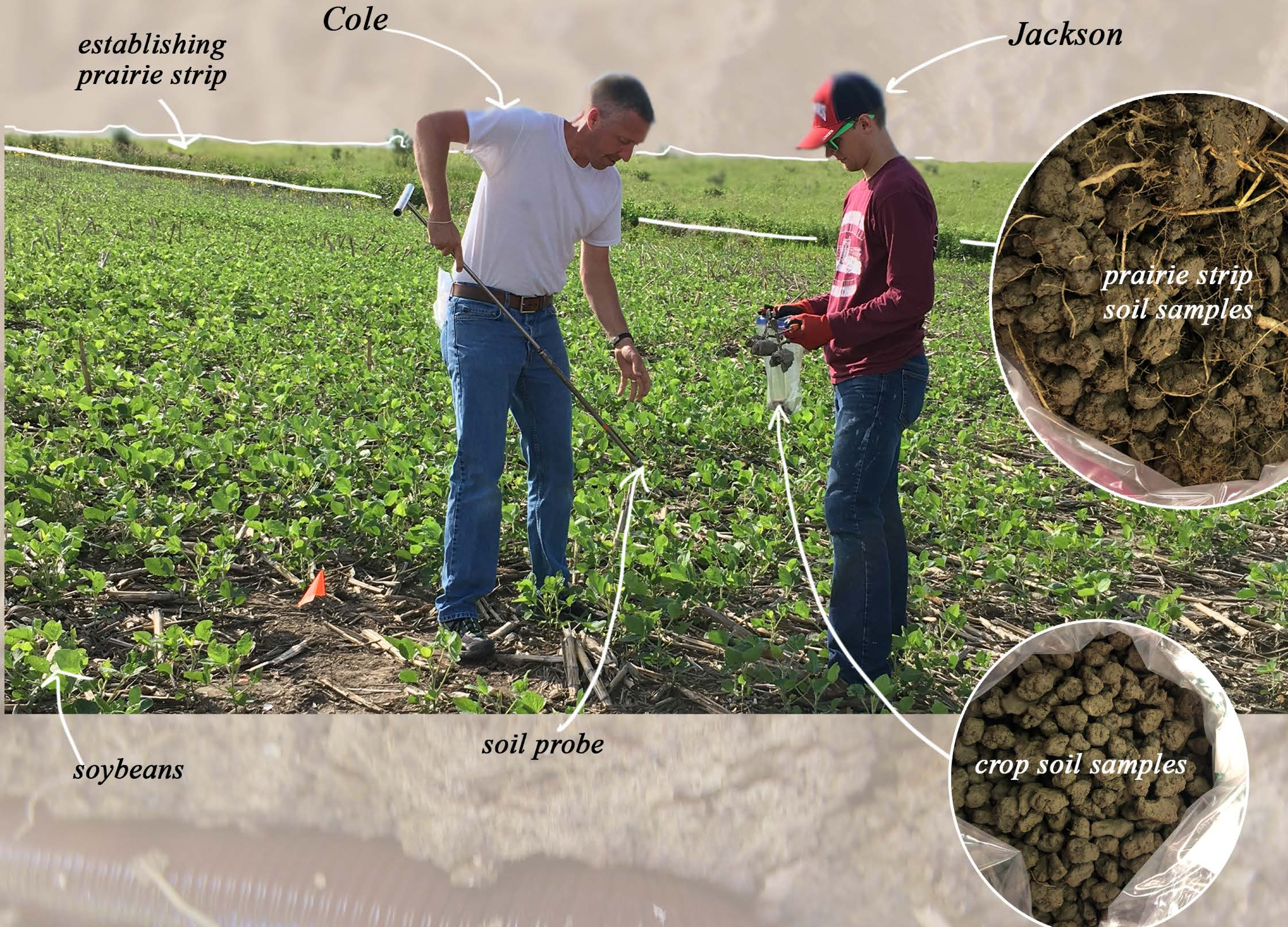
How it works: this mesh pad collects the soil from runoff

SOIL HEALTH

RESEARCH SUMMARY

We are curious whether prairie strips have an effect on surrounding soil and crop health within a field. We are asking several questions: 1) what effect do prairie strips have on soil health directly under the prairie vegetation; 2) what effect do prairie strips have on the surrounding soil under cropland; and 3) what effect do prairie strips have on the adjacent crops? To answer these questions we are collecting soils under the 12-year old prairie strips at the Neal Smith Wildlife Refuge in Prairie City, Iowa and we're also collecting soil from the surrounding cropped portion of the field as far as 30 feet away. We will be measuring the effect of prairie strips on soil fertility, abundance and activity of soil microbes, and other indicators of soil health. In addition, we're measuring crop health and yield.

-Cole Dutter and Marshall McDaniel
Graduate Student and Assistant Professor
Agronomy Department



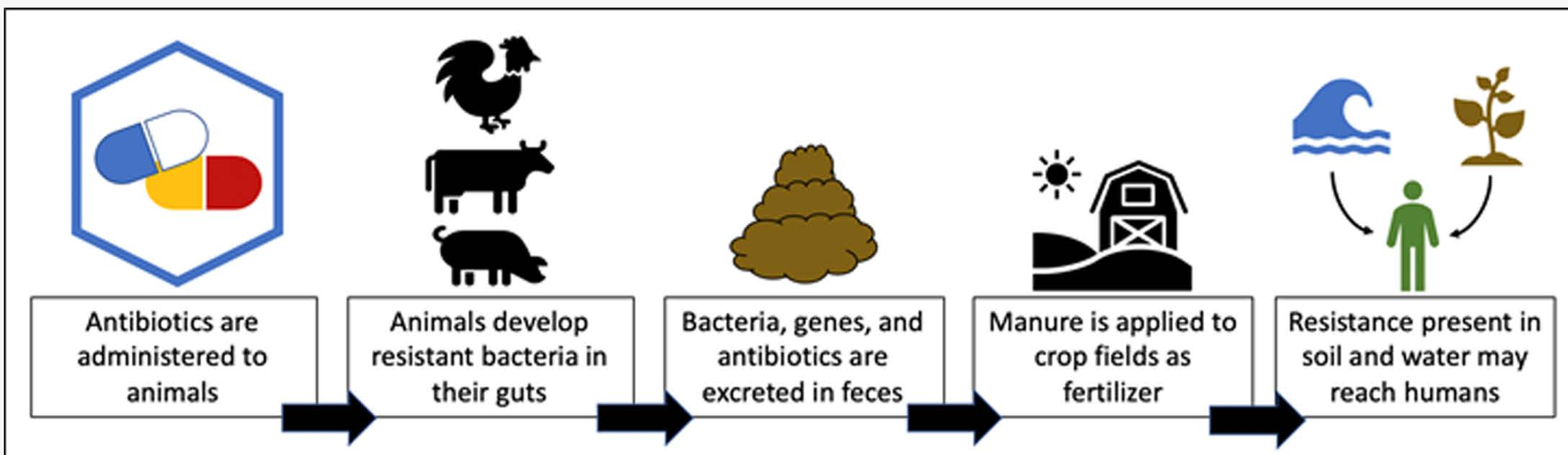
Measuring soil depth on a soil core.

Bagging up a soil core sample taken by a hydraulic-powered soil probe.

RESEARCH SUMMARY

The STRIPS team is conducting several studies to understand whether prairie strips may impact antimicrobial resistance (AMR). Antimicrobial resistance is the ability of microorganisms (bacteria, fungi, viruses, and parasites) to survive and grow in the presence of an antibiotic or other antimicrobial drug to which it was once susceptible. As a result, medicines previously used to treat these potential pathogens become ineffective, threatening our ability to treat infections. The emergence of antimicrobial resistance is a global threat to public health. We are curious whether prairie strips attenuate the spread of AMR from manure. We're answering this question on several levels: 1) by applying manure to soil adjacent to prairie strips and performing rainfall simulations to track bacteria and antibiotic resistant genes over time; 2) by incubating prairie strip soil and crop soil mixed with manure that's been spiked with antibiotics; and 3) with a hydraulic flume that evaluates the mitigation of antimicrobial resistance from manure-amended crop fields with prairie strips. We will be continuing to analyze our samples using genetic techniques.

-Laura Alt, Andrew Craig,
Jared Flater, Alyssa Iverson
Graduate Students
Agricultural and Biosystems Engineering

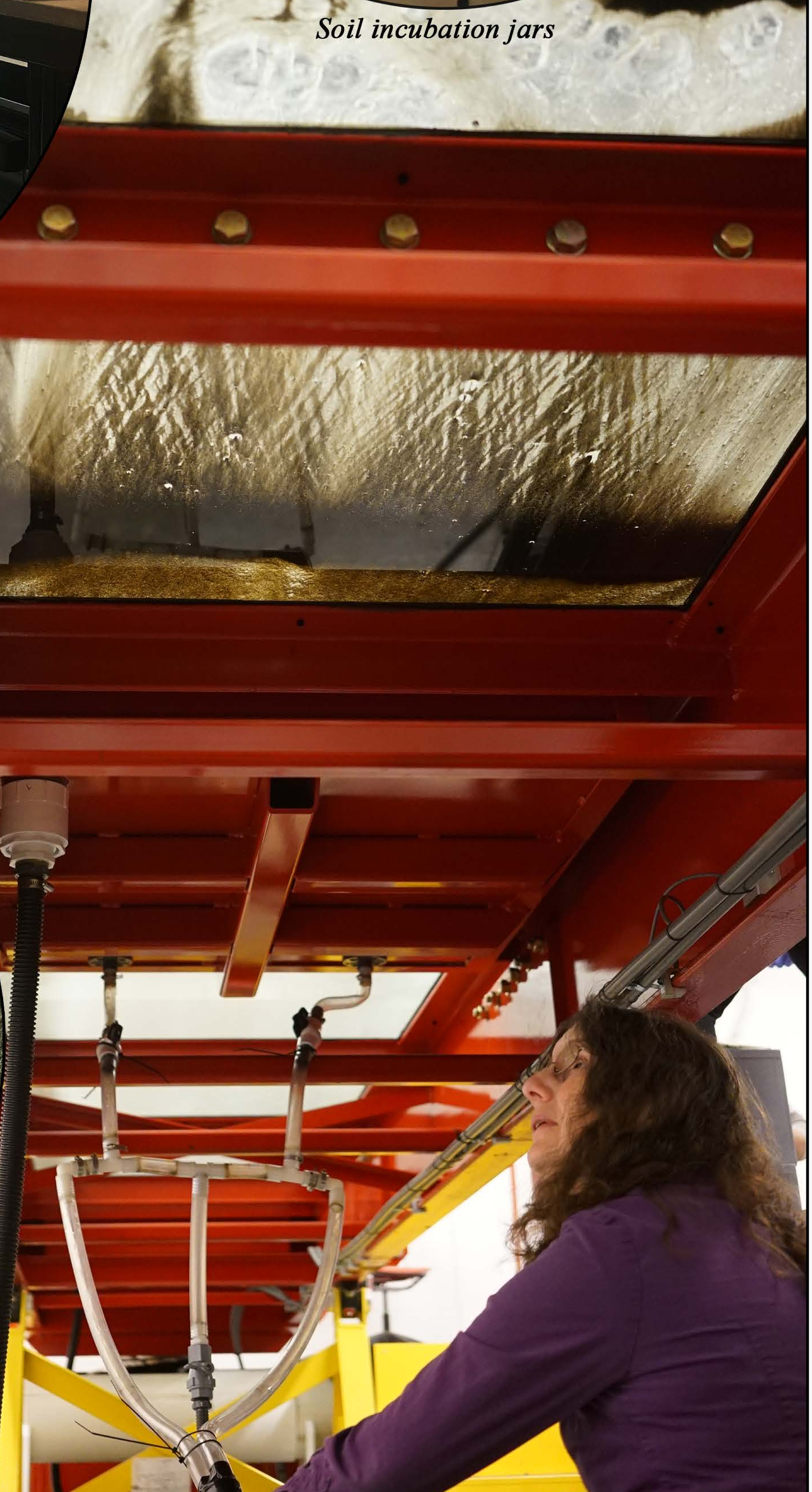


Antibiotic resistance movement to and from agricultural fields.

An assembled rainfall simulator in the field (above) and in the lab (right).

Soil incubation jars

Laura Alt prepping manure samples.



Jared Flater enjoying his work!

Leigh Ann Long taking samples underneath the hydraulic flume.

Andrew Craig and company extract a prairie strip in the field.

Extracted prairie strip ready for transport back to the laboratory.

Laura Alt taking samples from the hydraulic flume.

Laura Alt, Alyssa Iverson, and Leigh Ann Long preparing to take samples during a flume run.

RESEARCH SUMMARY

We continued our monitoring of the vegetation within prairie strips in 2019 to track the health of these plantings. We re-sampled the vegetation on the 21 farms we visited in 2018 and added another 5 farms in 2019. At each sampling point we recorded the identity and percent cover (%) of all the species present in a rectangular quadrat. Because the vegetation canopy can have multiple layers, the total percent cover in a given quadrat often exceeded 100%. During the summer of 2019 we found 91 prairie, 89 weedy, and 12 woody species across all sites.

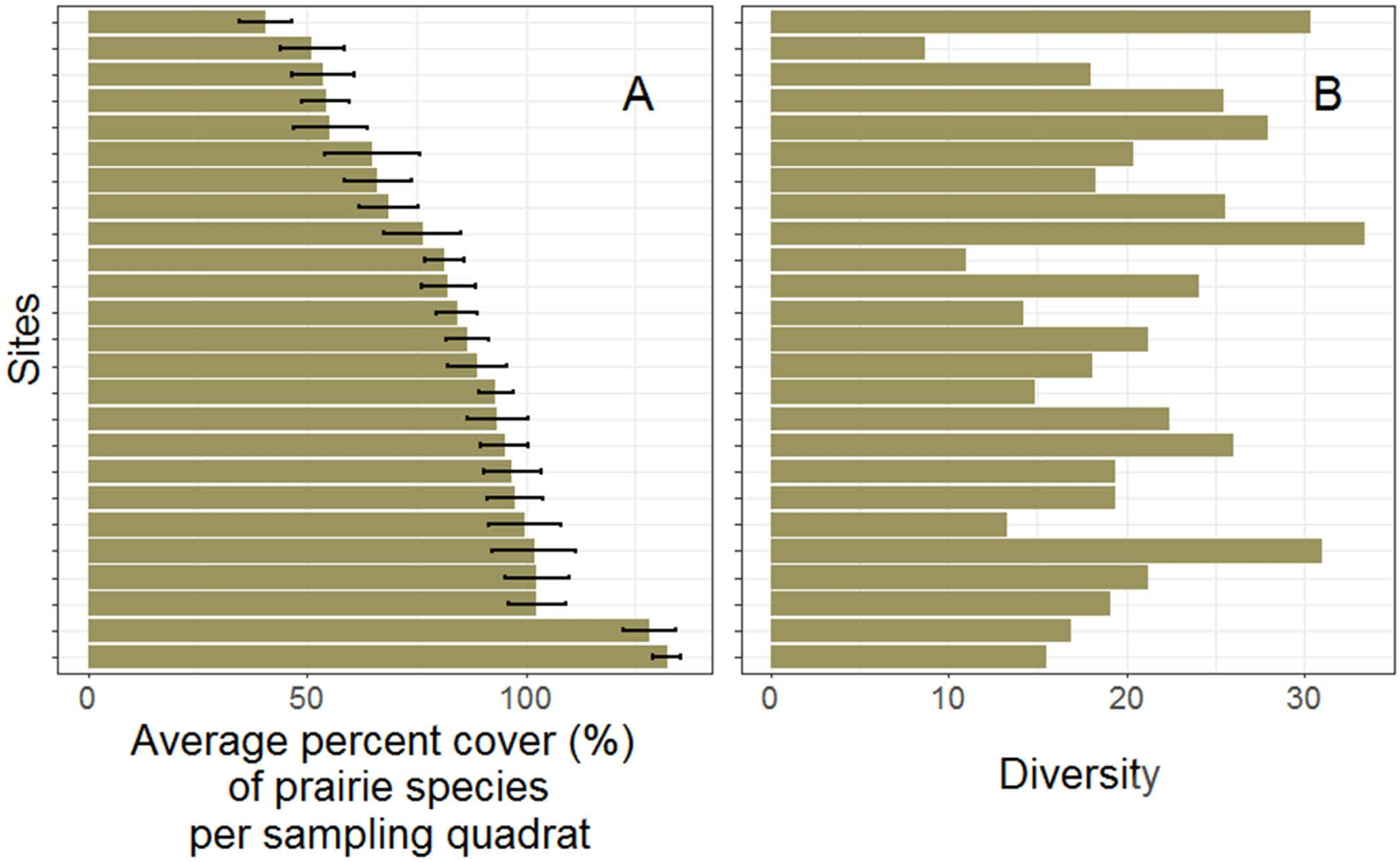
PRELIMINARY RESULTS

We found that both the percent cover of prairie species and the diversity of the stand, two metrics we deem important in assessing the quality of the vegetation in the prairie strips, varied across sites. Importantly, these two metrics were not positively correlated with each other. In other words, sites that had a more consistent cover of prairie vegetation in 2019 (higher average cover per quadrat), were not necessarily the most diverse. We also found that sites that had been sown with a more diverse seed mix, on average, had a more diverse vegetation stand Six of the sites we visited in 2019 had been sown with the same seed mix. When we controlled for the diversity of the seed mix by examining these sites only, we also found that the season a site was planted affected the cover of prairie forbs and weedy species. Fall plantings had more forbs than summer plantings; spring plantings resulted in forb cover intermediate between that of fall and summer plantings, and spring plants resulted in forb cover intermediate between that of fall and summer plantings. Weed cover was greatest with summer planting and least with fall or spring planting.

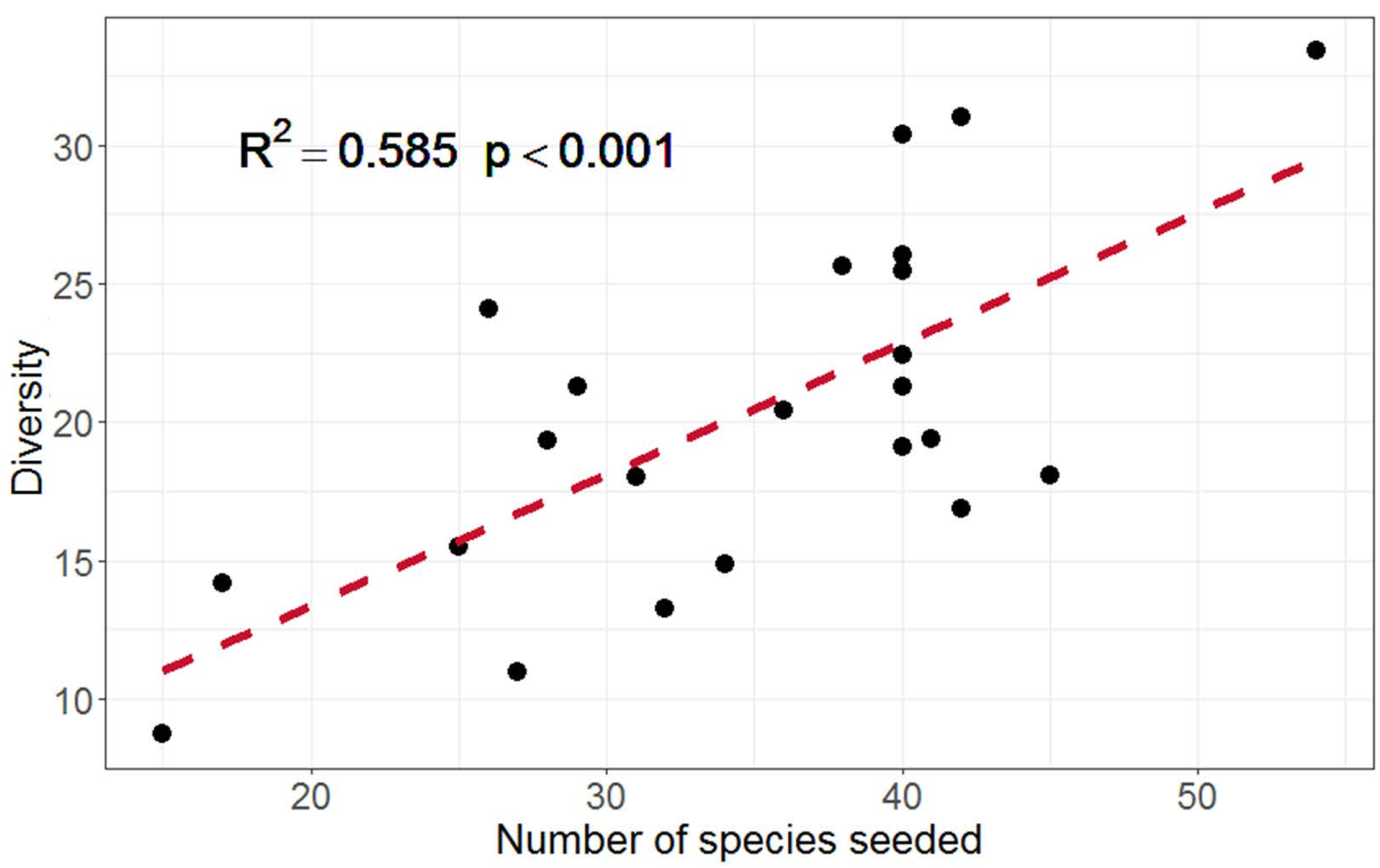
-Lydia English and Matt Liebman
Graduate Student and Professor
Agronomy Department

Lydia English and Elizabeth Oys sample vegetation.

"I love working with farmers & landowners who are excited about conservation and prairie strips! I'm inspired by their land stewardship and love for the prairie"

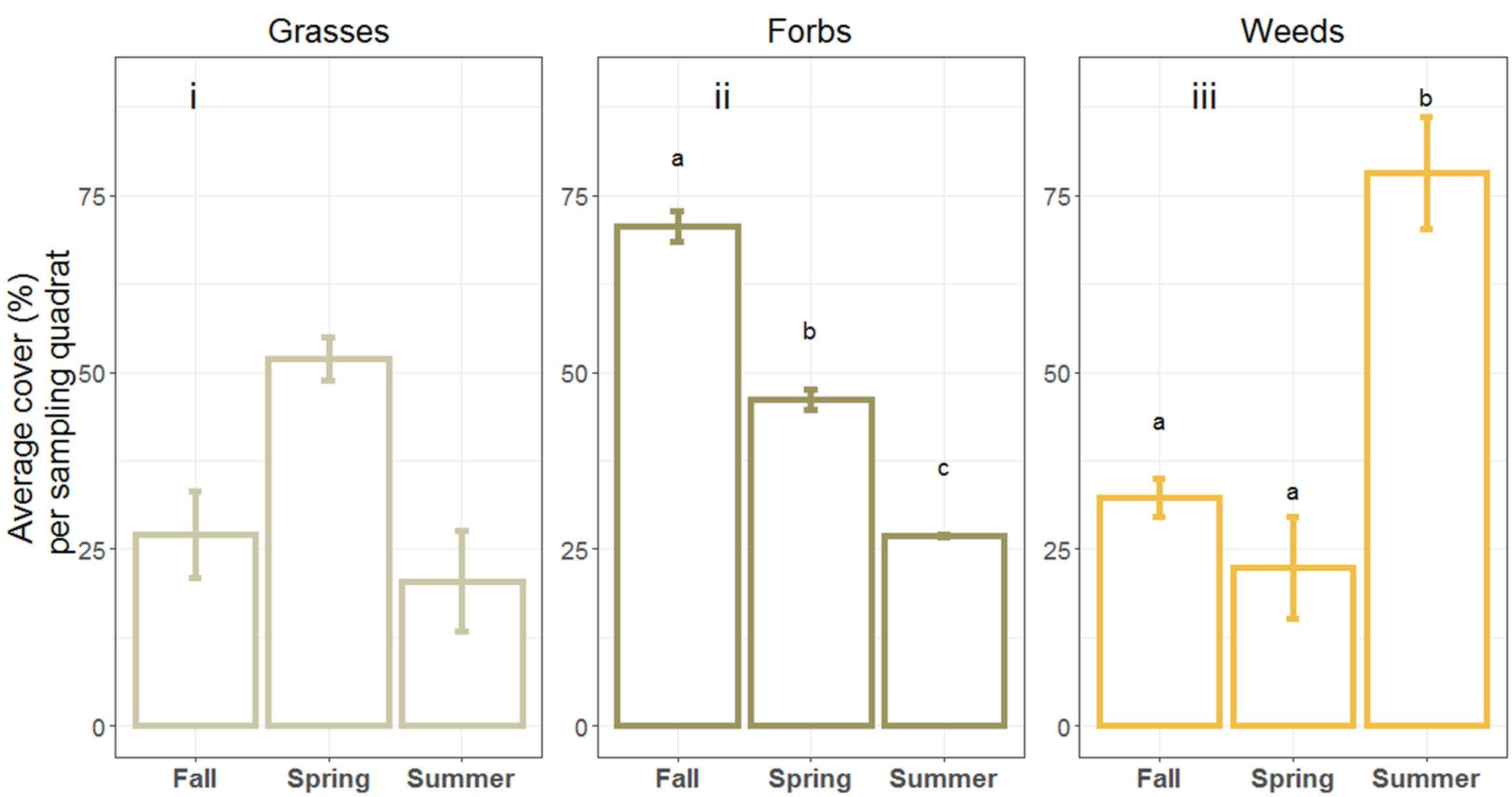


The average cover of prairie species per sampling quadrat at each site (A). Bars indicate standard errors. The diversity at each site (B). The order of sites is preserved between panels (A) and (B). Sites with the highest cover of prairie species per quadrat were not necessarily those with the highest diversity.



Relationship between the richness of the seed mix and the diversity of a site. On average, as sites were seeded with more species they were more diverse.

A beautiful day to sample prairie vegetation. O'Brien County, Iowa. Photo by Lydia English.



Cover by prairie grasses (i), prairie forbs (ii), and weedy species (iii) as a function of the season in which a site was seeded. The same seed mix was used in all sites (n=6). Lowercase letters above bars indicate significant differences between seasons in which prairie was planted ($p < 0.05$).

Lydia English and Elizabeth Oys identifying plant species.

Waterways working alongside prairie strips as Lydia English and Elizabeth Oys sample vegetation.

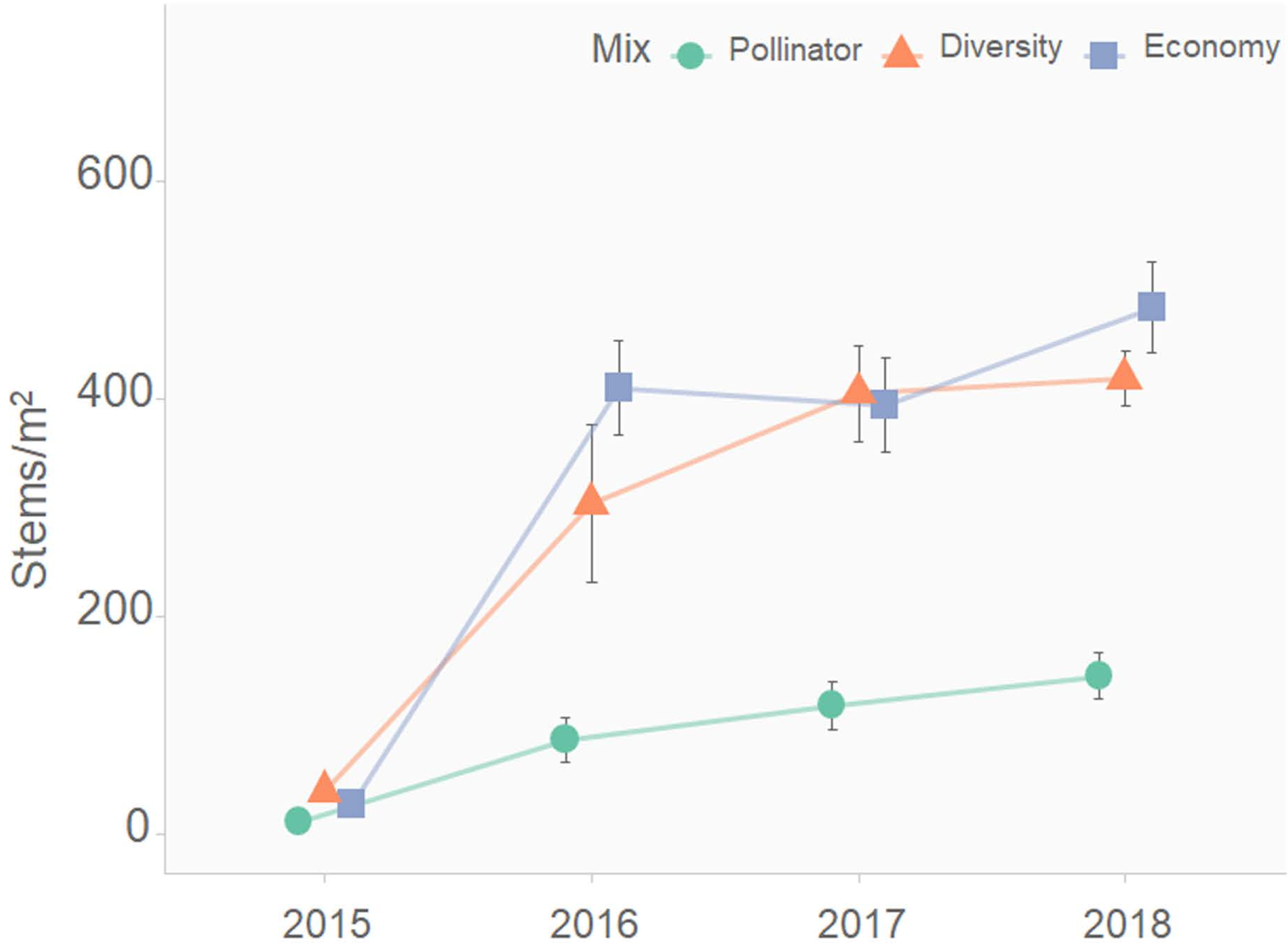
RESEARCH SUMMARY

The need to accelerate ecosystem service restoration while dealing with dwindling implementation resources makes increasing cost effectiveness in prairie reconstruction essential. One way to boost cost effectiveness could be to balance multiple ecological benefits at once at each site, rather than focusing on single services spread out among many sites. At the Tallgrass Prairie Center, we asked: 1) whether prairie strips can effectively provide three ecosystem services as measured by vegetation metrics (erosion control, weed resistance, and pollinator resources), and 2) whether seed mix design and establishment mowing influence the degree of service provision. To answer our questions, we established a field experiment at the ISU Northeast Research and Demonstration Farm. Our experiment assessed two mowing treaments (mow/no-mow) and three seed mix treatments that varied primarily in grass-to-forb ratio. We planted a forb dominated pollinator mix which was high cost, a grass and forb balanced diversity mix which was moderate cost, and a grass-dominated economy mix which was low cost. We collected data from 2015-2018, and measured perennial weed cover, stem density of planted native species, and inflorescence production over the four year period.

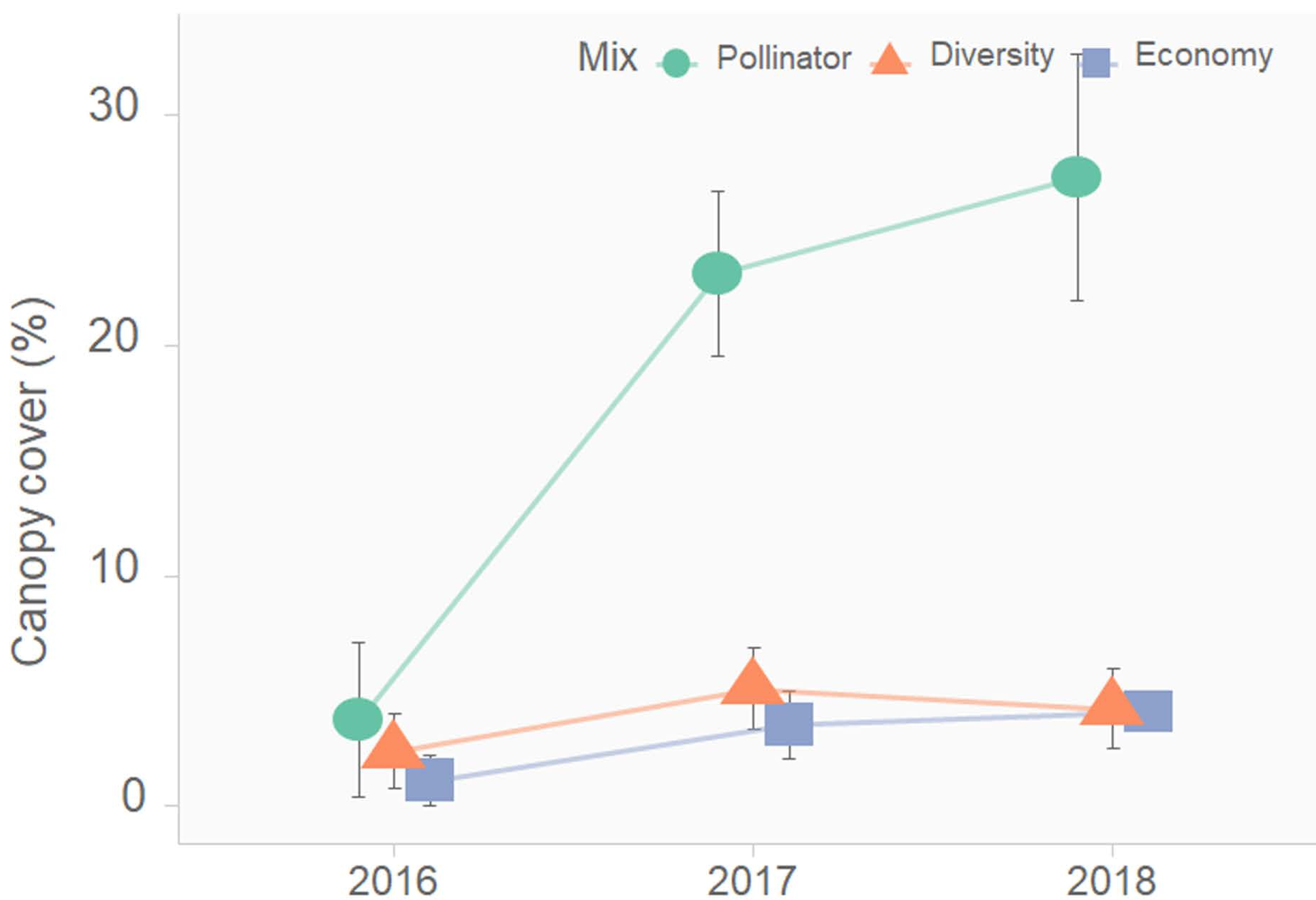
RESULTS

Seed mixes varied in the way they provided ecosystem services, and establishment mowing generally benefited service provision. Native stem density, a proxy for erosion control, was highest in the economy and diversity mixes, but comparatively low in the forb-dominated pollinator mix. The forb-dominated pollinator mix was easily invaded by weeds like Canada thistle and quackgrass, whereas the other mixes minimized weed invasion. For pollinator resources, the forb-dominated pollinator mix performed the best, the economy mix performed the worst, and the diversity mix was somewhere in-between. Ultimately, the balanced diversity mix was most multifunctional. Comparing cost effectiveness among seed mixes, we found that the cost to produce 1,000 native stems was lowest in the economy and diversity mixes and much higher in the pollinator mix. Conversely, the cost to produce 1,000 inflorescences was lowest in the pollinator mix, and highest in the economy mix, with cost-effectiveness of the diversity mix in-between. First year mowing generally increased pollinator resources and accelerated native establishment, but the effects faded over time. Diverse seed mixes with a balanced ratio of forbs and grasses (focused on mid-height, bunching grasses and limiting tall, aggressive grasses) are highly muntifunctional while remaining cost-effective. Seed mixes for prairie strips that reflect these seed mix design principles can be generated at tallgrassprairieseedcalculator.com. First year prairie plantings should be mowed to accelerate ecosystem service provision, especially in 10-15 year CRP contracts.

-Justin Meissen
Research and Restoration Program Manager
University of Northern Iowa
Tallgrass Prairie Center



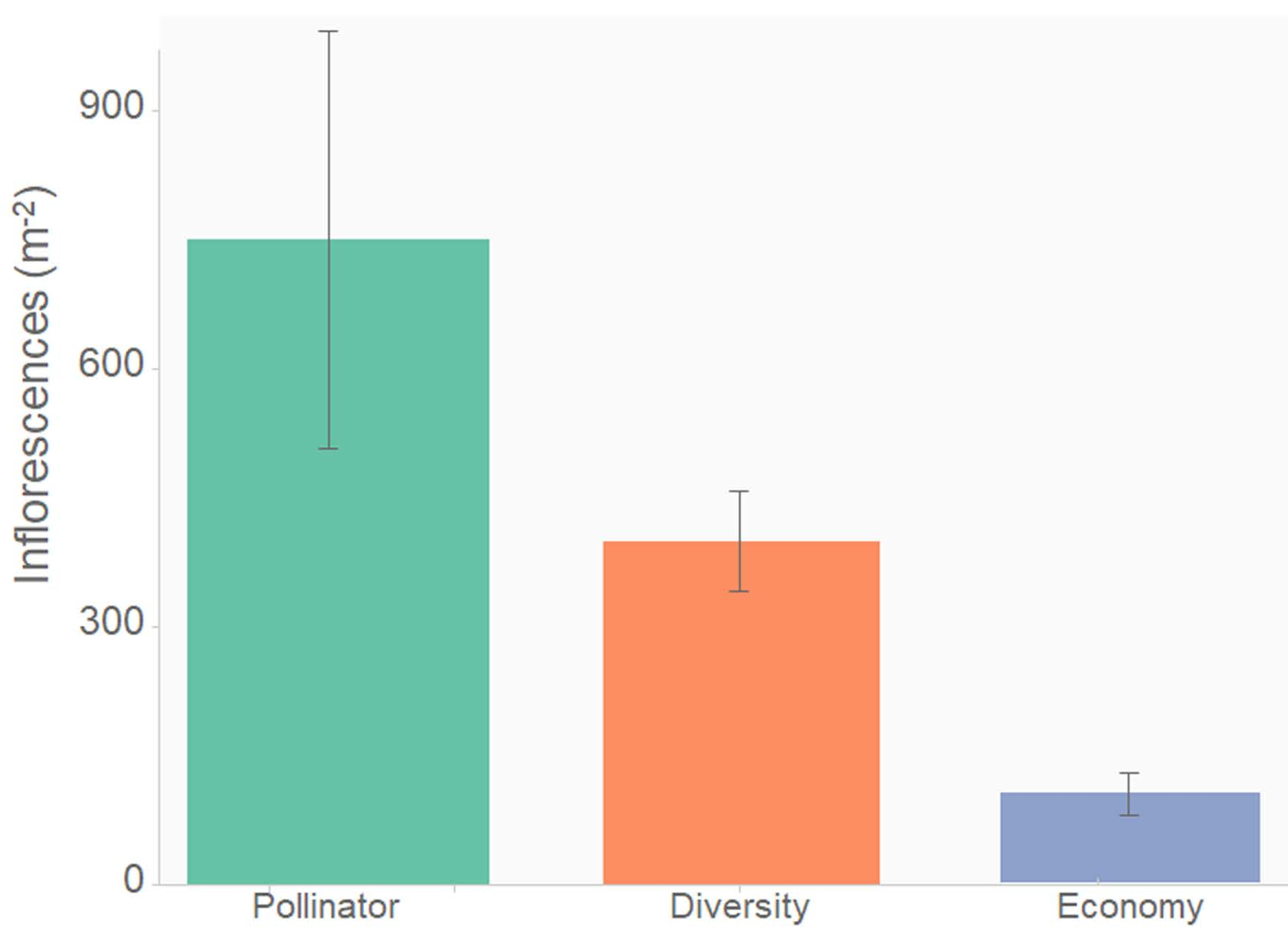
Differences in native species richness, native grass stem density, and native forb stem density between seed mixes. Values presented are annual averages (± 1 standard error).



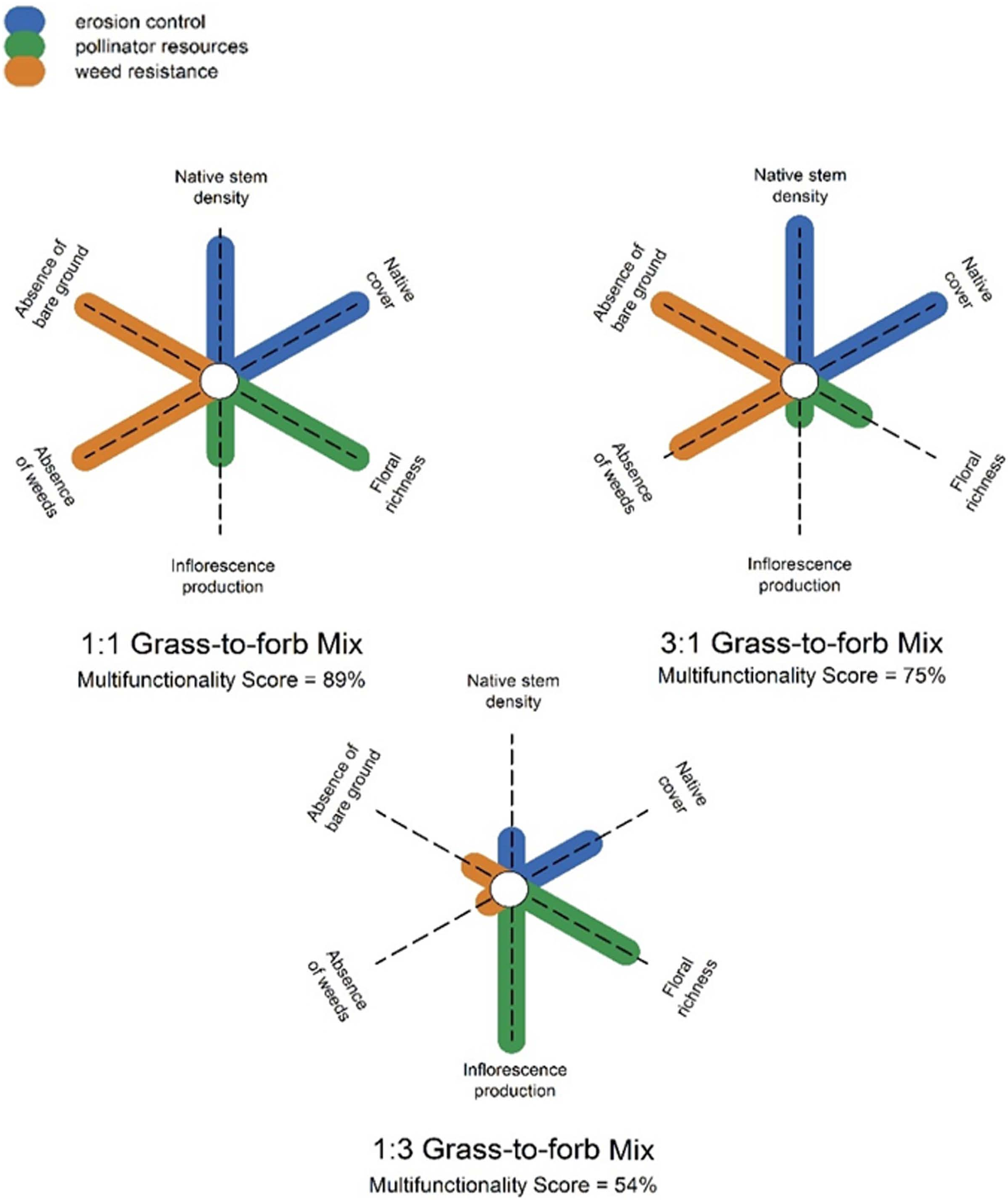
Differences in perennial weed cover between seed mixes. Values presented are annual averages (± 1 standard error).

On page 18: seed photos by Justin Meissen. Prairie and bumblebee photos courtesy of Carl Kurtz.

Study site photo during early establishment (year two). Mowed prairie is to the left of the marking pole, unmowed prairie is to the right of the pole.



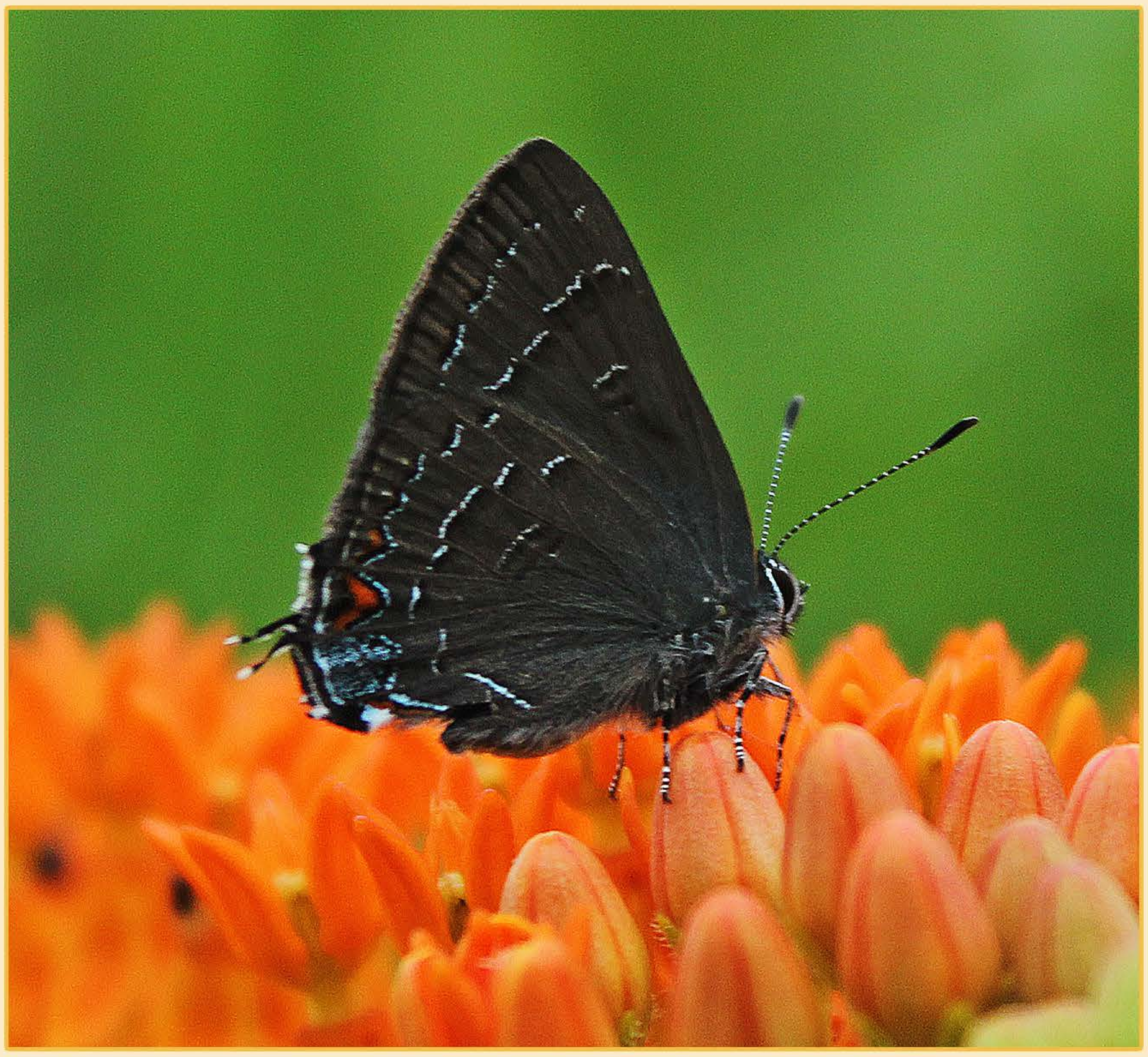
Differences in cumulative inflorescence production (2016-2018) between seed mixes. Values presented are the average cumulative inflorescence production (± 1 SE) in a given treatment combination.



"Multifunctionality flowers" depicting the relative abilities of each seed mix to provide ecosystem services. The seed mix with the highest value for each variable was scored as a 1.0 and other seed mixes were scored as a relative proportion of that total. For clarity, we present each seed mix multifunctionality score as a percentage out of 100.

A diverse mix of prairie seeds. Photo by Justin Meissen.

The STRIPS Team was featured in the news over 100 times in 2019 including features in Audubon, The Washington Post, BBC and National Public Radio. We were also featured on this clever cover of Little Village Magazine for their 266th issue. Image courtesy of Little Village Magazine.



Banded hairstreak on butterfly milkweed. Carl Kurtz.

Bumblebee on prairie clover. Carl Kurtz.

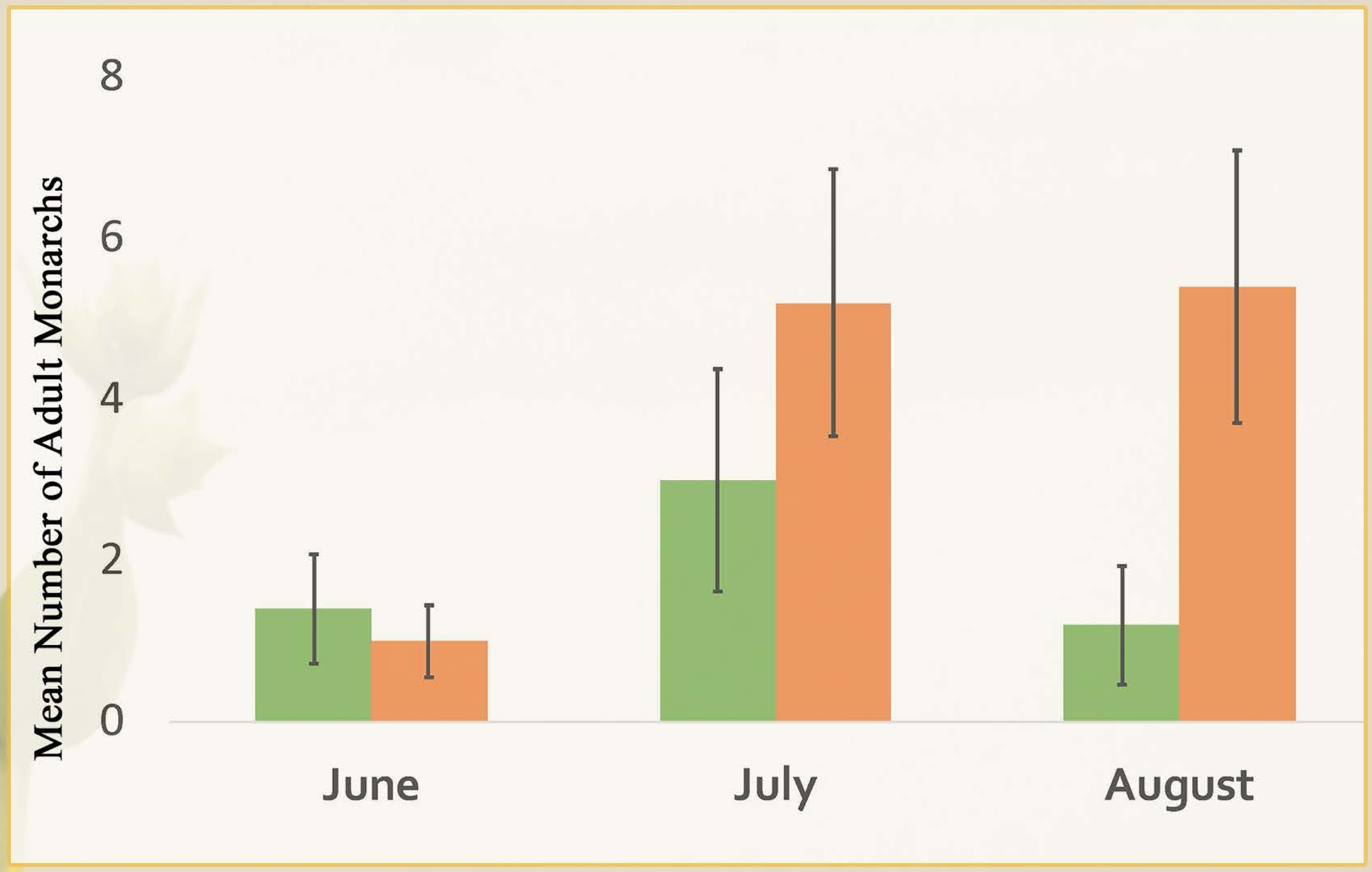
This photo of a prairie strip in Tama County, Iowa, gained national attention in 2019. Beautiful and functional.

RESEARCH SUMMARY

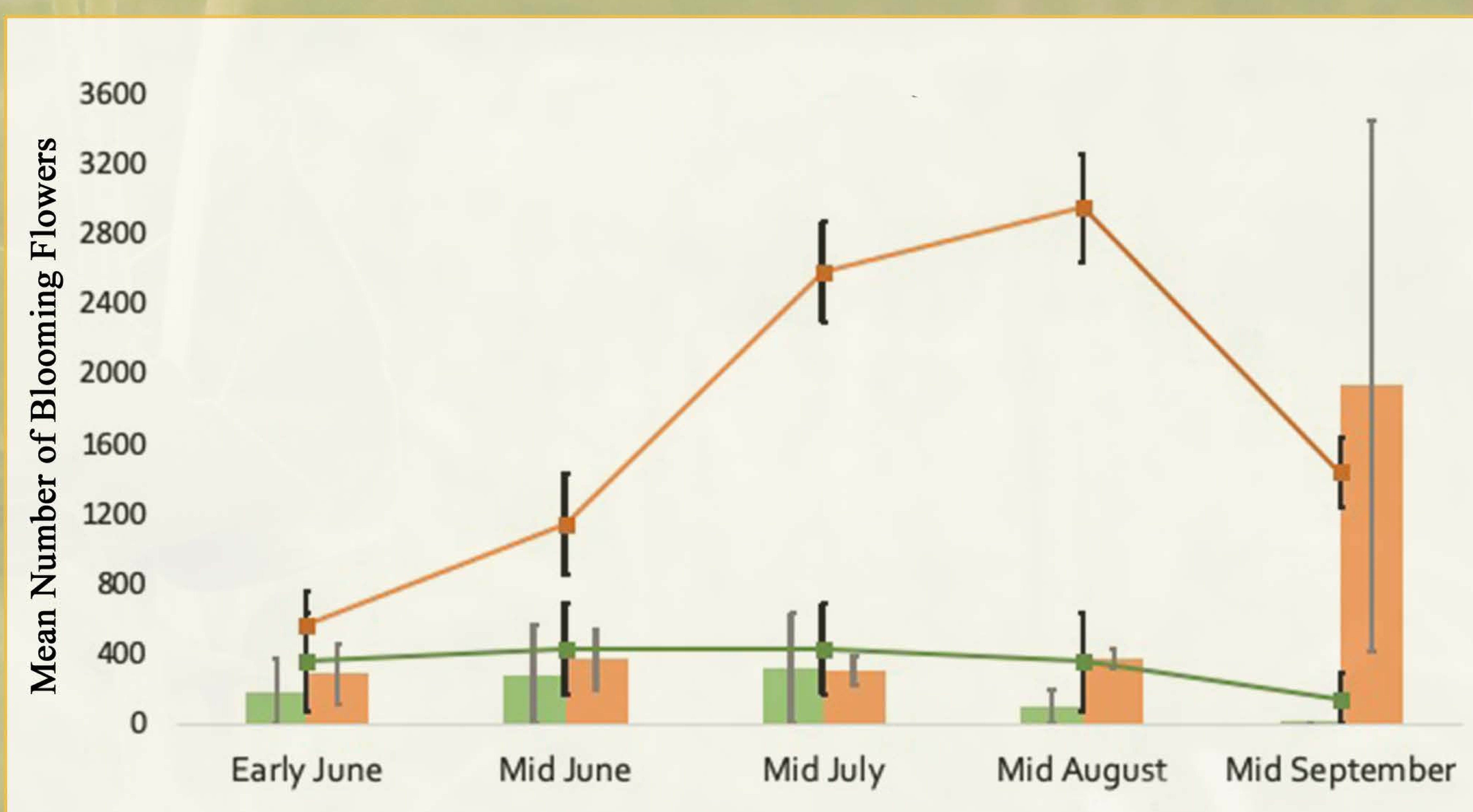
My research within the prairie strips project focuses on the potential benefits of prairie strips in agricultural fields on pollinator abundance, specifically monarchs, native bees, and hover flies. I collected data in 2018 and 2019 at sites with prairie strips and sites with grassed waterways or road ditches directly adjacent to corn or soybean fields. During each monthly survey I counted monarch adults, larvae, and eggs as well as milkweed stems, and number of blooming flowers (by species). In 2019, I observed more adult monarch butterflies at prairie strips sites in August, with no difference observed in June and July. I also observed significantly more blooming flowers in the late summer months at prairie strips sites. I'm looking forward to identifying more native bees that I've collected in pan traps!

-Caroline Murray
Graduate Student
Natural Resource Ecology and Management

A wild bee foraging on Monarda in a prairie strip (above) and a bee hive sits in a prairie strip (right). Photos by Caroline Murray.



We observed more adult Monarchs at prairie strip sites in August.



Prairie strip sites had more late summer forage for pollinators.

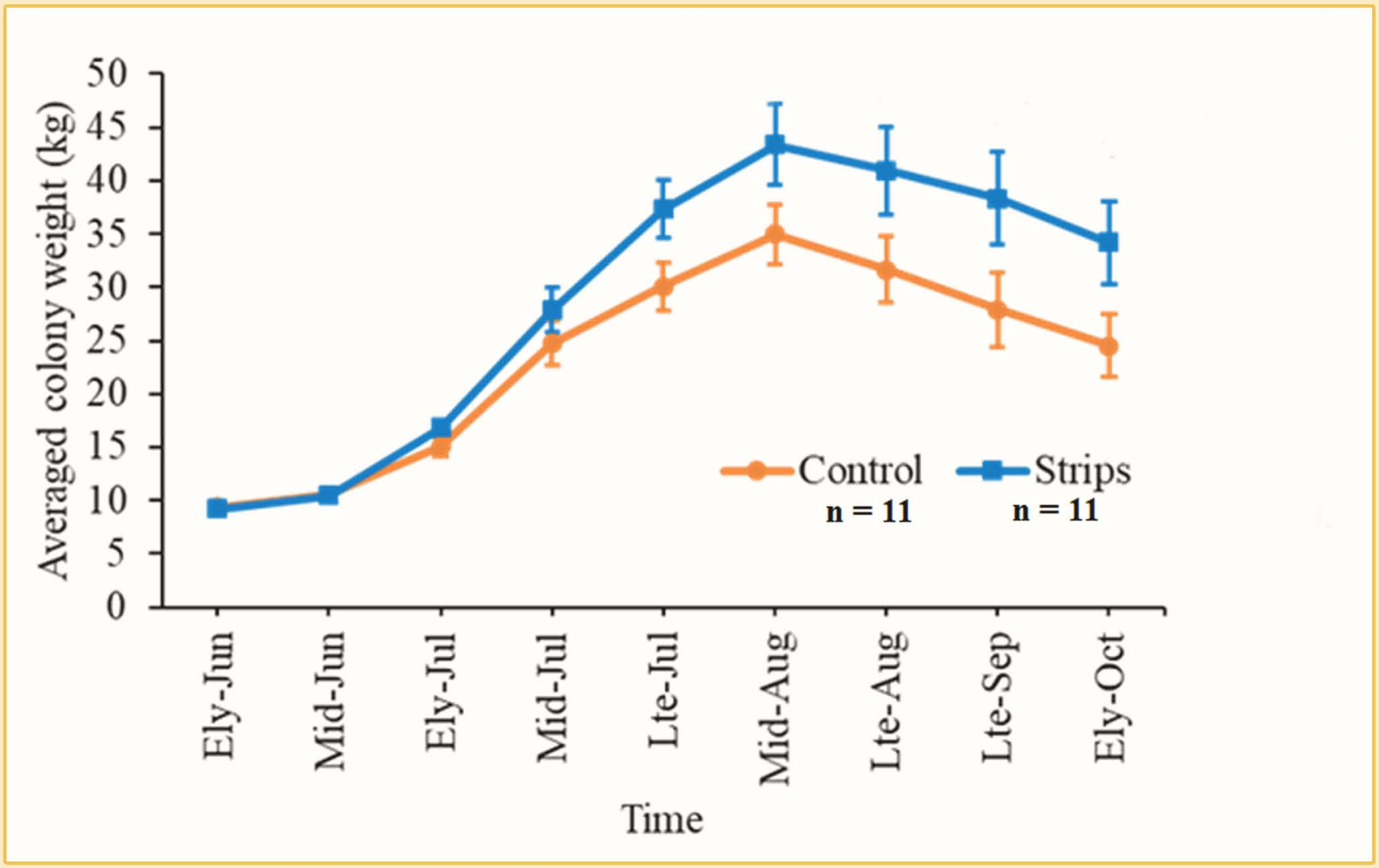
RESEARCH SUMMARY

I have worked on our honey bee health project for the last three years. I placed honey bees in crop fields with prairie strips and crop fields without prairie strips. I monitored hive weight, population growth, forage collection, and other bee health metrics throughout the growing season. I monitored the overwinter mortality over the winter of 2019-2020 and post-winter bee populations in April 2020. I have observed prairie strips can produce heavier colonies and bigger bee populations and more forage for honey bees. I anticipate that honey bees that have access to prairie strips in summer will have bigger post-winter populations. In 2020 I will be studying if colonies in prairie strips will be healthier than those in locations selected by beekeepers.

-Ge Zhang
Graduate Student
Entomology Department

"I love honey bees!"

Ge Zhang and company conduct colony counts in a prairie strip (above).
A queen bee (marked green) on a honeycomb (right).



Honey bee colonies were heavier in prairie strips.

Honey bees cover a beehive frame as a researcher assesses the health of the honey bee colony.
Photo by Gracie Rechkemmer.

RESEARCH SUMMARY

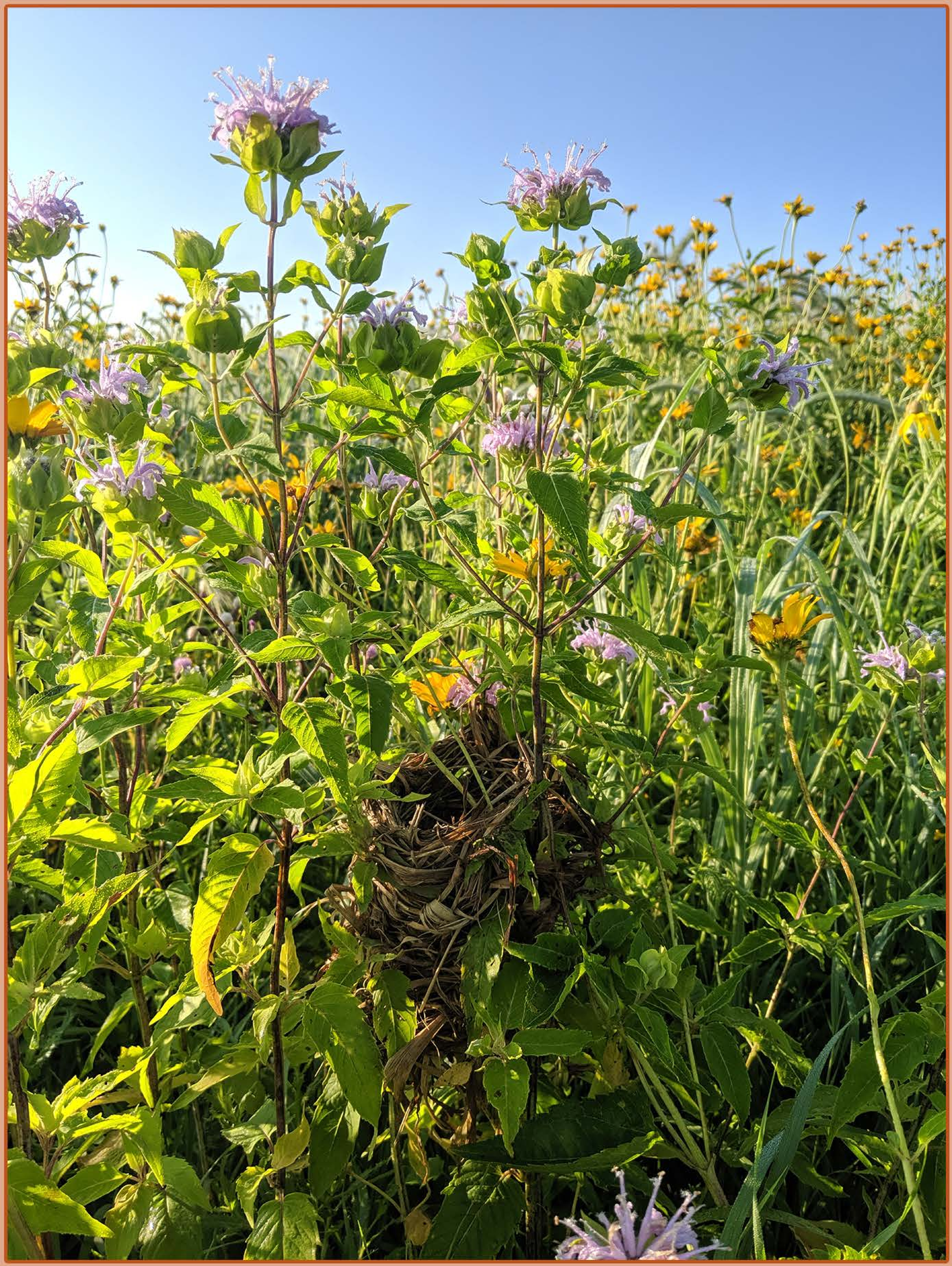
During the summer of 2019, undergraduate students in the Landscape Ecology and Sustainable Ecosystem Management Lab and I conducted bird point counts at nine commercial farms across the state of Iowa. At each point count station during a five minute period, an observer identified species and estimated the distance to each bird seen or heard on the landscape. We used the distances to each individual to help estimate an overall abundance of birds in fields with and without prairie strips. In the winter of 2019, we launched a pilot study to investigate pheasant habitat use and movements at a strips farm in Wright County. This winter we have expanded the project to two additional sites in Grundy and Tama Counties. Each pheasant was fitted with a GPS collar to monitor movements and habitat use.

After unsuccessful attempts to catch pheasants in 2018, we went back to the drawing board and put together some different capture methods. We caught our first bird in January of 2019. I can still remember the adrenaline rush of seeing the pheasant hen in the trap! I'm excited to continue our efforts into 2020 to further understand how prairie strips impact birds.

-Jordan Giese
Graduate Student
Natural Resource Ecology and Management

A Red-winged Blackbird.
Photo courtesy of Carl Kurtz.

Jordan with a pheasant hen.



Red-winged Blackbird nest in a prairie strip.
Photo by Matt Stephenson.

Common Yellowthroat nestlings in a prairie strip.
Photo by Matt Stephenson.

RESEARCH SUMMARY

Our crew searched for bird nests on farms with and without prairie strips; we also searched for nests on reconstructed prairies. When we find a bird nest, we estimate the age of the eggs or young, measure the vegetation around the nest, and take a precision GPS location. Previously discovered nests are revisited twice a week until they either succeed or fail. The length of time nests are active on average is then compared to the vegetation measurements we took to see if we can determine what vegetation and landscape variables affect nest survival rates. We also search for nests in predefined search plots for a set amount of time each week. The number of nests we find in each plot can be compared to determine relative densities of nests on the landscape. These densities are then compared to vegetation and landscape measurements for each plot to see if we can determine why some plots have more or fewer nests than others. In 2019, we had a great field crew consisting of myself, Kyla Yuza-Pate, Joseph McGovern, Kendall Bennett, Charli Miller, and Drake Fehring. We put many miles and lots of mud on our ISU vehicles as we searched for nests on eight sites around central Iowa. We found 313 new nests of 17 species, bringing our project totals to 1,604 nests of 30 species at 11 sites. Most of the nests we found belonged to Red-winged Blackbirds and Dickcissels, but we also found many Common Yellowthroat, American Robin, Meadowlark, and Brown Thrasher nests. We hope to be able to analyze nest survival for 6-8 species. 2019 was the last field season with a large nest searching crew visiting sites weekly. I am now into the final data analysis and writing phase of the nest survival and density project.

-Matt Stephenson
Graduate Student
Natural Resource Ecology and Management

Cedar Waxwing nest in a fencerow.
Photo by Matt Stephenson.

We spotted Eastern Kingbird nests this year!
Photo courtesy of Carl Kurtz.

RESEARCH SUMMARY

We've been studying how reptiles, amphibians, and small mammals occupy the agricultural landscape. We randomly distribute cover boards (2 ft x 4 ft sheets of plywood) in perennial vegetation on farms and prairies. Animals take temporary shelter under the boards, increasing our chances of finding them. Whenever we are near a cover board we turn it over and record the animals present. We can then compare the frequency of encountering each species to the shape (linear or block), area, and vegetation characteristics of the conservation feature each board is located in to determine what factors are most likely to predict the presence of species. In 2019 we checked cover boards at 13 sites around Iowa either weekly or monthly. Over the course of the year we turned boards 1,717 times and encountered two species of amphibians (American Toad and Western Chorus Frog) nine species of reptiles (Brown Snake, Common Garter Snake, Eastern Yellow-bellied Racer, Bullsnake, Plains Garter Snake, Lined Snake, Northern Prairie Skink, Prairie Ring-necked Snake, Western Fox Snake) and six species of small mammals (Deer Mouse, White-footed Mouse, Meadow-Prairie Vole, Least Shrew, Masked Shrew and Northern Short-tailed Shrew).

We will continue to visit sites with coverboards in 2020 to increase our sample size and provide more data for analysis. Hopefully we will be able to visit the sites further from Ames more often to broaden the contribution of sites that are not located on the Des Moines Lobe.

-Matt Stephenson

RESEARCH SUMMARY

We are developing a model to improve crop yield prediction from yield sensor data. The Rectangle construction, Intersection assignment, Tessellation, Apportioning, and Smoothing (RITAS) algorithm processes GPS-located yield measurements through a series of steps aimed at ameliorating many of the common issues facing these data; including equipment lag time, overlapping boundaries, extreme yield observations, and others while eliminating the need for user-supplied parameters. The algorithm is written in the open-source software, R, and is freely available for anyone to use. Using this algorithm on the same field from year-to-year will allow identification of subfield areas that consistently perform poorly and may have low profitability. Figure 1 shows the result of running the algorithm on one of our research sites in 2019. The concentric circles show where the prairie strips have been planted. The coloring provides a relative yield measurement with red indicating lower yield and green indicating high yield. Since profitability also depends on price and operating costs, the color red should not be interpreted as indicating a loss. Currently there is a relatively large reddish area between the two circles indicating this area has relatively low yield. We are eager to watch this area from year-to-year to see if this area diminishes in size and becomes more productive. If we had GPS-located yield measurements from before the prairie strips were introduced, we could evaluate the impact the prairie strips had on downhill locations. Perhaps next year we will have a series of maps showing this impact.

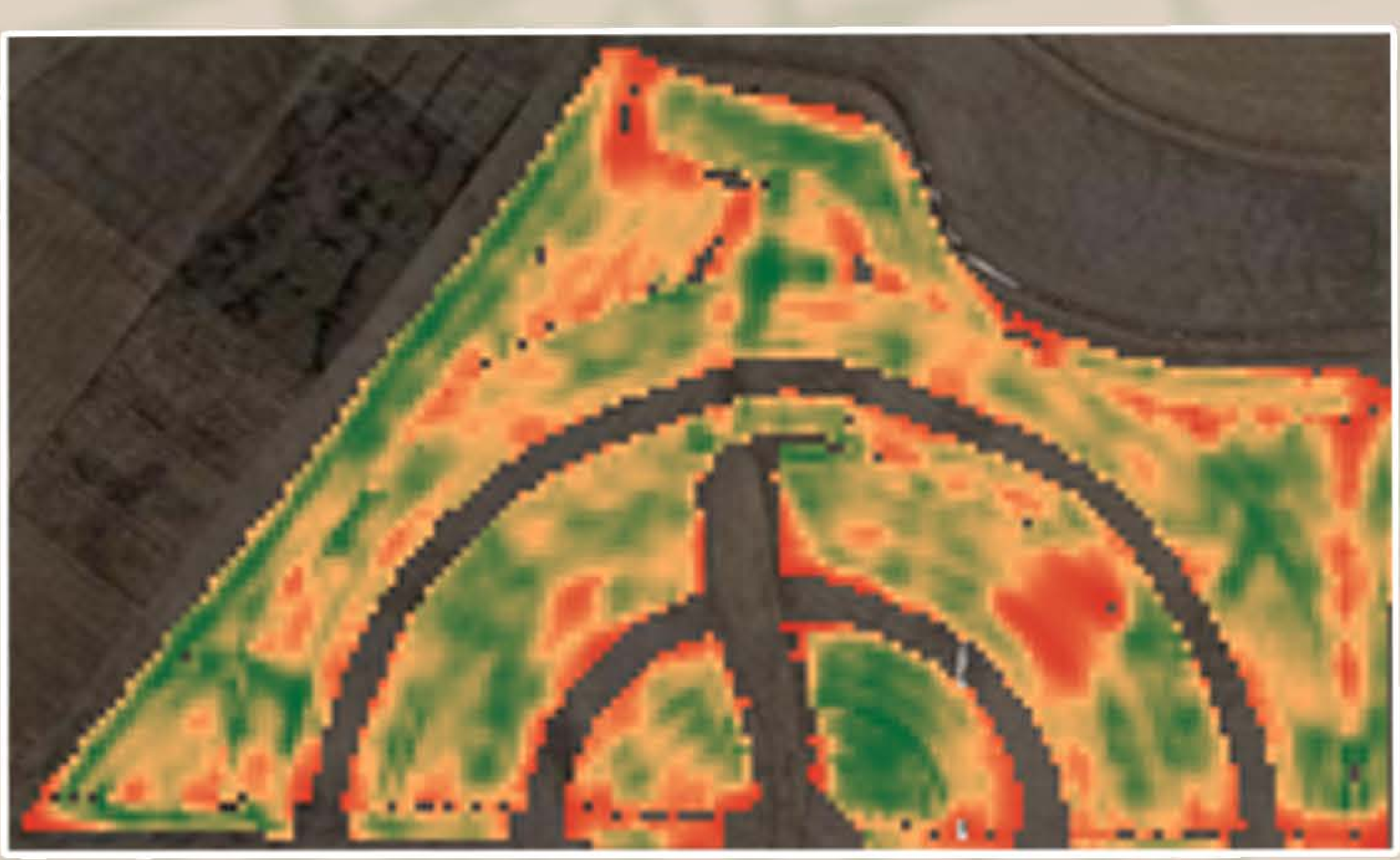


Figure 1. A 2019 RITAS model from one of our STRIPS research sites.

-Luis Damiano and Jarad Niemi
Graduate Student and Associate Professor
Statistics Department

Figure 2. An illustration of the RITAS algorithm for yield processing.

In 2018, prairie strips was listed a Conservation Reserve Program (CRP) practice in the Agriculture Improvement Act of 2018, Title II, Subtitle A, Section 2101, Part 5. This legislation is more commonly known as the "Farm Bill". Prairie strips (CP-43) are considered a water quality practice under Clean Lakes, Estuaries and Rivers (CLEAR), which qualifies CP-43 for continuous sign-ups. This means farmers and landowners can walk into their USDA service centers at any time and sign up to get cost-share to install prairie strips. The enrollment period never ends and better yet those that sign up for prairie strips get an incentive for signing up that is 32.5% of the annual rental payment for the first year and a bonus 5% practice incentive payment on top of that. In 2019 I had the pleasure of leading the STRIPS team in writing the policy that is now in place nationwide. Our team worked directly with the USDA and our partners to write a policy that would meet our goals of reducing soil erosion, improving water quality, providing wildlife habitat and being flexible enough for widespread adoption. Farmers are calling the prairie strips practice one of the most flexible CRP policies available, making it the "Swiss Army Knife" of conservation practices. Next time you're in a USDA service center in Iowa, you may spot our poster below, highlighting the flexibility of the practice!

-Omar de Kok-Mercado
STRIPS Project Coordinator

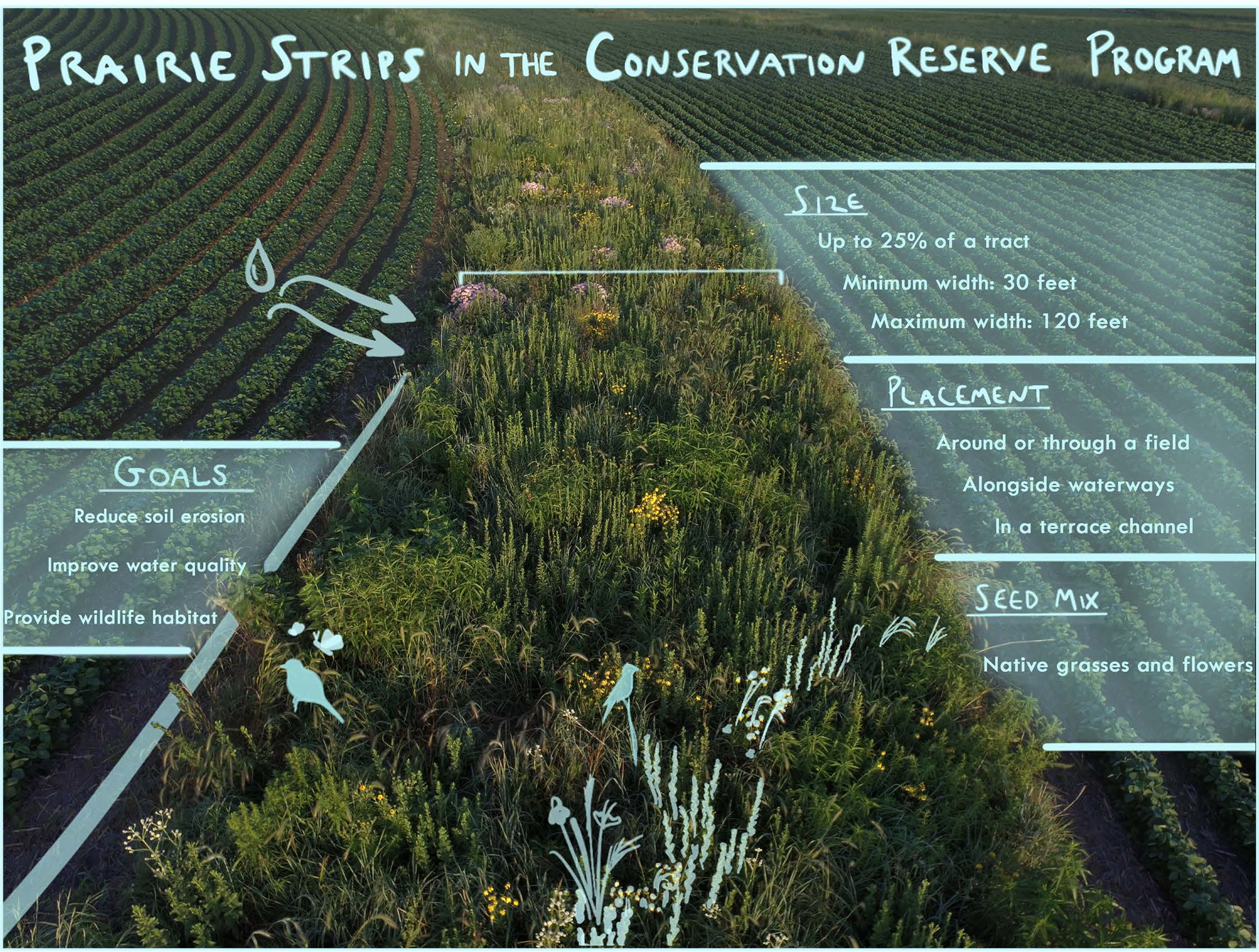


Illustration by Katrina Ruff.

An excerpt from the Iowa Farm and Rural Life Poll:

"As more farmers and agricultural landowners have implemented prairie strips on working lands, the [STRIPS] project team has become interested in understanding the potential for more widespread adoption of the practice. To this end, the 2018 Farm Poll survey contained a brief set of three questions to gauge farmer knowledge of and interest in the practice statewide. To ensure that all respondents had a basic understanding of the prairie strips practice, the survey provided a short description that was developed in consultation with project researchers:

> *Prairie strips are an agricultural conservation practice that uses strips of native prairie vegetation within or at the edges of fields to protect soil and water and provide habitat for wildlife. Iowa State University researchers have shown that strategically converting small areas of crop fields to native prairie (generally in-field contour buffer strips or filter strips at the edge of fields) can significantly reduce soil erosion and nutrient loss and improve wildlife habitat.*

Results show that 56 percent of farmers had heard about the practice before reading the description. A second question asked respondents if they would be interested in learning more about the practice: 22 percent selected "yes" and 36 percent selected "maybe," indicating that a majority of farmers were at least open to the possiblity of learning more. Similarly, 15 percent of farmers responded that they would be interested in planting prairie strips on their land, and an additional 39 percent indicated that they might be interested".

-J. Arbuckle
Extension Sociologist

In the background:
Our 2019 STRIPS Stakeholder meeting was attended by ten prairie strips cooperators, five consultants, four farmers, three landowners and representatives from the Iowa Department of Agriculture and Land Stewardship, Iowa Department of Natural Resources, Minnesota Department of Natural Resources, Natural Resources Conservation Service, Agricultural Research Service, Pheasants Forever, Poweshiek Soil and Water Conservation District, Practical Farmers of Iowa, Southfork Watershed Alliance, Fish and Wildlife Service, The Nature Conservancy, Universities of Missouri and Nebraska-Lincoln, Hertz Farm Management, 18 Iowa State staff, four members from the Tallgrass Prairie Center and two members from the Sand County Foundation!

Quotes from the 2019 STRIPS Collaborator Survey

"I see the environmental benefit, the economic benefit, and the benefits to those downstream"

"Iowa needs biodiversity and prairie strips help"

"This could be the very best thing for our farmers and non-farmers alike to come down the pike in decades"

"We stopped erosion [on our farm] even though we had very heavy rains late last summer"

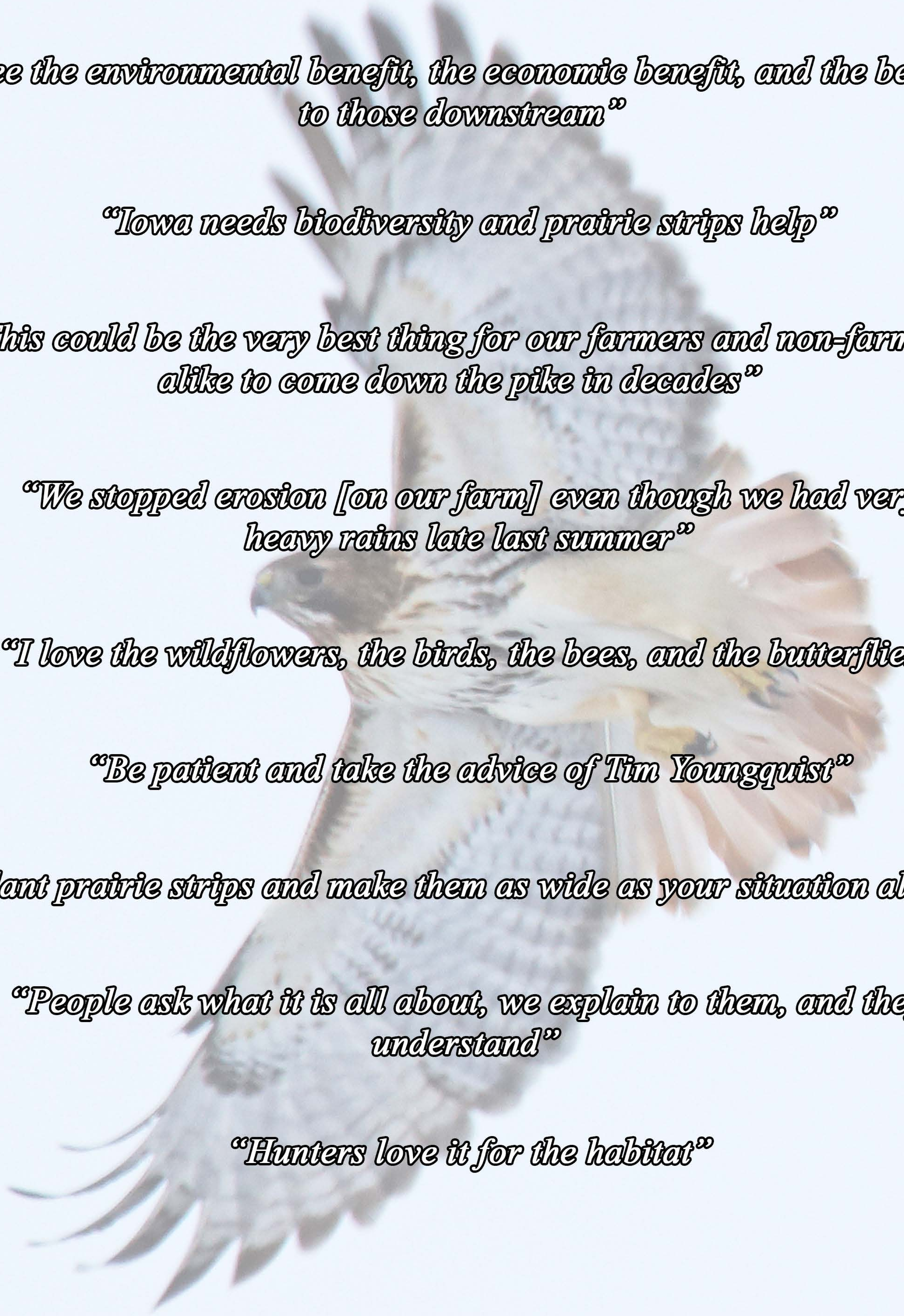
"I love the wildflowers, the birds, the bees, and the butterflies"

"Be patient and take the advice of Tim Youngquist"

"Plant prairie strips and make them as wide as your situation allows"

"People ask what it is all about, we explain to them, and they understand"

"Hunters love it for the habitat"



In the background: a Red-tailed Hawk soars over a prairie. Photo courtesy of Carl Kurtz.