



Do Cover Crops Increase the Number of Days Suitable for Field Work?

In a Nutshell:

- Thirty-eight farmers identified one field on their farm with a history of cover cropping and recorded, throughout the growing season, which days were suitable for fieldwork.
- According to the USDA definition, a suitable day is one in which weather and field conditions allow producers to work in the field a major portion of the day; farmers recorded their observations based on this definition.
- Most farms have routinely used cover crops in the past years, with the majority planting cereal rye in the fall, while some incorporated multi-species cover crop mixtures.

Key Findings:

- Nearly all sites experienced a warm start to the growing season, followed by wetter-than-average conditions toward the end.
- Farmers and district/state estimates reported nearly identical total days suitable for fieldwork (~130 days) in 2025.
- During the spring season (April-mid June), farmers reported approximately one additional day suitable for fieldwork relative to district or state averages.



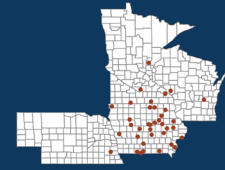
Cereal rye cover crop field alongside a non-cover cropped field in Tripoli, Northeast Iowa. Photo taken by cooperator Kyle Spowart in April 2025.

BACKGROUND

The second year of this project continues to evaluate whether cover crops can increase the number of days suitable for fieldwork across Midwest farms. The USDA defines a 'suitable' day as one where weather and field conditions allowed producers to work in fields a major portion of that day [1]. Long-term trends in Iowa indicate that the window for

completing spring fieldwork has narrowed considerably over the past 60 years, resulting in fewer suitable fieldwork days [2]. Since 1964, the trend shows a loss of one full suitable day every six years [3]. This decline is largely attributed to increased precipitation variability, particularly in the spring and fall, which coincide with critical periods for field operations in grain production systems.

EXPERIMENT



2025 Staff Contact

Roberta Bianchin Rebesquini
(515) 232-5661 ext. 1060
roberta.rebesquini@practicalfarmers.org

Stefan Gailans
stefan.gailans@practicalfarmers.org

Cooperators

Fred Abels (Holland, IA)
Alec Amundson (Osage, IA)
Jacob Bolson (Hubbard, IA)
Craig De Vries (New Virginia, IA)
Dwight Dial (Lake City, IA)
Richard Faris (Mount Ayr, IA)
Jim Fitkin (Cedar Falls, IA)
Michael Fosdick (Sperry, IA)
Joshua Hiemstra (Brandon, WI)
Margaret Hogan (Earlville, IA)
Jarret Horn (Newton, IA)
Kurtis Kadolph (Hubbard, IA)
Keaton Krueger (Ogden, IA)
Ross Kurash (Fort Atkinson, IA)
Scott Lightly (Oakland, MN)
Michael McDonald (Palmyra, NE)
Kyle Nilsestuen (Arcadia, WI)
David Oberbroeckling (Davenport, IA)
Lucas Olen (Mora, MN)
Matt Ollendieck (La Porte City, IA)
Neil Peterson (Fonda, IA)
Craig Pfantz (State Center, IA)
Max Pitt (Lamoni, IA)
Kevin Prevo (Bloomfield, IA)
William Roller (Anamosa, IA)
Dennis Rossiter (Saint Peter, MN)
Joe Rowe (Manly, IA)
William Schreurs (Alvord, IA)
Phil Schwantz (Altura, MN)
Bailey Scott Hobbs (Dunnell, MN)
Kyle Spowart (Tripoli, IA)
Brian Voss (Palo, IA)
Landon Brown (New Providence, IA)
Robert Harvey (Redfield, IA)
Ross McCaw (Marengo, IA)
Laban Miller (Leon, IA)
Jeff Olson (Winfield, IA)
Bob Sullivan (Woodbine, IA)

Funding

PepsiCo

In this context, practices that improve soil structure and resilience – like cover cropping – become more important. For several years, PFI has been receiving stories and anecdotes from farmers that they are getting into their fields earlier than their neighbors in the spring and not leaving ruts in the field when harvesting in the fall. These farmers attribute this to their use of cover crops. As noted by cooperator Josh Hiemstra at the onset of this project, “I am convinced of this practice. However, many other producers are skeptical and hesitant to incorporate cover crops. The goal is to show others it will make a positive impact on their own operation.” Additionally, recent studies have illustrated that cover crops can reduce crop insurance claims and losses from prevented planting caused by excess spring moisture [4], [5].

The project expanded from 15 trials in 2024 to 38 trials in 2025 across Iowa and neighboring Midwestern states, substantially increasing the dataset and enabling more robust comparisons between fields with and without cover crops. Because cover crops are still used on a relatively small proportion of acres, weekly district-level averages reported by the USDA primarily reflect non-cover cropped fields and therefore serve as a practical benchmark for comparison. Within this framework, cooperating farmers recorded the number of days each week they considered suitable for fieldwork throughout the growing season in fields managed with cover crops.

If cover crops are shown to increase – or even maintain – days suitable for fieldwork relative to the USDA district averages, this represents a practical and compelling outcome for producers. When asked how the results of this project might influence future management decisions, cooperator Fred Abels stated, “It helps justify to neighbors who don’t think it’s worth the time or money to use cover crops.”

METHODS

Design

Cooperating farms were located across Iowa, Minnesota, Nebraska, and Wisconsin. Farmers were responsible for identifying at least one field in their farm with a history of cover crops to monitor throughout the growing season.

Measurements

From April to November farmers completed a weekly survey to evaluate the field conditions of the previous seven days. The general questions on the survey were:

- This past week, what field activities were you trying to achieve at this time of the year? (e.g., tilling, planting, fertilizing, spraying, harvesting, etc.)
- If you wanted to, could you have completed those field activities this past week without compromising field integrity? On which days could you have done so?

This mirrors how USDA collects weekly data: people from each state district report their personal observations, which are then averaged for each district and published in weekly Crop Progress and Condition Reports (personal communication, Susan Cowles, USDA-ARS).

Data Analysis

Weekly observations recorded by participating farmers were compared with the weekly state or district average number of days suitable for fieldwork published by USDA [6], [7], [8], [9]. The weekly state averages published by USDA are largely representative of fields without cover crops and served as a ‘control’ by which we compared data collected by PFI cover crop farmers. The weekly data reported by farmers were compared with the district averages (Iowa and Wisconsin), or with the state averages (Nebraska and Minnesota). The deviation – which is the difference between the days farmers reported as suitable for field work and the average for the district/state – was determined week by week to visualize differences. These deviations are illustrated in graphs, highlighting trends over time and variations between individual farms and regional conditions.

Weather

To provide context for the results, weather data was downloaded from the National Aeronautics and Space Administration (NASA) Prediction of Worldwide Energy Resources (POWER) project (<https://power.larc.nasa.gov/>) for each farmer’s trial. More details on the weather data can be found in the Appendix **AM**. Detailed Methods section at the end of this report.

RESULTS AND DISCUSSION

Field History

Thirty-five of the 38 farmers reported the management history of their selected fields. Of these, 15 had 7–10 years of cover crop implementation, 10 had 4–6 years, and 10 had more recently adopted cover crops (1–3 years). Most farmers used fall-planted cereal rye as their primary cover crop. Others incorporated additional species – such as oats, radish, clover, or camelina – or used multi-species mixtures with three or more species. Additional details on each cooperator’s field history are provided in Appendices **A to AL**.

Trial Locations

Of the 38 locations, 30 were distributed across multiple Iowa districts: Central (8), East Central (4), North Central (2), Northeast (5), Northwest (2), South Central (4), Southeast (3), and West Central (2). Two additional farms were located in Wisconsin – one in the East Central district and one in the West Central district. Five farms were located in Minnesota and one in Nebraska. Because USDA reports for Minnesota and Nebraska provide only statewide averages, cooperator-reported days for these sites were compared exclusively to state-level averages.

Weather

All sites experienced a warm start to the growing season, with nearly all sites transitioning to wetter-than-average conditions toward the end. (**Figure 2**)

Days Suitable for Fieldwork

Farmers recorded data over a 34-week period, from Mar. 31 to Nov. 23, resulting in 994 observations across the 38 locations. These records were compared with USDA reports (**Figure 3**). Due to the federal government shutdown, the USDA did not report days suitable for fieldwork from Sept. 29 to Nov. 9, therefore, this period was excluded from the analysis, resulting in a 28-week comparison period.

On average, cover crop farmers and district/state estimates reported nearly identical total days suitable for fieldwork in 2025. To assess seasonal patterns, the 28-week period was divided into three intervals: Spring (weeks 1–11; April to mid-June), Summer (weeks 12–23; mid-June to mid-September), and Fall (weeks 24–34; mid-September to Nov. 23).

The spring period is especially important in this analysis because it represents the most operationally sensitive window of the growing season, when producers are performing critical field activities such as tillage, fertilizer application, planting, and early-season weed management. Limited access to fields during this period can delay planting progress and other management operations, potentially affecting crop establishment, yield potential, and overall farm logistics for the remainder of the season.

Across seasons, differences between farmer-reported and district or state estimates were small. Farmers reported one additional day suitable for fieldwork in spring (51 vs. 50), similar values in Summer (51), and one day less in the Fall (27 vs. 28).

When breaking down the results across Iowa districts, comparisons between cooperator-reported and USDA district averages showed varying regional patterns (**Table 1**). Cooperators in the Northeast, Northwest, and Southwest districts reported more total days suitable for fieldwork than the USDA district averages, with the largest positive differences observed in the Northeast and Southeast districts. Interestingly, these findings differ somewhat from long-term historical trends reported in Iowa. The ISU report published in 2020 showed that the Northwest district experienced the sharpest decline in spring field days over time, followed closely by the Northeast district, with losses averaging one suitable field day every four and five years, respectively [2]. That same report estimated average spring fieldwork suitability between April 2 and June 17 at 42.2 days for Northwest Iowa and 41.3 days for Northeast Iowa. In contrast, PFI cooperators located in the Northwest and Northeast districts reported averages of 53.5 and 60.7 days suitable for fieldwork, respectively, during the same period in 2025.

Conversely, USDA averages were higher in the Central, West Central, North Central, South Central, and East Central districts. The Central district included the greatest number of participating trials. Trials that reported fewer than 24 weeks of data were excluded from these calculations to reduce potential bias associated with incomplete reporting coverage.

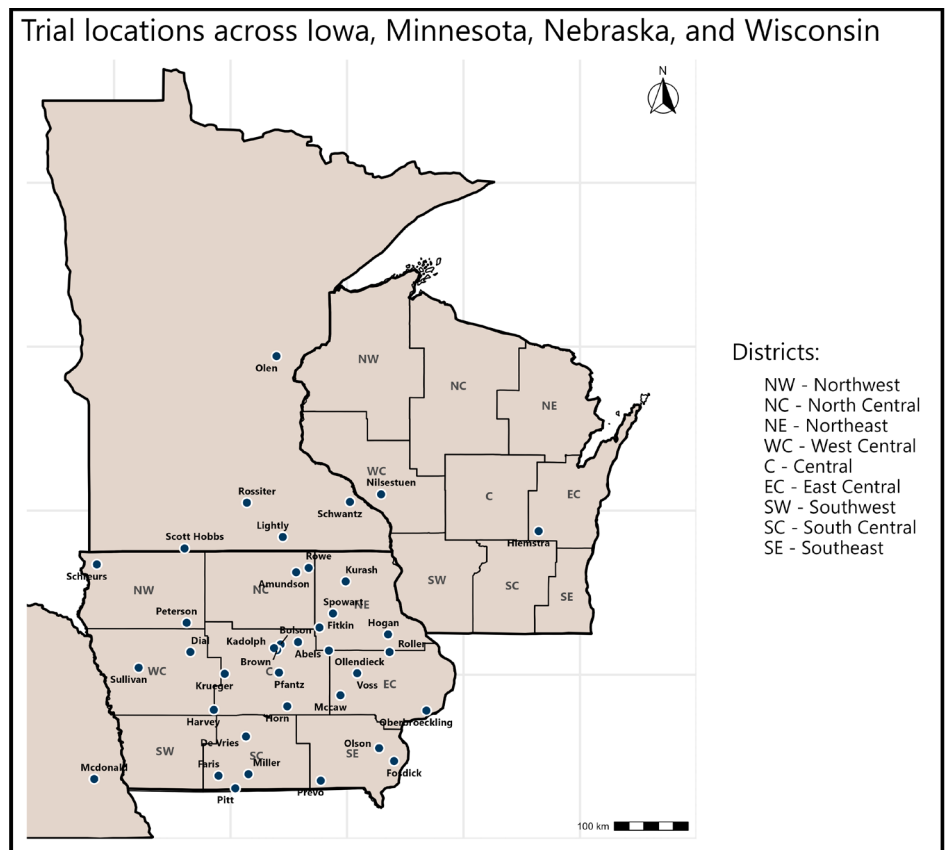


FIGURE 1. Trial locations across Iowa, Minnesota, Nebraska and Wisconsin overlaid on USDA Agricultural Districts. Each blue dot represents a participating trial site, labeled by the farmer's last name. District acronyms are shown within district boundaries and defined in the legend.

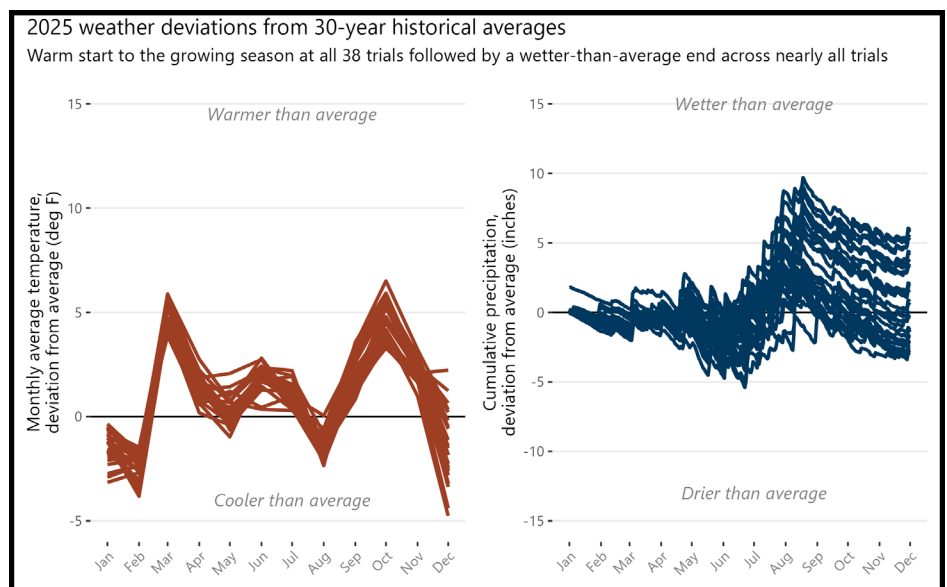


FIGURE 2. Individual cooperator site weather compared to 30-year historical averages for that site. (Left) Average monthly air temperature deviations and (right) cumulative precipitation deviations. Overall, although all sites experienced similar conditions, the diversity in field management and cropping systems history contributed to varied outcomes for each cooperator.

Despite the well-documented benefits, cover crop adoption remains limited. In Iowa, estimates vary: the 2022 USDA Census reports that 1.3 million acres of the cropland was planted with cover crops, while a recent statewide survey suggests the number could be as high as 3.8 million

acres in 2023, out of a total of 22.6 million acres cultivated with corn and soybeans [10], [11]. Common concerns among non-adopters include the potential for delayed spring planting and limited time between harvest and winter to justify the use of cover crops [12]. Results from this project

TABLE 1: Average total days suitable for fieldwork reported by cooperators and USDA district estimates across Iowa districts during the 2025 growing season.

District	COOPERATOR AVERAGE TOTAL DAYS SUITABLE	USDA DISTRICT AVERAGE TOTAL DAYS SUITABLE	DIFFERENCE (COOPERATOR – USDA)	NO. OF TRIALS
Northwest	128	124.6	3.4	2
North Central	120.5	123.8	-3.3	2
Northeast	142.8	130.2	12.6	4
West Central	113	125.1	-12.1	2
Central	122	134.1	-12.1	6
East Central	141.5	149.4	-7.9	4
South Central	137.8	139.6	-1.8	4
Southeast	150.7	140	10.7	3

help address these perceptions, indicating that fields managed with cover crops can maintain – or in some cases increase – the number of days suitable for fieldwork during critical spring periods.

Participation in the trial also encouraged farmers to more closely monitor field conditions and reflect on the factors influencing fieldwork opportunities. When asked what the most valuable aspect was of conducting the trial, cooperator Neil Peterson noted: “Reflecting on the soil and weather conditions. I enjoy observing the conditions of my farm.” For some, the results reinforced prior observations. Cooperator Josh Hiemstra stated, “I was sure that I would have more days. I didn't know it was that drastic,” while Jarret Horn added, “[This trial] clearly reinforced that cover crops and residue can increase field workability.”

Farmer Perceptions of Fieldwork Suitability

It is important to acknowledge that the assessment of days suitable for fieldwork is inherently subjective. Although farmers were provided with the USDA definition of a “suitable” day, individual interpretations can vary. Farmer perception and decision-making are known to vary across individuals and management contexts [13], [14], [15]. What one farmer considers acceptable conditions for field operations – such as driving equipment or planting – may differ from another’s threshold, depending on management style, equipment, and risk tolerance.

Reflections from participating farmers highlight these challenges. For example, cooperator Dennis Rossiter noted: “We had a persistently wet year, but so did a lot of Minnesota. I was surprised that I was in

Farmers reported one additional day suitable for fieldwork in Spring, with similar totals overall compared to district/state estimates in 2025

Bars show the average weekly difference between farmer-reported days and district or state estimates

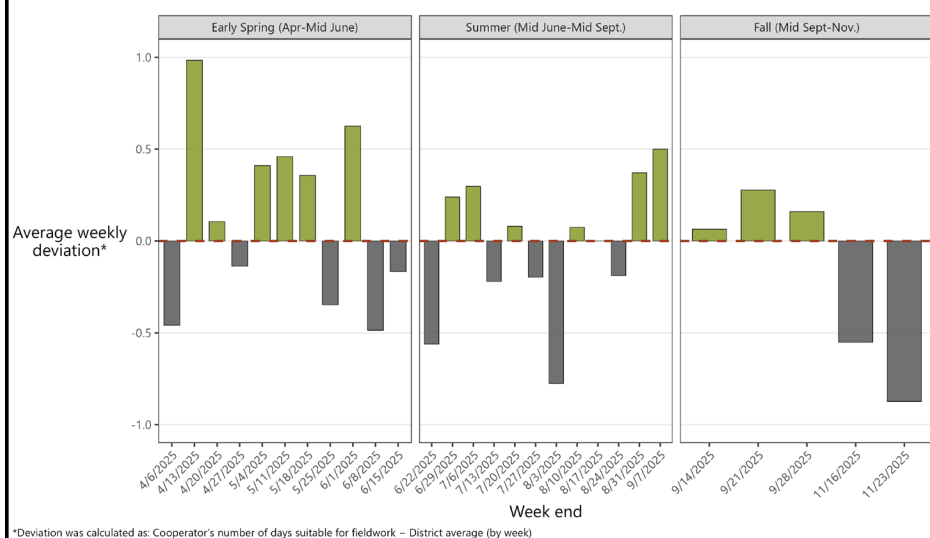


FIGURE 3. Average weekly deviation between farmer-reported and USDA-reported days suitable for fieldwork during the 2025 growing season. Each panel represents a season, and bars show the average weekly difference between farmer-reported days and district or state estimates. Positive values (bars above the dashed red line) indicate weeks in which farmers reported **more days suitable for fieldwork than district or state averages** while negative values indicate **fewer days**. Overall, farmer-reported totals were similar to USDA estimates across the full growing season; however, farmers reported approximately one additional day suitable for fieldwork during the spring period.

the field much less than average. I struggled with how I would answer some days. Different times of the season influenced my answers. Early spring, I could take the gator out and pick rocks but never drive on it with a tractor. Is that a ‘1’ (suitable) or ‘0’ (not suitable)? As weeds were growing, I found it tough to say ‘0’ when a sprayer should be in the field. I hoped that my soil health journey would say that I could have access sooner than the average.”

Similarly, cooperator Joe Rowe described how perspective influenced his responses: “I took the approach at times - If I was a ‘conventional’ farmer could I make those passes, whereas my personal bias might be to wait another day for field travel to

avoid compaction, I knew the majority of farmers / commercial applicators would be able or willing to go regardless of the soil effects. I thought that mindset was likely more in tune with how the USDA district evaluations were looking at things, thus making a better comparison (vs my overly conservative approach).”

This variability introduces an element of observer bias into the dataset. However, farmer-reported observations also capture real-world decision-making processes shaped by practical experience and operational constraints. As such, they remain highly relevant for evaluating fieldwork opportunities under actual farm conditions.

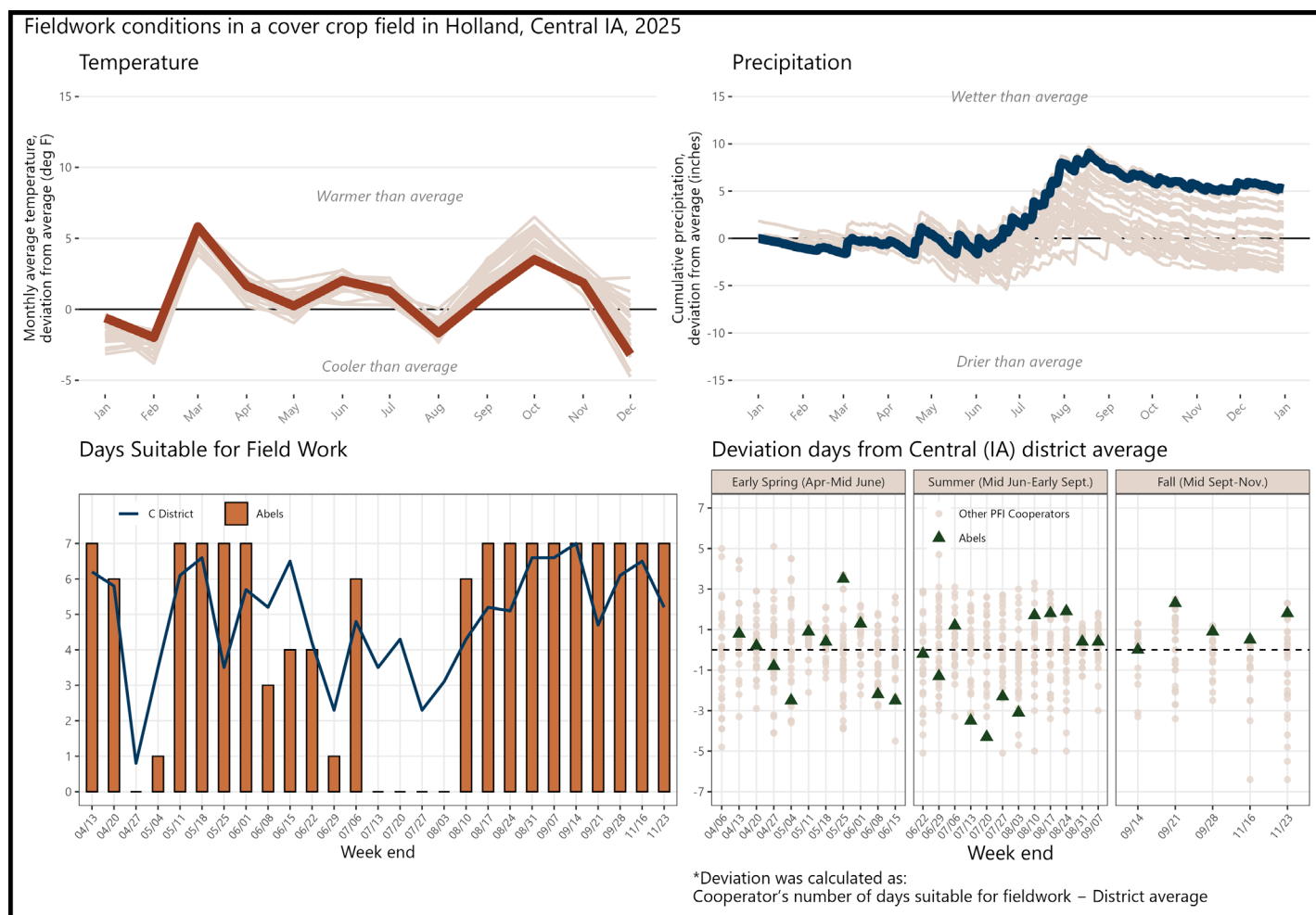
CONCLUSIONS AND NEXT STEPS

The second year of this project expanded the dataset, increasing representation across Iowa districts and additional Midwestern states. Although the results do not yet support definitive conclusions, findings indicate that cover crop adoption did not reduce the total number of days suitable for fieldwork, with farmer-reported and district or state estimates showing nearly identical seasonal totals. Notably, farmers reported a small advantage in spring, with approximately one additional day suitable for fieldwork relative to district or state averages.

Moreover, farmer-to-farmer learning and outreach emerged as key outcomes of this work. As the project continues, efforts will focus on engaging a broader network of farmers across the Midwest to expand data collection and capture year-to-year variability. This will strengthen understanding of how cover crops contribute to soil health and resilience under variable weather conditions. Participating farmers also play an important role in sharing their experiences. As cooperator Margaret Hogan noted, “The most valuable aspect of conducting this trial for me is being able to show others another reason to use cover crops.”

APPENDIX A – FRED ABELS; HOLLAND, IA

Abels reported a total of **129 days suitable for fieldwork** from 04/13 to 11/23, while the **central district had 132 days** suitable for fieldwork over the same period. By season, Abels reported **49 days** suitable in **early spring** compared with **50 for the central district**; **45 days** in summer compared with **52**; and **35 days in fall** compared with **30**.

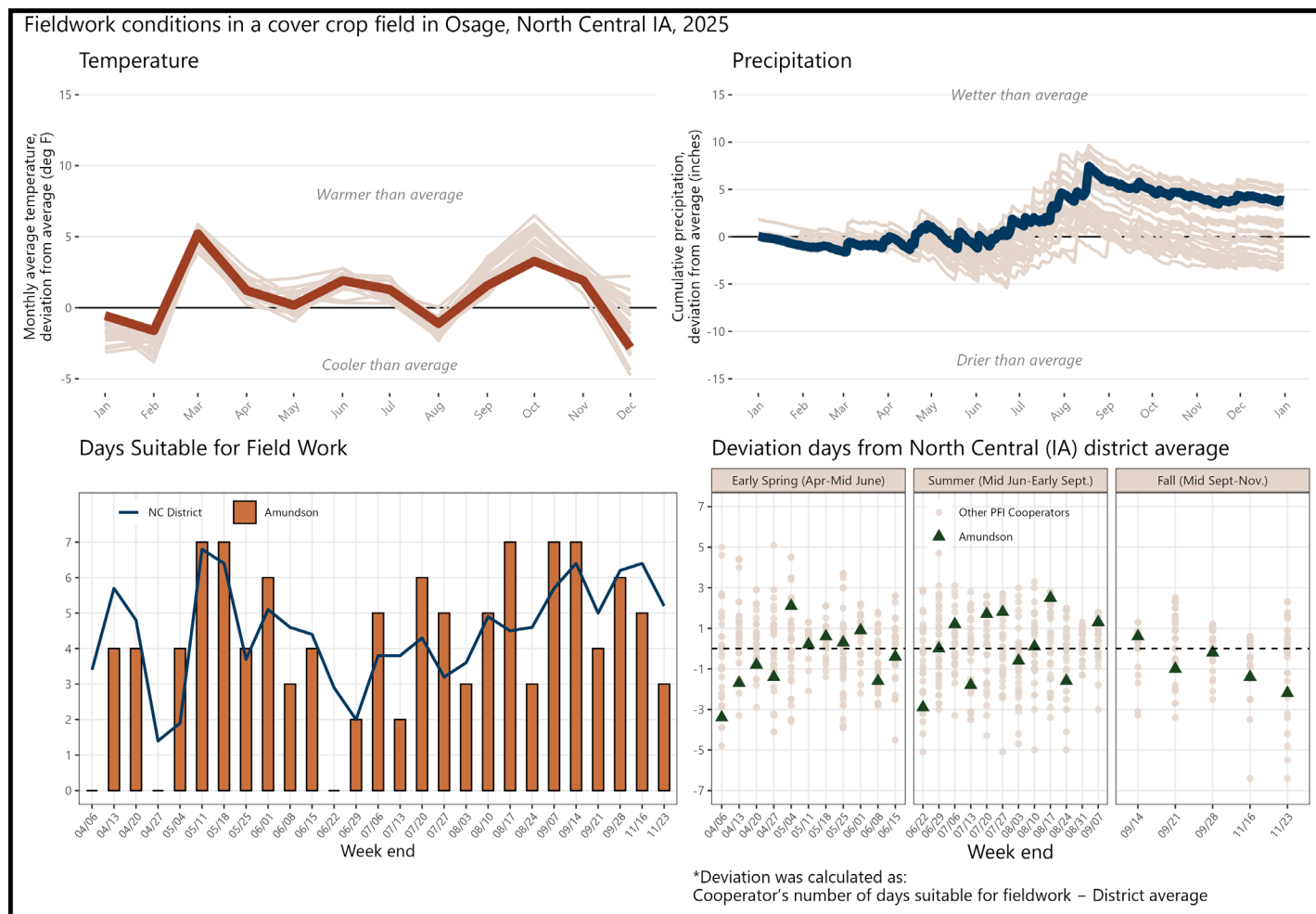


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cover crop growth rating	Fair (4-11 in.)	Good (12.17 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)
Cash crop	Corn	-	-	-	-	-	-	-	-	-	-

APPENDIX B – ALEC AMUNDSON; OSAGE, IA

Amundson reported a total of **113 days suitable for fieldwork** from 04/06 to 11/23, while the **north central district had 121 days** suitable for fieldwork over the same period. By season, Amundson reported **43 days suitable in early spring** compared with **48 for the north central district**; **45 days in summer** compared with **43**; and **25 days in fall** compared with **29**.

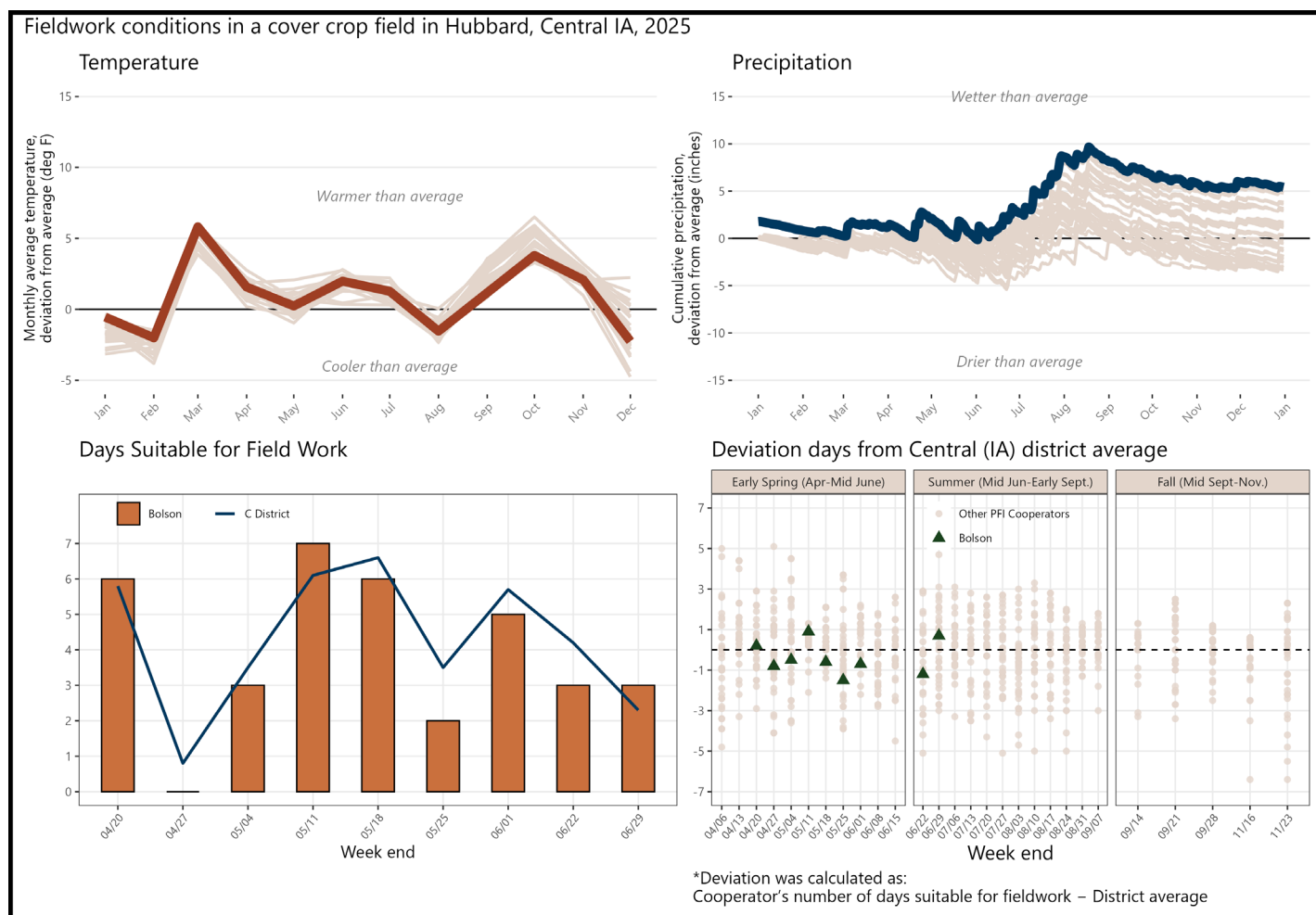


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Half - Rye; Half - Oats, Kale, Radish, Clover, Buckwheat	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	None
Cover crop growth rating	Fair (4-11 in.)	-	-	-	-	-	-	-	-	-	-
Cash crop	Soybeans	Corn/ cereal rye	Soy beans	Corn	Soy beans	Corn	Corn	Soy beans	Corn	Soy beans	Corn
Cash crop yield (bu/ac)	64	Rye: 71 Corn: 215	50	210	63	183	58	212	224	65	224

APPENDIX C – JACOB BOLSON; HUBBARD, IA

Bolson reported a total of **35 days suitable for fieldwork** from 04/20 to 06/29, while the **central district had 38 days** suitable for fieldwork over the same period. By season, Bolson **reported 29 days** suitable in early spring compared with **32 for the central district**.

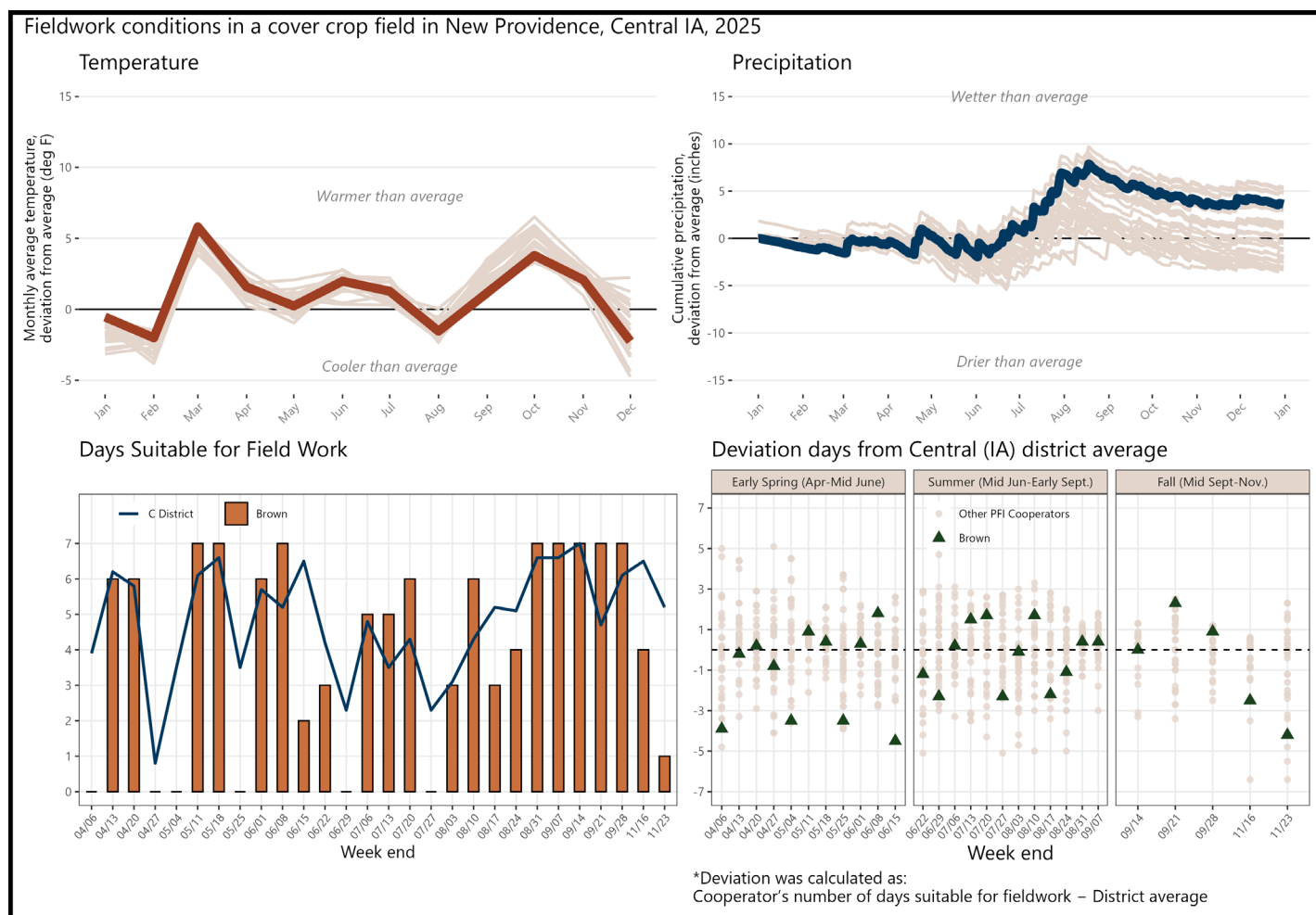


Field History:

	Year				
	2025	2024	2023	2022	2021
Cover crops previous fall	Winter wheat, Camelina and Hairy vetch	Cereal rye & Camelina	Yes (species not informed)	Cereal rye	Cereal rye
Cash crop	Corn	Soybeans	Corn	Soybeans	Soybeans

APPENDIX D – LANDON BROWN; NEW PROVIDENCE, IA

Brown reported a total of **116 days suitable for fieldwork** from 04/06 to 11/23, while the **central district had 136 days** suitable for fieldwork over the same period. By season, Brown reported **41 days suitable in early spring** compared with **54 for the central district**; **49 days in summer** compared with **52**; and **26 days in fall** compared with **30**.

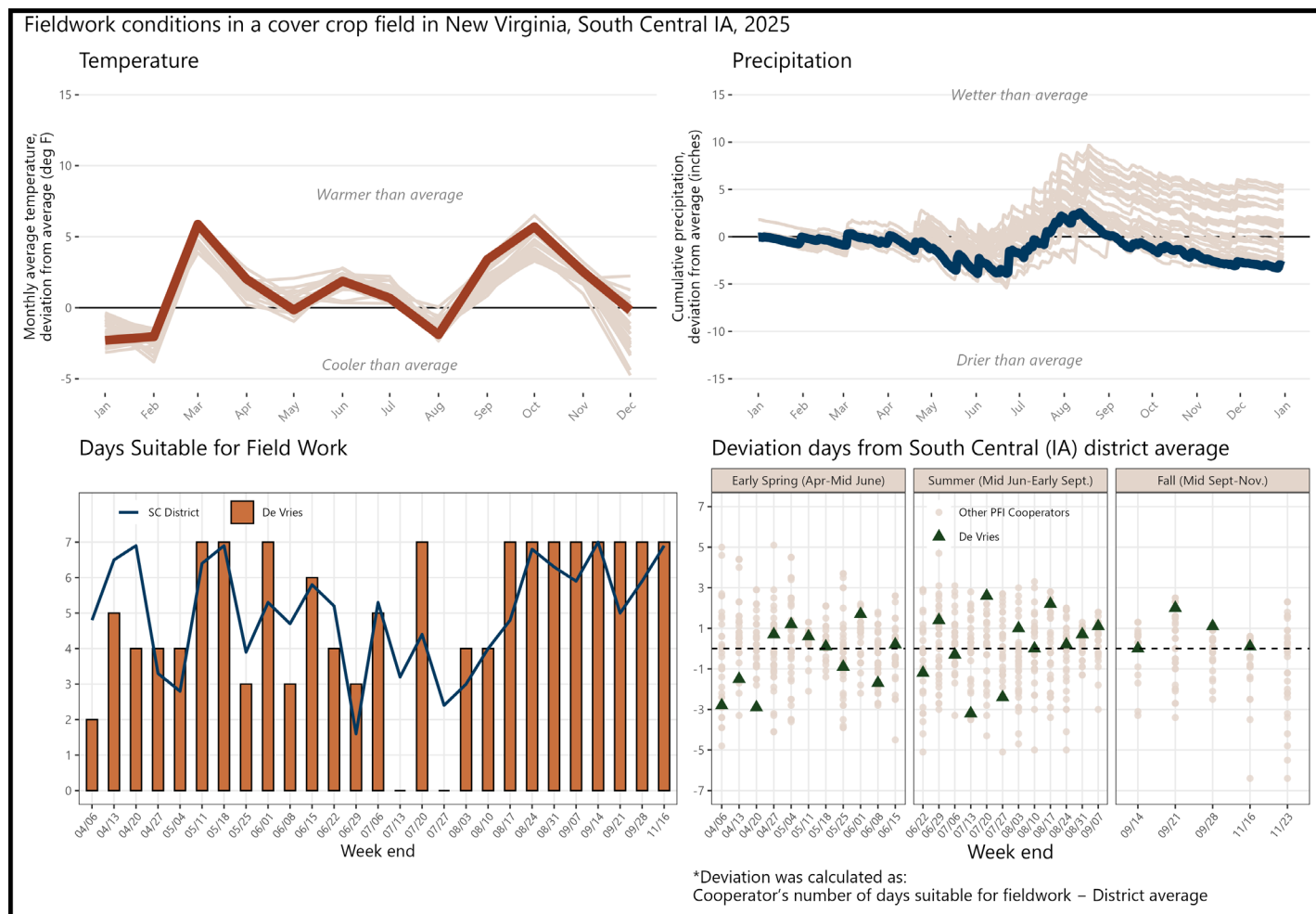


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye and cam-elina	Cereal rye and cam-elina	Cereal rye	None	None	None	None
Cash crop	Soy -beans	Corn	Soy -beans	Corn	Soy -beans	Corn	Soy -beans	Corn	Soy -beans	Corn	Soy -beans
Cash crop yield (bu/ac)	-	257	67	245	-	-	-	-	-	-	-

APPENDIX E – CRAIG DE VRIES; NEW VIRGINIA, IA

De Vries reported a total of **135 days suitable for fieldwork** from 04/06 to 11/16, while the **south central district also had 135 days** suitable for fieldwork over the same period. By season, De Vries reported **52 days suitable in early spring** compared with **57 for the south central district**; **55 days in summer** compared with **53**; and **28 days in fall** compared with **25**.

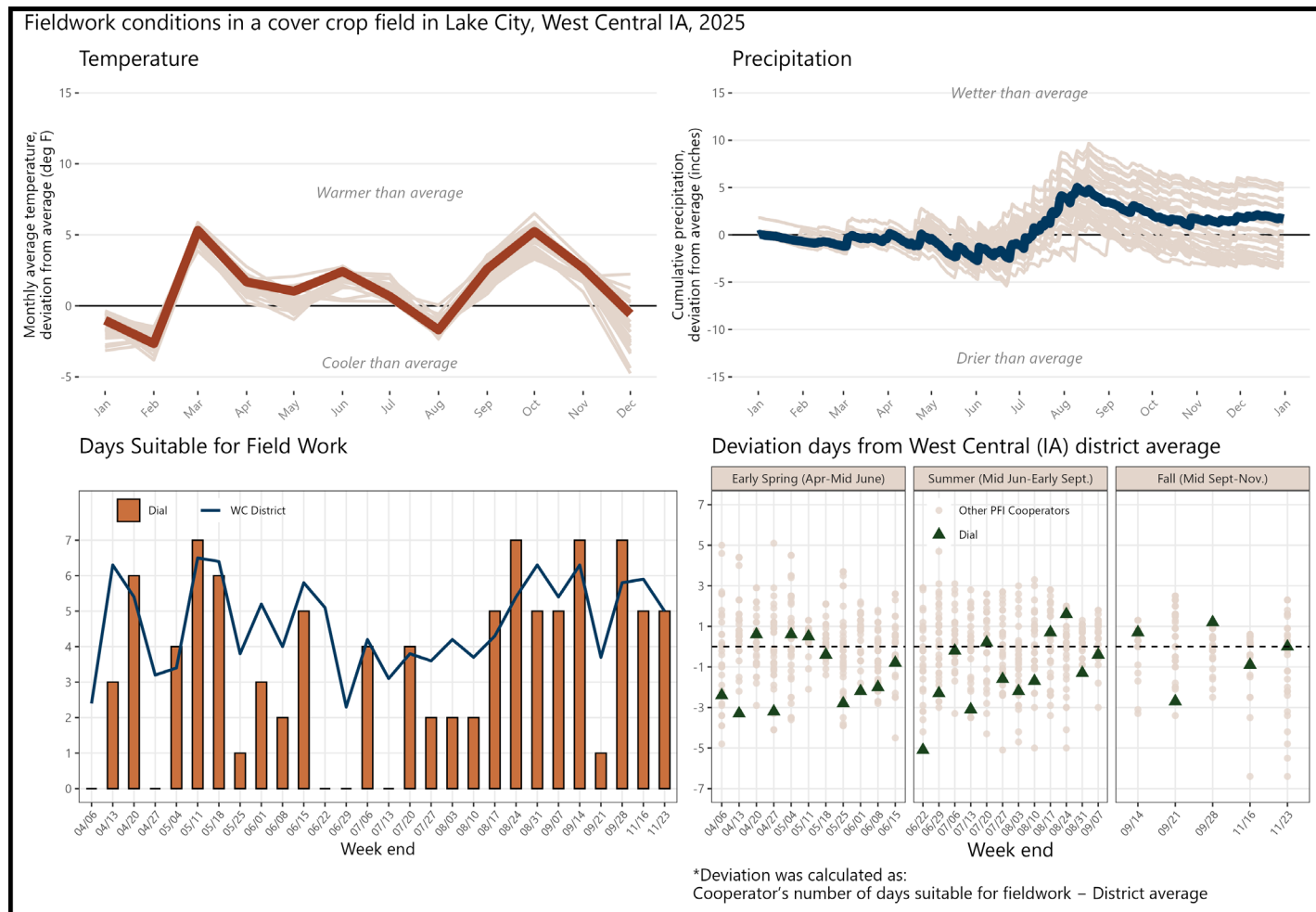


Field History:

	Year					
	2025	2024	2023	2022	2021	2020
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cover crop growth rating	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)	Very good (>18 in.)
Cash crop	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn
Cash crop yield (bu/ac)	60	185	62	180	70	210

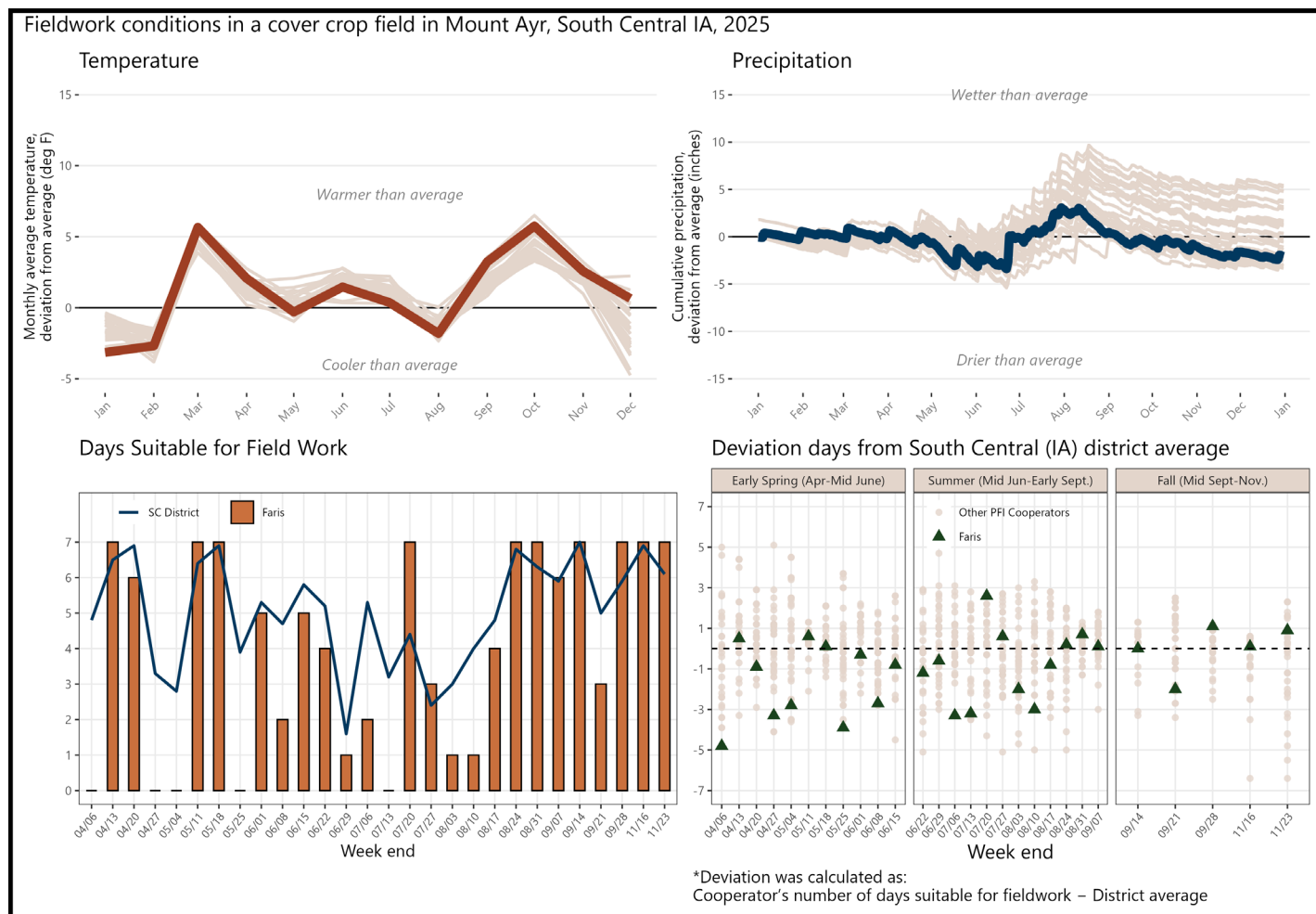
APPENDIX F – DWIGHT DIAL; LAKE CITY, IA

Dial reported a total of **98 days suitable for fieldwork** from 04/06 to 11/23, while the **west central district had 130 days** suitable for fieldwork over the same period. By season, Dial reported **37 days suitable in early spring** compared with **52 for the west central district**; **36 days in summer** compared with **51**; and **25 days in fall** compared with **27**.



APPENDIX G – RICHARD FARIS; MOUNT AYR, IA

Faris reported a total of **113 days suitable for fieldwork** from 04/06 to 11/23, while the **south central district had 141 days** suitable for fieldwork over the same period. By season, Faris reported **39 days suitable in early spring** compared with **57 for the south central district**; **43 days in summer** compared with **53**; and **31 days in fall** compared with **31**.

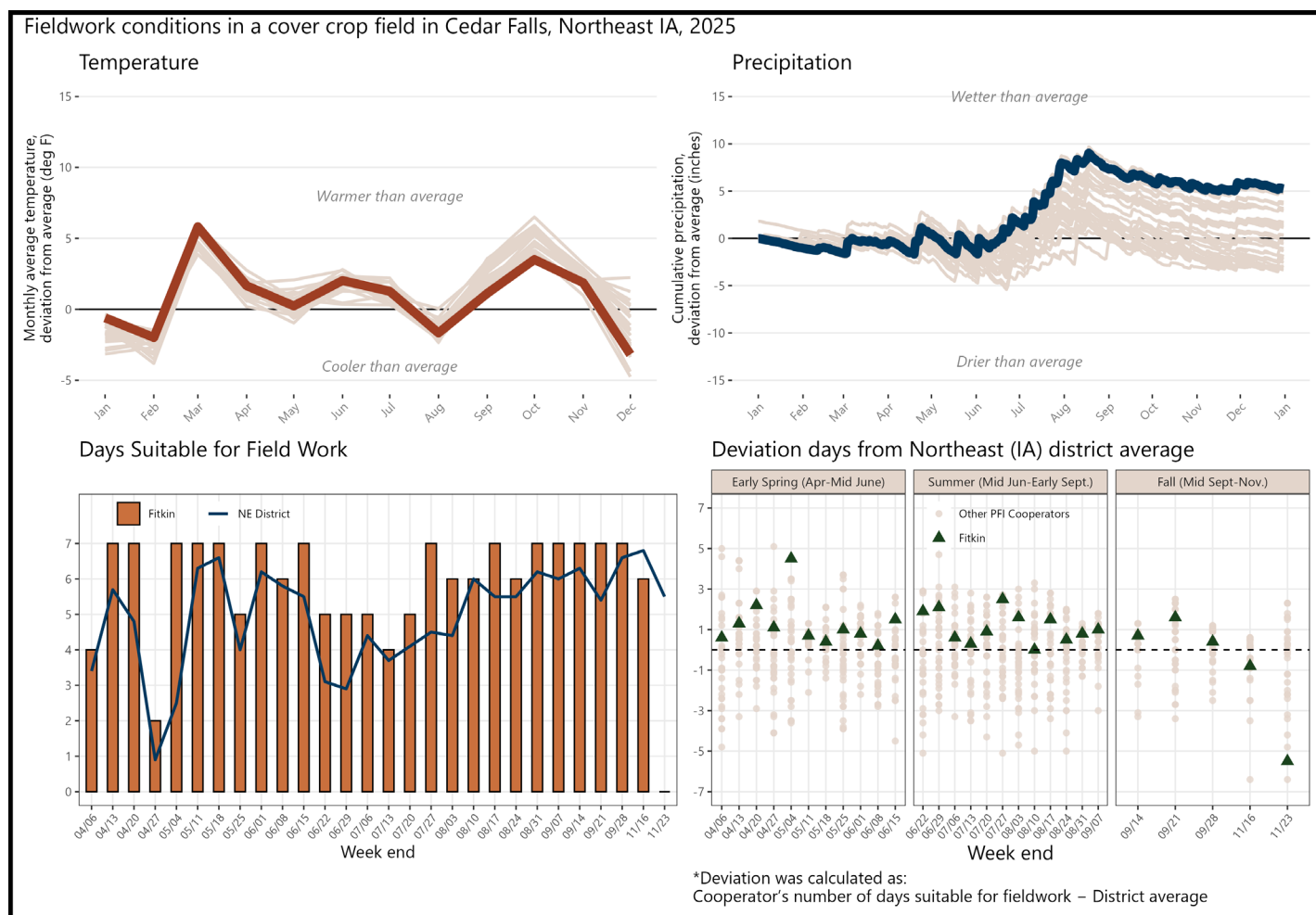


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Annual ryegrass	Cereal Rye	Winter camelina	Cereal Rye	None	None	None	None	None	None	None
Cover crop growth rating	Poor (<3 in.)	Good (12-17 in.)	No growth	Good (12-17 in.)	-	-	-	-	-	-	-
Cash crop	Corn	Soybeans	Corn	Soybeans	Soybeans	Alfalfa	Alfalfa	Alfalfa	Alfalfa	Alfalfa	Alfalfa
Cash crop yield (bu/ac)	122	75	215	51	55	-	-	-	-	-	-

APPENDIX H – JIM FITKIN; CEDAR FALLS, IA

Fitkin reported a total of **163 days suitable for fieldwork** from 04/06 to 11/23, while the **northeast district had 139 days suitable** for fieldwork over the same period. By season, Fitkin reported **66 days suitable in early spring** compared with **52 for the northeast district**; **70 days in summer** compared with **56**; and **27 days in fall** compared with **31**.

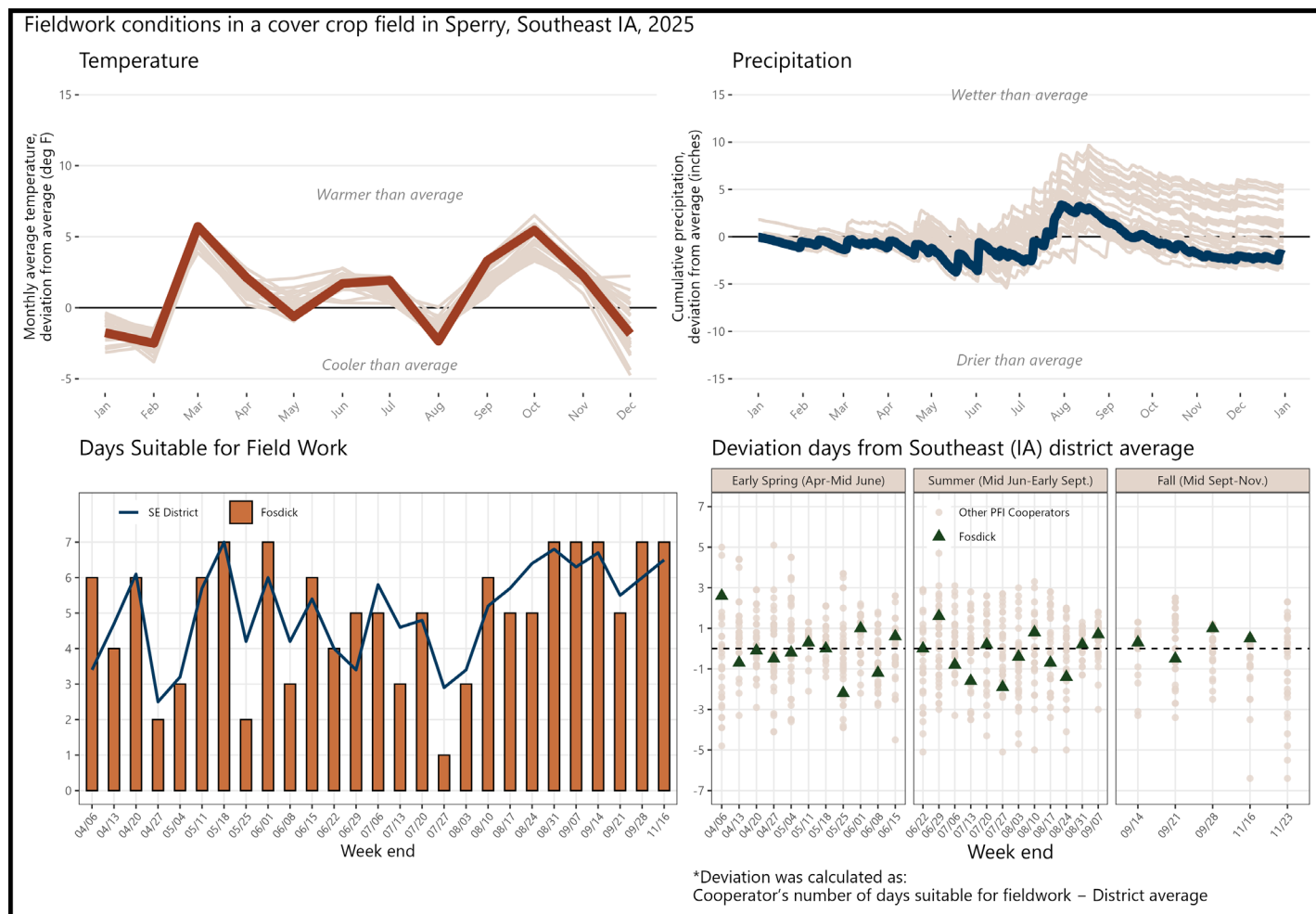


Field History:

	Year			
	2025	2024	2023	2022
Cover crops previous fall	Bluegrass	Yes (species not informed)	Yes (species not informed)	None
Cash crop	Corn	Soybeans	Corn	Corn

APPENDIX I – MICHAEL FOSDICK; SPERRY, IA

Fosdick reported a total of **134 days suitable for fieldwork** from 04/06 to 11/16, while the **southeast district had 136 days suitable** for fieldwork over the same period. By season, Fosdick reported **52 days suitable in early spring** compared with **52 for the southeast district**; **56 days in summer** compared with **59**; and **26 days in fall** compared with **25**.

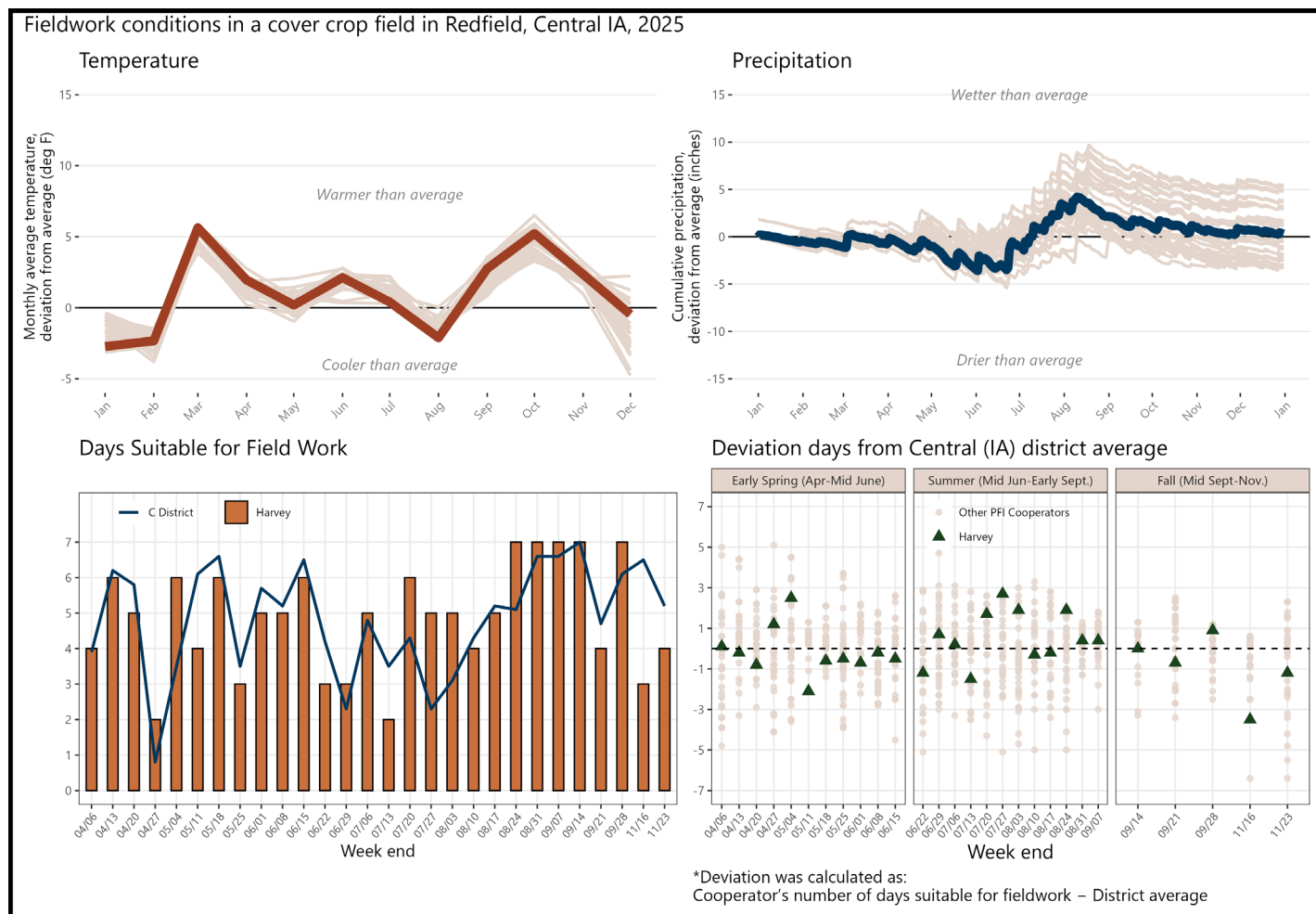


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Oats	Cereal rye	Oats	Cereal rye	None	Cereal rye	None	Cereal rye	None	None
Cover crop growth rating	Very good (>18 in.)	Good (12-17 in.)	Good (12-17 in.)	Fair (4-11 in.)	Good (12-17 in.)	-	-	-	-	-	-
Cash Crop	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	-	-
Cash crop yield (bu/ac)	72.8	287.3	68	241.1	68.3	225.1	72	213.7	72	-	-

APPENDIX J – ROBERT HARVEY; REDFIELD, IA

Harvey reported a total of **136 days suitable for fieldwork** from 04/06 to 11/23, while the central district also had **136 days suitable** for fieldwork over the same period. By season, Harvey reported **52 days suitable in early spring** compared with **54 for the central district**; **59 days in summer** compared with **52**; and **25 days in fall** compared with **30**.

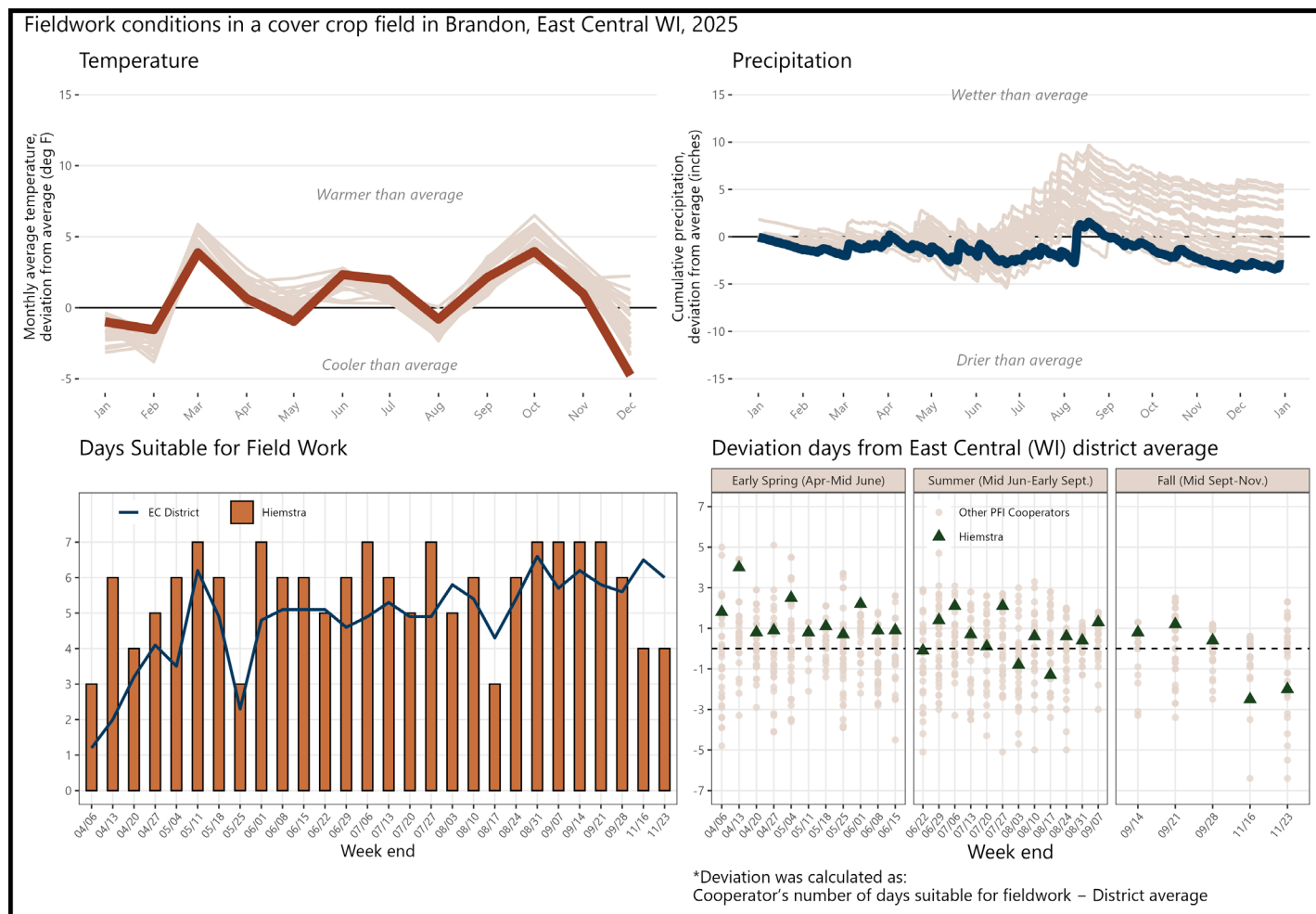


Field History:

	Year				
	2025	2024	2023	2022	2021
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cash crop yield (bu/ac)	Corn	Soybeans	Corn	Soybeans	Corn

APPENDIX K – JOSH HIEMSTRA; BRANDON, WI

Hiemstra reported a total of **157 days suitable for fieldwork** from 04/06 to 11/23, while the **east central district in Wisconsin had 135 days suitable** for fieldwork over the same period. By season, Hiemstra reported **59 days suitable in early spring** compared with **42 for the east central district**; **70 days in summer** compared with **63**; and **28 days in fall** compared with **30**.

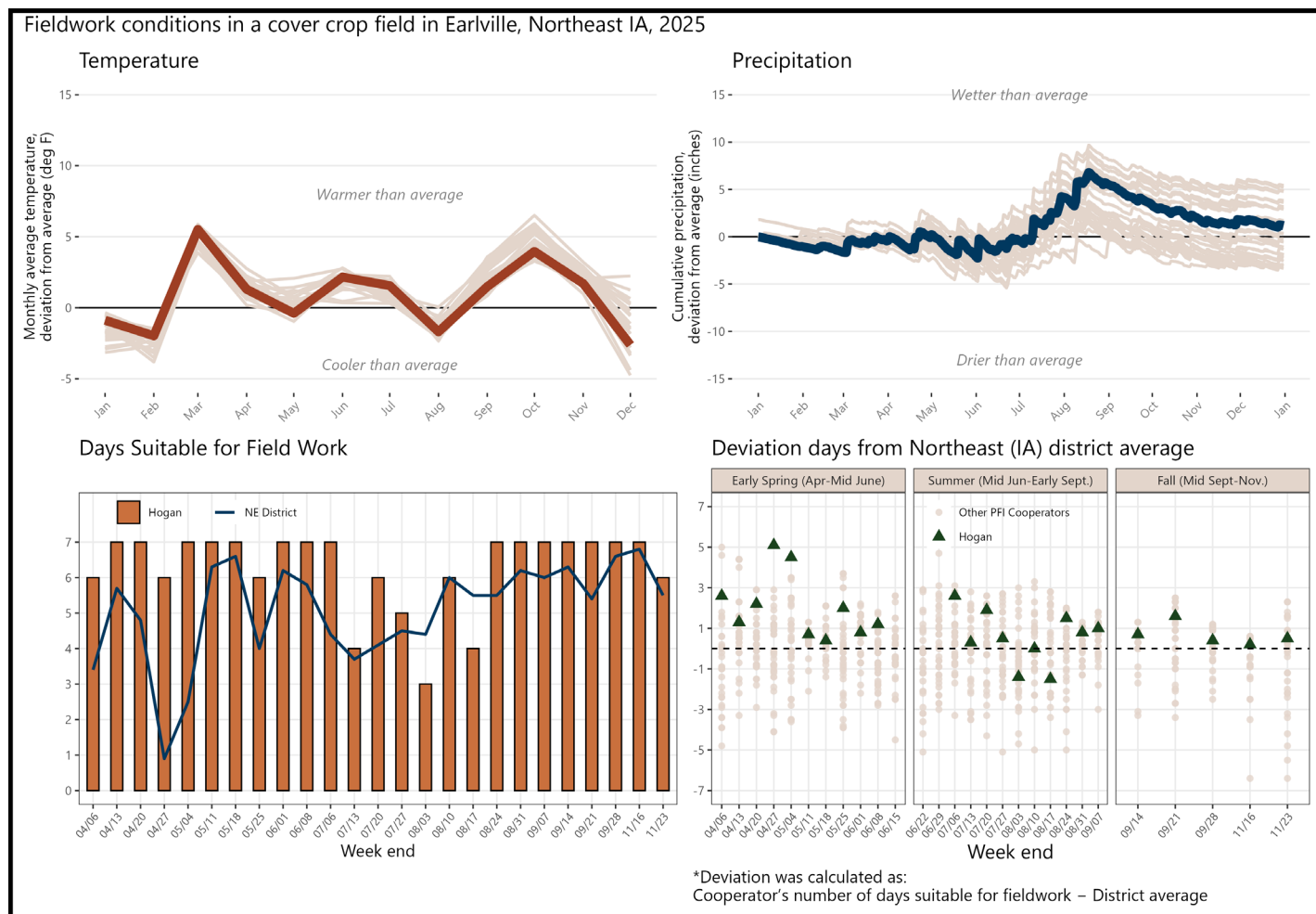


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Clover, radish and ryegrass	Cereal rye	Cereal rye	Alfalfa	Alfalfa	Alfalfa	None	None	Barley and radish	Wheat
Cover crop growth rating	Fair (4-11 in.)	Poor (<3 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Good (12-17 in.)	Very good (>18 in.)	Very good (>18 in.)	-	-	Very good (>18 in.)	Fair (4-11 in.)
Cash Crop	Corn silage	Soybeans	Corn silage	Corn silage	Corn silage	Alfalfa	Alfalfa	New seeding	Soybeans	Corn grain	Winter wheat
Cash crop yield (bu/ac)	27 ton	63	27 ton	27 ton	26 ton	7 ton dm	7 ton dm	5 ton dm	70	230	95

APPENDIX L – MARGARET HOGAN; EARVILLE, IA

Hogan reported a total of **157 days suitable for fieldwork** from 04/06 to 11/23, while the **northeast district had 127 days suitable** for fieldwork over the same period. By season, Hogan reported **67 days suitable in early spring** compared with **46 for the northeast district**; **56 days in summer** compared with **50**; and **34 days in fall** compared with **31**

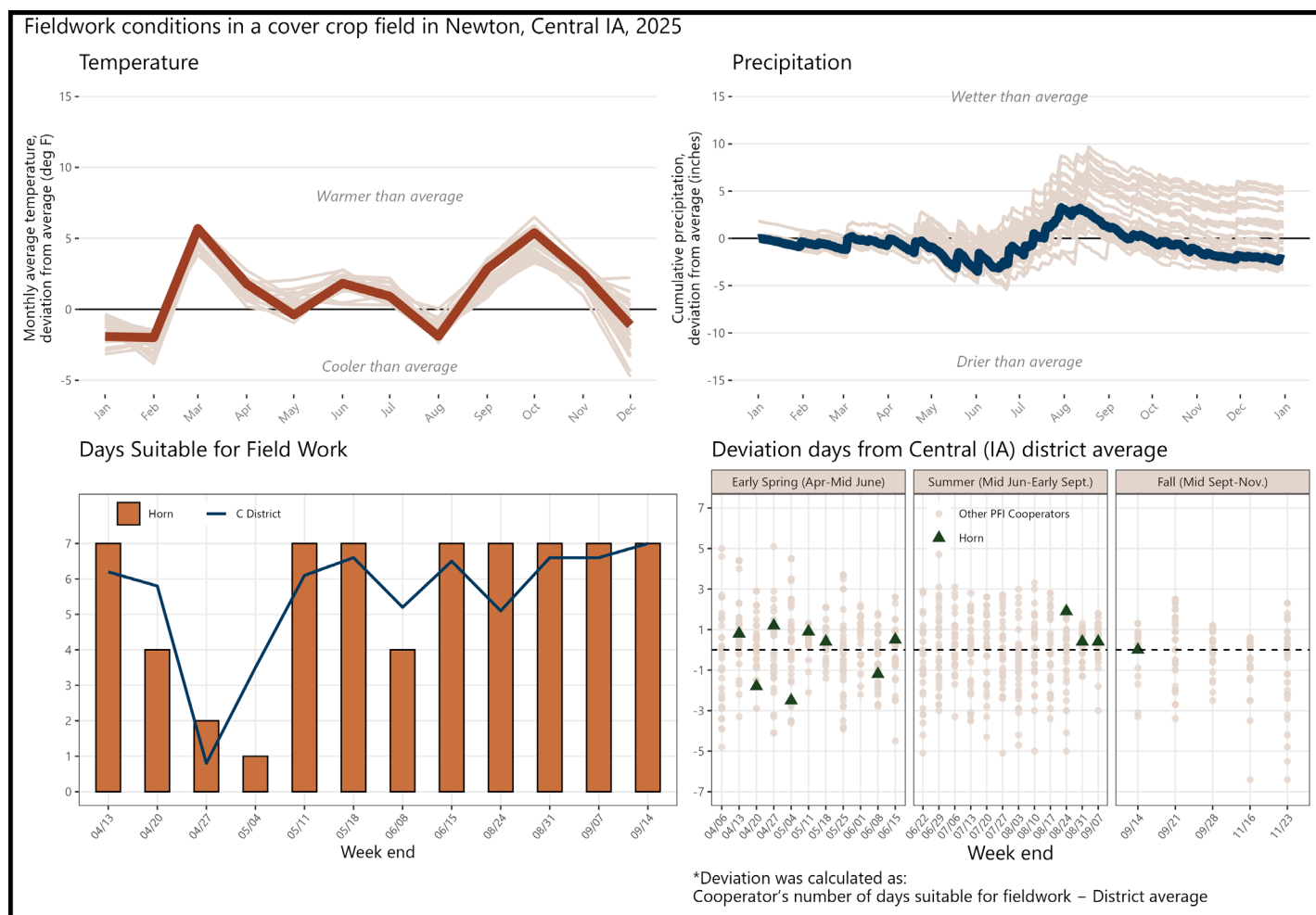


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Rye, Oats and Radish	Rye, Oats and Radish	Rye, Oats and Radish	Rye, Oats and Radish	Rye, Oats and Radish	Oats and Radish	Oats and Radish	Oats and Radish	Oats and Radish	Oats and Radish	Oats and Radish
Cover crop growth rating	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)
Cash Crop	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn
Cash crop yield (bu/ac)	-	55	167	68	119	44	193	64	201	69	181

APPENDIX M – JARRET HORN; NEWTON, IA

Horn reported a total of **67 days suitable for fieldwork** from 04/13 to 09/14, while the **central district had 66 days suitable** for fieldwork over the same period. By season, Horn reported **39 days suitable in early spring** compared with **41 for the central district**; **21 days in summer** compared with **18**; and **7 days in fall** compared with **7**.

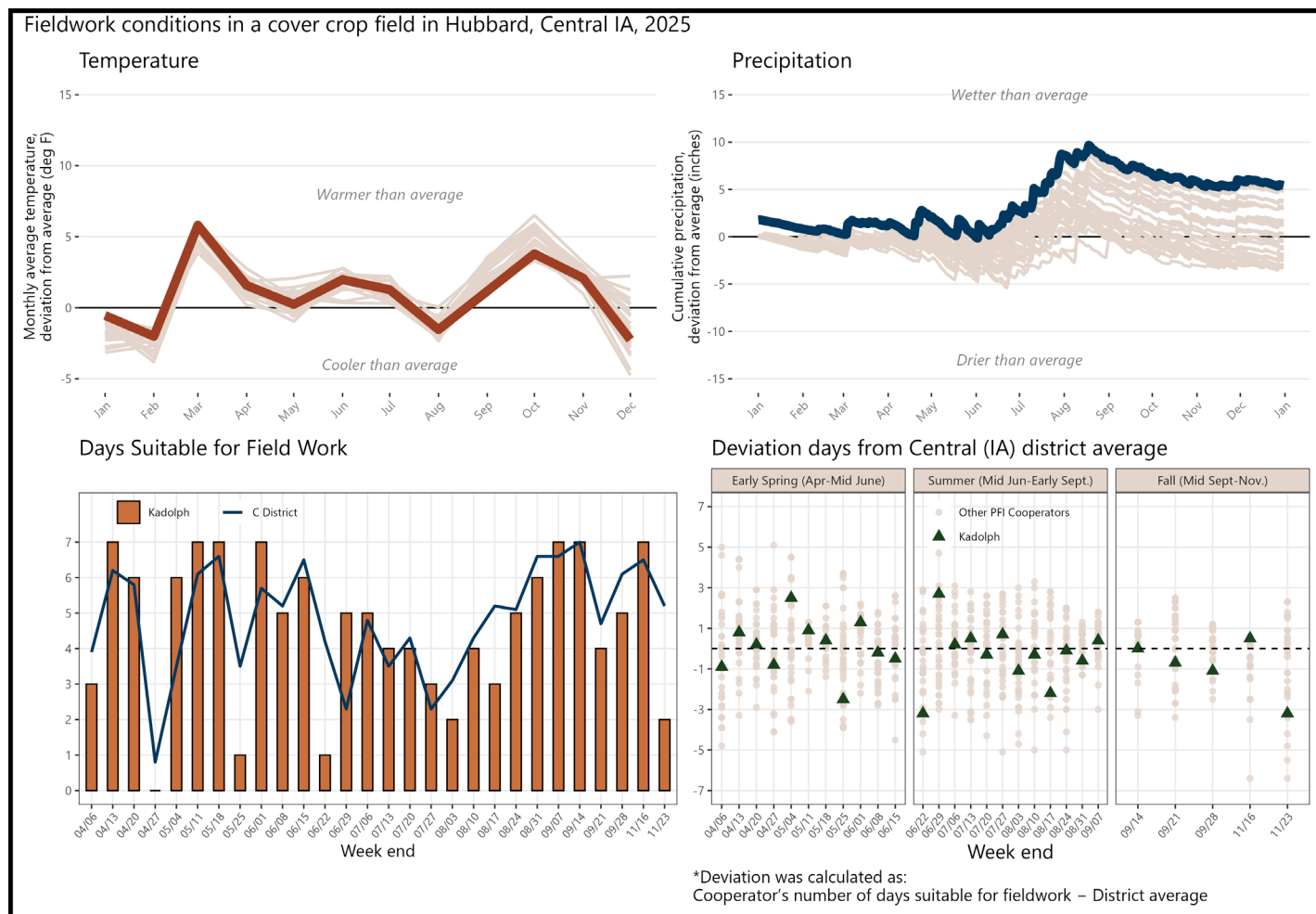


Field History:

Year	
2025	
Cover crops previous fall	Cereal rye
Cover crop growth rating	Corn
Cash crop	230.42

APPENDIX N – KURTIS KADOLPH; HUBBARD, IA

Kadolph reported a total of **129 days suitable for fieldwork** from 04/06 to 11/23, while the **central district had 136 days** suitable for fieldwork over the same period. By season, Kadolph reported **55 days suitable in early spring** compared with **54 for the central district**; **49 days in summer** compared with **52**; and **25 days in fall** compared with **30**.

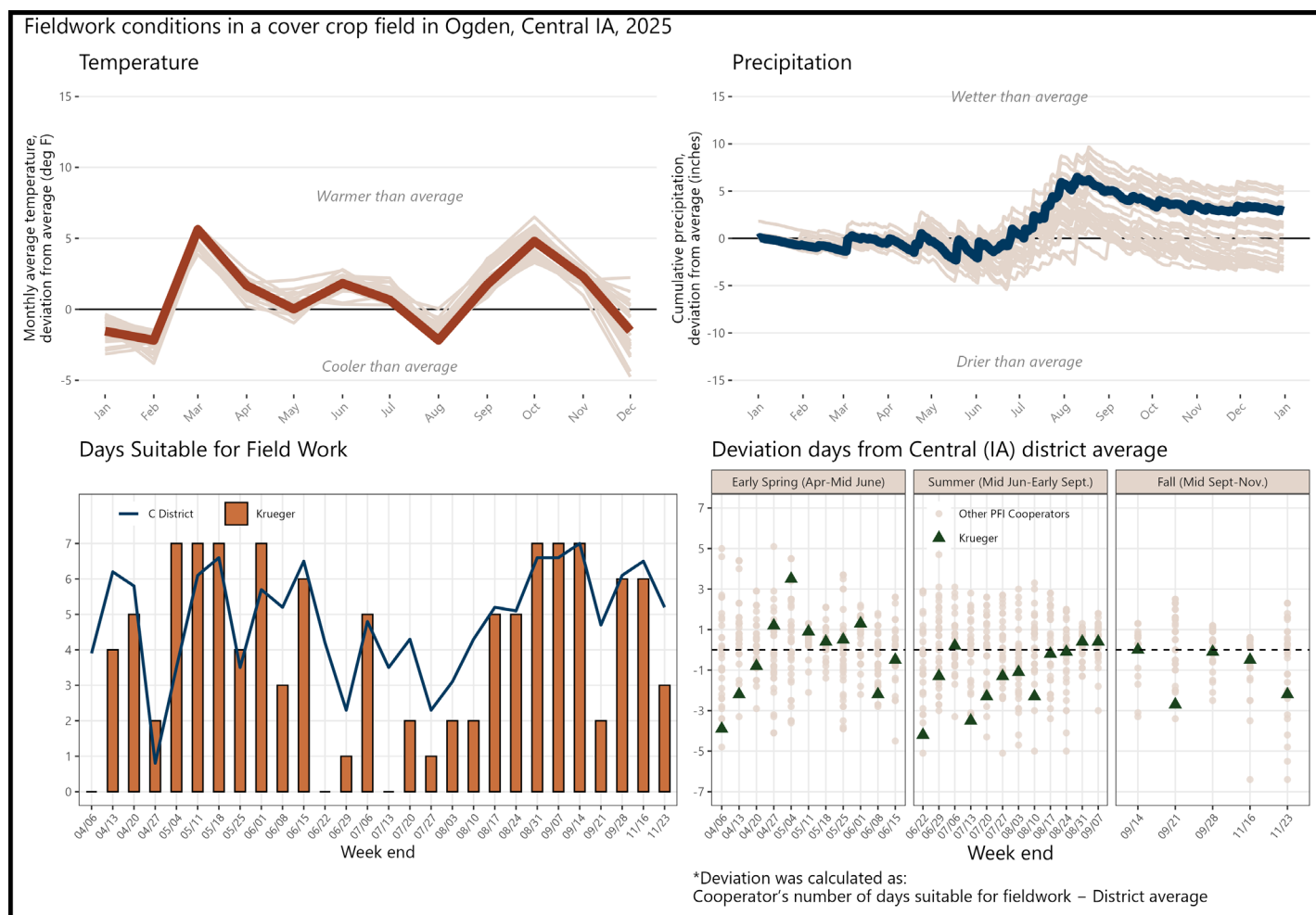


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Triti-cale, Hairy vetch, Rye and Oats	Rye, Oats, Rape-seed and Cam-elina	Triti-cale, Rye, Oats, Turnips and Radish	Triti-cale, Rye, Oats, Turnips and Radish	Triti-cale, Rye and Oats	Rye, oats and Radish	Triti-cale, Rye and oats	None	None	None	None
Cover crop growth rating	Poor (<3 in.)	Very good (>18 in.)	Fair (4-11 in.)	-	-	-	-	-	-	-	-
Cash Crop	Corn	Soy-beans	Corn	Corn	Corn	Soy-beans	Corn	Corn	Soy-beans	Corn	Corn
Cash crop yield (bu/ac)	234	60	225	235	230	70	215	-	-	-	-

APPENDIX O– KEATON KRUEGER; OGDEN, IA

Krueger reported a total of **113 days suitable for fieldwork** from 04/06 to 11/23, while the **central district had 136 days suitable** for fieldwork over the same period. By season, Krueger reported **52 days suitable in early spring** compared with **54 for the central district**; **37 days in summer** compared with **52**; and **24 days in fall** compared with **30**.

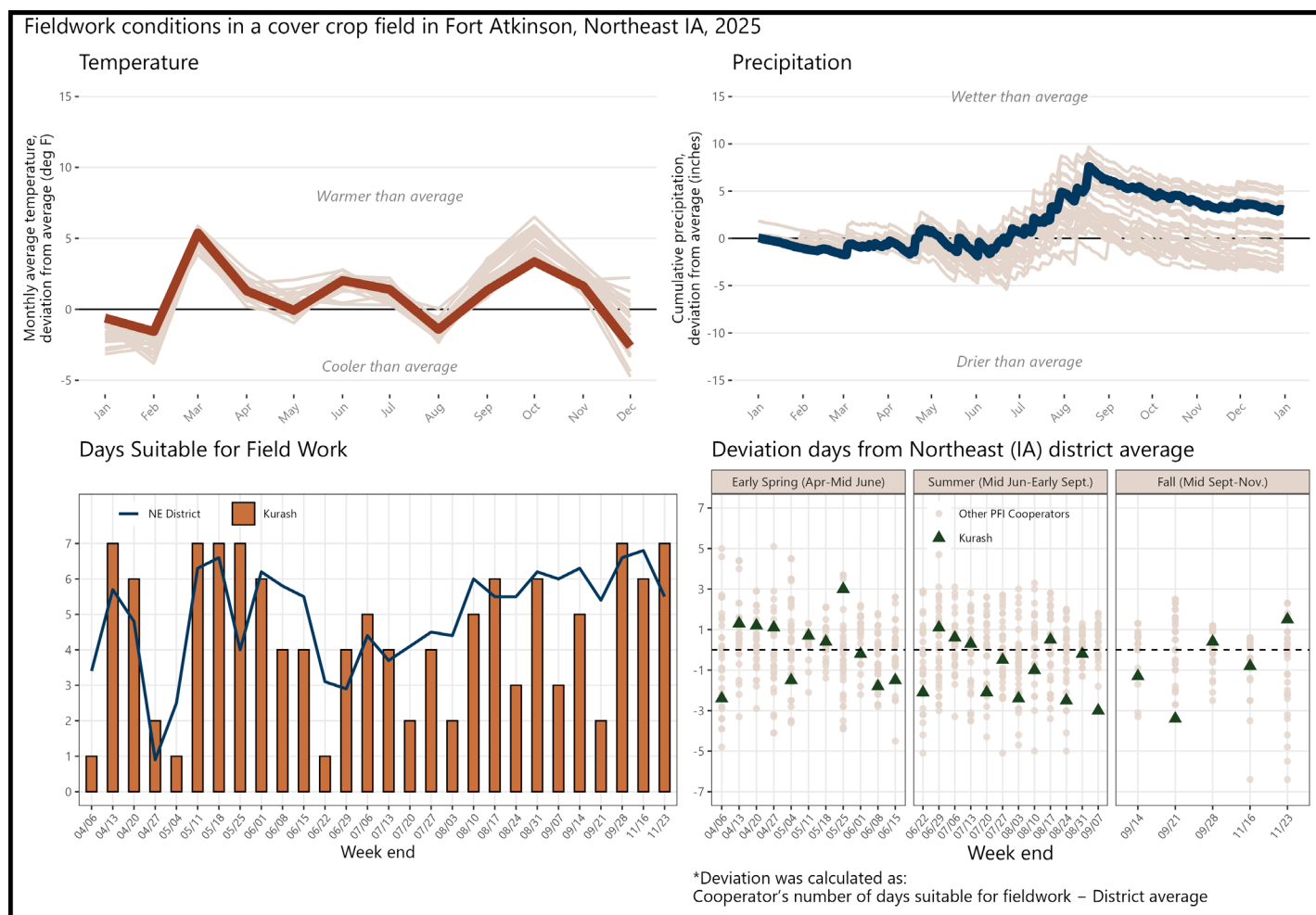


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Triti-cale and camelina	Cereal rye and turnip	Triti-cale and oats	Cereal rye and oats	Winter wheat	Cereal rye	None	None	None	None	None
Cover crop growth rating	Fair (4-11 in.)	Poor (<3 in.)	Good (12-17 in.)	Very good (>18 in.)	Fair (4-11 in.)	Good (12-17 in.)	-	-	-	-	-
Cash Crop	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn
Cash crop yield (bu/ac)	194	76	235	65	212	56	-	-	-	-	-

APPENDIX P – ROSS KURASH; FORT ATKINSON, IA

Kurash reported a total of **124 days suitable for fieldwork** from 04/06 to 11/23, while the **northeast district had 139 days suitable** for fieldwork over the same period. By season, Kurash reported **52 days suitable in early spring** compared with **52 for the northeast district**; **45 days in summer** compared with **56**; and **27 days in fall** compared with **31**.

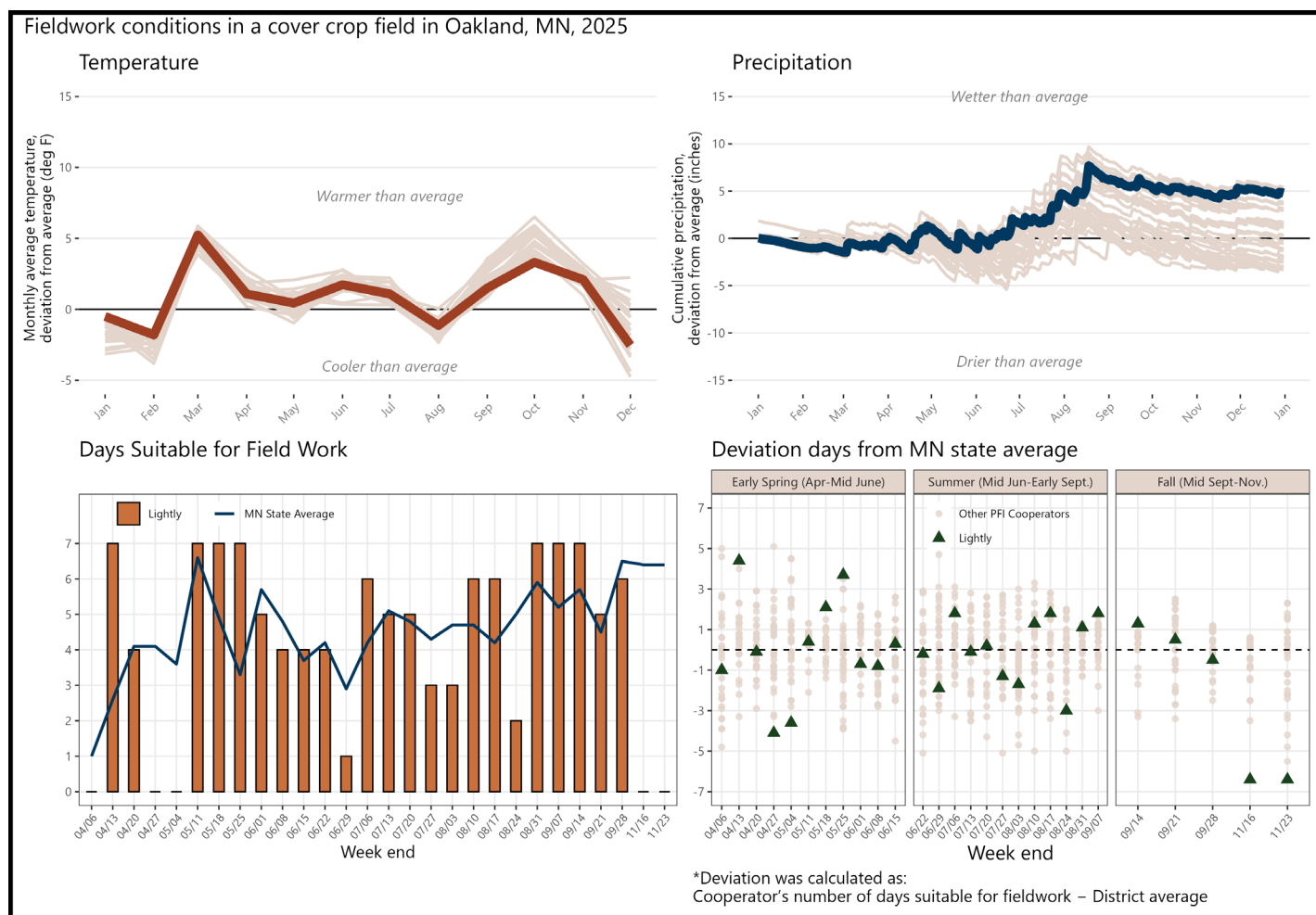


Field History:

	Year				
	2025	2024	2023	2022	2021
Cover crops previous fall	Cool season mix (oats, peas, kale, turnips, etc.)	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cover crop growth rating	Very good (> 18 in.)	Good (12-17 in.)	Fair (4-11 in.)	-	-
Cash Crop	Corn	Cereal rye	Soybeans	Corn	Soybeans
Cash crop yield (bu/ac)	169	35	52	-	-

APPENDIX Q – SCOTT LIGHTLY; OAKLAND, MN

Lightly reported a total of **118 days suitable for fieldwork** from 04/06 to 11/23, while the MN state average had **129 days suitable for fieldwork** over the same period. By season, Lightly reported **45 days suitable in early spring** compared with **44 for the MN state average**; **55 days in summer** compared with **55**; and **18 days in fall** compared with **30**.

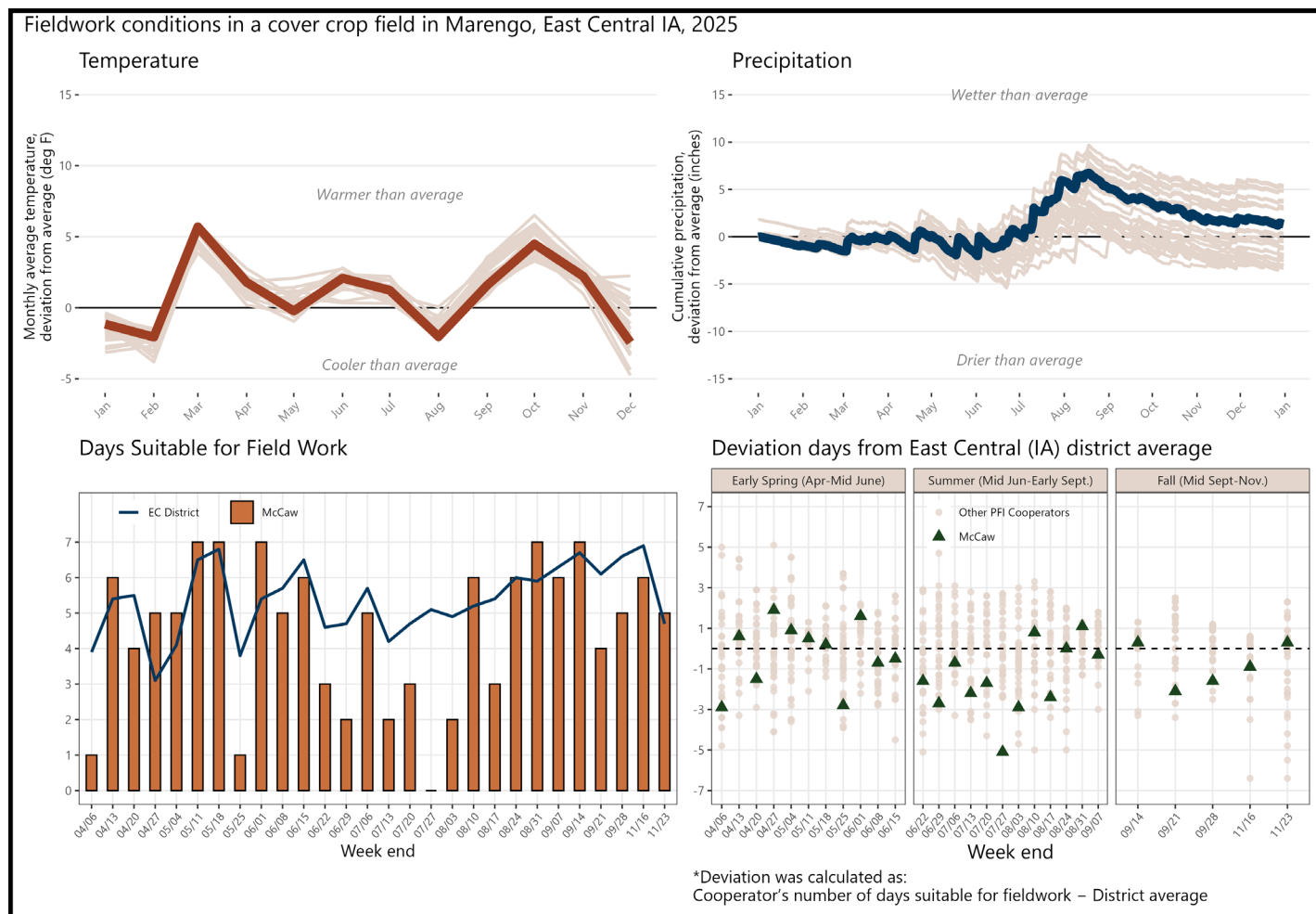


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Rye, triticale, winter camelina	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale	Rye, triticale
Cover crop growth rating	Poor (< 3in.)	Fair (4-11 in.)	Very good (>18 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	-	-	-	-
Cash crop	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn

APPENDIX R – ROSS MCCAW; MARENGO, IA

McCaw reported a total of **126 days suitable for fieldwork** from 04/06 to 11/23, while the **east central district had 150 days suitable** for fieldwork over the same period. By season, McCaw reported **54 days suitable in early spring** compared with **57 for the east central district**; **45 days in summer** compared with **63**; and **27 days in fall** compared with **31**.

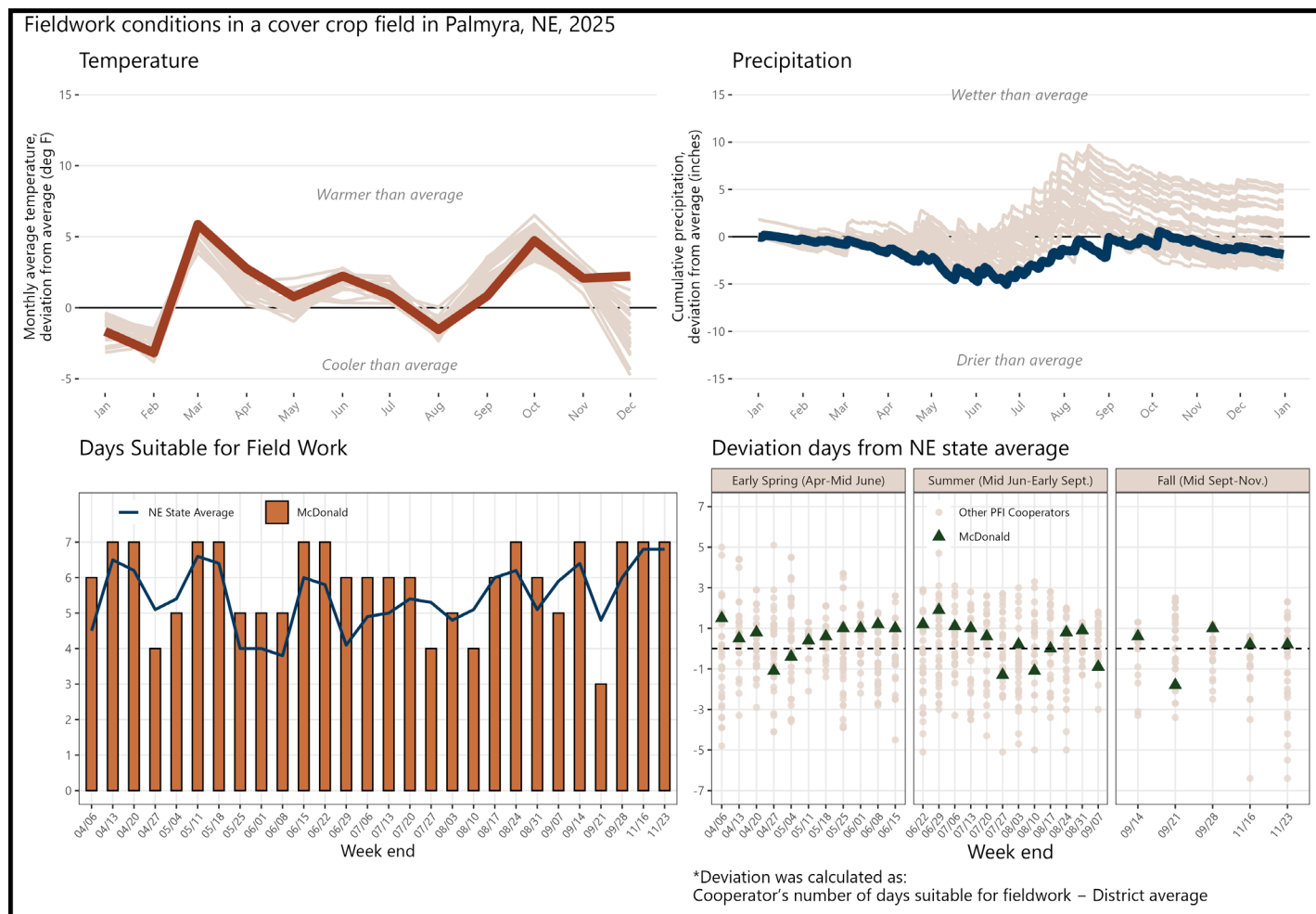


Field History:

	Year					
	2025	2024	2023	2022	2021	2020
Cover crops previous fall	-	Clover, turnip, radish, sunflower, rape, oats	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cover crop growth rating	-	Very good (> 18 in.)	Very good (> 18 in.)	Good (12-17 in.)	Good (12-17 in.)	Fair (4-11 in.)
Cash Crop	Corn	Cereal rye	Soybeans	Corn	Soybeans	Corn
Cash crop yield (bu/ac)	158.1	77	46	210	62	150

APPENDIX S – MICHAEL MCDONALD; PALMYRA, NE

McDonald reported a total of **164 days suitable for fieldwork** from 04/06 to 11/23, while the NE state average had **153 days suitable for fieldwork** over the same period. By season, McDonald reported **65 days suitable in early spring** compared with **58 for the NE state average**; **68 days in summer** compared with **64**; and **31 days in fall** compared with **31**.

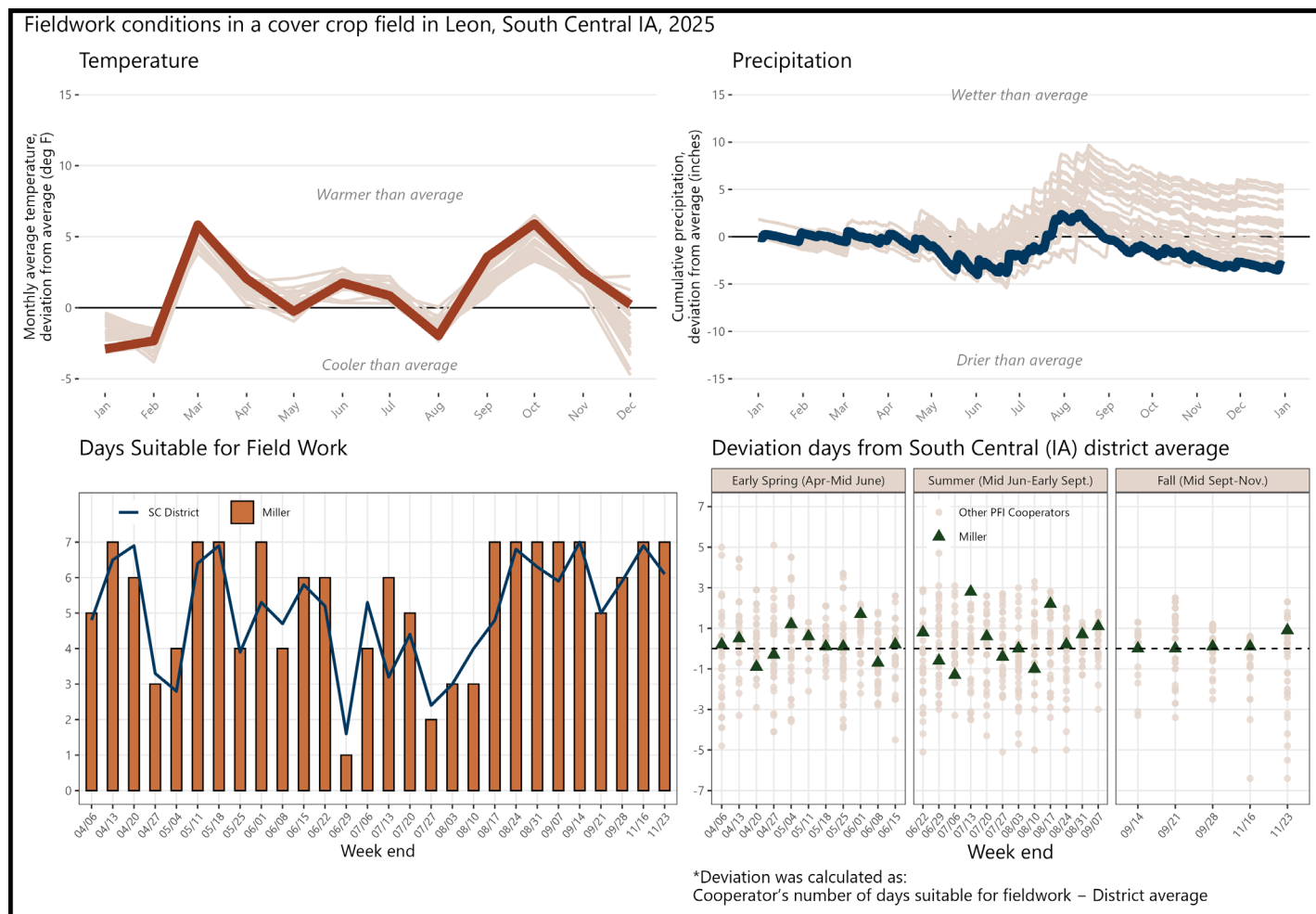


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Volunteer rye, vetch, 14 way mixture in summer (post rye)	7 way mixture	5 way mixture	5 way mixture	5 way mixture	Triticale	Oats, warm season mixture, then rye	Wheat, radishes, turnips, flax	12 way mixture post wheat	5 way mixture	5 way mixture
Cover crop growth rating	Very good (> 18 in.)	Very good (> 18 in.)	Very good (> 18 in.)	Fair (4-11 in.)	Very good (> 18 in.)	Very good (> 18 in.)	Very good (> 18 in.)	Very good (> 18 in.)	Very good (> 18 in.)	Fair (4-11 in.)	Very good (> 18 in.)
Cash Crop	Soybeans	Rye	Corn	Soybeans	Corn	Soybeans	Forage	Wheat	Soybeans	Corn	Soybeans
Cash crop yield (bu/ac)	59	60	232	66	228	-	-	-	-	-	-

APPENDIX T – LABAN MILLER; LEON, IA

Miller reported a total of **150 days suitable for fieldwork** from 04/06 to 11/23, while the **south central district had 141 days** suitable for fieldwork over the same period. By season, Miller reported **60 days suitable in early spring** compared with **57 for the south central district**; **58 days in summer** compared with **53**; and **32 days in fall** compared with **31**.

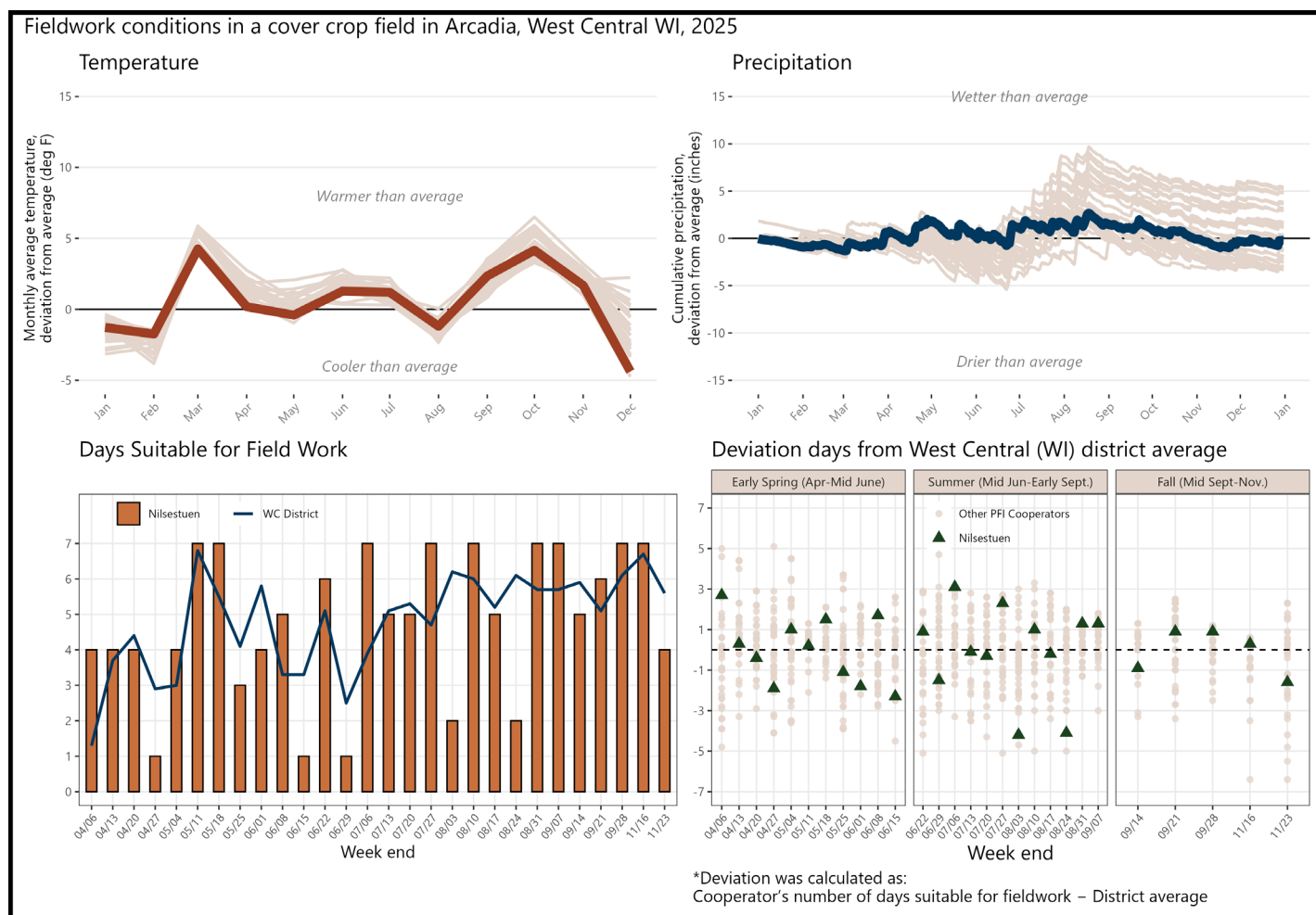


Field History:

	Year			
	2025	2024	2023	2022
Cover crops previous fall	Clover	Rye/Wheat	Rye/Wheat	Rye/Wheat
Cash crop	Corn	Rye/Wheat	Soybeans	Corn

APPENDIX U – KYLE NILSESTUEN; ARCADIA, WI

Nilsestuen reported a total of **134 days suitable for fieldwork** from 04/06 to 11/23, while the **west central district had 135 days** suitable for fieldwork over the same period. By season, Nilsestuen reported **44 days suitable in early spring** compared with **44 for the west central district**; **61 days in summer** compared with **62**; and **29 days in fall** compared with **29**.

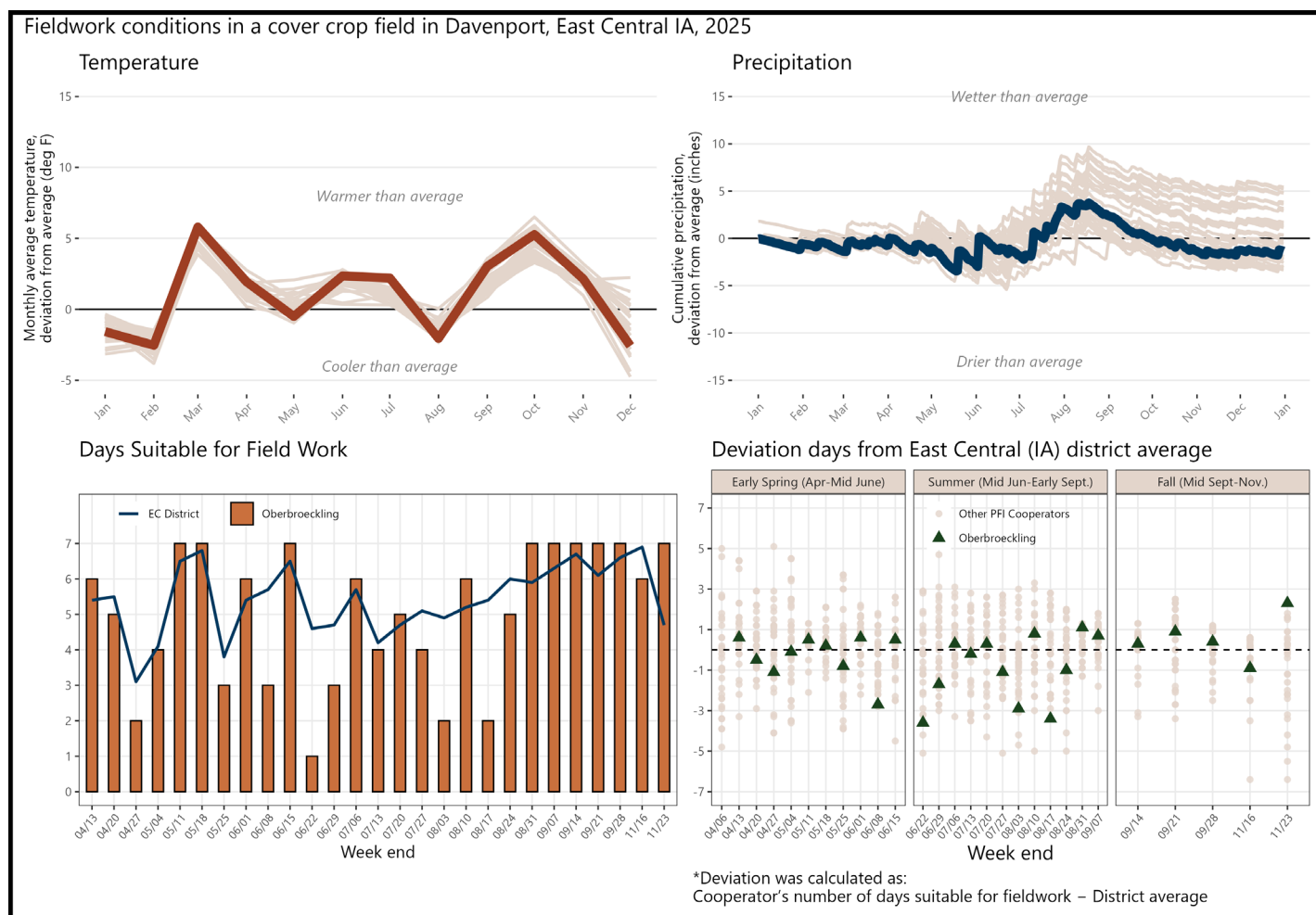


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Red clover, winter wheat, forage collard	Winter wheat	Winter rye	None	None	None	None	None	None	None	None
Cover crop growth rating	Very good (> 18 in.)	Very good (> 18 in.)	Very good (> 18 in.)	-	-	-	-	-	-	-	-
Cash Crop	Corn	Winter wheat	Soy-beans	Corn	-	-	-	-	-	-	-
Cash crop yield (bu/ac)	-	87	48	198	-	-	-	-	-	-	-

APPENDIX V – DAVID OBERBROECKLING; DAVENPORT, IA

Oberbroeckling reported a total of **136 days suitable for fieldwork** from 04/13 to 11/23, while the **east central district had 146 days suitable** for fieldwork over the same period. By season, Oberbroeckling reported **50 days suitable in early spring** compared with **53 for the east central district**; **52 days in summer** compared with **63**; and **34 days in fall** compared with **31**.



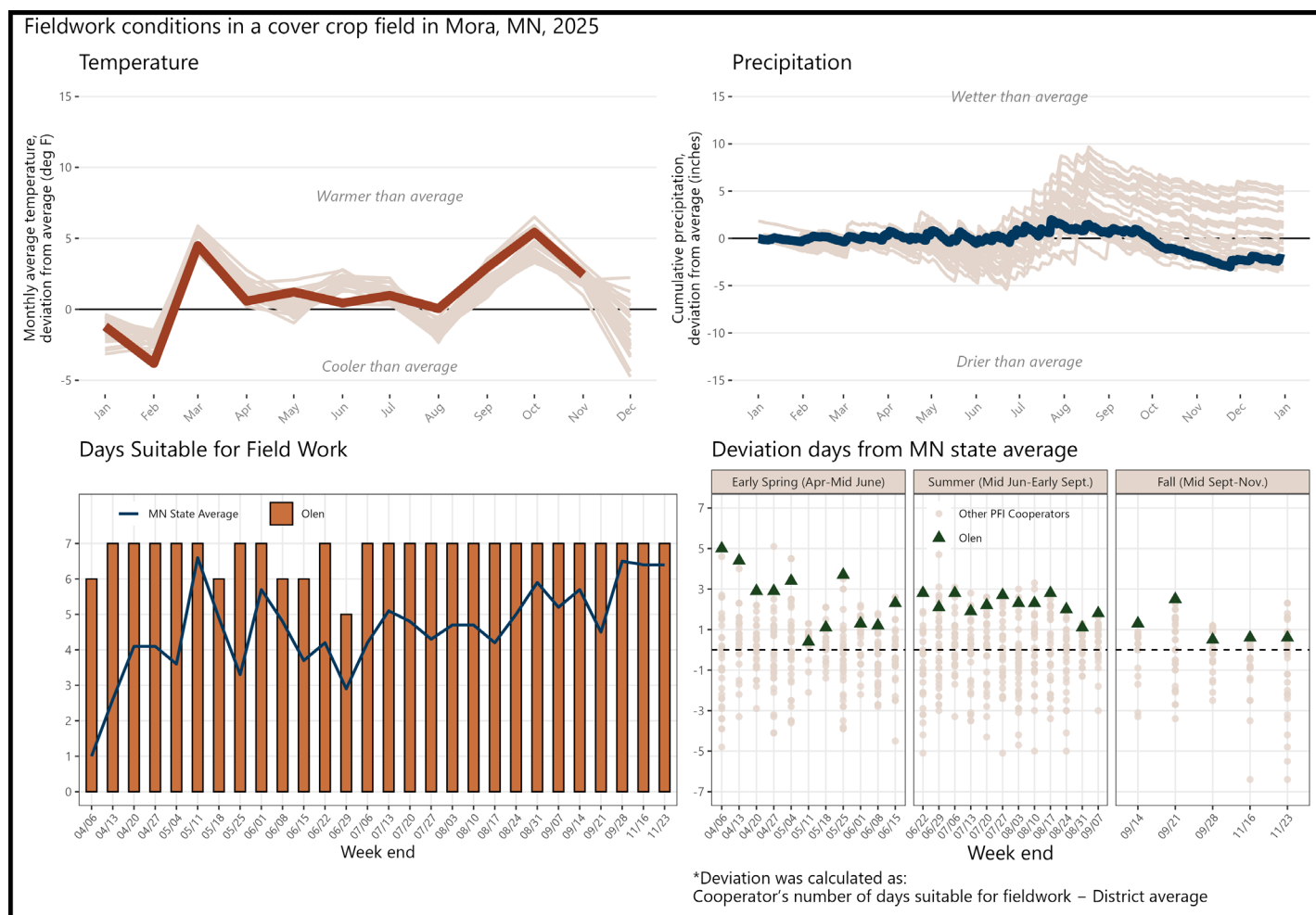
Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Cover crop growth rating	Very good (> 18 in.)	Good (12-17 in.)	Good (12-17 in.)	Good (12-17 in.)	-	-	-	-	-	-	-
Cash crop	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn

*Species not informed

APPENDIX W – LUCAS OLEN; MORA, MN

Olen reported a total of **190 days suitable for fieldwork** from 04/06 to 11/23, while the **MN state average had 129 days** suitable for fieldwork over the same period. By season, Olen reported **73 days suitable in early spring** compared with **44 for the MN state average**; **82 days in summer** compared with **55**; and **35 days in fall** compared with **30**.

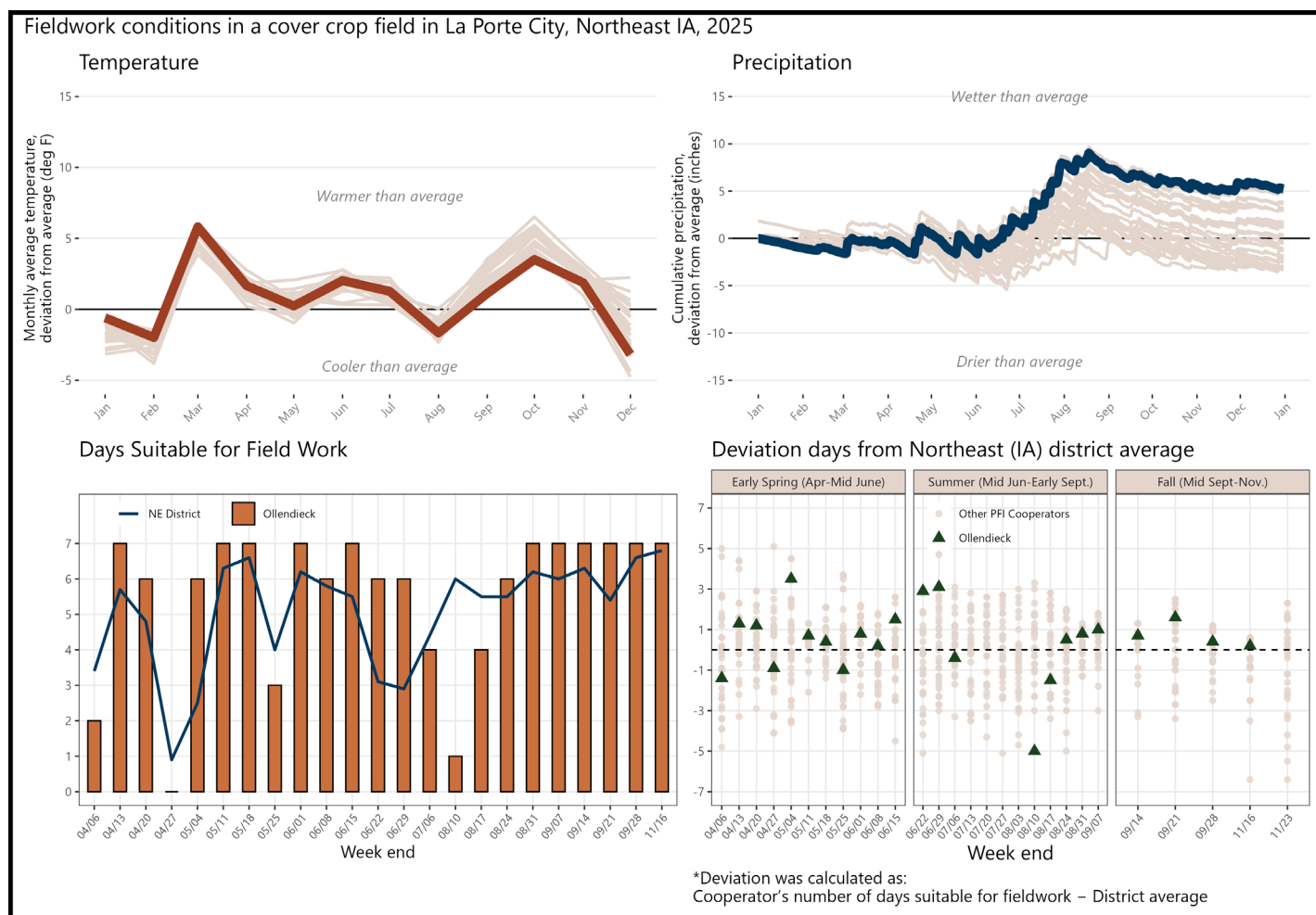


Field History:

		Year									
		2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Cover crops previous fall	Cereal rye, rad-ish, tur-nip, field peas	None	None	None	None	None	None	None	None	None	None
Cover crop growth rating	Fair (4-11 in.)	-	-	-	-	-	-	-	-	-	-
Cash Crop	Soybeans	Oats	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Corn
Cash crop yield (bu/ac)	62	74	39	160	29	180	47	227	53	187	

APPENDIX X – MATT OLLENDIECK; LA PORTE CITY, IA

Ollendieck reported a total of **127 days suitable for fieldwork** from 04/06 to 11/16, while the **northeast district had 116 days** suitable for fieldwork over the same period. By season, Ollendieck reported **58 days suitable in early spring** compared with **52 for the northeast district**; **41 days in summer** compared with **40**; and **28 days in fall** compared with **25**.

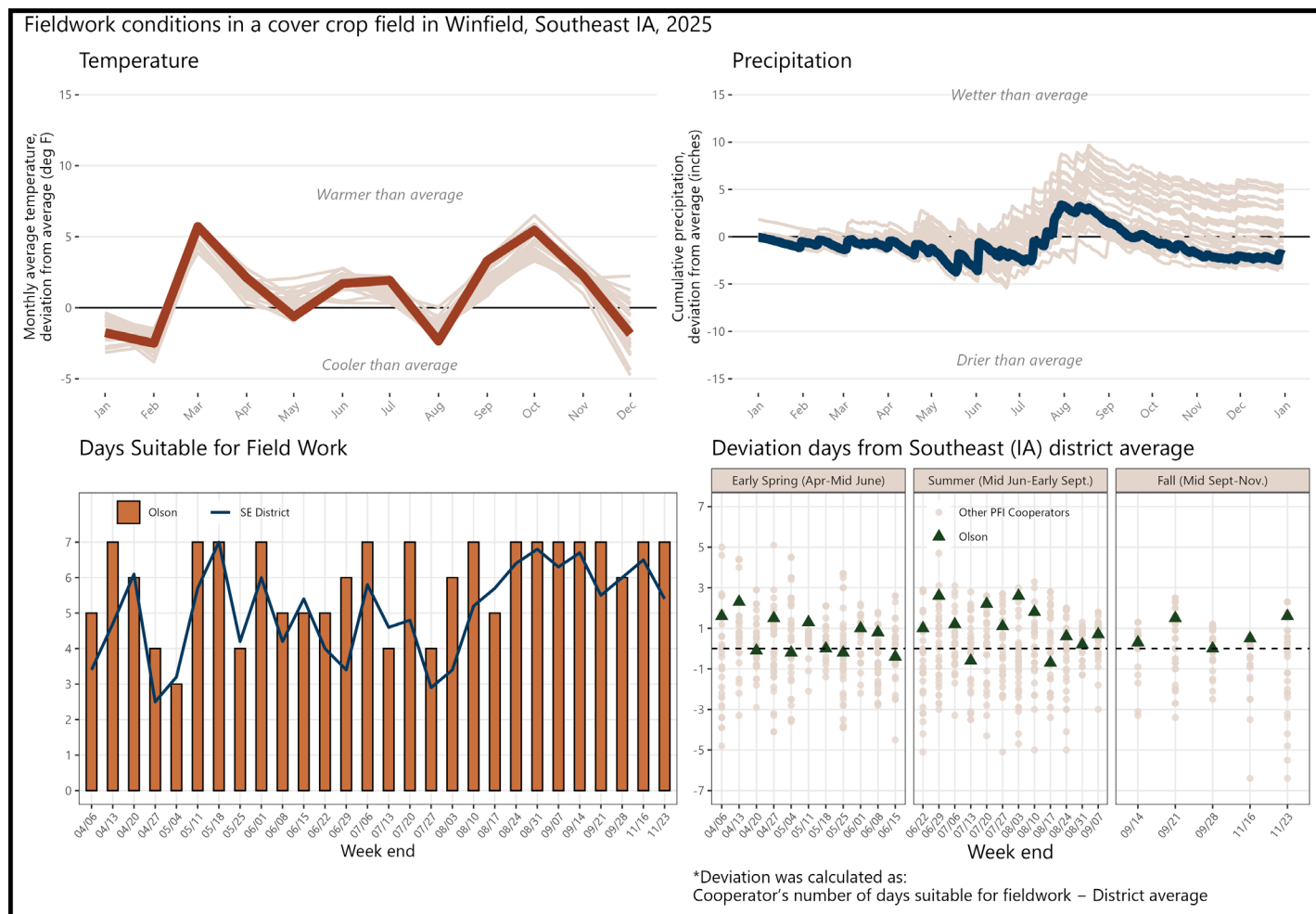


Field History:

	Year							
	2025	2024	2023	2022	2021	2020	2019	2018
Cover crops previous fall	Cereal rye	Oats	Cereal rye	Cereal rye	Cereal rye	Oats	Oats	Oats
Cover crop growth rating	Good (12-17 in.)	Poor (<3 in.)	Fair (4-11 in.)	-	-	-	-	-
Cash crop	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn

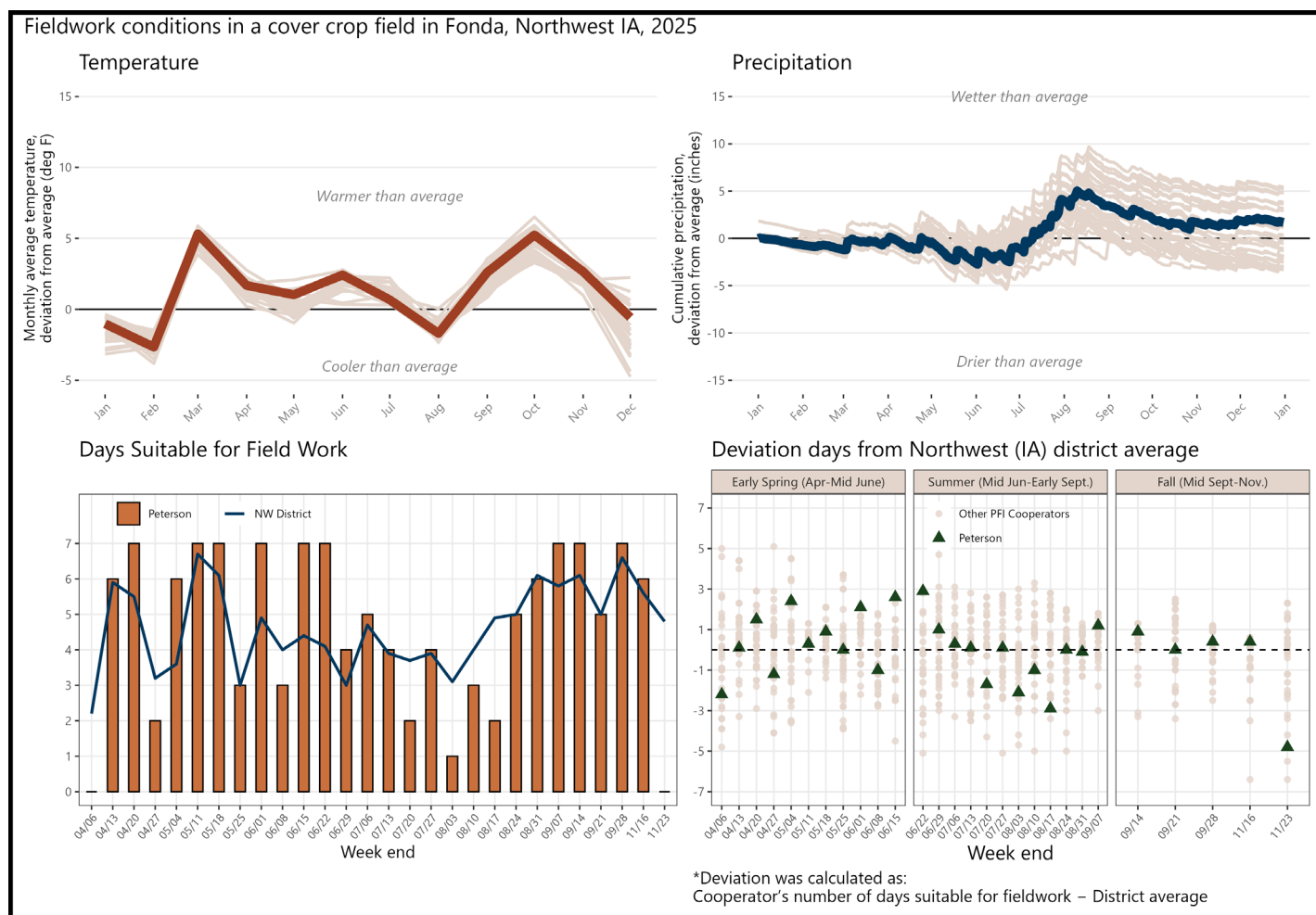
APPENDIX Y – JEFF OLSON; WINFIELD, IA

Olson reported a total of **166 days suitable for fieldwork** from 04/06 to 11/23, while the **southeast district had 142 days** suitable for fieldwork over the same period. By season, Olson reported **60 days suitable in early spring** compared with **52 for the southeast district**; **72 days in summer** compared with **59**; and **34 days in fall** compared with **30**.



APPENDIX Z – NEIL PETERSON; FONDA, IA

Peterson reported a total of **130 days suitable for fieldwork** from 04/06 to 11/23, while the **northwest district also had 130 days** suitable for fieldwork over the same period. By season, Peterson reported **55 days suitable in early spring** compared with **50 for the northwest district**; **50 days in summer** compared with **52**; and **25 days in fall** compared with **28**.

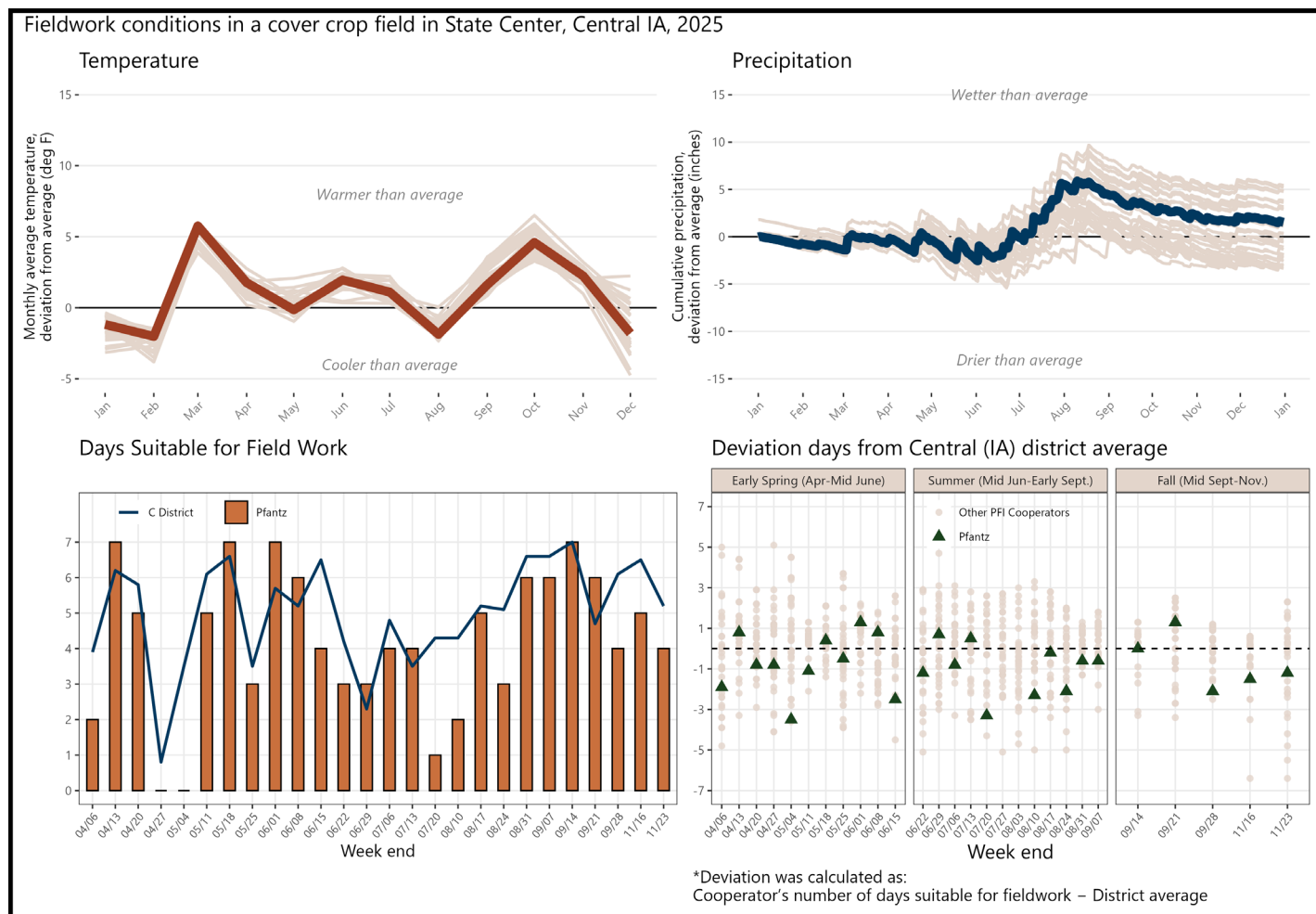


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	None	Cereal rye	Red clover	Oats, turnips	None	None	None	None	None	None	None
Cover crop	Oats	Soy-beans	Corn	Oats	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans
Cash crop yield (bu/ac)	110	-	-	-	-	-	-	-	-	-	-

APPENDIX AA – CRAIG PFANTZ; STATE CENTER, IA

Pfantz reported a total of **109 days suitable for fieldwork** from 04/06 to 11/23, while the **central district had 130 days** suitable for fieldwork over the same period. By season, Pfantz reported **46 days suitable in early spring** compared with **54 for the central district**; **37 days in summer** compared with **47**; and **26 days in fall** compared with **30**.

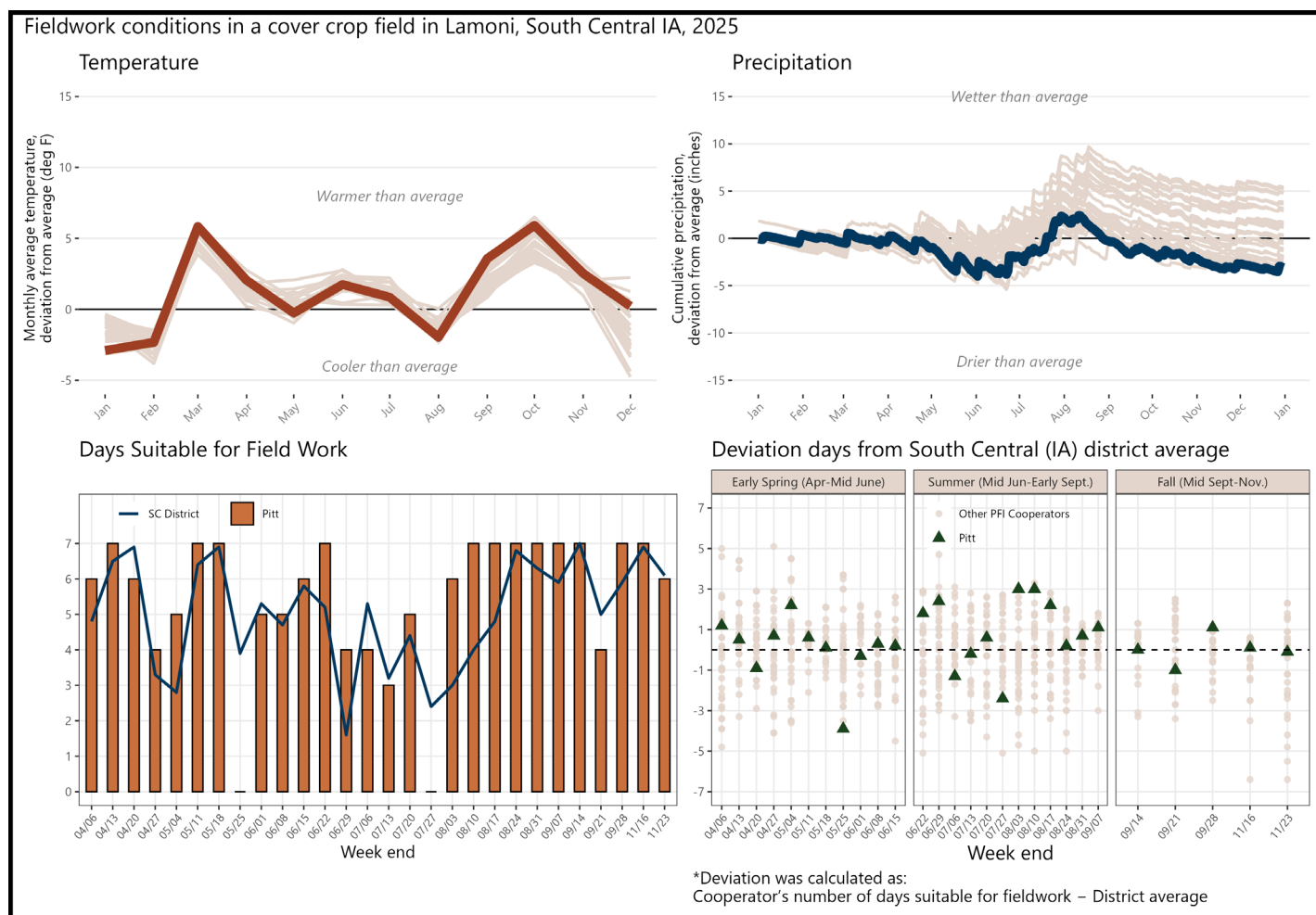


Field History:

Year											
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye and winter cam-elina	Oats and winter cam-elina	Cereal rye	Oats	Cereal rye	Oats	None	None	None	None	None
Cash crop	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	-	-	-	-	-

APPENDIX AB – MAX PITT; LAMONI, IA

Pitt reported a total of **153 days suitable for fieldwork** from 04/06 to 11/23, while the **south central district had 141 days** suitable for fieldwork over the same period. By season, Pitt reported **58 days suitable in early spring** compared with **57 for the south central district**; **64 days in summer** compared with **53**; and **31 days in fall** compared with **31**.

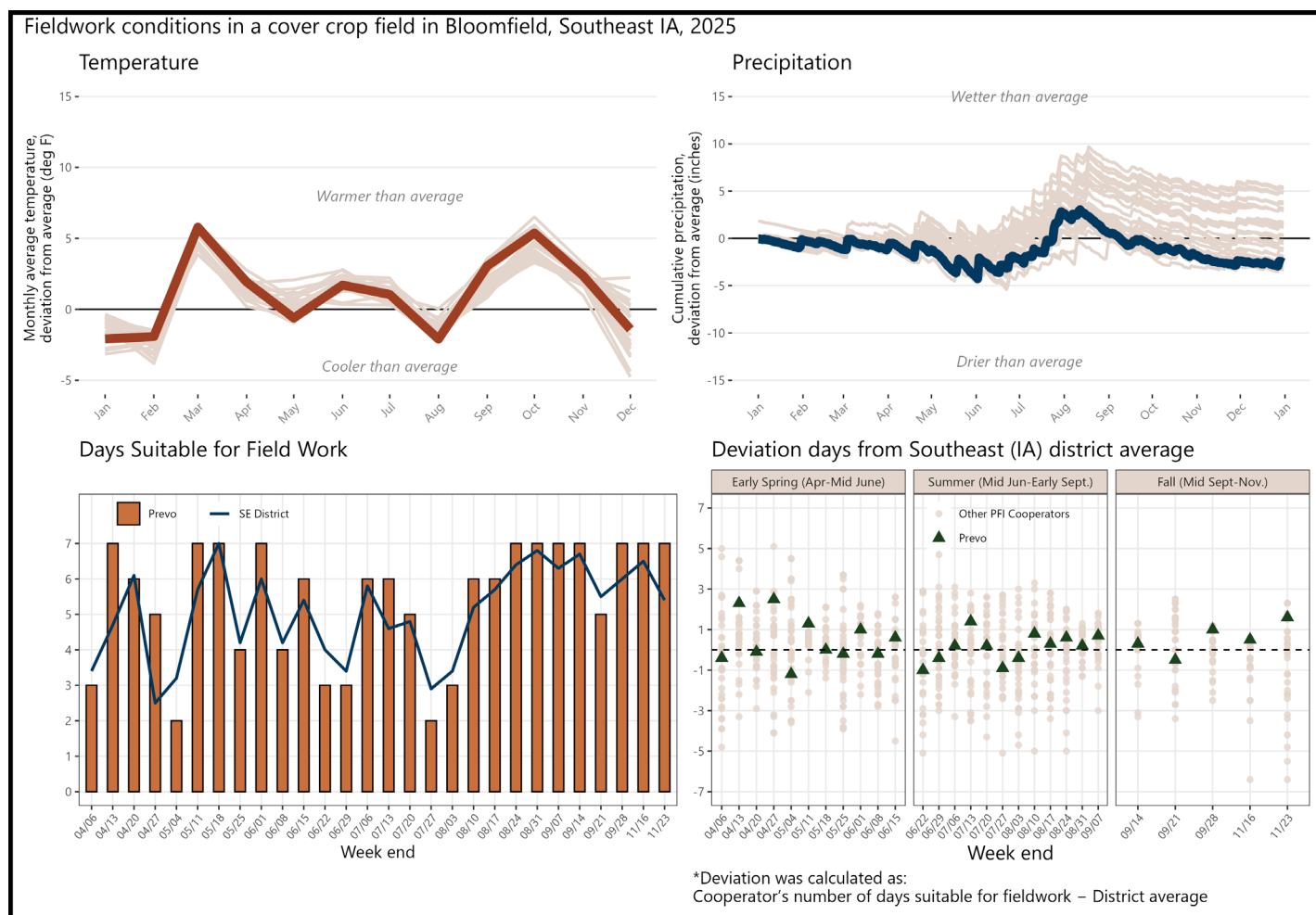


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cover crop growth rating	Very good (> 18 in.)	Very good (> 18 in.)	-	-	-	-	-	-	-	-	-
Cash crop	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans
Cash crop yield (bu/ac)	-	140	55	170	50	165	50	160	50	155	45

APPENDIX AC – KEVIN PREVO; BLOOMFIELD, IA

Prevo reported a total of **152 days suitable for fieldwork** from 04/06 to 11/23, while the **southeast district had 142 days** suitable for fieldwork over the same period. By season, Prevo reported **58 days suitable in early spring** compared with **52 for the southeast district**; **61 days in summer** compared with **59**; and **33 days in fall** compared with **30**.

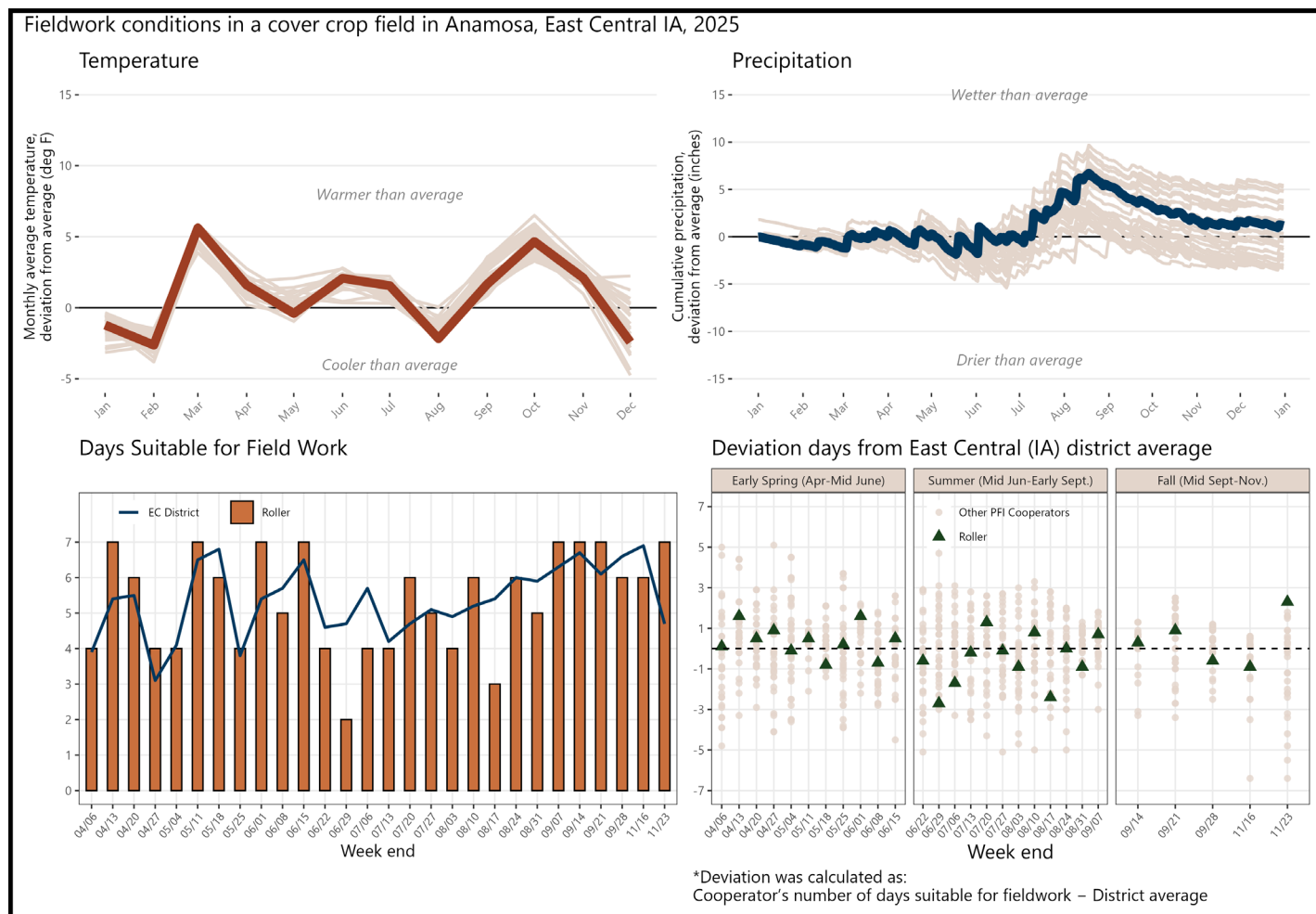


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye
Cover crop growth rating	Poor (<3 in.)	Very good (>18 in.)	-	-	-	-	-	-	-	-	-
Cash crop	Soy-beans	Cereal rye	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans

APPENDIX AD – WILLIAM ROLLER; ANAMOSA, IA

Roller reported a total of **150 days suitable for fieldwork** from 04/06 to 11/23, while the **east central district had 150 days** suitable for fieldwork over the same period. By season, Roller reported **61 days suitable in early spring** compared with **57 for the east central district**; **56 days in summer** compared with **63**; and **33 days in fall** compared with **31**.

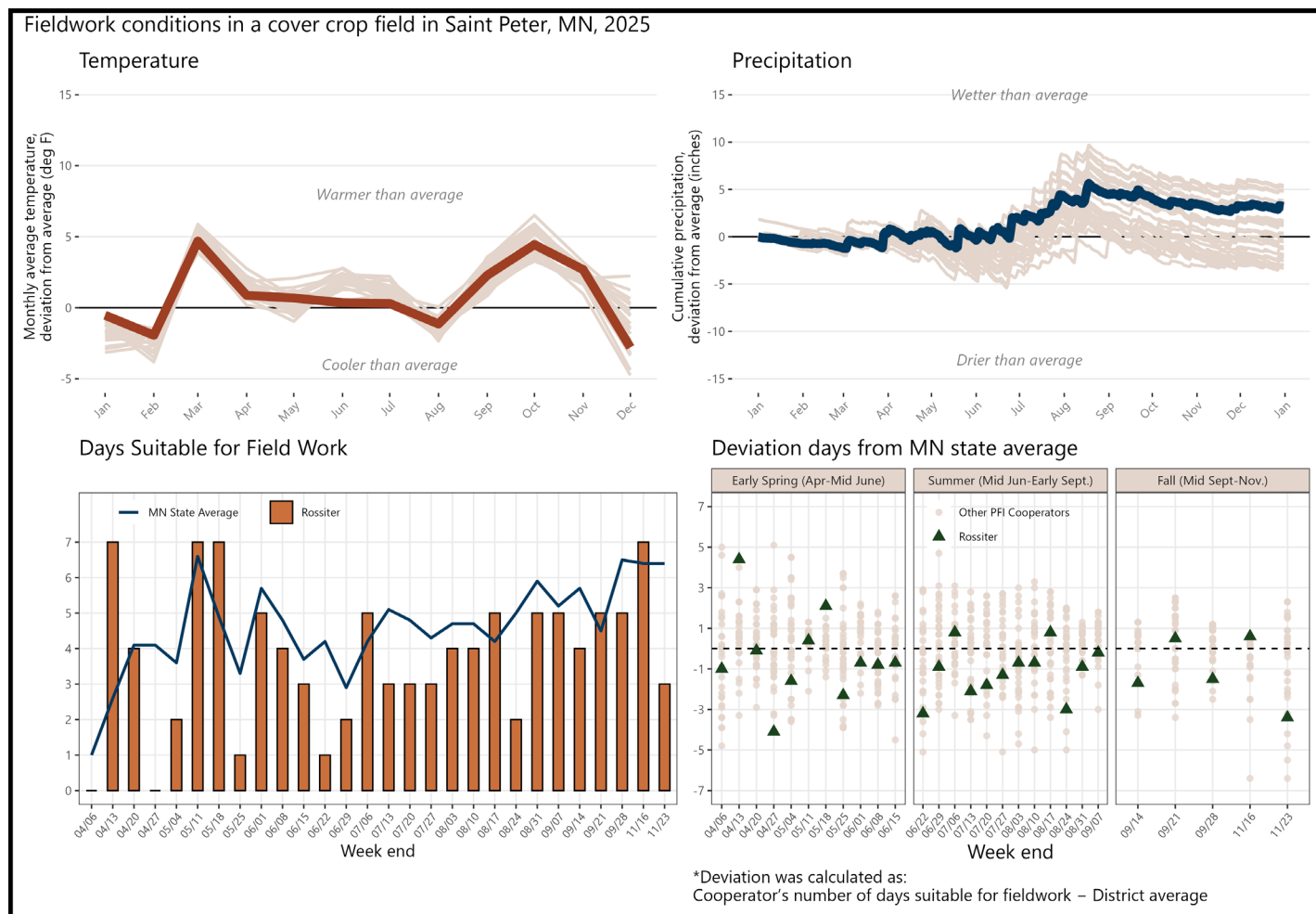


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye	Cereal rye and camelina	Cereal rye	Cereal rye	Cereal rye	Cereal rye	None	None	None	None	None
Cover crop growth rating	Very good (>18 in.)	Fair (4-11 in.)	Good (12-17 in.)	Very good (>18 in.)	Good (12-17 in.)	Good (12-17 in.)	-	-	-	-	-
Cash crop	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Corn	Corn	Corn	Corn	Corn
Cash crop yield (bu/ac)	29	197.7	62	-	-	-	-	-	-	-	-

APPENDIX AE – DENNIS ROSSITER; SAINT PETER, MN

Rossiter reported a total of **106 days suitable for fieldwork** from 04/06 to 11/23, while the **MN state average had 129 days** suitable for fieldwork over the same period. By season, Rossiter reported **40 days suitable in early spring** compared with **44 for the MN state average**; **42 days in summer** compared with **55**; and **24 days in fall** compared with **30**.

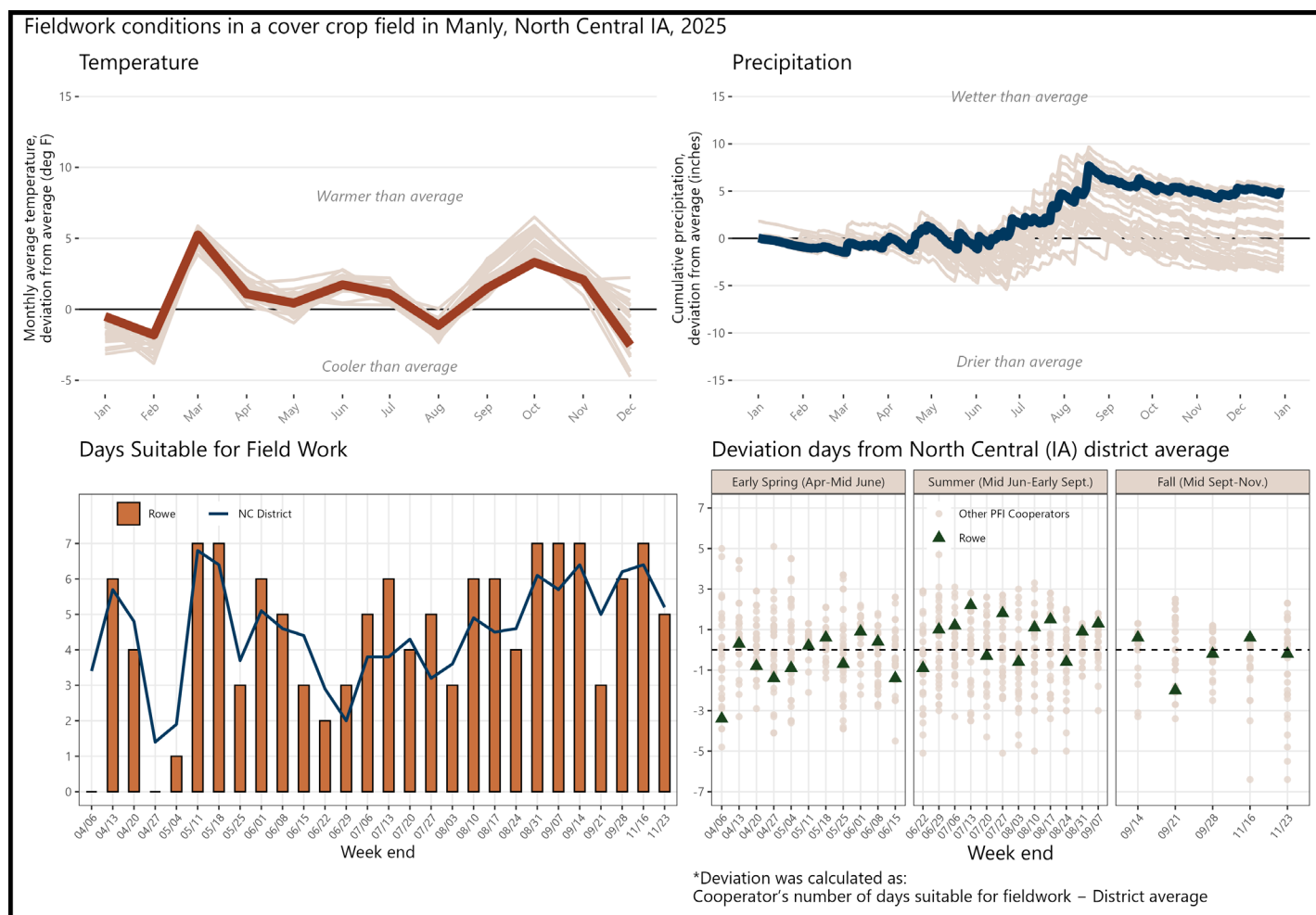


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Winter wheat and cereal rye	None	Cereal rye	None	Cereal rye	None	None	None	None	None	Winter wheat
Cover crop growth rating	Fair (4-11 in.)	-	Fair (4-11 in.)	-	Good (12-17 in.)	-	-	-	-	-	-
Cash crop	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Corn	Soy-beans	Soy-beans	-
Cash crop yield (bu/ac)	-	169	63	235	61	186	48	225	61	53	-

APPENDIX AF – JOE ROWE; MANLY, IA

Rowe reported a total of **128 days suitable for fieldwork** from 04/06 to 11/23, while the **north central district had 127 days** suitable for fieldwork over the same period. By season, Rowe reported **42 days suitable in early spring** compared with **48 for the north central district**; **58 days in summer** compared with **49**; and **28 days in fall** compared with **29**.

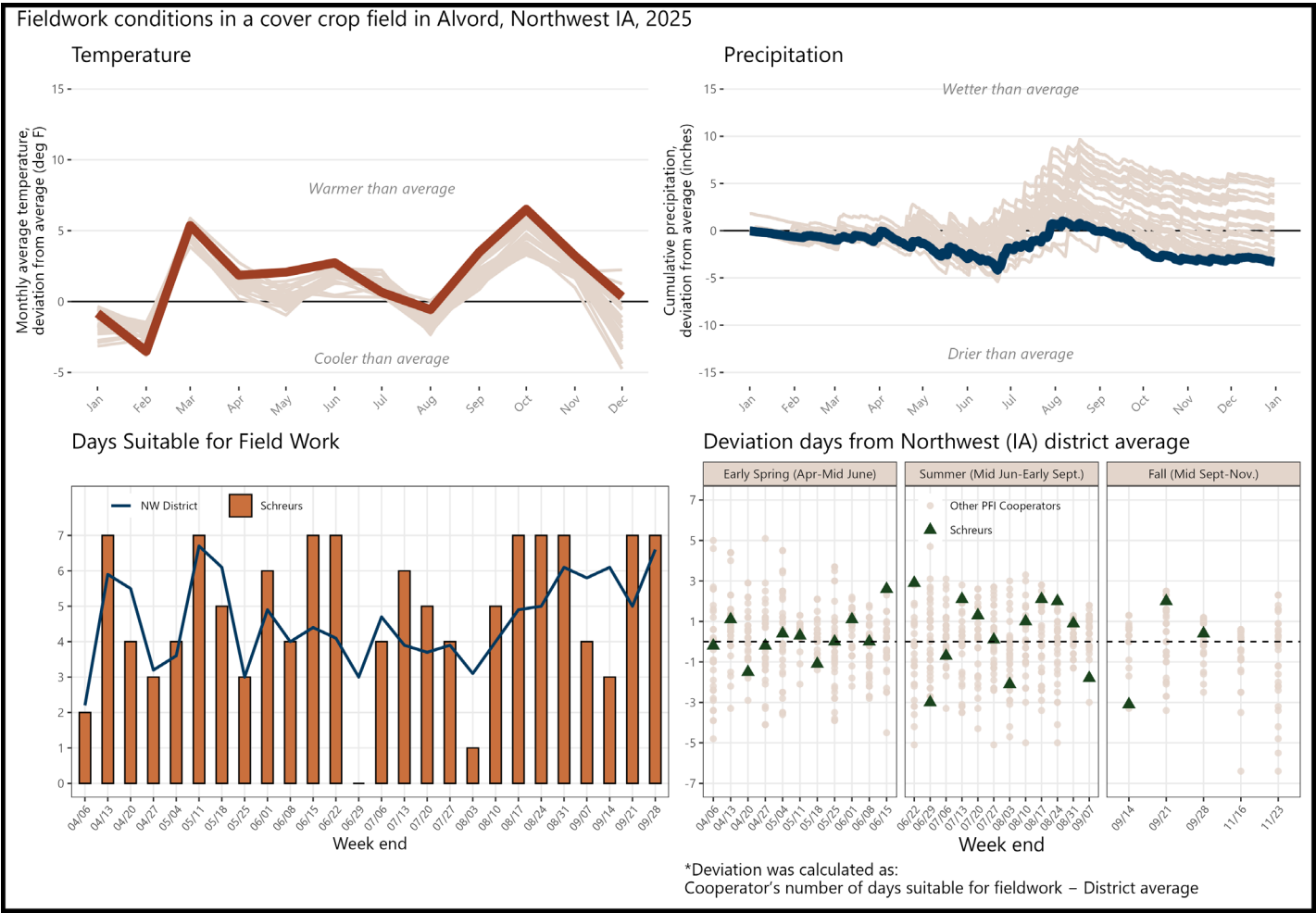


Field History:

		Year									
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye (1/3 of farm); 4 way mix (re-main-der)	Cereal rye and oats	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	None	None	None
Cover crop growth rating	No growth	Good (12-17 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Poor (<3 in.)	Poor (<3 in.)	Poor (<3 in.)	Fair (4-11 in.)	-	-	-
Cash crop	Corn	Corn	Soy-beans	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn
Cash crop yield (bu/ac)	224.7	196.9	40.8	198	177	172	183	173	185	207	232

APPENDIX AG – WILLIAM SCHREURS; ALVORD, IA

Schreurs reported a total of **126 days suitable for fieldwork** from 04/06 to 09/28, while the **northwest district had 119 days** suitable for fieldwork over the same period. By season, Schreurs reported **52 days suitable in early spring** compared with **50 for the northwest district**; **57 days in summer** compared with **52**; and **17 days in fall** compared with **18**.

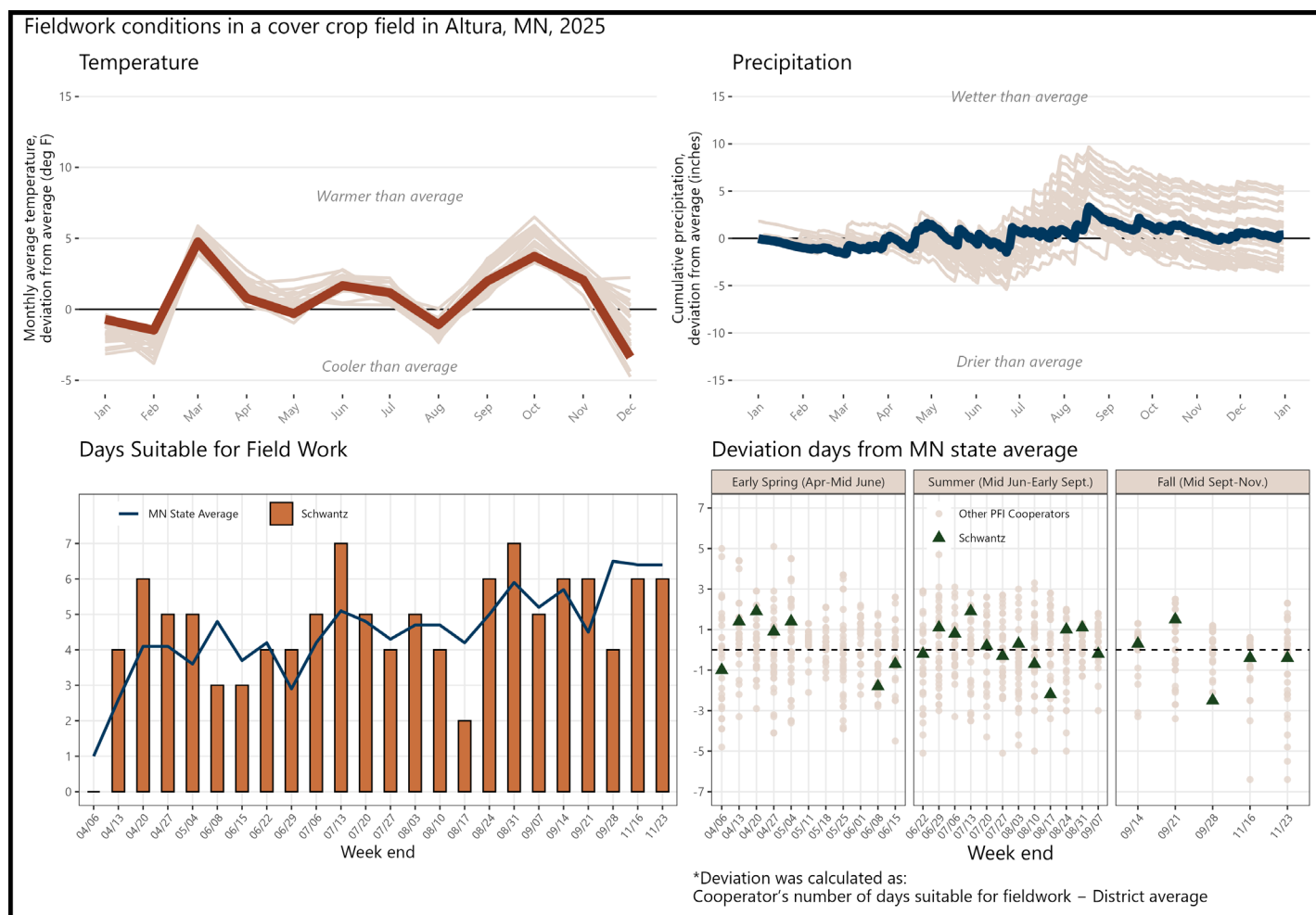


Field History:

Year		
	2025	2024
Cover crops previous fall	Cereal rye	None
Cover crop growth rating	Fair (4-11 in.)	-
Cash crop	Soybeans	Corn

APPENDIX AH – PHIL SCHWANTZ; ALTURA, MN

Schwantz reported a total of **112 days suitable for fieldwork** from 04/06 to 11/23, while the **MN state average had 109 days** suitable for fieldwork over the same period. By season, Schwantz reported **26 days suitable in early spring** compared with **24 for the MN state average**; **58 days in summer** compared with **55**; and **28 days in fall** compared with **30**.

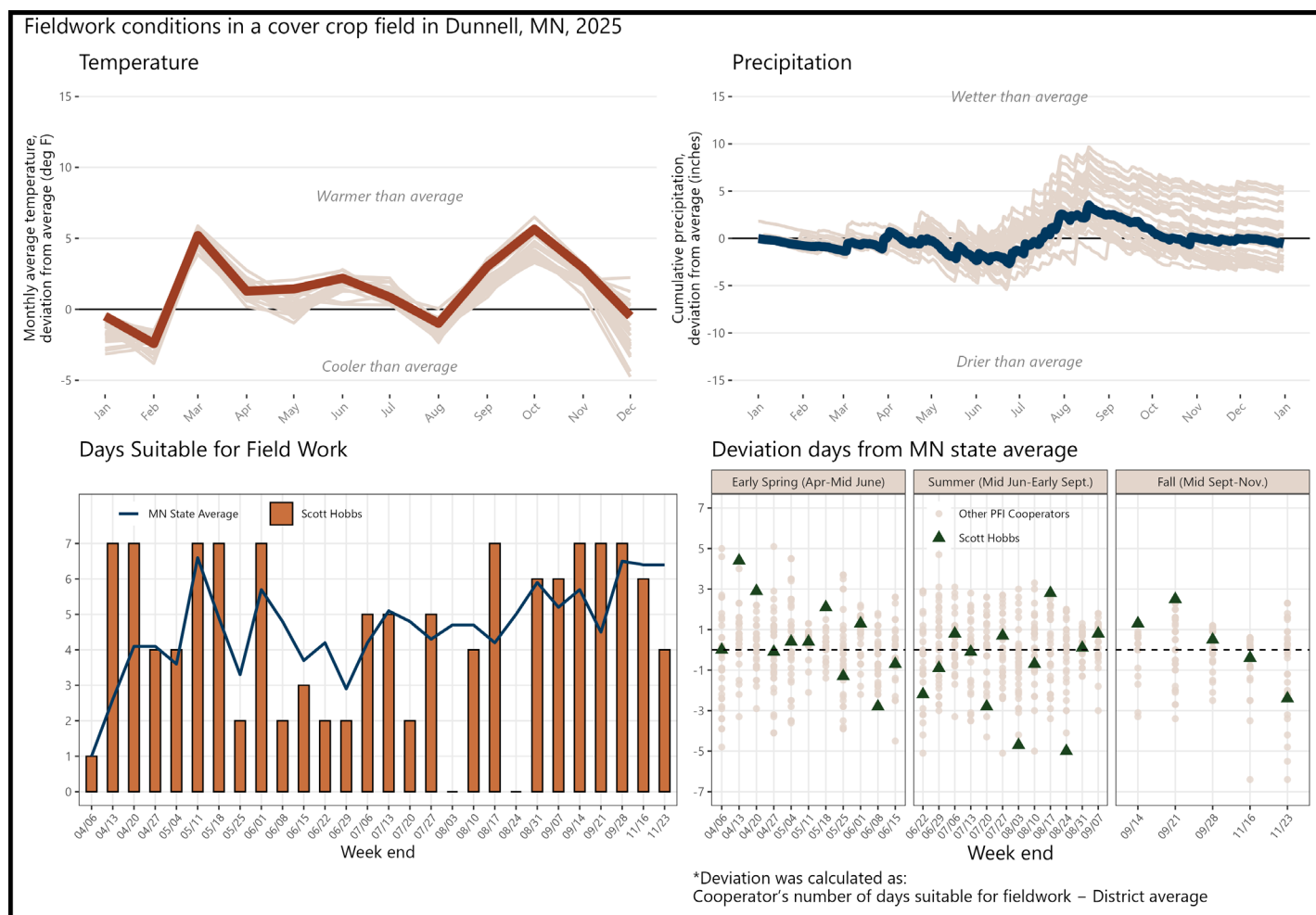


Field History:

	Year					
	2025	2024	2023	2022	2021	2020
Cover crops previous fall	Cereal rye	Cereal rye	Cereal rye	None	None	none
Cover crop growth rating	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans
Cash crop	165	57	210	68	234	62

APPENDIX AI – BAILEY SCOTT HOBBS; DUNNELL, MN

Scott Hobbs reported a total of **126 days suitable for fieldwork** from 04/06 to 11/23, while the **MN state average had 129 days** suitable for fieldwork over the same period. By season, Scott Hobbs reported **51 days suitable in early spring** compared with **44 for the MN state average**; **44 days in summer** compared with **55**; and **31 days in fall** compared with **30**.

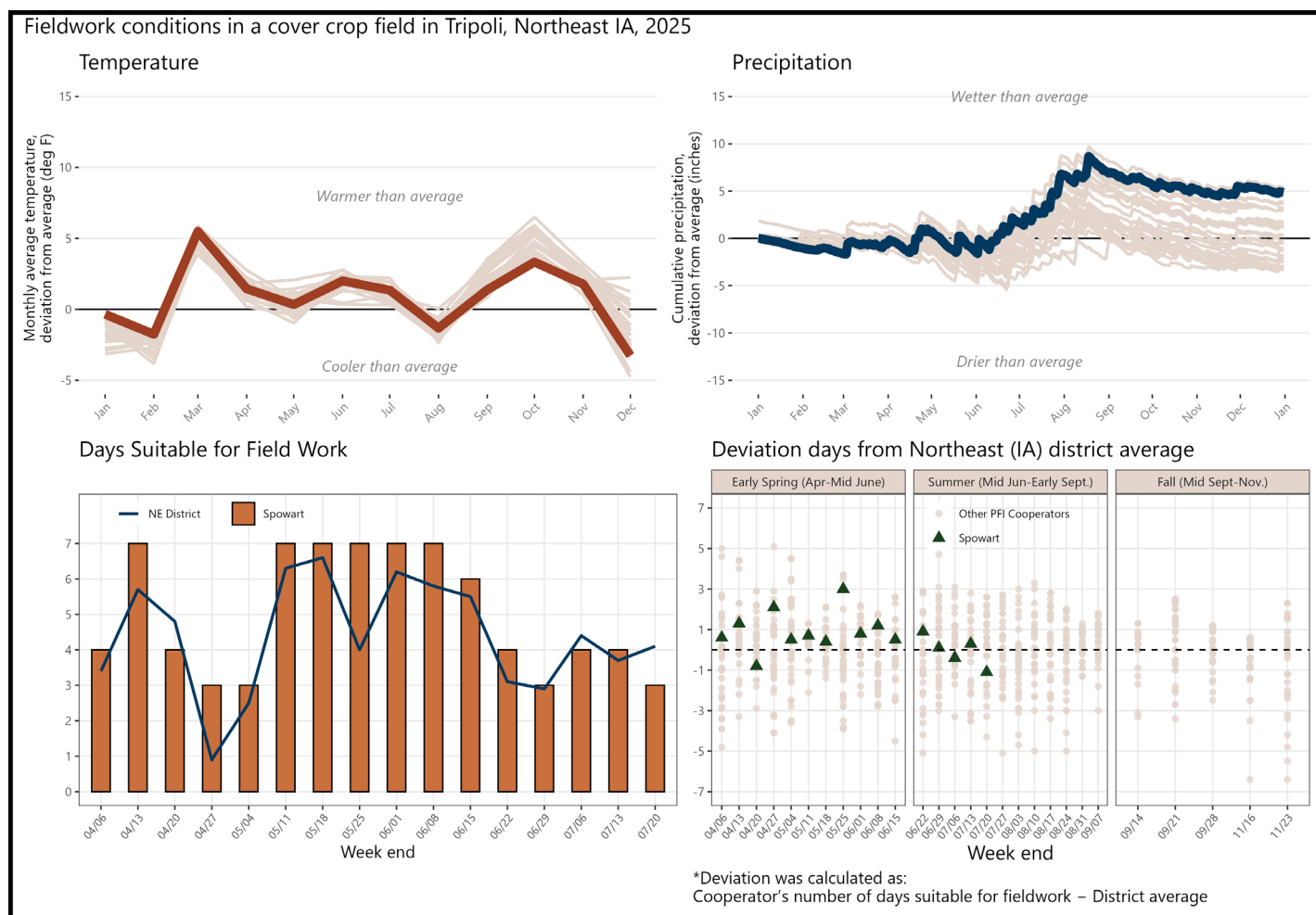


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Oats, white dutch clover, boston plantain	Cereal rye	None	Cereal rye	None	None	None	None	None	None	None
Cover crop growth rating	Poor (<3 in.)	Good (12-17 in.)	-	Fair (4-11 in.)	-	-	-	-	-	-	-
Cash crop	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn
Cash crop yield (bu/ac)	178	41	212	52	-	-	-	-	-	-	-

APPENDIX AJ – KYLE SPOWART; TRIPOLI, IA

Spowart reported a total of **80 days suitable for fieldwork** from 04/06 to 07/20, while the **northeast district had 70 days** suitable for fieldwork over the same period. By season, Spowart reported **62 days suitable in early spring** compared with **52 for the northeast district**.

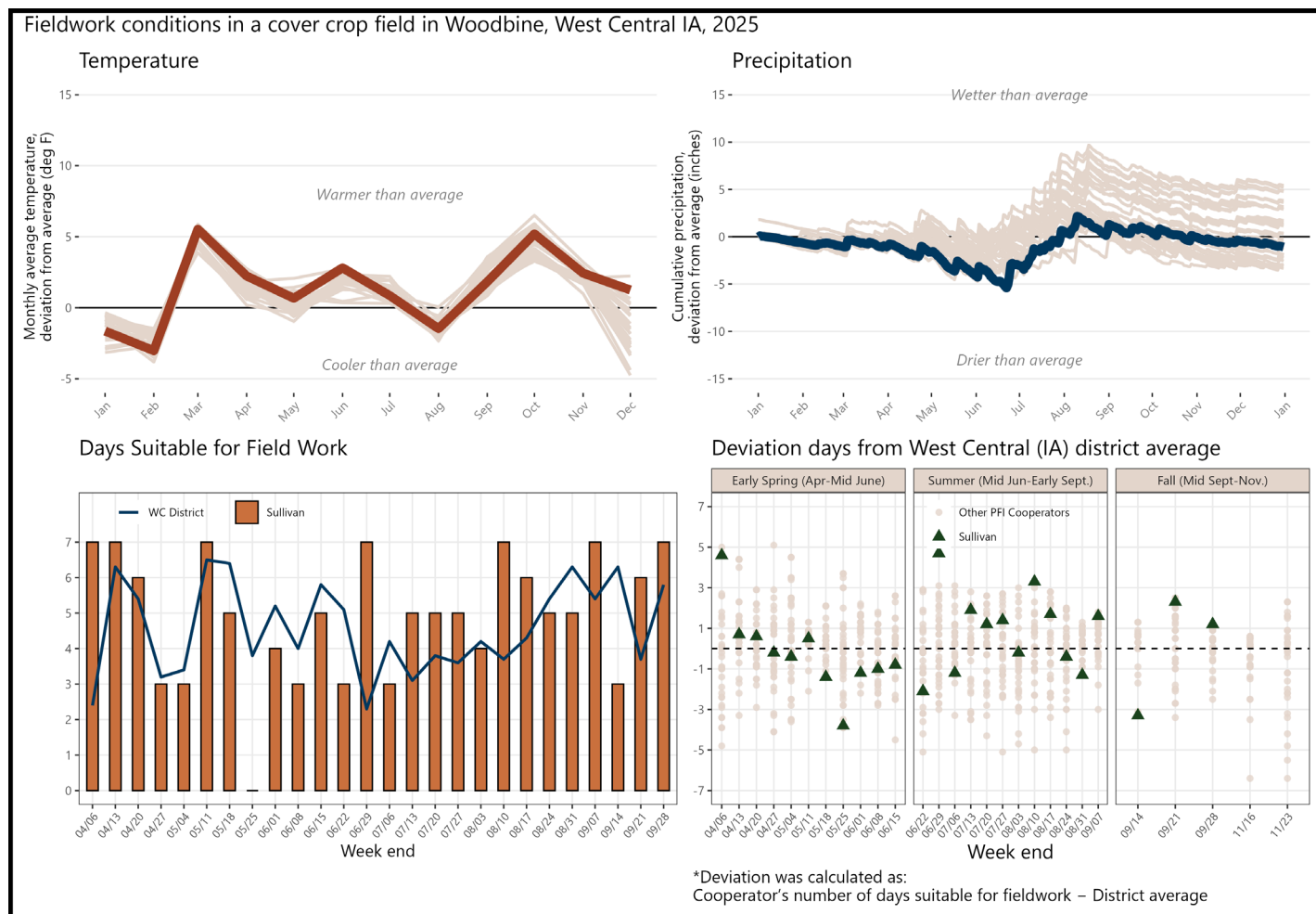


Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Yes*	Cereal rye	Cereal rye	None	None	None	None	None	None	None	None
Cover crop growth rating	Non-GMO Corn	Cereal rye seed	Soy-beans	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn
Cash crop	-	51	66	228	208	207	234	228	246	222	225

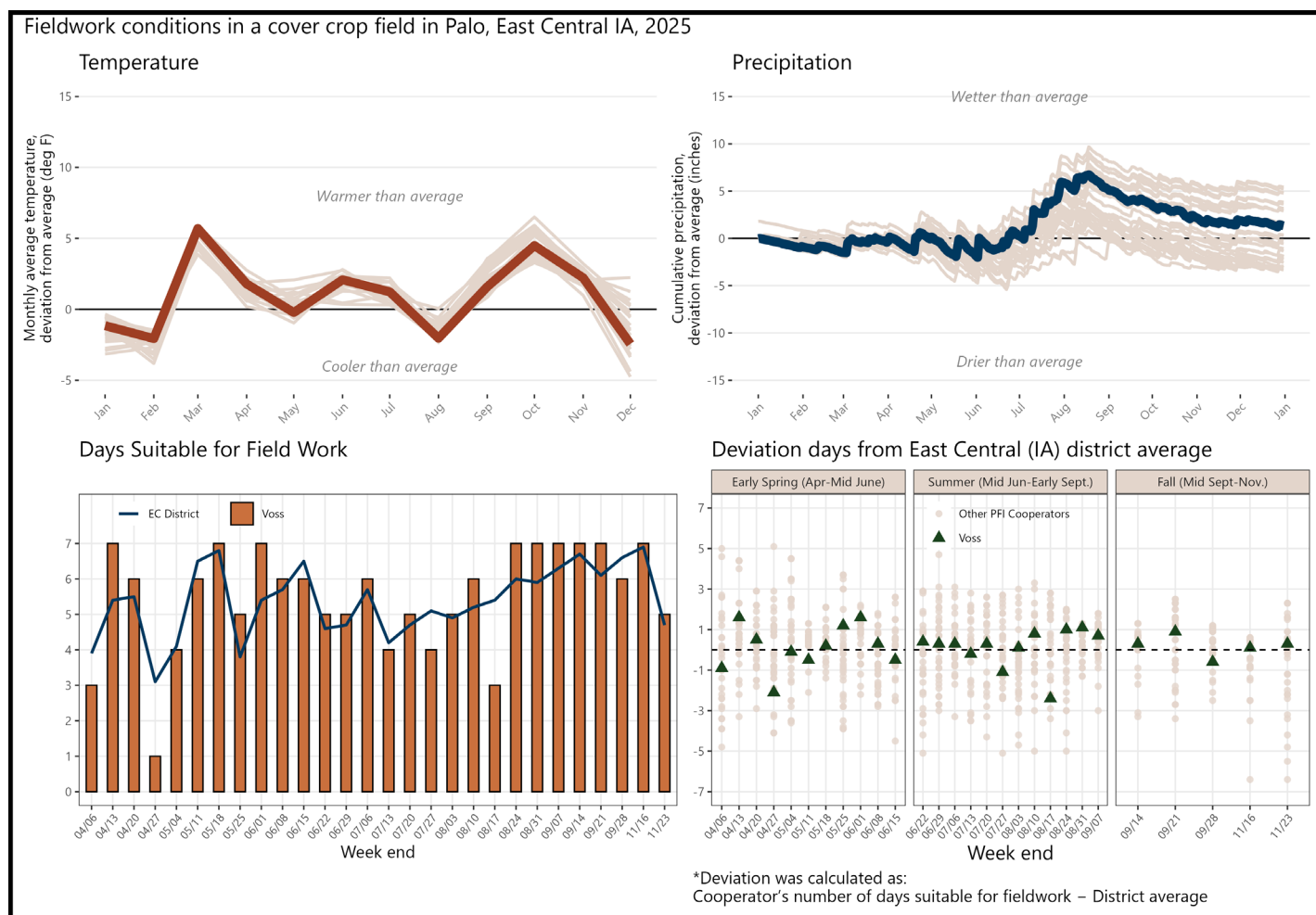
APPENDIX AK – BOB SULLIVAN; WOODBINE, IA

Sullivan reported a total of **128 days suitable for fieldwork** from 04/06 to 11/09, while the **west central district had 120 days** suitable for fieldwork over the same period. By season, Sullivan reported **50 days suitable in early spring** compared with **52 for the west central district**; **62 days in summer** compared with **51**; and **16 days in fall** compared with **16**.



APPENDIX AL – BRIAN VOSS; PALO, IA

Voss reported a total of **154 days suitable for fieldwork** from 04/06 to 11/23, while the **east central district had 150 days** suitable for fieldwork over the same period. By season, Voss reported **58 days suitable in early spring** compared with **57 for the east central district**; **64 days in summer** compared with **63**; and **32 days in fall** compared with **31**.



Field History:

	Year										
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Cover crops previous fall	Cereal rye and camelina	Cereal rye and camelina	Cereal rye	Cereal rye	Cereal rye	Cereal rye	Cereal rye	None	None	None	None
Cover crop growth rating	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	Fair (4-11 in.)	-	-	-	-
Cash crop	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans	Corn	Soybeans
Cash crop yield (bu/ac)	-	240	52	223	80	120	72	225	58	198	64

APPENDIX AM – DETAILED METHODS

Weather Data

Each cooperator chose a US Census-recognized town with which to associate their trial. The latitude and longitude of the chosen town were used to retrieve weather data from the National Aeronautics and Space Administration (NASA) Prediction of Worldwide Energy Resources (POWER) project using the `nasapower` package [12] for R software [16]. Data was downloaded for the period spanning January 1, 1995 through December 31, 2025. Two weather variables were used: (1) cumulative daily precipitation values and (2) the average daily air temperature at two meters above ground level. The weather data was separated into two data sets: one comprising the entire 30 years of data (historical weather data), and one containing only data from January 1 – December 31, 2025 (trial year data).

To provide context for each trial's temperatures, the historical mean temperature for month at a given site was calculated using the historical weather dataset. The historical value was subtracted from the trial year average temperature for that month to provide an estimate of the deviation from average conditions.

REFERENCES

1. "USDA - National Agricultural Statistics Service - Publications - National Crop Progress - Terms and Definitions." Accessed: Apr. 09, 2025. [Online]. Available: https://www.nass.usda.gov/Publications/National_Crop_Progress/Terms_and_Definitions/index.php#days
2. W. Edwards and M. Hanna, "Days Suitable for Fieldwork in Iowa," Iowa State Univ. Ext., 2020, [Online]. Available: <https://www.extension.iastate.edu/agdm/crops/pdf/a3-25.pdf>
3. A. Johanns, "Days Suitable for Fieldwork in Iowa," *Iowa State Univ. Ext.*, 2025, [Online]. Available: [extension.iastate.edu/agdm store.extension.iastate.edu](https://www.extension.iastate.edu/agdm/store.extension.iastate.edu)
4. S. Won, R. M. Rejesus, B. K. Goodwin, and S. Aglasan, "Understanding the effect of cover crop use on prevented planting losses," *Am. J. Agric. Econ.*, vol. 106, no. 2, pp. 659–683, Mar. 2024, doi: 10.1111/ajae.12396.
5. S. Aglasan, R. M. Rejesus, S. Hagen, and W. Salas, "Cover crops, crop insurance losses, and resilience to extreme weather events," *Am. J. Agric. Econ.*, p. ajae.12431, Oct. 2023, doi: 10.1111/ajae.12431.
6. "USDA - National Agricultural Statistics Service - Iowa - Crop Progress and Condition." Accessed: Apr. 10, 2025. [Online]. Available: https://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/Crop_Progress_&_Condition/index.php
7. "USDA - National Agricultural Statistics Service - Minnesota - Crop Progress and Condition Reports." Accessed: Apr. 10, 2025. [Online]. Available: https://www.nass.usda.gov/Statistics_by_State/Minnesota/Publications/Crop_Progress_&_Condition/index.php
8. "USDA - National Agricultural Statistics Service - Nebraska - 2024 Crop Progress and Condition." Accessed: Apr. 22, 2026. [Online]. Available: https://www.nass.usda.gov/Statistics_by_State/Nebraska/Publications/Crop_Progress_&_Condition/index.php
9. "USDA - National Agricultural Statistics Service - Wisconsin - Crop Progress and Condition Report." Accessed: Apr. 10, 2025. [Online]. Available: https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crop_Progress_&_Condition/index.php
10. T. Vilsack, "2022 Census of Agriculture United States Summary and State Data," United States Department of Agriculture National Agriculture Statistics Service, AC-22-A-51, Feb. 2024. [Online]. Available: <https://www.nass.usda.gov/Publications/AgCensus/2022/index.php>
11. B. Gleason, "2017-2023 Nutrient Reduction Survey Results," Iowa Nutrient Research + Education Council. Accessed: Apr. 15, 2025. [Online]. Available: <https://iowanrec.org/2017-2023-nutrient-reduction-survey-results/>
12. J. G. Arbuckle Jr. and G. Roesch-McNally, "Cover crop adoption in Iowa: The role of perceived practice characteristics," *J. Soil Water Conserv.*, vol. 70, no. 6, pp. 418–429, Nov. 2015, doi: 10.2489/jswc.70.6.418.
13. M. Beetstra, R. Wilson, and E. Toman, "The influence of the seasons: how the agricultural calendar impacts farmer perceptions of cover crops," *Renew. Agric. Food Syst.*, vol. 37, no. 3, pp. 187–197, Jun. 2022, doi: 10.1017/S1742170521000521.
14. L. S. Prokopy *et al.*, "Adoption of agricultural conservation practices in the United States: Evidence from 35 years of quantitative literature," *J. Soil Water Conserv.*, vol. 74, no. 5, pp. 520–534, Sep. 2019, doi: 10.2489/jswc.74.5.520.
15. M. Dunn, J. D. Ulrich-Schad, L. S. Prokopy, R. L. Myers, C. R. Watts, and K. Scanlon, "Perceptions and use of cover crops among early adopters: Findings from a national survey," *J. Soil Water Conserv.*, vol. 71, no. 1, pp. 29–40, Jan. 2016, doi: 10.2489/jswc.71.1.29.
16. R Core Team, "R: A language and environment for statistical computing." R Foundation for Statistical Computing, Vienna, Austria, 2022. Accessed: Mar. 28, 2024. [Online]. Available: <https://www.r-project.org/>



PFI COOPERATORS' PROGRAM

PFI's Cooperators' Program helps farmers find practical answers and make informed decisions through on-farm research projects.

The Cooperators' Program began in 1987 with farmers looking to save money through more judicious use of inputs.

If you are interested in conducting an on-farm trial contact Stefan Gailans @ 515-232-5661 or stefan@practicalfarmers.org.