

Yahara Pride  
Farms



# Phosphorus Report

Promotion and education of  
economically beneficial  
conservation practices

2025

May 29, 2026



Our Website  
[www.yaharapridefarms.org](http://www.yaharapridefarms.org)

## Introduction

First and foremost, thank you to the farmers in the Yahara Watershed for partnering with Yahara Pride Farms to implement practices that help reduce phosphorus (P) loss to the streams, rivers, and lakes throughout the watershed. Farmers in this area continue to demonstrate a strong commitment to conservation by exploring and adopting farming systems and practices that reduce both P and sediment loss.

This report reflects the dedication of participating farms to keeping soil and nutrients in their fields and out of local waterways. Their efforts are making a meaningful difference in water quality across the watershed.

Farmers are at the center of the Yahara Pride Farms Cost Share Program, and their leadership makes this work possible.

Yahara Pride Farms and the farmers of the Yahara Watershed are also deeply grateful to the Yahara Watershed Improvement Network (Yahara WINS), led by the Madison Metropolitan Sewerage District. Established in 2012 as a four-year pilot project, Yahara WINS was created to reduce P loads and help meet water quality standards established by the Wisconsin Department of Natural Resources. The program uses watershed adaptive management, an approach in which all major P sources within a watershed work together to achieve shared water quality goals. Partners in Yahara WINS include cities, villages, towns, wastewater treatment plants, agricultural producers, environmental organizations, and others.

We also extend our sincere thanks to the businesses and organizations that provide financial and in-kind support to Yahara Pride Farms. Cost share and certification programs, along with outreach and education efforts, require both people and resources. This work would not be possible without your partnership.

Because of this support, the farmer-led watershed approach advanced by Yahara Pride Farms has become a model for other groups across Wisconsin. Your investment helps make these programs, events, and conservation outcomes possible. Thank you for being an important part of the Yahara Pride Farms community.

Finally, we thank the members of the Yahara Pride Farms Board of Directors and the staff who have supported this work over the years. Your leadership, guidance, and commitment have helped shape the organization and strengthen its impact across the watershed.

## **Yahara Pride Farms, Inc., Board of Directors**

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## **Note About This Report**

This report provides an update on the number of acres and farms participating in each cost share practice. Reductions in P loss were estimated using the SnapPlus Water Quality Phosphorus Trade Report, which applies the Wisconsin Phosphorus Index (P Index) equation within the SnapPlus model.

The report includes data and summary information for the 73 farms that submitted SnapPlus plans to Yahara Pride Farms for evaluation of the Cost Share Program's impact. This is a decrease from 77 farms in 2024. As trends in agricultural consolidation continue, the number of new farms entering the watershed is expected to remain limited. Instead, existing farms are often increasing in acreage even as the number of farm entities declines. As a result, continued program growth increasingly depends on working with the same farms across more acres.

The findings presented here are based on the difference in predicted P loss associated with the adoption of conservation practices. The 2025 data reflect the plans provided to Yahara Pride Farms by farms and their crop or nutrient management consultants.

The data summarized in this report are drawn from individual farm nutrient management plans, which account for tillage, crop rotation, nutrient applications from manure and fertilizer, and crop yields. Together, these plans provide the best available representation of what is happening on participating farms. Each farm and field has unique characteristics that affect yields, tillage systems, and the risk of sediment and nutrient loss. For that reason, year-to-year variation in reported losses by practice is expected within this dataset.

## Programs Offered in 2025

In 2025, the Yahara Pride Farms Cost Share Program offered farms opportunities to adopt farming systems that reduce the risk of P loss to lakes and streams. These practices are designed to encourage conservation improvements that support water quality throughout the Yahara Watershed.

The conservation practices cost shared in 2025 were:

1. Planting an overwintering cover crop
2. Planting a non-overwintering cover crop
3. Low-disturbance deep tillage with cover crop
4. Low-disturbance manure injection
5. Strip-tillage
6. No-tillage (planting into soybean stubble, cover crops, or alfalfa only)
  - New in 2024: no-till alfalfa seeding
7. Deferred termination of alfalfa until spring
8. Seeding grass with alfalfa (eligible on highly erodible land only)
9. Winter headland stacking of manure
10. Composting manure

Each of these practices provides distinct benefits for reducing P loss while also creating opportunities to improve soil health across the Yahara Watershed. Healthier soils help strengthen farm resilience and can reduce the impacts of both drought and flooding.

Change takes time, and it often comes with risk. It is often said that farmers have only 40 chances to innovate, as many have only 40 seasons to plant and harvest a crop. With only 40 chances, trying something new becomes a significant decision. While the Cost Share Program does not remove that risk entirely, it does help offset some of the upfront costs associated with change.

Just as important, organizations like Yahara Pride Farms offer more than financial support. They create opportunities for farmer-to-farmer connection, shared learning, and practical problem-solving. Hearing directly from peers about what has worked, and what has not, offers value that extends beyond the cost share payment itself. That exchange of experience helps build confidence, support innovation, and encourage lasting conservation change.

The summary on the following page outlines both the cost share funds paid to farms to implement conservation practices and the estimated cost for farms to self-fund conservation above and beyond cost share.

### Summary of Practices, Cost Share, and Investment

| Conservation Practice                     | \$/acre | Maximum cost share eligible acres per farm | Cost share paid to farms | Farm investment |
|-------------------------------------------|---------|--------------------------------------------|--------------------------|-----------------|
| Overwintering cover crop                  | \$50    | 100                                        | \$178,163                | \$186,013       |
| Non-overwintering cover crop              | \$35    | 60                                         | \$43,330                 | \$35,329        |
| Low-disturbance deep tillage + cover crop | \$55    | 50                                         | \$28,655                 | \$7,260         |
| Low-disturbance manure injection          | \$25    | 125                                        | \$77,935                 | \$93,090        |
| Strip-till                                | \$15    | 100                                        | \$11,700                 | \$29,835        |
| No-till                                   | \$30    | 65                                         | \$63,491                 | \$127,114       |
| Deferred termination of alfalfa to spring | \$35    | 60                                         | \$50,120                 | \$14,560        |
| Seeding grass with alfalfa                | \$35    | 75                                         | \$8,211                  | \$469           |
| Winter headland stacking                  | \$10    | 400 cu/yds                                 | \$24,900                 | \$1,000         |
| Composting manure                         | \$10    | 400 cu/yds                                 | \$21,400                 | \$16,000        |
| Totals                                    |         |                                            | \$507,904                | \$510,670       |

| Yahara Pride Farms Cost-Share Program 2025 Individual Practices |                          |                               |                                 |                                      |               |         |                            |                                  |                                    |                   |        |
|-----------------------------------------------------------------|--------------------------|-------------------------------|---------------------------------|--------------------------------------|---------------|---------|----------------------------|----------------------------------|------------------------------------|-------------------|--------|
|                                                                 | Over-Wintering Cover Cro | Non Over-Wintering Cover Crop | Deferred Termination of Alfalfa | Low Disturbance Deep Tillage + Cover | Strip Tillage | No Till | Seeding Grass with Alfalfa | Low Disturbance Manure Injection | Winter Headland Stacking of Manure | Composting Manure | Totals |
| Acres in Program                                                | 7130                     | 2180                          | 1841                            | 704                                  | 2991          | 7191    | 185                        | 7121                             | 359                                | 501               | 30203  |
| Farms Participating                                             | 56                       | 25                            | 35                              | 14                                   | 12            | 54      | 5                          | 29                               | 10                                 | 7                 | 73     |
| Avg Change in P Loss (lbs/ac)                                   | 1.3                      | 1.6                           | 1.2                             | 1.0                                  | 0.9           | 1.1     | 0.6                        | 1.4                              | 1.2                                | 0.9               | 1.3    |
| Total P Loss Reduction                                          | 9290                     | 3589                          | 2215                            | 716                                  | 2790          | 8011    | 102                        | 10304                            | 427                                | 432               | 37876  |
|                                                                 |                          |                               |                                 |                                      |               |         |                            |                                  |                                    |                   |        |
| Reduction by Yahara Stream Reach                                |                          |                               |                                 |                                      |               |         |                            |                                  |                                    |                   |        |
| 62: Pheasant Branch                                             | 2317                     | 66                            | 327                             | 43                                   | 83            | 2113    | 0                          | 515                              | 0                                  | 69                | 5533   |
| 63: Dorm Creek                                                  | 550                      | 33                            | 339                             | 89                                   | 0             | 517     | 18                         | 53                               | 0                                  | 0                 | 1599   |
| 64: Yahara River, Mendota & Monona                              | 6227                     | 3414                          | 1521                            | 581                                  | 346           | 3605    | 84                         | 9639                             | 427                                | 311               | 26155  |
| 65: Nine Springs Creek                                          | 4                        | 0                             | 0                               | 0                                    | 0             | 0       | 0                          | 0                                | 0                                  | 0                 | 4      |
| 66: Yahara River, Waubesa & Kegonsa                             | 7                        | 29                            | 0                               | 0                                    | 0             | 72      | 0                          | 17                               | 0                                  | 0                 | 125    |
| 67: Yahara River, NE of Stoughton                               | 0                        | 0                             | 0                               | 0                                    | 314           | 252     | 0                          | 0                                | 0                                  | 0                 | 566    |
| 68: Yahara River, S of Stoughton                                | 0                        | 17                            | 18                              | 0                                    | 0             | 60      | 0                          | 0                                | 0                                  | 0                 | 95     |
| 69: Badfish Creek, Yahara River                                 | 185                      | 30                            | 10                              | 3                                    | 2047          | 1392    | 0                          | 80                               | 0                                  | 52                | 3799   |



## **Methodology**

This report provides an update on the number of acres, fields, and farms involved in each of these practices. The SnapPlus Water Quality Phosphorus Trade Report was used to determine the reduction in P loss. The P Trade Report is calculated using the Wisconsin Phosphorus Index (P Index) equation within the SnapPlus computer model.

The P Trade numbers are different than the P Index numbers in that the soil used for the P Trade calculations is the predominant soil rather than the dominant critical soil. The P Trade calculations do not run as a rotation, rather soil loss is calculated for each field in a sequence of years. The P Trade Report provides an estimate of the pounds of P prevented from reaching the nearest waterbody. The nearest waterbody, in most cases, would be streams and rivers.

## **What the Data Represents**

The data in this report come from each participating farms nutrient management plan, which accounts for tillage, crop rotation, nutrient applications from manure and fertilizer, and crop yields. This provides the most accurate representation of what is happening on the farms that participate in the Yahara Pride Farms Cost Share Program.

## **Summary of Phosphorus Reductions for Each Cost Share Practice**

In 2025, farms participating in the Yahara Pride Farms Cost Share Program implemented 30,202 acres of conservation practices, reducing the delivery of P to area waters by an estimated 37,876 pounds.

This represents an approximate 1.5% increase from 2024 in acres of conservation and a 13.5% increase from 2024 in pounds of P kept on the landscape and out of area surface waters.

## Cost share Practice Summaries

### Overwintering and Non-overwintering Cover Crops

Cover crops are plants used to keep the soil covered and protect the soil surface. In some cases, cover crops are harvested for forage, but more often than not, are grown solely for soil conservation and/or soil health purposes. They are typically planted in the fall after crop harvest, and terminated in the spring before planting of the spring crop. Non-over wintering cover crops are terminated before spring by winter weather conditions.

From 2013 to 2019, overwintering and non-overwintering cover crops were combined under one payment. In 2020, the practices were split into two distinct cost share options.

The overwintering cover crop practice offers a payment of \$50 per acre for a maximum of 100 acres. The non-overwintering cover crop practice offers a payment of \$35 per acre for a maximum of 60 acres.

Table 1 on the following page shows the extent of overwintering cover crop adoption and impacts.

**Table 1. Over-wintering cover crops (OWCC) impact.**

|                                   | OWCC  |
|-----------------------------------|-------|
| Acres in the practice             | 7,130 |
| Farms participating               | 56    |
| Average change in P loss (lbs/ac) | 1.2   |
| Total P loss (lbs)                | 9,290 |

Table 2 below shows the extent of non-overwintering cover crop adoption and impacts.

**Table 2. Non-overwintering cover crops (NOWCC) impact.**

|                                   | NOWCC |
|-----------------------------------|-------|
| Acres in the practice             | 2,180 |
| Farms participating               | 25    |
| Average change in P loss (lbs/ac) | 1.6   |
| Total P loss (lbs)                | 3,589 |

Table 3 on the following page provides a summary of reduction in P loss by stream reach.



**Table 3. Overwintering cover crops (OWCC) by stream reach.**

| Stream reach                           | Acres of OWCC | Pounds of P loss reduced from OWCC | Average P loss reduced per acre from OWCC |
|----------------------------------------|---------------|------------------------------------|-------------------------------------------|
| 62: Pheasant Branch Creek              | 772           | 2,317                              | 3.0                                       |
| 63: Dorn Creek                         | 508           | 550                                | 1.1                                       |
| 64: Yahara River, Mendota, and Monona  | 4,907         | 6,227                              | 1.3                                       |
| 65: Nine Springs Creek                 | 33            | 4                                  | 0.1                                       |
| 66: Yahara River, Waubesa, and Kegonsa | 48            | 7                                  | 0.1                                       |
| 67: Yahara River, NE of Stoughton      | --            | --                                 | --                                        |
| 68: Yahara River, S of Stoughton       | --            | --                                 | --                                        |
| 69: Badfish Creek, Yahara River        | 861           | 185                                | 0.2                                       |

**Table 4. Non-overwintering cover crops (NOWCC) by stream reach.**

| Stream reach                           | Acres of NOWCC | Pounds of P loss reduced from NOWCC | Average P loss reduced per acre from NOWCC |
|----------------------------------------|----------------|-------------------------------------|--------------------------------------------|
| 62: Pheasant Branch Creek              | 49             | 66                                  | 1.3                                        |
| 63: Dorn Creek                         | 41             | 33                                  | 0.8                                        |
| 64: Yahara River, Mendota, and Monona  | 1,868          | 3,414                               | 1.8                                        |
| 65: Nine Springs Creek                 | --             | --                                  | --                                         |
| 66: Yahara River, Waubesa, and Kegonsa | 78             | 29                                  | 0.4                                        |
| 67: Yahara River, NE of Stoughton      | --             | --                                  | --                                         |
| 68: Yahara River, S of Stoughton       | 37             | 17                                  | 0.5                                        |
| 69: Badfish Creek, Yahara River        | 107            | 30                                  | 0.3                                        |

|                                                                                            |           |
|--------------------------------------------------------------------------------------------|-----------|
| Total acres of cover crops planted                                                         | 9,310     |
| Acres receiving cost share                                                                 | 4,801     |
| Acres cover crops without cost share                                                       | 4,729     |
| Financial investment in cost share                                                         | \$221,493 |
| Financial investment by farms (acres without cost share)                                   | \$221,342 |
| Of the 9,310 acres planted to cover crops, 50% were planted without a financial incentive. |           |

### **Low-Disturbance Deep Tillage with Planting of a Cover Crop**

Low-disturbance deep tillage is often needed to address compaction caused by repeated passes of field equipment near headlands and field entrances. It may also be beneficial across a field if compaction is widespread due to wet harvest conditions. The Yahara Pride Farms Board of Directors promotes this practice in combination with cover crops to encourage farms to use it in place of more aggressive deep tillage. Compaction is one of the biggest barriers to improving soil health, so including this practice in the cost share program helps farms address compaction in a more conservation-minded way.

Table 5 below shows annual participation in the low-disturbance deep tillage plus cover crop practice, which was first offered to farms in the watershed in 2016. Interest in this practice continues to grow, and the Yahara Pride Farms Board of Directors believes it is important to encourage reduced tillage when deep tillage is needed.

**Table 5. Low-disturbance deep tillage (LDDT) plus cover crop annual participation.**

| Year   | 2016 | 2017 | 2018 | 2019 | 2020 | 2021  | 2022 | 2023 | 2024 | 2025 |
|--------|------|------|------|------|------|-------|------|------|------|------|
| Farms  | 8    | 11   | 7    | 9    | 14   | 15    | 12   | 14   | 12   | 14   |
| Fields | --   | 52   | 24   | 22   | 40   | 47    | --   | 39   | 33   | 27   |
| Acres  | 730  | 956  | 448  | 550  | 994  | 1,046 | 544  | 746  | 881  | 704  |

The LDDT plus cover crop practice offers a \$55 per acre payment with a maximum of 50 acres.

**Table 6. Low-disturbance deep tillage (LDDT) plus cover crop impact.**

|                                    | LDDT plus cover crop |
|------------------------------------|----------------------|
| Acres in the practice              | 704                  |
| Farms participating                | 14                   |
| Average change in P loss, lbs/acre | 1.0                  |
| Total P loss, lbs                  | 716                  |

**Table 7. Low-disturbance deep tillage (LDDT) plus cover crop by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced from LDDT plus cover crop | Average P loss reduced/acre |
|----------------------------------------|-------|----------------------------------------------------|-----------------------------|
| 62: Pheasant Branch Creek              | 54    | 43                                                 | 0.8                         |
| 63: Dorn Creek                         | 89    | 71                                                 | 1.3                         |
| 64: Yahara River, Mendota, and Monona  | 547   | 581                                                | 1.1                         |
| 65: Nine Springs Creek                 | --    | --                                                 | --                          |
| 66: Yahara River, Waubesa, and Kegonsa | --    | --                                                 | --                          |
| 67: Yahara River, NE of Stoughton      | --    | --                                                 | --                          |
| 68: Yahara River, S of Stoughton       | --    | --                                                 | --                          |
| 69: Badfish Creek, Yahara River        | 32    | 3                                                  | 0.1                         |

|                                                          |          |
|----------------------------------------------------------|----------|
| Total acres implemented                                  | 704      |
| Acres receiving cost share                               | 521      |
| Acres LDDT plus cover crop without cost share            | 132      |
| Financial investment in cost share                       | \$24,900 |
| Financial investment by farms (acres without cost share) | \$7,260  |

### **Low-Disturbance Manure Injection**

Low-disturbance manure injection allows farms to apply manure just below the soil surface with minimal soil disturbance, keeping the soil in place and the manure where it is applied.

Yahara Pride Farms has done substantial work hosting demonstrations and providing educational programs for farmers and agency personnel on the importance of incorporating manure with as little soil disturbance as possible.

In 2013, Yahara Pride Farms purchased a low-disturbance manure injection toolbar and had it installed on a tanker for use in the Yahara Watershed.

As shown in Table 8, this tanker was used by 11 farms in 2013 for a total of 361 acres with manure applied using low soil disturbance. Since 2013, both farms and custom manure applicators have invested in low-disturbance manure injection equipment. By 2025, the Yahara Pride Farms cost share practice for LDMI was implemented on 29 farms that either own LDMI equipment or use a custom applicator that does, covering 7,121 acres. This resulted in a total estimated reduction in

the risk of P loss of 10,304 pounds. The average reduction in risk of P loss for LDMI was 1.4 lbs/acre.

The Yahara Pride Farms cost share for LDMI is \$25 per acre, with a maximum of 125 acres. Table 8 shows the growth and changes in the LDMI practice. This practice has been successful, and livestock farms in the Yahara Watershed are to be commended for their adoption of this important conservation practice.

**Table 8. Low-disturbance manure injection (LDMI) annual participation.**

| Year       | 2013 | 2014 | 2015 | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  |
|------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| # of farms | 11   | 14   | 4    | 7     | 15    | 15    | 24    | 26    | 23    | 25    | 27    | 31    | 29    |
| Acres      | 361  | 841  | 566  | 1,203 | 3,885 | 3,293 | 4,450 | 6,392 | 6,271 | 7,065 | 6,832 | 7,146 | 7,121 |

Table 8 shows the impact of the investments made by farms, Dane County Land Conservation Department, and Yahara WINS and others in supporting purchasing LDMI equipment. The investment in this equipment will continue to provide benefits for years to come.

**Table 9. Low-disturbance manure injection (LDMI) impact.**

|                                    | LDMI   |
|------------------------------------|--------|
| Acres in the practice              | 7121   |
| Farms participating                | 29     |
| Average change in P loss, lbs/acre | 1.4    |
| Total P loss, lbs                  | 10,304 |

**Table 10: Low-disturbance manure injection (LDMI) by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P loss reduced/acre |
|----------------------------------------|-------|--------------------------|-----------------------------|
| 62: Pheasant Branch Creek              | 332   | 515                      | 1.6                         |
| 63: Dorn Creek                         | 70    | 53                       | 0.8                         |
| 64: Yahara River, Mendota, and Monona  | 6,530 | 9,639                    | 1.5                         |
| 65: Nine Springs Creek                 | --    | --                       | --                          |
| 66: Yahara River, Waubesa, and Kegonsa | 40    | 17                       | 0.4                         |
| 67: Yahara River, NE of Stoughton      | --    | --                       | --                          |
| 68: Yahara River, S of Stoughton       | --    | --                       | --                          |
| 69: Badfish Creek, Yahara River        | 149   | 80                       | 0.5                         |

|                                                          |          |
|----------------------------------------------------------|----------|
| Total acres implemented                                  | 7,121    |
| Acres receiving cost share                               | 3,117    |
| Acres LDMI without cost share                            | 3,724    |
| Financial investment in cost share                       | \$77,935 |
| Financial investment by farms (acres without cost share) | \$93,090 |

**Strip Tillage**

Strip tillage is a method of soil preparation that targets tillage to a narrow band where the next crop will be planted, reducing overall field disturbance.

Table 11 shows annual participation in the strip-tillage practice from 2014 to 2025. While the number of farms is relatively small, the growth in acres is notable. Strip tillage is gaining in popularity, but the cost of equipment and the availability of custom strip-tillage services may affect the rate of adoption. The Yahara Pride Farms Cost Share Program offers a payment of \$15 per acre with a 100-acre maximum.

**Table 11. Strip tillage annual participation.**

| Strip tillage practice     | 2014 | 2015  | 2016 | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  |
|----------------------------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of farms            | 3    | 3     | 3    | 4     | 3     | 5     | 7     | 13    | 11    | 11    | 10    | 12    |
| Tillable acres in practice | 253  | 1,489 | 917  | 1,829 | 2,422 | 1,858 | 2,833 | 4,495 | 1,608 | 2,980 | 3,263 | 2,991 |

**Table 12. Strip tillage impact.**

|                                    | Strip tillage |
|------------------------------------|---------------|
| Acres in the practice              | 2,991         |
| Farms participating                | 12            |
| Average change in P loss, lbs/acre | 0.9           |
| Total P loss, lbs                  | 2,790         |

**Table 13. Strip tillage by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P loss reduced/acre |
|----------------------------------------|-------|--------------------------|-----------------------------|
| 62: Pheasant Branch Creek              | 91    | 83                       | 0.9                         |
| 63: Dorn Creek                         | --    | --                       | --                          |
| 64: Yahara River, Mendota, and Monona  | 704   | 346                      | 0.5                         |
| 65: Nine Springs Creek                 | --    | --                       | --                          |
| 66: Yahara River, Waubesa, and Kegonsa | --    | --                       | --                          |
| 67: Yahara River, NE of Stoughton      | 289   | 314                      | 1.1                         |
| 68: Yahara River, S of Stoughton       | --    | --                       | --                          |
| 69: Badfish Creek, Yahara River        | 1,908 | 2,047                    | 1.1                         |

|                                                          |          |
|----------------------------------------------------------|----------|
| Total acres implemented                                  | 2,991    |
| Acres receiving cost share                               | 780      |
| Acres strip tilled without cost share                    | 1,989    |
| Financial investment in cost share                       | \$11,700 |
| Financial investment by farms (acres without cost share) | \$29,835 |

### **No-Tillage into Soybean Stubble, Alfalfa, and Cover Crops**

Yahara Pride Farms offers cost share for no-till planting, in which crops are planted directly into an unprepared seedbed. To support easier adoption of no-till, Yahara Pride Farms provides cost share for planting into soybean stubble, cover crops, or alfalfa. No-till planting into corn ground, whether grain or silage, is not eligible for cost share.

The goal of the Yahara Pride Farms Cost Share Program is to encourage farms who typically use tillage following soybeans, alfalfa, or cover crops to experiment with no-till. In the Yahara Watershed, no-till establishment of corn following these crops is often a highly effective planting method.

No-till planting can help reduce soil erosion, conserve soil moisture, and minimize the risk of soil compaction. It also reduces fuel use, field passes, and labor requirements. However, the greatest long-term benefit of no-till is improved soil structure, increased soil organic matter, and better overall soil health.

These benefits are important to the long-term sustainability of the land, but realizing them requires many years of continuous no-till. There is also a learning curve related to weed control, insect management, and planter setup. Adopting a no-till farming system takes time and may increase the risk of yield loss during the transition period.

Participation in the no-till practice remained strong in 2025, with a substantial number of farms, fields, and acres enrolled. As the fifth year this cost share practice was offered in the watershed, 2025 had the highest number of acres enrolled and the second-highest number of participating farms.



**Table 14. No-tillage into soybeans, alfalfa, or cover crops annual participation.**

| No-tillage into soybeans, alfalfa, or cover crops | 2021  | 2022  | 2023  | 2024  | 2025 |
|---------------------------------------------------|-------|-------|-------|-------|------|
| Number of farms                                   | 38    | 37    | 37    | 53    | 54   |
| Acres in program                                  | 5,279 | 5,411 | 6,094 | 6,101 | 7191 |

**Table 15. No-tillage into soybeans, alfalfa, or cover crops impact.**

|                                   | No-till |
|-----------------------------------|---------|
| Acres in the practice             | 7,191   |
| Farms participating               | 54      |
| Average change in P loss (lbs/ac) | 1.1     |
| Total P loss (lbs)                | 8,011   |

**Table 16. No-tillage into soybeans, alfalfa, or cover crops by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P loss reduced/acre |
|----------------------------------------|-------|--------------------------|-----------------------------|
| 62: Pheasant Branch Creek              | 1,286 | 2,162                    | 1.7                         |
| 63: Dorn Creek                         | 292   | 517                      | 1.8                         |
| 64: Yahara River, Mendota, and Monona  | 3,630 | 3,557                    | 1.0                         |
| 65: Nine Springs Creek                 | 10    | 7                        | 0.7                         |
| 66: Yahara River, Waubesa, and Kegonsa | 72    | 65                       | 0.9                         |
| 67: Yahara River, NE of Stoughton      | 177   | 252                      | 1.4                         |
| 68: Yahara River, S of Stoughton       | 114   | 59                       | 0.5                         |
| 69: Badfish Creek, Yahara River        | 1,610 | 1,392                    | 0.9                         |

|                                                          |           |
|----------------------------------------------------------|-----------|
| Total acres implemented                                  | 7,191     |
| Acres receiving cost share                               | 2,116     |
| Acres no-till without cost share                         | 4,237     |
| Financial investment in cost share                       | \$63,491  |
| Financial investment by farms (acres without cost share) | \$127,114 |

### **Deferred Termination of Alfalfa**

This cost share practice pays farms \$35 per acre, with a 60-acre maximum, to delay termination of alfalfa fields that will be rotated into other crops or re-seeded until spring. Terminating alfalfa in the fall can provide effective control of existing alfalfa and weeds in the seedbed. However, alfalfa is a tap-rooted crop, and when a field is terminated in the fall, there is little to protect the soil from erosion during the winter and early spring.

**Table 17. Deferred termination of alfalfa annual participation.**

| Deferred termination of alfalfa | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Number of farms                 | 26    | 31    | 27    | 29    | 26    | 35    |
| Acres in the practice           | 1,382 | 2,221 | 1,398 | 1,857 | 1,541 | 1,841 |

As shown in Table 18, the average reduction in the risk of P loss was 1.2 pound per acre.

**Table 18. Deferred termination of alfalfa impact.**

|                                    | Deferred termination of alfalfa |
|------------------------------------|---------------------------------|
| Acres in the practice              | 1,841                           |
| Farms participating                | 35                              |
| Average change in P loss, lbs/acre | 1.2                             |
| Total P loss, lbs                  | 2,215                           |

This practice does present some implementation challenges. First, it is important to verify that fields intended for spring termination are actually terminated as planned. Second, the program requirements should clearly state that harvesting a first crop and then terminating the stand does not qualify. The purpose of the program is to delay termination until spring, with the crop remaining in place over winter and being sprayed in early spring. If fields are harvested for hay before termination, they should not qualify for this practice.

As shown in Table 19, the practice was implemented in five stream reaches, with the highest participation in Reach 64. This practice has strong potential in watersheds where livestock are raised and hay is an important part of the rotation. Many nutrient management plans are developed without evaluating the impacts of fall termination of alfalfa.

**Table 19. Deferred termination of alfalfa by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P loss reduced/acre |
|----------------------------------------|-------|--------------------------|-----------------------------|
| 62: Pheasant Branch Creek              | 255   | 327                      | 1.3                         |
| 63: Dorn Creek                         | 141   | 339                      | 2.4                         |
| 64: Yahara River, Mendota, and Monona  | 1,342 | 1,521                    | 1.1                         |
| 65: Nine Springs Creek                 | --    | --                       | --                          |
| 66: Yahara River, Waubesa, and Kegonsa | --    | --                       | --                          |
| 67: Yahara River, NE of Stoughton      | --    | --                       | --                          |
| 68: Yahara River, S of Stoughton       | 88    | 18                       | 0.2                         |
| 69: Badfish Creek, Yahara River        | 15    | 10                       | 0.7                         |

|                                                          |          |
|----------------------------------------------------------|----------|
| Total acres implemented                                  | 1,841    |
| Acres receiving cost share                               | 1,432    |
| Acres deferred termination of alfalfa without cost share | 416      |
| Financial investment in cost share                       | \$50,120 |
| Financial investment by farms (acres without cost share) | \$14,560 |

### Seeding Grass with Alfalfa

In 2020, the Yahara Pride Farms Board of Directors implemented this practice to encourage farms to seed grasses with alfalfa. Alfalfa is a tap-rooted crop, and even in a good stand, a fair amount of soil remains exposed after harvest and in early spring. Grasses, by contrast, have fibrous root systems that branch out and bind nearby soil particles together. Fields established with grasses generally have lower rates of soil erosion. With improvements in grass varieties and maturity ranges, it is now possible to establish alfalfa-grass mixtures that still provide the high-quality feed required by lactating dairy cows.

This Yahara Pride Farms cost share practice offered participants \$25 per acre, with a maximum of 50 acres, to add grass to their alfalfa seedings.

**Table 20. Seeding grass with alfalfa annual participation.**

| Seeding grass with alfalfa | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|----------------------------|------|------|------|------|------|------|
| Number of farms            | 5    | 2    | 7    | 3    | 12   | 5    |
| Acres in practice          | 147  | 73   | 214  | 153  | 552  | 185  |

The goal of this practice is to target highly erodible fields where erosion risk is high and encourage farms to consider adding grasses to their seeding mixtures on those fields.

As shown in Table 21, the average reduction in the risk of PP loss was 0.6 pound per acre.

**Table 21. Seeding grass with alfalfa impact.**

|                                    | Seeding grass with alfalfa |
|------------------------------------|----------------------------|
| Acres in the practice              | 185                        |
| Farms participating                | 5                          |
| Average change in P loss, lbs/acre | 0.6                        |
| Total P loss, lbs                  | 102                        |

Table 22 on the following page provides a summary of the practice, along with the acres implemented in each sub-watershed basin. As shown in the table, the practice was adopted in three basins.

**Table 22. Seeding grass with alfalfa by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P Loss Reduced Per Acre |
|----------------------------------------|-------|--------------------------|---------------------------------|
| 62: Pheasant Branch Creek              | --    | --                       | --                              |
| 63: Dorn Creek                         | 78    | 19                       | 0.2                             |
| 64: Yahara River, Mendota, and Monona  | 106   | 83                       | 0.8                             |
| 65: Nine Springs Creek                 | --    | --                       | --                              |
| 66: Yahara River, Waubesa, and Kegonsa | --    | --                       | --                              |
| 67: Yahara River, NE of Stoughton      | --    | --                       | --                              |
| 68: Yahara River, S of Stoughton       | --    | --                       | --                              |
| 69: Badfish Creek, Yahara River        | --    | --                       | --                              |

|                                                          |         |
|----------------------------------------------------------|---------|
| Total acres implemented                                  | 185     |
| Acres receiving cost share                               | 235     |
| Acres planted to an OWCC without cost share              | 13      |
| Financial investment in cost share                       | \$8,211 |
| Financial investment by farms (acres without cost share) | \$469   |

**Winter Headland Stacking of Manure**

This cost share practice was first offered in 2016 to encourage farms in the Yahara Watershed not to spread manure during the critical runoff period of February through March. Interest in this practice continues to grow, and the Yahara Pride Farms Board of Directors believes it is important to encourage farms to avoid manure application during high-risk periods.

This practice also provides a significant reduction in soluble P loss. The cost share rate is \$10 per cubic yard, up to 400 cubic yards.

The Yahara Pride Farms 2020 Phosphorus Reduction Report separated stacking and composting into two distinct practices and reported on each one independently. This approach requires additional time to document manure handling methods, turning frequency, and total volume collected. As a result, direct volume comparisons with prior years may differ because of the separate accounting. However, farms are choosing either to stack manure or to go a step further and compost it as a means of reducing spring runoff risk.

**Table 23. Winter headland stacking of manure annual participation.**

| Year                    | 2016 | 2017 | 2018 | 2019  | 2020     | 2021  | 2022  | 2023  | 2024  | 2025 |
|-------------------------|------|------|------|-------|----------|-------|-------|-------|-------|------|
| Stacking and composting |      |      |      |       | Stacking |       |       |       |       |      |
| Farms                   | 1    | 9    | 9    | 15    | 12       | 12    | 9     | 8     | 13    | 10   |
| Acres                   | 50   | 301  | 898  | 1,632 | 816      | 778   | 329   | 355   | 833   | 359  |
| Cubic yards stacked     |      |      |      |       | 8,241    | 9,761 | 2,550 | 4,784 | 7,437 | 2590 |

**Table 24. Winter headland stacking of manure impact.**

|                                     | Winter headland stacking of manure |
|-------------------------------------|------------------------------------|
| Acres in the practice               | 359                                |
| Farms participating                 | 10                                 |
| Average change in P loss, lbs/acres | 1.2                                |
| Total P, lbs                        | 427                                |

This manure was applied in either the spring or summer when the risk of runoff was significantly lower.

Data collected at Discovery Farms and Pioneer Farms indicate that winter runoff events caused by increased temperatures and rainfall, combined with frozen soils and deep snow cover, create a high potential for surface runoff from fields. Livestock producers who apply manure to cropland during this high-risk period should understand that spreading manure during snowmelt carries a very high risk of runoff.

Studies from farms participating in the Discovery Farms Program indicate that manure applied to snow-covered or frozen soils during snowmelt or rain-on-frozen-ground conditions can account for a substantial share of annual nutrient losses. A single poorly timed manure application can result in large P losses to surface waters.

The Yahara Pride Farms Board of Directors decided to provide an incentive to farms who sometimes must clean lots containing solid manure during this critical runoff period. The goals of this practice were to reduce the risk of manure runoff by:

- offering an incentive to farms for stacking, reloading, and spreading manure during a lower-risk runoff period; and
- helping offset the cost of double-handling manure.

**Table 25. Winter headland stacking of manure by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P loss reduced per acre |
|----------------------------------------|-------|--------------------------|---------------------------------|
| 62: Pheasant Branch Creek              | --    | --                       | --                              |
| 63: Dorn Creek                         | --    | --                       | --                              |
| 64: Yahara River, Mendota, and Monona  | 359   | 427                      | 1.2                             |
| 65: Nine Springs Creek                 | --    | --                       | --                              |
| 66: Yahara River, Waubesa, and Kegonsa | --    | --                       | --                              |
| 67: Yahara River, NE of Stoughton      | --    | --                       | --                              |
| 68: Yahara River, S of Stoughton       | --    | --                       | --                              |
| 69: Badfish Creek, Yahara River        | --    | --                       | --                              |

|                                                          |          |
|----------------------------------------------------------|----------|
| Total acres implemented                                  | 359      |
| Cubic yards implemented                                  | 2,590    |
| Cubic yards receiving cost share                         | 2,490    |
| Cubic yards without cost share                           | 100      |
| Financial investment in cost share                       | \$24,900 |
| Financial investment by farms (yards without cost share) | \$1,000  |

Predicted reductions in P loss from headland stacking during critical runoff periods can be calculated using the SnapPlus program by comparing the risk of winter manure application with application in spring or summer. The predicted reductions in P loss are shown in Table 24.

### **Two Important Things to Note**

1. The benefits of manure stacking are becoming harder to calculate because the SnapPlus program reduces the acres available for winter spreading on some farms. In a comparison, manure may be applied to the entire field during a non-frozen period, but not during frozen-ground conditions. This affects the ability to compare what would have happened without cost share to what occurred under the Cost Share Program.
2. Not applying manure during the critical runoff period is the only practice in which soluble P losses are the dominant form of P reduction.

Manure application rates were the same on each field; the only variable was whether manure was spread during winter on frozen or snow-covered ground or during spring. Practices that reduce soluble P losses are especially important because, once P is in runoff water, little can be done to remove it before it reaches nearby surface waters. Most conservation practices are designed to capture and slow runoff so that soil particles settle out in buffers, settling basins, and wetlands. Soluble P, however, is not attached to soil particles and therefore moves with the water. Keeping soluble P out of runoff is a critical factor in reducing overall P loads to the Madison Chain of Lakes.

### Composting Manure

This cost share practice was first offered in 2016 to encourage farms in the watershed not to spread manure during the critical runoff period of February through March. Interest in this practice continues to grow, and the Yahara Pride Farms Board of Directors believes it is important to encourage farms to avoid manure application during high-risk periods. This practice also results in a significant reduction in soluble P loss.

The cost share rate for composting manure was set at \$10 per cubic yard, with a maximum of 400 cubic yards.

**Table 26. Composting manure annual participation.**

| Year                    | 2016 | 2017 | 2018 | 2019  | 2020       | 2021  | 2022  | 2023  | 2024  | 2025  |
|-------------------------|------|------|------|-------|------------|-------|-------|-------|-------|-------|
| Stacking and composting |      |      |      |       | Composting |       |       |       |       |       |
| Farms                   | 1    | 9    | 9    | 15    | 8          | 6     | 9     | 8     | 7     | 7     |
| Acres                   | 50   | 301  | 898  | 1,632 | 441        | 527   | 948   | 858   | 545   | 501   |
| Cubic yards composted   |      |      |      |       | 8,681      | 5,995 | 5,485 | 5,081 | 3,509 | 3,740 |

As shown in Table 26, seven farms participated in the manure composting practice. These farms composted a total of 3,740 cubic yards of manure, which was not applied on frozen or snow-covered ground. The compost was applied in either the spring or summer when the risk of runoff was significantly lower. In total, the compost was applied on 501 acres. The data show a reduction in P loss of 0.9 pound per acre.

**Table 27. Composting manure impact.**

|                                    | Composting manure |
|------------------------------------|-------------------|
| Acres in the practice              | 501               |
| Farms participating                | 7                 |
| Average change in P loss, lbs/acre | 0.9               |
| Total P loss, lbs                  | 432               |



**Table 28. Composting manure by stream reach.**

| Stream reach                           | Acres | Pounds of P loss reduced | Average P loss reduced per acre |
|----------------------------------------|-------|--------------------------|---------------------------------|
| 62: Pheasant Branch Creek              | 91    | 69                       | 0.8                             |
| 63: Dorn Creek                         | --    | --                       | --                              |
| 64: Yahara River, Mendota, and Monona  | 356   | 311                      | 0.9                             |
| 65: Nine Springs Creek                 | --    | --                       | --                              |
| 66: Yahara River, Waubesa, and Kegonsa | --    | --                       | --                              |
| 67: Yahara River, NE of Stoughton      | --    | --                       | --                              |
| 68: Yahara River, S of Stoughton       | --    | --                       | --                              |
| 69: Badfish Creek, Yahara River        | 54    | 52                       | 1.0                             |

|                                                          |          |
|----------------------------------------------------------|----------|
| Total acres implemented                                  | 501      |
| Cubic yards implemented                                  | 3,740    |
| Cubic yards receiving cost share                         | 2,140    |
| Cubic yards without cost share                           | 1,600    |
| Financial investment in cost share                       | \$21,400 |
| Financial investment by farms (yards without cost share) | \$16,000 |

As shown in Table 28, composting manure was conducted in three sub-watersheds. This is reasonable, as there are limited compost turners available in the Yahara Watershed, so access to this equipment is constrained. If this practice is expanded, greater access to compost turners will be needed. There is also interest from cash grain producers in using compost as a replacement for commercial fertilizer. Developing a Cost Share Program to transport composted manure to farms without livestock could significantly reduce purchases of fertilizer P in the Yahara Watershed.

There is growing interest in avoiding manure applications on frozen and snow-covered ground when cost share is available to make the practice economical. The advantage of composting over stacking manure is that composting reduces volume by about one-half while concentrating nutrients. This reduction in volume and increase in nutrient concentration make the material more economical to transport. Non-replicated trials on grain operations have shown increased yields from compost applications compared with similar applications of commercial fertilizer. Although scientific data are not yet available to explain why this occurred, it is apparent that composted manure provides more than nutrients alone to a growing crop.

**Conclusion**

Thank you to the farmers and consultants for your cooperation in the 2025 Yahara Pride Farms Cost Share Program. Most importantly, thank you for your willingness to try new practices on your farms to protect soil and improve local waters.

Thank you to Marian Viney, who organizes Yahara Pride events, including the annual Twilight Meeting and the Yahara Pride Farms Annual Conference, writes the newsletter, and does so much more.

Thank you to Hal Delfosse for keeping the books in order.

Thank you to Rob Klink, Kim Meyer, Robert Michelson, and Jackie Wheeler for their assistance and diligent work on the 2025 P accounting.

**In Memory**

In January 2026, the Yahara Watershed community said goodbye to Art Meinholz. Art served on the Yahara Pride Farms Board of Directors from the program's start in 2012. He was a committed farmer, a devoted husband and father, and a friend to many.