

# NITROGEN OPTIMIZATION PILOT GRANT PROGRAM

## REQUEST FOR PROPOSALS AWARD YEARS 2024-2025

APPLICATION FORM

[HTTPS://DATCP.WI.GOV/PAGES/COMMERCIALNITROGENOPTIMIZATIONPILOTGRANTPROGRAM.ASPX](https://datcp.wi.gov/pages/commercialnitrogenoptimizationpilotgrantprogram.aspx)

DEADLINE

JANUARY 31, 2024

ELECTRONIC SUBMISSIONS ONLY TO:

[DATCPNOPP@WISCONSIN.GOV](mailto:DATCPNOPP@WISCONSIN.GOV)

QUESTIONS MAY BE DIRECTED TO:

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The Department of Agriculture, Trade and Consumer Protection (DATCP) provides funding to agricultural producers to focus on commercial nitrogen optimization activities through the Nitrogen Optimization Pilot Program (NOPP).

Agricultural producers will collaborate with the University of Wisconsin (UW) System scientists to conduct research projects that enhance understanding of and refine new methods that optimize commercial nitrogen applied to agricultural fields.

## Funding priorities

Funding priorities are set in statute and include:

- Projects located in different parts of the state to incorporate data from differing soils and geological characteristics.
  - Innovative projects not currently funded by other state or federal programs.
  - Multi-year projects, with a minimum of two years required.
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## Introduction

The Nitrogen Optimization Pilot Program (NOPP) provides funding to agricultural producers to perform on-farm research pertaining to commercial nitrogen application. DATCP will collaborate with the UW

***Nitrogen Optimization*** is a process with the potential to use nitrogen in a manner that will sustain soil fertility and crop production.

System with DATCP as program administrator and UW providing technical and data support. This formal partnership fulfills the statutory collaboration requirement, with up to 20% of each grant award being designated for UW.

Reducing nitrogen application rates while maintaining yield is one of the first things producers can do to address optimization. Reducing N application rates can result in cost-savings and less N leaching into groundwater. The project designs follow standard research approaches, such as randomization and replication. Each study in each field is a standalone study that uses accepted statistical approaches to address the study question.

The NOPP has the following stipulations:

- A single agricultural producer may apply for an award up to \$40,000. Multiple agricultural producers may work together to submit a single application (for example, a project with two participating agricultural producers may apply for an award up to \$80,000). Applicants DO NOT need to factor the UW System award for monitoring and research assistance into their proposed budget. The UW System award will be calculated based on the total of all approved project budgets and will be awarded directly from DATCP to the UW System.
- Successful applicants are required to submit the following:
  - A progress report for year one followed by a final report for year two using a DATCP-provided template.
  - Data collected using established criteria and requirements set by the project's chosen research design, in the format requested from UW. More details of the required data collection will be available upon contracting.
  - Periodical surveys provided by the UW researchers
- No funding commitment is final until all parties sign the contract. No activities are reimbursable until a signed contract is in place.-DATCP will retain 10% of the grant award until the final report has been submitted.

## UNIVERSITY OF WISCONSIN NOPP PARTNERSHIP

On behalf of all grantees, DATCP will enter into an agreement with UW to fulfill the requirement to collaborate with a UW System institution. This agreement will give the funding and authority to UW to provide the data management and monitoring support to grant recipients, as required by the statute (s. 94.14(16)(c), Wis. Stats.).

## COLLABORATORS

Outside of the DATCP/UW agreement, if an agricultural producer would like to independently collaborate with a UW researcher or another entity, such as an agricultural service provider, non-profit association, or producer-led group, they are welcome to do so. The project budget should include any expenses for these consultants.

## ELIGIBILITY REQUIREMENTS

The project application must meet **all** the following criteria:

### ELIGIBILITY - RESEARCH STUDY

1. All grant applicants **MUST** receive pre-approval of the research study design prior to submitting an application. The research designs should be emailed to Monica Schauer or Lindsey Rushford by **December 15, 2023**.



Extension

UNIVERSITY OF WISCONSIN-MADISON

[Technical Research Guide](#)

[Monica Schauer \(Ruark's UW Soil Lab\)](#)

[Lindsey Rushford \(UW Extension\)](#)

2. The project design must be for at least two years, with priority given to longer-term projects. Awards will be for a two-year project unless otherwise specified in the contract.
3. The project should be innovative. This should be a new project for the agricultural producer or the agricultural producer's land. The project should include current and emerging crop management techniques that are able to be evaluated through simple protocols and contribute to data generated by the network of on-farm trials being conducted through this program.
4. Any variants or deviations to the pre-approved project design must be discussed and approved by UW's NOPP Research Director.

5. Producers must supply farm history and current year detailed crop plans, including planting data, pesticides, nutrient application, yield data, etc. in survey provided by UW after grants are awarded.
6. Participating producers agree to implement a zero lb. N/acre test strip or treatment (as detailed in the [“Nitrogen Use Efficiency: A guide to conducting your own assessment”](#) page 3). The zero lb. N/acre rate is needed to determine the soil’s natural N-supplying capacity and to understand the magnitude of potentially leachable nitrogen. Some valid research projects may not be able to conform to this requirement: contact UW’s Monica Schauer or Lindsey Rushford to discuss variances. Agricultural producers may include a stipend for anticipated yield loss within zero lb. N test strips in their project budget (see formula in the Budget Worksheet).

#### ELIGIBILITY - APPLICANTS

7. An agricultural producer may be the grant applicant for one (1) grant project per cycle. The same agricultural producer may be party to other grant projects if the total award to that producer does not exceed \$40,000.
8. The agricultural producer must operate an eligible farm (a farm that has produced at least \$6,000 in gross farm revenues during the taxable year to which the claim relates or, in the taxable year to which the claim relates and the immediately preceding taxable years, at least \$18,000 in the gross farm revenues).
9. Applicants who wish to site a NOPP project on land that they do not own must consult with and obtain permission to conduct the project from the land’s owner.
10. The producer must collaborate with the UW as detailed in this RFP and allow both DATCP and UW project personnel farm access throughout the project duration.
11. The producer agrees to voluntarily conduct commercial nitrogen optimization field studies and agrees to plan and manage on-farm research or has chosen to partner with consultants or other farmers to plan and manage the on-farm research.

*Can one agricultural producer be a part of multiple projects?*

Ag Producer Jane is the applicant for a study she is planning and is eligible for the \$40,000 award. She is also part of Farmer Led Watershed Council of Running Creek who is also an applicant. Jane would like to take part in this project as well, on different acres she manages, and would be eligible for the stipend and any costs incorporated within the Council grant. The total amount of grant funding Jane can receive is \$40,000 so she will need to adjust her financial requests to stay within the eligibility for both grants.

#### ELIGIBILITY - CONTRACTING

12. Grant applicants, agricultural producers, and fiscal managers all must sign the NOPP Grant Contract.

13. The project cannot currently be funded through other state or federal programs.

## COMPLIANCE

- An agricultural producer and the UW System institution collaborating with the agricultural producer in implementing a project under this subsection may not be held civilly liable and may not be subject to any remedial action or other administrative or enforcement action from the department or the Department of Natural Resources for any discharge of environmental pollution from the land involved in the project, if the actions were taken in good faith by the agricultural producer and the institution and conformed to the project specifications proposed to the department in the grant application. (s. 92.14(16)(f), Wis. Stats).

## HOW TO COMPLETE THE NOPP APPLICATION

### PART 1 – GENERAL PROJECT INFORMATION

**Applicant** – individual who will be legally responsible for administration of the project during the life of the grant. The applicant can be an agricultural producer, an independent crop consultant, a researcher, a nonprofit, or another individual or entity. The applicant can be one of the agricultural producers involved in the project but does not have to be. The applicant is required to sign the grant contract.

**Agricultural producer** – An agricultural producer must own an eligible farm. They can apply in the name of their farm, but we will need the name of the individual who is legally eligible to sign a contract on behalf of the farm. Agricultural producers must sign the grant contract.

**Fiscal Manager** – Entity who will be managing the grant reimbursement request, receive the funds, and disperse as necessary. This can be the applicant, one of the agricultural producers, or a third party. Fiscal manager must sign the grant contract.

**Project Manager** – Individual who will be managing the on-farm research project on behalf of the applicant. The project manager may be the applicant, an agricultural producer, or a third party. This individual will be the primary contact regarding all program management. One person may fulfill all of these roles, if desired. Contact Susan Mockert with questions.

Requested grant amount: each qualifying agricultural producer on the application may be awarded up to \$40,000 towards the project costs.

**Project Location:** provide a lat/long center point for each field included in the study.

You can use the Wisconsin DNR's Surface Water Data Viewer to identify latitude and longitude of project fields.

- 1) Open the surface water data viewer.
- 2) Navigate to the project area using zoom and pan tools.
- 3) Turn on Air Photos to identify project fields.

Hover over project field to identify the latitude and longitude. These values will be visible in the lower left hand corner.

**Organization and Collaboration:** If you are collaborating with multiple producers or entities, outline the roles and responsibilities for each.

**Research Study** (see [Technical Research Guide](#) for further assistance)

1. Study Summary: Briefly answer questions a-e in the space provided or in a separate document.
2. Research Study Design and Methods: Briefly answer question a-f in the space provided or in a separate document.
3. Outreach efforts: while not required for NOPP grants to include outreach, incorporating field days to a program offers value for both producer and community.

#### **Equipment Purchase Request**

Pre-approval for equipment purchases over \$2,500 is required from DATCP. If you are requesting to purchase equipment costing over \$2,500 as part of the NOPP grant, please answer the Equipment Purchase Request questions.

#### **Additional Information**

Include additional details about the project to help reviewers assess the full project and impact.



## Sheet 1 - Budget

### UW Portion of Grant Award

The NOPP program requires collaboration with an UW system institution for all research grants with up to 20% of each maximum grant award going to the UW system institute. To simplify the administrative process, the maximum 20% has been discounted from the maximum \$50,000 grant award, making the total available award per agricultural producer \$40,000. DATCP and UW will enter into a contract awarding UW up to 20% of the total of the grant awards given.

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### EXAMPLES OF ELIGIBLE COSTS FOR EACH CATEGORY

#### Category 1 – Optional Match.

Enter the total amount of match to be provided.

Use the Source of Match field to list all sources.

Match is not required for the NOPP grant program. However, applicants providing match will be awarded priority points in the review process.

#### Category 2 – Incentives and Stipends

Stipends limited to \$2,500 per agricultural producer

Zero-N loss stipend as calculated using Sheet 3 of the Application Spreadsheet

#### Category 3 - Consultant Services / Subcontractors (costs associated with research plots only)

Consultant services (capped at 25% of total budget request)

Collection of samples

Testing of samples

Planting / harvesting costs

#### Category 4 – Equipment Purchases, Lease or Rental, Supplies and Materials (costs associated with research plots only)

Seed

Inputs (fertilizer, products to test, etc.)

Equipment – purchases over \$2,500 require approval. See Equipment Purchase Request section of the DATCP-BLWR-009 of the NOPP application to share specifics regarding the equipment request.

#### Category 5 – Miscellaneous

Mileage / postage

Outreach activities such as field days

Total Grant Award is the amount you are requesting and should match “Requested Grant Amount” in Part I of the application.

## Sheet 2 – Work Plan

Outline activities planned over the course of the project, divided into two years. Please include the budget categories impacted by the activity (2-5) and estimated timeline for each activity.

## Sheet 3 – Zero-N Calculations

Use this sheet to calculate yield loss for 0 N treatment based on previous on-farm research conducted across the state. For assistance with this effort, contact Monica Schauer ([monica.schauer@wisconsin.edu](mailto:monica.schauer@wisconsin.edu)).

## DATA COLLECTION FOR ALL STUDIES

The information below is **the minimum level of information required** from each applicant to collect and report. To achieve the goal of expanding knowledge of commercial nitrogen optimization, we need to collect data across all projects that can be combined and contrasted to ascertain differences as well as similarities across the state. The more detailed information we receive from applicants, the more robust the analysis and subsequent communication of our efforts can be. **A full explanation of data requirements will be included in contracts and during a late winter or early spring 2024 pre-growing season meeting with grant recipients.**

### Project Cycle

1. Apply for grant (Year 1). Concurrently take soil samples and put cropping practices into place to set up for the upcoming project. Retain receipts and records to submit for reimbursement consideration. Include these activities and expenses in your work plan and budget within the application. Soil samples can also be taken in the spring after grants are awarded, but prior to planting.
2. Upon contracting, the grantee will complete background information data collection (Year 1) for each agricultural producer involved in the project. The following measurements and information will be required for every study from each study plot (collected and provided by the applicant):
  - Routine soil analysis (pH, OM, P and K) – analysis must be from DATCP certified lab.
  - Soil texture – directly measured or from Soil Survey.
  - Soil test nitrate (0-12 and 12-24 inches), collected prior to N application, and at pre-sidedress timing, for entire research area
  - Management history (a survey will be provided)
  - Previous years' management (a survey will be provided)
  - Current year management, including detailed cropping plans, planting data, crop protection, nutrient applications, yield data, etc. (a survey will be provided)

- Soil map from NRCS Web Soil Survey, including GPS coordinates
  - Economic data (e.g. unit cost of fertilizer, price per bushel, etc.) (a survey will be provided)
3. Implement project as detailed in the approved work plan (Year 1 and 2)
  4. In-season data collection on all treatment plots (Year 1 and 2)
    - Crop yield
    - Crop quality (if applicable)
    - Plant tissue testing during growing season (especially for projects with vegetable or specialty crops) and cover crop sampling for total nitrogen at termination at applicable.
    - In-season soil testing (if applicable)
    - All electronic data, including N application maps and yield monitor data
    - Weather data for the growing season (daily highs, daily lows, daily rainfall) if available
  5. Final data collection after harvest (Year 1 and 2)
    - Soil test nitrate (0-12 and 12-24 inches)
  6. Submit progress report (Year 1) or final report (Year 2), per contract requirements.

## ELIGIBLE AND INELIGIBLE COSTS

### Examples of Eligible Costs

- Soil and plant tissue sampling and analysis
- Groundwater or surface water monitoring and analysis.
- Stipend payment for inclusion of zero-N strips into project, per the Application Spreadsheet.
- Incentive payments for participation in study, not to exceed \$2,500 per producer.
- Consultant or producer costs for coordinating project including expenses for contract and consulting services, and mileage. Project management costs are capped at 25% of the total project cost. Mileage reimbursement is set by the state and is currently \$0.51/mile.
- Materials and supplies directly associated with the project including inputs ONLY for the test strips/areas. Limited expenses incurred prior to contracting may be eligible for reimbursement if the activity and costs can be directly associated with the early stages of the project.
- County staff time at a rate of \$25/hour is an eligible cost under this grant as long as the county staff position is NOT already funded by DATCP SWRM.
- Equipment purchases directly associated with the research project. **DATCP preapproval is required for equipment purchases over \$2,500.** Equipment purchase requires a statement of ownership and intended use of the product after the NOPP project is finalized.

- Rental costs for equipment directly associated with research projects. **DATCP preapproval is required**, if not itemized on the grant budget application.
- Other costs deemed as consistent with the purpose of this grant program.

### Examples of Ineligible Costs

- Real estate purchases
- Repayment of loans or mortgages
- Rent or contract payments for time periods extending beyond the term of the grant contract
- County staff time that is already funded by DATCP SWRM grants
- Lobbying activities
- Inputs (e.g. fertilizer, seed) and management costs not associated with the research project
- Calculated potential losses due to lower than normal nitrogen application, with the exception of the zero-N plots / strips.
- Other costs deemed by DATCP as not consistent with the purposed of this grant program

## GRANT ADMINISTRATION REQUIREMENTS

### Funding

\$1.0 million is available for grants in this funding cycle. Funding for grant reimbursement will be available once both parties sign the contract and no earlier than January 1, 2024. Contracts will be for a minimum of two years. The grant recipient may submit a written request to DATCP to extend the contract one additional year if they have funds remaining.

### Submitting a Proposal

**Pre-Approval:** The NOPP grant application requires **pre-approval of the research design** aspect of the application. All applicants must contact Monica Schauer or Lindsey Rushford, the UW contacts for the DATCP NOPP to review their research plans and obtain a Pre-Approval Code.

The application form can be found on the DATCP website:

<https://datcp.wi.gov/Pages/CommercialNitrogenOptimizationPilotGrantProgram.aspx>

Available documents include:

1. Technical Research Guide with research examples and ideas (reference)
2. Part 1 of the application is a Word document

3. Part 2 of the application is an Excel Spreadsheet, referenced as the Application Spreadsheet in the RFP. The Application Spreadsheet has three tabs to be used:

- a. Budget Form
- b. Work Plan Form
- c. Zero-N reimbursement calculations

➔ Submit applications to [DATCPNOPP@wisconsin.gov](mailto:DATCPNOPP@wisconsin.gov).

➔ Applications must be submitted no later than **January 31, 2024 by 11:59PM**

## RECEIVING A GRANT: EXPECTATIONS

### Reporting Requirements

Grant recipients are required to file an **annual report** using the DATCP form, which will be made available on the DATCP NOPP webpage. Content to be included in the report will be outlined in the grant contract between the agricultural producer and DATCP. Annual reports will be due no later than March 1, 2024. Grant recipients will be required to provide quantitative information detailed in the annual report form as well as provide all required data, in the format requested, to the UW System institute. DATCP staff, in partnership with UW, will complete a program report.

### Funding Distribution and Reimbursement Information

Awards will be distributed through a reimbursement process upon receipt of the reimbursement request(s), required receipts and other supporting documentation. Reimbursement may only be requested for activities completed after the signing of the grant contract, with the following exceptions:

- Soil tests completed in the fall of the prior to contracting, if approved as part of the application
- Installation of cropping practices one season prior that are demonstrably necessary for the project baseline. Please discuss in your project design the necessity of the practice.

A detailed invoice of expenses including **all** receipts, purchases made or services provided will be required at the time funding reimbursement requests are made. Reimbursement requests must use the DATCP reimbursement request form and submit all receipts and invoices associated with their reimbursement request.

### Conservation Compliance

Grant Recipients must comply with all federal, state, or local laws, ordinances, regulations or formal guidelines, including but not limited to those related to soil and water conservation requirements,

licensing fees or taxes, in effect during the period of your contract. Any information received regarding violations or non-compliance may be considered when evaluating applications.

## **Open Records**

Applications submitted along with all related contracts and reports are subject to disclosure under the Public Records law. If the grant applicant or recipient requests any information be deemed a trade secret, the document should be labeled using “trade secret” and the requested status should be noted to DATCP when the document is submitted. Such information may be kept confidential by DATCP only as authorized by law (see s. 19.36(5), Wis. Stats.).

## **Other Considerations**

All applications submitted in response to this RFP become the property of DATCP. The agency reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, otherwise use, and to authorize others to use materials produced under this grant agreement. Statistical summaries and general information about the overall project will be used in presenting research findings and in reports back to the grantees and other interested parties, but **no individual farm data will be released without the consent of that farm.**

DATCP also reserves the right to:

- Post content from funded applications to the DATCP website.
- Use photos, outreach materials and publications generated as part of the projects or taken by DATCP staff, project collaborators or others to promote program successes and activities.
- Reject any or all applications received based on eligibility, funding available and scoring.
- Waive or modify minor irregularities in applications received, after prior notification and agreement of applicant.
- Amend program specifications after their release, with appropriate written notice to potential applicants.
- Require a good faith effort on the part of the applicant to work with DATCP after project completion to develop or implement project results in Wisconsin.
- Withhold any payments if contract conditions are not met.

## APPLICATION TIPS

As you develop your grant application and work to create the strongest application possible, consider the following tips and suggestions.

- Be clear and concise. Members of the review panel may not work with you directly and will need background information on your project to fully understand the intentions of your project.
- Review the evaluation criteria included at the end of this RFP to make sure you are addressing all applicable criteria in your application.
- Ensure you included all the items listed in the Application Checklist (below).
- Include a clear and realistic budget and budget explanation so reviewers can understand what each line item will be used for and how it relates to the overall project.
- Have an industry partner review your application before you submit.
- Consult with UW on all projects to obtain pre-approval from UW. Keep receipts for approved activities such as soil sampling that may occur prior to the contract start.

## APPLICANT CHECKLIST

**A complete application includes:**

- Pre-approval code provided by UW
- Application Word form with all required fields completed and fully signed
- Application Spreadsheet with completed budget, work plan and zero-N calculations
- Map of project area

## [REFERENCES SOURCES](#)

**For grant management:**

[FAQ for 2024 Application](#)

**For study project design and data collection:**

[Technical Research Guide](#)

## EVALUATION CRITERIA

### **Completeness of Proposal (required)**

*UW Pre-approval obtained.*

*Proposal includes all required documentation and fulfills program goals and priorities.*

*Proposal meets all program eligibility requirements.*

*Project demonstrates a plan to incorporate new practices and/or testing methods to analyze nitrogen use.*

*\*\*All above requirements MUST be met in order to rank application.*

### **Project plan**

**25**

*Two-year research project design is detailed, complete, and ready to start in 2024.*

10

*Project demonstrates innovative approach to nitrogen optimization.*

5

*Project incorporates technology into design.*

5

*Project includes outreach/education plans.*

5

### **Anticipated Results/Metrics Provided**

**25**

*Project demonstrates that it will contribute to commercial nitrogen optimization knowledge.*

5

*Project plan includes collecting more data than baseline requirements.*

5

*Project contains a zero-N test plot or strip*

5

*Applicant acknowledges how project data will be shared with the UW entity and accepts responsibility for this task*

5

*Research pertains to a specialty crop with need for improvements in nitrogen management.*

5

### **Organization/Commitment**

**25**

*Applicant is associated with a project manager to complete the research project (e.g.,*

10

*Producer-Led group, watershed group, agronomist) or has demonstrated expert level of on-farm research.*

*Efforts by the agricultural producer/group are complementary to other local and state programs rather than duplicative.*

5

*Grant applicant is clear on the roles and responsibilities of all parties of the project.*

5

*Research project coordinator demonstrates acceptable knowledge and experience with on-farm research.*

5

### **Budget**

**10**

*Justification exists for each budget item. Budget items are clear, specific and meet the program requirements.*

5

*Budget items and work plan tasks are clearly linked.*

5

### **Priorities**

**15**

*Project is related to or located in an area with known data gaps related to commercial nitrogen optimization for the commodity type, soils and/or water.*

5

*Length of the study is projected to be greater than 2 growing seasons. (3 pts for 2 year project; 5 pts for more than 2 years)*

5

*Match is provided*

5

**Total Points**    **100**