



Supporting Investment in Green Fertilizer Production

Report to the Legislature

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Introduction

This report fulfills the Minnesota Department of Agriculture's (MDA) requirement to report on the progress of projects funded through grants to cooperatives to invest in green fertilizer production. The report must include how much of the appropriation has been used, including the amount used for administration (Laws of Minnesota 2023, chapter 60, article 12, section 76).

Background

Green fertilizer is defined as any nitrogen-based fertilizer that contains hydrogen produced via electrolysis powered by renewable energy (solar and wind). Incorporating renewable energy in the manufacturing process reduces greenhouse gas emissions associated with fossil fuel-derived nitrogen-based fertilizers. The reduction of greenhouse gas emissions from using locally produced green nitrogen-based fertilizers are but one benefit for the agricultural sector.

The localized production of this essential agricultural input also supports Minnesota farmers through providing better price stability and predictable fertilizer supply. Additionally, agricultural inputs and production systems associated with lower greenhouse gas emission factors, such as green fertilizer, create market opportunities for Minnesota farmers to have greater access to potential value-added premiums. Agricultural commodities produced from low greenhouse gas emission systems are in limited supply, valued widely throughout various supply chains, and are an essential feedstock for creating low carbon biofuels.

Development

The MDA gathered input on program development through two request-for-information (RFI) comment periods held in February and June 2024. The MDA designed the Green Fertilizer Grant Program to prioritize projects demonstrating: (1) strong business readiness, (2) support through private financing, state, or federal loans, and (3) projects located in counties with a poverty rate greater than 9%. Grantees must provide at least a 50% match and will be reimbursed up to 50% of the total investment cost.

The Green Fertilizer Grant Program Request for Proposals (RFP) was opened in December 2024 and closed March 18, 2025. The MDA received one grant proposal application and did not award a grant agreement for this application. The MDA re-released a modified RFP on October 21, 2025, closing on December 2, 2025. The MDA received one grant proposal application and staff are reviewing for eligibility and completeness.

In 2025, the Minnesota legislature reduced the original Green Fertilizer Grant Program appropriation from \$7 million to \$4 million as part of an enterprise-wide budget reduction. To date, no grants have been issued under the appropriation, and \$25,538 in total funding has been used for administrative costs. These costs include staff time to design and conduct stakeholder engagement, review input from the RFI comment periods, develop the grant program requirements and procedures, and provide stipends to members of the external grant review committee.

Appendix – 2023 Appropriation Language

Laws of Minnesota 2023, Chapter 60, Article 12, Section 76

SUPPORTING INVESTMENT IN GREEN FERTILIZER PRODUCTION.

- (a) The commissioner of agriculture may award a grant under this section to a cooperative to invest in green fertilizer production facilities in order to reduce greenhouse gas emissions and increase the use of renewable energy in the agriculture sector. A grant under this section must include a long-term agreement requiring cooperative members to purchase green fertilizer from the facilities and to obtain training in best management practices in fertilizer application to minimize pollution. Renewable energy, hydrogen, and ammonia must be produced within 100 miles of the production facilities and the final production of nitrogen fertilizer must occur within Minnesota.
- (b) For purposes of this section:
 - (1) "cooperative" includes an agricultural or rural electric cooperative organized under Minnesota Statutes, chapter 308A or 308B;
 - (2) "green fertilizer production facilities" means facilities that use renewable energy to produce anhydrous ammonia, urea, or hydrogen;
 - (3) "green hydrogen" means hydrogen produced by splitting water molecules using:
 - (i) grid-based electrolyzers that have matched their electricity consumption with wind or solar, on a basis determined by the commissioner; or
 - (ii) electrolyzers connected directly to a wind or solar facility; and
 - (4) "green fertilizer" means a nitrogen-based fertilizer produced from green hydrogen.
- (c) The commissioner of agriculture must develop criteria and scoring procedures for evaluating and awarding grants. The maximum grant award for a cooperative is \$7,000,000.
- (d) Up to five percent of the amount in paragraph (a) may be used by the Department of Agriculture to administer this section.
- (e) By December 15 each year, the commissioner of agriculture must report to the chairs and ranking minority members of the legislative committees with jurisdiction over agriculture to provide an update on the progress of projects funded by this program. Each report must include how much of the amount appropriated has been used, including the amount used for administration. The commissioner may include additional information of interest or relevance to the legislature. This paragraph expires December 31, 2031.
- (f) By December 15, 2032, the commissioner of agriculture must complete a final report to the chairs and ranking minority members of the legislative committees with jurisdiction over agriculture regarding the uses and impacts of this program. The final report must include a list of the grants awarded, the amount of the appropriation used for administration, the amount of green fertilizer produced, and a summary of the economic and environmental impacts of this production compared to the production and purchase of conventionally produced fertilizer. The commissioner of agriculture may include additional information of interest or relevance to the legislature. This paragraph expires December 31, 2032.