



Legislative Fiscal Bureau

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February 12, 2020

TO: Members
Joint Committee on Finance

FROM: Bob Lang, Director

SUBJECT: Assembly Bill 796/Senate Bill 718: Nitrogen Optimization Program

The identical Assembly Bill 796 and Senate Bill 718 would create a grant program to support projects and research related to optimizing use of nitrogen in agricultural practices. AB 796 was introduced on January 24, 2020, and referred to the Assembly Committee on Agriculture. On January 28, 2020, Assembly Amendment 1 was introduced. On February 4, 2020, a public hearing was held. On February 6, 2020, the Assembly Committee recommended adoption of Assembly Amendment 1 and passage of the bill as amended on votes of 13-0.

SB 718 was introduced on January 24, 2020, and referred to the Senate Committee on Natural Resources and Energy. On January 30, 2020, Senate Amendment 1 was introduced. On February 5, 2020, a public hearing was held.

BACKGROUND AND CURRENT LAW

Nitrogen and the nitrogen-based compound nitrate are naturally occurring in the environment, but may also be introduced from human sources such as nitrogen fertilizers, animal manure, and human waste from septic systems or wastewater treatment facilities. Excess nitrogen applications in agricultural processes is known to produce nonpoint source water pollution, which may have adverse impacts on surface water quality as high nutrient loads in water bodies increase the concentration algae, threaten native species, and reduce water clarity.

State and federal nitrate drinking water standards limit concentrations to no more than 10 parts per million (ppm). High levels of nitrates negatively impact the ability of blood in a person's body to carry oxygen, which can cause a harmful health condition known as "blue baby syndrome" in infants. Studies suggest that high levels of nitrates may also increase the risk of other health problems, such as thyroid disease, diabetes, and some types of cancer. The state Departments of Natural Resources (DNR) and Health Services (DHS) recommend that no infant or woman who is or may become pregnant should consume any water that exceeds the nitrate standard. Further, DHS

recommends that all people avoid long-term consumption of water that has a nitrate level greater than 10 ppm. DNR estimates approximately 6% of private wells in Wisconsin have concentrations of nitrate exceeding 10 ppm, which may be from human or agricultural sources. The attachment provides a map of the incidence of private well nitrate contamination by county.

The UW-Madison Division of Extension (UW-Extension) provides educational programs related to agriculture, natural resources, geological and natural history, community and economic development, and other topics, through an office located in every county in the state. As part of UW-Extension agriculture programming, educators work in local communities through activities such as working directly with farmers and other agricultural producers, speaking to civic groups and county boards, facilitating meetings, and providing information publicly through newspapers, radio, or television programs. Educators provide information on topics including safe and healthy agricultural practices, farm profitability, farm succession and planning, using resources in a sustainable way, and best practices for growing various crops.

UW-Extension operates the Discovery Farms program, which evaluates nutrient management strategies and nonpoint source runoff reduction practices by monitoring such practices in place at commercial farms throughout the state. Discovery Farms receives funding from the segregated agrichemical management fund, as well as other state general fund and program revenue funding appropriated through the UW System. The Discovery Farms Program budget of \$951,800 in 2018-19 includes \$483,700 in state funding and \$468,100 in federal and other grant funding. Expenditures include staff salaries and fringe benefits, research and equipment costs, grants to participating producers for assisting in the projects, and costs for publishing research findings. Discovery Farms operates a nitrogen use efficiency program, which collaborates with agricultural producers to conduct on-farm data collection and research to determine optimal nitrogen use practices. From 2015 to 2019, the nitrogen use efficiency program has monitored approximately 250 agricultural fields in nine regions of Wisconsin to develop recommendations specific to Wisconsin crop systems and soils.

The UW-Madison College of Agriculture and Life Sciences (UW-CALS) is dedicated to research, education, and promotion of food, agriculture, bioenergy, health, the environment and human well-being. Approximately 150 UW-CALS faculty and academic staff hold cooperative extension appointments, working closely with UW-Extension staff to provide information and recommendations to local communities and businesses. Additionally, UW-CALS operates 12 agricultural research stations across the state dedicated to field research and education in the fields of agronomy, animal sciences, biological systems engineering, dairy science, entomology, forest ecology and management, genetics, horticulture, plant pathology, and soil science.

The UW-Stevens Point Center for Watershed Science and Education is operated as a partnership between the UW-Stevens Point College of Natural Resources and UW-Extension. The Center is dedicated to assisting local communities with water quality problems by: (a) providing water quality assessments and technical support; (b) promoting water resource management strategies that protect waterbodies; and (c) educating students for careers in water resource management.

SUMMARY OF BILL

The bill would create a continuing appropriation and provide the Department of Agriculture, Trade and Consumer Protection (DATCP) \$1,000,000 GPR beginning in 2020-21 for a nitrogen optimization pilot program. The bill requires DATCP to provide grants to agricultural producers and eligible UW programs to implement projects of at least two years in length that reduce nitrate loading, or optimize use of nitrogen, while protecting water quality. The bill specifies that projects would include those that: (a) reduce nitrogen application despite decreasing crop yields; (b) grow a crop that requires less nitrogen or adds nitrogen to soil; or (c) expand or conserve wetland. The bill would define eligible UW programs as UW-CALS, the UW-Stevens Point Center for Watershed Science and Education, and UW-Extension.

The bill would limit grant awards to \$50,000 per grant, and require agricultural producers receiving grants to collaborate with an eligible UW program and adjust their project to fit the needs of the academic research conducted by that institution. The bill would require eligible UW programs to collaborate with agricultural producers to monitor the grant project on-site and conduct research on nitrate loading reduction methods with data collected from the project, in order to make recommendations to agricultural producers on optimizing use of nitrogen to improve water quality. Under the bill, eligible UW programs would be required to report on their research, including providing information and recommendations on: (a) improving nutrient management software programs used in this state; (b) improving participation in nutrient management planning; (c) improving the state's cost-share system; and (d) the cost-effectiveness of different nitrogen reduction methods and an estimate of ongoing demand for the nitrogen optimization program. The bill would require that such reports be submitted to the relevant standing committees of the Legislature. Under the bill, collaborating UW programs would be eligible for grants to conduct research associated with grants to agricultural producers in an amount up to 20% of the amount received by the agricultural producer.

In awarding grants, the bill would require DATCP to collaborate with agricultural producers and eligible UW programs. Further, the bill would require DATCP to attempt to provide grants to agricultural producers across all regions of the state, and to allocate grants to projects in areas with different soil types or geologic characteristics. Under the bill, DATCP would be required to prioritize projects that are innovative, not currently receiving funding from other state or federal programs, and last for longer periods of time.

The bill would require DATCP to promulgate an emergency rule without the finding of an emergency, and would specify that the rule would remain in effect until July 1, 2021, or the date a permanent rule takes effect, whichever is sooner. Further, the bill would exempt DATCP from preparing a statement of scope or submitting a draft version of the rule to the Governor. Finally, the bill would require that the rule would be promulgated within 90 days of the effective date of the bill.

ASSEMBLY AMENDMENT 1/SENATE AMENDMENT 1

Under the bill as introduced, agricultural producers would be eligible for grants up to \$50,000, and UW collaborators would be authorized up to an additional 20% of that amount, for a maximum grant per project of \$60,000. The identical Assembly Amendment 1 and Senate Amendment 1 would modify the maximum allowable grant per project to be \$50,000, which would include both the agricultural producer and collaborating UW program. The amendment would retain the bill's limit of 20% of the grant award to UW collaborators.

FISCAL EFFECT

The bill would provide a base funding of \$1,000,000 GPR beginning in 2020-21 in a continuing appropriation. Under a continuing appropriation, any unexpended amounts in the appropriation would be carried forward and remain available for expenditure in subsequent years until depleted. DATCP reports it would be able to promulgate rules and administer the program using existing staff.

Prepared by: Rory Tikalsky
Attachment

ATTACHMENT

Percentage of Private Wells Over Nitrate Standard by County

