August 25, 2017

Larry Gunderson  
Pesticide and Fertilizer Management Division  
Minnesota Department of Agriculture  
625 Robert Street North  
St. Paul, MN 55155

Re: Draft Nitrogen Fertilizer Rule

Dear Mr. Gunderson,

CHS Inc. (chsinc.com) is a leading global agribusiness owned by farmers, ranchers and cooperatives across the United States. Governed by a 17-member board and owned by 1,100 cooperatives and 75,000 producers, CHS has a significant presence in Minnesota and member owners are directly impacted by this proposed rule. Four of the 17 CHS directors farm in Minnesota and 11,000 Minnesotans are CHS members.

In addition to member owners, CHS employees work daily with Minnesota farmers, member cooperatives, agronomists and fertilizer retailers. CHS is committed to ensuring the safety of drinking water and believes that safe drinking water and a prosperous agriculture sector can exist together.

Nitrogen movement in soils and its effects on groundwater are very complicated – in many cases, nitrate problems in groundwater may exist due to farming and non-farming sources from previous generations. New technology such as variable rate fertilizer application, nitrogen inhibitors as well as advanced nutrient management practices such as the 4R nutrient stewardship principles are just a few examples of continuous improvement efforts by farmers and agribusinesses to enhance nitrogen utilization and efficiencies.

Farmers and retailers are rapidly adopting these technology advancements and integrating nutrient application practices in operations. Farmer adoption of technology and precision agriculture practices is increasing through ongoing education efforts. In fact, CHS has partnered with the American Society of Agronomy (ASA) on an online-learning program to deliver 4R Nutrient Stewardship, resistance management, and precision application curriculum to agronomists and agribusiness professionals.

Beyond technology and on-farm nutrient stewardship applications, ongoing research at land grant universities (e.g., University of Minnesota, Iowa State University, South Dakota State University and the University of Wisconsin), and educational partnerships with agricultural organizations is an effective strategy to reduce nitrogen loss given regional farm variability. CHS supports ongoing promotion and funding for research and university extension education toward on-farm nutrient stewardship.
CHS offers the following comments regarding the proposed nitrogen fertilizer rule as developed under the Nitrogen Fertilizer Management Plan (NFMP).

1. Identification of vulnerable groundwater areas.
   In addition to the inherent incentive for farmers to not over apply nitrogen, CHS supports the intent of the Minnesota Department of Agriculture (MDA) proposed rule that nitrogen fertilizers be used as efficiently as practicable. However, CHS is concerned with the approach in part one of the proposed rule with the broad application of vulnerable areas by applying saturated hydraulic conductivity (i.e., Ksat) on a section basis. The NFMP outlines that the plan and associated rule applies to those areas of the state where groundwater is vulnerable to contamination, generally areas with sandy soils or karst geology. Thus, while it is a statewide plan, it is truly focused on a fraction of Minnesota farmland. The MDA estimates in the NFMP that 250-350 townships (15-20% of all townships) may be targeted for nitrate testing. The MDA should clearly state this focus of the NFMP and rule and clearly state that all other areas are not subject to the proposed rule.

2. MDA’s Township Well Testing Program.
   CHS is concerned with the approach and data underlying part two of the proposed rule. There does not appear to be a valid number of wells within the Township Testing Program reports due to either a low number of wells and/or low participation. MDA should target areas designated in Level 2, 3 and 4 to ensure all residents are made aware of groundwater conditions in the county by requiring that at least 80 percent of the wells in the township be tested and screened for potential non-fertilizer nitrate sources prior to Level 2, 3 or 4 designations.

   Furthermore, MDA needs to provide greater emphasis on the difference between initial and follow-up testing, as first round results can be misleading. All residents in affected areas need to know that their drinking water is safe. It is also extremely important for all stakeholders to know that wells that may be influenced by nitrate sources other than fertilizer are NOT being used in the determination of mitigation level. Township well testing reports should not be released until after round two testing has been completed and all ineligible wells have been removed from the calculation of the mitigation level.

3. Fall Application
   Fall application of nutrients varies across Minnesota depending on agronomic requirements and soil type. Thus, MDA should allow flexibility regarding the timing of fall nutrient applications:
   - for late planted crops, which are becoming more common in irrigated areas, may require nitrogen applications into August or early September;
   - for sugarbeet production since a significant percentage of nitrogen is applied in the fall due to concerns over seed germination reductions if too high a percentage of nitrogen is applied in spring;
   - for phosphorus fertilizers containing small amounts of nitrogen, such as MAP or DAP, in instances where fall application is part of an overall conservation strategy to reduce soil erosion

4. Local Advisory Teams
   Throughout the development of the updated Nitrogen Fertilizer Management Plan and in the MDA’s presentations on the proposed rule, much emphasis has been placed on the involvement of local advisory teams, especially farmers and their nutrient management advisors. We propose deleting the requirement that local advisory team members “provide support” to the commissioner for the implementation of the response activities. As stated in the name, the function of the team is to “advise” the commissioner, not provide funding for this regulatory program.
In summary, CHS is concerned with part one of the proposed rule and supports continued BMP research and development that allows for regional variability; the township testing program should be refined to ensure that results reflect actual groundwater conditions without the influence of well condition problems; specific Fall nutrient applications should be allowed; and MDA local advisory teams should include farmer representation.

Sincerely,

Gary Halvorson
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CHS Inc.

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CHS Inc.

http://www.nutrientstrategy.iastate.edu/
http://anre.uwex.edu/teams/nutrientmanagement/