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RE: Comments on the proposed MDA Nitrogen Fertilizer Rule.

The Minnesota Independent Crop Consultants Association (MNICCA) appreciates the opportunity to comment on the Minnesota Department of Agriculture (MDA) proposed Nitrogen Fertilizer Rule. MNICCA represents Independent Crop Consultants in Minnesota. MNICCA members are trained scientists with strong technical backgrounds in the understanding of the biological, chemical and physical processes in nature which influence crop production. Their education, training and experience allow MNICCA members to determine optimum site-specific fertilizer rates for clients. MNICCA has some serious concerns regarding the proposed Nitrogen Fertilizer Rule and have outlined some of those concerns below.

The 1989 Groundwater protection Act gives the MDA authority to regulate nitrogen fertilizer, if nitrates in groundwater are increasing due to nitrogen fertilizer use. The MDA has failed to provide independent peer-reviewed scientific evidence that nitrogen fertilizer is impacting groundwater or that the proposed rule would have any impact on groundwater nitrate levels caused by nitrogen fertilizer use. The MDA has acknowledged that they can not tell the difference between nitrates from nitrogen fertilizer versus any of the other sources of nitrate that exist. Some of these other sources include the mineralization of soil organic matter, organic fertilizers, decomposition of legumes and nitrates in precipitation. Therefore, the proposed nitrogen rule is seriously flawed and will not work. In fact, the proposed nitrogen rule is likely to cause serious economic harm to farmers in Minnesota. This economic harm will be in the form of increased production costs and lower yields.

The proposed rule has a trigger based on a Township well testing program that uses the nitrate-nitrogen concentration of domestic wells. This approach is seriously flawed because water from these wells indicates the condition of the individual well and does not represent the aquifer. Most well casings deteriorate over time, which allows near-surface water to move into the well. Therefore, this site-specific nitrate contamination is not an indication of the aquifer condition or contamination from field use of nitrogen fertilizer; instead, it represents the well condition. The MDA has not produced any independent peer-reviewed research that correlates nitrate concentrations of domestic wells to nitrogen fertilizer use.

Aquifer monitoring for nitrates should only be done with properly designed and constructed, dedicated monitoring wells. This is the approach that the state of Nebraska uses to monitor nitrates in their aquifers. In addition, the MDA needs to work with the scientific community to develop scientifically acceptable methods which can determine if the source of nitrate is from field use of nitrogen fertilizer versus other
non-fertilizer sources. This needs to be done before a nitrogen fertilizer rule can be properly developed and implemented.

The part of the proposed rule which bans the fall application of nitrogen fertilizer in MDA designated “vulnerable areas” is totally arbitrary and should be removed. The MDA has not provided any scientific evidence to support their inference that soils with high saturated hydraulic conductivity measurements correlate to increased aquifer nitrate contamination due to fall application of nitrogen fertilizer. Some of the soils referenced as “vulnerable” have the highest water holding capacity of any soil in the state; and therefore, are the least likely to allow nitrates to leach below the root zone. The MDA needs to rethink their approach in this regard and provide scientific evidence to support their position.

Another concern of MNICCA is in regards to the expectation of agricultural professionals participating in Township Advisory Committees that are formed when the Township well testing program triggers a phrased regulatory approach. These committees are likely to consume the majority of time for agricultural professionals that are qualified to serve on them. It is likely that the majority of townships in Minnesota will end up triggering this phased approach based on past domestic well testing program results. The private sector should not be expected to donate their time to such a program. From a MNICCA members perspective it would be against their code of ethics to participate in a program that is this seriously flawed.

In summary, the proposed MDA nitrogen rule should not proceed as published. There are serious questions as to whether a rule would improve on existing management practices. Clearly, the proposed township well testing program that would trigger regulation is seriously flawed. Groundwater aquifer monitoring for nitrates should be done using only, properly installed, dedicated monitoring wells. Changes in nitrate levels in monitoring wells should be verified as being due to nitrogen fertilizer use and not due to some other cause or source. The proposed ban on fall nitrogen fertilizer, in most of the areas that are being proposed, is simply without merit.

If you have any questions, please contact me at the address below.

Sincerely,

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