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**Testimony on HB2278 to  
The House Agriculture and Natural Resources Committee  
By Greg Foley, Division of Conservation  
Kansas Department of Agriculture  
February 18, 2015**

Chairman Schwartz, and members of the committee, I am Greg Foley with the Kansas Department of Agriculture. I am testifying in support of HB2278.

The Kansas Department of Agriculture (KDA) is in the process of updating the regulations governing agricultural lime testing protocol to match that of Kansas State University (KSU) Soils Testing Laboratory. According to the KSU Soils Testing Laboratory, their calculation is a more accurate method than the current State of Kansas' written regulation. To remain consistent with the authority granted by K.S.A.2-2901 et seq. the KDA recommends the statute change contained in HB2278.

Beginning in Fiscal Year 2014, KDA elected to have all statutorily required agricultural lime sampling analysis completed by the KSU Soils Testing laboratory in Manhattan. Previously the testing was completed at the KDA laboratory in Topeka. The KSU analysis protocol differs from the current state regulation. When using the current regulation the effective calcium carbonate (ECC) may be falsely low. The KSU calculation is better than the current regulation because the finer the lime, the quicker it will react with soil acidity. This change is a scientifically based proposal that provides a more accurate value of the (ECC).

The science behind the change is explained by Robert Florence, manager of the KSU Soils Lab. *"The association of analytical chemist method to determine calcium carbonate equivalent is not used because it considers a lime sample to be "fully" neutralized at pH 8.3. This pH was determined because that is the pH of saturated calcium carbonate in water. In an agricultural context, soil fertility professionals do not recommend adding lime until the final soil pH is 8.3, but at lower more agronomic optimums such as 6.0 for corn and soybeans or 6.8 for alfalfa. The point of adding acid to the lime sample is to see how much acid the sample will react with. Using the gasometric method is a simplified version of adding lime to a soil's acidity, and letting that reaction tell one how a sample compares to pure calcium carbonate. How much lime to add to a soil is later determined by initial soil pH, its pH buffering ability, and crop to be grown, not by what the pH of saturated calcium carbonate is in water."*

The inconsistency with the statute and the regulation change is with any reference in K.S.A. 2-2901 et seq. to methods "prescribed by the association of official analytical chemists." Thus, the only statute change would be striking any reference to the "association of official analytical chemists."

Thank you for the opportunity to speak to you today. I will stand for questions at the appropriate time.