

North Carolina Interagency Nutrient Management Committee

October 16, 2024, 1:00 - 2:20 pm

Meeting Notes

Members present: Don Edralin, Ramesh Ravella, Luke Gatiboni, Steph Kulesza, Michael Shepherd, Christine Lawson, David Hardy

- 1) Changes in the INMC members:
 - a. Dr. Don Edralin is joining the INMC group as an observer. Don is the NCDA&CS Soil Testing Section Chief. Don introduced himself to the group.
 - b. Dr. David Hardy will continue with the group as Director of NCDA&CS Agronomic Services and Kristin Hicks will continue with the group as an NCDA&CS representative.
- 2) Presentation and Discussion on Swine Mortality Compost Coefficients (Steph Kulesza):

Dr. Kulesza did a presentation about the results of two site-years of each corn and wheat. The amounts of N were highly variable among the materials and its mineralization rate was very low (not much mineralization over time). The PAN varied from 9 to 33% and was almost entirely due to the mineral N in the fresh material. The mineralization rate of organic N was < 1.5% over 112 days. The recommendation to NCDA would be to measure the mineral N and consider only this portion as PAN. Another option would be to use PAN coefficients of 10% and 20% for surface-applied and incorporated Swine Mortality Compost.
- 3) 1217 guidance doc updates (Steph Kulesza):

Questions were raised at the 1217 meetings about whether application timing restrictions apply when a plan uses 50 lbs N/ac on overseeded ryegrass in hybrid bermudagrass hay fields instead of the allowable 100 lbs N/ac. Apparently, planners are writing plans with 50 lb N/ac and allowing farmers decide when to add it to the crop, regardless of timing. However, according to the 1217 guidance (version 2017), application is restricted to 25 lbs N/ac between both December and January because plants are not growing much in the

winter and N is taken up in very small quantities. After discussion, the INMC recommends that every plan written in the future should restrict N application to 25 lb/ac in December and January, regardless of application rate.

- 4) Discussion of the need of an INMC note about issues with sludge application (Luke Gatiboni):

Luke presented some examples of zinc toxicity in soybean, cotton, and peppers that occurred in 2023 and 2024 due to application of swine sludge. Sludge has high concentration of Cu and Zn and the removal of these elements by plants is very small. Therefore, once sludge is applied in excessive rates, options for mitigation are limited. The situation is concerning in North Carolina because approximately 100 lagoon cleanouts are scheduled to occur in the next two years. To avoid problems with excessive Zn application, a useful tool for decisionmakers is to calculate the predicted increase in the soil Zinc index based on the concentration of Zn in the sludge. The INMC agreed to produce a note for public awareness of the potential problems with soil Zn accumulation when sludge is overapplied.

- 5) Other items:

Dr. Hardy asked if the letter supporting a blanket lagoon pumping extension for hybrid bermudagrass sprayfields was useful. It was mentioned the letter was a good decision due to the weather conditions and people was grateful for the additional time for application.