Waste Volume Tables Update

One goal of reviewing the waste tables was to document a scientifically based process for estimating volume that can be revised in the future when data becomes available. The goal was not to change the current values represented in the NRCS standard, unless warranted through the review process with new data or information.

A general discussion regarding the difference in confidence levels of data took place. The discussion revolved around large sample size from NCDA lab data but with concerns of sampling techniques verses field data where sampling techniques and chain of custody can be verified however with the very limited sample size and industry representation.

The INMC has accepted the concentration data as presented to 1217 with a large sample size using NCDA lab data. It was decided that this data is more representative of the state. Dr. Evans and Dr. Grabow concur with the INMC decision. Their concern is with the waste volume recommendations.

Dr. Evans and Dr. Grabow have less confidence in pumping events and calibrations from Shaffer’s data. There is a greater chance of the data to be skewed to the conservative side for the producers in addition to the limited sample size.

Dr. Evans and Dr. Grabow will evaluate the excreted waste (ASABE standard), waste water and excess rainfall to calculate the volume to be managed on an annual basis. The excess rainfall data shouldn’t be based on an average. It is anticipated to use a higher percentile number for excess rainfall as it will vary from year to year. There are questions on how to convert units for excess rainfall to gal/animal/day. Dr. Grabow would be able to get this to the INMC for review by end of January.

For planning purposes the INMC recommends keeping the current waste volume tables that are in the NRCS standard until further information can be provided by Dr. Evans and Dr. Grabow.
Discussion regarding the P and K coefficients resulted in the INMC not changing their initial recommendation of 1. Review of coefficients from other southern states was conducted and it was determined that there was insufficient evidence to change the original recommendation. Again, the recommended change of the P coefficient for NC should not affect the PLAT results as PLAT focuses on total P. However, these coefficients will not be updated in NCDA Agronomic lab’s system until the integrators and partners meetings are held.

Members agreed to move forward with all tables except waste volumes as approved in by the 1217 Committee on January 26, 2012. However, there are concerns that landowners would make management changes with crops or release of land with the original recommended volumes which could potentially cause issues with permit requirements. A decision regarding whether the volume data would stay as presented in the current NRCS standard or change to a new rate needs to be determined soon. It would benefit all involved to have the tables finalized at one time.

To date, the NC NRCS 590 standard will reference the INMC website for waste data tables instead of being incorporated within the standard. A decision for the finalized tables needs to be determined so that when the standard is released all of the new waste tables can be released at the same time for continuity purposes.

**Nitrogen Application Rate for Canola**

The NRCS 590 standard allows for N fertilization rates “recommended by NCSU specialists” if no crop yield data or established RYE values exist. This would be an applicable statement regarding canola in NC. However, the NCSU-produced 2011 canola production guide recommends N application at 140-160 lbs/ac regardless of soil type. Based on the production guide recommendations (from NCSU Crop Science), there is indeed an N rate that is ‘recommended by NCSU specialists” that would thus meet 590 standard requirements. At this point, the INMC recommends using the ‘low’ range rate of **140 lbs N/acre** for use in waste management planning on an interim basis. This rate will remain ‘interim’, and thus subject to change, until the next INMC meeting in November, where this recommendation will be discussed by the entire group. Also, the ‘interim’ application window recommended by the group for canola is **September 1—April 30**, which is also based on crop information provided in the NCSU canola production guide.

In using the interim rate and application window in waste management planning, the INMC also advises that as with any ‘new’ crop, the plan technical specialist makes sure the proposed canola field is a site that can produce the crop at a yield level that will support the N rate. In short, it needs to be a good site to grow canola in order to justify the N application rate. It may be advisable to have an NC CES crop specialist or NCDA
agronomist visit the site to assist you with that determination. Or, the productivity level of the canola site may be evident to you without further assistance.

**Nitrogen Application Rate for Tillage Radish**

It was determined 30lbs could be applied however 30 lbs would need to be subtracted from subsequent crop.

**Meeting with Integrators/Partners Regarding Coefficient Changes**

A meeting with Integrators and partners will not be held until waste volume recommendations can be finalized.

**Status of New Software**

Dr. Osmond reported via email that the programmer is testing the software to make sure all the bugs are out. He is hoping beta testing can start the end of November.

**Maintaining old NM Software**

A separate workgroup will need to begin working on updating the old NM software. There are ongoing compatibility concerns however, as stated previously, partners and producers must be able to access the old software and old data for those plans that would not fall under the requirements of a major revision.

The new data tables may not be efficiently utilized unless we can get it in an automated planning tool. Not knowing the timeline for the new software to be available for release, an interim plan needs to be determined. Instead of trying to fit old and new data in the current software, would it be more feasible to “duplicate” the old software and populate with new data. Duplicating just the needed tables, adding a “toggle” switch for the user to determine which data is needed, would create and even larger download. There are also continued concerns regarding correlating the irrigation data and soils data.