



Plan Review Quality Assurance for Nutrient Management Advisors

- 1) Print field info sheet from NuMan and check nomenclature and acreage against map and soil test for each field. There should be absolute agreement between what a field is labeled on the map, soil test report, and NuMan.
 - a. If soil test report does not match up, annotate it accordingly.
- 2) Print off soil test conversion sheet from NuMan and check against soil test reports.
 - a. Ensure correct soil lab was chosen for each field and all soil tests were entered correctly
- 3) Check each and every map to determine that it is readable and it contains all required information:
 - a. All fields are outlined and labeled with field name and acreage
 - b. Farm boundary is included
 - c. If applicable, streams and ponds are drawn and setback buffers are included
 - d. Farm name, address, and tax ID number are included
- 4) Check that the Nutrient Setback Form is filled out appropriately and agrees with what is shown on the maps
- 5) Manure (if applicable):
 - a. In NuMan Pro, make sure manure analysis was input correctly
 - i. Check that values entered were on 'as-is' wet basis, using %P₂O₅ and %K₂O (not %P and %K), and using Total %N (not Organic %N)
 - ii. If manure was applied in previous years, be sure that it was entered at the appropriate time and place
 - b. Review Manure Quantity estimation sheets to verify everything was entered properly
 - c. View Manure Allocation sheet to make sure it is consistent with Manure Quantity Estimations
- 6) PSI/PMT (if applicable):
 - a. In soil tab of NuMan for high P fields, determine whether soil test report included DPS and enter that value if appropriate. If not, make sure 'Use est DPS' option is chosen.
 - b. Print off PMT fields from NuMan and PSI fields from UM-PSI software
 - i. Check that the correct soil map unit was entered in both PMT and PSI
 - ii. Validate that slope and RUSLE A ("Soil loss for cons. plan") values were added in correctly and double check management practices.
 - iii. Make sure all P sources were included in calculations and were input correctly in BOTH programs
 - iv. Check the distance to a stream/pond

- c. For the PSI/PMT comparison sheet, make sure the P-risk interpretation is correctly entered
- d. If client agreed to added restriction (a 25 ft no-P application zone or a P-removal rate for manure, for example) to get a more favorable PSI score, include a mandatory BMP paragraph in the cover sheet reinforcing the change in behavior.

7) Recommendations:

- a. Print fertilizer recommendations and organic recommendation sheets (if applicable).
 - i. If doing multi-year plans, must have a NuMan file and printouts for each year
- b. Check sheets to determine if legume and manure credits were taken where required.
- c. If plan begins in the middle of a year, must make corrections to application dates
 - i. Once a date has passed, N can no longer be applied, so must adjust total N rate. Total P and K do not need to be adjusted.
 - 1. For Fertilizer Rec sheets, must make annotations by hand
 - 2. For Organic Rec sheets, can make adjustments in NuMan before printing
 - ii. On Organic Recommendations sheet, make sure to adjust fertilizer recs accordingly.

8) Print off organic nutrient source recs and compare to fields on the utilization/allocation sheet.

9) Cover sheet:

- a. Proofread your work looking for spelling and/or grammatical errors
- b. Note that the date on the cover sheet cannot pre-date the latest NuMan fertilizer recommendations printout in your plan
- c. For plan length:
 - i. Ideally plans will end Feb. 28th since that is the date that winter restrictions end
 - ii. Verify that no recommended nutrient applications fall outside the 3-year window of the last soil analysis
- d. Review info in Manure Management paragraph on cover sheet to guarantee that it is consistent with information on Excel Manure Generation sheet (number of animals, pasture vs. confined).
 - i. Verify that all manure can easily be utilized on the farm. If not, include the name of the person and town where manure will be transported.
- e. Check the Manure Summary Table on the cover sheet.
 - i. Make sure the units were added
 - ii. Verify that Q+S (from Manure Gen sheet) = Total manure generation
- f. Always make sure required statements are present and that everything in the cover sheet agrees with all other documents in the plan.

10) Be aware of outliers in all plan components.

- a. Do the yield goals seem high or low?
- b. Is the manure application rate below the limit of technology?
- c. Were fields aggregated improperly for soil testing?