Delaware Questionnaire for Annual Implementation Report

A glossary is provided on the back of the survey – words with an * next to it have more information provided in the glossary.

1. How many acres did you farm in Delaware in 2020? ________________ acres.
   a. Break down acres per crop. Corn _____ Soybean _____ Wheat _____ Other: _____________
2. Are your fields bordered by a minimum of a 10 foot grass or tree buffer*? ☐ Yes ☐ No
   a. What is the purpose of the buffers? ________________________________
3. Are there areas on your farm where you are careful to not place fertilizer? (ex: ditches, buffers, wells)
   ☐ Yes ☐ No If so, where?: _____________________________________________
4. For nutrient application, do you use (owned or contracted) GPS* guided equipment? ☐ Yes ☐ No
5. What equipment do you use (owned or contracted) that is variable rate*? (Check all that apply.)
   ☐ Planter ☐ Sprayer ☐ Spreader ☐ Irrigation ☐ Other: ______________________________
6. How often are soil tests are pulled on 100% of your acres: ☐ Annually ☐ Every 2 Years ☐ Every 3 Years
   a. My soil samples are pulled (check all that apply):
      ☐ Fall/After Harvest ☐ Spring ☐ Other: ______________________________
      i. I or my employee pulls my samples ☐ A consultant or company pulls my samples
   b. My soil samples are pulled on a (check all that apply): ☐ Grid* ☐ Zone* ☐ Field*
      i. At what scale (acres): __________ __________
7. How many acres of irrigated land did you farm in Delaware in 2020? ________________ acres
8. How did you apply manure? ☐ Broadcast* ☐ Inject* ☐ I do not apply manure (skip questions a – c)
   a. Did you incorporate* your manure? ☐ Yes ☐ No
      i. Within what time frame; assume ideal conditions? ☐ Within 24 hours ☐ Within 48 hours
   b. Is your manure tested for nutrient composition? ☐ Yes ☐ No
   c. What seasons do you typically apply manure? ☐ Spring ☐ Fall ☐ Other: _________________
9. How do you apply N and P fertilizer? Mark all that apply. ☐ Broadcast ☐ Banding* ☐ In-Furrow*
10. Did you use starter or pre-plant fertilizer? ☐ Starter* ☐ Pre-Plant* ☐ Both ☐ Neither
11. Did you sidedress* Nitrogen? ☐ Yes ☐ No
    a. How did you determine your nitrogen sidedress rate? (Check all that apply)
       ☐ PSNT (Pre Side-dress Nitrogen Test)* ☐ Nitrogen Modeling* ☐ According to my plan*
12. What percentage of your nutrients did you apply at the following times (N & P for this question and next):
   ___% pre-plant ___% starter ___% sidedress/in-season
13. Do you apply less than University rates or less than your plan on some areas of your fields? ☐ Yes ☐ No
14. Do you use a Nitrogen Stabilizer*? ☐ Yes ☐ No
    a. Which of the following do you use?
       ☐ Urease Inhibitor*
       ☐ Nitrification Inhibitor*
       ☐ Other Enhancements? (humic, biogrowth):
15. How many acres of cover crop* did you plant in 2020, that you did not receive cost-share* for? __________ acres
16. Since you started working with/under a nutrient management plan, what changes have you made that increased or decreased your applications of N and P the most in 2020?

__________________________________________________________________________________________
__________________________________________________________________________________________
DELAWARE QUESTIONNAIRE FOR ANNUAL IMPLEMENTATION REPORT

GLOSSARY

2: Buffer: Natural or artificial vegetated area maintained alongside agricultural fields to help mitigate and control the air, soil and water quality.

4: GPS (Global Positioning System): Computer technology using satellites to identify a precise location.

5: Variable Rate: A type of application where the material (seed, fertilizer, irrigation, etc.) is applied based on a specific need-based prescription for differing areas within a field.

6a: Grid: A uniform network of sectioned field areas; usually about 5 acres.

6a: Zone: A series of sectioned field areas that are grouped by similar characteristics. This may be done in the field by soil type, landscape positioning, drainage type, etc.

6a: Field: A soil sample taken is used to represent the entire field.

6b: Scale: The unit area for which you are using to determine your sampling methods. For example, the soil test report(s) you received apply to fields/sections of a field with an average size of 10-20, 20-30 or 30-40 acres.

7a: Fertigate: Fertilization done by mixing fertilizer nutrients to the irrigation water.

8: Incorporate: A practice that mixes manure or fertilizer into the soil profile (tillage, vertical tillage)

8: Broadcast: The practice of surface spreading fertilizers or manure on top of the field.

8: Inject: The application practice of placing manure and/or chemical fertilizer under the soil surface without tillage.

9: Banding: A fertilization practice that applies nutrients in rows at a predetermined distance from the planted crop seed.

9: In-Furrow: A narrow trenched row, typically where seed is planted.

10: Starter: The application of fertilizer at roughly the same time as planting crop.

10: Pre-Plant: The application of fertilizer days or weeks prior to planting crop.

12: Sidedress: The application of fertilizer to crop in-season/during high nitrogen uptake, typically for corn between 12-24 inches tall.

12a: PSNT (Pre-sidedress Nitrate Test): An in-season soil test used to determine if a yield response is likely from additional application of sidedress nitrogen.

12a: Nitrogen Modeling: A management tool offered by consultants recommending nitrogen applications based on a variety of factors throughout a growing season based on a variety of factors.

12a: Plan: A nutrient management plan written by a certified consultant outlining when and how much fertilizer to apply to your crop based on University recommendations and/or your soil test results.

12a: Nitrogen Stabilizer: A fertilizer additive to decrease off target movement of nitrogen—decreasing volatilization, leaching, and/or denitrification—allowing increased uptake by crops.

Examples: Instinct, DCD, Agrotain Plus.

14: Urease Inhibitor: A fertilizer additive that slows the conversion of urea to ammonia thus reducing the loss of nitrogen through volatilization (above ground protection).

Examples: Agrotain Ultra, Anvol, NBPT.

14: Nitrification Inhibitor: A fertilizer additive that slows the conversion of ammonium to nitrate, thus prolonging the period of time that nitrogen is in the “protected” form and reducing its loss from the soil by leaching and denitrification (below ground protection).

Examples: Nitrapyrin, and DCD.

15: Cover crop: A crop planted during the winter months in fields which would otherwise be fallow, to prevent the loss of soil nutrients, minimize soil erosion, and enhance soil properties; this crop is to benefit the soil and water quality and generally not to be harvested.

15: Cost-share: A program that pays the grower to participate in if all guidelines are met.