A new, easy-to-use worksheet helps farmers in the Neuse River Basin track the nitrogen their operations release. Water quality specialists use the worksheet to see how well Best Management Practices work in a field or county.

“Simple Solution”

The Neuse Rules require Neuse River Basin farmers to reduce their nitrogen (N) discharge. But there is a catch: farmers could either adopt standard Best Management Practices (BMPs), or they could be part of a local effort to reduce N. They had no reliable way, however, to track and document their local N discharge reductions. Soil scientists and crop scientists used research data to create a computerized tool: the Nitrogen Loss Estimation Worksheet (NLEW). The worksheet, which can be field- or county-based, uses pre-BMP and post-BMP N loss estimates to determine how much nutrient management and the BMPs reduce N discharge.

- Information needed for NLEW:
  - Soil series
  - Crop acreage
  - Current N application rate
  - BMPs — such as buffers, controlled drainage and winter non-fertilized cereal cover crops

- Data used in the program includes realistic yield expectations, N use efficiency of crops and other factors.

- Calculations are made for the N used by the crops versus the excess N, providing an accurate estimate of N leaving the targeted area.

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