



Maryland Department of Agriculture

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Office of Resource Conservation

Nutrient Management Program

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Farmers Encouraged to Use Phosphorus Tools to Ensure Proper Crop Nutrient Applications

With spring planting fast approaching, the Maryland Department of Agriculture’s Nutrient Management Program would like to remind farmers, especially vegetable growers, of the importance of properly managing phosphorus applications.

For farm fields with phosphorus Fertility Index Value (FIV) in the range of 101-149, farmers are encouraged to consult the NuMan Pro software footnotes of their nutrient management plan for phosphorus recommendations, typically given as a starter fertilizer recommendation. For fields with phosphorus FIV of 150 or greater, the consultant writing the nutrient management plan must run the Phosphorus Site Index (PSI) to determine a rate of phosphorus application. As a reminder, no phosphorus may be applied to fields with an FIV of 500 or greater.

Dr. Patricia Steinhilber of the University of Maryland provides the following guidance concerning PSI: “For fields where the soil test phosphorus, expressed as a Fertility Index Value (FIV-P) is between 101 and 149, growers may apply phosphorus starter for those crops where a starter is recommended or the crop's phosphate removal. For fields where the FIV-P is 150 or greater, a Phosphorus Site Index must be calculated for each field.”

Phosphorus Site Index (PSI) and Consequences for Further Phosphate Application

| PSI Score | Relative Score | Commercial Phosphate Fertilizer Allowed | Organic Nutrient Source Allowed |
|------------------|----------------|---|--|
| 0 - 50 | low | up to crop’s phosphate removal | nitrogen-based rate |
| 51-75 | medium | up to crop’s phosphate removal | nitrogen-based rate 1 year in 3; up to crop’s phosphate removal year’s 2 and 3 |
| 76-100 | high | up to crop’s phosphate removal | up to crop’s phosphate removal every year |
| greater than 100 | very high | none allowed | none allowed |

Growers with questions about PSI or phosphorus application policy may contact the Maryland Department of Agriculture’s Nutrient Management Program at 410-841-5959.