The Role of Phosphorus Indexes and Conservation Practices in Nutrient Management Planning. (A09-joern141746-Oral)

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Abstract:

Nutrient management planning is a complicated process requiring data inputs and calculations best suited for computer software. Many states have developed phosphorus indexes (PIs) to assess the relative risk of P losses to surface and groundwater resources from individual fields. In practice, PIs may be used to rank individual fields for manure application, so implementing PIs is likely to be a two-step process. First, fields can be evaluated for their inherent nutrient loss potential via erosion, runoff and leaching. Planning or scheduling appropriate conservation practices that focus on specific areas of concern can then be used to reduce the nutrient loss potential of high-risk fields. Once appropriate conservation practices have been selected, fields can be ranked by their suitability for manure application and re-evaluated for the additional risk associated with the source, rate, method and timing of planned nutrient applications. We will demonstrate how Indiana is using this process for developing comprehensive nutrient management plans using the Purdue Manure Management Planner (MMP) and an automated version of Indiana's Offsite Risk Index run as a custom tool in MMP.

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