

Average Returns and Risk Characteristics of Site Specific P & K Management: On-Farm-Trial Results from Indiana

by
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Abstract

The objective of this study is to provide an economic assessment of site specific management (SSM) of phosphorous (P) and potassium (K). The data were collected in farmer managed on-farm-trials coordinated by Purdue University and DeKalb-Agra, a Waterloo, Indiana, agricultural input supply and marketing cooperative from 1993-1995. Whole field management was compared to SSM using either 3 acre grids or soil type. The data indicate that site specific P&K application on corn, soybean and wheat did not increase net returns, but that it reduced the variability of returns. A positive perspective is that if Grid or Soil Type SSM can match Whole Field returns as a stand alone practice, then it could be profitable as part of an integrated system in which soil sampling and other costs can be spread over a wider range of inputs. The main effect of the site specific P and K applications on physical quantities of fertilizer was to redistribute the nutrient applications within fields. Both Grid and Soil Type treatments have lower net return standard deviations than Whole Field treatment. Stochastic dominance analysis indicates that the Soil Type approach dominates the Whole Field treatment for risk averse decision makers.