Journal Article of the Year for 1992

Short and Long-Run Demand and Substitution of Agricultural Inputs

Jorge Fernandez-Cornejo

USDA-ERS

Short- and long-run Hicksian and Marshallian elasticities are estimated, along with Morishima elasticities of substitution, using a restricted profit function and a series of decomposition equations. Convexity in prices and concavity in quasi-fixed factors of the restricted profit function are simultaneously imposed using Bayesian techniques. The empirical model is disaggregated in the input side, utilizes a Fuzz-quadratic flexible functional form, incorporates the impact to agricultural policies, and introduces a new weather index. The methodology is applied to Illinois's agriculture, and implications for agriculture in the Corn Belt and the Northeast are briefly discussed.