

Dabbert, Stephan and Patrick Madden. 1986. "The Transition to Organic Agriculture: A Multi-year Simulation Model of a Pennsylvania Farm," American Journal of Alternative Agriculture, vol. 1, no. 3, Summer.

A farm's profits during the transition from chemical-intensive to organic farming methods are determined by a combination of five kinds of effects: rotation adjustment, biological transition, price, learning, and a perennial effect.

Transition can cause severe short-term financial losses, but the magnitude of these losses (compared to established organic farming or a continued conventional operation) can vary widely under different yield reduction scenarios.

Soil erosion was not limited in this study -- the conventional option earns a 7.3% higher profit while incurring nearly twice as much soil erosion as the established organic option.

Darby, Gerald M. 1985. "Conservation Tillage: An Important, Adaptable Tool for Soil and Water Conservation," in El-Swaify, et al (eds.), Soil Erosion and Conservation, Soil Conservation Society of America.

Concludes that conservation tillage reduces soil erosion and increases water infiltration, generally with yields comparable to those under conventional tillage. Some types of CT rely on herbicides rather than tillage for weed control. Well-managed CT systems generally improve soil fertility.

Domanico, Jean L., Patrick Madden, and Earl J. Partenheimer. 1986. "Income Effects of Limiting Soil Erosion Under Organic, Conventional, and No-till Systems in Eastern Pennsylvania," American Journal of Alternative Agriculture, vol. 1, no. 2, Spring.

Without constraints on soil erosion, no-till was the most profitable, then conventional, followed closely by the organic option. At low levels of soil erosion, no-till remained the most profitable and the economic advantage of conventional over organic diminished as soil erosion was constrained. Below 5 tons per acre of soil erosion, the organic system became more profitable than the conventional system.

Edens, Thomas C. 1985. "Toward a Sustainable Agriculture," in Sustainable Agriculture and Integrated Farming Systems, Thomas C. Edens, Cynthia Fridgen, and Susan L. Battenfield, (eds.), Michigan State University Press, East Lansing.

Feels that our greatest concern, both nationally and globally, must be to avoid evolving an agricultural system that can be sustained only with large inputs of exhaustible resources.