Chapter 3

Comparison of Organic and Conventional Farming in the Corn Belt

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This chapter summarizes a 5-year study of organic farming begun at Washington Univ. in 1974. Several factors were behind the choice of research topic. First, the oil embargo of the previous year had led to concern over American agriculture's vulnerability to disruption because of its dependence on fossil fuels, a production input whose supply could previously be taken as assured. Synthetic inorganic fertilizers, and to a much lesser degree synthetic pesticides, were an important part of agriculture's total energy requirement. Therefore, the continuously increasing use of these materials would have to be reversed to change the trend towards greater fossil fuel dependence. Second, there was a growing realization of the possible environmental and health hazards of certain agricultural chemicals, particularly persistent insecticides; several chlorinated hydrocarbons had already been banned or severely restricted, while others were under review. Finally, the sharp fertilizer price increases of 1973 threatened to erode farmers' recent income gains and contributed to food price inflation.

Many agricultural researchers responded to these conditions by investigating alternative production practices intended to reduce agricul-

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