

*Industrializing the Corn Belt
Agriculture, Technology, and Environment, 1945-1972*

By Joseph L. Anderson

(DeKalb: Northern Illinois University Press, 2008. Pp. x, 238. Illustrations, notes, bibliography, index. \$32.95.)

This is a modest, clearly written, and successful book, with a somewhat misleading title, but many wonderful photographs. The goal of the book is to reveal how Iowa farmers adapted to the post-World War II revolution in agricultural productivity, a revolution largely tied to new chemicals and new machines. Based on survey and census data, and interviews with farmers, Anderson provides a terse, brief survey of how new fertilizers, insecticides, fungicides, herbicides, and new harvesting machines more than doubled the output of corn, soybeans, small grains, and hay. He also traces the early impact of growth-inducing antibiotics and hormones on livestock production (poultry excluded). He describes the very gradual shift to extremely large confinement facilities (factories) for hogs and huge feed lots for beef cattle, with the attendant problems of manure disposal. His focus is on the individual farmers — on the hard choices they had to make to remain competitive and, at the same time, to adjust to an increasing array of environmental regulations. Over half of the farmers did not compete successfully, and left agriculture. Anderson does not survey the fate of these displaced farmers, or describe the role of federal agricultural policies in making possible, or even in some cases, forcing such a revolution.

Contrary to what one might have expected, Iowa farmers rarely led the way in many of these shifts. They were very cautious in adopting new chemicals or expensive new machines. In the case of increased fertilizer use, particularly nitrogen fertilizers, they lagged behind farmers in most neighboring states, perhaps because they were still enjoying the wealth of plant nutrients stored up in the state's long-grass prairies. In confinement dairy farming, they lagged far behind California, and in hog factories behind North Carolina. But by 1972—the rather arbitrary end point of this book—scientifically informed, mechanized, and chemically supported agriculture was victorious in Iowa.

The care with which Anderson adheres to his inclusive dates will frustrate many readers. At times one needs more understanding of pre-1945 agricultural innovations and policies. About half of his stories of innovation abruptly close down in 1972, before the most significant periods of adaptation or controversy, as in the case of new environmental constraints. Anderson's account seems at times to be the first half of an ongoing story. Only in a final paragraph does he mention organic farmers and thus hint at another untold story—the considerable number of Iowa farmers

who rejected the new industrialized agriculture, and who joined various organizations to support a sustainable type of farming. Finally, in his focus upon farmers on the ground, Anderson has to assume a good bit of background knowledge about the politics of farming and the crucial role of governmental policies (rarely noting, for

example, the role of government subsidies). Despite these caveats, this is a well-researched and informative book.

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A Revolution Down on the Farm

The Transformation of American Agriculture since 1929

By Paul K. Conkin

(Lexington: University Press of Kentucky, 2008. Pp. xiv, 223. Illustrations, notes, index. \$29.95.)

The history of twentieth-century American agriculture is the story of rapid technological and scientific change, bountiful production, and farm population decline. It also is the story of changing agricultural policy, labor problems, and racism. It is a complicated story of the interaction of rural men, women, and children whose lives often were influenced by national and international developments beyond their control and knowledge. In this study, Paul Conkin emphasizes the transformation of agriculture since the onset of the Great Depression by stressing technological change and federal agricultural policy. He also reflects about his childhood on a farm in east Tennessee and ventures into the twenty-first century regarding policy matters related to the environment and public health.

Conkin provides a good survey of technological change. He correct-

ly contends that the gasoline-powered tractor became the most important hardware technology on a national scale, but does not give enough emphasis to the significance of the mechanical cotton picker as the major regional technology, given its unintended consequences. Conkin provides an excellent analysis of agricultural policy beginning with the presidential administration of Herbert Hoover. His survey of New Deal agricultural policy is succinct, clear, and informative. Occasionally, additional information would clarify discussions of policy matters, for example, the importance of non-recourse loans for maintaining farm income and reducing risk in production. Conkin's discussion of the chemical revolution is thorough, his analysis of its effects on public health timely, and his survey of sustainable agriculture and organic farming useful.