

"BOOK FARMING" IN IOWA 1840-1870

By Mildred Throne

"'Book farming! away with your book farming,' says an individual solicited to subscribe for an agricultural journal, 'I want no books to teach me how to raise wheat, corn, and potatoes; I can raise as good crops as any of my neighbors, who seem to be filled with agricultural books and papers, and still gaping for more.'" Such was the attitude of the majority of Middle Western farmers toward the "better farming movement" of the mid-nineteenth century. To them the editors of agricultural journals were men "with silk gloves on," men "too lazy to work for a living," and they would have nothing to do with them or their ideas.¹ Since the time of Jefferson and Washington, farmers aware of the importance and necessity of soil preservation, crop rotation, and fertilization had preached and practiced scientific husbandry, to the best of their knowledge. Learned agricultural societies of the late eighteenth century had spread this knowledge to a select few, but the methods of the average American farmer remained little different from those of the European peasant of the Middle Ages.

Conquering the prejudice of conservative, "old foggy" farmers was a long, uphill task. Early in the nineteenth century a new impetus was given improved agriculture by "a gentleman farmer" of Pittsfield, Massachusetts, Elkanah Watson, who, in 1807, exhibited two Merino sheep in the public square. This show of livestock, so modestly begun, became an annual event out of which grew the Berkshire Agricultural Society. This society, organized in 1810, was different from the earlier types, which had sought to improve agriculture by scientific reasoning. It gave the farmer something he could understand: a view of the actual results of better methods; a view which aroused a desire for emulation and competition.² A beginning had

¹ *Northwestern Farmer*, 1:190 (July, 1856); 2:374 (October, 1857); *Bloomfield Democratic Clarion*, Dec. 7, 1859.

² Wayne Caldwell Neely, *The Agricultural Fair* (New York, 1935), 43-6, 49-50, 64; Percy Wells Bidwell and John I. Falconer, *History of Agriculture in the Northern United States, 1620-1860* (Washington, 1925), 187.

been made in the fight against prejudice and ignorance; "book farming" would come later.

By the mid-nineteenth century other forces joined with agricultural societies to further the cause of better farming. Agricultural journalism had its beginning in Baltimore in 1819 with the publication by John Stuart Skinner of *The American Farmer*. Edmund Ruffin in 1851 gave credit to farm journals for whatever progress American agriculture had made to that date.³ The weekly newspapers of the Middle Western market towns were also active in furthering "book farming," and farmers' clubs added their demands for better farming. What were the methods against which these forces battled, and what were the remedies suggested?

In Iowa, after the first decade or two of "pioneering," a general type of farming can be observed. The average farm was a combination of prairie and small patches of woodland. The farmer planted corn, wheat, oats, and a few other small grains. He raised pigs, a few cattle of doubtful lineage, and possibly some sheep; his work-cattle consisted of a yoke or two of slow-footed oxen or several nondescript horses. His farm buildings left much to be desired. By the 1860's he may have planted a small orchard, and he had a number of the latest agricultural implements — steel plows, reapers, mowers, corn shellers, and, in some cases, a few planting tools. In fact, his machinery was well in advance of his methods which were usually those of his father and grandfather. His farm, in spite of careless cultivation, produced a large surplus which he sold at the nearest town.

Grain alone could not support the Iowa farmer and his family, however. His only means of converting that grain into a product which could be taken to market easily and which would yield a good profit was to feed it to his livestock. Corn sold for 75 cents on the Atlantic seaboard in 1853, but at Burlington it brought only 18 to 20 cents.⁴ The cost of shipping grain to the Atlantic was prohibitive, but cheap Iowa corn could be fed to hogs and cattle which could be driven to market and sold at a profit. As early as 1847, J. A. Pinto, secretary of the Danville Township Farmers' Club, urged the club members to pay more attention to the production of cattle and hogs, as the "most lucrative business" in which a farmer could engage.⁵

³ Albert Lowther Demaree, *The American Agricultural Press, 1819-1860* (New York, 1941), 39-86 *passim*.

⁴ *Iowa Farmer and Horticulturist*, 1:32 (June, 1853); 1:34 (July, 1853).

⁵ *Iowa Farmers' Advocate*, 1:85 (December, 1847).

The increasing production of corn, plus the presence of plenty of hungry livestock, made such a system inevitable.

Almost from the first opening of the territory, hogs were important to the Iowa farmer. Between 1840 and 1870 the number of swine on Iowa farms increased from just over 100,000 to almost 2,500,000.⁶ Increase in quality was not as noticeable as in quantity, however. Some few farmers raised Poland China, Suffolk, Berkshire, and other breeds, with the Poland China the most popular.⁷ But when any hog taken to market would sell at around five cents a pound, the incentive was not to breed better animals but rather to make them heavier by feeding them plenty of corn. When packers later began to distinguish between types of hogs, and to pay better prices for better stock, improvements in breeds resulted.

A few farmers, as early as the 1840's were importing blooded cattle, particularly Durhams, or Shorthorns as they were sometimes called. A "Shorthorn Herd Book" was published in 1858, as part of the *Report of the State Agricultural Society*. Only 97 thoroughbred cattle were listed, the majority owned by Timothy Day of Van Buren County, by the Ohio Stock Farm in Butler County, and by H. G. Stuart of Lee County. A year later the "Herd Book" listed 171 Shorthorns and 43 Devons, the latter owned by James Weed of Muscatine County, C. D. Bent and Franklin Kimball of Johnson County, and a few scattered breeders in Poweshiek, Jones, and Jackson counties.⁸ These figures, compared to the 540,088 cattle of all kinds on Iowa farms in 1860, indicate that thoroughbred cattle were still very much in the minority.⁹ This was inevitable, since cattle were pastured in common on the unfenced prairies. There was thus little or no selection in breeding, even had there been a desire to keep the better strains pure. Only the well-to-do farmers, who could afford to fence their herds, were able to import and develop fine cattle.

Methods of cultivating the grain to feed this stock were changing slowly, largely because of the introduction of new farm machines rather than because of better tillage. The first farmers had hacked the corn into the unbroken prairie sod, or, if available, a huge breaking plow had been used

⁶ 1836-1880 *Iowa Census*, 360. The actual figures are: 104,899 in 1840; 2,409,679 in 1869.

⁷ *Iowa Agricultural Report*, 1857, 227-8; *Report of the Commissioner of Patents*, 1850, 356.

⁸ *Ia. Ag. Rept.*, 1858, 443-68; 1859, 424-61, 462-8.

⁹ 1836-1880 *Iowa Census*, 350.

to turn the tough sod while the farmer or his sons followed, dropping the seed corn by hand, or sowing wheat and oats broadcast. Once the sod was broken and a crop raised, further plowing was done with cast-iron sheathed plows, until John Deere "made his first steel plow from a saw blade." The cast-iron plow in common use when the first settlers moved into Iowa did not scour well in the rich prairie soil. Thus, the steel plow was a great boon to Iowa farmers. By 1850 Deere was producing 1,600 plows a year; by 1852 his enlarged plant turned out 10,000 annually.¹⁰

Threshers, mowers, and the McCormick or Manny reapers made their appearance on Iowa farms in the fifties. Corn planters and wheat drills, on the other hand, were not so widely used; the Middle Western farmer did not at once appreciate the value of planting tools, where the immediate results were not so evident as with the steel plow, the thresher, and the reaper.¹¹ The Pennock wheat drill, for instance, first patented in 1841, gained popularity slowly.¹² In 1858, Renschel and O'Daniels were agents for the drill in Mount Pleasant; in an effort to increase its use, they offered to take as their pay "the increase over the common method of sowing, off of forty acres."¹³ Where used, the drill was found satisfactory, but its acceptance by farmers was slow. One reason for this was that the drill needed a well-pulverized soil for proper operation; this plus the fact that broadcast seeding was easier, cheaper, and just as satisfactory in the rich prairie soils of Iowa and the Midwest made the drill more of a luxury than a necessity in wheat raising.¹⁴ Corn planters, both the hand-operated and the horse-drawn riding type, had been introduced by the 1860's, and some few farmers were using them. According to the publicity released in 1867, fifteen hundred of the walking type had been sold in Iowa that year, and 416 of the riding type. Since there were 116,292 farms in Iowa in 1870, it is obvious that the number of farmers using corn planters was proportionately very small.¹⁵

Shelter, both for livestock and for farm machines, was extremely primi-

¹⁰ Bidwell and Falconer, *Agriculture in the Northern United States . . .*, 283; Leo Rogin, *The Introduction of Farm Machinery . . .* (Berkeley, Calif., 1931), 33.

¹¹ *Ia. Ag. Rept.*, 1857, 213, 225, 229, 236, 243, 267, 438.

¹² Rogin, *Introduction of Farm Machinery . . .*, 192-3.

¹³ *Ia. Ag. Rept.*, 1858, 257.

¹⁴ Fred A. Shannon, *The Farmer's Last Frontier: Agriculture, 1860-1897* (New York, 1945), 131.

¹⁵ *Ia. Ag. Rept.*, 1867, 222, 226; 1836-1880 *Iowa Census*, 244.

tive for several decades on the Iowa frontier. In 1856 the cost of the "necessary sheds for cattle and horses" for a small farm of eighty to one hundred acres was estimated at about \$100.¹⁶ "J. A. D." of Des Moines County, in 1858, asked a farm journal editor for advice on the problem. "We here have straw stables, rail corn cribs and muddy hog pens. Who can describe the best arrangement for avoiding these inconveniences, without an expense that will frighten us in these times?"¹⁷ Although the eastern counties had, by 1858, been settled for almost two decades, the national business depression of this period made it difficult for many farmers to make the needed improvements which, in the normal course of events, they should have been making by that time. There were exceptions, of course. Davis County reported in 1858 that, "notwithstanding the stringency of the money market," the farmers of that region had, in the past year, built one hundred new houses and over thirty barns, in addition to other improvements.¹⁸ But the severe winter of 1858-1859 caused a large loss of cattle, and agitation for better shelters became widespread.¹⁹ As with other features of Iowa agriculture, improvement was talked and planned, and in some cases carried out, but as a general rule it was more an ideal than a reality. Most cattle found shelter in the woods or in the lee of a strawstack, and most machinery was left out in wind and weather, to rust and become useless within a few years.

Railroads were being built across Iowa in the late fifties and early sixties; many farmers looked to them for expanded markets which, they hoped, would result in better farming methods, as Iowa farmers began to compete with eastern agriculturists. Although some improvement may have resulted from the demands of the new and fast railroad transportation, progressive farmers still found grounds for criticism. The "pioneer" was the worst offender, in the eyes of progressive farmers. L. D. Morse of Wapello County believed that agricultural methods in the country would improve when the pioneers, "who flee from rats and Railroads," had moved on.²⁰ The farmers of Wapello County were using the same methods which had

¹⁶ Nathan H. Parker, *Iowa Handbook for 1856 . . .* (Boston, 1856), 160.

¹⁷ *Emery's Journal of Agriculture*, 2:23 (July 1, 1858).

¹⁸ *Ia. Ag. Rept.*, 1858, 238.

¹⁹ *Albia Republican*, May 18, 1859; *Washington Press*, May 11, 1859; *Bloomfield Democratic Clarion*, April 20, 1859.

²⁰ *Ia. Ag. Rept.*, 1858, 418.

worn out the soil of their eastern farms: neither manuring nor a "systematic rotation of crops" was practiced. In fact, with some farmers "from four to eight successive crops of corn from the same ground, without any manuring," was common.²¹ M. L. Comstock of Des Moines County found that farmers had fallen into "two errors of vital importance. . . . The first, is that prairie soil does not need draining; the second, that it cannot be impoverished." Heaps of manure were often left by the bed of a stream, where they sent their "enriching salts dancing away in their merry course toward the Gulf of Mexico."²² The farmers of Lucas County, according to Dr. Isaac Kneeland, used careless and wasteful methods. Cattle and hogs were not sheltered; wheat was often sown on last year's cornfield without plowing. When the farmer did plow his fields, he turned over too shallow a furrow. Almost all farmers were in debt for more land than they needed, and did not "properly cultivate what they have fenced."²³ Similar stories were told in other localities. With so much land almost for the taking, it was hard to convince the farmer that he should limit his acreage, that he should preserve the fertility of his soil, or that he should provide shelter for his stock.

Such were the conditions of Iowa agriculture in the decades before 1870. The Iowa soil, after only some thirty years of cropping, was already beginning to show signs of exhaustion in some areas, or at least of decreasing fertility, in spite of the agitation of "book farmers." But certain areas reported improvement due to the constant work of agricultural societies, farm journals, newspapers, and farmers' clubs.

Agricultural societies and yearly fairs were important factors in spreading the gospel of better farming in Iowa. The leading spirits of these organizations and exhibitions were not always primarily farmers. Editors, doctors, lawyers, and businessmen, together with a few well-to-do and educated farmers, were the officers, and on them fell the work of organization and management. There were exceptions, of course, but as a rule the townspeople directed the societies and fairs, and the farmers enjoyed them. This role of the businessman of the small towns of the Middle West in sponsoring and furthering improvements in the business of farming is a factor which should not be overlooked in studies in agricultural history. Editors of local papers devoted much space to farm news and to propaganda for

²¹ *Ibid.*, 1857, 439.

²² *Ibid.*, 244.

²³ *Ibid.*, 1859, 318.

"book farming"; agricultural journals were edited by townsmen; and in Iowa the leaders in the campaign for an agricultural college came primarily from the urban centers.

Christian W. Slagle, a lawyer of Jefferson County, was active in founding the State Agricultural Society in Iowa; Joshua M. Shaffer, a physician of Keokuk, was for many years the secretary of the State Society; the first president was Thomas W. Clagett, lawyer, judge, and editor of Keokuk. Two other presidents were Peter Melendy, fine stock breeder and politician, and George G. Wright, lawyer, Chief Justice of the Iowa Supreme Court, and United States Senator. Josiah B. Grinnell, preacher and politician, was long active in the affairs of the Society, while Benjamin F. Gue, politician and editor, was one of the sponsors of the bill to found a State Agricultural College. William Duane Wilson, editor of the *Iowa Homestead*, was a leader in the Agricultural Society and in the movement for the State College and Farm; Dudley W. Adams, horticulturist and prominent Granger of the 1870's, was from the first prominent in agricultural societies, both county and state. James W. Grimes, lawyer and United States Senator, was always interested in agriculture and was, for a time, horticultural editor of the *Iowa Farmer and Horticulturist*. Mark Miller, editor of the *Northwestern Farmer* and the *Iowa Homestead*, was long active in the campaign to improve farming methods. Leading farmers in the agricultural societies were Timothy Day of Van Buren County, pioneer breeder of Shorthorn cattle in the state; James Weed of Muscatine, a breeder of Devon cattle; Suel Foster, horticulturist of Muscatine; and H. G. Stuart, stock breeder of Lee County.

Men such as these, in the state at large and in the counties, sponsored societies and fairs, edited farm journals, and constantly urged the betterment of Iowa farming methods. It is to them, together with Coker F. Clarkson and Henry Wallace in the later decades, that much of the credit is due for what little "book farming" was practiced in the years before the State Agricultural College at Ames took over the leadership in scientific farming and agricultural education.²⁴

²⁴ For biographies and sketches of these men, see Benjamin F. Gue, *History of Iowa* . . . (4 vols., New York, 1903), 4:48, 111-12, 186-7, 239-40, 245, 496-7; William Salter, *The Life of James W. Grimes* . . . (New York, 1876); Luella M. Wright, *Peter Melendy* . . . (Iowa City, 1945); Charles E. Payne, *Josiah Bushnell Grinnell* (Iowa City, 1938); *Portrait and Biographical Album of Muscatine County, Iowa* . . . (Chicago, 1889), 210-12; David C. Mott, "William Duane Wilson," *Annals of Iowa* (third series), 20:361-73 (July, 1936); *Dictionary of American Biography*, 1:56.

The first efforts to form agricultural societies in Iowa during the forties had been abortive; no real progress was made until the fifties. The *Prairie Farmer*, which began publication in Chicago in 1841, at once urged that the farmers of the new territory make plans for agricultural fairs.²⁵ Some local exhibits were actually held as early as 1841; and the territorial legislature passed acts to encourage agricultural societies in 1838, 1842, and 1843.²⁶ Louisa and Van Buren counties later claimed the distinction of having held the first agricultural fair in the state: Van Buren in 1842, and Louisa in 1850.²⁷

Whatever the origin or location of the "first" fair, the more settled counties of Iowa, under the stimulus of state funds, were developing local societies and holding exhibits by the early fifties. A law passed by the General Assembly in 1853 had provided that each county should receive a sum equal to the amount it could raise, the sum not to exceed two hundred dollars, and the *Iowa Farmer* expressed the hope that this law would speed the formation of county societies.²⁸ Whether because of the encouragement of the legislature, or the natural result of the development of the region, or the activity of certain leaders, by the middle fifties most of the organized counties in Iowa had formed societies and were holding yearly fairs.

The farmers came out of curiosity, at first. Almost all the counties report a small first fair, but growing interest and attendance.²⁹ The usual procedure was to hold an exhibit of cattle, grain, and fruit at the county seat, possibly in the courthouse yard, where modest premiums of a few dollars or subscriptions to some farm journal were given. Either the society then raised money and bought land, or some public-spirited member would offer a tract of five or ten acres as a site for subsequent fairs. This plot was fenced and sheds built; very soon, with the increasing interest in horse racing, a

²⁵ *Prairie Farmer*, 1:88 (November, 1841); 1:93 (December, 1841); 2:13 (February, 1842).

²⁶ Earle D. Ross, "The Evolution of the Agricultural Fair in the Northwest," *IOWA JOURNAL OF HISTORY AND POLITICS*, 24:448 (July, 1926); *Laws of Iowa Territory, 1841*, Chap. 126; *Revised Statutes of the Territory of Iowa, 1842-'43*, Chap. 6; Myrtle Beinhauer, "The County, District, and State Agricultural Societies of Iowa," *Annals of Iowa* (third series) 20:50-51 (July, 1935).

²⁷ *Iowa Farmer and Horticulturist*, 1:40 (July, 1852); *Ia. Ag. Rept.*, 1857, 410-14; 1858, 364-6.

²⁸ *Laws of Iowa, 1852-54*, Chap. 45; Beinhauer, "The County, District, and State Agricultural Societies of Iowa," 53; *Iowa Farmer and Horticulturist*, 1:4 (May, 1852).

²⁹ *Ia. Ag. Rept.*, 1857, 231, 249-51, 333-4; 1858, 197-8, 324, 381.

track was laid out and a grandstand erected. On the two or three days that the fair was held, provided there was no rain, people would come from all over the county, some few to show their stock and produce, others merely to see what their neighbors were doing.³⁰

By the late fifties many counties reported increasing interest in better farming as a result of the fairs. In spite of the constant complaint that, in general, farming methods were very poor, the fairs were breaking down conservatism and opposition to change. A farmer who saw better corn raised by careful selection of seed was encouraged to try his hand at the same process. If he saw fine Durham cattle or Poland China hogs, and the attention and interest they aroused, it was only natural that he would want to own better stock himself. Lee County reported in 1857 that "nineteenths of the shorthorns introduced into the county, since 1852, were induced by the interest created by our exhibitions."³¹ The same result applied to horses and hogs, to crops, and to tillage. Wherever a county society became firmly established, and fairs were held regularly, good results were reported. Mahaska County had "great improvements . . . in nearly every department of agricultural operations"; Keokuk County farmers were learning how to improve their methods; farmers in Mills County "flocked in from all directions" to the fairs; Monroe, Henry, and Davis also made reports of good progress.³² The secretary of the State Agricultural Society observed in an optimistic vein in 1857: "That the method of cultivation has undergone a very great improvement in the last few years. . . ."³³

A study of the reports of county secretaries for this same year, however, does not bear out his optimism. The recurring complaints were that the farmers cultivated too much land and that they cultivated that poorly, "stirring only a few inches of the top of the soil. . . ." Jasper County reported "a slovenly system of farming," while most of the newer counties in central and western Iowa told the same story. So much rich and fertile land was available that the farmer's chief interest was to cultivate as much as possible, rather than as well as possible.³⁴

³⁰ *Ibid.*, 1857, 335, 371, 426-8, 441-2, 444; 1858, 306-307, 324.

³¹ *Ibid.*, 1857, 337.

³² *Ibid.*, 230, 256, 354, 372; 1858, 295, 324; *Sigourney Iowa Weekly Democrat*, Apr. 15, 1859.

³³ *Ia. Ag. Rept.*, 1857, 1.

³⁴ *Ibid.*, 215, 237-8, 272, 283-4, 288, 369, 402-403.

Iowa's agricultural methods were no better and possibly no worse than the general over-all picture of Midwestern agriculture at that time. The worst features can be attributed to the exigencies of opening a new country. The secretary of the Adams County society reported in 1858: "The county being new, our farmers have necessarily devoted all their energies to increasing the number of acres cultivated, rather than to scientific agriculture."³⁵ There is no doubt that the local societies were to have a most beneficial effect upon agricultural practices, however.

A factor often ignored or not understood was that, in 1860, intensive agriculture as preached by the more progressive eastern farmers would not have been profitable or practicable in Iowa or in the other new sections of the Middle West. With cheap land, expensive labor, and low prices for grain and livestock, intensive agriculture, draining, and manuring were luxuries which the Iowa farmer could not afford. That the result was a rapid depletion of the soil does not alter the fact that in the mid-nineteenth century better farming was not economical. In the 1860 federal census of agriculture this problem was discussed at length: "High farming involves high prices. The system of cultivation and manuring which is profitable in Great Britain would not be remunerative in the State of New York, because labor is higher and produce lower, and the system which is profitable in New York might not be advantageous in Iowa." The improvement of farming methods is "simply a question of profit and loss. . . . We shall farm better as soon as such improvement is perceived to be profitable and necessary."³⁶

Nevertheless, active county groups in Iowa continued to agitate for improvement of farming in spite of the logic of dollars and cents, and the movement grew for a state society. The county fairgrounds at Fairfield were offered as the site for the first State Fair, which was held in 1854. It was estimated that 7,000 to 10,000 people attended, coming from all the settled parts of the state, many camping on the way. A second fair was also held at Fairfield in 1855, attended by some 13,000 to 14,000 farmers.³⁷ Awards were made in thirty-two classes, ranging from Durham and Devon

³⁵ *Ia. Ag. Rept.*, 1858, 196.

³⁶ *Eighth United States Census, 1860: Agriculture*, vii, ix.

³⁷ *Iowa Farmer and Horticulturist*, 1:22 (June, 1853); *Ia. Ag. Rept.*, 1855, 3-4; 1874, 486; Ross, "Evolution of the Agricultural Fair in the Northwest," 24, 50; Neely, *Agricultural Fair*, 96.

cattle, "Thorough Bred Horses," sheep, swine, farm machinery, grains, and fruits to breads and preserves, "sculptural marble," needlework, paintings, flowers, and "miscellaneous." Most of the premiums in the cattle shows were taken by Timothy Day of Van Buren County, others going to "a son and cousin of 'old Tim' also of the name of Day." The show of hogs was "meager, considering the amount of capital invested in Swine"; only ten grain entries were made because the fair was held too early for full crop maturity; only nine entries were made in the class of "Farm Machinery," whereas there "should have been a hundred."³⁸ All in all, however, these two fairs were a good beginning for a society which was to play a large part in the improvement of Iowa farming.

One of the regular features of the early fairs was an address by the president of the society or by some prominent farmer. At Fairfield in 1855, D. P. Holloway gave a typical address, filled with praise and advice to farmers, and leavened with a proper number of jokes. After noting the progress made in farming and stock breeding, he touched on a wide variety of subjects, urged government aid to agriculture, better farm representation in Washington, and tariff protection for farm products. Speaking of a problem already beginning to disturb agriculturists — the migration of the young men to the cities — he reminded them that "God made the country, and man made the town." On the subject of better husbandry, he told the story of the preacher who went through the neighborhood, praying at the fields of his parishioners, but at one field of an indolent and careless farmer he refused to offer up a prayer. "Ah, my friend," said he, "there is no use of praying here — *this field needs manure.*"³⁹

Plowing matches were popular features of the early fairs, and aroused considerable interest. Plots of one-quarter acre were laid out for each contestant, and his work was timed. At the 1857 fair the average time was 55 minutes per acre — the shortest time being 48 minutes, and the longest 61 minutes. Here again the spirit of the times is manifest: the emphasis was on fast rather than on thorough cultivation. Few machines were shown at the earliest fairs, largely because of the difficulty, before the introduction of railroads, of transporting heavy equipment.⁴⁰

Premiums at the fairs ranged from \$1.00 to \$15.00, and, as at the

³⁸ *Ia. Ag. Rept.*, 1855, 14, 19, 28, and 7-31 *passim*, Keokuk Gate City, Oct. 13, 1855.

³⁹ *Ia. Ag. Rept.*, 1855, 35-43 *passim*. Quoted material on p.42.

⁴⁰ *Ibid.*, 1857, 26-7; 1859, 63.

county fairs, subscriptions to some farm journal were also given. These journals, several of which were published in Iowa, are another phase of the campaign to improve farming methods. According to a student of the agricultural press in America, the progress of agriculture in the years before 1860 was due "in part to the educational impetus of the farm press together with other agencies such as agricultural societies, clubs, and fairs."⁴¹ The policies of the editors were manifold, not the least of which was the breaking down of old superstitions and prejudices against "book farming." They supported all progressive movements and all new inventions, they encouraged experimentation, and they reported at length all new methods of cultivation and of livestock breeding.⁴²

The *Prairie Farmer*, which began publication in Chicago in 1841, was well patronized by the more progressive Iowa farmers. In 1842 the editor announced, under the heading "IOWA FOREVER!" receipt of the first Iowa subscription, from S. S. Carpenter of Keosauqua.⁴³ Thereafter agents in all the counties were rapidly appointed to secure subscriptions. Iowa farm journalism soon made its appearance. *The Iowa Farmer's Advocate* was published in Burlington for about a year, between 1847 and 1848, and was then merged with the *Valley Farmer* of St. Louis. *The Iowa Farmer and Horticulturist*, published at Burlington in 1853, the *Northwestern Farmer and Horticultural Journal*, at Dubuque in 1856, and the *North-Western Review*, at Keokuk in 1857 are some of the other Iowa farm journals of the early period. The *Iowa Farmer* and *Northwestern Farmer* were combined in 1860, and in 1862, at Des Moines, Mark Miller, editor of the *Northwestern Farmer*, started publication of the most important of the early Iowa farm journals, *The Iowa Homestead*.⁴⁴

The goal of the farm journal editors was the same as that of the leaders of the agricultural societies — better farming. Their articles discussed new ways of plowing and cultivating, various breeds of livestock, types of seed to use, care of orchards and vineyards, the advantages of the various kinds of grasses, and the necessity for fertilizing the fields. The

⁴¹ Demaree, *American Agricultural Press . . .*, 231.

⁴² *Ibid.*, 39-86.

⁴³ *Prairie Farmer*, 2:96 (November, 1842).

⁴⁴ *Iowa Farmers' Advocate*, 1:189 (December, 1848); letter of Hosea B. Horn, *Annals of Iowa* (first series), 2:91 (April, 1863); *Northwestern Farmer*, 5:66 (February, 1860); C. R. F. Smith, "The Iowa Homestead," *The Palimpsest*, 11:230 (June, 1930).

Northwestern Farmer carried an article each month on the work the farmer should be doing at that season. All journals had special departments for the farmer's wife, complete with recipes, sewing instructions, and short stories. The advertising columns were filled with news of the latest farm machinery, advertisements for seeds, for the local nurseries, and — from the more settled areas — of farmlands for sale. The editors warred constantly against the conservatism of the average farmer; they printed editorials or letters from farmers on this theme. A correspondent from Wisconsin wrote to the *Northwestern Farmer* in 1856:

Book farming is a subject which is often named by a certain class of agriculturists in connection with an off-hand slang, hurled as it were, at all who seem to be interested in agricultural progression, and improvement. Even to this day we see many that are clinging tenaciously to the "ways their father had" without even a thought as to there being a possibility of improvement upon the old method to which they seem fairly fastened.⁴⁵

In 1857 "E. B. C." of Linn County added his comments to the subject:

There is, perhaps, no class of people more tenacious in their ideas in regard to the improvements of the day, than the farmer. The old way of ploughing and reaping suits him so well, that he thinks it the only right way of farming. Talk to him of acquainting himself with the elements of his soil, that he may know what crops it is best calculated to produce, and he will tell you, it is all moonshine, or something equally absurd; and thus content himself that, "whatever is, is right," and thus continue to plod along in the old way, envious perhaps of his neighbor that raises more from fifty acres, than he does from double the amount of land, simply, by having the views and experience of others, combined with a systematic course of labor.⁴⁶

Newspaper editors were also advocates of better farming. They filled their farm columns with glowing tributes to the Iowa soil, with suggestions for improving husbandry, and with reprints of agricultural articles from eastern papers and journals. Since their readers were mostly farmers, editors made constant efforts to appeal to this class, and in the early days accepted produce in payment for subscriptions. Newspapers carried agricultural columns, or "Farmers' Corners," and the editors constantly urged the

⁴⁵ *Northwestern Farmer*, 1:190 (July, 1856).

⁴⁶ *Ibid.*, 2:374 (October, 1857).

farmers to write "for their papers."⁴⁷ Some few responded to this request, and now and then a lively exchange would appear.

In 1859 "K" wrote to the Bloomfield *Democratic Clarion*, urging farmers to read more agricultural papers and to hold meetings for discussion of the best ways of farming. The editor added a paragraph endorsing these suggestions and asked for more comments from farmers. The result was a letter bristling with anti-book-farming sentiments. The editor took the blast quite seriously and assured his readers that he printed the letter because his columns were "open to all," and not because he agreed with this "radical and ultra old foggy farmer." The "radical" commented on the suggestions of "K" that farmers read agricultural journals:

Now this all looks well enough on paper, but what will one gain by reading the *Northwestern Farmer* or any other agricultural paper got up by men with silk gloves on, who don't know a potato from a saw log unless it is cooked. The first thing you will find like enough in one of these papers, is a pair of Bantam (or some such name,) chickens, about the size of a sore finger, and fit for nothing but to look at. As for my part I would not give a copper for a chicken that cannot scratch for a living, and roost on the fence all winter without freezing their toes off.

Then, perhaps, the next thing you will see is a pair of great fat lazy hogs — called Suffolk or Chester White, or some other big name, that Mr. Kimball, at Iowa City, has for sale at \$10 a pair — with a long chapter on their history and habits and remarks on *hogs* generally, though they always call them *porkers*. Now, what use have we in this country for Suffolk hogs, or any other hog that can't root?— I tell you these Suffolks wont do — turn them into the woods, or out in a dog fennel lane to get a living, and they will lay in a fence corner until they starve to death. What we want here is a hog with a nose to him so that ho [sic] can root; legs so that he can climb a hazel bush, and hair on him to keep him from freezing; such a hog as this you can turn out at four months old to take care of himself, and if he is of any account, will live without a shelter, and outrun the dogs, and average 200 pounds at 18 months old, with very little trouble — in short, Sir, we want an *active* thorough-going hog that can take care of himself.

⁴⁷ Burlington *Iowa Patriot*, June 20, 1859; Burlington *Hawk-Eye*, Oct. 30, 1845; Sigourney *Keokuk County News*, Oct. 20, 1860; Burlington *Wisconsin Territorial Gazette*, June 2, 1838; Mount Pleasant *Home Journal*, March 17, 1859; Bloomfield *Democratic Clarion*, Nov. 30, 1859.

Then there are pictures of the "Cotwold" sheep, that will shear 16 pounds of wool and turn out 200 pounds of mutton — that you can cook with two sticks of wood, and all that kind of thing, but they have got to be sheltered in houses and taken care of like babies, or they will die off; so they are not fit for much but to make pictures of after all.

Then you will find long chapters on posies and verbenas, and Sunflowers, and all kinds of flummydiddles for flower pots for women and children to play with, but for no earthly use except mere show, and after you get through with all these you will find long chapters on building barns and cow stables, and hog houses, and all such stuff. Just as though we didn't know that a thousand dollars invested in a barn could be put out at 25 per cent. interest, and that people could stack their hay or small grain out of doors, or that a rail fence or jack oak thicket was a good enough shelter for cattle and hogs, besides, who wants to be at the trouble of cleaning out cow stables, and having great piles of manure in his way. Now this is the kind of thing a fellow will learn from these books on farming, and farmers are gone crazy with new fangled notions, and before long everybody will have to build fine barns and nice fences, and raise posies and sunflowers, and all such trash, or leave the country. As for my part, I'll show 'em that they can't train in an

OLD SEED CORNER⁴⁸

The letter was answered in a later issue of the paper, but the reply was more an attack on the possible unsavory reputation of "Old Seed Corner" than a refutation of his opinions on farming.⁴⁹ With that, the debate died down. It serves, however, to point up in perhaps a too highly colored light the opinion of many farmers on scientific farming. It was this attitude against which the agricultural societies, the farm journals, and the newspapers fought and were to fight for many years to come.

A fourth movement for better farming — perhaps the most effective because it reached more farmers — was the agitation for the formation of local farmers' clubs. Fairs brought agriculturists together only once or twice a year; a farmers' club brought intimate discussion of farm problems and questions almost to the farmer's dooryard. These local clubs, more or less long-lived, were formed in various places throughout the state. As early as 1847 such a club was reported in Des Moines County; "Another

⁴⁸ Bloomfield *Democratic Clarion*, Dec. 7, 1859.

⁴⁹ *Ibid.*, Dec. 21, 1859.

Farmer's Club" was announced in 1848. A "Farmer's Festival" was held at Washington in 1857, "to inaugurate the manufacture of sugar and molasses," where premiums were also offered for the best crops, and for breads, butter, and pies.⁵⁰ The meetings of these clubs were usually held at the township schoolhouses during the winter, the farmer's slack season, and many attended who did not go to the fairs or read the agricultural papers. The discussions often encouraged the farmer to read some of these papers, and many a farmer began "to realize that there were other people who lived in the world besides his grandfather."⁵¹ The clubs subscribed to several farm papers and passed them around among the members. In this way some of the "prejudice against 'book larning'" was being dissipated.⁵²

A typical call for a farmers' meeting appeared in an Albia paper in 1865:

We call attention to the meeting at the Court House Friday evening, and invite all that can possibly, and feel any interest in the cultivation of fruit trees and shrubbery, to come to the meeting. Some branch of Agriculture or Horticulture, perhaps both, will be discussed in an entertaining lecture by persons of experience. It is also proposed on that occasion to permanently organize an agricultural club, and make arrangements for establishing a library in connection therewith, so that members may, at trifling expense, avail themselves of such valuable information upon these important subjects — too much neglected by all.⁵³

A farmers' club was organized at Oskaloosa in February of 1865. A Henry County club was suggested by the Mount Pleasant paper, which also promised to publish the proceedings of each meeting for the benefit of all. "The experience of a New York farmer is not as valuable to you as that of an Iowa farmer," the editor reminded his readers, in urging their support of the club. The county already had two such groups, one bearing the name of "Progressive Farmers' Club."

They now have about fifty members, and hold weekly meetings, at which subjects of interest to stock raisers, Agriculturists and Horticulturists are discussed. Thus far, we are told, the meetings have proved highly interesting and beneficial. — They are also

⁵⁰ *Iowa Farmers' Advocate*, 1:69 (November, 1847); 1:93 (January, 1848); *Washington Press*, Dec. 2, 1857.

⁵¹ *Ia. Ag. Rept.*, 1859, 11.

⁵² *Ibid.*, 11; *Iowa Farmers' Advocate*, 1:69 (November, 1847).

⁵³ *Albia Weekly Union*, March 30, 1865.

collecting a Library, and have already about fifty volumes of appropriate works. This is a most commendable move, and we hope to hear of similar organizations in all parts of the County.⁵⁴

These are only examples of the many farmers' clubs being formed throughout Iowa at this period. Some of them were forerunners of the Granges of the 1870's; others continued their independent existence and their avowed purpose of education and entertainment.

These clubs attempted to improve agricultural practices by discussion and by providing agricultural journals and books for the members. Their importance in this respect can be seen as early as 1861 in a notice by William Duane Wilson regarding the "patent office seeds" which he had for distribution. The Patent Office at Washington had, since the late fifties, furnished seeds to local editors and to secretaries of agricultural societies, in the hope that these individuals would distribute them, either for agricultural or political purposes, to the farmers of their localities. The recipients of this governmental largess were supposed to report on the success or failure of the seeds, but few bothered to do so. The Lucas County Agricultural Society, in 1859, urged that such seeds be given only to the best farmers, "as their votes could not be changed by such bribes," and they would be the ones most likely to give full reports on the results.⁵⁵ Wilson proposed "a more efficient plan."

I have determined, therefore, at least this year to supply first, Agricultural Clubs which have an efficient organization, when I am informed of the same by the Secretaries and their post office address. Second, County Agricultural Societies when notified by the Secretaries thereof, that they want them. Third, to reliable individuals who may write to this office for them, in the order their applications are received.⁵⁶

The chief work and interest of the clubs, however, remained in the discussion of practical farm problems. The subjects discussed were legion. The farmers of Warren County were interested in bringing new manufacturing and new capital to their county. They also sought a remedy for the "present exorbitant railroad charges" and debated the question of the "best representation of the working class in our Legislature." Jefferson County farmers

⁵⁴ Mount Pleasant *Home Journal*, Feb. 17, Nov. 3, 1865.

⁵⁵ *Ia. Ag. Rept.*, 1859, 317.

⁵⁶ Keosauqua *Des Moines News*, Feb. 23, 1861.

were interested in wheat, cattle raising, the improvement of agricultural societies, buttermaking, corn raising, profits in orchards, and haymaking. The ever-present problem — how to make farming more profitable — was likewise discussed several times and at great length.⁵⁷

Mahaska County had a club of "live farmers," but there were a number of "old fogies" in the county who would have nothing to do with them. "They say 'book farming' is a humbug, and that agricultural papers are a nuisance, got up by a set of sharpers to swindle honest men out of their hard earned substance, and that they are *too poor to patronize such scamps.*"⁵⁸ The prejudice against scientific farming was still alive.

The evils against which these various forces battled were, as has been pointed out, the natural outcome of pioneer conditions. A Burlington editor, as early as 1844, suggested that the time had arrived when the farmers could pay more attention to scientific agriculture.

In the early settlement of the territory, subsistence was by necessity, wrung from the soil in the simplest and least artificial manner. The demand was not for stock of particular breeds but for any kind, that would furnish the staples of labor and sustenance, but with the increase of means has come also an ability to make improvements in every department of the calling, and superadded to this, as we doubt not, the inclination.⁵⁹

Other evils, more deep-rooted, were the natural inertia of many farmers, their refusal to change, and a lack of education which made many of the principles of scientific management incomprehensible mysteries. To offset prejudice and ignorance agricultural education was already being agitated. In 1858, at the session of the Seventh General Assembly, Benjamin F. Gue, Robert A. Richardson, and Ed Wright had sponsored a bill for the establishment of a State Agricultural College and Farm. The bill passed, a board of trustees was appointed, the site in Story County selected, and the Farm opened. Passage of the federal land grant for agricultural colleges in 1862 aided the struggling institution, but it was not until 1869 that the College was opened to students.⁶⁰

But before the State Agricultural College could take over the leadership

⁵⁷ *Fairfield Tribune*, April 16, 30, Dec. 24, 1885; Dec. 2, 16, 1886.

⁵⁸ *Prairie Farmer*, 43:272 (August 24, 1872).

⁵⁹ *Burlington Hawk-Eye*, Dec. 19, 1844.

⁶⁰ Earle D. Ross, *A History of the Iowa State College . . .* (Ames, 1942), 16ff.

in the better farming movement, that is, for the thirty years between 1840 and 1870, the fight for improved methods was almost entirely a matter of individual and group effort in the various communities. The College would re-emphasize what agricultural societies and editors had long preached. It would have the advantage, however, of these thirty years of propaganda. What had been accomplished? Had the untiring work of these groups and individuals borne any fruit in the state as a whole, or had their work been confined to a few like-minded and progressive farmers? Were Iowa farming methods "better" in 1870 than in 1840, and if so, whose is the credit?

One source of answers to these questions is the *Report* published annually by the State Agricultural Society, beginning in 1854. For the first few years these volumes are somewhat sketchy, being mostly accounts of the annual fair. But with 1857 they take on an increased value, both for the farmers of that era and for the historian of the present. Aside from the record of the State Fair and the activities of the Board of the Society, the books contained essays on farming in its many phases and reports from each county which had a local society and fair. These *Reports*, thus, give a running account of changing farming conditions over the years.

One conclusion is at once evident. Whereas almost all counties report growing improvement in breeds of livestock, few report improved methods of tillage. The Woodbury County secretary wrote in 1859:

With a soil as rich and fertile as is ours, the great practical study of the farmer is not with reference to enriching the soil, but rather to the adaptation of seeds and modes of culture to the soil. . . . Care as to the rotation of crops has never been practiced with us. Some fields have been planted in corn for 12 years, and it must be owned, with more than average success. It has not been established by our experience that rotation in our soil and climate is essential to success.⁶¹

In Allamakee County, in 1857, a similar report was made: "Farmers generally sow to suit their own circumstances, without regard to roatation [sic] of crops, and generally have a fair yield."⁶² The Belle Plaine Union Agricultural Association, consisting of Benton, Tama, Iowa, and Poweshiek counties, reported no rotation of crops in 1868, since "Many seem

⁶¹ *Ia. Ag. Rept.*, 1859, 416.

⁶² *Ibid.*, 1857, 197.

to have imbibed the erroneous idea that the strength of the soil is inexhaustible."⁶³ Evidence of soil exhaustion begins to show up in some county reports, however. In Decatur County in 1857 wheat averaged 20 bushels per acre, while corn averaged 75; thirteen years later, in 1870, the wheat average had fallen to 9 bushels, that of corn to 40, although it must be noted that this was a year of a bad infestation of "chintz" bugs.⁶⁴ Allamakee County farmers, in 1857, averaged 20 to 25 bushels of wheat and 70 bushels of corn per acre; in 1868 the wheat average had fallen to 15 bushels and corn to 40.⁶⁵

Floyd County, in 1863, reported there was "Too little attention . . . to the economy and use of manures." By 1868, however, things had changed. "The manure from the stables is more generally spread upon the land, and the eye can everywhere detect its effects."⁶⁶ In Jackson County, in 1857, the plowing methods consisted of "skimming the ground"; by 1870 the county secretary reported that "Farming is done with more method and on a more improved plan than in former years. Deep fall plowing is the motto of the farmer, and the farmer's cry of 'The land is rich enough,' is not so often heard."⁶⁷

Cattle were increasingly important in the farm economy in these years, and interest in improved breeds was growing, although the great majority were still "grades" and "scrubs."⁶⁸ Distance from market, plenty of wild grass, and large crops of corn made cattle raising profitable, especially in the more isolated western counties. But a general desire to improve the breed of the stock was lacking, although both newspapers and farm leaders never tired of pointing out to farmers the advantage of better breeding.

On the other hand, hogs were increasing not only in number but also in quality. In 1857 Marshall County farmers had paid little attention to improvements in hogs, but by 1870 Chester Whites had become the favorite. "The merchant vies with the farmer," wrote the county secretary, "and

⁶³ *Ibid.*, 1868, 341.

⁶⁴ *Ibid.*, 1857, 232; 1870, 441.

⁶⁵ *Ibid.*, 1857, 195; 1868, 329.

⁶⁶ *Ibid.*, 1863, 389; 1868, 370.

⁶⁷ *Ibid.*, 1857, 281; 1870, 463.

⁶⁸ Council Bluffs Bugle, Dec. 26, 1867; Fontanelle Adair County Register, June 16, 1870; *Ia. Ag. Rept.*, 1867, 9; 1868 13-14.

the banker with the merchant in efforts to produce the best breed of hogs."⁶⁹ Davis County was "some on Hogs," although the majority were still of the "old, long legged, sharp-nosed, slab-sided, fence despising races." In 1857 no hogs were raised in Decatur County except for home consumption; in 1870 various types of improved breeds, such as the "Magee," Poland China, Chester White, and Berkshire were "generally disseminated."⁷⁰ In 1865 A. G. Nye of Libertyville, in Jefferson County, contributed an essay on "Hog Raising" to the *Report of the Agricultural Society*:

It has been a common practice with farmers in this county, as it is indeed in most new countries, to breed hogs without any regard to the connection of the families bred from, and to raise them upon the principle of "root hog or die." That this is to turn them out in to the woods or on to the prairies to get their own living, feeding them a little corn, just enough to keep them [alive] through the winter, and letting them root for a living through the summer, then shutting them up about the first of October to fatten, feeding about six weeks and then sending them to market. In this way we have succeeded in raising a good deal of snout and bristles but not much pork. A better practice is however now pursued by most of the farmers of Jefferson county. The high price of pork having stimulated them to increase and improve their breed of hogs.⁷¹

In 1867 the secretary of the State Agricultural Society was optimistic about the general improvement in Iowa hogs. "Since this stock is the principal medium of converting the corn crop into cash," he reported, "any suggestion to improve the quality is seized upon with avidity, and the farmer who has not abandoned the common, and adopted the improved breed, must prove a rare exception."⁷² Thus, by the late sixties, the "finer bloods" of swine were popular and much sought after in Iowa.⁷³

These examples could be multiplied many times. The general refrain by 1870 was: better livestock, more attention to such adjuncts as fruit, sheep, sorghum, live hedges, and better barns and outbuildings for the cattle; but poor cultivation, little use of fertilizers, and not much attention

⁶⁹ *Ia. Ag. Rept.*, 1857, 368; 1870, 493.

⁷⁰ *Ibid.*, 1857, 227-8, 232; 1870, 441.

⁷¹ *Ibid.*, 1865, 358-9.

⁷² *Ibid.*, 1867, 10.

⁷³ *Ibid.*, 1868, 361.

to rotation of crops nor to the deep plowing which was then considered essential to proper husbandry.

Thus it would seem that "book farming" had some successes to show for thirty years of propaganda, but also some failures. Several reasons can be cited. It is obvious that better livestock, particularly hogs, brought a more immediate return in money than did the slow and painstaking task of properly cultivating and feeding the soil. In these years the Iowa farmer was gradually moving toward the Corn Belt pattern of farming—corn, hogs, and cattle. Not only the pleas of the scientific farmers, but higher prices for better animals, can be credited with improvements in Iowa livestock between 1840 and 1870. Nevertheless, it was the scientific farmers who had led the way, for without their suggestions and examples, and the backing of editors and businessmen, the necessary knowledge for improving livestock would have been lacking, no matter what the desire might have been.

Another factor had changed Iowa farming methods radically, but whether for better or worse was a question. The decades from 1840 to 1870 saw many new farm machines invented and put into use. These machines enabled the farmer to cultivate more land with fewer farm laborers and to do it faster, but this very fact hurt the cause of scientific farming. Reapers, mowers, planters, the sulky or riding plow, and many other machines were admirably adapted to the level and rolling prairies of the Middle West. These machines did not increase yields, however, nor make for more scientific farming. Rather, "the tendency was more to wear out the soil than to improve it."⁷⁴ Intensive farming, urged by government bureaus and agricultural societies, was not furthered by the new machinery. "To reap with less manpower was the object chiefly in view."⁷⁵ The mechanical revolution in farming was, thus, in some respects the enemy of the scientific revolution in agriculture. A government report concluded that "The success and prosperity of the American farmer are due to the unbounded fertility of the soils, the cheapness of farm lands, and the privilege of utilizing modern inventions in machinery rather than to systematic organization and efficient farm management."⁷⁶

⁷⁴ Shannon, *Farmer's Last Frontier* . . . , 147.

⁷⁵ William T. Hutchinson, "The Reaper Industry and Midwestern Agriculture," in Avery Craven (ed.), *Essays in Honor of William E. Dodd* (Chicago, 1935), 117.

⁷⁶ Quoted in Shannon, *Farmer's Last Frontier* . . . , 147.

Practically all Iowa counties, in their list of improvements during the 1860's, included the increased use of machinery of all kinds. Even here, though, many paid no attention to the proper care of this equipment. Expensive machinery was often left where it was last used, or where it would be convenient for use the next season, but meanwhile it was exposed to wind and weather. In this way farm tools wore out in two or three years. In Clarke County \$300,000 worth of machinery had been bought in the two years before 1870, but few farmers understood how to care for this investment.

Pass through the county and it is no infrequent sight to see a costly mower on the prairie just where the farmer concluded that if we had a mild winter he had enough hay cut. It is true that the "implement" will be handy to hitch to next haying but how long will it last exposed to sunshine, rain, or prairie fires, and is it paid for; other costly labor savers are remaining in the last ditch, others stacked against a breach in the fence. . . .⁷⁷

This picture was not uncommon in the sixties. Farmers were growing prosperous during the war years, the demand for their produce was high, and new laborsaving machinery was offered on attractive terms. The farmer bought the machines, usually "on time," but had little knowledge of how to care for them, and often wore them out before they were paid for. He could "ride in his seat and do nearly all his work from April to October," wrote one enthusiastic booster, who added that "Labor-saving machinery is completely revolutionizing the work of the farm."⁷⁸

Farming was indeed "revolutionized" during the decades before 1870, yet this very revolution was increasing the exhaustion of the soil. Practicing "book farmers" were too few to prevent the steady march of worn-out farmland, a march which had begun on the shores of the Atlantic and was steadily moving into the prairie lands of the Middle West. These same rich prairies tended to make farmers "lazy, careless and slovenly," according to the author of an essay on "General Farming" in the 1866 Iowa Agricultural Society Report. Some, who saw their fields producing less each year, gave up, sold out, and moved farther west, but those who remained — if they practiced soil conservation, sowed their pastures to tame grasses for their stock, and rotated their crops — obtained "good

⁷⁷ Osceola Republican, Dec. 1, 1870.

⁷⁸ Fontanelle Adair County Register, July 25, 1867.

results of their better system of tillage." "The truth is," continued the author, "it requires greater skill and genius to farm well and with success, than most people are aware of. Any ninnyhammer may be called a farmer, simply because he can plow, and sow, and reap, as his father did before him. But farming is a science that few persons well understand. It requires much thought, patience and skill, as well as hard muscle."⁷⁹ M. V. Ashby of Eddyville, in Wapello County, contributed an essay on "General Farming in Iowa" to the 1868 *Report of the State Agricultural Society*:

General farming in Iowa . . . is a system of exhaustion. In every community our attention has been drawn to the careless manner in which farmers regard the manuring of their farms. They do [not] often manure their farms we admit, but while they do occasionally, we believe the extraordinary labor they force the soil to submit to, requires a corresponding return of some substance which will strengthen and support the soil while being so heavily taxed. In the cultivation of corn more land is used by farmers than they possibly can do justice to. This we find is general. Year after year fields are used without endeavoring to restore or strengthen what the crop has consumed. There are so very few exceptions to this rule that we do not consider them. It is notoriously general among farmers. . . .

In the present *modus operandi* for sowing and planting, the rule in Iowa is to continue to sow and reap until there is, finally, a sowing but nothing to reap. . . .⁸⁰

The western custom of moving the barn instead of the manure pile was ruinous to the Iowa soil, and it was this habit against which the agricultural leaders talked and wrote. A future governor of Iowa, Cyrus Clay Carpenter, told the Webster County Agricultural Society in 1869 that "unless the laws of nature have been repealed in favor of the Iowa farmer . . . those who come after us will find that the strength of a soil, now unequaled, has vanished into thin air beneath our feet. . . ." The farmer needed intelligence, not "main strength and awkwardness," said Carpenter. "As much as some men may belittle the idea of book farming, I tell you, intelligence in any business, tells upon its success."⁸¹ Peter Melendy,

⁷⁹ *Ia. Ag. Rept.*, 1866, 481, 483, 486.

⁸⁰ *Ibid.*, 1868, 477-8.

⁸¹ *Ibid.*, 1869, 339-40, 343.

Suel Foster, William Duane Wilson, J. M. Shaffer, and a long list of others constantly echoed this plea for soil conservation.⁸²

Unfortunately, all too many farmers had the attitude of the easterner turned Iowan who wrote home to the *Barre Gazette* in Massachusetts: he had seen "wheat and corn growing in fields where the same grains have grown fifteen or twenty years, with out the use of a particle of fertilizer," and although he "supposed that this could [not] be the case for an indefinite period . . . it will be long enough for the present generation to get rich and retire from the farm."⁸³ At the same time, in Montgomery County, the farmers considered manure a nuisance and usually burned their straw piles. "'Our land is rich enough without it,' is the cry of too many," reported the county secretary. In Marion County the farmers built portable barns so that they could be moved easily when the manure became "too plenty for the comfort of stock." When manures were used for fertilizer, as in Madison County, it was done "more with a view of getting them out of the way than to fertilize the fields." The result, continued the county report, was a decline in yields of wheat and corn. In Jones County the farmers had all the laborsaving machines, but did no fertilizing.⁸⁴ Although more encouraging reports came from the older, eastern counties, the general picture of farming methods by 1870 was little better than that of 1840.

As the years passed, farm leaders came to realize that the solution lay not alone with the agricultural societies and farm journals, but in the movement for better agricultural education. Peter Melendy told the State Agricultural Society in 1868:

We may, and no doubt to some extent have, awakened in the farmers who yearly come up to our fairs, a desire to enter into a generous competition for the greater improvement of their farms. We can not, however, teach the difficulty with and the remedy for a worn out, barren field, whose weather-beaten surface is a mockery to the most commendable zeal; we can not explain why the same acre will not produce good wheat through all the years, nor why manure seems thrown away in one place, and comparatively worthless in another. In short, we can not

⁸² *Ibid.*, 1859, 350-52; 1863, 10-11, 96-102; 1864, 224-6; 1865, 38.

⁸³ Quoted in Fontanelle *Adair County Register*, July 25, 1867.

⁸⁴ *Ia. Ag. Rept.*, 1868, 396, 414, 420, 429.

make plain what a farm is made of, nor of what are composed the crops yearly reaped from it. These things the farmer must learn elsewhere. An agricultural education is therefore essential to progressive farming.⁸⁵

By 1870, then, it was evident that individual and group action and example were not enough — state-sponsored education was necessary to carry the knowledge of the few to the many. "Book farming" must be taught by the schools, not by speeches at county fairs. That the fairs and the farmers' clubs, the farm journals and local newspapers had contributed mightily to the campaign for better farming is undoubted, but their work had been preliminary only: it paved the way for the more active and more far-reaching work of systematic agricultural education in the schools. Agricultural societies and fairs would continue their work, and Iowa's famous farm journals, *Iowa Homestead*, *Wallaces' Farmer*, and *Successful Farming*, would enjoy wider and wider circulations: but Iowa farmers, in the future, would look to the State College at Ames for education, guidance, and "book farming."

⁸⁵ *Ibid.*, 56.