

Iowa and the Reports

From 1848 to 1860 at least 25 reports were prepared and sent to the Patent Office in Washington, D. C. These reports covered agricultural activities in 17 areas of Iowa, from Fort Madison to Kaneshville. In some cases, extracts, and in others, the complete reports were included in the annual reports of the Patent Office and distributed throughout the United States.

The reports provide a good picture of Iowa agriculture in the 1850's. Successes and failures, costs of production and selling prices, and many other facts were reported. The reports, as published, did much to publicize the agricultural potential of Iowa.

Livestock

Production of livestock was constantly increasing in Iowa. John Bangs, Jr., of New London thought in 1849 that "this is to be eventually one of the greatest stock raising countries in the world."

In 1851, Daniel McCready of Fort Madison said that cattle cost little to raise—in the summer, salt and the range of the woods or prairies; and in the winter, a little corn, salt and straw.

The next year J. E. Johnson of Kaneshville reported that he thought no country was better adapted to grazing than Iowa. Along all streams were large beds of rushes where livestock could feed all winter. The broad prairies produced an abundance of fine rich grass that would fatten the stock faster than tame grasses. "The cost therefore of rearing is comparatively nothing."

The cost of rearing cattle until they were three years old varied considerably in 1852. Admiral B. Miller and Joseph Brobst said it was \$6.00 at Knoxville; McCready reported the cost to be \$7.00 at Fort Madison; and Johnson estimated it to be \$12.00 at Kaneshville.

Two years later J. W. Reynolds of Newbern said the cost of raising a steer was about \$12.00. Some corn was given to calves the first winter. Afterwards, they were kept on prairie grass hay or corn fodder. In 1855 Benjamin F. Odell of Plum Spring placed the cost of raising a steer at \$20.00.

Steers were selling for \$10.00 to \$15.00 at Fort Madison in 1852. Cows were worth from \$16.00 to \$20.00 in the spring and from \$14.00 to \$18.00 in the fall. By 1855 prices had risen. Steers were selling at Plum Spring for \$25.00 to \$50.00 each.

Hugh M. Thomson, president of the Scott County Agricultural Society in 1854, wrote that the cattle raised there were "common" with few exceptions. The exceptions were crosses with the

Shorthorn or Durham, one or two bulls of that breed having been introduced into Scott and Clinton Counties from Kentucky. Common cows were worth from \$25.00 to \$40.00 while the half-breeds would bring \$50.00 to \$100.00.

Good common steers were worth \$70.00 to \$80.00 a pair in Scott County when they were three years old. The average price for oxen was about \$100.00 per yoke.

Some cattle were supplied to emigrants going to California. More were bought by drovers from Ohio, Indiana and Illinois. These men visited southeast Iowa annually seeking to buy cattle for the eastern market.

Thomson was unable to give information on transportation costs to the Atlantic or Gulf markets. "It fluctuates so much from the different stages of water in the Mississippi." H. G. Stuart of Montrose was more helpful. The cost of transportation to New York—on foot to Chicago and then by rail—was about \$15.00 per bull. It was about \$11.00 by steamboat to New Orleans. To St. Louis, he said, it was \$4.00 by boat and \$3.00 by land on foot.

Steers, when yoked for the first time, were put on the tongue of a wagon or as the hindmost yoke on a prairie plow. An older yoke of oxen was placed in front of them. "They generally soon give up," according to McCready. Miller and Brobst suggested "tying their tails together."

The average annual production of a good cow was about 200 pounds of cheese and 200 pounds of butter. The price of the former was 7c and of butter 10c in 1850. Old-fashioned churns were generally used. Miller and Brobst wrote in 1852 that "there has been a considerable amount of cheese made in this county by a colony of Hollanders, who have done well."

As early as 1849 many farmers were turning their attention to sheep because wool could be easily transported to the eastern market. A considerable amount was shipped annually to Boston and Philadelphia, netting the owner 20 to 35 cents per pound, according to the quality.

Laurel Summers of Le Claire wrote in 1852 that sheep and woolgrowing "will undoubtedly be the most profitable business in Iowa, as they seem to do remarkably well, and can be raised with very little expense." He reported that "but few sheep" had been introduced as yet.

McCready also reported that few sheep were being raised in his neighborhood, "each family keeping only enough for home use."

H. F. Moore of Big Mound wrote in 1854 that sheep had become more valuable in Lee County during the previous year. Most of the large flocks consisted of French Merinos, crossed with the common stock. He said the best mutton was obtained from common breeds. Profits on sheep raising were about 20 per cent of the capital invested.

The value of a common sheep was from \$2.00 to \$5.00. The average yield of wool was five pounds to a sheep.

In Lucas County sheep and hogs were being raised with decidedly good luck. "The wolves . . . kill a good many of both, but we are in hopes they will soon be subdued."

Depredations committed by wolves had limited sheep raising in Delaware County too. As wolves became scarcer in 1855, farmers began to turn their attention to sheep. A sheep, after shearing, was worth \$2.00. The price of wool was from 45 to 50 cents a pound.

McCready said the only method used in raising hogs near Fort Madison was feeding corn to them in pens or small fields. He thought the clover field or orchard would undoubtedly soon be used instead. A number of the farmers with whom he talked said 100 pounds of corn would yield 16 to 20 pounds of pork.

The merchants of Fort Madison salted the middlings in bulk, piled up on the floor of the warehouse. McCready made good bacon by salting in a hogshead. After remaining about six weeks, he hung it up and smoked it with green hickory.

Hogs were raised in western Iowa with even less trouble. Enough nuts and roots abounded in the forests and the prairies to sustain them. Very little corn was used until time for fattening.

Dr. John G. Scott of Winterset said in 1855

that hogs could be raised for \$2.00 per hundred-weight. Market values were rather uncertain although the usual price was \$3.00 to \$4.00 per hundred. Cost of transportation was high, it "being 200 miles to the Mississippi River without a Rail Road to give us a lift on the way."

In Lee County horses and mules were raised to some extent for the California and Oregon markets. H. F. Moore of Big Mound said mules were the most profitable stock that could be raised in that section. The average price of a three-year-old was \$120.00.

Near Davenport horses were only raised for the home market in 1854, according to Hugh M. Thomson. They were worth from \$75.00 to \$125.00, depending on quality. There were very few pure bred animals in that part of Iowa. The high prices, however, were drawing the attention of breeders to better and finer stock.

Benjamin Odell of Plum Spring estimated the cost of raising colts until they were three years old to be from \$25.00 to \$30.00. During the summer they lived on wild grass which was plentiful. In winter, in addition to the hay they would eat, they were given a small amount of corn.

Grains

John Bangs of New London reported in 1848 that more wheat was sown in the fall of 1847 than 1846, but it was badly winter killed. Rust injured

the rest so there was very little prime winter wheat. At Fort Madison there was considerable loss from the ravages of the chinch bug, according to McCready. Out of a field of prairie sod, containing 40 acres, not more than 150 bushels were harvested. Normally, this was not so. An average crop should yield 25 bushels per acre, as sod was the best ground for wheat.

Bangs estimated the per acre cost of raising wheat in 1848 was as follows: breaking up sod, \$2.00; 1½ bushels of seed, \$.90; harrowing, \$1.00; cutting, binding, etc., \$1.00; threshing, cleaning, etc., at 7c per bushel, \$1.05; transporting the wheat to market, \$.94; or a total of \$6.89, thus showing a net gain per acre of \$2.15 on a yield of 15 bushels.

Edward Johnstone and McCready, both of Fort Madison, wrote that the red-chaff bearded wheat was the best variety. A few farmers prepared their seed for sowing by steeping it in strong brine and then rolling it in lime. Wheat thus prepared was not likely to be injured by the Hessian fly, they thought.

In western Iowa, J. E. Johnson of Kaneshville said better crops were produced by sowing in September amongst the standing corn. Stalks left standing through the winter were cut down and raked off in the spring.

In Scott County, according to Laurel Summers of Le Claire, fall wheat was not raised to any extent due to the cold, dry, windy weather in the

winter. Very fine spring wheat of the Red River, Italian and Hedge Row varieties was raised extensively. Nothing bothered the wheat there except smut which could be prevented by washing the seed in vitriol water before sowing.

Miller and Brobst of Knoxville recorded 20 bushels an acre as an average crop of wheat in 1852. "We think more might be raised, as we think the soil too new and that there is not proper care and labour bestowed by the husbandmen." The yield was increasing, and they thought it would increase "as the country grows older."

Enos Ellmaker of Jefferson County said that the 1852 spring wheat crop was somewhat uncertain because of the chinch bug. The best preventive he had found was to take 50 to 80 bushels of air-slaked lime and a light coat of stable manure, spread them evenly over the ground before frost, and then let it lie until February or March. After the frost went out, he turned the loose soil with a harrow or drill.

Next to Indian corn, Odell said wheat was their most important crop. In 1855 the average yield in Delaware County was about 15 bushels.

Odell supplied information on the expense of raising 11 acres of wheat, sown on sod land broken up the preceding year:

Dragging once with two yoke of oxen	\$3.00
Seed, 16 bushels	16.00
Sowing	.75

Dragging once with one yoke of oxen	2.50
Harvesting	17.50
Hauling and stacking	6.00
Threshing	12.00
Rent of land at \$2 per acre	22.00
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Total	\$79.75
Yield 82½ bushels at \$1	82.50
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Profit on 11 acres	\$2.75

Only about seven acres were harvested, the remainder being "hazel-brush" land which was choked with weeds. This type of land did not yield more than half a crop that year in that area.

Thomson reported in 1855 that the average yield on his farm for the past seven years had been a little over 22 bushels. The average for Scott County was about 16½ bushels. Ten bushels to the acre would pay expenses.

By 1855 in Scott County the sickle, scythe and cradle had given way in harvesting wheat to one or another of the many reaping and harvesting machines. Thomson thought that they "certainly do save much hard labour to the farmer."

Reports from both Jackson and Union Counties indicated that little winter wheat was raised. John Flory of Bellevue said, however, that spring wheat was a good crop of superior quality in 1856. Farmers harvested an average of fully 12 bushels per acre, more than they anticipated because of

the exceedingly dry weather. J. F. Bishop of Milford wrote in 1860 that wheat was raised more as an experiment in Union County.

Bangs thought Indian corn was "truly the great staple of the west, and is constantly increasing." Drought in 1848 at the time it was shooting caused the ears to be rather light that year. Three years later McCready was saying the corn crop was nearly a total failure because of a wet spring. Not more than 10 per cent was raised in 1851.

Corn was fed raw. Corn and cob-crushers existed but farmers did not have enough experience to know if there was any advantage. McCready thought fall plowing was best. It pulverized and, to some extent, fertilized the soil, and increased production from 10 to 20 per cent. The crop was "easier cultivated, or tended, as we call it, in our vernacular tongue."

1852 was an "extra good" year for corn in Polk County, wrote Jno. F.A.H. Roberts. The same year, yields of 60 bushels per acre at Kaneshville were considered average. The cost of raising corn was about 10 cents per bushel and the average price was 20 cents per bushel.

The most common variety in Scott, Clinton, and adjoining counties was yellow dent. The common yield there was 50 to 75 bushels per acre.

Ellmaker of Jefferson County wrote in 1852 that corn was a great staple of first importance. It provided a cheap and wholesome bread, and it

supported stock of all kinds, "our only source of making anything in the surplus money line."

The same year Miller and Brobst did not hesitate to say that ground corn was 25 per cent better than corn which was fed raw.

H. G. Stuart of Montrose thought an acre of good corn fodder would keep a bull in "about as good condition as an acre of timothy hay and at one fourth the cost."

Droughts came again in 1853. Corn crops were much lighter near Knoxville, though still "tolerably good."

In Lee County H. F. Moore wrote that corn was largely cultivated there for feeding hogs and cattle. The average yield in 1854 was 40 bushels, although 100 bushels could be raised with the use of barnyard manures. The cutworm was the greatest enemy, and there was "no remedy (but to pinch the raskels [sic] heads)."

Joseph W. Waldron of Weeping Willow reported yields of 40 to 65 bushels to the acre. The larger amount was raised on former timber or hazel-brush land, while the smaller quantity grew on prairie or table land.

Corn could be produced in Madison County for eight cents per bushel in 1855. The supply was not beyond demand because of immigration to that county, "which yearly uses up our surplus products though the time will soon come when it will not."

J. W. Raynolds of Newbern described the method of planting "sod corn." "Soon after the ground is plowed make a hole through the sod with an axe or a stick and drop in four to eight grains of corn every two or three feet." Sod corn would produce five to 40 bushels with "no tending at all."

Oats were used principally for feeding stock at home. Average yields were 15 bushels at New London in 1848; 40 bushels at Fort Madison in 1850; and 40 to 55 at Kaneshville in 1852; depending largely on the season. Miller and Brobst thought oats grew "remarkably well in this country—much better we think than in any other country we know from our experience." Oats were very subject to falling down and lodging, due to the newness and richness of the soil.

Barley was the least soil exhausting of any crop and was the best stubble for wheat, but little was sown. Buckwheat was raised generally in small amounts for domestic use. Rye, beans, and peas were raised only on a limited scale.

Clover and Grasses

Edward Johnstone wrote in 1852 that "hay is the most profitable crop that a farmer living near the Mississippi can raise." Summers in Scott County reported two years later, however, that little attention had been paid to its cultivation yet "in consequence of the abundance of prairie hay."

In 1855 Stephen A. Lindley of Monroe provided a detailed account of timothy growing. He said it was raised in great quantities in Lee and Henry Counties and had been one of the principal export items for several years. As high as 400 acres had been cut on one farm for seed, and numerous farmers cut from 60 to 100 acres annually.

Lindley stated that the soil in that part of Iowa was better adapted to timothy than most parts of the prairie country, because it was firmer and not so light.

Timothy was allowed to become fully ripe before cutting but not until it was dry and dead. It was then cut with a reaper. It was too hard to cut and make much progress with the cradle.

As soon as it was cut, it was bound in large sheaves and set in large uncovered shocks or small ricks of about 30 sheaves in a shock. After standing two weeks, it was threshed with the common threshing machine. Lindley considered the Wheeler and Mellick Separator one of the best.

The average yield of seed per acre was about six bushels worth from \$2.00 to \$2.50 per bushel. "In a country like this where land is cheap and labor dear and scarce perhaps no crop will be more profitable so long as anything like present prices can be had for the seed." Eastern farmers preferred Iowa seed because "many of the noxious weeds which infest their meadows are unknown here."

Lindley also provided estimates on the cost of raising 10 acres of timothy hay and seed:

Interest on cost of 10 acres at \$15	\$1.50
Cutting at 50c per acre	5.00
Five hands to bind, including board	6.25
Threshing and cleaning seed	15.00
Stacking hay, including salt and board	7.00
Total	<hr/> \$34.75

In return he had 60 bushels of seed worth, at an average price of \$2.25 per bushel, \$135.00 and 10 tons of hay worth, at \$3.00 per ton, \$30.00. "This leaves \$131.25 as the neat proffits [sic]."

Manures

Manures were seldom used by Iowa farmers in the 1850's. McCready said stable manure was all that had been tried in his section of the state.

Dr. John G. Scott of Winterset summed it up in this manner:

We use no manure as Dame Nature has been bountiful toward us in providing soil of extreme richness, the soil being from 10 inches to three or four feet. So of course we use her bounty, hardly thinking of thanking her, much less paying her back in manure.

Fruits

According to Bangs of New London, orchards were being planted frequently in 1849. Very few apples had been raised yet, due to the newness of the country. Most orchards were not old enough

to bear fruit. The severe winters made peaches an uncertain crop.

Seven years later M. L. Comstock of Burlington reported, "Iowa has made praiseworthy advancement in the cultivation of fruit." In spite of the problems of settling a new country, "fruits have been produced in such quantities, and of such size and quality, as to excite the astonishment of fruit growers from older states."

The apple was the principal fruit cultivated. This was probably because it was readily available and because moisture in undrained soils caused little trouble.

Severe winters and late frosts had destroyed pear, plum and peach trees. The smaller fruits, such as currants, gooseberries, raspberries and strawberries were "produced in perfection."

Vegetables

Potatoes at first were cultivated almost entirely for table use. Until 1848 the rot had not spread to Iowa, but it appeared very unexpectedly at New London that year. Those potatoes which were planted very early escaped almost entirely. Those planted late in the season were, in some cases, not worth digging. The loss totaled half the crop.

The rot was bad again in 1851. A poor potato crop was also raised in 1857, according to Reynolds of Newbern, when they rotted badly late in the fall.

In 1852 both Irish and sweet potatoes were produced in abundance at Kaneshville. The former produced, if well taken care of, 300 bushels per acre at a cost of five cents or less per bushel. The average market price was 30c per bushel.

Miller and Brobst reported that the season had been extremely good for sweet potatoes in 1853. In some cases, 14 of them filled a half bushel measure as full as they could be laid on. Seven average potatoes weighed 14 pounds.

Miller and Brobst also said turnips did uncommonly well. They weighed some that were eight pounds each.

Live Fences

In 1855 Stephen A. Lindley supplied an extensive report, which was published by the Patent Office, on the use of Osage orange hedge for fencing. He said it was being brought into use extensively in the middle and southern parts of Iowa where it was receiving a great deal of attention.

Lindley pointed out that the hedge had two enemies. The chinch bug cut off the bark of the tap root and either killed it outright or checked its growth so that it was worthless. At a more advanced period of its growth, the gopher would frequently cut off roots two or three inches in diameter.

Hedge growing had already become a business. Plants were raised by nurserymen who sold them,

in many instances to men who had large contracts at so much a rod. These contractors agreed to furnish the plants, set and tend them until a good fence was produced at 100 dollars a mile or 31 cents a rod.

General Observations

Several of the men who reported to the Agriculture Section of the Patent Office included general observations about Iowa and the importance of farming in the state. Joseph W. Waldron of Weeping Willow in Davis County wrote in 1852:

Our State is new. The oldest farms in this Section have not been over eight or nine years in cultivation and those were opened by Frontiersmen as all new countries are, and still occupied by them. Therefore, there has not been much improvement in the manner of farming from the old method of cultivation. That is to cultivate or wear out one farm and then sell it for what you can and go West, but the cultivated portion of our country is yet relatively fractional and the fertility of the soil has enabled the farmers to procure abundant crops by a very easy mode of farming. Many of the first settlers have cultivated their farms for seven, eight, and nine years and still obtain very good crops without ever having manured them.

Since Iowa was a new state to which thousands were immigrating each year, Miller and Brobst thought a brief description of the soil, climate and methods of production might be of benefit to those planning to settle in Iowa. In 1854 they wrote:

As this season has been unusually dry here, as well as in all other parts of the Union, we think the soil has been sufficiently tested in relation to its power of resisting the drought. We think the great depth & fertility of the soil are the principal causes of the crops being as good as they have been this season. In fact the crops have never been finer here than they were this season. . . .

The face of the country is generally gently rolling—being prairie, with timber on the streams, except some groves of timber on the high prairies.

The climate of Iowa is mild—spring rather late—summer warm—autumn long & mild—winter rather windy & dry. Winter being dry makes this state exceedingly favourable for wintering stock.

The soil on the prairies is a rich black sandy loam from thirty inches to three feet, with a sub-soil of a light coloured clay. On the creek and river bottoms the soil is a rich black sandy loam from four to six feet deep, with a sub-soil of yellow sand.

The manner of getting the prairies into cultivation is by breaking up the prairie sod, with from four to five yoke of cattle to a plow; the cost of which is about two dollars per acre.

Prairie breaking is generally done in the month of June & the ground is generally planted in corn by dropping corn in the furrows after the plow. The crop is called sod-corn & commonly produces about twenty-five bushels per acre.

Nothing more is done than to plant the corn, until it is ready for husking in the fall. This sod-corn crop is always considered to be sufficient to pay for the breaking of the prairie. After thus getting the prairie broken there is no further necessity for breaking the prairie, as no prairie grass grows on it afterwards.

J. F. Tallant of Burlington, following the drought of 1854, wrote: "With proper ditching and draining, and sufficiently deep plowing, the strong black loamy soil of Southern Iowa is better adapted to resist both extreme wet and drought than that of any other Western state."

Although none of the reports covered all aspects of Iowa agriculture, the total picture presented was one of great potential for productive yields, a diversity of crops, and a profitable means of making a living. For the readers of the *Annual Reports* of the Patent Office in which the information was published, data was provided that would cause many people to emigrate to Iowa and become a part of a growing agricultural state.

Perhaps no one realized this better than Charles Mason. In 1858 he made a prediction which was to prove more correct regarding the relative growth of Iowa's agriculture than its population. In addressing the Hawkeye Pioneer Association of Des Moines County, he said: "Some of the present members of this Society will see the time when Iowa will be the fifth State in the Union in point of population, and the third, if not the second, in respect to agricultural wealth and resources."

HOMER CALKIN