IOWA STATE DEPARTMENT OF AGRICULTURE ITS EVOLUTION

In 1833, when settlement began in Iowa, agriculture was still the queen mother of American economic activities, barely challenged by commerce and manufacturing. The men who "hawed" and "geed" their way to the West were farmers, first, but jack-of-all-trades, too, for it was up to their ingenuity to provide themselves and their families with the implements, furniture, shoes, and all the other articles which were necessary to maintain a minimum of decency and comfort in a frontier community.

Population was sparse. The entire Michigan Territory of which Iowa became a part in 1834, contained only 31,639 inhabitants in 1830. These thirty-odd thousand were chiefly farmers and they were interested in government to the extent that it managed to protect them and to further their interests. It is to this setting that we must turn to find the roots of the Iowa State Department of Agriculture.

On April 22, 1833, the Legislative Council of the Territory of Michigan passed an act which declared that each organized county in the Territory was to constitute an inspection district, and the Governor of the Territory was given the power to "appoint for each district, for the term of three years, an inspector of wheat and rye flour, buckwheat meal, pork, beef, fish, butter, lard, domestic spirits, and pot and pearl ashes". It was the function of these inspectors to make sure that the standards set up by the act were complied with and that these products were prop-

William J. Petersen's To the Land of Black Hawk in The Palimpsest, Vol. XIV, February, 1933, pp. 56, 57.

erly labeled.² It is a far cry from this early bit of government regulation to the diverse functions of the present day State Department of Agriculture, although even today inspectors in the Dairy and Food Division are doing essentially what this act of more than a century ago required of these Territorial inspectors.

Agricultural organization in Iowa really began in December, 1838, when the Legislative Assembly of the Territory of Iowa passed an act permitting the formation of agricultural societies within the counties, whenever twenty persons within the county were in favor of such organization. "Agriculture and domestic manufactures" were to be encouraged and improved by offering prizes for the best products or "modes of husbandry" exhibited. These prizes were to be paid by the society, not by the Territory.

In 1842 the Legislative Assembly of the Territory passed another "act for the encouragement of Agriculture". This time the "encouragement" took the form of an appropriation of \$1200, from Federal funds, if any were appropriated by Congress, "for the promotion of agriculture, and household manufactures". This sum of money was to be divided among the seventeen counties in amounts ranging from \$20 to \$140. Two hundred dollars of this sum were reserved for the use of the Iowa Territorial Agricultural Society, authorized by the act. This organization was to hold meetings and conduct fairs and, in general, perform for the Territory at large, the services which the county societies were supposed to perform on a smaller scale for the counties.⁴

In 1843 the act of 1838 was revised and the appropriation

² Laws of the Territory of Michigan (published 1874), Vol. III, pp. 1102, 1103.

³ Laws of the Territory of Iowa, 1838-1839, pp. 227-229.

^{*} Laws of the Territory of Iowa, 1841-1842, Ch. 126.

was included in the revised act, but the Iowa farmers were not yet ready for agricultural societies.⁵ In 1851 the Third General Assembly passed an act which granted every incorporated county agricultural society or any to be organized under the provisions of the existing law a sum of money for support, with the proviso that the county must raise at least twenty-five dollars before the State would make a contribution, and in no case was the State aid to exceed fifty dollars to any county in any year.⁶

This act seems to have had the desired effect, for the Jefferson County Agricultural Society was founded on January 24, 1852, and by 1857 thirty-five county societies had been organized. Part of this rather remarkable growth, no doubt, may be attributed to the fact that the Fourth General Assembly raised the maximum aid which a county could receive from the State from \$50 to \$200 per year.

In general it may be said that the county societies flour-ished. By 1880, ninety-nine county and district societies were reporting to the Iowa State Agricultural Society, with 29,505 members and \$127,183.61 received from all sources. The high point was reached in 1892, when 118 county and district societies reported a membership of 35,952 members and receipts of \$284,917.01.9

The oldest of the county societies, the Jefferson County

⁵ Revised Statutes of the Territory of Iowa, 1842-1843, Chs. 5, 6.

⁶ Laws of Iowa, 1850-1851, Ch. 70.

⁷ Myrtle Beinhauer's The County, District, and State Agricultural Societies of Iowa in the Annals of Iowa (Third Series), July, 1935, Vol. XX, pp. 51, 52. The Wapello County Society is listed as having been organized the same day as the Jefferson County Society, but the latter's claim of being the oldest is generally upheld.

⁸ Laws of Iowa, 1852-1853, Ch. 45.

⁹ Annual Report of the Iowa State Agricultural Society, 1880, p. 51, 1887, p. 95, 1892, p. 113.

Agricultural Society, was but little over one year old when it took the initial steps for a State-wide agricultural organization. On October 13, 1853, this society met and resolved "that the officers of the society be instructed to take immediate steps to effect the organization of a State Agricultural Society, and that the officers use their influence to have said society hold its first annual exhibition at Fairfield, in October, 1854." A committee was appointed for the purpose, a letter was addressed to the officers of every county agricultural society in the State, inviting each county society to send delegates to meet in general convention at Fairfield on December 28, 1853. The support of the newspapers was solicited to get the word about. Iowa, the committee pointed out, was the only free State in the union without a State agricultural society.

The convention met on the appointed day, with five Iowa counties represented and fifteen persons in attendance. A constitution was drawn up and signed by fourteen members, and "The Iowa State Agricultural Society" officially came into existence on Wednesday afternoon, December 28, 1853.

From the standpoint of administrative management, the organization of the society is interesting, for it was typical of many of the organizations of the frontier: it was formed on the initiative of the people concerned, not by the government; it was manned by officers who were intensely interested in the cause, and hence served without pay or at ridiculously low salaries; the organization was essentially democratic; and it aimed primarily at crystallizing public

¹⁰ History and Proceedings of the First Fair of the Iowa State Agricultural Society in the Annual Report of the Iowa State Agricultural Society, 1874, p. 485. Almost all of the material dealing with the organization of the Iowa State Agricultural Society is taken from this source. Compare also Beinhauer's The County, District, and State Agricultural Societies of Iowa in the Annals of Iowa (Third Series), July, 1935, Vol. XX, pp. 55-69.

opinion and bringing pressure to bear upon the legislature in the interests of agriculture. The constitution of the Iowa State Agricultural Society provided that it was to promote agriculture, horticulture, manufactures, mechanics, and household arts, and that membership should be conferred on any citizen interested enough to subscribe and pay one dollar each year.

Executive powers were vested in three groups of officials. The first of these were the regular officers - a president, vice president, recording secretary, corresponding secretary, and treasurer. The second group, designated the Board of Control, consisted of the president, the vice president, and three directors from each county society. This group was given the task of distributing and preserving "all seeds, books, plants, medals, etc., which may be transmitted to the Society", and it was also to collect, edit, and publish such materials as would be most helpful in achieving the purposes of the Society. The third group consisted of "managers", that is, three representatives from each county organization whose primary function was to "constitute a medium of communication between the Board of Control and the remote members of the Society." Members were to meet annually, and the constitution could be amended at such a meeting by a two-thirds vote of those present. This constitution, with some relatively minor amendments, served as the basis of the Society until it dissolved in 1900.

Because the Society was loosely organized and at best semi-public, its services to agriculture were somewhat indirect. Broadly speaking, it performed three major services for the agricultural interests of Iowa: it published each year, usually with the aid of the State, a report to the Governor or the legislature; it conducted and managed each year a State Fair the avowed object of which was educational and instructive and which aimed only secondarily to be entertaining and amusing; and it sponsored and supported legislation which its members hoped would benefit agriculture.

In addition to the minutes of the meetings held by the Society proper or the Board of Control, and an account of the financial status of the Society, the annual report contained a full account of each fair, reports by various committees and State officials intimately connected with agriculture, summaries of the reports submitted by the various county agricultural societies, the statistical report of the Iowa Weather and Crop Service, as well as the figures submitted by the various railroads operating in Iowa as to the movement of livestock into and out of the State, and finally, a great number of long and often detailed papers prepared by specialists and laymen and dealing with a large variety of topics pertinent to the problems of agriculture. The reports constituted a real service, for they represented, in large measure, the leading thought of the day on matters pertaining to agriculture.

The management of the Iowa State Fair was, however, the most dramatic of these three activities of the State Agricultural Society. The beginning of the Iowa State Fair was modest enough. On April 10, 1854, the secretary of the Society sent out a call for a meeting of all officers to be held on Tuesday, June 6th, to arrange a list of premiums and take care of any other business. The officers met as scheduled, and a list of premiums covering some thirty-three classes was drawn up. It included, besides various

¹¹ For readable accounts of the development of the Iowa State Fair, see Earle D. Ross's The Iowa State Fair in The Palimpsest, August, 1929, Vol. X, pp. 278-313; Bruce E. Mahan's The Seventh Iowa State Fair in The Palimpsest, October, 1926, Vol. VII, pp. 309-320; and C. J. Fulton's The First Iowa State Fair in the Annals of Iowa (Third Series), October, 1935, Vol. XX, pp. 151, 152.

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types of cattle and poultry, such things as farm implements, dairy products, farm machinery, leather goods, vegetables, domestic manufactures (including woolen blankets, cloth, carpets, linen, stockings, etc.), household needle-work, "pantry" (including cakes, jelly-preserves, pickles, and soap), sculpturing, cured hams, daguerreotypes, and oil paintings. About 400 items were listed as being eligible for premiums which totaled about \$1000. "This was considered sufficiently comprehensive in view of the fact that the board had no assurance that a single dollar would be collected aside from their individual exertions to raise membership fees."

The results were encouraging. "The weather during the whole exhibition was most delightful; everyone, even the disappointed competitors, appeared cheerful; good feeling and harmony prevailed; no profanity shocked the sensibility of those present; sobriety, decorum and good order marked the entire assembly." The Fairfield Ledger for November 2, 1854, estimated the number attending at 7000 or 8000 while the Burlington Daily Telegraph for October 30, 1854, put the figure at 10,000. Both agreed that a great amount of interest and enthusiasm was demonstrated by those attending the fair.

The results financially were not so encouraging. The treasurer reported that it was impossible to make a perfectly accurate report of the receipts, but stated that they amounted to not less than a thousand dollars. After all expenses and premiums were paid, this left a balance of \$50, which was not sufficient to cover the cost of publishing the report, but the president promised to advance the balance. One financial problem of the first fair was tersely summed up by the secretary when he wrote: "We have

¹² Annual Report of the Iowa State Agricultural Society, 1874, pp. 517, 518.

¹³ Annual Report of the Iowa State Agricultural Society, 1874, p. 518.

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besides (not counted in the above) about fifty dollars of counterfeit, or otherwise worthless money."14

From this beginning the Agricultural Society gradually extended its scope and importance. The increase in the number of entries in the several departments of the fair gives some idea of the growth which was taking place:¹⁵

Entries of:	1856	1860	1865	1870	1875	1880	1885	1890
Horses	182	219	217	247	242	408	481	590
Cattle	143	236	61	167	209	293	420	520
Mules	14	20	23	34	26	8	4	23
Sheep	22	39	67	112	48	195	117	272
Swine	27	60	44	211	258	371	475	443
Implements	113	323	221	687	366	664	741	823
Farm Products	106	199	151	338	708	721	1,311	3,371
Poultry	_		-	-		-	117	278
Other Classes	246	634	480	1,901	2,498	2,678	1,602	3,863
Total	855	1,630				A STATE OF THE PARTY OF THE PAR	The state of the s	10,183

The financial returns are likewise significant, because they throw some light on the increased participation on the part of the people whom the fairs were designed to serve. In 1894 the secretary gave the following summary of receipts:¹⁶

Years	Total	Average
	Fair Receipts	Annual Receipts
1854-1863	\$ 26,882.00	\$ 2,688.20
1864-1873	\$116,127.00	\$11,612.70
1874-1883	\$264,185.78	\$26,418.51
1884-1893	\$440,676.71	\$44,067.67

During the first half century of its development, the State Fair improved its worldly situation considerably.

¹⁴ Annual Report of the Iowa State Agricultural Society, 1874, pp. 537, 538.

¹⁵ Annual Report of the Iowa State Agricultural Society, 1890, pp. 94, 95.

¹⁶ Annual Report of the Iowa State Agricultural Society, 1894, pp. 12, 13. The secretary's report gives the years 1883-1894 for the fourth decade. This seems to be an error since the figures he uses are those for 1884 to 1893 inclusive.

Until 1885 the location changed from year to year or every few years, but in 1885, through the help of a State appropriation of \$50,000, and a subscription by the city of Des Moines of approximately \$50,000 more, the Society was able to purchase 265.91 acres of land near the capital city and locate permanently on the site. The acreage has been somewhat increased, until now the Fairgrounds consist of some 378 acres.¹⁷

From time to time the General Assembly has appropriated money for the State Fair. In addition to the \$50,000 grant for the purchase of the permanent site, the legislature appropriated \$9500 for permanent improvements in 1888, \$20,000 in 1894 to help the Society reduce its indebtedness due chiefly to the destruction of fair buildings in 1892, the panic of 1893, and the Columbian Exposition, and \$7000 for maintenance and repair of buildings in 1896. Since the turn of the century the fair has been essentially self-supporting, and no regular appropriation has been made by the legislature.

In addition to the main services performed by the Iowa State Agricultural Society, the outstanding problem, and one that remained as a "thorn in the flesh", was that of getting sufficient funds to carry on the work which the officers of the Society felt it ought to do. The organization meeting held at Fairfield on December 28, 1853, had to grapple immediately with this issue. A resolution was adopted by the founding fathers which provided that "a committee of five be appointed to memorialize the General Assembly of the State of Iowa, praying for the passage of a bill rendering pecuniary aid to the furtherance of a per-

¹⁷ Beinhauer's The County, District, and State Agricultural Societies of Iowa in the Annals of Iowa (Third Series), July, 1935, Vol. XX, p. 60.

¹⁸ Laws of Iowa, 1888, Ch. 127, Sec. 1, 1894, Ch. 138, Sec. 1, 1896, Ch. 128, Sec. 1.

manent establishment of a State Agricultural Society in this State." The committee was duly appointed and the memorial was printed and presented to the General Assembly. The memorial requested "that an annual appropriation of one thousand dollars may be made to advance the objects and praiseworthy aims of the State Agricultural Society"."

The memorial was not without effect for the Fifth General Assembly passed an act, approved on January 22, 1855, "affording aid and patronage to the State Agricultural Society". This act provided "That the State Agricultural Society, organized at Fairfield, on the 28th day of December, 1853, be, and the same is hereby authorized to draw from the State Treasury, in aid of its operations, the sum of one thousand dollars per annum, until otherwise provided for". Thus State support of this privately initiated organization began, and brought with it the beginnings of State control, for the president and secretary of the Society were required by this act to report to the regular sessions of the General Assembly how and for what purposes the money had been spent.²⁰

Two years later the General Assembly made the Agricultural Society a truly quasi-public organization by prescribing its organization and defining its functions. A Board of Directors, composed of the officers and ten directors, was directed to meet annually in Des Moines and to transact the necessary business of the Society. The annual report was to contain the proceedings of the Board, abstracts of county society activities, "as well as a general view of the condition of agriculture throughout the State, accompanied with such essays, statements and recommen-

¹⁹ Annual Report of the Iowa State Agricultural Society, 1874, p. 491;
Memorial of the State Agricultural Society, 1854, p. 5.

²⁰ Laws of Iowa, 1854-1855, Ch. 166.

dations as they may deem interesting and useful, which reports shall be published by the State, under the supervision of the secretary of that society." Most encouraging of all, an annual appropriation of \$2000 was granted.²¹

But the financial worries of the Society were by no means solved, and the problem of securing adequate funds plagued the organization for the next half century. The \$2000 grant established in 1857 was reduced to \$1000 in 1873, and discontinued entirely by the Fifteenth General Assembly in 1874.²² From that time onward, no regular appropriation was made by the legislature, but sums were granted from time to time, usually with the provision that they were to be used directly in connection with the State Fair.

The Society, through its secretary's annual report, protested vigorously at this policy and pointed out that Iowa was the only State which did not grant a regular appropriation to its agricultural society, and that other State grants varied from \$20,000 annually in New York, to \$1000 in Nebraska.²³ At irregular intervals the General Assembly appropriated money to the Society, but the officials felt always that a regular sum was badly needed to prevent the possibility of a serious financial shortage due to bad weather at the fair. Feeling that, after all, "The State society is the child of the State like its other beneficent and educational institutions, and rightly may claim a share of its bounty", the Society in 1896 requested an annual appropriation of \$10,000 and office supplies, stamps, and express charges. Two years later half that sum was appropriated by the legislature.24

²¹ Laws of Iowa, 1856-1857, Ch. 188.

²² Code of 1873, Sec. 1105; Laws of Iowa, 1874, Ch. 3.

²³ Annual Report of the Iowa State Agricultural Society, 1879, p. 7.

²⁴ Annual Report of the Iowa State Agricultural Society, 1893, p. 12, 1896, p. 11; Laws of Iowa, 1898, Ch. 145.

It is significant that the act which withdrew regular State aid in 1874 did not free the Society from the obligation of publishing the annual report. This service to the people of Iowa the Society continued to give, and no small service it was, for the reports averaged a good 500 pages yearly and carried material of considerable importance to the farmers of Iowa.

In view of the fact that the Society had no easy task in securing adequate financial backing, it is not surprising that many of the services it attempted to render seemed trivial, indirect, and intangible. Over a period of half a century, however, the net gain was considerable. From time to time the Society recommended, usually by means of a resolution directed at the General Assembly, action designed to improve conditions for the agricultural interests of Iowa. A few examples will illustrate. In 1857 the Society asked the General Assembly to establish a College of Agriculture. A year later the legislature took the desired action. In the act creating this institution the secretary was instructed to "encourage the formation of agricultural societies throughout the State". A few local societies were already organized.

In 1865 the Society asked that the Iowa Senators and Representatives in Congress use their influence in amending the tariff laws so as to give protection to woolgrowers as well as to manufacturers. Two years later the Society pointed out to the legislature that the agricultural interests of Iowa needed adequate room for the agricultural library and the establishment of an agricultural museum in connection with it. There was also need, the report asserted, for protecting, conserving, and extending the timberlands of Iowa. The next session of the General Assembly passed an act "to Encourage the Planting and

²⁵ Laws of Iowa, 1858, Ch. 91, Sec. 21.

Growing of Timber, Fruit Trees, Shade Trees, and Hedges''.26

Through its secretary the Agricultural Society suggested in 1869 that the legislature take action on the matter of creating a commission whose function it would be to investigate the causes of diseases, particularly hog cholera, among farm stock, and suggest rational treatment and means of prevention.²⁷ Two years later, in 1871, the Society reiterated its suggestions even more strongly. These examples indicate that the recommendations which the Society made to the legislature were often specific and concrete.

The problem of fencing also required much study in Iowa. Some contended that a man who wished to raise crops should fence his fields to keep stock out; others insisted that the man who raised stock should fence them in. The very early reports of the Society recommended that the owner of stock should be made responsible and liable for the damage done by his stock in running loose, and that cattle should be "fenced in" rather than "fenced out". No effective action was taken, however, until the Thirteenth General Assembly, meeting in 1870, provided that counties might require that all kinds of stock should be fenced in and that owners were responsible for any damage done by them. This "herd law" was hailed by the secretary of the Society as "the most important legislation pertaining to agriculture that has been enacted for many years." 28

As specific issues came up, it was the Iowa State Agricultural Society which acted as the petitioner of Iowa's

²⁶ Annual Report of the Iowa State Agricultural Society, 1865, p. 103, 1867, pp. 27-30; Laws of Iowa, 1868, Ch. 92.

²⁷ Annual Report of the Iowa State Agricultural Society, 1869, pp. 8, 9.

²⁸ Laws of Iowa, 1870, Ch. 26; Annual Report of the Iowa State Agricultural Society, 1872, p. 34.

agricultural interests before the legislature. It was the Society which used its influence upon the General Assembly to pass legislation designed to protect the sheep industry from the ravages of dogs. The Society took the initiative, likewise, in appealing to the State for financial aid for Iowa's participation in the international exposition to commemorate the centennial of American independence in 1876.²⁹ The Society, too, brought to the attention of the legislature the fact that mortgaged real estate was unjustly assessed and taxed, and that interest-bearing capital and moneys and credits were evading taxation. The farmer thus paid more than his share of taxes.

The resolutions, recommendations, and petitions of the Agricultural Society were, however, often ignored. On one occasion when the legislature had turned particularly deaf ears to the suggestions of the Society, the following resolution was adopted: "Resolved, That this Society recommend to the Agriculturalists of the State, to use their influence to elect Representatives to the next General Assembly, who will not ridicule and sneer at requests and petitions, for the enactment of measures to further and protect Agricultural interests." Evidently government by pressure is not of recent origin!

The Society did not confine its activities to the General Assembly, but kept in touch from time to time with the agencies in the national government most concerned with agriculture. As early as 1863 the Society instructed the Iowa delegation in Congress to vote against the proposed abolition of the Bureau of Agriculture, and a year later a formal resolution was adopted approving the work of the national agency and requesting the Iowa delegation to sup-

²⁹ Annual Report of the Iowa State Agricultural Society, 1860, pp. 61, 90, 1871, p. 203, 1872, p. 15, 1875, p. 205.

³⁰ Annual Report of the Iowa State Agricultural Society, 1860, p. 92.

port it liberally and "to enlarge its powers and usefulness".31

In 1878 a formal resolution was drafted by the Society to the effect that it was high time that the varied branches of agriculture should be represented in the cabinet of the President by a Secretary of Agriculture who should head a separate executive department. When at long last the United States Department of Agriculture was organized in 1889, the Iowa State Agricultural Society hailed it as the fruition of its recommendations dating back as far as 1864.³²

Ten years later, when the problems arising out of the monopolistic control exercised by great industrial combinations had become acute, the following resolution was adopted by the Society: "Resolved, that the State Agricultural Society of the State of Iowa hereby petition our senators and representatives in congress, to hasten the fullest inquiry into the beef trust, and to make such laws as will stop rebates on railways, favoritism by car companies, and punishment of all parties combined together to prevent free competition in the great farm product." ³³

There were other services which the Iowa State Agricultural Society rendered to the citizens of Iowa. It was early recognized that the exchange of ideas and methods used by farmers must be stimulated if improved procedures in farming were to gain headway. Accordingly, at the fifth fair held in Oskaloosa in 1858, evening meetings were begun at which the farmers present gathered to discuss matters of interest to them. These meetings were intended to

³¹ Annual Report of the Iowa State Agricultural Society, 1861-1862, p. 221, 1863, p. 80.

³² Annual Report of the Iowa State Agricultural Society, 1877, p. 544, 1889, p. 30.

³³ Annual Report of the Iowa State Agricultural Society, 1889, p. 619.

be a stimulus to the formation of "Farmers' Clubs". The practical nature of this enterprise can be judged by the titles of some of the papers read: "What Breed of Sheep Are Best Adapted to Iowa?"; "Fruits and Their Adaptation to the Soil of Iowa"; and "What Is the Best Breed of Horses, and How to Breed and Rear Them". These were obviously topics of real and immediate concern to the "man on the farm".

The matter of securing accurate information on the pedigrees of animals used for breeding purposes in Iowa was a serious one at a time when farmers were especially interested in building up blooded herds. The "American Herd Book" was a reliable source, but the fact that it cost \$20 made it prohibitive insofar as the average Iowa farmer was concerned. To overcome this difficulty J. H. Wallace, the Iowa State Agricultural Society's secretary, compiled the "Iowa Short-Horn Herd Book" and included it in the Society's annual report for 1858. As far as the Iowa breeder was concerned, this "Book" effectively took the place of the more expensive publication, and attempted, in addition, to instruct farmers in the characteristics of good pedigrees and the methods used in tracing them. This service was a real contribution to the farmers of Iowa.

The Agricultural Society was active in introducing new plants into Iowa — plants which gave promise of being profitable for Iowa farmers. The story of the introduction of sorghum into Iowa, and the role played by the Society in this venture, is a good illustration of this important service. It is best told in the words of the secretary himself:

At the annual fair, at Muscatine, in 1856, Mr. F. S. Dumont of Jones county, exhibited specimens of this plant [sorghum], and syrup made from it. . . . In 1857 there were two or three ³⁴ Annual Report of the Iowa State Agricultural Society, 1858, pp. 443-469.

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specimens of syrup on exhibition by other parties in the vicinity of Muscatine.

In 1858, about one farmer in twenty, in the older portions of the State experimented with a few hills in his garden, and in response to premiums offered by this Society, the results of several experiments were presented to the public in that year. In 1859 and 1860, this Society held out greater inducements to its introduction; offering large premiums not only for syrup, but also for sugar made from this plant. The result was that last year several samples of beautifully granulated and lively sugar were in competition from different parts of the State for the Society's premium. . . . From the few stalks exhibited as a curiosity, in 1856, it is now grown as a staple in every county, and almost in every field, in larger or smaller quantities throughout the length and breadth of the State.35

The Society was constantly on the alert for new ways in which to furnish more accurate statistics to the Iowa farmer, with the idea in mind of aiding him in the marketing of his produce. It was from the Society that the suggestion came that an accurate record of the exports and imports of the State be kept in order to discover if Iowa had a "favorable" balance of trade. Most of these figures were to be secured from the railroads and they coöperated in supplying this information. The figures submitted by the various railroads traversing Iowa became regular parts of the annual reports, and furnish a significant, even though not entirely reliable, source of information concerning the volume of goods shipped into and out of Iowa.³⁶

A multitude of less spectacular services were initiated by the Society. Early in the 1860's the collection of an agricultural library was begun. Little by little it grew. In 1864 some fifty volumes were added. By 1872 the secretary was able to report that the library contained 537 bound

³⁵ Annual Report of the Iowa State Agricultural Society, 1861-1862, pp. 8, 9.

³⁶ Annual Report of the Iowa State Agricultural Society, 1861-1862, pp. 127, 128, 1865, pp. 18, 19.

volumes, 97 unbound volumes, exclusive of the Society's own publications, and that the library was receiving and caring for three daily papers, thirteen weeklies, and six monthlies. Coincident with this was the collection of seeds and grains and other farm products for an agricultural museum. The Society repeatedly noted the lack of available money to properly classify, arrange, and preserve this material.³⁷

Coöperation with other agencies interested in agricultural problems was an activity which occupied a good portion of the Society's time throughout its existence. Correspondence with other State agricultural societies was begun as early as 1857. In 1871 the Tennessee Agricultural and Mechanical Association invited the various State agricultural societies to send representatives to a meeting in Nashville, Tennessee, on October 3, 1871, in order to form a National Agricultural Association. This invitation was sent to the Iowa State Agricultural Society and accepted.³⁸

Late in the same year the United States Commissioner of Agriculture proposed that each agricultural college, State agricultural society, State horticultural society, and State board of agriculture send two delegates to a convention in Washington, D. C., on February 15, 1872, in order to confer upon subjects of mutual interest and the interest of agriculture generally. The Iowa Society named two men to attend the convention, "provided the same be done without expense to the Society." It was also in 1871 that the California State Board of Agriculture suggested that mutual exchanges of samples of fruits and other farm products be made by the two societies. This was agreed to

³⁷ Annual Report of the Iowa State Agricultural Society, 1872, pp. 45, 46, 1878, pp. 37, 38.

³⁸ Annual Report of the Iowa State Agricultural Society, 1858, p. 5, 1871, p. 80.

by the Iowa organization, and beneficial interchanges followed.³⁹

The foregoing illustrations leave little doubt that the Iowa State Agricultural Society made an honest and sincere effort to serve the interests of the people of Iowa as best it could. In doing this it was seriously handicapped by the lack of financial support and by its own loose organization. The ever-recurring requests for appropriations from the General Assembly and the fact that the work of the Society was largely done by officials who were either not paid at all or grossly underpaid for their services, 40 bear mute testimony of the seriousness of this handicap.

THE STATE DEPARTMENT OF AGRICULTURE

From the very beginning the leaders of the Agricultural Society were dissatisfied with its organization and powers. The very first act of the meeting which organized the Society in 1854 was to memorialize the General Assembly as to the necessity for financial support. The committee which drew up this document went on to suggest to the legislature some significant changes. Their suggestion was for "the establishment of an agricultural bureau at the capital of the State, with a secretary and other officers attached, whose duties should be defined and prescribed by law.... Connected with this bureau, as an indispensable adjunct, should be one or more State geologists and agricultural chemists, who should be constantly in the field, making their experiments and observations." The authors of

³⁹ Annual Report of the Iowa State Agricultural Society, 1871, pp. 91-95, 218.

⁴⁰ In 1893 the secretary of the Society, its most important and responsible official, was granted a salary of \$150 a month, furnished the necessary clerical help, and allowed five cents per mile for travel.— Annual Report of the Iowa State Agricultural Society, 1893, pp. 468, 469.

⁴¹ Memorial of the State Agricultural Society, 1854, p. 6.

the memorial proved to be almost half a century in advance of their time, but their recommendations, or ones similar to them, kept recurring during the next fifty years.

Another weakness of the Society was the lack of broad powers over all the aspects of agriculture. In 1873 the Society recommended to the legislature that "the appropriation for the benefit of agricultural societies, should be to this Society alone — the different items of horticulture, stock raising, etc., etc., being but parts of one great system under the comprehensive name of agriculture." The Society's report for 1874 pointed out that the Horticultural Society, a separate agency, was doing some work that the Society was attempting, and that logically the two ought to be unified and the work of agriculture concentrated in a single agency. An organization was needed that "should comprehend all the several departments that may be embraced in agriculture, horticulture, mechanical arts, entomology, floriculture and their allied relations." 42

The twenty-year period from 1880 to 1900 was marked by the demand of the agricultural interests for additional services and for agencies to render them. In some cases the General Assembly set up the desired agencies, and as these were usually created without any connection with the existing Iowa State Agricultural Society, the need for centralization and concentration became ever more apparent.⁴³

At the annual meeting of the Society in January, 1899, J. R. Sage of Des Moines, long a sincere friend of agriculture in Iowa, read a paper dealing with the United States Department of Agriculture. He concluded it by voicing a hope which was destined to be soon fulfilled:

⁴² Annual Report of the Iowa State Agricultural Society, 1873, p. 212, 1874, p. 7.

⁴³ Annual Report of the Iowa State Agricultural Society, 1885, p. 8.

There is an ample field of usefulness for such a department of agriculture in Iowa, and it need not add materially to the cost of our present system of "scatteration". And it would place Iowa in line with some of the other progressive states. I hope to see such a department established in this peerless state before the close of the century. Then we may celebrate the incoming of the twentieth century by issuing a splendid book entitled: "The Iowa Year Book of Agriculture, A. D. 1901."44

In the light of the history of the Iowa State Agricultural Society, it was fitting, perhaps, that it should "resolve" away its own existence. At its annual meeting in January, 1900, the following prophetic resolution was adopted: "And last, but not least, resolved that, in the judgment of officers and members of the State Agricultural society in annual meeting assembled, there should be created by the general assembly a department of state agriculture with a commissioner at its head, who shall be ex officio secretary of the State Agricultural society; said commissioner to be elected by the society biennially." ⁴⁵

The handwriting was on the wall, and the legislature perceived it. At long last the Twenty-eighth General Assembly made the Iowa State Department of Agriculture a reality! The act creating a Department of Agriculture was approved by the Governor on March 21, 1900. Its purpose was "the promotion of agriculture, horticulture, forestry, animal industry, manufactures, and the domestic arts".46

In addition to the State Agricultural Society, the new Department was to include the district and county agricultural societies eligible to receive State aid, the State Weather and Crop Service, and the offices of the Dairy Commissioner and the State Veterinarian. It was to be

⁴⁴ Annual Report of the Iowa State Agricultural Society, 1898, p. 81.

⁴⁵ Annual Report of the Iowa State Agricultural Society, 1899, p. 112.

⁴⁶ Laws of Iowa, 1900, Ch. 58.

administered by the State Board of Agriculture which was composed of the Governor, the president of the Iowa State College of Agriculture and Mechanic Arts, the State Dairy Commissioner, and the State Veterinarian as ex officio members, and a president, vice president, secretary, treasurer, and one director from each congressional district, all to be chosen by an annual agricultural convention, provided for by the statute.

This convention was to meet regularly on the second Wednesday of December, and was to be composed of the members on the State Board of Agriculture, the president or secretary of, or a delegate from, each county or district agricultural society receiving aid from the State, a delegate to be appointed by the supervisors from each county not having an agricultural society, and the president of or an accredited delegate from the State Horticultural Society, the State Dairy Association, the Improved Stock Breeders' Association, and the Iowa Swine Breeders' Association. This convention was empowered to choose the president and vice president of the Board of Agriculture and one director from each of the congressional districts within the State. The State Board of Agriculture was to appoint a secretary and was to fill any vacancies which occurred between meetings of the convention. In addition, an executive committee, composed of the president, vice president, and secretary, was set up and empowered to carry on such activities as might be delegated to it by the Board of Agriculture itself.

The Department was granted an annual appropriation of \$2400, with an additional \$1000 for insurance on and improvement of the buildings on the State Fairgrounds. The secretary was allowed an annual salary not to exceed \$1500, and the Board was empowered to employ an assistant for him at an expense not to exceed \$75 per month. The elec-

tive members of the Board were allowed \$4 per day and five cents per mile for traveling expenses when attending meetings of the Board.

The General Assembly definitely designated the function of the newly-created State Board of Agriculture:

The board shall have general supervision of the several branches, bureaus and offices embraced in the department of agriculture; and it shall be the duty of the board to look after and promote the interests of agriculture, of agricultural education and animal and other industries throughout the state; to investigate all subjects relating to the improvement of methods, appliances and machinery, and the diversification of crops and products; also to investigate reports of the prevalence of contagious diseases among domestic animals, or destructive insects and fungus diseases in grains, and grasses, and other plants, the adulteration of foods, seeds and other products, and to report the result of investigation, together with recommendations of remedial measures for prevention of damage resulting therefrom.⁴⁷

The Board was likewise given full control of the State Fairgrounds, and was charged with the task of conducting an annual exhibition. The secretary was given the responsibility of compiling the report of the State Department, which was to be published annually as the *Iowa Year Book of Agriculture*. In addition to the proceedings of the annual State agricultural convention and the meetings of the Board, the publication was to include "the annual report of the dairy commissioner, the state dairy association, and the Iowa agricultural experiment station, the annual report of the state veterinarian, the Iowa weather and crop service, the Iowa improved stock breeders' association . . . and such other reports and statistics as the board may direct".48

The relationship of the district and county agricultural

⁴⁷ Laws of Iowa, 1900, Ch. 58.

⁴⁸ Laws of Iowa, 1900, Ch. 58.

societies, the State Dairy Commissioner, the State Veterinarian, and the State Weather and Crop Service was not clearly indicated, for the act provided only that the new Department was to "embrace" these agencies and there is no evidence that effective control was granted. The Board was to have "general supervision" of these agencies, but the powers of appointment, removal, and financial control were not granted to it.

The publication of the Iowa Year Book of Agriculture has constituted one of the major services of the Department to the farmers of Iowa. In some respects the Year Book differs markedly from the annual reports issued by the Iowa State Agricultural Society. The Year Books are longer and more complete, for in some years there were twice as many pages as the Society's reports had contained. Much of this was due to the fact that more pages were devoted to reprinting papers read at county institutes and at the State Farmers' Institute held in connection with the agricultural convention. These papers, some prepared by specialists and some by the rank and file of Iowa farmers, usually dealt with matters of concrete concern to agriculturists in the State, and the dissemination of this information must have played a significant rôle in the introduction of improved farming methods.49

These papers were supplemented by pertinent statistical information. The summaries provided by the State Weather and Crop Service gave a clear picture of weather and climatic conditions over the entire State and furnished a bird's eye view of Iowa's agricultural production. Significant figures for specialized aspects of agriculture were also included in the reports of the associations allowed to print their annual reports in the Year Books. Among these were the Iowa Swine Breeders' Association, the Corn Belt

⁴⁹ Iowa Year Book of Agriculture, 1901, pp. 24-63.

Meat Producers' Association, and the Iowa State Dairy Association. The reports of the county and district societies, even though greatly abridged at times, provided a more detailed picture of agricultural conditions in the Commonwealth.

From time to time problems of immediate importance received special attention, as, for example, when the Year Book for 1902 placed considerable emphasis on the necessity for developing better roads, and contributed a wealth of well-illustrated technical papers to help achieve that objective. Legislation passed by the General Assembly relating to farming and stock raising was then summarized for the benefit of Iowa farmers.⁵⁰

The Board of Agriculture, however, felt that its usefulness was seriously curtailed because the Year Books were the only means of distributing information, and ordinarily only some 3000 copies were printed annually. "Thousands of letters are annually received by the Department", wrote the secretary in 1908, "asking for literature on various subjects pertaining to Iowa agriculture which cannot be supplied unless authority is given by the general assembly to issue such literature." These requests were repeated at intervals.⁵¹

The efforts of the secretary were not entirely in vain, for on the first of February, 1913, a "Publicity Department" was organized "for the purpose of keeping before the people of Iowa the many natural advantages they enjoy; to disseminate information pertaining particularly to opportunities offered on Iowa farms; to publish pamphlets concerning agricultural problems, crop and farm statistics, etc." ⁵²

⁵⁰ Iowa Year Book of Agriculture, 1903, pp. 631-658.

⁵¹ Iowa Year Book of Agriculture, 1908, pp. v, vi, 1909, p. 88, 1911, pp. 245, 246, 1912, p. 318.

⁵² Iowa Year Book of Agriculture, 1913, p. 71.

The official publication was a monthly magazine entitled Greater Iowa, which began publication on March 1, 1913. This was sent to "each newspaper in the state, commercial clubs, real estate dealers, bankers, officers of institutes, short course associations, district and county fairs, managers of state fairs, exhibitors and others within the state of Iowa. Outside of Iowa it goes to the United States Government Immigration officers, real estate dealers in Illinois handling Iowa Land, and a few copies to newspaper and magazine writers and students of agriculture in this country and other lands." The first ten issues averaged 8500 copies each; in 1916 it was reported that 300,000 copies had been published. Greater Iowa was published by the Iowa State Department of Agriculture from 1913 until the middle of the year 1925. Beginning with June, 1925, it was published by the Iowa State Fair Board. 53

From the first, the Iowa State Department of Agriculture was eager to assume responsibility and play a really vital rôle in furthering the agricultural interests of the State. An interesting example of this occurred in the year following its creation, when the question arose as to the part which the Department ought to play in building up an Iowa exhibit at the exposition planned to celebrate the Louisiana Purchase Centennial. The secretary sensed this as a golden opportunity to demonstrate the utility of the new Department. "Of course", he wrote, "if this department is to do this the legislature must give the authority, for we have neither the authority or the means to carry on such work."

In his report for the year 1906, the secretary enumerated the accomplishments of the Department in these words:

⁵³ Iowa Year Book of Agriculture, 1913, p. 71, 1916, p. 31; Greater Iowa, Vol. XIV, No. 8, April, 1925, No. 9, June, 1925.

⁵⁴ Iowa Year Book of Agriculture, 1901, p. 79.

Since the establishment of a State Department of Agriculture, the State board has rendered commendable and efficient service. In the realm of legislation numerous remedial measures have been proposed and advocated by the board. Among those that have received legal enactment may be suggested the State Highway Commission, the property tax in lieu of the labor tax in the working of highways, the use of the King drag on public roads, the pure food law, measures beneficial to the dairy interests, laws pertaining to drainage, the encouragement of tree planting, inspection of registered cattle brought into the State, State registration of pure bred stallions, the protection of birds and their nests, the inspection of nurseries and nursery stocks, and others.

The Department therefore recommended to the General Assembly that it increase the appropriation from \$2400 a year to at least \$5000 annually, thus making possible the added service of gathering additional needed statistics and publishing them in usable form.⁵⁵

Little by little the addition of functions took place, until in 1914 the secretary was able to report that the following work came under the jurisdiction of the Department of Agriculture:

Conducting the Iowa State Fair and Exposition.

Conducting the Stallion Registration Division.

Publishing the Iowa Year Book of Agriculture.

Collecting and publishing Farm and Crop Statistics.

Conducting the State Publicity Bureau.

Editing Greater Iowa — monthly publication of the Department.

Receiving reports and paying State aid to county and district fairs.

Receiving reports and paying State aid to farmers' institutes.

Receiving reports and paying State aid to short course associations.⁵⁶

⁵⁵ Iowa Year Book of Agriculture, 1906, p. 62, 1907, p. vi.

⁵⁶ Iowa Year Book of Agriculture, 1914, p. 97.

It is significant to note that in all this activity, the Department was in effect carrying out relatively simple functions with little or no discretionary power. The set-up was anything but close-knit, and the State Board of Agriculture with its inner executive committee did not lend itself to the positive action which would probably have resulted had a single official headed the Department. Boards of agriculture, however, were the accepted form of administration, as proved by the fact that in 1905 only eighteen States and two Territories were listed as having commissioners of agriculture or their equivalent, while twenty-seven States and one Territory were reported as having boards of agriculture.⁵⁷ The annual reports of the Iowa Board reflect surprisingly little dissatisfaction with the administrative organization of the Department.

There is some evidence, however, that the trend was in the direction of single-headed administrative agencies. At the annual State Agricultural Convention held in 1916, C. P. Norgord, Commissioner of Agriculture in Wisconsin, read a paper entitled "The State's Part in Agricultural Activities", in which he described the organization of the Wisconsin Department of Agriculture and outlined the lines of work which should be undertaken by an up-to-date agricultural department. The Wisconsin law, he reported, provided for a qualified individual as the head of the State Department, a man trained in agriculture and with a background of practical experience. He was given a term of office sufficiently long to help protect the position from political influence.⁵⁸

The reorganization bill which finally passed the legislature and was approved on April 6, 1923, was a truly constructive piece of legislation from the administrative point

⁵⁷ Iowa Year Book of Agriculture, 1905, p. 1112.

⁵⁸ Iowa Year Book of Agriculture, 1916, pp. 109, 110.

of view. The law of 1923 was later revised, but it remains the foundation upon which the Department of Agriculture of today has been built.

The act was primarily one of consolidation. Twelve existing administrative agencies were combined to form the new department: (1) the existing Department and its functions, with the exception of those relating to the State Fair; (2) the State Weather and Crop Service; (3) the Dairy and Food Department, formerly headed by the State Dairy and Food Commissioner; (4) the Department of Animal Health, formerly under the direction of the Commissioner of Animal Health; (5) the State Veterinarian Department; (6) the State Horticultural Society; (7) the Iowa Corn and Small Grain Growers' Association; (8) the Iowa Beef Cattle Producers' Association; (9) the Iowa State Dairy Association; (10) poultry associations which received State financial aid; (11) the responsibility for licensing and inspecting hotels and restaurants, formerly under the direction of the State Board of Health; and (12) the petroleum oil inspection service. In 1941 the General Assembly made the State Apiarist responsible to the Secretary of Agriculture.59

The multi-member board which had been the administrative head of the former Department was replaced with a single administrator to be known as the Secretary of Agriculture, who was to be popularly elected for a term of two years. The following functions to be performed by him were specifically enumerated by the General Assembly. He was to "encourage, promote and advance the interests of agriculture, including horticulture, live stock industry, dairying, cheese making, poultry raising, bee keeping, for-

⁵⁹ Laws of Iowa, 1923, Ch. 46, Sec. 1. The State Apiarist was appointed by the State Board of Education. See also Laws of Iowa, 1941, Chs. 154, 155.

estry, production of wool, and other kindred and allied industries."60

The Secretary of Agriculture was made a member of the State Executive Council, of the board in charge of the State Fair, and of the board of directors of the several associations mentioned in the consolidating act. It was hoped that in this way the advisory capacity of the Secretary would be developed without granting him outright control.

The years since its reorganization have witnessed a steady accretion of functions on the part of the Department of Agriculture. Succeeding legislatures have assigned to the Department new responsibilities — the eradication of bovine tuberculosis, the warehousing of grain, and regulation of the sale of livestock. By 1941 the Department of Agriculture enforced more than forty-five laws and employed a field force of thirty-three inspectors and nine district veterinarians. The Department was granted no discretionary powers, but its powers of regulation and control have become of tremendous significance both to the consumers and the businessmen of Iowa.⁶¹

Not all the activities of the Department have been regulatory, for it has supervised the work of a number of agencies, it has encouraged research, and it has been interested in furthering educational work among the people of Iowa. In order to appreciate the services rendered by the Iowa State Department of Agriculture and to understand its administrative structure, some of the more important agencies may be examined somewhat more in detail.

THE DAIRY AND FOOD DIVISION

In spite of the fact that its work is unknown to perhaps ninety per cent of the people whom it concerns, the Dairy

⁶⁰ Laws of Iowa, 1923, Ch. 46, Sec. 2.

⁶¹ Iowa Year Book of Agriculture, 1941, pp. 23, 75.

and Food Division of the Iowa State Department of Agriculture is carrying on each day tasks which are of immense practical importance to every consumer in Iowa. "Dairy and Food" is not an adequate title for this division; while it does administer the dairy and food laws, it enforces some thirty different laws in addition, and it "might well be called the Bureau of Standards and Inspection," for most of the work consists of the establishment and enforcement of standards through regular inspection." It is, perhaps, doing more than any other single agency in the State to protect the individual consumer in Iowa from purchasing inferior, adulterated, or harmful food products.

The roots of the present Dairy and Food Division lie far in the past. As early as 1827 the Legislative Council of the Territory of Michigan passed an act to regulate weights and measures.63 This act, later made applicable to Iowa, became the basis for the weights and measures law which is being enforced at the present. The division, however, grew out of the needs of the dairy industry. In 1872 John Stewart established the first Iowa creamery at Spring Branch in Delaware County. In 1876 the Iowa General Assembly appropriated \$20,000 for the purpose of providing an exhibit for Iowa at the exposition to be held at Philadelphia. Stewart requested that the Governor set aside \$1000 of this to be used to place Iowa butter on display, suggesting that the showing made by Iowa butter might help to break down eastern prejudice against western butter. Undaunted by the refusal of the State authorities to grant the funds, Stewart and a small group of creamerymen raised sufficient money to place twenty-nine packages of Iowa butter on display. Stewart's butter won first prize

⁶² Iowa Year Book of Agriculture, 1935, p. 40.

⁶³ Laws of the Territory of Michigan (published 1874), Vol. II, pp. 509-511.

and as a result a market for Iowa butter was established in the East.⁶⁴

The importance of the dairy industry increased by leaps and bounds in the years that followed. By 1881 the controversy over the use of substitutes for real butter was raging. There was no law to require proper and honest labeling of dairy products and substitutes were common. In self defense the producers of butter brought pressure to bear upon the General Assembly for legislation which would regulate the production of oleomargarine and put an end to the practice of passing off the imitation as the real thing. The General Assembly responded in 1886 by passing the act which marked the beginning of the Dairy and Food Division.

This act did not prohibit the manufacture and sale of oleomargarine and other butter substitutes, but made it mandatory that imitation butter and cheese be plainly marked as such. The Governor, with the consent of the Executive Council, was to appoint a State Dairy Commissioner, who was to be responsible for the enforcement of the act. The Commissioner was granted a salary of \$1500 per year, and the right to hire a clerk if necessary. An appropriation of \$20,000 for the first two-year period was included in the act. The regulations were to become effective on November 1, 1886, but the first State Dairy Commissioner took office on April 7, 1886.66

Nor were the functions of the State Dairy Commissioner long confined to the execution of a single act. In 1892 the General Assembly made it unlawful to distribute or sell

⁶⁴ Annual Report of the Iowa State Agricultural Society, 1894, pp. 514, 515, 1896, pp. 107-112.

⁶⁵ Annual Report of the Iowa State Agricultural Society, 1881, pp. 34-46.

⁶⁶ Laws of Iowa, 1886, Ch. 52, Sec. 17; Annual Report of the Iowa State Agricultural Society, 1886, pp. 20, 634.

impure milk of any kind. The State Dairy Commissioner was assigned the task of enforcing this act, and he was given the power to appoint an agent in every city of 10,000 or over. These agents were to collect samples of milk sold in their cities and forward them to the Commissioner. All milk dealers were required to secure permits from his office, and he was required to keep a register of them.

The Iowa State Pure Food Law⁶⁷ adopted in 1906 not only resulted in additional functions for the State Dairy Commissioner, but also increased his power and changed the title of his office to that of State Food and Dairy Commissioner. He was given an official seal, perhaps as an outward symbol of the additional powers he now exercised. He was empowered to appoint, with the approval of the Executive Council, such assistants as he needed. These were to do the work of the former milk inspectors. He was also to appoint a full-time chemist who was to make all examinations and analyses necessary to enforce the food law and detect adulteration. The State undertook to furnish him a laboratory and the necessary equipment.

The following year saw another piece of legislation enacted which expanded the services of the Food and Dairy Commissioner. The Thirty-second General Assembly passed an act regulating the sale of concentrated commercial feeding stuffs and agricultural seeds. Under the act the agents of the Commissioner inspected all such products sold, and the Commissioner furnished inspection tags to indicate that the check had been made. 68

The consolidation act of 1923 abolished the office of State Food and Dairy Commissioner and created instead the Division of Dairy and Food within the new-born Iowa State Department of Agriculture. Two important functions — oil

⁶⁷ Laws of Iowa, 1906, Ch. 166.

⁶⁸ Laws of Iowa, 1907, Ch. 189.

inspection and hotel inspection — were added to the twenty laws then being enforced. The inspection force was increased from eighteen to thirty-two, and the policy of having specialized inspectors for each line of work was changed to having each inspector do all the inspection work within his district. This change was made in spite of the fact that only three years previously the Commissioner had pointed out that specialized training was required for some of the inspection work, and that better results were achieved by having an inspector who was a specialist in his field than by trying to develop "jack-of-all-trades" inspectors. 69

The passage of the oleomargarine tax laws and the motor vehicle fuel inspection law added greatly to the division's work. The Cream Grading Law of 1935 also entailed considerable additional work for the Dairy and Food Division. Under the act the Secretary of Agriculture was ordered to issue licenses to qualified cream graders after they had passed an examination and demonstrated their ability to grade cream.

The work of the Dairy and Food Division during the year ending December 31, 1937, consisted in large part of enforcing the laws relating to the following twenty-eight activities which the General Assembly had assigned to its supervision: dairies, adulteration of foods, agricultural seeds, paints and oil, insecticides and fungicides, restaurants, containers, bread, bottling works, weights and measures, sanitation, cold storage, commercial feed, mattresses and comforts, eggs, hotels, Iowa trade marks, poultry marketing, oleomargarine, butter over-run, canning factories, cream-grading, seed potatoes, labeling, fertilizers, agricultural lime, petroleum products, and ice cream.

The multitude of laws which the Dairy and Food Division

⁶⁹ Iowa Year Book of Agriculture, 1920, p. 466.

had been given to enforce demanded an adequate number of inspectors. In 1937 the internal organization consisted of a chief of the division, a chief of inspectors, twenty-two dairy and food inspectors, four heavy-scale inspectors, six restaurant inspectors, a chief chemist, two assistant chemists, two motor fuel chemists, a seed analyst, a chief clerk, a license clerk, an assistant record clerk, four stenographers, and a messenger. This corps of men, constituting the oldest and perhaps most important agency included in the Iowa State Department of Agriculture, have the threefold duty of protecting the purity of the food supply for consumers; of protecting the many honest businessmen from the unscrupulous practices of the dishonest few; and of protecting the producers by increasing consumer confidence in the product and thus increasing consumption and preventing a search for substitutes.70

To aid in the enforcement of the twenty-eight statutes entrusted to the division, the General Assembly has made provision for thirty-four fees and licenses to be collected from those engaged in the business of handling these products. For the year ending December 31, 1937, the division collected a total of \$591,022.93 from inspection fees, licenses, and the oleomargarine tax. Expenditures for the same period totaled \$121,215.00, including general office and laboratory expenses. Thus the division paid for itself and had the tidy sum of \$469,807.93 left over to turn back into the general fund of the State.

THE ANIMAL INDUSTRY DIVISION

The Civil War was just drawing to a close when the stock raisers of Iowa began to look to the government for protection against the invisible enemies which threatened their cattle. The secretary of the Iowa State Agricultural

⁷⁰ Iowa Year Book of Agriculture, 1936, pp. 46, 47.

Society voiced the fears of the cattlemen in his report for the year 1865. He pointed out first that European herds were being decimated by a disease known as the "Rinderpest" and he recommended that the people of Iowa should insist that importation of stock from Europe be absolutely prohibited during the prevalence of the malady.⁷¹

But the Iowa farmers had troubles much closer home. The dreaded hog cholera was proving to be a serious menace in some localities at that time, and the outbreak of that disease meant that the help of the State was urgently needed. In the same report the secretary wrote: "In order to arrive at a rational plan of treatment, investigations should be made, even at a considerable outlay of money, if it were necessary, to determine the precise conditions of system which belong to the distemper." The need was clear enough, but the General Assembly was in no mood to take action on the matter.

Inactivity on the part of the legislature, however, did not imply a corresponding lethargy on the part of the bacteria responsible for stock diseases. As the years went on, county agricultural societies reported widespread losses among cattle due to new diseases, the more dreadful because they were at first unidentified. Because the sicknesses were so little understood, a wide variety of cures, many of them ludicrous and all of them of dubious utility, were proposed by individual farmers and reported by the county societies. The need for positive action became increasingly apparent, and once again it was the State Agricultural Society which voiced the needs of the farm interests. In contrast to its earlier and more generalized suggestions the recommendations made to the General

⁷¹ Annual Report of the Iowa State Agricultural Society, 1865, p. 9.

⁷² Annual Report of the Iowa State Agricultural Society, 1865, p. 10.

Assembly by the secretary of the Society in his report for 1871 were definite and explicit:

Causes, circumstances, facts, investigations, have led to well established laws of prevention or cure, and the amounts saved to the farmer, are beyond calculation. We recommend that a commission be appointed, whose specific duty it shall be, to bring all the aids of science to the investigation of these diseases. Let them be armed with full power to travel over the State wherever summoned, and to carefully observe all the surroundings of disease, wherever it may become prevalent. . . .

The commission might, with propriety, be selected by the State Board of Agriculture, and a sufficient sum of money placed in their hands to compass the desired results. Three thousand dollars would be sufficient for the ensuing two years.⁷³

The General Assembly, however, failed to act, and the following year the secretary repeated the recommendation that immediate action be taken by Iowa and other northwestern States to create commissions to investigate animal diseases.⁷⁴ But the legislature still did not consider the prevention of animal disease as coming within its province.

As early as 1882, the Governor began to receive numerous calls from farmers who realized that certain cattle diseases were assuming such proportions that they could no longer be dealt with by individuals. At that time no State agency existed which could provide such services, so the Governor called upon the Professor of Veterinary Surgery at the State College of Agriculture and Mechanic Arts and asked him to answer these calls. The willingness of the farmers to help defray expenses convinced the Governor that there was a real need for a State Veterinary Surgeon.⁷⁵

⁷³ Annual Report of the Iowa State Agricultural Society, 1871, pp. 33, 34.

⁷⁴ Annual Report of the Iowa State Agricultural Society, 1872, pp. 31-34.

⁷⁵ The beginnings of the Animal Industry Division are summarized in Harold M. Bowman's Administration of Iowa, pp. 141-143. The account extends only as far as the opening of the twentieth century, however.

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Governor Buren R. Sherman said in his first biennial message to the Iowa General Assembly on January 15, 1884:

These [glanders and pleuro-pneumonia] diseases are quite prevalent, and the State needs the services of a competent surgeon, to take these matters in quick and vigorous treatment.

In view of the growing importance of these dangers, and the necessity of prompt action, I earnestly recommend the appointment of a State Veterinarian, whose services would be invaluable, and that you make provision therefor. In my opinion he should be made a member of the State Board of Health, and thus the members thereof would be of mutual advantage to each other. I earnestly urge this matter, and trust it may meet favorable action at your hands.⁷⁶

The General Assembly acted upon this suggestion, created the office of State Veterinary Surgeon, and gave the Governor power to appoint and remove the new official. The State Veterinary Surgeon was given supervision of all contagious and infectious diseases among animals in or being brought into or taken through the State. With the concurrence of the State Board of Health and the Executive Council, he could draw up rules and regulations intended to prevent and suppress such diseases. At no time were wide powers vested in the State Veterinary Surgeon, but his authority included the destruction of diseased stock.⁷⁷

When the State Department of Agriculture was created in 1900, the State Veterinary Surgeon became an ex officio member of the State Board of Agriculture. This body was given the power "to investigate reports of the prevalence of contagious diseases among domestic animals, or destructive insects and fungus diseases in grains, and

⁷⁶ Benjamin F. Shambaugh's The Messages and Proclamations of the Governors of Iowa, Vol. V, p. 276.

⁷⁷ Laws of Iowa, 1884, Ch. 189.

grasses, and other plants, the adulteration of foods, seeds and other products, and to report the result of investigation, together with recommendations of remedial measures for prevention of damage resulting therefrom." The State Veterinarian's report was from time to time incorporated in the *Iowa Year Book of Agriculture*.

During the period from 1900-1911, the reports of the State Veterinary Surgeon indicate that he considered the work of his office very much a part of the Iowa Department of Agriculture and from 1900 until 1911 the Department maintained a standing committee entitled the Committee on Contagious Diseases among Domestic Animals. The State Veterinary Surgeon was a member of this committee. In 1911 the name was changed to the Committee on Animal Industry. In 1915 it was again changed, this time to Committee on Animal Husbandry, and this designation remained until 1923 when the Department was reorganized. In 1908 the State Veterinary Surgeon was given an office in the State Capitol, which resulted in "attending benefits through close association with the state administration, [which] have accomplished much toward placing the department in closer touch with the public interests."79

In 1911 the Thirty-fourth General Assembly created the Commission of Animal Health. It consisted of the State Veterinary Surgeon, who was the chairman and the executive officer, two veterinarians, and two stock raisers, all of whom were to be appointed by the Governor. The veterinarians were required to meet the same qualifications as those prescribed for the State Veterinary Surgeon, and they were given three-year terms of office. The stock raisers on the Commission were given two-year

⁷⁸ Laws of Iowa, 1900, Ch. 58, Sec. 6.

⁷⁹ Iowa Year Book of Agriculture, 1908, p. 360.

terms. This Commission was required to meet at least twice every year, in January and in July, and at any other times that the occasion demanded and they were paid on a per diem basis. The legislature gave the Commission what appeared to be a rather wide grant of power:

It shall have the power and authority to make such rules and regulations as it shall deem necessary for the prevention, suppression, or against the spread of any contagious or infectious disease among animals in or being driven or transported through or brought into the state, and may provide for the quarantining against animals thus diseased or that have been exposed to others so diseased, whether within or without the state.⁸⁰

However, in his report for 1912, the State Veterinary Surgeon, who had been chairman and executive officer of the Commission, pointed out that while its creation had been an important step forward, yet it was not as powerful nor as effective as it would appear, since it had "absolutely no power to inflict penalty for violation of rules nor dispose of an animal known to be affected with an infectious or contagious disease. The lack of proper power on the part of the department to dispose of such diseased animals is a source of considerable annoyance and criticism."

The act which created the Commission of Animal Health abolished the State Board of Veterinary Medical Examiners, and made the State Veterinary Surgeon and the two veterinarians of the Commission an examining board for applicants wishing to practice veterinary surgery.

The demands on this Commission increased steadily. In 1914 the agency had succeeded in eradicating an outbreak of foot and mouth disease in less than five months. To accomplish this, a strict quarantine was necessary, and

⁸⁰ Laws of Iowa, 1911, Ch. 115, Sec. 3.

⁸¹ Iowa Year Book of Agriculture, 1912, p. 555.

this encountered some opposition. The cost was borne jointly by the State of Iowa and by the United States Department of Agriculture. In 1916 the State Veterinary Surgeon requested an annual appropriation of \$100,000 in order to carry on livestock sanitary work in Iowa. Hog cholera control work became increasingly imperative, and the national government lent a helping hand by maintaining an inspector and twenty veterinary surgeons in the State at an annual cost of about \$70,000. The State Veterinary Surgeon subsequently recommended that the Iowa legislature ought to appropriate not less than \$50,000 for the work, and that there should be an official veterinarian in each county to assist in swine disease control work. State and Federal agencies to begin work on tuberculosis eradication.

In 1919 the Thirty-eighth General Assembly increased the size of the Commission of Animal Health by adding two more stock raisers, thus bringing the total membership to seven. In addition, a two-thirds vote of confirmation from the Senate was required on appointments made to the Commission by the Governor. The Commission then remained as it was until July 1, 1923, when it was consolidated with the reorganized Iowa State Department of Agriculture and renamed the Division of Animal Industry. In addition to its veterinary and disease-control work this division was given authority to issue permits for handling and manufacturing anti-hog cholera serum and hog cholera virus, to cooperate with the United States Department of Agriculture in the eradication of bovine tuberculosis, to enforce the law governing the disposal of dead animals, and to regulate the practice of veterinary medicine.83

⁸² Iowa Year Book of Agriculture, 1918, p. 460.

⁸³ Laws of Iowa, 1919, Ch. 238; Iowa Year Book of Agriculture, 1923, pp. 188-200, 1924, p. 7.

Since its merger with the State Department the history of the Division of Animal Industry is the story of slow but consistent development and progress, and conscientious service in behalf of the livestock industry and the livestock owners of Iowa. With several groups vitally interested in the services which the Division of Animal Industry has to offer, it has been possible to get these activities extended.

Perhaps the biggest single task which has faced this division has been the eradication of tuberculosis in livestock. In 1917 tuberculosis testing was first begun, on a voluntary basis. Beginning in 1923 the so-called county area plan was inaugurated, which provided that when 75 per cent of the cattle owners in a county had requested State T. B. testing, it was compulsory for the remaining 25 per cent to have their cattle tested also. The Iowa Secretary of Agriculture was given the authority to appoint an accredited veterinarian to take charge of eradication work in each county enrolled.

This plan was followed until 1929, when a statute was passed making it compulsory for all dairy and breeding cattle in Iowa to be tested. From the standpoint of tuberculosis eradication, this was a particularly significant step. It was followed in a few counties, however, by open opposition which resulted in the "Testing War" of 1931, in which the State militia had to be called out in order to enforce the law. 4 By the close of 1935, the Division of Animal Industry achieved a goal sought for eighteen years—placement of Iowa on the modified tuberculosis free accredited area list. This is an achievement of no mean proportions, for it implies that tuberculosis infection has been reduced to one-half of one per cent or less among dairy cattle in Iowa.

Although control of bovine tuberculosis has been the 84 Iowa Year Book of Agriculture, 1931, pp. 75, 76.

major occupation of the Division of Animal Industry, other animal diseases have also received attention. At the present time, hog cholera, infectious abortion (Bang's disease), anthrax, rabies, scabies, and equine encephalomyelitis (sleeping sickness in horses) are of prime importance and are being combatted. The State and the Federal government are coöperating in a control program for Bang's disease, with the result that in 1937 a total of 204,455 cattle were tested, and a large percentage of those infected were destroyed. The Forty-eighth General Assembly appropriated \$100,000 for eradication of Bang's disease, for the Federal government has refused to allot further money to States which do not match Federal funds.⁸⁵

Since 1924 the Secretary of Agriculture has been authorized to name three veterinarians as an examining board to license veterinarians who wish to practice in Iowa. Members of this board serve for three-year terms and are paid on a per diem basis, except any member who is already a full-time employee of the State Department of Agriculture. The board is responsible for the examinations given to applicants, and also for the certification of successful candidates.⁸⁶

A newly acquired function of the Animal Industry Division is the enforcement of the laws dealing with stallion registration and stallion liens. Although the Stallion Registration Division is listed as one of the miscellaneous divisions of the Iowa State Department of Agriculture, it would seem in reality to be a subdivision of the Animal Industry Division, especially since the chief of the latter division is in general charge of the registration work.

It was early recognized that if horse breeds in Iowa were to be improved, then action must be taken to insure horse

⁸⁵ Iowa Year Book of Agriculture, 1937, pp. 89-92.

⁸⁶ Code of 1939, Sec. 2777.

breeders that the stallions they were using for breeding purposes were in reality pure bred, and that the pedigree they showed was what it purported to be. Early legislation was not entirely satisfactory and in 1906 the Thirty-first General Assembly set up an act which required the owners of stallions claiming to be pedigreed to secure a certificate from the secretary of the Iowa State Board of Agriculture, in addition to the certificate received from the United States Department of Agriculture. This law is still the basis for the present stallion registration regulations in Iowa, but it has been frequently amended.⁸⁷

The internal organization of the Division of Animal Industry is relatively simple. The main office staff consists of the chief of the division, a secretary, a bookkeeper, and seven stenographers and clerks. There are then the nine district State veterinary tuberculosis inspectors and ten Federal veterinary tuberculosis inspectors, working coöperatively with the State division. There are also two Federal hog cholera control inspectors and a Federal scab eradication inspector. In addition there is a corps of some one hundred part-time State veterinarians, appointed by the State Department of Agriculture, paid on a per diem basis, and empowered to enforce all the rules of the Department, even though it involves the use of peace officers. This body of State employees, coöperating with the Federal agents, is responsible for the protection of Iowa's most fundamental industry.

THE DIVISION OF ENTOMOLOGY

A regular part of each year's *Iowa Year Book of Agriculture* is entitled "Report of the State Entomologist". Relatively few Iowans, except perhaps the few who have had occasion to make use of his services, know that the

⁸⁷ Laws of Iowa, 1906, Ch. 98, Sec. 5, 1907, Ch. 120, Sec. 4, 1909, Ch. 135.

State maintains such a division, and many, no doubt, wonder why taxpayers should contribute to its support. Yet this division, as is true of the other divisions included in the State Department of Agriculture, renders services which are of immense practical value to the individual consumer in Iowa, even though he may be unaware of it. What the Division of Animal Industry is to the work of cattle disease control, the Division of Entomology is to the work of plant disease control. It is the task of the State Entomologist to take the necessary measures which will prevent plant disease epidemics and to wage a continuing battle against plant pests of all kinds.

It is commonplace knowledge that the services of government tend to lag behind the wants and needs of the people. The protracted period of agitation which preceded the creation of the office of State Entomologist began five years after the creation of the Iowa State Agricultural Society. In the sixth annual report of the Society, for the year 1859, the secretary penned a paragraph which was destined to be reiterated annually, in only slightly modified form, for the next four and one-half decades, before the General Assembly saw fit to grant the request of its patient petitioners. Perhaps because the Society was so extremely young in 1859, the suggestion emanating from that body was modestly and discreetly phrased:

Whether the time has arrived for the State to employ an entomologist, or authorize this Society to do so, or whether we shall still be dependent upon the surveys of other States in many respects different from ours, is a question for your honorable body [the General Assembly] to decide.⁸⁸

The year 1871 was a particularly bad one for insect pests such as the potato beetle, the seventeen-year locust, the maple tree louse, the chinch bug, and the army worm. The

⁸⁸ Annual Report of the Iowa State Agricultural Society, 1859, p. 6.

secretary of the State Agricultural Society took the opportunity of pointing out that the lack of information concerning the steps necessary to check the ravages of these insects obviously demanded that Iowa, like her sister States of Illinois, Missouri, and others, should employ a State Entomologist. The job, he declared, would be one for an expert and it would be his duty to carry on research and to conduct experiments leading to better methods in the war on insects. Year after year the secretary, speaking for the Society, hammered away at this objective.

The Society was often joined in its demands by other groups whose interests were intimately affected by the ravages of insect pests, but as is often the case, it was a specific difficulty which led finally to action by the General Assembly. The San Jose scale was first discovered in 1870. It spread with amazing rapidity and it was not long before Iowa nurserymen had occasion to discover the immense destructiveness of this plant disease. Various States all over the country began passing legislation intended to prevent its spread, and Iowa felt the need for a similar statute. In 1896 the first serious attempt was made by nurserymen in Iowa to secure a nursery inspection law. That attempt failed, but at the session of the Twenty-seventh General Assembly, they tried again. This time they met with success; Iowa received its first nursery inspection law in 1898. This statute originally provided only that nursery stock to be shipped out of the county or out of the State had to be inspected, but in 1906 the law was changed, making it mandatory that stock sold locally also had to be inspected.90

Previous to the passage of this act, certain nurserymen in the State had requested the entomologist of the Agricul-

⁸⁹ Annual Report of the Iowa State Agricultural Society, 1871, p. 31, 1873, p. 35, 1878, pp. 38, 39, 1879, p. 8, 1881, p. 11, 1882, p. 8.

⁹⁰ Laws of Iowa, 1898, Ch. 53, 1906, Ch. 112.

tural Experiment Station of Iowa State College to inspect their stock, and he had been issuing certificates in order to meet the requirements of other States with which these nurserymen wanted to trade. The law of 1898 made this arrangement more or less permanent by providing that the entomologist of the Agricultural Experiment Station was also to serve as State Entomologist. He was given the power to appoint assistants and to fix their pay. He was also given the right to establish quarantines if necessary, to have destroyed or to personally destroy infected plants in order to prevent the spread of disease, and to inspect nursery stock coming into the State.

For several years the inspection work was light enough so that it could be handled by the State Entomologist alone, working during the summer months. However, the nursery business expanded with considerable rapidity, and by 1914 it was necessary to employ a full-time chief inspector and to provide him with temporary help during the busy season. This arrangement still obtains. Federal quarantines, demanding inspection at the point of destination, have added materially to the work of the division.⁹¹

The consolidation act of 1923 did not affect the State Entomologist. He remained an independent State official until 1927, when the Forty-second General Assembly passed the so-called "Iowa Crop Pest Act". The entomologist of the Iowa Agricultural Experiment Station was to be the State Entomologist. He was, however, made responsible to and put under the authority of the Secretary of Agriculture in the issuance of all rules and regulations, the establishment of quarantines, and other official acts. His office is not at the State House in Des Moines but at the Iowa State College at Ames, and his salary is paid by the college. The work of the State Entomologist's office can conveniently be

⁹¹ Iowa Year Book of Agriculture, 1933, pp. 68-73.

divided into four sections — crop pest control, insect identification, nursery inspection, and quarantine enforcement.92

The crop pest control activities are perhaps the most spectacular and receive more publicity than do any other activities of the State Entomologist. Within recent years major campaigns have had to be conducted against grass-hoppers and chinch bugs, and these have been directed by the State Entomologist. In 1934, for example, more than 3,000,000 gallons of creosote were used in the construction of chinch bug barriers in forty-seven Iowa counties, 3 while in 1937 grasshoppers were particularly prevalent and some 7600 tons of bait were used in ninety-three of Iowa's ninety-nine counties to combat the pest.

The State Entomologist is particularly empowered by the Iowa Crop Pest Act to keep informed on insect pests and diseases and the methods of treatment, and to make all rules and regulations necessary to make the act effective. In this work the Entomologist coöperates with the United States Bureau of Entomology and Plant Quarantine in order to better coördinate the insect control work in Iowa.

The need for the inspection of nurseries really called the Division of Entomology into existence, and this remains today one of the important duties. The Iowa Crop Pest Act which made the State Entomologist a part of the State Department of Agriculture, also provided that the nurseries of the State and nursery stocks should be inspected by the Entomologist, and that he should draw up such rules and regulations as were needed to carry out the act effectively. It has been ordered by the State Entomologist that all nursery stock coming into the State must be inspected and

⁹² Laws of Iowa, 1927, Ch. 68. Much of the following material has been taken from correspondence with the State Entomologist's office, August 17, 1937.

⁹³ Iowa Year Book of Agriculture, 1934, p. 89.

certified as being free from dangerously injurious insect pests and plant diseases. Imported stock is not necessarily inspected, provided that it bears adequate proof that it has been inspected in the State from which it is coming. In 1937 the Division of Entomology issued 184 of these certificates. Finally, all dealers of nursery stock must secure a dealer's certificate from the State Entomologist in order to carry on business.⁹⁴

A fourth part of the division's work consists of the enforcement of plant quarantines. In this the State and Federal governments coöperate, since Federal quarantines are enforced through the State Entomologist's office. Federal quarantines take precedence over those of the State. The State Entomologist is given rather wide power to prevent stock from entering or leaving the State in violation of quarantine. Examples of State quarantines which aroused considerable attention were those directed against the alfalfa weevil and especially against the European corn borer.

Considering the importance of the work being done by the Division of Entomology, its cost to the citizens of Iowa is small. In the year 1936, receipts of the division, including the legislative appropriation and the money derived from inspection and certificate fees, amounted to \$10,497.24. Expenditures for the fiscal year 1936, including salaries, traveling expenses, office supplies, and so forth, amounted to \$5,645.08, leaving a tidy sum as a balance on hand.⁹⁵

THE DIVISION OF WEATHER

To a State whose entire economy is centered upon agriculture, the collection and dissemination of complete and

⁹⁴ Regulation No. 3, C. J. Drake, State Entomologist, Iowa Department of Agriculture, Des Moines, Iowa, 1935, pp. 2-8; Iowa Year Book of Agriculture, 1937, p. 104.

⁹⁵ Budget Report for 1937-1939, pp. 81, 82.

reliable statistics on weather and climatic conditions, as well as crop and livestock production, necessarily represents an important function of the State. It is not surprising, therefore, that the history of the agency which collects this information almost parallels that of the State itself, and that the development of the agency reflects, at least to a certain degree, the development of agriculture within the State. The story of the Iowa Weather Division is the story of an administrative agency attempting to meet the needs of an expanding agriculture, an agriculture becoming increasingly scientific, threatened by depression from time to time, and growing ever more competitive.

The weather is usually of most immediate concern to farmers, but the medical department of the United States Army was really responsible for the beginnings of systematic collection of climatic data in the Iowa area. Early in the nineteenth century the surgeons or hospital stewards at all military posts were directed to keep a diary of the weather and to note items of importance relating to the climate. 96 In the early nineteenth century such observations were made and recorded in the Iowa area as follows: Council Bluffs military post, 1820-1825; Fort Armstrong (Rock Island), 1824-1835; Fort Des Moines, 1843-1846; Fort Atkinson, 1844-1846; and Fort Dodge, 1851-1853. These fragmentary records have been of some value in filling in the meteorological history of Iowa but the real beginnings for the Iowa Weather and Crop Bureau were laid by a voluntary meteorological observer, Theodore S. Parvin, whose useful career in Iowa began almost as soon as the Territory was established.

In 1838, T. S. Parvin began his observational work in Muscatine and continued it there until 1860, when he was appointed a professor at the State University. At Iowa

⁹⁶ Iowa Year Book of Agriculture, 1903, p. 121.

City he resumed his observations and continued them until 1873 or 1874, when the service was transferred to Dr. Gustavus Hinrichs, who had begun the organization of an Iowa weather service in December, 1871.97

The United States Weather Bureau had been established in 1870 and a regular and fully-equipped station was set up in Davenport, 1872, Keokuk and Dubuque, 1873, Des Moines, 1878, and Sioux City, 1889. The demand for climatic data for Iowa was great enough, however, so that it was felt by interested individuals that observations should be made by a much larger number of stations than were provided by the national service. Accordingly, in August, 1875, Dr. Gustavus Hinrichs invited "friends of scientific work" in all parts of the State to cooperate with him in setting up a series of Iowa weather stations, the purpose of which would be "to secure as complete a history of the weather of Iowa as possible, in order to furnish material for an exhaustive study of the climate of our State." He managed to set up sixty observation stations and regular observations were begun on October 1, 1875.98 Hinrichs

Sutton Parvin in the Iowa Masonic Library at Cedar Rapids, Iowa: "December 1, 1838. Commenced a Journal of the weather." See also First Annual Report of the Iowa Weather Stations in the Annual Report of the Iowa State Agricultural Society, 1876, p. 505; Iowa Year Book of Agriculture, 1903, p. 122. This account does not correspond in all details with an account found in the History of Johnson County, Iowa, from 1836 to 1882 (Iowa City, Iowa, 1883), pp. 537-543. In the latter account Parvin is credited with having begun his observations in Iowa City in 1861. Gustavus Hinrichs, in whose account this is to be found, states that his own observations began in Iowa City in 1871. It may be, however, that Professor Parvin continued his own observations even after Hinrichs began his.

State Agricultural Society, 1876, p. 499. These figures do not agree with those cited by the work listed below in this footnote. That source states that for the years 1876-1880 the work was carried on by 32 stations. "As this work is altogether gratuitous and voluntary, it will be seen that it was no small labor done for the public benefit; and the people who did it are worthy of perpetual

furnished the observers with blanks upon which to record their observations, and for the first seven months these were sent to Hinrichs three times a month, at his expense. In May, 1876, monthly reports were made, this time at the expense of the observers.

These reports were tabulated by Dr. Hinrichs and from them he prepared a short statement which he mailed out in the form of an advance proof to all the daily newspapers of the State, usually by the fourth or seventh day of the succeeding month. It must not be forgotten that these activities were financed entirely by Dr. Hinrichs and the observers themselves, as no appropriation for the work had been made by the General Assembly, although the need for such appropriation was keenly felt and duly voiced.

Dr. Hinrichs created the Central Station of the Iowa Weather Stations in Iowa City, and he constructed a Meteorological Observatory at his home, equipping it with a great variety of meteorological instruments. This was completed in May, 1876. His observations here were particularly valuable because they could be compared with the observations of Professor T. S. Parvin taken from 1861 to 1874. Dr. Hinrichs also published seven numbers of the Iowa Weather Review, consisting of some fifty pages summarizing the results of the volunteer observers.

Here was an agency born of necessity and nurtured by the voluntary efforts of a far-sighted group of citizens.⁹⁹

honor and gratitude, for such reports are of no value unless kept up faithfully for a series of years."—History of Johnson County, Iowa, from 1836 to 1882 (1883), pp. 540, 541.

⁹⁹ Writing in 1877 and reporting for the year 1876, Dr. Hinrichs was able to list 92 observation stations, located in nine State districts, which were coöperating with him in this voluntary service. The volunteer observers represented a great variety of occupations, including many doctors, druggists, farmers, lawyers, and professors. The youngest observer was Augusta Larrabee of Clermont, Fayette County, aged 14.— Annual Report of the Iowa Agricultural Society, 1876, pp. 5–8.

It is not surprising that the State finally took cognizance of an organization which was obviously meeting a real need of the people. In March, 1878, almost three years after the voluntary service had begun functioning, the Seventeenth General Assembly passed an act100 establishing a central station for the Iowa Weather Service at Iowa City. The previous work done by Gustavus Hinrichs obviously fitted him for the position of director of the station, and he was so named by the legislature, but the annual appropriation for the maintenance of the service was only \$1000 and there was a special proviso that "no part of said sum shall be used in payment of salaries to any officers, except for clerk hire". The General Assembly provided that the director was to establish volunteer weather stations throughout the State, supervise their activities, receive their reports, tabulate them, report these tabulations quarterly, and have them published as the Iowa Weather Report. The act left the Iowa Weather Service on a volunteer basis, and it made no provision for purchasing equipment for the observation stations, but Dr. Hinrichs was happy to have the public utility of the service recognized even in this small way.101

From this meager beginning has sprung a service agency of prime importance to the people of the State of Iowa. It has expanded, developed, and changed to meet the changing needs of the time, and the story of this development throws some light on how a State government meets the needs of its people.

¹⁰⁰ Laws of Iowa, 1878, Ch. 45.

[&]quot;In conclusion I beg leave to say that the expenditure of labor and money on my part has thus far amounted to a personal sacrifice to myself and my family, which it would be imprudent to continue, even if possible. . . . While willing and indeed anxious to continue to do the scientific work proper of this Weather service, and with proper aid to bring this service to a high degree of usefulness, it will be impossible to continue to bear the burden of the work and expense any longer."—Annual Report of the Iowa State Agricultural Society, 1877, p. 625.

During the period from 1878 to 1890 the Weather Service struggled along as best it could with its limited resources. Each year the annual reports of the State Agricultural Society brought a brief summary of the preceding year's weather, but it was incomplete and quite generalized. By 1884, however, statistical tables showing wind velocity, amount of rainfall, relative humidity, barometric pressure, temperature, and temperature deviations from normal appeared in the report. In 1890 the Weather Service was combined with the companion agency of crop reporting.

DIVISION OF AGRICULTURAL STATISTICS

While the Weather Service was developing, a need for complete and accurate reports concerning the crop conditions in Iowa became evident. This need was voiced, and an interesting prophecy made, in the annual report for the year 1859, when J. H. Wallace, secretary of the Agricultural Society, wrote:

The question of agricultural statistics is one of very great moment to the farmers of Iowa. . . . The general government has talked a great deal about collecting agricultural statistics, and has also done a great deal, but it is doubtful whether ever the general government can bring all the cumbrous machinery to work quick enough for the world to know what the crop amounts to before it is marketed. It is probable, then, that this work will have to be done by States, either through the State Agricultural Societies, or by some other agency. 103

An act of the Sixth General Assembly, passed on January 28, 1857, had made it compulsory for the various county agricultural societies to make a report on the condition of agriculture within their respective counties to the Board of Directors of the Iowa State Agricultural Society by December 1st of each year. Failure to do so was to be punished

¹⁰² Annual Report of the Iowa State Agricultural Society, 1884, p. 8.

¹⁰³ Annual Report of the Iowa State Agricultural Society, 1859, pp. 10, 11.

by depriving the society of twenty per cent of the amount which the society was entitled to draw from the State treasury.¹⁰⁴

The Tenth General Assembly, however, passed an act which met with the hearty disapproval of those who were interested in encouraging the county agricultural societies to report on the condition of agriculture in their respective counties. The act provided that State aid should be withheld from those societies whose annual receipts (excluding donations and appropriations made to purchase and equip fair grounds) exceeded \$500. The effect of this statute was summed up by Secretary J. M. Shaffer in his report covering the year 1864, when he said: "This virtually deprives the State Society and the people of Iowa of the usual annual reports on the condition of agriculture in some of the largest counties of the State." This act was repealed in 1868.

In the same report Mr. Shaffer went on to deplore the lack of a reliable system of procuring reliable agricultural statistics and he suggested a possible solution:

This Society might be made, with very little expense of time and money, the depository of agricultural statistics. The several members of the Board, at present, find their duties completed when the two annual meetings adjourn. Suppose that they should be subdivided into Committees, having in charge the leading agricultural interests of the State. The Chairman of each could, by addressing prominent individuals in each county, secure a series of facts of great value. Let there be, for example, a Committee on Sheep; let the Chairman arrange a circular as to the number, varieties, breeds, ownership, management, &c., of sheep in Iowa. Thousands of intelligent farmers would take pleasure in giving numbers, and detailing experiences.¹⁰⁶

¹⁰⁴ Laws of Iowa, 1856-1857, Ch. 188.

¹⁰⁵ Annual Report of the Iowa State Agricultural Society, 1864, p. 5; Laws of Iowa, 1864, Ch. 109, 1868, Ch. 136.

¹⁰⁶ Annual Report of the Iowa State Agricultural Society, 1864, pp. 6, 7.

At the meeting of the Board of Directors of the Iowa State Agricultural Society which convened in January, 1865, Mr. Shaffer put his recommendation in the form of a resolution, and it was unanimously adopted. Ten committees were appointed, dealing with sheep, cattle, hogs, grain, tame grass, groves, farm implements, general farming, fruit, and horses. It was determined that it should be the chairman's duty "to collect statistics and experiences on the particular subject to which he is appointed, and make full report to the society at the January meeting." 107

From this date until about 1870, these standing committees reported as instructed, and their reports were included in the annual report of the Society. The data presented was collected by means of circulars sent to farmers in all parts of the State, and the reports contain a fair sampling of the replies made by the farmers. These reports were probably inaccurate, and they could not be of maximum benefit because the information was not published until the following year and hence could not be of use in marketing.¹⁰⁸

By 1872 the desire for more complete and up-to-date reports on crops and market conditions began making itself felt again. The Society's annual report for that year made mention of the proposed international crop reports which would keep the farmers "as accurately acquainted with the crops and their possible effect upon the market as are the brokers and bankers and merchants in London, New York and Chicago." Nothing came of this particular idea and the need for more adequate reports continued.

Beginning in 1873 circular letters were sent to the secretaries of the county societies, reminding them of the law

¹⁰⁷ Annual Report of the Iowa State Agricultural Society, 1864, p. 91.

¹⁰⁸ Annual Report of the Iowa State Agricultural Society, 1880, pp. 9, 10.

¹⁰⁹ Annual Report of the Iowa State Agricultural Society, 1872, p. 10.

and providing them with blank forms designed to elicit more complete information concerning the condition of livestock, grain, and other crops, and also general information on matters of direct interest to farmers. As time went on, these reports became more and more comprehensive, and more of the counties participated in the project.

At the January meeting of the Board of Directors in 1881, the Board appropriated \$600 to inaugurate a system of monthly stock and crop reports. It developed, however, that the sum appropriated was not sufficient to issue reports during the entire summer, and only three reports were published, one in June, one in July, and one in August. The data were collected from a corps of nearly 900 correspondents located in all parts of the State, on circulars sent out by the secretary of the Iowa Society. These reports, coming from every township in Iowa, were first condensed into an article of usable length for the newspapers of Iowa, and then were expanded into a fifty-page pamphlet for distribution.

Some valuable lessons were learned from the first year's experiment. The appropriation of \$600 was insufficient to cover the cost of issuing monthly bulletins during the season when they were needed most, and a large staff was needed to do the work. Only 1500 of the reports were printed for distribution, and this number was found to be inadequate. It was the judgment of the secretary and the Board of Directors of the Iowa State Agricultural Society that the nature and benefits of the reports were such that the expense should be borne by the State as a whole, and consequently the secretary recommended that \$2000 was necessary to carry on the work adequately and that the General Assembly should appropriate this sum. A committee of the Society recommended that the crop reporters

¹¹⁰ Annual Report of the Iowa State Agricultural Society, 1873, pp. 328-331.

all over the State should "work up an expression of the general farmer's interests, and demand of the legislature immediate action". No action was taken by the General Assembly, however, until 1890 when the weather and crop services were reorganized and combined.

The Twenty-third General Assembly, meeting in 1890, established, in lieu of the Iowa Weather Service created in 1878, a Weather and Crop Service and placed it under the supervision of the Board of Directors of the Iowa State Agricultural Society. The new agency was designed to coöperate with the Signal Service of the United States. The purposes and objectives of the new service were stated by the legislature to be those of "collecting crop statistics and meteorological data, and more widely disseminating the weather forecasts and storm and frost warnings, for the benefit of producers and shippers of perishable products, and to promote a general knowledge of meteorological science and the climatology of the State." 112

The act provided that the central station of the new agency should be located in Des Moines, and gave the Governor the power to appoint the director of the Service for a two-year term, stipulating that the Board of Directors of the Iowa State Agricultural Society were to recommend a man to the Governor to serve as director. The assistant director was to be an officer of the United States Signal Service, appointed by the Chief Signal Officer of the national agency. This provision is interesting in light of the fact that it pointed the way and provided a working example for the coöperation between the Federal and State agencies concerned with providing services to the farmers of the nation.

The General Assembly was not lavish in its appropria-

¹¹¹ Annual Report of the Iowa State Agricultural Society, 1881, p. 222.

¹¹² Laws of Iowa, 1890, Ch. 29.

tion for the Iowa Weather and Crop Service. An annual sum of \$2500 was set aside for the expenses of the service, with the proviso that the salary of the director should be limited to \$1500. Thus the new agency remained, for the most part, on a volunteer basis, but it had the advantage of being sponsored by the State government and having its major expenses defrayed from the public funds.

In 1900, when the Twenty-eighth General Assembly abolished the Iowa State Agricultural Society and created in its stead a Department of Agriculture, the new Department embraced, among other things, the Iowa Weather and Crop Service. The relationship between the State Department and the Service was never made very specific, provision being made only for "general supervision" on the part of the Department. The legislature ordered that the Iowa Year Book of Agriculture, which took the place of the Annual Report of the Iowa State Agricultural Society, was to contain a report and summarization of the Weather Service's activities for the year, and from 1900 onward the report of the Iowa Weather and Crop Service constitutes a separate and distinct section of the Iowa Year Book of Agriculture.

The year 1919 saw an extension of the coöperation of this State service agency with organs of the Federal government. A coöperative arrangement was entered into, whereby the Bureau of Crop Estimates of the United States Department of Agriculture, through its Iowa field agent, coöperated "in the collection of acreage, condition, yield and other crop statistics." ¹¹³

As the automobile came into more widespread use, the people of the State demanded a further service of the Weather and Crop Service. In both 1919 and 1920 the director mentioned in his annual report that many demands

¹¹³ Iowa Year Book of Agriculture, 1919, p. 681.

were being made for information as to the condition of the roads of the State. Both long-distance and local calls were coming in and inquiries were constantly being made concerning detours due to rain, but, the director complained, the service rendered was not as satisfactory as it ought to be because of the lack of funds.

In 1921 the General Assembly established the State Weather and Crop Service Bureau in place of the former agency.¹¹⁴ The organization was left essentially as before, with the exception that it was stipulated that the director should be an officer of the United States Weather Bureau if one were detailed for that purpose. The act provided that the township assessors should collect agricultural statistics, and that it was one of the duties of the director to design and distribute blanks which were suitable for this purpose. It was also the director's task to arrange these statistics for the annual *Iowa Year Book of Agriculture*.

At this time the General Assembly appropriated \$7500 for the work of the new bureau, stipulating that not more than \$2520 was to be used in payment of the director. As previous annual appropriations had totaled only \$3700, this represented an increase of \$3800. This increase was due to the fact that the added duty of compiling the agricultural statistics gathered by the township assessors was placed in the hands of the bureau, a task which it had not had previously.¹¹⁵

The United States Weather Bureau bore the expense of sending daily weather forecasts by telegraph to 64 towns, from which centers the forecasts were sent by telephone to 38,263 rural subscribers and 145,801 town subscribers. Frost warnings were sent to orchardists whenever weather conditions warranted. The year 1922 saw the beginnings

¹¹⁴ Laws of Iowa, 1921, Ch. 178.

¹¹⁵ Iowa Year Book of Agriculture, 1921, p. 45.

of weather forecast distribution by radio, when station WOI of Iowa State College at Ames initiated them in June of that year. During the same year stations WOC at Davenport, WEAB at Fort Dodge, WKAA at Cedar Rapids, and WEAU at Sioux City began similar broadcasts. 116

The year 1923, important as the year in which the Iowa State Department of Agriculture was thoroughly reorganized, saw the Iowa Weather and Crop Service Bureau consolidated into the reorganized Department. The General Assembly made no changes in the duties of the Bureau, nor did it alter the method of selecting the director, who was still to be appointed by the Governor.¹¹⁷

In an act approved on March 25, 1937, the General Assembly abolished the Iowa Weather and Crop Bureau and replaced it with a Weather Division and a Division of Agricultural Statistics within the Department of Agriculture. The act provided that the two newly-created divisions were to coöperate with the United States Weather Bureau and the United States Bureau of Agricultural Economics, respectively, and in consequence of this, coöperative agreements were entered into on July 1, 1937, with both Federal agencies.

The Weather Division was placed under the direction of the United States Weather Bureau, and its director was to be an officer of the Federal agency if one were detailed by the government for this purpose. Appointment was vested in the hands of the Secretary of Agriculture, but the power seems to be nominal only, for the Director of the Weather Division is a Federal employee, subject to civil service regulations. In addition to its usual activities of establishing and supervising the volunteer weather observation stations

¹¹⁶ Iowa Year Book of Agriculture, 1922, p. 562.

¹¹⁷ Laws of Iowa, 1923, Ch. 46.

¹¹⁸ Laws of Iowa, 1937, Ch. 108.

in all parts of the State, publishing weekly weather and crop reports and monthly weather reports, the Weather Division collects statistics of hailstorms and tornadoes, conducts research on the relationship of the flowering and fruiting of corn plants to climate, known technically as corn phenology, and continues the corn moisture testing program begun in 1928.

The Division of Agricultural Statistics is under the direction of the United States Bureau of Agricultural Economics and is headed by a man appointed by the Secretary of Agriculture, but the law stipulates that he is to be an official of the Federal agency, if one is assigned for the purpose. The main work given this division is to gather, compile, and publish agricultural statistics of value to the farmers of Iowa, publish monthly crop and livestock estimates, and to tabulate the farm statistics gathered by the township assessors of Iowa and publish them in the Iowa Year Book of Agriculture.

The purpose of the entire reorganization in 1937 was to eliminate overlapping and duplication of effort on the part of similar State and Federal agencies. It was felt, likewise, that by pooling the resources of both, better service could be offered to the farmers of the State and greater success might be achieved in coping with the ever-increasing demand for these services.¹¹⁹

This, then, is the study of the creation and reorganization of the Iowa State Department of Agriculture. Slow growth has made it what it is. Born of the needs of an agricultural people, it has developed in the light of those needs, slowly, cautiously, democratically. The services it renders are seldom startling or dramatic, but they are essential nonetheless. Though he seldom comes into direct contact with the personnel of the Department, the average con-

¹¹⁹ Iowa Year Book of Agriculture, 1937, pp. 381, 382.

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sumer is being protected better than he knows, and the producers of agricultural products are demanding and receiving regulatory and inspectional services which protect them.

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