

**PART I**

**History and Summary of Data**

**Data from County Demonstrations  
during the 12 years 1904 to 1915,  
involving about 75,000 field plots**



# **1. History, Purpose, and Plans of Demonstrations**

**W**HEN PERRY G. HOLDEN came from Illinois in 1902, to become Head of the Department of Agronomy at Iowa State College, he brought with him a keen appreciation of the poor quality of the seed corn that was being planted by Corn Belt farmers.

While at the University of Illinois, Professor Holden had obtained from many farmers samples of seed which he planted side by side and had observed "tremendous differences in apparent yield and quality of corn grown from them."

He began at once to impress Iowa people with the notoriously poor seed corn that was being planted in Iowa. He did this in the classroom, at the Winter Short Course School, at Farmers' Institutes, and at every other opportunity.

Early in 1903 Professor Holden went to Hull, Iowa, to speak at the Sioux County Farmer's Institute. There a discussion developed as to whether crop experiments conducted at the State Agricultural Experiment Station, 200 miles distant, would be expected to apply equally well to the conditions of Sioux County. It was then that Professor Holden suggested the idea of locally conducted experiments and demonstrations, the local community to provide the land and labor and certain other local costs. (See Fig. 1.1.) As a result, a plan was developed, with the help and cooperation of the County Supervisors, for extensive

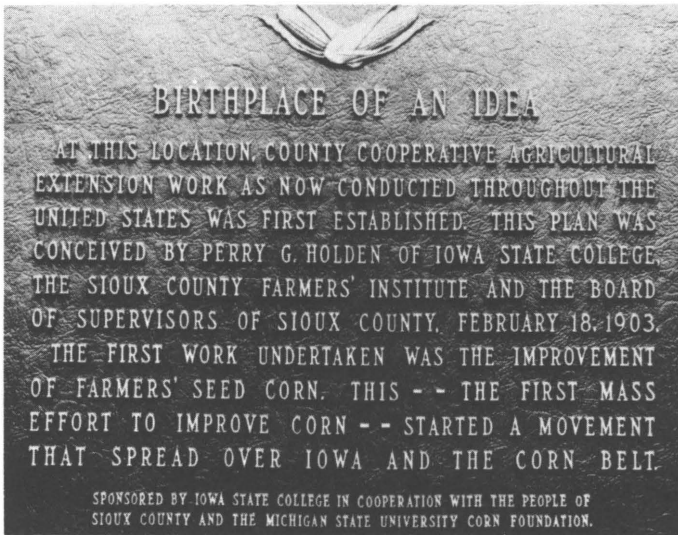


Fig. 1.1. Plaque commemorating the establishment of cooperative agricultural extension work. Dedicated at Hull, Iowa, August 22, 1957.

demonstrational plantings with corn on the Sioux County Farm in the spring of 1903.<sup>1</sup>

### THE FARMERS' VARIETY TESTS WERE THE FIRST DEMONSTRATIONS

The first demonstration undertaken in Sioux County was what came later to be known as the "Farmers' Variety Test." This and other tests were planned as demonstrations rather than experiments. However, the results came to have great value in college and extension teaching.

Other demonstrations were included in later years, and as the work spread to other counties four tests became standard practice. They were:

<sup>1</sup>R. K. Bliss, *History of Agricultural and Home Economics Extension in Iowa*, Iowa State University, 1960, pp. 24 - 37.

Farmers' Variety Tests  
 Introduced Variety Tests  
 Thickness of Planting Tests  
 Single Ear Tests

Other tests were included during the later years, namely:

Depth of Planting Tests  
 Butt, Middle, and Tip Kernel Tests  
 Individual Ear Germination Tests

The extent to which the different demonstrations were conducted is shown in Figure 1.2. Statistics for these demonstrations are as follows:

<u>Name of Demonstration</u>	<u>Number of Demonstrations</u>	<u>Number of Counties</u>	<u>Number of Years</u>
Farmers' Varieties	97	43	13
Introduced Varieties	73	35	8
Thickness of Planting	143	32	8
Single Ears	151	33	7
Depth of Planting	21	14	2
Butt, Middle, and Tip Kernels	17	11	2
Individual Ear Germination	12	10	4

The number of counties in which demonstrations were conducted each year were:

<u>Year</u>	<u>Number of Counties</u>	<u>Year</u>	<u>Number of Counties</u>
1903	1	1910	9
1904	5	1911	16
1905	8	1912	10
1906	10	1913	6
1907	7	1914	1
1908	12	1915	15
1909	8		
		Total	108

### WHO DID THE WORK?

The first work was under the immediate direction of Professor Holden, ably assisted by L. C. Burnett and J. W. Jones, assistants in the Department of Agronomy.

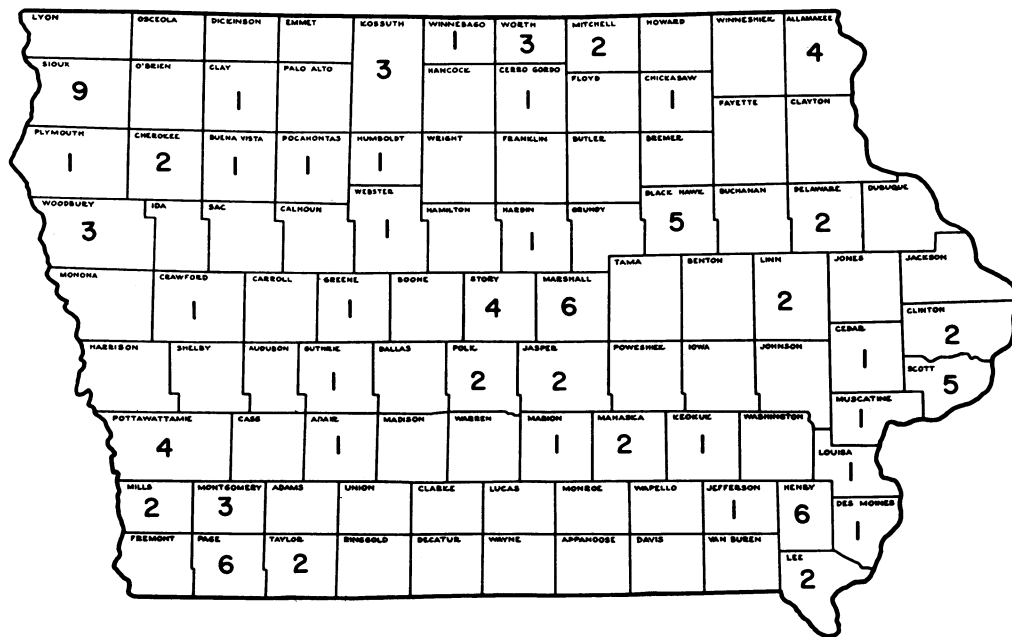


Fig. 1.2. Counties and numbers of years in which demonstrations were conducted.

Students, interested alumni, and local farmers were employed to help with the planting and harvesting. As a senior student I helped harvest the plots on the Story County Farm in 1904. Professor Holden's name appears as senior author of all reports published prior to 1911.

The Farm Crops Specialist was given the responsibility of directing the work of the demonstrations when the Iowa State College Extension Department was organized as of August 1, 1906. As the crops specialist, I had charge under Professor Holden's supervision from the summer of 1906 until the summer of 1912, except during the fall of 1908 and the year 1909. A. H. Snyder, Soils Specialist, directed the work during that time.<sup>2</sup>

Professor Snyder deserves much credit for having prepared reports of the demonstrations in eight counties in 1909 and having them published as Demonstration Reports Numbers 1 to 8. The publication of such reports was continued until 1915, which was the last year that the demonstrations were conducted. Copies of Demonstration Farm Reports, Numbers 1 to 62, are to be found in the Iowa State University Library.

The names of J. A. King in 1908, A. E. Nelson in 1909, and Murl McDonald in 1911 appear as co-authors of the published reports. P. C. Taff was in charge of the project from the fall of 1912 until 1915, which was the last year for which reports were published. After County Extension Services were organized, the county agricultural agents assisted the crops specialist in conducting the demonstrations in their respective counties. The following names of county agents appear on the reports published from 1913 to 1915: Clinton in 1913 and 1915, M. L. Mosher; Scott in 1914 and 1915, G. R. Bliss; Muscatine in 1915, J. W. Merrill; Black Hawk in 1915 (A. A. Burger was county agent but his name does not appear on the report); Des Moines in 1915, A. L. Higgins; Henry in 1915, Don E. Fish; Marion in 1915, Ben Walker. Murl McDonald's

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<sup>2</sup>During 1908 and 1909 I was employed by two large hacienda owners in Mexico on a corn improvement project. (See Chapter 12.)

name appears as joint author of reports for Adair, Hardin, and Webster Counties in 1915.

### PLAN OF CONDUCTING THE COUNTY FARM DEMONSTRATIONS

The Iowa Legislature enacted legislation in 1906 authorizing the County Boards of Supervisors to appropriate not more than \$300 annually to pay the expenses of conducting demonstrations on the County Farms, under the supervision of the Extension Department of the College. (County Boards took care of such expenses without special authorization previous to 1906.) The County Boards appropriated funds for such demonstrations on the request of interested groups of local people, such as Farmers' Institutes and Short Course Schools.

Detailed plans for the demonstrations are given with the results in succeeding chapters.

Field meetings were held on the County Farms in the early fall of each year, to which thousands of farmers came to observe the lessons taught by the demonstrations. In reporting the work of the Farm Crops Division of the Department of Agricultural Extension for the year ending June 30, 1907, the dates of holding these meetings in 1906 and the approximate attendance are listed as follows:

<u>County</u>	<u>Near what Town</u>	<u>Date</u>	<u>Attendance</u>	<u>Notes</u>
Sioux	Orange City	Sept. 27	2,000	
Kossuth	Algona	Sept. 5	200	Afternoon only
Chickasaw	New Hampton	Sept. 22	1,000	
Greene	Farlin	Sept. 14	800	
Story	Nevada	Sept. 25	800	
Polk	Saylor	Sept. 11	600	Rainy day
Montgomery	Red Oak	Sept. 20	800	Rainy day
Page	Clarinda	Sept. 19	300	Rainy day
Taylor	Conway	Sept. 18	600	Rainy day
Total attendance in nine counties			7,100	



The plan at these meetings was to visit the plots in the forenoon, with an explanation of the work and results presented by some member of the Extension Service. Basket dinners were then enjoyed under the trees, after which there was a program of a general agricultural nature, in which local people and one or two from the college took part.

The results of the demonstrations were used in giving instruction at the college, on educational trains, at Farmers' Institutes, at Short Course Schools, in Chautauqua lectures by Professor Holden, and in general publicity. Local newspapers published reports of work in their respective counties.

### THE BASIS FOR THIS REPORT

I summarized the data that had accumulated during the years of 1904 to 1911 and prepared manuscripts for four extension bulletins during the spring of 1912 as follows:

*Comparative Value of Seed Corn Planted by Different Men*

*Imported and Seed House Seed Corn Compared With Home Grown Seed*

*A Study of Single Ears of Seed Corn*

*Thickness of Planting Corn*

I was transferred from the Extension Department staff at Ames September 1, 1912, to become the County Agricultural Agent in Clinton County, Iowa. The bulletins were not published and the original manuscripts and all other records previous to 1909 have disappeared. However, I had kept carbon copies of the four manuscripts. These manuscripts and the published reports for the years of 1909 to 1915 provide the data summarized in this report.

THE FARMERS' VARIETY TESTS WERE THE  
MOST IMPORTANT DEMONSTRATIONS

The Farmers' Variety Tests were the first demonstrations conducted on the County Farms and were probably the most important. However, in this report the Thickness of Planting Tests will be considered first, because of their importance in interpreting the results of the Farmers' Variety Tests, and all other tests.<sup>3</sup>

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<sup>3</sup>Only summaries of the results of demonstrations are shown in this report. Detailed tables of all data for all demonstrations are filed in the libraries at the Iowa State University, the University of Illinois, and Michigan State University to serve as a supplement to this book. Carbon copies of the lost manuscripts are included in the supplement filed in the Iowa State University Library.