

South Dakota State University
**Open PRAIRIE: Open Public Research Access Institutional
Repository and Information Exchange**

Theses and Dissertations

1954

History of the South Dakota Crop Improvement Association

Jason S. Webster

Follow this and additional works at: <https://openprairie.sdstate.edu/etd>

Recommended Citation

Webster, Jason S., "History of the South Dakota Crop Improvement Association" (1954). *Theses and Dissertations*. 2285.
<https://openprairie.sdstate.edu/etd/2285>

This Thesis - Open Access is brought to you for free and open access by Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

HISTORY OF THE
SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION

288541
+ 85 W
of
4822384

By

Jason S. Webster

A thesis submitted
to the faculty of South Dakota
State College of Agriculture and Mechanic
Arts in partial fulfillment of the requirements for
the degree of Master of Science

December 1954

SOUTH DAKOTA STATE COLLEGE LIBRARY

HISTORY OF THE
SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION

By
Jason S. Webster

This thesis is approved as a creditable, independent investigation by a candidate for the degree, Master of Science, and acceptable as meeting the thesis requirements for this degree; but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

ACKNOWLEDGEMENTS

The author wishes to express his appreciation to Dr. W. W. Worzella, Head of the Agronomy Department, U. J. Norgaard, Extension Agronomist, Dr. A. N. Hume, Agronomist, and the Agronomy staff members for their supervision and kind encouragement in preparing this history.

Dedicated To

Those who have done so much to
stabilize South Dakota agriculture by
fitting crops to South Dakota environment



"The Pride of Toil"

William Naessig, Webster, South Dakota, - typical
of all crop improvers.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
SOUTH DAKOTA CORN GROWERS AND CORN BREEDERS ASSOCIATION	2
SOUTH DAKOTA CORN GROWERS AND GRAIN GROWERS ASSOCIATION	8
SOUTH DAKOTA EXPERIMENTAL ASSOCIATION	30
SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION	32
Articles of Incorporation	33
Constitution	36
SEED COUNCIL OF SOUTH DAKOTA	46
SEED EXCHANGE	51
PROGRAM COMMITTEE REPORT	56
1935 WEED LAW PASSAGE	56
1935 WEED LAW REVISION	61
Its Effect on Seed Certification	61
HYBRID CORN CERTIFICATION	65
FOUNDATION SEED STOCKS CORPORATION	69
SEED CERTIFICATION POLICIES (1944)	71
PASSAGE OF 1945 WEED LAW	73
AGRONOMY SEED HOUSE AND GREENHOUSE	73
1947 LEGISLATION - CERTIFICATION SERVICE	75
SOILS TESTING LABORATORY	79
1950 OBJECTIVES FOR IMPROVING RESEARCH	84
Attempt to Attain the Objectives	87
Controversy that Followed	88
PLANT PATHOLOGY AND BOTANY GREENHOUSES	91

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	95
AN ANALYSIS OF THE PHILOSOPHY THAT MOTIVATES THE ORGANIZATION	101
APPENDIXES	104
County Constitution	105
State Weed Law	107
Methods of Handling New Crop Releases	111
Agreement Between a County Crop Improvement Association and the Grower of the Original Foundation Seed Release	113
Procedure in Certification	114
Twenty Essential Steps in Production of Certified Seed	116

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. "The Pride of Toile"	
2. A. J. Wimple, originator of Wimple's Yellow Dent	17
3. H. E. Dawes, originator of Fulton Yellow Dent	17
4. A. J. Wimple's Certificate of Merit	17
5. Dr. A. N. Hume discussing crop rotation at a field day at Eureka	20
6. Aboard the Alfalfa and Sweet Clover Special	43
7. Registered Trade Mark of the South Dakota Crop Improvement Association	44
8. Edgar S. McFadden addressing a seed growers school in Aberdeen February, 1931	51
9. Cup	52
10. Dr. A. N. Hume, U. J. Mergaard and C. J. Franzke in conference regarding early corn inbreds	65
11. Seed Certification Committee meeting in 1946	75
12. Plant Breeding Greenhouse facilities prior to 1947	77
13. The new Agronomy Seed House and Greenhouse	77
14. Dr. Wayne Adams explaining alfalfa breeding in the new green- house	78
15. Sweet clover exhibit at the 1949 State Crop Show	81
16. C. J. Franzke, the originator of several sorghum varieties tailored for the northern great plains	82
17. Board of directors meeting in 1951	85
18. Grass exhibit that was displayed at various meetings in the United States	86

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
19. Governor Sigrud Anderson, State College President Hendley, and E. G. Sanderson, President of the South Dakota Crop Improvement Association	90
20. T. W. Strachan, County Agent for Lyman County prepared outstanding crop show exhibit	92
21. U. J. Norgaard and William P. Peterson admiring Mr. Peterson's prize Redwood Flax at the 1953 Crop Show	93
22. "Satisfaction of a job well done" is the premium that counts. Joe Arnsberg, Lyman County.	94

INTRODUCTION

A history of the South Dakota Crop Improvement Association cannot be confined to only facts, dates, and personalities involved in the progress of an organization, but must embody the determined and arduous efforts of our forefathers in evolving a stable and permanent agriculture for South Dakota.

It also entails to some degree, the history of crop production in the state and suggests the evolution of many of our present day crop varieties and cultural practices. The importance of the work of our crop and soil scientists and the methods of disseminating their findings to the farmers is closely linked to the history of the Association.

In order to keep the history in chronological order and simplify future additions, it has been arranged according to the Association's yearly activities.

A number of resolutions that were passed at annual meetings are quoted in the history to show the trend in the thinking of the leaders of the Association. It is quite evident that the interests of the leaders of the Association have always been exceedingly broad and covered many phases of agriculture. They were constantly striving for ways of improving research in agriculture and improving methods of informing farmers of the results of research. The resolutions show that occasionally the Association became over-zealous in world affairs outside of agriculture and it was necessary for the more astute members to guide the thinking back to agriculture with emphasis on crops and soils. Interest in postal rates and child labor laws are examples.

Examples of the programs used at annual meetings also show a diversity of interests. These programs included outstanding men from all parts of the country. The emphasis was often on world economics and its effect on farm prices; also on cooperative marketing.

SOUTH DAKOTA CORN GROWERS AND CORN BREEDERS ASSOCIATION

The history of the South Dakota Crop Improvement Association began with the organization of the South Dakota Corn Growers and Corn Breeders Association.

A temporary organization of corn growers was formed at the Corn Palace in Mitchell on September 28th, 1906, for the purpose of conducting a corn show and corn school.

The following officers and committees were selected for the temporary organization:

A. E. Chamberlain of Howard, S. D., President

H. C. Warner of Forestburg, Secretary

Committee of Premium list

A. J. Wimple, Beresford

Prof. John S. Cole, Brookings

H. C. Warner, Forestburg

Committee on Printing and Program

Arthur Linn, Canton

C. E. Twamley, Alexandria

J. W. Parmley, Ipswich

Committee on Constitution and By-laws

P. W. Peterson, Vermillion

Joseph Miller, Hudson

C. B. Kennedy, Madison

At this meeting, the date for a corn school was set for December 18, 19, and 20, at Mitchell, South Dakota.

The corn school was held as planned and conducted by Prof. John S. Cole

of South Dakota State College and Prof. A. N. Hume of the University of Illinois (later Head of the Agronomy Department at South Dakota State College).

The school consisted of the following Program:

Tuesday, December 18, 1906

- 1:15 Address of Welcome, Mayor Branson
Response, President A. E. Chamberlain
1:30-4:30 Corn School, Prof. A. N. Hume and Prof. John S. Cole
7:30 Music
7:40 Address, "Corn Improvement," Prof. A. N. Hume

Wednesday, December 19, 1906

- 10:00-4:30 Corn School, Prof. A. N. Hume and Prof. John S. Cole
7:30 Music
7:40 Lecture, "Past, Present and Future of Corn in South Dakota," Hon. A. E. Chamberlain

Thursday, December 20, 1906

- 10:00 Address, "Improvement of Corn by Selection," John W. Brenner
11:00 Address, "Should we have County Experimental Stations?", H. C. Warner
1:30 "Deep or Shallow Cultivation," Frank Sherwin, Brookings County,
E. C. Ashford, Brown County, Wm. Slade, Hanson County, Wm. Bailey,
Minnehaha County, A. L. Van Osdel, Yankton County. (Each speaker
limited to 5 minutes.)
3:00 Address, "Picking and Caring for Seed," C. E. Twamley
3:45 Address, "Advantages of Corn in Rotation of Crops," Prof. J. S. Cole
7:30 Music
7:40 Address, "Corn in Commerce," Prof. Van Benthuyzen
8:30 Address, "Agriculture in Public Schools," Prof. E. C. Perisho

While this Corn School was being conducted, a permanent organization was formed and the following Constitution and By-laws were adopted:

CONSTITUTION

Article I

This Association shall be known as the South Dakota Corn Growers and Corn Breeders Association.

Article II

The object of this Association shall be to create a deeper interest in the production of the corn crop in general, and the breeding of corn, with the idea of increasing the yield and the development of a more uniform and systematical type of Seed Corn.

Article III

Any person may become a member of this Association by signing the constitution or by sending his name and address to the secretary, and who is willing to use his influence in advancing the cause.

Article IV

The officers of this Association shall be a president, vice-president, secretary, treasurer, and one director from such of the three districts as outlined by the divisions established in the present exhibition.

These officers shall constitute an executive board, of whom a majority shall constitute a quorum for the transaction of business and the duties of these several officers shall be as set forth in the by-laws of this organization.

Article V

The time of the annual meeting of this Association shall be decided upon by the executive board and the place of meeting shall be Mitchell, Davison County, South Dakota.

Article VI

This Association at any of its annual meetings may make amendments to this constitution, may adopt additional by-laws, or transact any other business not inconsistent with the aims and purposes of this Association by a majority vote of the members present.

By-laws

Section 1--It shall be the duty of the president to preside at all meetings of the Association, to decide all questions or recommendations he may deem to the best interest of the organization.

Section 2--It shall be the duty of the vice-president to aid the president in his duties and in his absence assume his official authority.

Section 3--It shall be the duty of the secretary to attend all meetings of the Association and executive board and keep correct minutes and records of their proceedings and perform all other clerical duties ordered by them.

Section 4--It shall be the duty of the treasurer to keep a correct account of the monies received by him and shall disburse the same upon order of the executive board and shall at such annual meeting make a report of the condition of the finances of the Association.

Section 5--The executive board shall consist of the president, vice-president, secretary, treasurer and three directors of the several districts, and be the governing body of the Association. They shall have power to appoint committees, assign their duties, and perform any other act which shall in their judgment tend to stimulate interest in the work, aims, and objects of this Association as heretofore set forth.

Section 6--This Association shall conduct at its annual meeting a corn show and judging school for the benefit and edification of its members.

Section 7--An exhibit shall consist of ten ears of any established class of dent corn, and no exhibitor shall be allowed more than one entry of the same variety.

Section 8--The Association shall offer a First, Second, and Third premium for the highest scoring individual entry of each variety as designated by the premium list as issued by the executive board each year, but no entry covering less than seventy-five shall be awarded a premium.

Section 9--Each county shall be allowed and is requested to make a County Exhibit and a First, Second, and Third premium offered as agreed upon by the executive board.

Section 10--No individual exhibit shall enter into or be made a part of a County Exhibit. The county having the ten highest average scoring exhibits entered as such, shall be awarded First premium. The county with the ten second highest scoring exhibits shall receive the Second premium, and the county with the ten next highest scoring exhibits shall be awarded Third premium. These premiums shall be divided prorata among the winning exhibitors entering into such county exhibits.

Amendment I

To establish improved types and breeds of corn which shall in the best possible way meet the needs of South Dakota corn growers to promote the growing of pure bred corn for seed purposes throughout the state of South Dakota. Any corn may be included as pure bred under the rules of this Association in annual session assembled, provided such corn has been bred and selected separate and apart from all other breeds, strains, or varieties for five (5) years or more.

Provided that the executive board of this Association or a majority of the same after having examined such corn as to type and type characteristics and having a name given to it, recommends to the Association its adoption.

The officers elected for the permanent organization were as follows:

- A. E. Chamberlain, Howard--President
- A. J. Wimple, Beresford--Vice President
- H. C. Warner, Forestburg--Secretary
- J. M. Erion, Mitchell--Treasurer
- J. E. Millett, Hudson--Director, Southern District
- Martin Gleeson, Mitchell--Director, Central District
- J. W. Parmley, Ipswich--Director, Northern District

The committee on resolutions presented the following four resolutions, of which the first three were adopted:

Resolutions

- I. Resolved, That the state legislature be requested to appropriate \$1200.00 annually to be used as required for premiums and advertising in connection with the annual exhibit of the State Corn Growers Association.
- II. Resolved, That a vote of thanks be extended to the City of Mitchell for the hospitality extended by the city to this Association at this, its first annual meeting, and that it is the sentiment of this Association that Mitchell be made the permanent place of meeting.
- III. Resolved, That we express our thanks and appreciation to the authorities of the University of Illinois for the courtesies extended to this state and Association in furnishing the services of Prof. A. N. Hume for this meeting and to Prof. Hume personally for the hearty assistance given the Association in conducting its first annual corn school.
- IV. Resolved, That it be the sentiment of this Association that the state legislature be requested to increase the number of sub-experiment stations not to exceed five (5) in number, and that one shall be at Midland, one in the northern part of the state, and one in the southeastern quarter of the state and that sufficient funds be appropriated for the operation of such stations.

The City of Mitchell indicated that it would contribute \$500.00 annually to the support of the corn show and school. It was decided that Mitchell be made the permanent location of the meetings of the Association.

As indicated in the proceedings of the organization of this Association, the primary interest of its founders was the improvement of South Dakota crops. Even though the resolution regarding the increase of research work in crops was not adopted at this time, interest in that field was evident. The desire of

the members to improve corn varieties and methods of production is exemplified in the type of program at the meeting.

1907

The 1907 Corn Show and School was held in Mitchell on December 17, 18, and 19. The school was conducted by Prof. John S. Cole of South Dakota State College and Prof. Bowman of Iowa State College.

At this meeting Prof. W. A. Wheeler of South Dakota State College discussed "South Dakota at the National Corn Exposition," Prof. Bowman discussed "Corn Clubs," and Dr. Slagle, President of South Dakota State College, spoke on "Agricultural Schools and Education." Prof. John S. Cole described the work of the Experimental Stations.

1908

At a board of directors meeting in Huron, on September 9, 1908, an offer of \$500.00 and the use of the auditorium in Sioux Falls was accepted for the 1908 Corn Show and School.

The Corn Show and School was held in Sioux Falls on December 22, 1908, in much the same manner as before. The Association was suffering from growing pains deficits. Another resolution was passed to attempt to secure funds (one thousand dollars) through legislative appropriation.

The lack of funds for the 1908 show necessitated the securing of donations of merchandise to be given as premiums. A partial list of the premiums is as follows:

A stock fountain
Garden seeds
One year subscription - Argus Leader
Six months subscription - Sioux Falls Press
1000 corn hangers
25 American elms
Two rolls of wire
A rug
Hog waterer

A carriage heater
Pair of "Working shoes"
Furrow opener
One suit of overalls
25 soft maple trees
One dozen poplar trees
One box Anti-rooters (hog rings)
One stock pump
One box Manchester crackers
Fountain pen

1909

SOUTH DAKOTA CORN GROWERS AND GRAIN GROWERS ASSOCIATION

The name of the South Dakota Corn Growers and Corn Breeders Association was changed to South Dakota Corn Growers and Grain Growers Association.

This change was made because of the need for study and improvement in all grains. The schools and shows of the future were to include small grains and seeds of grasses and legumes.

1910 and 1911

The 1910 and 1911 shows and schools were held in Mitchell. Other crops included in the show were spring wheat, winter wheat, durum, speltz, oats, barley, alfalfa, clover, timothy, and millet.

The entries were sold at auction with most entries selling for 25 cents to one dollar. In 1911, the sweepstakes entry of ten ears of corn sold for \$26.00.

Funds were also raised for the Association by donations and annual membership fees of one dollar. All exhibitors of the grain shows were required to be members.

On May 26, 1910, a business meeting was held in Mitchell in which several significant items of business were transacted that affected the growth of the Association. The president at this time was H. E. Daves of Fulton, vice-president, H. D. Thompson, and secretary, Prof. C. Willis.

Plans were made for an extensive membership campaign, which would be con-

ducted largely at a booth at the State Fair and the corn show in January, 1911. (At the end of 1911, the membership was 115.)

Arrangements were also made to send H. D. Thompson to the National Corn Show at Columbus, Ohio, with grain entries from South Dakota.

The board of directors asked the president to select a legislative committee to look after the passage of a bill in the legislature for \$2500.00 annually for the State Agricultural College to further the improvement of corn in South Dakota. It was understood that there would be a committee of the Association to act in conjunction with the agronomist on the various lines of work for which the appropriation would be expended. This legislative committee consisted of Pres. H. E. Dawes, John Lakings, Hurley, and G. W. Downes, Mt. Vernon.

It was planned that this legislative committee arrange for a joint meeting of the house and senate where Prof. C. Willis would speak regarding the appropriation. He was also to discuss the erection of suitable buildings at State College for experimental work in Livestock, Dairying, Horticulture, Veterinary Medicine, and Agronomy.

In 1911 the secretary of the Association, Prof. C. Willis, left South Dakota State College to be Editor of the Northwest Farmstead. He was succeeded by Prof. A. N. Hume at the college and also as secretary of the Association.

1912

A generous bid for the 1912 Corn Show and School was made by Sioux Falls, but the board of directors decided to continue the corn show and school in Mitchell.

A professional class, amateur class, and boys' class were established for this year. It is interesting to note that the speakers at the 1912 school were as follows:

Prof. A. N. Hume, Agronomist, South Dakota State College

Prof. O. D. Center, Supt., Illinois Farmers' Institutes

Prof. J. G. Hutton, South Dakota State College

Prof. D. P. Bull, Plant Breeding, University of Minnesota

President H. J. Waters, Kansas Agricultural College

Prof. John M. Evvard, Iowa Agricultural College

Dr. R. L. Slagle, President of South Dakota State College

The corn show and school lasted for four days with programs both day and evening. At this show, small grain, grasses, and legumes were playing an important part. Among the wheat classes on the premium list were Red Fife wheat and Blue Stem wheat, which were popular hard red spring wheat varieties at that time. These varieties were included in variety tests as late as 1931 for historical reasons, but in a three year test at Brookings they yielded about seventy percent as much as Ceres and were considered as having no commercial importance.

Emmer, red clover, and timothy were also on the premium list.

In 1912 the secretary was empowered to publish an annual report of the Association. This was the first suggestion of an annual report in the history of the Association, but no report was published.

Interest was also manifested in a corn yield contest, but no workable plan was offered.

1913

President H. E. Daves opened the 1913 annual meeting of the South Dakota Corn and Grain Growers Association with an address that developed the necessity for agricultural education. This became the central theme of the six-day meeting.

Mayor A. E. Hitchcock of Mitchell, who was also President of the Regents of Education for South Dakota, followed the theme of agricultural education. Mr.

Hitchcock made a plea for greater unity of the educational forces of South Dakota by combining the state University (so called) with the College of Agricultural and Mechanic Arts and the School of Mines and locate the one great institution at a suitable place in the state. He emphasized the reduction in expenses and increased efficiency that would result in such a union.

Dean Eugene Davenport of the College of Agriculture of the University of Illinois, also urged the centralization of scattered colleges into one university in these words, "The best results by state schools will be obtained where all the buildings and departments are on the same campus. It gives the students a chance to intermingle. The institutions should all be under one control. They should devote their entire time to accumulating and disseminating their combined knowledge to the people."

The broad educational scope of these annual meetings is exemplified in other talks such as the talk of Dean E. C. Perisho of the University of South Dakota. He discussed the need of water conservation in the state, speaking particularly from the standpoint of artesian water. He predicted that in a relatively short time the state would have no flowing wells.

Professor Van Benthuyzen of Dakota Wesleyan spoke on the necessity for business methods and bookkeeping on the farm. President Wm. G. Seaman urged cultural development of farm communities. J. W. Parmley urged the use of convict labor, particularly on road construction.

The portions of the annual meeting dealing more directly with crops included an address by Professor H. D. Hughes, Iowa State College, on methods of testing seed corn. An alfalfa symposium was conducted by H. H. Stoner, Superintendent of the Farmers' Institutes in South Dakota, and Mr. Alfred Wenz, Bath, South Dakota. Professor H. C. Severin, South Dakota State Entomologist, discussed the insect problem in the state. Professor J. G. Hutton of the South

Dakota Experiment Station discussed the soils of the state.

In 1913, prize winning samples of grain were sent as a state exhibit to the National Corn Show at Columbia, South Carolina. This exhibit attracted considerable interest at that show.

The Association had a membership of 105 in 1913.

The broad interests of the Association at that time are shown by the following resolutions that were passed at the 1913 annual meeting:

Whereas: The work of the South Dakota Corn and Grain Growers Association has been and is of the highest educational importance in the development of the state, amply justifying the legislative appropriation which has made it possible, be it,

Resolved, That every individual member of this Association and all others interested in the proper extension of agriculture in the state represent the need of a renewed appropriation for the purpose of this Association by the state legislature, said appropriation to amount to \$2,000.00 per annum, the increase of \$500.00 per annum to be largely used for advertising purposes and further, be it,

Resolved, That inasmuch as this work is educational in scope, it should be administered largely as at the present time under the State Board of Regents of Education and should be so appropriated and furthermore, inasmuch as it consists virtually of agricultural extension work for the benefit of the entire state of South Dakota be it,

Resolved, That the appropriation may be properly made as one of the items appropriated to aid the proper scope of the work demanded by the state for the South Dakota College of Agriculture and Mechanical Arts, and that we, the South Dakota Corn and Grain Growers in convention assembled, request the state legislature now in session to find some proper way to make such appropriation in

said way.

Whereas: The increasing demand for extension work over the entire state makes a greater demand for information about soils and crops, be it,

Resolved, That we urgently ask our state legislature to appropriate the sum of \$15,000.00 per annum for the purpose of demanding that our state experiment station make more adequate study of soils, methods of tillage and cultivation, and varieties of corn and other grains best adapted to the varying conditions of South Dakota.

Whereas: The constantly increasing demand for work along agricultural lines in the state calls for ever increasing efficiency on the part of the organization of the College of Agriculture and Experiment Station of the state, and,

Whereas: The present large number of our state educational institutions and consequent duplication of courses of study makes the work of these institutions less efficient, be it,

Resolved, That this Association heartily concur in the so-called Hitchcock plan of co-ordination of our educational institutions to the end that the agricultural college of our state may be able to accomplish all that can be accomplished along the line of college extension of benefit to the farming interests of the state.

Whereas: The need of farm demonstration work in the several sections of the state becomes more and more apparent, and,

Whereas: The need of such farm demonstration work is of local concern to every county, be it,

Resolved, That we foster an amendment to the present state laws so that the board of county commissioners shall have it in their power to make appropriation, from the funds of their respective counties, to cover salary and expenses for a county or district farm demonstrator who shall work in harmony

with the teaching of the state Experiment Station.

Whereas: The growing of trees for shade and wind-break is more and more needed in our state for the purpose of beautifying the country, the protection of livestock, and the comfort of mankind, be it,

Resolved, That the Corn and Grain Growers Association favor the framing of a law, whereby each and every acre of farm property bearing growing trees be exempt from taxation.

Whereas: We, the Corn and Grain Growers Association, having been royally entertained by the mayor and citizens of Mitchell, be it,

Resolved, That we tender to them our hearty thanks for their generous cooperation and hospitality. Be it further,

Resolved, That we express our appreciation to the president and secretary and other members of the Association and to others who have given their untiring efforts to the making up of this program and of making this meeting the great success it has been, and also to those who have contributed to the magnificent display of corn and grains. Be it further,

Resolved, That a copy of these resolutions be furnished to each member of this Association and to the several members of the legislature now in session, and that it become a part of the minutes of this meeting.

1914 and 1915

Corn shows and schools similar to those of 1913 were held in Mitchell. In the business meeting of 1914, a boys' acre-yield contest was inaugurated. The official definition of a bushel of corn for exhibition purposes was defined as a minimum of sixty ears. Corn exhibits at that time required a bushel per exhibit.

A portion of the annual meeting consisted of a joint meeting of the Corn and Grain Growers, the Livestock Breeders, and Poultry Men.

One of the featured speakers at the 1915 school was Professor H. L. Bolley of the North Dakota Experiment Station, whose topic was "Small Grain Rusts and Other Plant Diseases, and How to Combat Them." The following County Extension Agents were also listed on the program: M. L. Mosher, Clinton County, Iowa, E. W. Hall, Spink County, and Andrew Palm, Codington County.

Premiums were offered for the first time for grain sorghums at the 1915 show.

1916

In 1916 the annual meeting of the South Dakota Corn and Grain Growers Association was held in February in Mitchell instead of the usual time of January. This was done so that some of the meetings could be coordinated with those of the Livestock Breeders' Association and the South Dakota Poultry Breeders' Association.

The Association went on record in its adopted resolutions as favoring a legislative act to provide for a state soils survey, also that each county be urged to obtain a county agricultural agent.

In 1916 A. J. Wimple, Beresford, requested the Association to issue certificates of registration for outstanding selections of South Dakota corn such as Wimple's Yellow Dent corn and Dawes' Fulton Yellow Dent corn. The purpose of the certification would be an attempt to keep such varieties pure. The executive committee seemed to favor the proposal, but postponed action.

1917

The annual state corn show and school held in Mitchell, January 23-26, 1917, was proclaimed by the executive committee as the best that had been held since the Association was organized. It was evident by the increased quality and quantity of the exhibits that the influence of the work of the Association was being manifested in improved crops in South Dakota.

Certificates of Merit for outstanding work in corn breeding were presented to A. J. Wimple, Beresford, originator of Wimple's Yellow Dent and to H. E. Dawes, originator of Fulton Yellow Dent corn. These men were among the first true corn breeders in the state. They used the ear-to-row method of selection and made crosses by detasseling. Their work was largely for improved ear type and as Mr. Wimple told Dr. A. M. Hume, "After twenty years of breeding for ear type, I find that I have not improved the yield." No doubt the greatest contribution from these men has been that their corn has been an important foundation upon which were built many outstanding hybrids.

The question was raised at the business meeting as to whether the 1918 Corn Show and School be held in Watertown or Redfield instead of Mitchell. Redfield was selected.

1918

The 1918 annual meeting was conducted under wartime conditions, which meant many substitutions in the program. Professor J. G. Hutton of South Dakota State College urged caution in the use of the land in an all-out effort to produce food to carry on the war. This apparently prompted the Association to again request legislative appropriation for a state soils survey.

The presence of war-time food restrictions was apparent at the annual banquet which was advertised as follows:

"This will be a corn banquet: Corn bread, Corn coffee, Corn cakes, Corn fed Men and Women, Corn syrup, Corn fed meat, Corn starch, arranged by and in charge of Mrs. G. W. Randlett of Brookings."

The officers of the Association in 1918 were:

H. E. Dawes, President-----Fulton

Sam Carlson, 1st Vice President-----Elkton

J. C. Denison, 2nd Vice President-----Vermillion



Figure 2. A. J. Wimple developed Wimple's Yellow Dent Corn.

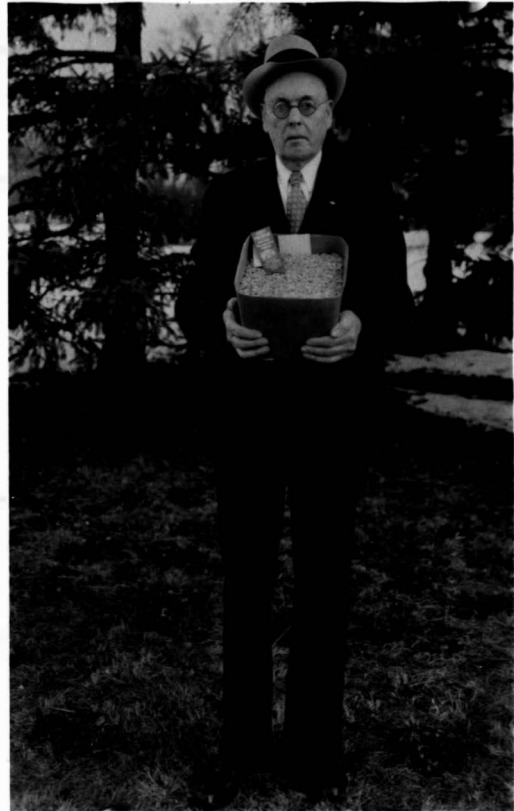


Figure 3. H. E. Dawes developed Fulton Yellow Dent.

It is known that ~
 The South Dakota
Corn and Grain Growers Association
 ~ In recognition
 of the years of intelligent work in improvement of corn pursued by
A. J. Wimple
 and in recognition of the variety developed by him known as
Wimple's Yellow Dent Corn
 confers this
Certificate of Merit.
 Hereto we affix the seal of the South Dakota Corn and Grain Growers Association.
 Officers. Directors.
H. E. Dawes President. *Ernest B. Longfellow*
James Eastman Vice President. *Richard B. Clark*
Albert Bush Home Secretary. *Richard B. Clark*
C. P. Bond Treasurer.

Figure 4. These men were among the first true corn breeders in South Dakota. They used ear-to-row selection and made crosses by detasseling. Many of our good hybrids can be traced to the pioneering of these crop improvers.

A. N. Hume, Secretary-----Brookings

E. P. Sand, Treasurer-----Mitchell

Directors:

S. E. Sorenson, S. Dist.-----Elk Point

Emil Sougstad, Cen. Dist.-----Fulton

Hugh Nash, N. Dist.-----Redfield

The executive board met at the Leon Hotel in Brookings, in May 1918, where plans were made for the 1919 Corn Show and School to be held in Watertown.

The legislative committee appointed to attempt to secure a legislative appropriation for soils survey work in the state consisted of J. C. Denison, Vermillion, Sam Carlson, Elk Point, and Hugh Nash, Redfield. The committee was influential in securing an appropriation of \$10,000.00 per year for the State College and Experiment Station to be used for soil survey work.

Immediately after the appropriation was secured, arrangements were made with the United States Bureau of Soils. One federal man, W. I. Watkins, started on the survey on June 11, 1919. (Mr. Watkins was still on South Dakota Soils Survey part time in 1954.) Mr. J. G. Hutton directed the work from the college and employed two former students. It was impossible to get sufficient help on account of the war.

1919

In the year 1919, the influenza epidemic influenced the executive board to cancel the annual show and school. Influenza resulted in the death of the director from the southern district, S. E. Sorenson, and also two sons.

1920

The 1920 Annual State Corn Show and School was held in Watertown in February. It was a very successful show and school from the standpoint of interest and attendance in spite of the remaining hazard of influenza. The program of the

school consisted of various subjects, with emphasis on farm financing and marketing.

Farm financing was discussed by representatives of the Federal Land Bank, the Farm Mortgage Bankers' Association, and the South Dakota Rural Credits Board.

The marketing of potatoes was discussed by Frank McCall, State College, The South Dakota Bureau of Markets by Don Livingston, Watertown, and Agricultural Economic Problems by Dr. H. C. Taylor, Chief, United States Bureau of Farm Management and Economics.

Soils survey work was explained by C. F. Marbut, United States Bureau of Soils, and J. G. Hutton, State College.

Barberry eradication work was explained by H. C. Gilbert who is in charge of that work in South Dakota.

Manley Champlin, South Dakota State College, Agronomy Department, discussed the development of Acme wheat and other prominent varieties.

John P. Thompson, Elk Point, was awarded a Certificate of Merit in recognition of his service to the state as a corn breeder. This was the third such certificate to be awarded by the South Dakota Corn and Grain Growers Association. Mr. Thompson was not a corn breeder from the standpoint of making crosses, but his main contribution to the corn industry was his ability to select the true type of Reid's Yellow Dent. Evidence of his ability was apparent at the corn shows where his competition for sweepstakes was very strong.

H. E. Dawes, who had been president of the Association for ten years, retired and was replaced by J. C. Denison, Vermillion.

Other officers elected at the 1920 meeting were:

Hugh Nash, Redfield-----Vice President

G. W. Preston, Hitchcock-----2nd Vice President

A. N. Hume, Brookings-----Secretary

E. P. Sand, Mitchell-----Treasurer

Directors:

E. A. Knutson, Mission Hill-----Southern District

Emil Sougstad, Fulton-----Central District

George Pierson, Claremont-----Northern District

As a result of the marketing discussions, the resolution committee studied various plans of transportation facilities for marketing farm products and agreed on "private ownership and operation of all facilities, but with government control." This was selected in preference to public ownership and cooperative ownership.



Figure 5. Dr. A. N. Hume talking to Association members at a field day near Eureka on rotations, suggesting corn for that part of the state in order to prevent weed infestations that accompany continuous small grain farming. He also advocated the use of Sweet Clover in the rotation to maintain nitrogen and organic matter in the soil.

The resolutions adopted also demanded that "supplies and services furnished to cooperative organizations of farmers must be equal to those furnished to private dealers under like circumstances and equally accessible."

Mitchell extended an urgent invitation for the Association to hold its 1921 Corn Show and School in that town. The southern part of the state had asked for it for several years and it was decided to meet in 1921 in Yankton.

1921

The 1921 Corn Show and School was held in Yankton, February 2-4, with the usual varied program. It included the following:

1. Discussions of farm economics--B. M. Hibbard, Head of the Department of Agricultural Economics, University of Wisconsin.
2. A plan for a corporation for rediscounting agricultural paper --T. I. Flittie, Brookings.
3. Experiences with sweet clover--A. E. Freelove, Kennebec, and Norman Nelson, Mission Hill.
4. The problem of crop diseases, especially black stem rust and scab, --Arthur T. Evans, State College.
5. How South Dakota looks on a soils map--J. Gladden Hutton, South Dakota Soils Survey.
6. How South Dakota will continue to be recognized as a source of clean seed--Mathew Fowlds, Agronomy Seed Analyst.

Ralph E. Johnston, Extension Agronomist, judged the show and took part in the school.

The influence of the discussions held at the school is shown in the following resolutions adopted at the annual meeting.

Whereas, South Dakota appreciates the necessity for conserving the soil as the basis of all productive wealth and strength, be it,

Resolved, That we expect our legislature to adequately maintain our state soil survey in such a way that it may be prosecuted as rapidly as possible in the several portions of the state.

Whereas, The rural credit law now on our statute books has led to a satisfactory system of state farm loans in South Dakota, be it,

Resolved, That we approve our present state system of farm loans, believe it to be favorable to the agricultural and in no wise harmful to any productive business, therefore constitutional; and we approve the extension of said system so that individuals who can and will engage in farming may employ the credit of the state in lieu of other capital to the fullest consistent extent.

Resolved, We favor an increase of appropriation for seed testing for the use of the State College Agronomy Seed Laboratory to at least \$2000.00 per year.

Whereas, Valuable crop varieties, including Acme wheat, Alta corn, Swedish and Advance rye, and hardy alfalfa, are now widely used, having been disseminated from the agricultural substations, be it,

Resolved, That we approve sufficient increase of state appropriations to maintain the work at substations in Hyde, McPherson, Jackson, and Lyman counties, which have become increasingly valuable since 1910 and previously.

Resolved, That we request an amount of at least \$5000.00 per annum be appropriated to the South Dakota Experiment Station for the distinct purpose of developing improved and disease-resistant varieties of the various farm crops in the several sections of the state in order to supplement and extend investigations now confined to the experiment field.

Whereas, The office of the United States Secretary of Agriculture may exert far-reaching influence in shaping policies of our government, both national and international, be it,

Resolved, We call attention to the continued need for a Secretary of Agriculture who can conserve much needed funds by having employees of federal bureaus resident in Washington, D. C., direct their attention to accomplishing federal business as distinguished from those functions belonging to state and local communities.

Resolved, We recommend the adoption by constitutional amendment, if necessary, a system of differential taxation on land, whereby non-resident land owners shall pay a reasonably higher rate of taxation than land owners who actually live on land owned by them and engaged in farming as a business.

Resolved, We recommend that a law be enacted providing for the classification for taxation purposes of cooperatively owned sales pavilions and farmers' community buildings when these are not operated for profit to the stockholders to the end that such property shall bear a low rate of taxes.

Resolved, That we recommend the extension of the present federal bureau of markets reporting system as now applied to the marketing of perishable fruits to apply to hay, grain, potatoes, and other farm products in order to provide the necessary information for distributing products in such a way as to meet the best market.

Resolved, We request a system of federal inspection of farm products including grain, hay, potatoes, and livestock at all terminal markets which shall supplant the present systems of market inspection, thus safeguarding the interests of the producer.

As has been previously demonstrated, resolutions adopted by the South Dakota Corn and Grain Growers Association, have had a great influence on South Dakota's general welfare, such as influencing legislation for education, research, soils survey, and other advancements.

In June, 1921, the executive board met in Huron. At the same time repre-

representatives of various farm organizations met to learn of the United States Grain Growers, Inc. whose motive was to eliminate the middlemen and speculators from the grain business. Their plan called for cooperative marketing from the farmer to the consumer. The farm organizations represented at the meeting endorsed the plans and purposes of the U. S. Grain Growers, Inc.

1922

The annual corn and grain show and school was held in Mitchell, South Dakota, in January, under the direction of President J. C. Denison.

A Certificate of Merit was presented to E. P. Sand, Mitchell, for the development of Sand's Yellow Dent Corn. A Certificate of Merit was also awarded to George Pierson, Claremont, for developing Pierson Durum Wheat.

In 1922, interest was developing in the certification of all seed crops as is shown in the following portions of the resolutions approved at the annual meeting:

"The growing and marketing of seed is a commercial proposition. We recommend and encourage the formation of independent organizations of growers of specific crop seeds for the purpose of certifying the product grown and marketed by its members."

The attitude of the Association toward meeting the economic problems of 1922 are shown in the following portions of the resolutions.

"Resolved, That we favor saving the soil, even in this time of depression, and insist upon the continuance of our state soil survey and soil improvement program.

Resolved, That we endorse the principle of the State Rural Credits and urge our people to take advantage of this means to help our financial distress.

Resolved, That we favor the removal of artificial barriers to world trade such as guaranteed railroad rates and undue protective tariffs on manufactured

goods, to the end that world markets may be opened to corn and grain exports from American farms, and foreign people be able to exchange their manufactured products for the products of American farms."

When the executive board met in June, 1922, part of the time was spent in session with members of the Agronomy Department of South Dakota State College and the foremen of the Experimental Substations. The board seemed particularly interested in the 19 year average yield of oats at the Brookings and Highmore stations as follows:

	Sixty Day Oats	Swedish Select
Brookings	55.4 bu.	43.6 bu.
Highmore	27.9 bu.	31.7 bu.

Considerable interest was also shown in Fowlds' Hulless Oats which Mathew Fowlds had developed and increased from one plant to one fourth acre.

Soil fertility plots were shown by Professor Hutton and the result of phosphorus applications particularly noted. The results were summarized as, "The average increase in cereals from the application of phosphorus at Brookings has been more than 30 percent. This crop increase of 30 percent is insufficient to pay the cost of the phosphorus laid down in South Dakota because of the high freight rates. Under present conditions therefore, considering relative freight rates on phosphorus and prices received for cereals, South Dakota cannot produce cereals without depleting soils. The seriousness of such fact from the standpoint of farming and civilization cannot be overestimated. If the returns to transportation, however important, have to be so great that farming cannot be carried on without soil exhaustion, the end is already evident."

This situation prompted this resolution in the annual meeting of 1922,

"Resolved, That we demand freight rate reductions, not only on livestock and crops, but on the raw materials out of which crops are often produced, namely,

raw rock phosphate, acid phosphate and raw limestone."

1923

The officers of the Association for this year were:

Hugh Nash, President-----Redfield
G. W. Preston, Vice President-----Hitchcock
Otto Sunstrom, 2nd Vice President-----Beresford
A. N. Hume, Secretary-----Brookings
E. P. Sand, Treasurer-----Mitchell

Directors

E. A. Knutson-----Mission Hill
George Ruml-----Letcher
Gale Peppers-----Croton

Taxation was one of the important considerations of the Corn and Grain Growers Association in 1923. It was believed that farm land was taxed too heavily, but that there seemed to be no other source of taxation for the state aside from "the productive yield of the farms." (Other sources of taxation have since been found.)

The weed problem of the state was also under discussion and the following resolution resulted.

"Resolved, That we recommend that the present laws of the state relating to noxious weeds and the destruction thereof be so amended with enforcement provisions strong enough, by legal means, to make the laws effective and of benefit to the agricultural lands of the state. Further, that our Agricultural College at Brookings be interested in projects and in publication of best results of eradication of noxious weeds to the farmers and owners of South Dakota land."

This early study of weed legislation contributed materially to legislation

enactment in later years that was far advanced over that of other states.

Recognition was given at the annual meeting to the retiring president, J. C. Denison, for his many years of service to the organization.

The 1923 Crop Show listed five corn varieties, Ried's Yellow Dent, Wimple's Yellow Dent, Fulton Yellow Dent, Minnesota 13, and Silver King.

The 1923 catalogue listed the names of those who have won places as "Professionals in Corn" under the rules of the Association, by winning Grand Sweepstakes for one year or District Sweepstakes three years at the annual show.

Grand Sweepstakes

Ernest Sorenson, Elk Point	1912
Joseph Thorson, Vermillion	1913
Sam Carlson, Elk Point	1914, 1916, 1917, 1920, 1922
John P. Thompson, Elk Point	1915, 1918
L. C. Nelson, Elk Point	1921

District Sweepstakes

F. M. Lucke, Redfield	1914, 1916, 1918
G. W. Preston, Hitchcock	1920, 1921, 1922

1924

The annual state show and school for 1924 included a varied program with a few of the topics and speakers as follows:

"Some Historic Accomplishments of the Corn and Grain Growers Association" -- A. N. Hume, Secretary of the Association.

"Does it Pay to Save the Soil?" -- J. G. Hutton, Brookings

"A Car of Rock Phosphate in South Dakota" -- Ralph E. Johnston, Extension Agronomist.

"Sweet Clover School. How to Grow Sweet Clover; How to Kill It; How to Harvest it, Thresh it; How to Make Hay; How to Feed it." Discussion led

by Gale Peppers, Groton.

"Corn and Grain School on Varieties" led by E. S. McFadden, Webster, (the man responsible for rust resistant wheat varieties.)

"Financing Farm Operations" -- Jos. Hamilton, Farm Advisor for Sioux Falls Trust and Savings Bank (largest financial institution in South Dakota at that time.) Mr. Hamilton was unable to appear on account of the bank's failure and the difficult financial situation in this part of the country.

"The Situation of Agriculture" -- Dean C. Larson, State College.

"Chinch Bugs" -- A. L. Ford, M. O. Monroe, Bon Homme County; Sam Sloan, Fall River County; Eli Arnson, Springfield.

"What Constitutes Education" -- C. W. Pugsley, South Dakota State College.

Prizes of alfalfa seed were given to the show by the Western South Dakota Alfalfa Seed Growers Exchange, Rapid City. A statement regarding that organization appeared in the catalogue as follows: "ALFALFA -- God's best gift to SOUTH DAKOTA -- What cotton is to Georgia; what corn is to Iowa; what oranges are to California; alfalfa is to South Dakota. Greater than any mineral wealth are its repeated blessings. THE WESTERN SOUTH DAKOTA ALFALFA SEED GROWERS EXCHANGE, Rapid City, South Dakota, an institution by, for, and of the alfalfa seed growers of South Dakota, has been and will be a wonderful help to the seed growers and users. Its mission is the cleaning, grading, and cooperative marketing of alfalfa seed. It is a non-profit marketing institution operating at cost to its members. Its TRADE MARK is a stamp of HONOR and a DEPENDABLE GUARANTEE OR GENUINENESS and highest grades."

An important point of business of 1924 was the decision in favor of the amalgamation of the Corn and Grain Growers Association and the South Dakota Experiment Association. The proposal had been presented by the Experiment As-

sociation in 1923 on account of the common interests and over-lapping of officers and members of the two associations. The officers were empowered to complete the amalgamation technically and legally.

The president was directed to appoint a committee on seed certification which would take over the function of seed certification, previously handled by the Experiment Association.

SUMMARY OF THE HISTORY OF THE SOUTH DAKOTA EXPERIMENTAL ASSOCIATION

The South Dakota Experimental Association was organized on March 28, 1912, with C. H. Karlstad, Dempster, as president and Fred Wuertz as secretary. Dr. A. A. Brigham was largely responsible for its organization. Its purpose was to bind together the graduates of South Dakota State College and the School of Agriculture in an effort to assist the college in testing new crops and varieties in all parts of the state. It was also to disseminate seed of proven crops and varieties.

Regular membership was limited to graduates of the college and School of Agriculture, but Associate and Honorary membership could be conferred upon others who were vitally interested in the purpose of the organization and who were recommended by the membership. The membership was closely correlated with that of the Corn and Grain Growers Association from the beginning. At the end of 1914 there were 140 members representing 39 counties.

Many members were active in testing grains on their own farms and increasing seed of proven varieties and crops. Some of the varieties being grown disseminated by the Association in 1915 were Kubanka, S. D. 75 wheat; Odessa, S. D. 182 barley; Manchuria, S. D. 105 barley; Sixty Day, S. D. 165 oats; Marquis wheat; Selections of Kursk millet and Manchu Brown Kaoliang sorghum.

In 1918 the Association had a membership of 276 representing 53 counties.

Certain public services and educational work were carried on such as publishing lists of growers of improved crop seeds, assisting with group meetings at the Experiment Station and substations, and providing educational material for its official paper, The Dakota Farmer. W. C. Allen, Editor of The Dakota Farmer, was made an honorary member of the Association.

Prof. James W. Wilson represented the livestock interests of the Experiment

Station in the Association, Prof. N. E. Hansen - the horticultural work, and Prof. Nola K. Fromme - the domestic science department. Prof. Wilson's work on the use of pit silos was creating considerable interest at this time. Many of the crop varieties being introduced were descendants of varieties that Dr. N. E. Hansen collected while in the service of the U. S. Department of Agriculture as and agricultural explorer in Russia and the Orient. Prof. Fromme studied the use of some of the new crops from the standpoint of food. At one annual meeting she states, "One of the ways to reduce the high cost of living is to utilize that which we can grow. Kaoliang is to western South Dakota what kafir is to western Kansas. It has good flavor as is witnessed by those who have tried it. In cooking it, 30 minutes is required as compared to 10 minutes for corn meal. The Kaoliang can be used for practically any purpose for which corn meal is used. For raised bread, it is necessary to mix the Kaoliang with some glutinous flour such as wheat or rye flour."

In 1918 the officers of the South Dakota Experiment Association were:

President-----Sam Sloan, Brookings
1st Vice President-----Omar Mills, U. S. Army
2nd Vice President-----Vern Belk, U. S. Army
Treasurer-----Leslie Auman, U. S. Army
Secretary-----Manley Champlin, Brookings

According to the secretary's report at the seventh annual meeting in 1919:

"Interest in the improvement of livestock in the state has gained by leaps and bounds, but unlike the seed work, the livestock business has not proved a tangible, practical line of work for this organization. The livestock business lends itself rather to advancement through local and county organizations. Pavillions are being erected in many important towns in the state. County organizations have been formed in many counties to conduct sales."

The work of the Association had gradually become confined largely to that of encouraging better crops and crop varieties for South Dakota. Therefore, in 1921, when Gale Peppers was president and Ralph E. Johnston was secretary, the Experimental Association passed a resolution to invite a merger with the Corn and Grain Growers Association. This was presented to the Corn and Grain Growers in 1923. The amalgamation was not effected in 1923, but was again presented at the annual meeting of the Corn and Grain Growers Association in 1924, and the merger was decided upon.

The officers of the new organization were:

Hugh Nash, Redfield-----President
Chas. Blackman, Clark-----Vice President
Otto Sundstrom, Beresford-----2nd Vice President
A. N. Hume, Brookings-----Secretary
E. P. Sand, Mitchell-----Treasurer

Directors

E. A. Knutson, Mission Hill-----Southern District
George Ruml, Letcher-----Central District
Gale Peppers, Groton-----Northern District

1925

The annual crop show and school was held in Pierre, January 7, 8, and 9. The principal speaker at the school was Professor Holbrook Working, of the Farm Economics Department, University of Minnesota, who spoke on "Foreign Relations and Agricultural Prices." Other speakers were Governor Carl Gunderson and Dean C. Larsen.

The important items adopted at the business meeting were the Articles of Incorporation and the Constitution as follows:

ARTICLES OF INCORPORATION
OF
SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION

KNOW ALL MEN BY THEIR PRESENTS:

That we, the undersigned

Hugh B. Nash

Otto W. Sundstrom

A. N. Hume

Gale F. Peppers

E. P. Sand

Chas. S. Elackman

for ourselves, our associates and successors, have associated ourselves together for the purpose of forming a corporation under and by virtue of the statutes and laws of the State of South Dakota, and we do hereby certify and declare as follows, viz:

First: The name of this corporation shall be SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION.

Second: The purpose for which this organization is formed is:

- 1- To unite and combine into a single body the previously existing organizations known as the South Dakota Corn and Grain Growers Association and the South Dakota Experiment Association and to carry out the purposes of such organizations in an orderly, united, constructive and effective manner, such union amalgamation having been authorized by each of said organizations;
- 2- To collect and disseminate information concerning the growing, harvesting, storing, and handling of seeds of the staple crops;
- 3- To encourage the breeding and general improvement of farm crops;
- 4- To stimulate the growing and effective and economical distribution of pedigreed or improved or certified seeds in every section of the state;
- 5- To advance the husbanding, propagating, and maintaining of the purity of adapted new varieties or improved strains produced by the plant breeder;
- 6- To inspect crops grown for seed, to provide for the certification of seed, and maintain a system of registration of fields and seeds;
- 7- To aid in the organization of subordinate and auxiliary associations throughout the state;
- 8- To hold statewide meetings and shows, and by lecture, discussions, demonstrations and exhibitions of grains and seeds, to advance the purposes for which this association is organized;
- 9- To promote state and national legislation to the end that the purposes of this and similar organizations may become more effective;
- 10- To take, purchase, hold, mortgage, dispose of and exercise all privileges of ownership of real and personal estate for the purposes of the association, including holding an interest or membership in any other similar or allied organizations;
- 11- To do any and all things incident to, or necessary or desirable or convenient for the accomplishment of its purposes, and to perform any other pertinent, legitimate and lawful service which may tend to the mutual benefit of its members and the general benefit of the Agricultural industry.

Third: The place where the principal business of this Association shall be transacted is Brookings, in the County of Brookings, State of South Dakota, but meetings of the directors and members of the Association may be held elsewhere in the State of South Dakota at the discretion of the board of directors for the transaction of business and holding of shows.

Fourth: The term for which this Association shall exist shall be perpetual.

Fifth: The number of directors of this Association shall be nine and the names and residences of such who are to serve until the election of their successors, are as follows:

Names

Residences

Hugh B. Nash

Redfield, South Dakota

A. N. Hume

Brookings, South Dakota

E. P. Sand

Mitchell, South Dakota

Chas. S. Blackman

Clark, South Dakota

Otto W. Sundstrom

Beresford, South Dakota

Gale F. Peppers

Groton, South Dakota

Nick Caspers

Rapid City, South Dakota

A. G. Vincent

Letcher, South Dakota

Oscar Mills

Wall, South Dakota

Directors, each of whom shall be a member of this Association in good standing, shall be elected by the members of the Association in annual meeting assembled and shall serve for terms of three years. At the meeting at which these articles of incorporation are adopted and executed, there shall be elected three directors of the first class, whose terms shall expire at the annual meeting in 1926; three directors of the second class whose terms shall expire at the annual meeting in 1927; and three directors of the third class whose terms shall expire at the annual meeting in 1928. At the expiration of the terms of the directors so elected, their successors shall be elected in like manner for terms of three years. Directors shall hold office until their successors shall have been elected and qualified and shall enter upon the discharge of their duties. At an annual meeting of the members of this Association, the members may district or redistrict the state of South Dakota on a basis of general crop conditions in the respective districts, and in consideration of administrative convenience, and provide for the election of directors or a portion of them from the respective districts, any may increase the number of directors from time to time to meet the increased activities of the Association.

Sixth: This Association being a non-profit organization formed for purposes of general welfare and advancement of its members, and of the whole agricultural industry, it shall have no capital stock, and any person residing in the state of South Dakota, who desires to do so, or any association of such persons may become a member of this Association, by subscribing to the provisions of the articles of incorporation and the by-laws thereof, and paying membership fees as prescribed in the by-laws hereof.

Seventh: No member shall be liable for the debts of the Association in any amount greater than his unpaid membership fees.

IN TESTIMONY WHEREOF, we have hereunto set our hands this 9th day of January, 1925.

NAMES

- /s/ Hugh B. Nash, Redfield, South Dakota
- /s/ Otto W. Sundstrom, Beresford, South Dakota
- /s/ E. P. Sand, Mitchell, South Dakota
- /s/ Gale F. Peppers, Groton, South Dakota
- /s/ A. N. Hume, Brookings, South Dakota
- /s/ Nick Caspers, Rapid City, South Dakota
- /s/ Chas. S. Blackman, Clark, South Dakota

STATE OF SOUTH DAKOTA)
) SS
 COUNTY OF HUGHES)

BE IT REMEMBERED, THAT ON THIS _____ day of January A.D. 1925, before the undersigned personally appeared the above named

- | | |
|-----------------------|-----------------------|
| /s/ Hugh B. Nash | /s/ Otto W. Sundstrom |
| /s/ A. N. Hume | /s/ Gale F. Peppers |
| /s/ E. P. Sand | |
| /s/ Chas. S. Blackman | |

well and personally known to me to be the same persons described in and who executed the foregoing instrument and severally acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at said County the day and year last above written.

/s/ C. H. Anderson
 Notary Public

STATE OF SOUTH DAKOTA)
) SS
 COUNTY OF HUGHES)

Hugh B. Nash
 A. N. Hume

BEING DULY SWORN, each for himself deposes and says: That he is one of the persons described in and who signed the foregoing Article of Incorporation as an Incorporator therein; that he has read said Articles and knows the contents thereof; that the incorporators intend in good faith to form a corporation for the purpose of the promotion of a lawful business as set forth in said articles and not for the purpose of enabling any corporation or corporations to avoid the provisions of Sections 4352 to 4364 inclusive, Rev. Code 1919, of the State of South Dakota, relating to unlawful trusts and

combinations, and laws amendatory thereto.

/s/ Hugh B. Nash

/s/ A. N. Hume

Subscribed and sworn to before me this 9 day of January, A. D. 1925.

/s/ C. H. Anderson

Notary Public

(NOTE: This instrument was drafted by HUGH N. ALLEN, Cooperative Marketing Counsel, Sioux Falls, South Dakota, and copying or adapting the same, or any portion thereof, for any purpose except for the use and benefit of the South Dakota Crop Improvement Association, is hereby expressly forbidden.)

C O N S T I T U T I O N

I NAME

The name of this Association should be the South Dakota Crop Improvement Association.

II OBJECT

It should be the object of this Association to secure and disseminate knowledge concerning Soils and Crops; to emphasize the principles of producing large crops of better quality and of producing them at greater profit; to emphasize the production and sale of seed of farm crops of approved varieties.

It is important to state that it is the intention to amalgamate the South Dakota Corn and Grain Growers Association and the South Dakota Experiment Association to the end that the combined purposes of the aforesaid organizations may be carried out by the South Dakota Crop Improvement Association. Accordingly the last named organization to operate under the present constitution is a successor of each and both of the former organizations. Furthermore it is the understanding of the framers of the present constitution that this procedure is approved by if not entirely satisfactory to all members severally and collectively of the two former organizations. An incidental and important object of combining two organizations into the South Dakota Crop Improvement Association is that of securing one larger and stronger society which apparently will serve all purposes more effectively than it is possible to do with two smaller separate organizations in the same state. Likewise this amalgamation and the formation of the present constitution are authorized by a vote of the South Dakota Experiment Association and in turn ratified by the South Dakota Corn and Grain Growers Association at the annual meeting of the latter, Sioux Falls, January 18, 1924.

Specifically it shall be the purpose of the Association to hold an annual meeting at such place as the Association shall determine from year to year. This meeting shall consist of a program of discussions and demonstrations and shall include an annual show or exhibition of farm crops. The central purpose of the program and show shall be to thoroughly investigate and discuss measures looking toward permanent agriculture, better farm practices, marketing facilities, and to demonstrate the advantages of selecting and distributing farm crops of the best variety and quality. These additional objects shall be promoted as actively and as rapidly as possible.

It shall be a further definite object of this Association to promote the production, certification, registration, and dissemination of seed as a means toward crop improvement.

III OFFICERS

The officers of this Association shall be a president, vice-president, second vice-president, secretary, treasurer, and three directors, one chosen from each of the districts of the state as outlined by the Association. Collectively the aforesaid officers shall constitute the board of directors of the Association. This board shall be responsible for the active business of the Association at such times as the latter is not in session.

An assistant-secretary may be appointed by the board of directors.

In addition to the foregoing officers there shall be one vice-president from each county of the state who shall be elected at the annual meeting of the Association or who may be appointed by the board of directors. All vice-presidents shall not incur expenses for travel and maintenance as ordinary directors, but shall meet with directors whenever possible and practicable and shall have equal voting power with all other directors.

IV MEMBERSHIP

All persons who live in South Dakota are entitled to membership in this Association who are actively interested in the purposes of the Association whether from the standpoint of soil and crop improvement on their individual farms or from the standpoint of marketing crops and pure seeds. Persons who are thus sufficiently interested to subscribe to the constitution of this Association and its By-laws may be recorded upon the payment of a membership fee of \$1.00 per annum.

Membership in the Association shall carry with it all voting privileges whether for officers of the Association at the annual election or for resolutions which may be offered before the Association, or for any measures, legislative or otherwise, which effect the interests of crop growers and to which the Association may desire to lead collective support.

Members likewise are entitled to receive copies of the annual seed list issued by the Association and copies of circular letters and other information issued from time to time to keep members in touch with Association affairs or conditions of farming or marketing purposes.

All members of the Association shall be entitled to make exhibits in the annual Corn and Grain Show which shall be held under the auspices of the Association under rules for exhibits which shall be a part of the Association by-laws.

The Association shall issue no honorary memberships.

V DUTIES OF OFFICERS

The duties of the officers in general shall correspond to the usual duties of such officers, in organizations similar to this.

The president shall preside at all meetings of the Association unless he shall designate the vice-president or the second vice-president or one of the county vice-presidents or other suitable person to preside in his place. The president shall call all meetings of the Association and all official meetings of the board of directors. The vice-president shall actively assist the president at all times in promoting the general welfare and purposes of the Association and shall stand ready to assume the duties of president when called upon by disability of the latter or upon his call. The same shall be true of the second vice-president.

The secretary shall provide for keeping the records of the Association and make reports of them from time to time or when called upon to do so by the president or board of directors, or by the Association. The secretary shall receive and record applications for membership in the general association and such other applications or communications which may later be transferred to the assistant-secretary or to the committee of the Association.

The treasurer of the Association shall be custodian of funds which shall finally be deposited in the general treasury of the Association. Applications for membership fees may be made directly to the treasurer who may retain the amount of fees in the treasury and report so received to the secretary for record.

VI COMMITTEES

The committees of this organization may be appointed by the president or by the board of directors, or by the Association.

The following committees shall be appointed annually:

- A committee on resolutions
- A legislative committee
- An auditing committee

In addition to other committees this organization shall have an active committee on seed registration and certification. It shall be the duty of this committee to devise rules for the registration and certification of any or all seeds of field crops, to formulate rules for inspection, and attempt to provide plans for the carrying out of such work. The chairman of this committee, ex officio, shall be the assistant-secretary of the organization who shall be chosen because of his special fitness and interest in this

special phase of the work of the Association. The rules for certification, inspection, and registration, devised by this committee shall be submitted to and adopted by the general association at its annual meeting, except that they may be acted upon by the board of directors for the time previous to any annual meeting at which they may be submitted. When the rules and regulations have been thus submitted and approved by the Association they shall constitute a part of the By-laws of the Association and may be added to or amended the same as any other section thereof.

VII AMENDMENTS

This constitution may be amended at any annual meeting by a three-fourths vote of all members who are actually present or who shall have submitted sealed votes by mail.

* * * * *

Among the resolutions passed at this meeting were these:

1. "We endorse the report of the President of South Dakota State College recommending an increase of \$1000.00 per annum for seed testing, and favor additional appropriations for adding to and strengthening work in crop improvement by selecting disease resistant and productive varieties and strains of cereals and forage crops at our State Experiment Station and substations.
2. That we endorse the county area test plan of eradicating bovine T. B.
3. That we favor the plan of cooperative marketing of farm products and urge the further study and perfection of marketing machinery.
4. That we favor the principles of the McNary-Haugen bill.
5. That we favor the Great Lakes - St. Lawrence deep water way project."

A resolution regarding the proposed 20th amendment to the constitution on child labor was presented. Ex-presidents, J. C. Denison and H. E. Dawes pointed out that "the Association should not undertake the pronouncing of an opinion in regard to too great a range of subject matter. It should rather confine itself to the specific matters related to its charter, namely to soil and crop improvement and measures directly important in said connection."

At a conference of Dr. A. N. Hume, Ralph E. Johnston, and W. F. Kumlien on January 2, 1925, the following general points were agreed to as a basis for doing seed certification work in 1925:

1. It is assumed and favored that the South Dakota Crop Improvement

Association will continue the certification project formerly sponsored by the Experiment Association.

2. The college is willing to continue to assist in this program providing its help is needed and until such time as the Crop Improvement Association can take it over; provided further that the work expected of the college is educational in character.

3. A system of certification rules and rates of fees should be adopted by the Crop Improvement Association whereby certification work will be as nearly self-supporting as practicable.

4. The Extension Agronomist will adopt seed certification as one of his sub-projects for the year and a definite time will be set aside in his schedule for this work.

5. The Crop Improvement Association will pay seventy-five percent of all certification fees collected to the Extension Service toward the expenses of the Extension Agronomist for assistance rendered.

The above plans for certification were approved at a special meeting of the executive board on March 4 and 5, 1925. Also present were R. E. Johnston, Extension Agronomist, W. F. Kumljen, Director of Extension, and Dean C. Larson.

Direction was given that the secretary shall act as treasurer of the Association pursuant of a motion made and carried by the board at the Pierre meeting to the effect that the secretary shall be empowered to arrange for the disbursement of funds appropriated by the legislature under the approval of the Board of Regents of Education and of such other funds as may be collected by the Association for membership fees, certification dues, etc.

R. E. Johnston was to direct seed certification and registration as assistant-secretary of the Association.

1926

The 1926 Crop Show and Potato Show were held together at Aberdeen, January 6, 7, and 8. The Potato Show was an important attraction with David Sour of Hayti being selected as Potato King.

Speakers at the various meeting included President of South Dakota State College, C. W. Fugaley, Governor Carl Gunderson, O. J. Ogaard, Extension Agronomist of Montana, Dr. H. W. Foght, President of Aberdeen Normal, Dean C. Larson, Brookings, Dr. H. B. Humphrey of the Office of Cereal Investigations, Washington, D. C., and W. C. Dittmer, County Agent of Brown County.

A popular subject at the meetings was the problem of the disposal of grain surpluses and the protection of their prices. The proposal was to have congress provide some means of segregating exportable surplus so that it would not fix the price of the entire commodity at world levels.

The executive board met in Brookings, March 24. Andrew Palm, Watertown, Secretary of the South Dakota Potato Growers Association, requested the continuance of the union of the annual meetings and shows of the two associations. This was approved.

In 1926 considerable thought was given to the strengthening of seed standardization and certification. The effort to standardize crop varieties resulted in the publishing of recommend variety lists for various parts of the state. It was difficult to maintain purity of varieties after their release from the experimental station because these releases went to miscellaneous growers and many were lost. Dr. A. N. Hume proposed that the Association prepare a list of "elite growers" to receive new variety releases, increase them, and start their distribution in their various communities at reasonable prices. This suggestion was never put into effect.

Other discussion for seed improvement was started, such as the possibility

of limiting the registration of alfalfa seed production only from fields seeded with registered seed. Hope was also expressed of securing cooperation of the seed trade in improved standardization and labeling of seed.

1927

Over five hundred samples of grain and potatoes were exhibited in Beresford on January 5, 6, and 7, at the annual show of the Crop Improvement Association and the Potato Growers Association. Ross Davies was County Agent of Lincoln County at that time.

It is interesting to note the credit given to the 4-H Clubs in extending the corn belt in South Dakota. The South Dakota State Club Leader, H. M. Jones, in speaking at the show quoted a 4-H Club leader in Stanley County in the following statement: "It was not very long ago that most of us were of the opinion that corn could not be grown in Stanley County. Everyone knows that today corn raised here is Fulton Yellow Dent. This is due to the fact that a boys' corn club organized here more than ten years ago studied the different varieties of corn adaptable to our conditions and selected Fulton corn. The seed corn which we are using today has been selected almost entirely from the original Fulton dent brought here by the boys' corn club members."

Among the speakers at the January show was F. A. Krantz, University Farm, St. Paul, who discussed recent potato development. Also, M. E. Hauser, Extension Agronomist at Iowa State College, spoke on the subject, "Our Dependence on Corn."

The South Dakota Crop Improvement Association was one of the cooperating agencies of an "Alfalfa and Sweet Clover Special" train. It made seventy-six stops in the east river section of South Dakota to promote greater acreage and use of these crops as the "most reliable, permanent and productive sources of feed for maintaining livestock on South Dakota farms under all conditions."

The officers and members of the Association accompanied the exhibits part of the time during the tour which lasted from January 8 to February 10. The train was visited by 49,395 or an average of 650 people per stop.



Figure 6. Aboard the "Alfalfa and Sweet Clover Special."

The trade mark for the Association was issued by the United States patent office on August 16, 1927. The trade mark, consisting of an alfalfa plant, sheaf of grain, and an ear of corn inscribed on an outline of South Dakota,

had been used since January 1, 1925.



Figure 7. Registered trade mark of the Crop Improvement Association.

1928

The 1928 Crop Show was held in conjunction with Farmers' Week at South Dakota State College at Brookings, February 7 to 10. The \$1000.00 offered for prizes was greatly publicized. An estimated crowd of 1000 attended the two functions.

Dean H. L. Russell, Wisconsin College of Agriculture, told of his travels in China and emphasized the conservation of our soil resources and flood control to prevent a repetition in this country of the ruin that had taken place in China.

Another featured speaker was Dr. C. R. Ball, Cerealist of the U. S. D. A., who spoke on "Breeding Cereal Varieties for Disease Resistance."

The sweepstakes ten-ear sample went to N. K. Larson, Elk Point, and the sweepstakes bushel sample of corn to Hugh Nash, Redfield.

The board of directors met February 9 and 10. A Ten Acre Corn Contest was planned, also corn variety demonstrations. The demonstrations were to include the following varieties: Minnesota 13, S. D. No. 86, All Dakota, Brookings 86, Alta Yellow Dent, Fulton Yellow Dent, Golden Jewell, Wimple's Hybrid, Silver King, and Lucke White Dent.

At this meeting, a resolution in cooperation with the Potato Growers Association, for a new Agricultural Hall was passed as follows:

We, the Crop Improvement Association and Potato Growers Association assembled at Brookings in our annual meeting, are intensely interested in the welfare of agriculture and especially the only institution in the state which has to do with teaching and experimenting in the different phases of agriculture.

With this welfare of the agriculture of the state in mind, a committee was appointed to survey the facilities of our state institution for doing this work in the most efficient and effective manner.

There is a large class of agricultural students, especially in the School of Agriculture. These latter students are now crowded in one of, if not the oldest, buildings on the campus.

The different Collegiate and School of Agriculture students and members of the agricultural faculty are scattered all over the campus.

The teaching of agriculture, and the experiments and investigational work in agriculture, should be the business of first importance in the South Dakota State College. The committee finds, however, that this apparently is not the case.

The South Dakota State College is the only Land Grant College of which we know, which does not have an agricultural building in which agricultural work and agricultural sentiment can be concentrated.

This committee therefore resolves: That there is a great need for an Agricultural Hall on the campus, large enough to accommodate the experimental and instructional work, also the Agricultural Extension Service, as well as for laboratories and recitation rooms, and for agricultural student activities of the various kinds.

Committee: (Signed) David Sour
A. G. Vincent
H. P. Hansmeier

(Construction of such a building began in 1950.)

A shortage of good seed in 1928 prompted the Association and Extension Service to prepare a seed catalogue listing crop seed for sale from all sources in the state.

Seed Council of South Dakota

The Crop Improvement Association called together the following persons in Huron on August 1, 1928, to discuss the formation of a State Seed Council:

Richard Burn	Dakota Improved Seed Company	Mitchell
R. C. Gage	Haley-Neeley Company	Sioux Falls
E. C. Clark	Manager, Seed Department, Geo. P. Sexauer & Son	Brookings
F. E. Pohle	Alfalfa Seed Dealer	Philip
Sam H. Bober	Seed Dealer	Newell
C. W. Freeman	Freeman-Bain Company	Aberdeen
Nick Caspers	Manager, Alfalfa Seed Growers Exchange	Rapid City
J. V. Michael	Sioux City Seed Company	Sioux City
Sherman E. Finger	Faith Seed & Warehouse Company	Faith
H. B. McKibben	Seed Grower	White
E. S. Wilson	Central South Dakota Development Association	Blunt
J. G. Winter	Winter Grain Company	Wessington Springs
W. T. Greene	Alfalfa Seed Growers	Mitchell
Gilbert Gronseth	Prop, Pleasant Valley Seed Farm	Britton
Gustave Tied	Colonization Department, C & NW Ry.	Wessington
J. C. Milne	Executive Secretary, Farm Seed Association of North America	Chicago
A. J. Ogaard	Northwest Crop Improvement Association	Chicago
H. R. Sumner	Editor, The Dakota Farmer	Minneapolis
J. Dinwoodie	The Dakota Farmer	Aberdeen
A. H. Pankow	Secretary, South Dakota Farmers Elevator Association	Aberdeen
F. H. Sloan	Seed Grower	Sioux Falls
A. V. Thoreson	Dean of Agriculture	Clark
C. Larsen	Agronomy Department, State College	Brookings
A. N. Hume	State College	Brookings
N. E. Hansen	State College	Brookings
Alan Dailey	Beadle County Agent	Brookings
R. A. Cave	Director, Crop Improvement Association	Huron
E. P. Sand		Mitchell

Chas. S. Blackman	Seed Grower and Director, Crop Improvement Association	Clark
Hugh B. Nash	Seed Grower, president, Crop Improvement Association	Redfield
J. A. Salisbury	County Agent	Redfield
Ralph E. Johnston	Extension Agronomist, State College	Brookings

Hugh B. Nash, president of the South Dakota Crop Improvement Association, was chairman of the meeting and Ralph E. Johnston, Extension Agronomist, acted as secretary.

The principle speaker was A. J. Ogaard, executive secretary, Farm Seed Association of North America, discussing "The Seed Council of North America," which was organized in 1927 at the suggestion of the president of the International Crop Improvement Association. State Seed Councils were to be affiliated with the North American Council to work together for better seed through legislation, seed laboratories, seed certification and verification, crop standardization and improvement, and weed campaigns.

It was decided that a South Dakota Seed Council be formed consisting of representatives of the following:

South Dakota Crop Improvement Association	1 delegate
South Dakota Farm Bureau	1 delegate
South Dakota Farmers' Union	1 delegate
South Dakota State Grange	1 delegate
South Dakota Farmers' Elevator Association	1 delegate
South Dakota State Department of Agriculture	1 delegate
South Dakota Extension Service	1 delegate
South Dakota Agronomy Department	1 delegate
South Dakota Seed Dealers	2 delegates

Meetings were held in Huron in September and in Brookings in December to outline definite work for the Council. The three following projects were selected:

1. The formulation of a state seed law based upon the uniform seed law.
2. Seed Certification of potatoes, small grain, and flax.
3. Formulation of a seed alfalfa law providing for the inspection of fields, certification of seed, and sealing of sacks.

1929

The main publicity feature of the 1929 Crop Show was the \$1000.00 in prizes. The show was held in Pierre from January 23 to 25, with the Potato Growers Association cooperating with the Crop Improvement Association. Hugh Nash was still president and Ralph Johnston was secretary of the Crop Improvement Association.

At this time some changes were taking place in the history of corn in South Dakota that were influenced by the Crop Improvement Association. One change was in the type of corn that was being favored at crop shows. Previously, rough starchy ears were favored and thought to excel smooth ears in yielding ability. A. G. Vincent, Letcher, who was in charge of the South Dakota exhibits in Chicago wrote: "Our growers would do well to select only smooth ears. It is a well known fact that smooth corn will mature a little earlier, yield just as much and often more, and is of greater feeding value than rough corn. The East has learned its lesson and everything is in favor of smooth corn. The type of corn grown in the extreme southeastern part of our state is larger than corn grown in other states in competition with us. I would suggest that those growers keep their samples down to nine inches, good oily kernels, medium depth, and sixteen rows. Such corn seems to meet with favor with the corn judges."

The first reference to hybrid corn in any of the Crop Improvement Association records was in a report by Gale Peppers who was attending the International Show in Chicago in 1929. The report was on a discussion of "The Status and Possibilities of Hybrid Corn." He quoted these points:

1. Results of hybrids—a corn that will stand up.
2. Strains have been produced which will respond more readily to fertilizer and soil fertility. In other words, there are strains which might be called 50 bushel corn, 60 bushel corn, 75 bushel corn, etc., that is their limit under ideal conditions.

3. Some strains are highly efficient in extracting fertility from the soil.
4. Strains injured less by drought.
5. Strains that will withstand cold weather.
6. Possibility to develop strains which will be relished more by livestock and produce larger gains."

Corn varieties that were being used in county test plots at this time included:

- | | |
|-------------------------|-----------------------------|
| 1. Reid's Yellow Dent | 11. Erion's Yellow Dent |
| 2. Wimple's Yellow Dent | 12. Minnesota No. 13 |
| 3. Davis Yellow Dent | 13. Alta Yellow Dent |
| 4. Golden Jewell | 14. Pleasant Valley Special |
| 5. Sundal's Yellow Dent | 15. Silver King |
| 6. Murdock Yellow Dent | 16. Dailey's White Dent |
| 7. Sand's Yellow Dent | 17. Northwestern Dent |
| 8. Fulton Yellow Dent | 18. White Cap Yellow Dent |
| 9. So. Dak. No. 86 | 19. Mercer Flint |
| 10. Golden Glow | |

In addition to these varieties some crosses between dent corn and flint corn were used, such as Wimple's Hybrid and Kings Cross.

1930

The state crop show was held in the Elks Auditorium of the Marvin Hughitt Hotel at Huron on January 15, 16, and 17. A class, "New Corn Exhibitors," was formed for those who had not entered exhibits in previous shows. Exhibiting of corn samples had become so professional that the winners were largely the same men every year. This new class was to stimulate the interest of more exhibitors. Another new class, "Certified Seed Grains," was also instituted to stimu-

late interest in improved varieties and better seed.

The seeds and soils school held in connection with the crop show was conducted by such men as Professor J. G. Hutton, Dr. F. A. Krantz, Plant Breeder from Minnesota, Dr. A. N. Hume, Mathew Fowlds, Dr. K. H. Klages, and A. W. Palm.

Dr. Hume discussed his work in corn breeding that included early work with hybrid corn. He explained inbreeding and the results of crossing the inbreds, using specimens to illustrate the results.

1931

During the annual meeting of the State Crop Improvement Association in January, 1930, Dr. C. W. Fugsley, President of State College, gave the following report of agricultural conditions in South Dakota: "South Dakota should feel rather happy over her agricultural position at the beginning of 1930. During the past year the value of her crops has increased 15 percent over the preceding year. This means that the value of the crops raised by the farmers of the state in 1929 exceeds the value of the 1928 crops by \$22,235,000.

A comparison of the South Dakota situation with the nearby states shows that Iowa and Wisconsin made no change in their positions. The value of North Dakota's crops decreased 19 percent and those in Montana, 27 percent. Minnesota shows an increase of 9 percent and Nebraska an increase of 6 percent."

This bright outlook for South Dakota rapidly faded during the "thirties" with a combination of depressed farm prices, extreme drouth, and heavy infestation of grasshoppers. These conditions also had a depressing effect on the activities of the State Crop Improvement Association. The members were forced to apply all of their energy in an attempt to eke out a subsistence for their individual families.

The Association's principal activity was to help the Extension Service maintain seed lists of farmers who had seed for sale. Seed was extremely scarce and



Figure 8. Edgar S. McFadden speaking to a seed growers school in Aberdeen, February, 1931. Edgar McFadden originated Hope wheat which for many years was the source of stem rust resistance in many wheat varieties.

any grain that could escape being fed was listed for seed.

On recommendation of the board of directors after their meeting on October 20, 1931, Governor Warren Green appointed a State Seed Committee to work on the problem of seed distribution. Hugh Nash was chairman of the committee.

Seed Exchange Days were arranged at sixteen locations in the state. These consisted of local crop shows and farmers' short courses conducted in cooperation with the Extension Service. Considerable help was given in locating sources of seed through these Seed Exchange Days.

In 1931 the Association put \$300.00 into the student loan fund at State College.



Figure 9. Cup winners at the 1931 State Crop Show. Left to right: Dave J. Mueller, Freeman, Otto W. Sundstrom, Beresford, J. T. Sundal, Colton, Henry Ireheim, Marion, E. H. Brockmueller, Freeman, F. A. Fleming, Elkton.

1932

The experience with the Seed Exchange Days prompted the Association to plan for a series of meetings and crop shows in cooperation with the Extension Service for the winter of 1932-33. These were to close with an annual meeting and large crop show to be held during Farm and Home Week in Brookings in February.

Poor crops and low prices caused a change to be made in these plans. A "Northern Corn Show" was held at Mobridge, a crop show at Letcher, and one in connection with the South Dakota Potato Growers Association show at Watertown. These shows received some financial support from the South Dakota Crop Improvement Association.

No state crop show was held.

1933

It was quite evident that the board of directors that met in Huron, June 22, 1933, were a discouraged group of farmers. A discussion of the feed and seed situation of South Dakota was abbreviated something like the following:

Frank Swope, Orient -- "We have been paying more attention to cereals than we should. We need more information on pasture and forage crops."

E. G. Wilkinson of Milesville -- "Don't know what the country is coming to, because now we have to figure on about 30 acres of grass per head and native hay is a thing of the past. Sorghums and sudan are becoming popular and make very good feed."

Hugh B. Nash, Redfield -- "I had to make a trip to the Hills and just returned. On my way out I thought there would be plenty of feed, but upon returning, I can't see it."

A. G. Vincent, Letcher, and Frank Swope found in their experience that their livestock preferred sudan to alfalfa.

Henry P. Preheim, Marion, and Hugh Nash found they secured the largest amount of feed per acre on the basis of water required from cane and sudan in comparison to other crops.

Ralph E. Johnston, secretary, explained that the Association had supplied \$25.00 worth of grass seed for regrassing demonstrations, one of which has been planted in Walworth County. He mentioned the possibility of crested wheatgrass being used in western South Dakota.

It was decided to not attempt a state crop show in the winter of 1933-34, but to assist the district shows that may develop if the crop conditions warrant such shows.

A crop show was held in connection with Farm and Home Week. (This was the first such arrangement and it has continued since that time until the show in

Pierre in 1953.)

1934

For a number of years, the board of directors had very few changes in personnel. It consisted of nine members elected for a three year term with the term of three expiring each year. At the annual meeting in February, 1934, the directors whose terms were expiring were re-elected, making the board as follows:

Hugh B. Nash, Redfield ----President

Charles Blackman, Clark ---Vice President

Frank Swope, Orient

Frank Bunde, Canning

E. G. Wilkinson, Milesville

George Ruml, Letcher

A. G. Vincent, Letcher

Henry Freheim, Marion

Gale Peppers, Groton

The secretary of the board was Ralph E. Johnston, Extension Agronomist.

Considerable interest in hybrid corn was shown at the annual meeting. The discussion was lead by Otto W. Sundstrom, Beresford, a former director who had been working with hybrid seed corn. He stated that Nebraska, Iowa, and Minnesota were developing hybrids and that a corn breeding substation should be located in the corn belt section of the state -- the southeastern corner.

Another suggestion for a substation in southeastern South Dakota was advanced during a discussion of the weed problem (primarily bindweed) of the state. At the board of directors meeting in December, Henry Freheim moved a resolution "that the board of directors of the South Dakota Crop Improvement Association are in favor of starting a Creeping Jenny Experimental and Demonstrational Farm in southeastern South Dakota and that the Association use some of its funds, if that is possible, to start such a project; and further that a copy of this resolution be sent to the State College and other interested agencies, seeking their cooperation, looking toward a united effort in order to start a sound program

directed against this weed pest."

At the June meeting of the board of directors, President Hugh Nash reported on his previous nine months at work as Chairman of the State Seed Committee and special representative of Governor Tom Berry. He told of buying 9,000,000 pounds of emergency crop seeds such as sudan grass, cane, and millets to be planted in 1934 for the production of livestock feed.

The seed supply problem was one of great concern for the Crop Improvement Association in 1934. The directors worked closely with various state and federal agencies in obtaining seed. The Association was particularly concerned with "keeping alive" the varieties and strains of crops suited to South Dakota. Seed of several adapted varieties of small grain was purchased and put out with approved growers on a written agreement for increasing it in 1935.

The 1934 crop show was held in connection with Farm and Home Week in Brookings.

1935

The annual membership meeting was held in Brookings, February 6 and 7. The following directors were elected: Frank McHugh, Aberdeen, E. G. Wilkinson, Milesville, and Otto Sundstrom, Beresford. Hugh Nash did not choose to run for reelection on the board since he was no longer on the farm. He had been serving on the board since 1918 and most of that time he served as president. Charles Blackman, Clark, was elected president.

In 1934 action was started to obtain a corn substation in southeastern South Dakota. During the February meeting in 1935, the board voted to contribute up to \$60.00 to assist in putting an extensive corn test on the Otto Sundstrom farm near Beresford. This was done under Dr. A. N. Hume's direction in 1935 and included twenty-two hybrids and three open-pollinated varieties from Iowa, Minnesota, and South Dakota State College, and hybrids from Mr. Sundstrom and the Hybrid Corn Company of Grimes, Iowa.

Agitation for a satisfactory seed law was a popular topic at the annual meeting. Dr. K. H. Klages of the Agronomy Department and Mrs. Cooley, Farm Editor of the Watertown Public Opinion, explained a proposed law. The law was passed in 1935 providing for a State Seed Commissioner appointed by the Governor to be located at State College and administer seed analysis, certification, and registration. Mr. R. W. Vance was appointed by Governor Tom Berry to be commissioner. The board of directors of the Crop Improvement Association offered their services to Mr. Vance in assisting with the certification work, but apparently the offer was not well received.

The legislature abolished the office of commissioner six years later, in 1941. The authority was transferred to the State Department of Agriculture.

1936

In 1936 the only change made in the board of directors was that Frank Cundill, Firesteel, replaced Frank Baade. (The name of "Frank" seems to prevail -- other Franks on the board at that time were Frank McHugh and Frank Swope.) At the annual meeting Gale Peppers was appointed chairman of a committee to formulate a program to guide the Association in future work and also to acquaint the newly formed Greater South Dakota Association with the work of the Crop Improvement Association.

PROGRAM COMMITTEE REPORT
Of The
SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION

Statement of Policy

1. The economic production of high quality crops which will meet market demands.
2. The maintaining of soil fertility and the proper balance between crops (including grass) and livestock.
3. Stimulating the production and marketing of the crops in which we excel.

4. Continued investigations in scientific crop and soils research work.
5. An extension educational program which at all times gives to the public the latest facts on crops and soils problems.

What the Crop Improvement Association Can Do:

The Association has no funds or personnel with which to carry out a program. As a group of organized and interested crop growers, it can present the best ideas of experienced crop growers making up its membership and board of directors, in the form of a program.

After presenting such a program to all agencies who are directly concerned with these problems, and to other groups who can assist, the Association stands ready to give its full share of cooperation.

The Program:

1. Continue with the seed clinics and seed schools. These have proven to be of great value in crop improvement work. They should be increased in number, and if at all possible, additional funds and personnel should be made available.
2. Variety standardization and seed certification must be encouraged and the volume increased. There should be started a system, like in Minnesota, where increase fields of the adapted varieties of crops are produced by the Agronomy Department, which seed is then put into the hands of approved seed growers, under agreement, to increase for more general distribution.
3. South Dakota must regain her needed acreage of alfalfa and sweet clover lost during the last few years.
4. Abundant supplies of forage for livestock is one of the important points in the agricultural restoration program for this state. Besides alfalfa, sweet clover, and the grasses, this means that the annual hay and fodder

crops must be used until there is an abundance, with one or more years supply on hand at all times, in all parts of the state.

5. There is no more pressing need in this state than to restore our native grass pastures; to increase our acres of perennial grass pastures; to develop and practice the safest and most practical system of annual or rotation pastures. There must be firmly established the fact that our grass lands produce a "crop" year after year when properly managed. There must be increased testing of grasses, both as to kinds and methods of securing stands of this crop, especially in the central and western parts of the state.
6. The corn crop of this state needs some special attention, largely in the way of hybrid corn breeding and investigational work. This work should be done on a greatly enlarged scale and especially in the southeastern or "corn-belt" section of the state.
7. The eradication of our noxious weeds appears as one of the important agricultural problems of this state. The problem is now so big that it will require the united action of all affected counties to make real and lasting progress. These serious weeds should not be left to spread at will.

In 1936 the Association voted to become a member of the South Dakota Council of Agriculture.

During this period in the history of the Association there was very close cooperation with the Potato Growers Association. Their shows were held together and they cooperated in obtaining the seed law. The Crop Improvement Association helped with the cost of having South Dakota Certified potatoes in test plots in the southern states.

Due to the drought, the Association was still helping with the preparation

of seed lists and informing prospective sellers of the necessity of seed tests under the new law.

1937

The board of directors remained the same in 1936 and 1937. An attempt was made to divide the work of the Association among the members by appointing the following committees:

Sorghums: Frank Swope, Orient, Chairman; Harvey Oxtun, Andover; R. L. Miller, Kennebec; Clifford Franzke, Brookings.

Grasses: Frank Cundill, Isabel, Chairman; Richard Burn, Mitchell; Robert Hughes, Murdo; Frank Eichelman, Isabel.

Small Grain: Frank McHugh, Chairman; Ejorn Davidson, Redfield; E. H. Sexauer, Brookings, Dr. S. W. Swenson, Brookings.

Corn: Otto Sundstrom, Beresford, Chairman; A. G. Vincent, Letcher; H. E. Dawes, Brookings; Dr. A. N. Hume, Brookings.

Legumes: E. G. Wilkinson, Chairman; Sam Bober, Newell; Floyd Collins, Belle Fourche.

Soils: W. S. Given, Chairman; H. B. Test, Aberdeen; Benj H. Schaub, Aberdeen, Professor J. G. Hutton, Brookings.

Certification: Gale Peppers, Britton, Chairman; Frank Swope, Orient; E. G. Sanderson, Aurora; Geo. Anderson, Parker; H. N. Sumner, Secretary of the Northwest Crop Improvement Association, Minneapolis.

Grain Feed Crops: A. G. Vincent, Letcher, Chairman; Evan Hall, Aberdeen; A. O. Syverud, Clear Lake; M. Fowlds, Brookings.

Weeds: E. E. Gelhaus, Webster, Chairman; Robert Wheaton, Bath; Henry Preheim, Marion; W. J. Cassidy, Flandreau.

1938

The annual meeting was held in Huron, September 14, 1938. Ralph Johnston,

who had been with the Crop Improvement Association since its reorganization in 1924, first as assistant secretary and then as secretary, resigned in 1938 as he left the Extension Service. Rex Bankert, Assistant Extension Agronomist, was elected secretary of the Association.

The Association was having difficulty in securing an adequate appropriation from the legislature. \$1500.00 was requested in 1937 and this was reduced by the legislature to \$1000.00. This money was used for demonstration plots and the crop shows. It was decided to request \$1800.00 at the next session.

Considerable dissatisfaction was arising regarding the office of Seed Commissioner as provided in the 1935 seed law. The fact that it became a political appointment seemed to be the basis for the dissatisfaction. Difficulty was arising with certification, increasing new varieties, and distributing them to the farmers. The need for having certification in the hands of the Crop Improvement Association in cooperation with the college was becoming apparent. E. G. Sander-son was also pointing out the need for county associations to assist in certification and distribution of new varieties.

Dr. Swenson pointed out, "If the Agronomy Department develops something new there must be a plan of releasing it. To the Crop Improvement Association, seed of new varieties is the most tangible thing to keep the organization together. The Association in turn can be a great help to the Agronomy Department of the college."

Action was taken at the annual meeting to have a committee study the law and make recommendations for its improvement.

The Association prepared an exhibit of crops for the National Corn Husking Contest that was held in the state in 1938.

During the years 1935-1938, the State Crop Shows were being held in connection with Farm and Home Week. In 1938 and for a number of years later the

show was held in the ROTC Armory.

1939

The 1939 legislature abolished the office of State Seed Commissioner and transferred its powers to the South Dakota Secretary of Agriculture. The secretary in turn, transferred the seed certification work to the South Dakota Crop Improvement Association, and the seed testing work to South Dakota State College. The regulatory responsibility was retained by the Secretary of Agriculture.

A special meeting was held in Huron on March 22, 1939, to organize the seed certification service. The organizations represented were:

South Dakota Crop Improvement Association

South Dakota Potato Growers Association

Extension Service

Agronomy Department — State College

State Department of Agriculture

U. J. Morgeard, Extension Agronomist, was elected secretary to fill the vacancy caused by the resignation of Rex Bankert.

At the Huron meeting the following arrangements pertaining to certification were adopted:

1. Under the section of the law defining cooperative functions, the Secretary of Agriculture agreed to endorse standards of seed certification adopted by the South Dakota Crop Improvement Association.
2. Since the 1939 Seed Certification Law designated the South Dakota Department of Agriculture as the official agency to certify seed, the Secretary of Agriculture or his agent will, upon evidence that the standards and regulations have been fully complied with by the applicant for seed certification, place the official South Dakota tag and seal upon the seed.

3. Any seed grower whose crop originated from certified seed of the adapted varieties accepted for certification in South Dakota is eligible to have his field inspected.
4. Field inspection will be made by trained inspectors employed by the Crop Improvement Association after being endorsed by the Department of Agronomy, South Dakota State College, and approved by the Secretary of Agriculture.
5. All applications for tests of seed certification must be sent to the South Dakota Crop Improvement Association, Brookings, South Dakota, not later than June 20.
6. The field inspection fees are \$3.00 for 30 acres or less and 10¢ for each additional acre. The fee must be paid before field is inspected. The field inspection fee must be sent to the South Dakota Crop Improvement Association, Brookings, South Dakota, at the time application is sent. All money is returned if field is not inspected.

If seed grower is not a member of the South Dakota Crop Improvement Association, \$1.00 in addition to the regular inspection fees will be collected to help pay for cost in handling his office records. (\$1.00 is the annual dues of the members of the South Dakota Crop Improvement Association.) A fee of 5¢ per bag will be charged on all certified seed when it is sealed and tagged. Note: The above schedule is subject to change in accordance with the volume of certification performed. The principle which will be followed is that the producer of certified seed will be charged only the actual costs of making the necessary field and laboratory inspections.
7. A threshed quart size sample of the seed from the inspected field, accompanied by a guarantee of the grower that it is a representative sample

of the seed held for sale, must be submitted to the South Dakota Crop Improvement Association, Brookings, South Dakota, for testing.

8. Every grower of certified seed must make a signed statement to the South Dakota Crop Improvement Association, Brookings, South Dakota, as to the amount of such seed for sale, as per sample submitted for final test upon which certification is made. A copy of this statement will be sent to the Department of Agriculture, Pierre, South Dakota.

Sales must be reported to the South Dakota Crop Improvement Association, Brookings, South Dakota. All sales are made directly between grower and buyer of seed. A copy of the sales reports will be sent to the Department of Agriculture, Pierre, South Dakota.

Other resolutions:

1. The South Dakota Crop Improvement Association shall submit to the Secretary of Agriculture their standards on certification of all crops, grains, and seeds.
2. The South Dakota Potato Growers Association shall submit their rules, regulations, and standards on certification of seed potatoes to the Secretary of Agriculture.
3. The Secretary of Agriculture will, under this agreement and in accordance with the section of the law under cooperative functions, enter into a cooperative agreement with the Crop Improvement Association in regard to inspection and certification of seed.
4. It was to be understood that any other seed organization may, at the discretion of the Secretary of Agriculture, have the same privilege, however, no seed organization would be eligible for such privilege unless the certification standards were equal to those set by the South Dakota Crop Improvement Association, or the South Dakota Potato Growers

Association.

5. The president of the South Dakota Crop Improvement Association or his duly authorized representative and the president of the South Dakota Potato Growers Association or representative shall be authorized to enter into cooperative agreement with the Secretary of Agriculture in regard to this matter at such time and place as they may mutually agree upon.

An important topic at the annual meeting of November 10, 1939, was the status of county associations. Twenty county associations with at least 25 members each had been organized. One of the primary objectives of the county associations is that they receive new crop releases and keep these releases pure and certified.

Mr. O. S. Fisher, Extension Agronomist, Washington, D. C., gave considerable assistance at this meeting by telling how certification work was being conducted in other states. The standards for certification regulations were taken from the international rules.

A certification committee was selected, consisting of: Frank Swope, Frank Mollugh, U. J. Norgaard, Dr. Stanley Swenson, Gale Peppers, J. J. Martin, and Otto Sundstrom. This committee met in December to work out many details. One interesting detail was the removal of sweet clover from the list of noxious weeds as they pertained to alfalfa. Seed sealing was to be handled by county agents under the justification that this was part of the education program of the production of certified seeds.

1940

The certification committee met in Brookings, January 3, 1940, to formulate certification policies. Others who met with the committee were Professor Elmer Erickson, Seed Analyst at the college, Dr. A. N. Hume, and Hugh Frandsen, County Extension Agent at Brookings. Otto Sundstrom was elected chairman of the committee.

The two principle problems discussed dealt with the disposition and certification of foundation seed released from the college and the certification of hybrid corn.



Figure 10. Dr. A. N. Hume (left), Head of Agronomy Department; U. J. Norgaard, Extension Agronomist, and C. J. Franzke, Plant Breeder, in conference regarding early corn inbreds adopted for South Dakota.

It was decided that foundation seed be released to the County Crop Improvement Associations and be increased under their supervision.

The certification of hybrid corn had been somewhat complicated and difficult to control. The regulations were as follows: The performance of a certified commercial hybrid (1) must equal the average of the better open-pollinated varieties in lodging resistance, (2) must produce at least 10% more grain of the same quality, and (3) must have the combined advantage in lodging resistance and yield of not less than 25%. These records must have been made in each of two years, both within the five year period immediately preceding such certification.

The record of performance of such hybrids, obtained for the individual controlling the inbred lines may be used by any person or concern asking for certification providing the hybrid is identified with the one on which the record is based.

Exception: In addition to the above requirements for blue, red, and yellow tag certification, the Association will also certify to the quality and genuineness of hybrid strains which have not yet been performance tested in South Dakota but which, on the basis of performance tests in other states under conditions which appear to be similar to South Dakota conditions, may possess factors which make them adapted to South Dakota. A white tag will be used.

These rules involved a number of problems such as, (1) the tests were not conducted over a long enough period to be satisfactory and (2) out-of-state companies were selling seed in South Dakota with blue and other colored tags from other states.

It was late to correct the many flaws in the hybrid corn certification rules for 1940, but a start was made toward improvement by having the following rules apply for 1940:

Certification will be made with blue, red, and yellow tags for hybrid seed corn which is (1) true to name, (2) has passed field inspection for off-type plants, (3) the tolerance standard for detasseling, (4) isolation requirements, (5) seed house inspection for off-type and doubtful ears, and (6) laboratory germination and purity tests.

In July further work by the certification committee eliminated the use of various colored tags for certified seeds, adapting the blue tag only in all certification except for alfalfa where the red tag was also to be used.

Also at this meeting, Rival wheat was added to the certified seed list and Swedish Select oats was removed. The primary and secondary noxious weeds, as we now have them, were designated.

Certification standards for small grain and alfalfa were also adopted.

Annual Meeting of the Association

This meeting was held November 11, 1940. E. H. Mogck and E. G. Sanderson replaced Otto Sundstrom and Charles Blackman on the board of directors.

E. G. Sanderson outlined a proposed weed law which was favored by the Association.

Dr. Stanley Swenson announced that the Agronomy Department had 900 bushels of Miomark oats for distribution to the county associations.

1941

An important board of directors meeting was held at State College on July 1, 1941, with the following members present: President Frank Swope, Vice President Frank McHugh, Secretary U. J. Norgaard, E. G. Sanderson, Gale Peppers, and Frank Cundill. Benj. Schaub, County Agent from Brown County, and J. J. Martin, Seed Division of the State Department of Agriculture, were also present.

Since the college had been losing a number of men to the armed services such as Dr. Foley, Head of the Poultry Department, a resolution was passed urging the deferment of such men in the interest of food production for national defense.

The annual discussion regarding the location of the state crop show arose. Many communities were bidding for it, usually in connection with some jubilee celebration. Since such celebrations would over-shadow the crop show, it was decided to continue the show in conjunction with Farm and Home Week.

The growing of certified alfalfa seed on the same farm with other alfalfa was discussed. In order to be consistent with other states, the regulation that prohibited such a practice was changed to read: "No other alfalfa can be produced for seed on the same farm that is producing certified alfalfa seed." It could therefore be grown for hay.

Another problem dealt with the selling of hybrid seed corn in South Dakota.

Some states were prohibiting the sale of hybrid seed corn unless it was certified by an official agency. The board recommended to the Secretary of Agriculture that "his department shall permit no person, firm, or corporation to sell hybrid seed corn in South Dakota until said person, firm, or corporation shall have satisfied the Secretary of Agriculture as to the quality and worth of said hybrid seed corn."

In 1941 considerable work was done on seed regulations, particularly those that concern seed certification. Many of the basic principles of certification established at that time carried over for years later.

It is interesting to note some of the grain varieties that were certified in 1941. They were as follows:

<u>Wheat</u>	<u>Oats</u>	<u>Barley</u>
Ceres	Richland	Odessa
Reward	Gopher	Wis. 38
Marquis	Nakota	Velvet
Thatcher	Iogold	Glabron
Pilot	Rainbow	Spartan
Mindum		Trebi
Kubanka		
Rival		

During the ten years following 1941, practically a complete change was made in the list of spring wheat and oats varieties. Stem rust was one of the primary causes for the shift in spring wheat varieties. The most complete change was in oat varieties. The 1941 varieties were abandoned in favor of the Victoria x Richland crosses on account of crown rust. When the Victoria x Richland crosses became prevalent in South Dakota, their weakness, *Helminthosporium victoriae*, became rampant. The plant breeders were ready with the resistant varieties of the Bond crosses.

This rapid change in varieties alone has been ample justification for the existence of a closely-knit farmer organization such as the Crop Improvement

Association to serve as a vital link between the plant breeder and the producer.

1942

The wartime transportation and labor problems again caused a question to be raised regarding the advisability of having a 1942 Crop Show. It was largely these problems that influenced the decision to again hold the show in connection with Farm and Home Week.

Some rather abrupt changes were made in the varieties of oats that were to be certified. Those dropped from the list were Rainbow, Iogold, Gopher, and Richland. Those added were Vikota, Tama, Boone, Vicland, and Brunker. The first four were Victoria x Richland crosses to avoid crown rust, and Brunker was a red oat developed from Burt oats.

1943

The war-paralysis of transportation plus the farm labor shortage greatly hampered the activities of the Association. The board of directors were active, but no annual meeting was held. The board was studying the problem of securing more and better County Crop Associations. The required membership for a county association was reduced from 25 to 15.

Another problem being considered was that of increasing foundation seeds. Plans were being made for a Foundation Seed Stocks Corporation. These were becoming a reality at the close of 1943. The effect of new assistance in certification and foundation seed production was being felt by the addition to the Agronomy staff of the new head, Dr. W. W. Worzella, A. O. Syverud, and Dwight Johnson.

1944

The Foundation Seed Stocks Division of the South Dakota State College Foundation was activated at the board of directors meeting of the State Crop Improvement Association on February 2, 1944. Its function was to increase varieties

developed by the South Dakota Experiment Station and to maintain pure seed reserves of standard varieties.

The first board of directors of the South Dakota Foundation Seed Stocks Committee were the following men:

Lyman Jackson - President of South Dakota State College
A. M. Eberle - Dean of Agriculture
I. B. Johnson - Director of Experiment Station
John Hapler - Director of Extension
W. W. Verzella - Head of Agronomy Department
U. J. Norgaard - Extension Agronomist
E. G. Sanderson - Representing Corn
Frank Swope - Representing Small Grain
Everett Fletcher - Representing Potatoes
Cole Burton - Representing Alfalfa
Frank Cundill - Representing Other Crops
A. O. Syverud - Manager

W. W. Verzella was elected president of the board of directors of the Foundation Seed Stocks Division and at the end of the 1944 growing season he reported the following progress: "Some two thousand bushels of Vikota oats and four hundred bushels of Koto flax are in the warehouse. Sufficient hand-pollinated seed of in-bred lines of corn have been produced to grow all of the single cross stocks needed for 1945. Single cross seed produced in 1944 has made very satisfactory yields. Soybeans have not been harvested, but the crop should yield well."

The board at this time was as follows:

Members for a three-year term

E. G. Sanderson, Aurora
Frank Swope, Orient
Henry Preheim, Marion

Members for a two-year term

Frank Cundill, Isabel
Frank McHugh, Aberdeen
Gale Peppers, Huron
A. G. Vincent, Letcher

Members for a one-year term

Everett Fletcher, Garden City
Cole Burton, Piedmont

Ed Habeger, Ideal
Richard Burn, Mitchell

The officers were E. G. Sanderson, president; Frank Swopa, vice president; and U. J. Norgaard, secretary.

In the past, the certification committee had consisted of seven members. It was decided that this committee be increased to eleven members so that all interests in seed improvement would be represented. The committee was to consist of:

Lawrence Elsinger, Dell Rapids	- representing corn
Frank McHugh, Aberdeen	- representing small grain
Horace Wagner, Reliance	- representing sorghum
Sam Bober, Newell	- representing alfalfa
Gale Peppers, Huron	- representing grasses
Everett Fletcher, Garden City	- representing potatoes
Norris Paulson, Pierre	- representing State Department of Agriculture
W. W. Worzella, Brookings	- representing Agronomy Department
Richard Burn, Mitchell	- representing S. D. Seedsmen Association
U. J. Norgaard, Brookings	- representing S. D. Crop Imp. Association
Henry Dybvig, Colton	- representing S. D. Horticulture Society
E. G. Sanderson, Aurora	- Ex officio, Chairman

This certification committee established some policies that have put seed certification in South Dakota on a sound basis. They are as follows:

1. The committee approved the policy of certification services for both the genetic purity and geographic origin of hardy crops which have withstood the climatic rigors over a period of years.
2. South Dakota standards could profitably be higher than the international standards in certain instances where South Dakota producers had a natural advantage over other states.
3. South Dakota will accept certification for crops, seed of which is produced for out of state demand. It shall be the duty of the executive committee to designate varieties which may be certified. Varieties known to be unadapted to South Dakota conditions will be certified only upon the approval of the executive committee.

4. Old field of alfalfa, if approved as worthy, will be certified as South Dakota hardy alfalfa.

5. Open pollinated corn of old standard varieties shall be eligible for certification.

6. Grades of certified seed shall be designated as A, B, and C, instead of 1, 2, and 3, in order to prevent confusion with market grades.

The formulation of South Dakota's comprehensive and effective weed control program took place at the board of directors meeting on August 31, 1944. President E. G. Sanderson presented the need for a concerted effort to control and eradicate weeds. The board voted to sponsor a new weed law at the next legislative session.

At this meeting, the board decided to hold the 1944 Crop Show in connection with Farm and Home Week, November 7, 8, and 9. A new policy on awarding premiums was inaugurated. Ribbons, honors, and plaques replaced the cash premiums.

After Farm and Home Week, action for the weed law started with E. G. Sanderson and U. J. Morgaard attending a thirteen states weed conference in Omaha. Then a meeting of all state farm groups was held in Brookings. A committee was appointed to draft a weed bill. It consisted of:

John Swenning	-	State Representative
W. W. Worzella	-	Agronomy Department Head
E. L. Erickson	-	Agronomy Department
U. J. Morgaard	-	Extension Agronomist
Richard Burn	-	Seedsman's Association

The bill which became law in 1945 provided for a State Weed Board, enforcement vested in the State Department of Agriculture, weed districts, the right for counties to levy taxes for weed control, and a state appropriation to provide for personnel and facilities.

1945

The State Crop Improvement Association instituted a quarterly bulletin

named the Crop Improvement Reporter in 1945. This was to keep members and others interested in crop work informed with the activities of the Association and new developments in crop production.

Plans had been made for an annual meeting of the membership in February, but this was cancelled because of a war directive prohibiting large public gatherings.

Legislative passage of the Weed Law of 1945 and a special appropriation for the Agronomy Seed House and greenhouse were two important projects that were fostered by the State Crop Improvement Association. The appropriation that was to accompany the weed law was not secured at this session.

Three vacancies on the board of directors were filled as follows:

Raymond Johnson, Rapid City, replaced Cole Burton
John Pospisil, Colome, replaced Ed Habeger
George Fuml, Letcher, replaced A. G. Vincent

1946

In 1946 the Association was becoming impatient in regard to the lack of progress in building the Agronomy Seed House and green house. The members were naturally interested in enlarging the breeding program and improving facilities for caring for the foundation seed. The wishes of the Association were made known to the college administration. The delay was due in part to the scarcity of building material. It was found that an additional appropriation in 1947 would be necessary to properly equip the buildings.

The board of directors realized that, in addition to new buildings, a larger Agronomy staff would be needed to accelerate crop improvement work in the state. The board met with the college administration in this regard. Since such improvements depended on legislative appropriation, the board decided to keep a full time lobbyist in Pierre during the legislative sessions to acquaint the legislators with the needs of the state for crop improvement personnel and facil-

ities.

The weed program was also needing more support in getting established. When the weed law was passed in 1945, the legislature failed to make the necessary appropriation. The State Secretary of Agriculture, L. V. Ausman, outlined the problems of his department to the board of directors of the Crop Improvement Association. His department was under-staffed and unable to handle its added responsibilities under the weed law. The same was true with the State Weed Board. Since the South Dakota Crop Improvement Association had sponsored the weed law, it felt obligated to work for the necessary appropriation in the 1947 legislature.

It was decided that if the various appropriations for crop improvement and weed control were not included in the Governor's budget, a special bill for such would be introduced.

The legislative program of the Association was prominent on the program at the annual meeting held in Miller on December 20, 1946. It was backed enthusiastically by the membership, since the ultimate goal for all of the legislative program was for improvement of crops and increased crop production per acre. E. G. Sanderson was elected as lobbyist for the interests of the Association.

A change in the method of selecting directors was put into effect at the annual meeting. The state was divided into eight Crop Improvement Districts. The directors were to be elected by the membership of their respective districts, instead of the entire Association membership. This year the terms of the following directors expired and they were reelected: E. G. Sanderson for the East Central District and Henry Preheim for the Southeast District. Mr. Sanderson was also retained as president by the board of directors.

In order to take care of special interests, it was decided that the directors select three additional directors to serve at-large. Those selected were:

John Curry, Elk Point, Frank Swope, Orient, and Clarence Dybvig, Baltic.



Figure 11. Seed Certification Committee meeting in 1946. Left to right: A. O. Syverud, Everett Fletcher, Richard Burn, Sam Bober, James Randall, Darlene Lindsey, U. J. Norgaard, E. G. Sanderson, Gale Peppers, L. V. Ausman, Henry Dybvig, Frank Cundill, Frank McHugh, W. W. Worzella, Dwight Johnson.

1947

One important action of the 1947 legislature that affected the South Dakota Crop Improvement Association was that pertaining to the Certification Service. The certification work carried on by the Crop Improvement Association was legalized by the legislature. No particular change was made in the certification procedure or organization except the method of selecting the Certification Board. It had previously been selected by the Association. The new law specified that the Secretary of Agriculture appoint a five-man board from nine men recommended by the following organizations:

South Dakota Crop Improvement Association - two men
South Dakota Horticulture Society - two men
Dean of Agriculture - four men
State Division of Plant Industry one man

At this time the certification was being handled by A. O. Syverud and G. D. (Dwight) Johnson in the certification office. Most of the field inspection work was being done by the Smith-Hughes Vocational Agriculture instructors who were given special training in this work each year. This experience proved to be mutually beneficial to the certification work and as training for teaching agriculture.

In 1947 applications for certification covered 20,183 acres and field inspections were made as follows:

Hybrid corn	- 978 acres	durum wheat	- 360 acres
Open-pollinated corn	- 30 acres	oats	- 6831 acres
Sorghum	- 772 acres	barley	- 2881 acres
Soybeans	- 875 acres	flax	- 3260 acres
Spring wheat	- 1304 acres	alfalfa	- 2022 acres
Winterwheat	- 592 acres	grasses	- 278 acres

The new Agronomy Seed House was completed in 1947 and dedicated "to the development of adapted crops and soil practices for the welfare of South Dakota" on Agronomy Field Day, July 10, 1947. The 1945 legislature appropriated \$100,000.00 for the seedhouse and the 1947 legislature appropriated \$150,000.00 for the headhouse and greenhouse. In addition, another \$50,000.00 was appropriated in 1949 to complete and equip the seedhouse and greenhouse. The dedication was witnessed by several hundred farmers from all parts of the state. Dr. W. W. Horzella described the purpose of the building as a "workshop for agronomy workers and to provide adequate storage and processing facilities for seeds, soils, and crop material of all kinds." The main address was given by Charles Dalthorp, Director of the State Finance Department. He was intro-

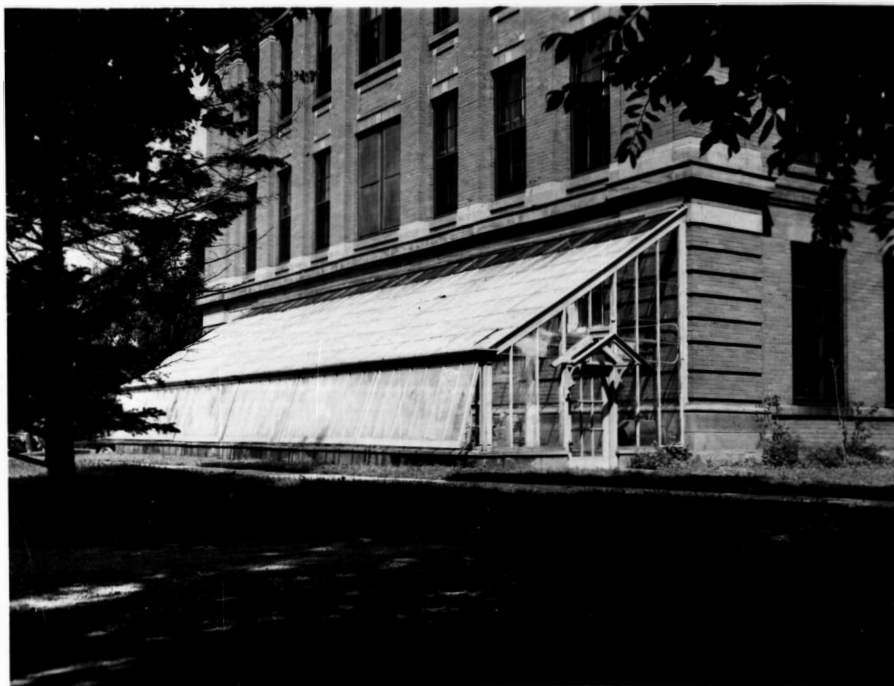


Figure 12. The only greenhouse facilities available for crop breeding and soils studies until 1947. It is located south of the administration building.



Figure 13. New Agronomy Seed House and greenhouses among the best in the northern great plains.

duced by the President of State College, Dr. Fred Leinbach. Other speakers were Dean A. M. Eberle and E. G. Sanderson.



Figure 14. Dr. Wayne Adams explaining his alfalfa breeding work to a group of crop improvers in the new greenhouse during their annual meeting.

The annual meeting held December 20, in Miller was attended by 350 members from 42 county associations. The theme of the program was that the people of South Dakota should make an adequate investment in research studies of their business, and that facilities be provided for the development of adapted crops and cultural practices so as to avoid many of the preventable crop production hazards. Also, that South Dakota cannot depend in the future on borrowed crop varieties developed for more humid conditions. To this end the membership endorsed a request for an appropriation for a crops greenhouse.

In 1947, the new weed program established by the legislature in 1945 was making rapid and healthy growth. The 1947 legislature appropriated money to

finance the activities of the State Weed Board. Thirty six counties had elected weed boards which were organizing the farmers in a concerted effort to control weeds. The extension agronomists and E. G. Sanderson, president of the state board, were holding district meetings in the state to develop a uniform program. The Soil Conservation Service was cooperating in the program and the field men of the Agricultural Conservation Program were making weed surveys in many counties. The highway department and the railroads were accepting their responsibilities. Some County Commissioners had appropriated from \$500 to \$12,000 for weed control work, and some had hired county weed supervisors.

There is no doubt that the weed program that was sponsored by the South Dakota Crop Improvement Association was to be one of the best such programs in the country and of untold value to South Dakota.

1948

The South Dakota Crop Improvement Association had worked for the establishment of a soils testing laboratory for a number of years. Such a laboratory was getting a good start in 1948 as an addition to the Agronomy Department. It was established on July 1, 1947. Paul L. Carson was in charge of the laboratory.

Work on the greenhouse was started, pending further appropriation from the 1949 legislature.

W. L. Klatt, who had worked on weed work in Nebraska, was appointed State Weed Supervisor. In the fall he was replaced by Charles J. Gilbert. Leonard L. Shrader was employed as the new Extension Weed Specialist.

The Association was becoming alarmed at the prospect of losing a number of men in Agronomy due to insufficient salaries. The importance of maintaining a stable research staff was recognized by the board of directors. The board of directors met with the department and later attempted to secure an increase in salaries by appealing to the college administration. The appeal was unsuccessful.

Gregory County was the fifty-sixth county to organize a County Crop Improvement Association. This was partly inspired by the release of about six hundred bushels of Minter winter wheat in the fall of 1948.

1949

During the later forties, the annual crops shows sponsored by the state Association were held in connection with Farm and Home Week. They served the state as a most valuable medium of educating for the growing of high quality seed. The 1949 show was typical of a number of shows for this era.

Two hundred sixty-nine exhibitors entered five hundred samples. Most of these samples were the winners of county crop shows. Many of the county associations prepared educational booths. The majority of booths followed the general theme of the show which dealt with the use of grass and legumes in South Dakota farming. Other booths showed weed control or insect control at work. A state association exhibit emphasized the use of sweet clover in the rotation. It showed the amount of commercial fertilizer that a sweet clover crop can replace.

1949 was an important year for the release of new crop varieties to the county associations. The new releases consisted of 4800 bushels of Rushmore spring wheat, 400 bushels of Hawkeye soybeans, and 9700 pounds of Norghum sorghum. Norghum was the first variety of grain sorghum developed and released by the South Dakota Experiment Station. C. J. Franzke was the plant breeder. He had previously developed the forage sorghums known as Rancher and 39-30-5, both low prussic acid sorghums. Rushmore wheat was developed by Dr. J. E. Grafius.

The production of foundation seeds had grown to a point by 1949 that the directors of the State Association were concerned over future expansion facilities. William P. Peterson, director from Lily, recommended that steps be taken to purchase land to be used exclusively for the production of foundation seed where many problems such as fertility and weed control could be more satisfactory. Mr. Peterson mentioned that this had been done in North Dakota.



Figure 15. 1949 State Crop Show exhibit showing the value of sweet clover in rotation.



Figure 16. C. J. Franzke, the originator of a number of sorghum varieties tailored for the northern great plains.

Other future needs for crop improvement work recognized included enlarged facilities for seed and soil testing, personnel for grass and legume breeding, an out-state testing program for new varieties, the initiating of pasture, and irrigation research. These needs were presented to the college administration through the Council of Agriculture.

The weed control program showed substantial gains in 1949 under the leadership of Charles Gilbert, State Supervisor, and Leonard Shrader, Extension Weed Specialist. Forty-eight counties had organized weed boards.

The seed certification program had grown to include a total of 18,974 acres devoted to the production of certified seed in South Dakota in 1949. This involved 632 producers in 58 counties.

The varieties approved for certification were as follows:

Spring wheat:	Rival, Pilot, Mida, Rushmore
Durum wheat:	Mindum, Kubanka, Stewart, Venum
Winter wheat:	Nebred, Minturki, Iowin, Minter
Oats:	Vikota, Cherokee, Brunner, Marion, Trojan Osage, Clinton, Benton, Bonda, Mindo, Nemaha, Hulless S. D. 135
Barley:	Odessa, Tregal, Wis. 38, Spartan, Feebar, Mars, Plains, Velvon 11, Moore
Flax:	Redwing, Koto, Sheyenne, Dakota
Grain Sorghum:	Improved Coes, Midland, Martin's Milo, Norghum
Forage Sorghum:	Atlas, Norkan, 39-30-S, Leoti Red, Rox Orange, Rancher
Soybeans:	Manchukota, Ottawa Mandarin, Wis. 507 Mandarin, Richland, Hawkeye, Blackhawk, Capital
Rye:	Emerald
Alfalfa:	Ranger, Ladak, Cossack, South Dakota Hardy, Grimm

Sweet Clover: Madrid
Red Clover: Cumberland, Midland
Grasses: Standard Crested Wheatgrass, Fairway Crested
Wheatgrass, Ree Wheatgrass, South Dakota
Bluegrass, Lincoln Bromegrass, South Dakota
Bromegrass

1950

Considerable interest was shown in 1950 in a means of increasing research in crops and soils and reducing the time required for the benefits of this research to reach the farmers of the state. The board of directors met with Dr. Fred Leinbach, President of South Dakota State College, with these objectives in mind and suggested the following as means of approaching the objectives:

1. A crops and soils service building for the seed laboratory, soil testing laboratory, soil survey, certification work, and weed work.
2. An expanded state-wide testing program for crops and varieties.
3. Pasture investigations.
4. Irrigation studies in anticipation of increased irrigation in connection with the Missouri River Development Program.
5. Plant breeding in oil crops.
6. Additional land for experimentation and increase of new crops and varieties.
7. Processing and cleaning plant for foundation seed.

Dr. Leinbach informed the board that he was in complete accord with these crop improvement objectives. He also informed the board of the budgetary problems of the college in attempting to satisfy the requests of the various divisions and departments. This board meeting was held in February.

At the November board meeting, the legislative committee, composed of Clarence Dybvig, Frank Swope, and Everett Fletcher, proposed that the urgency

of the above needs justified a special legislative appropriation bill, since they were not included in the college budget. It was decided that the legislative committee inform the membership of the above needs and attempt to secure legislative appropriations. E. G. Sanderson was selected to represent the Association as lobbyist in the 1951 session.



Figure 17. Board of directors in 1951. Left to right: Raymond P. Johnson, Dwight Johnson, Ralph Cline, John Pospisil, Henry Preheis, E. E. Hubbard, Frank McHugh, E. G. Sanderson, U. J. Norgaard, Frank Cundill, Henry Hertel, George Ruml, William Peterson, Everett Fletcher, Frank Swope, Gale Peppers, W. W. Worzella.

The 1950 Crop Show was held in conjunction with Farm and Home Week, March 7 to 10. An outstanding feature at the show was a huge grass and legume exhibit that was also used a few months earlier at the 1949 annual meeting in Rapid City. The exhibit was fourteen feet high and sixty-four feet long and consisted of well displayed specimens of native and introduced grasses and legumes. Much of the credit for the exhibit is due Thomas W. Strachan, County Agent of Lyman

county. This exhibit was later displayed at the 1950 International Crop Improvement Association in Kansas City, also in the State Capitol in Pierre during the 1951 session of the legislature. It was taken to the International Grassland Conference held at College Station, Pennsylvania, in August, 1952. In 1951 the exhibit was aptly named "South Dakota's Green Gold."



- Figure 18. The background exhibit of grasses and legume was displayed at the following places:
1. International Crop Improvement Conference, Kansas City, 1950.
 2. State Capitol in Pierre.
 3. International Grassland Conference, State College, Pennsylvania.
 4. American Society of Agronomy meeting, Brookings.
 5. South Dakota State Crop Shows.
 6. Annual meetings of the South Dakota Crop Improvement Association.
 7. Great Plains Council at Fort Collins, Colorado.
 8. American Society of Range Management, Omaha, Nebraska.
 9. Grassland Exhibit, Washington, D. C.

In the spring of 1950, 85,000 pounds of James oats, the new hullless variety,

were distributed to the County Crop Improvement Associations. This was enough seed to plant about 1,700 acres. Other seed distributed consisted of 900 bushels of Moore barley, 160 bushels of Capitol soybeans, and 3,700 pounds of foundation Ranger alfalfa seed. Pierre rye was released in the fall.

The 1950 annual meeting was held in the Agronomy Seed House in Brookings commemorating the twenty-fifth anniversary of the incorporation of the South Dakota Crop Improvement Association under that name. At this time there were fifty-eight county associations with a combined membership of 2,666.

In addition to the large grass and legume exhibit, repeated again in 1950, was a replica of the John Vojta farm in Campbell county, which had been managed with a systematic sweet clover crop rotation for over thirty years. This actual long-time demonstration was of untold value to South Dakota farmers. Instead of soil depletion by thirty years of crop production on rolling land, erosion was successfully controlled and soil fertility actually increased.

Farmers attending the annual meeting had an opportunity to see the new greenhouse in use in crop breeding work.

1951

During the early part of 1951 while the legislature was in session, the Association was extremely active in attempting to secure special appropriations for the items outlined in 1950. Added to these items was a plant pathology greenhouse and additional funds to remove South Dakota's educational institutions from near the bottom of the list of those throughout the country in faculty salaries. The threat of the new strain 15-B of stem rust added impetus to the urgency of a pathology greenhouse. It appeared that the nearly fifty-year dormancy of South Dakota State College's building program was being broken.

The State Association was acquainting farmers of South Dakota through the County Crop Improvement Associations of these investments that could be made

in agriculture. No immediate results were obtained in the 1951 legislative session, but the seed sown by the Association in 1951 must have been certified seed, for it began bearing fruit in the next legislative session.

As a result of crop improvement educational programs, such as County and State Crop Field Days and Crop Shows, farmers were rapidly becoming aware of the need for maintaining a capable staff of crop and soils research workers in South Dakota. They saw the possibility of developing crop varieties and cultural practices that would prevent total and partial crop failures due to crop diseases, unadapted varieties, and improper cultural practices.

The Crop Improvement Association in compliance with the purposes expressed in the constitution undertook the sponsoring of legislation that would provide for an agronomy staff and more adequate facilities to give South Dakota such a program. When such an action program was launched, even though it would greatly benefit all the people of the state regardless of their business, it caused an unfortunate incident.

The right of the Association to advocate appropriations for the development of crops and soils facilities at State College was challenged by those who did not welcome its support. Others believed that it was the inalienable right of citizens to explain the needs of crop improvement to the legislative representatives of the people.

The controversy became rather bitter and due to the differences of stand, the college administration discharged the Director of the Experiment Station, the Director of Extension, and the Head of the Agronomy Department. The Association had seen so much progress made in crops and soils work under the leadership of these men that it was quite concerned with their dismissal. Other farm groups also became concerned.

The incident was closed by the dismissal of the charges against the three

men by the Board of Regents and their reinstatement. The college president resigned.

The board of directors of the Association had remained much the same since 1945, during years of outstanding accomplishments. In 1951 it was composed of the following:

E. G. Sanderson, Aurora, President	William Peterson, Lily
Frank McHugh, Aberdeen, Vice President	Frank Swope, Orient
U. J. Norgaard, Brookings, Secretary	Clarence Dybvig, Baltic
Henry Preheim, Marion	Everett Fletcher, Garden City
Henry Hertel, Onida	Gale Peppers, Huron
Frank Cundill, Isabel	John Pospisil, Colome
George Ruml, Letcher	Raymond P. Johnson, Rapid City

The board of directors decided to continue to work toward the legislative goals that it had set up in 1950.

The annual meeting was to be held in Chamberlain in December, but had to be postponed until June, 1952, because of the severe weather.

1952

The year, 1952, found a new President, Dr. John W. Headley, at South Dakota State College who was vitally interested in the legislative goals of the Association. His particular concern was that dealing with the increasing of faculty salaries which would help to reduce the rapid turn-over at the college. He recognized that other states had been profiting from the experience that young scientists and teachers had gained while working at State College. As soon as these people reached the most productive part of their careers, other states hired them away from South Dakota and the state lost its investment in them. President Headley met with the farm groups of the state and welcomed their support in working toward the betterment of the college.



Figure 19. Governor Sigurd Anderson, State College President, John W. Headley, and E. G. Sanderson, President of the South Dakota Crop Improvement Association at annual Crop Improvement meeting held at Pierre, November, 1952.

The annual meeting was held in Pierre on November 24 and 25. It was attended by 300 delegates from all parts of the state. The theme of the meeting was "Needs of Crop Improvement." Farmers were looking for higher yielding and disease resistant crop varieties, new farming techniques, and improved practices to increase their production and make their business more profitable.

John Penor, Bison, was elected to the board to represent the northwest part of the state and Gordon Day, Onida, to fill the vacancy caused by the death

of Henry Hertel.

The total acreage of certified seed in South Dakota reached an all time record of 27,160 acres. Applications had been filed for 29,908 acres, but 979 acres were cancelled and 805 acres rejected after field inspection.

1953

During the 1953 legislative session the efforts of State College President, supported by the farm groups made some progress toward the goals set up in 1950. An appropriation of \$275,000.00 was secured for Plant Pathology and Botany greenhouses, and some progress was made toward increasing faculty salaries. In spite of this, South Dakota lost one of its most talented crop scientists in the state's history, Dr. John E. Grafius, to Michigan State College.

An outstanding crop show was held in Pierre in March with 400 high quality crop samples shown by 254 exhibitors. Most of the samples were prize samples from many local crop shows. Thomas Strachan, County Agent in Lyman County, was responsible for an educational hay display entitled "What is Your Hay Worth?". It consisted of sixty hay samples, each harvested and stored differently and cut at different dates. A money value based on chemical analysis for feed was calculated for each sample. Certain samples were worth three times as much as others.

County Agent, Kirk Hears, and Assistant Agent, Floyd Weidmeier, from Pennington County appeared with an exhibit on rat control with emphasis on sanitation of grain for food.

The State Weed Conference and Pest Control Conference were held in conjunction with the crop show.

The Foundation Seed Stocks Division distributed two new crop varieties in 1953. One was Reliance grain sorghum, developed by C. J. Franke, and the other, Clintafe oats, that was developed in Iowa and tested in South Dakota.

Distribution was also made of increased foundation seed of Marine flax, Rancher Sorghum, Piper Sudan Grass, and Ranger alfalfa.



Figure 20. T. W. Strachan, County Agent in Lyman County has developed a number of outstanding exhibits for a number of State Crop Shows

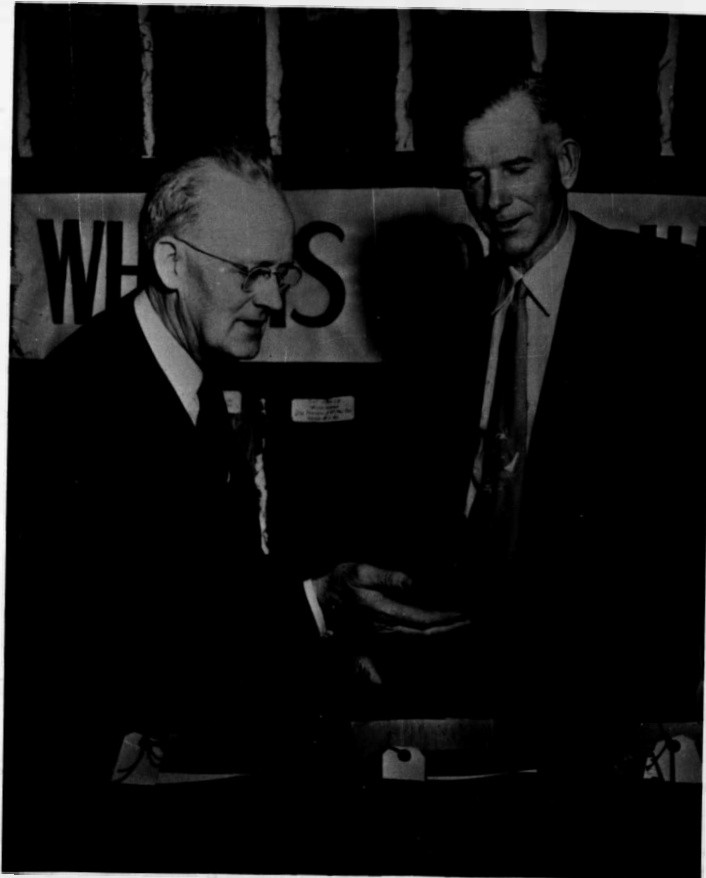


Figure 21. U. J. Norgaard (left), Extension Agronomist, and
Wm. P. Peterson, Day County, admiring Mr. Peter-
son's prize Redwood Flax. 1953 Crop Show.



Figure 22. "Satisfaction of a job well done," is the premium that counts. Joe Arnsberg, Lyman County, and his grand champion barley (Odessa.) 1953 Crop Show.

SUMMARY OF THE HISTORY OF THE
SOUTH DAKOTA CROP IMPROVEMENT ASSOCIATION

The South Dakota Crop Improvement Association was not originally organized in its present form. It evolved through various stages of growth as South Dakota developed and the needs of the farmers for such an organization changed. Numerous changes have been made in the type of organization and even its name, but the motive for its existence has remained the same - a more stable agriculture for South Dakota.

It was organized on September 28, 1906, at the Corn Palace in Mitchell, South Dakota, under the name of the South Dakota Corn Growers and Corn Breeders Association. Its primary function was to sponsor an annual Corn Show and Corn School. The schools were conducted by faculty members of South Dakota State College and similar institutions in neighboring states. The Association centered its interest on corn production and corn breeding.

The Association soon found that it was desirable to expand its operations to include all grain. On July 14, 1909, a new name was adopted - South Dakota Corn Growers and Grain Growers Association.

In 1912 the South Dakota Experimental Association was organized to assist the Experiment Station in testing new crops and varieties in all parts of the state, also to increase and distribute proven crops and varieties. The membership of this Association was closely correlated with that of the South Dakota Corn Growers and Grain Growers Association. These two associations merged in 1925 and became incorporated under the name of the South Dakota Crop Improvement Association. According to the articles of incorporation, the purpose of the Association is as follows:

1 - To unite and combine into a single body the previously existing organizations known as the South Dakota Corn and Grain Growers Association* and The South Dakota Experiment Association** and to carry out the purposes of such organizations in an orderly, united, constructive and effective manner, such union or amalgamation having been authorized by each of said organizations;

2 - To collect and disseminate information concerning the growing, harvesting, storing, and handling of seeds of the staple crops;

3 - To encourage the breeding and general improvement of farm crops;

4 - To stimulate the growing and effective and economical distribution of pedigreed or improved or certified seeds in every section of the state;

5 - To advance the husbanding, propagating, and maintaining of the purity of adapted new varieties or improved strains produced by the plant breeders;

6 - To inspect crops grown for seed, to provide for the certification of seed, and maintain a system of registration of fields and seeds;

7 - To aid in the organization of subordinate and auxiliary associations throughout the state;

8 - To hold statewide meetings and shows, and, by lectures, discussions, demonstrations and exhibitions of grains and seeds, to advance the purposes for which this association is organized;

9 - To promote state and national legislation to the end that the purposes of this and similar organizations may become more effective.

10 - To take, purchase, hold, mortgage, dispose of, and exercise all privileges of ownership of real and personal estate for the purposes of the Association, including holding an interest or membership in any other similar or allied organizations;

11 - To do any and all things incident to, or necessary or desirable or convenient for the accomplishment of its purposes, and to perform any other pertinent, legitimate and lawful service which may tend to the mutual benefit of its members and the general benefit of the Agricultural industry."

- Quoted from Articles of Incorporation of South Dakota Crop Improvement Association dated January 9, 1925.

* Organized in 1906

** Organized in 1912

During the next twenty-eight years the South Dakota Crop Improvement Association gradually developed its activities and accomplishments to serve South Dakota agriculture in education and research so that the state's resources (both human and natural resources) would progress and develop soundly under a more permanent and

stable agriculture. The activities through these years were:

CROP SHOWS

Each year annual crop shows accompanied with educational exhibits and demonstrations in crops and soils were conducted. The premiums for the shows evolved through three stages - merchandise premiums, cash premiums, and ribbons and plaques. The latter seemed more effective and appreciated.

CROP IMPROVEMENT

The Association assisted in crop improvement by sponsoring legislation to provide for crops and soil scientists and facilities for their work. It served them in an advisory capacity.

DISSEMINATION OF NEW CROPS AND VARIETIES

In cooperation with the Foundation Seed Stocks Division of South Dakota State College, which increases new crops and varieties obtained from plant breeders and purifies varieties, the Association assisted in the distribution of new crops to every county in the state. The South Dakota Crop Improvement Association has had a unique role in this operation that has caused many states unlimited trouble. It provided a direct link between the plant breeder and the farmer whereby the farmer is provided new varieties at the lowest possible cost and in the shortest time. The Association avoids price-setting and marketing of seed. When sufficient quantities of foundation seed are produced by the Foundation Seed Stocks Division, the seed is distributed to County Crop Improvement Associations who further increase it and distribute it to farmers at a very nominal cost.

SEED CERTIFICATION

One of the primary functions of the Association has always been that of maintaining pure varieties, and a system whereby farmers could be assured of the genetic heritage of crop seeds. For years the South Dakota Crop Improvement Association assumed the responsibility of appointing a certification board and con-

ducting the certification work in the state. This activity did not have proper legal backing until 1945 when the Association's sponsored certification law was passed. The law provided the State Secretary of Agriculture with power to appoint a certification board, but that the board be appointed only from a list of men nominated by the State Crop Improvement Association, the Potato Growers Association, the Horticultural Society, and State College. The purpose for this arrangement was to enable the Secretary of Agriculture to obtain individuals who were interested, and in whom the people concerned had confidence. At the same time it was safe-guarding the interests of the state.

The Certification Office has been maintained in the Agronomy Department of State College and the certification inspectors have been the Vocational Agriculture Instructors. Their services have been a great asset to the certification work, and the contact with the Certification Service has been an asset to the Vocational Agriculture Instructors in their teaching work.

GENERAL SEED LAWS

A continuous activity of the Association has dealt with the evolution of the seed laws. The 1935 legislature provided for the office of seed commissioner appointed by the governor and located at State College where he administered seed analysis, certification and registration. This system proved to be unsatisfactory in accomplishing the purpose for which it was intended.

In 1939 the office was abolished and its powers transferred to the State Department of Agriculture which retained the enforcement features. It transferred the certification work to the South Dakota Crop Improvement Association and the seed analysis work to State College. This arrangement has been quite satisfactory and was strengthened by the Certification Law in 1945.

WEED LAW

The Association supported a law for the control of noxious weeds as early

as 1923. In 1941 more definite work was done in this direction, but was hindered by the war. Finally, in 1945 the legislature provided for a State Weed Board, the enforcement in the Department of Agriculture, the educational and research phases at State College, and the organization of weed districts and the power for counties to levy taxes for weed control.

In succeeding legislative sessions, appropriations strengthened the work of the State Weed Board and the Weed Program.

SOIL TESTING LABORATORY

The influence of the Association over a period of years had much to do with the establishing of a soils testing laboratory at State College on July 1, 1947. It has proven to be a valuable service to the farmers of South Dakota

EMERGENCY WORK

During the drouth years, the Association assisted the Extension Service in maintaining lists of available seed. Seed was scarce and this service was worth considerable to the state.

EDUCATIONAL ACTIVITIES

This organization has cooperated closely with the Extension Service in many agronomic endeavors, such as fair exhibits, the crop shows, and particularly the variety test and fertilizer plots in most of the counties of the state.

BUILDINGS AND EQUIPMENT

Credit is unquestionably due the South Dakota Crop Improvement Association for buildings, equipment, and even personnel, for crops and soils work at State College. This included particularly the Agronomy Seed House and greenhouse and the Plant Pathology greenhouse. The Association had worked for at least twenty-five years for an Agricultural Hall. It strongly supported legislation to increase the appropriations for more personnel and for adequate salaries to maintain a permanent faculty instead of an itinerant faculty at State College.

MEMBERSHIP

This organization has an unusual record of growth which has reached 3500 members and 58 county associations in 1953. No membership campaigns have been launched. The policy of the Association has been that if an organization warrants members, the members will seek the organization rather than the organization seeking members.

Of the 3500 membership, only an average of 700 are producing certified seed. The others belong because of the organization's interest in education and research and to participate in its educational activities. This indicates that the "inside track" on new varieties is not the greatest binding power of the organization. Natural growth is vital to any organization, but the strength of this organization is not in numbers.

COUNTY ASSOCIATIONS (see appendix)

Fifty nine County Crop Improvement Associations have been organized in South Dakota with the following objectives in mind:

1. to promote and engage in any activity in connection with growing, preparing for market, or distribution of pure seed.
2. to sponsor educational programs on crops and soils.
3. to arrange for demonstration plots.
4. to keep abreast of new crop developments.
5. to form a public spirited group to increase new seed.
6. to help support work of the Agronomy Department and plant breeders at State College.
7. to promote weed control in the county.
8. to cooperate with the South Dakota State Crop Improvement Association governing the registration and certification of seed.

The County Associations receive foundation seed from the Foundation Seed Stocks Division of South Dakota State College and increase it for the farmers in their counties. They assist the Seed Certification Service in maintaining pure seed. (A detailed illustration of these functions appear in the 1954 instructions for handling Foundation Seed and maintaining certification--see appendix.)

AN ANALYSIS OF THE PHILOSOPHY THAT
MOTIVATES THE ORGANIZATION

At the very inception of the two organizations that later combined to form the South Dakota Crop Improvement Association, their founders had similar underlying motives in mind. One was to stimulate interest and action in research that would benefit the entire social and economic framework of the state. Another motive was to strive for means and methods of educating the populace to use the proven results of research. Education provides understanding. There is no greater incentive for people to improve their situation than that of understanding.

The South Dakota Experimental Association was organized by State College graduates whose motive was to support and help expand the work of the Experiment Station. The idea of the Association (first as the Experimental Association; later, the Crop Improvement Association), to act as a supporting group to education and research, has persisted throughout its existence. In recent years this support was largely responsible for many improvements allied with South Dakota State College. A few of these are: the seed and weed laws, the seed laboratory, the soils testing laboratory, the Agronomy Seed House and Greenhouse, the Plant Pathology and Botany Greenhouse, the Certification Service, and the Foundation Seed Stock Division.

The Association has functioned as a supporting group by informing the farmers and legislators of the widespread benefits to be derived from an investment in these improvements. This presentation of facts provided understanding which was the incentive for action.

As the name implies, the South Dakota Corn Growers and Corn Breeders Association was organized primarily to extend the cornbelt into South Dakota by adapting corn to South Dakota environment. This called for research by farmers and

the Experiment Station. The interest in corn improvement broadened to include all crops as the Association became older. This was particularly true after this Association merged with the South Dakota Experimental Association to become the South Dakota Crop Improvement Association in 1925.

In 1906 the founders of the South Dakota Corn Growers and Corn Breeders Association recognized the necessity of linking education with research. Every crop show from that time has been accompanied by a few days of school. These schools dealt with current crop problems and research findings. This interest in agricultural education naturally developed into an interest in the facilities and the welfare of the college staff at South Dakota State College.

This interest in education permeated into each county association which became a partner of the Extension Service in conducting crops and soils experimental and demonstration plots to expand education among the farmers.

One secret of the stability of the Association has been that its keen interest in research and education has been motivated from within the organization. As members learned from personal experience how they and their neighbors could benefit from research and education, the greater became their desire to help expand such programs. Likewise, as they understood the problems that affect research and education, such as adequate facilities and a more permanent staff of well trained and experienced men, the greater became their desire to help solve these problems.

The strength of the organization does not depend upon a huge membership, but in a stable membership. The membership has had a normal continuous healthy growth. When a group of farmers in a county desire to organize a County Crop Improvement Association, help is given to organize and affiliate with the State Association. The desire must come from within the group. It is not forced upon them through outside pressure tactics.

It is significant that the growing membership is achieved because of interest, as explained, in all phases of crop improvement. The proof that this situation exists lies in the fact that, as of now, only about one-fifth of the members are in the business of producing certified seed.

Let it again be said that the strength of the South Dakota Crop Improvement Association lies in an appreciation for the values derived from an investment in research and education. Also in the fact that this appreciation is increased through a better understanding of the problems that are encountered in research and education.

APPENDIXES

County Constitution

State Weed Law

Methods of Handling Crop Releases

**Agreement Between County Crop Improvement
Association and the Grower of the Original
Crop Release**

Procedure in Certification

**Twenty Essential Steps in Production of
Certified Seed**

CONSTITUTION AND BY-LAWS
OF THE _____ COUNTY CROP IMPROVEMENT ASSOCIATION

ARTICLE I

This organization shall be known as the _____ County Crop Improvement Association.

ARTICLE II

The objectives of this organization shall be

- a. to promote and engage in any activity in connection with growing, preparing for market, or distribution of pure seed.
- b. to sponsor educational programs on crops and soils.
- c. to arrange for demonstration plots.
- d. to keep abreast of new crop developments.
- e. to form public spirited group to increase new seed.
- f. help support work of Agronomy Department and plant breeders at State College.
- g. promote weed control in the county.
- h. cooperate with the South Dakota State Crop Improvement Association governing the registration and certification of seed.

ARTICLE III

MEMBERSHIP

Any person interested in crop improvement.

ARTICLE IV

- a. The board of directors shall consist of seven (7) members, which shall include the president, vice-president and secretary-treasurer and four (4) other members. These directors shall be chosen by ballot at the regular annual meeting. The board of directors shall elect the officers from the elected directors.
- b. Beginning with 1940, members of the board of directors shall hold office for terms of three years, provided that; at the first election, under this constitution, three members of the board of directors shall be elected for one year, two for two years, and two for three years.
- c. The president, vice-president and secretary-treasurer shall constitute the executive committee.

ARTICLE V

MEETINGS

The regular annual meeting shall be held at the place designated by the board of directors. Other meetings may be held as the board of directors deems necessary.

ARTICLE VI

AMENDMENTS

Amendments and alterations of this constitution and by-laws may be made by

- a. a majority vote of the members present, constituting a quorum, at any annual meeting.

ARTICLE VII

FEEES

The annual dues of this association shall be one dollar (1) of which fifty cents (\$.50) shall go to the South Dakota State Crop Improvement Association for membership in said association.

ARTICLE VIII

DUTIES OF OFFICERS

- a. It shall be the duty of the president to preside at all meetings of the association, to countersign all orders on the treasurer and to appoint all committees not otherwise provided for.
- b. The vice-president shall preside at meetings in the absence of the president.
- c. It shall be the duty of the secretary-treasurer to keep a list of all members, and names and addresses. He shall keep a true and correct account of all money received and of all money expended. He shall keep a record of all business transacted at any meeting.

STATE WEED LAW

From the Office of the State Weed Board, Brookings, South Dakota

CHAPTER 349, LAWS OF 1945
(As Amended in 1947, 1949 and 1951)

Section 1. There is hereby created a State Weed Board, which Board shall consist of the following: The State Secretary of Agriculture, the President of the State Crop Improvement Association, the President of the State Horticultural Society, the Chairman of the Association of County Commissioners, the Chairman of the Association of Soil Conservation District Supervisors, provided that any of the above named associations may at any regular or special meeting by resolution appoint a member of its association to serve as a member of said board in lieu of the named official thereof, the Director of the South Dakota Extension Service, the Head of the Agronomy Department of the South Dakota State College, the Commissioner of School and Public Lands, and one of the State Highway Commissioners to be designated by the Governor of the State.

Members of the Board while in service under this Act shall receive no compensation, except as hereinafter provided, for their services rendered to the State Weed Program but the necessary traveling expenses of the members shall be paid from public funds appropriated for that purpose.

Any member of the State Weed Board, as above constituted, who is not receiving salary or compensation from the State, any of its departments or institutions or any of its subdivisions of governments, shall be paid out of funds appropriated for the purposes of this Act a per diem of ten dollars (\$10.00) for each day's attendance at a regular or special meeting of the State Weed Board, or for such other duties properly authorized by such State Weed Board, together with his necessary traveling expenses.

Section 2. Board Meetings. The State Weed Board shall hold its meetings at the seat of the government at such times as it designates, but the annual meetings shall be held on the Third Tuesday in June of each year, at which meeting a president and vice president shall be elected for the ensuing year. The president shall have power to call special meetings whenever in his judgment he finds it necessary. The president and vice president shall be elected from among the members of the Board for a term of one year beginning with the annual meeting at which they are elected. The State Weed Board shall appoint a State Weed Supervisor, who shall not be a member of said Board and whose term shall be for one year and until his successor is appointed. His salary and expenses shall be paid out of funds appropriated for the purposes of said Board.

Section 3. Powers and Duties of Board. The State Weed Board shall be and is hereby vested with the power and charged with the duties of formulating the Weed Program for the State of South Dakota, of determining the most efficient and practical means for the prevention, suppression, control and eradication of dangerous or noxious weeds; and the State Weed Board is hereby authorized to determine what weeds are noxious, and shall from time to time prepare and publish a list of the weeds deemed to be noxious by said Board and the said Board is hereby authorized to make such rules, regulations, and orders for the execution of the

powers conferred upon it and the performance of its duties so as to effectuate, enforce, and carry out promptly and efficiently the prevention, suppression, control and eradication of all dangerous and noxious weeds. The Board may likewise amend or repeal such rules, regulations and orders. The State Weed Supervisor shall be under the direction of said Board and shall carry out its duties and policies. The violations of the rules and regulations established by the State Weed Board and the failure to obey the process, subpoena, order, rule or other legal command of the State Weed Board may be enforced by proper legal proceedings in a court of competent jurisdiction.

Section 4. Authority to Organize. Any association of persons, municipality, township, district, or county is hereby authorized to organize under the provisions of this Act for the control and eradication of noxious weeds within its boundaries.

Section 5. Cooperation with Other Agencies. The State Weed Board shall at all times work in close cooperation with all state agencies, and particularly, it shall cooperate with the South Dakota State College Agricultural Experiment Station in matters of research and its research shall be carried on by said Experiment Station; it shall cooperate with the South Dakota State College Agricultural Extension Service in matters of education and publicity and said Extension Service shall handle all matters of education and publicity; the State Weed Supervisor is charged with the administration of the State Weed Program formulated by the State Weed Board, and the enforcement of its rules, regulations and orders shall be handled by the said State Department of Agriculture. The president of said Board shall promptly file a certified copy of all rules, regulations and orders, and amendments thereof, in the office of the Secretary of State and the State Department of Agriculture.

Section 6. Appropriations Authorized. Boards of County Commissioners and governing bodies of all cities and towns and townships are authorized to appropriate and expend money for the control or eradication of noxious weeds within their respective corporate limits, and may buy, use and/or sell equipment and materials for use therein; to employ such county weed supervisor or supervisors as the Board may deem necessary and to fix the salaries therefor, and who shall receive necessary traveling expenses incurred in the performance of their duties and in attending meetings designated by the State Weed Board when requested by it so to do and to pay for such other services and items of expense as recognized, approved, authorized, or established by the State Weed Program, or the rules, regulations or orders of the State Weed Board; provided, however, that no annual tax levy for such purpose shall exceed one mill on all taxable property within such governmental subdivision, and, such tax may be in addition to like amount of tax levy limited by SDC 57.05, and amendatory acts, relating to limitations of levies in counties, townships, cities and towns, and, provided further, that no appropriation or levy shall be made until the county, municipality or town has been organized for weed control pursuant to this chapter in accordance with the program adopted by the State Weed Board, which program shall include the election of county weed boards in accordance with the regulations established by the State Weed Board, and when the organization of any county weed board has been approved and confirmed by the State Weed Board and such confirmation certified to the County Auditor, such county weed board shall be recognized as a public body and as the county weed board for that county with jurisdiction throughout such county, in which event the County Commissioners are authorized to pay the actual and neces-

sary expenses of travel and a per diem of not to exceed eight dollars (\$8.00) to be determined by the County Commissioners for each days attendance, or a major fraction thereof, at the meetings of said Board or other business authorized by the County Weed Board, to be paid out of funds belonging to such county.

Section 7. However no county weed board member shall draw per diem for more than (12) twelve meetings in any one year.

Section 7a. Responsibility for Public Lands and Roads. The responsibility for and the cost of controlling and eradicating noxious weeds on all lands or highways owned or supervised by a state department or Commission shall be upon the state department or commission supervising such lands or highways and paid out of funds appropriated to its use; on county lands and county roads, township lands and township roads, on city streets and alleys, by the county, township, or city in which such lands and roads are located and out of funds made available for that purpose.

Section 8. Enforcement. In the event any owner of noxious weed infested land fails to rid such land of such infestation and the Secretary of Agriculture or his inspector or his agent finds that such infestation is a menace to neighboring lands, he may declare such infested land or lands to be and constitute a public nuisance and may cause his agents or employees to enter such infested areas and they shall perform such protective operations as the Secretary or his agents may deem necessary. The Secretary of Agriculture shall then certify to the County Auditor the expenses for the performance of the protective operations and the County Auditor shall issue a warrant to the party entitled thereto for the payment of the costs of such protective operations from funds appropriated for that purpose; and the owner of such infested land shall become indebted to such county for such expense actually incurred, and if not paid on or before the 1st day of November following such operations, such County Auditor shall extend the amount of such indebtedness on the tax list against the infested land and all land owned by such owner contiguous thereto, in a separate column headed "Weed Control" and the same shall be collected as other taxes are collected.

Provided, however, that not more than two percent of the assessed valuation of the entire, contiguous tract of land of which the portion so treated is the whole or a part, shall be spread on the tax rolls against said land in any one year.

Provided further, that no operations to rid such lands of such infestation shall be undertaken until notice of the declaration of the Secretary of Agriculture that such infested land constitutes a nuisance shall have been given to the owner of said lands as hereinafter specified; such notice shall be given by personally serving upon the owner, if a resident of this state, a copy of the declaration filed in the office of the County Auditor, in the manner that summons in civil actions are served, or by personally serving in said manner a copy thereof upon the person in actual possession of the premises, together with a copy of the declaration of the Secretary of Agriculture herein provided for, that unless the owner comply with the orders of the State Weed Board within such time as the secretary may fix, which shall be not less than three days nor more than fifteen days from the date of service, and which time shall be specified in said notice, that such protective operations will be performed by the Secretary of Agriculture or his agents and, if not paid, or caused to be paid by said owner, prior to the

1st day of November in the year in which such protective operations are performed, that the cost thereof as specified in such notice will become a tax against the lands of said owner. If the owner of said lands is not a resident of the State of South Dakota, service of said notices herein provided for upon said owner may be made by posting such notice on the bulletin board provided for by the law at the court house in the county in which said lands are situated, and by mailing to the last known address of the said owner as disclosed by the records in the Register of Deed's Office, if any there be, with postage fully prepaid, true copies thereof and that service upon said owner shall be deemed complete upon the expiration of five days from and after the date of the posting and mailing of said notices, which shall be evidenced by the affidavit of a person qualified to serve civil process in this state to be filed with the proper County Auditor, provided, however, that personal service upon said owner outside of this state shall be deemed sufficient.

Provided further, that the entrance by a properly authorized agent or employee of the Secretary of Agriculture or the State Weed Board upon property, in performing his duties in weed control inspection or supervision shall not constitute trespass, nor may damage be assessed against the state, the Secretary of Agriculture, his agents, the county, or any other properly authorized agent doing weed control work where damage to crops occurs in the performance of the weed control operations; provided further, that in the performance of their duties, prescribed in this Act and the rules and regulations, or orders of the State Weed Board, the Secretary of Agriculture, his assistants, inspectors, agents and employees shall be vested with police powers.

Section 9. All acts or parts of acts in conflict herewith are hereby repealed.

METHODS OF HANDLING NEW CROP RELEASES

The state office has been asked to prepare outlines suggesting methods for increasing and distributing the new crop releases. We have learned that situations differ somewhat in the various counties which determine the exact methods counties wish to use.

However, the plans used should include the following basic principles:

1. The county association has the responsibility of selecting qualified grower or growers.
2. The growers assume the responsibility of growing and handling of the crop according to seed certification standards.
3. The grower gets a share of the crop increase and a price for increase seed which the association deems fair and equitable.
4. The balance of seed left after grower receives his share, shall be sold to the association members.
5. The county association has the responsibility of controlling the distribution of the increase seed until a certain date (for spring planted crops we are suggesting Jan. 15) and to establish a fair price.
6. All association members and other farmers in the county must be informed about the closing date and have opportunity to make application for the increased seed.
7. Membership in a county association is open to any citizen in the county.
8. Price established for increased seed is the same to members or non-members.

County Crop Improvement Associations have a very important part in the program of increasing these new releases. Directors of County Associations are responsible for seeing that competent growers increase the foundation seeds and that control of the distribution of the increase is maintained. This means that the counties must operate in a business-like manner. The plan or plans which an association will use in distribution of these releases should be decided at a county association meeting, which all members have been invited to attend. This is important.

Every Crop Improvement Association member has the privilege to make application to increase any of the new crop releases. However, the Board of Directors do have the responsibility of rejecting any application if they know that said grower does not have the adequate facilities to properly grow and handle the crop. The grower must comply to all seed certification regulations and is responsible for all certified seed he sells. In order to compensate him for the extra care needed in production of certified seed a reasonable premium should be awarded.

Every precaution should be taken to eliminate the hazards involved in the production of these valuable seeds. Numerous small fields have proven impractical. A field must be large enough so that the grower will have enough invested to warrant the extra attention that he must give in order to produce certified seed. Small lots of seed are more subject to mechanical mixtures. Small isolated fields are also more subject to destruction by insects and livestock. Should a county lose their increase field through hail, insects, or drought, arrangements can be

made to take care of such cases from increases from other counties or from increase seed produced by the Foundation Seed Stocks Division.

Before any of the new crop releases are allotted to the grower, a thorough understanding should be made of the plan and the procedures in handling the increase. A written agreement prevents misunderstanding and helps all parties.

In order to meet emergencies that may arise, the South Dakota Agricultural Experiment Station, in releasing foundation seed to County Crop Improvement Associations, reserves the right to recall all or a portion of any variety of seed released. This applies only to the seed produced from the original release obtained from the Foundation Seed Stock Division.

The simplest plan would look something like this:

<u>County Crop Improvement Association Responsibility</u>	<u>The Grower's Responsibility</u>
1. Selects grower.	1. Purchases foundation seed.
2. Controls distribution and sale of 3/4 of the increase.	2. Grows and handles crop according to certification standards.
3. Establishes a fair sale price of increase seed.	3. Defrays all production and processing expense.
	4. Retains $\frac{1}{4}$ or designated amount of seed increase and sells balance at price agreed upon.

Other provisions that may be added are such as follows:

1. Association pays expenses of cleaning, storage and bagging
2. Stipulation that the grower use fertilizer if necessary
3. Price of certified seed to members be enough over what grower received to pay expenses involved in association work and in addition to add a little to the association funds so they can sponsor activities, defray expenses of delegates to state meetings, provide lunches at meetings, etc. all of which works toward maintaining interest and good will.

AGREEMENT BETWEEN THE _____ COUNTY CROP IMPROVEMENT ASSOCIATION
AND THE GROWER OF THE ORIGINAL FOUNDATION SEED RELEASE

I, _____ of _____ County, _____,
South Dakota, hereby accept _____ (bu.) of _____
(crop or crops) foundation seed from the _____ County Crop
Improvement Association who is cooperating with the Foundation Seed Stocks Divi-
sion of the South Dakota State College Foundation. In the responsibility of
increasing this seed, I hereby state that I can meet the following conditions:

1. That I understand and will comply with the standards and procedure in growing, inspecting and completing certification of certified seed as outlined by the South Dakota Seed Certification Standards.
2. That my land is free of noxious weeds, but if unknown patches of noxious weeds do appear, I will take proper action to control such patches before seed is formed by mowing, cultivation or use of herbicides.
3. That I have adequate seed cleaning facilities or have access to same.
4. That I have adequate storage facilities to keep the increased seed separate from other grains.
5. That all planting, harvesting and cleaning equipment will be properly cleaned before using in order to avoid any mixture of other grains or weed seeds.
6. That I understand and will comply with the plan of increasing and distributing this seed as adopted by the _____ Crop Improvement Association
7. All increase seed from this release without exception shall be under the control of the County Crop Improvement Association.

Date Signed: _____

Grower, Foundation Seed

Date Signed: _____

President, _____ County
Crop Improvement Association

This agreement to be made out in triplicate, one copy for grower, one copy for secretary of County Association and the third copy for U. J. Norgaard, Secretary of the State Association.

PROCEDURE IN SEED CERTIFICATION

1. Eligible seed
 - (a) The variety must be on the approved list of varieties eligible for certification in South Dakota.
 - (b) Minnesota and Wisconsin certified seed is not eligible for recertification in South Dakota because, under the system they operate, they are not eligible for recertification in their own state.
 - (c) The analysis of out-of-state certified seed must meet the South Dakota standards.

2. Selection of the field
 - (a) Free of noxious weeds, meets isolation and previous crop requirements.
 - (b) A field may be approved if infested with noxious weeds provided adequate control measures are used.

3. Application and agreement for field inspection are available through the County Extension Office
 - (a) Application is made out in triplicate. One copy to grower, one copy for county office and third copy to State Seed Certification Office.
 - (b) County Agent's office is headquarters for seed certification in the county.
 - (c) Closing dates for filing applications are:

 Small grain - - - - - May 31

 Alfalfa - - - - - July 1

 All other crops - - - - - June 20
 - (d) Certification tags or bulk transfer certificate must accompany field application. In case of Foundation release, where one sack of seed with one tag is released to a county and this amount divided with two growers, the county agent's verification is acceptable evidence.

4. Roguing of fields
 - (a) To eliminate off-type plants.
 - (b) To eliminate scattered plants or patches of noxious and troublesome weeds.

5. Field inspection by official inspector
 - (a) The inspector is employed by the seed certification service.
 - (b) Crop is inspected at the full headed stage and must be done before the crop is harvested.
 - (c) Grower should be with the inspector when field is inspected.
 - (d) Growers must sign the inspector's report. The inspector does not approve or disapprove a field but merely reports his finding and sends signed report to the State Seed Certification Office.

6. Grower is notified by the State Seed Certification Office if field is approved or disapproved.
 - (a) If field is approved, the grower receives a small cloth bag for submitting a representative sample of the threshed and cleaned seed. This sample is sent to the Certification Office.

(b) Grower is given instruction on "How to take official sample for certification."

7. Certification office forwards sample to state seed testing laboratory for germination, purity and noxious weed analyses. When this report is completed, the certification office forwards the report to the grower. If sample meets the seed standards, the seed lot is assigned a certification number and grade (This information is on forms A and B).
8. Grower is supplied with form C for requesting number of tags needed or if the seed will be sold in bulk. If the seed or part of the seed will be sold in bulk, a bulk transfer certificate will be supplied for each sale made. Bulk transfers are permissible only when the seed is sold direct from producer to grower.
9. If seed is to be bagged and tagged, grower notifies certification office when seed is ready to be bagged. Each county has an official representative who places tags and seals on bagged seed. Official representative received form G which gives him his instructions. After tagging and sealing the bags of seed, the official representative fills out form H and sends it to the State Seed Certification Office.
10. When bulk transfer (Form F) is used, grower supplies the Certification office with a sales receipt for each lot of seed sold. The Certification office executes a bulk transfer certificate and sends this certificate to the grower for his signature. Grower signs the certificate and sends it to the purchaser of the seed. This certificate is used in place of tag as evidence that certified seed was planted.

TWENTY ESSENTIAL STEPS IN PRODUCTION OF CERTIFIED SEED
by U. J. Norgaard, Extension Agronomist

Seed Certification in South Dakota is a service maintained by seed producers of the state. The objective is to produce and distribute, under the guidance and supervision of the South Dakota Crop Improvement Association; Agronomy Department; South Dakota State College and the Department of Agriculture at Pierre, pure seed of the improved varieties of crops so that the income from farming in the state may be more satisfactory.

The outline below is presented to assist the grower in the important work of producing seed which will qualify for certification. Unless these essential precautions are taken the grower should not attempt to grow certified seed.

1. If interested, send for "Seed Certification Standards for South Dakota."
Address: Seed Certification Service, College Station, Brookings, South Dakota.
Study the program thoroughly.
2. Use foundation or certified seed eligible for Certification in South Dakota.
3. Land treatment previous year: Refer to Standards.
4. Seed Treatment important: Refer to Standards
5. Noxious weeds: No tolerance. Refer to Standards.
6. Take care of isolation requirements: Refer to Standards for specific crops.
7. Clean planting equipment of all seed before planting certified seed.
8. Make application for field inspection. Read and study application blank before signing. Send application to:
SEED CERTIFICATION SERVICE, COLLEGE STATION, BROOKINGS, SOUTH DAKOTA
9. Rogue all fields of weeds or mixtures before field inspection.
10. Applicant will accompany field inspector when field is examined. Sign field inspection report together with field inspector.
11. Do not harvest seed before it is fully matured.
12. Clean harvesting machinery (including corn pickers) thoroughly before starting harvesting.
13. Clean bundle racks before hauling.
14. Clean all parts of threshing machine (or combine) thoroughly. Run gunny sacks through all auger conveyors by hand several times before threshing in order to remove grain lodged in bottom of conveyors.
15. If possible, thresh easily removable grain previous to threshing certified seed. If this cannot be done, an alternative practice is to discard the portion of the seed which goes through first.

16. Do not injure seed by rough handling in threshing, hulling or scarifying. The germination of seed is affected seriously by mechanical injury by excessive speed of cylinders, blower elevators, etc. Legume seeds are very sensitive to rough handling. Germination of alfalfa and sweet clover seed are often lowered 20% to 30% because of such treatment. If too many seeds are cracked in sorghum by careless threshing, excessive respiration takes place injuring the germination of the whole lot. Caution the thresherman about careful adjustments of his machine when threshing hullless oats, beans and other brittle seed.
17. Do not put threshed seed to be certified in sacks, bins or wagon boxes that have not been cleaned of every single foreign seed or other contaminating material.
18. Look out for excessive moisture content of newly threshed seed. Corn, small grain, and sorghums should have not more than 14% moisture when sacked or binned. Flax should have not more the 11% in order to keep. In combining a crop like sorghum, excessive moisture is often introduced by parts of the stems which have not yet been thoroughly dried out.
19. If the grower questions the viability of his seed, he should submit an uncleaned sample to the Seed Certification Service, College Station, Brookings, South Dakota for germination only. This is done merely to determine if it will pay to process the seed for certification.
20. After seed lot is cleaned, submit an official representative sample in the cloth bag furnished by the Seed Certification Service, taken in the following manner:
 - a. Take sample from recleaned seed lots, in the condition in which seed is to be sold or used.
 - b. If seed is in a bin or pile, obtain handfuls from at least ten places by thrusting the arm and hand into the bulk of the seed.
 - c. For sampling seed stored in bags, obtain seed from near bottom, middle and top of bag or from no less than every fifth bag.

Size of samples to be submitted:

Small grains, flax, sorghum and soybeans - full bag (1 quart)
Corn - 1 pint for each grade
Alfalfa and other small legumes - 1 pint
Grass seed - a full bag (1 quart)

.....
: The responsibility of producing and selling good :
: seed must remain with the grower. Policing is not :
: practical or desirable. The growers in good standing :
: are those who willingly and naturally carry out the :
: precautions listed above and who comply with all other :
: requirements of the Association :
:.....