1920

Corn Yield Contest, 1920

Iowa Corn and Small Grain Growers' Association

Follow this and additional works at: http://lib.dr.iastate.edu/cornyield

Part of the Agricultural Science Commons, Agriculture Commons, and the Agronomy and Crop Sciences Commons

Recommended Citation

This Article is brought to you for free and open access by the Agronomy at Iowa State University Digital Repository. It has been accepted for inclusion in Iowa Corn Yield Tests by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
Iowa Corn and Small Grain Growers’ Association

Corn Yield Contest
1920

To determine the highest yielding corn in each section of Iowa

PURPOSE OF YIELD CONTEST

The Iowa Corn and Small Grain Growers’ Association recognizes that there are large differences in the yielding ability of varieties and strains of the same variety of corn and therefore has inaugurated a contest to determine the highest yielding kinds for the different sections of the State.

In order to locate the highest yielding seed and prove definitely which will produce the most bushels of sound and mature corn, the state association proposes to plant, side by side under absolutely uniform conditions of soil, cultivation and other factors, a large number of samples in each section of Iowa. Computed on a uniform moisture basis, the differences in yield will be due directly to the breeding or hereditary qualities of the individual lots of seed corn compared.

VALUE

This contest is by far the most important project ever undertaken by the Iowa Corn and Small Grain Growers’ Association. The results of several years’ tests should determine the value of different varieties or strains of corn and encourage the distribution of the highest yielding and best adapted seed in each section of the State. Any addition to the average acre yield will mean increased profits of hundreds of dollars to the corn grower and the reputation of Iowa as a leader in corn production will remain undisputed.

The Iowa Experiment Station has conducted tests for several years to determine whether the moving of seed corn east or west within the State would have a greater effect on the yield than the inherent producing qualities which the strain possessed. These tests have shown that there are high yielding strains of corn grown in eastern Iowa, which, planted in approximately the same latitude in central or western Iowa are equally high yielders there. Similar results were also obtained by moving corn from western or central Iowa to the eastern part of the State. These facts mean that if a strain produces uniformly high yields when compared with other corn in definite tests at the three stations within each section, it should be an exceedingly valuable variety for general use on the farms in that section of the State.

The results of the yield contest will be of particular value to every corn grower who competes, regardless of whether his entry ranks high or low in the tests. Such information will be of the greatest benefit to men with the low yielding seed because it will enable them to replace their own varieties or strains with those kinds which comparative trials have proven most productive. The owners of varieties or
strains which rank high in this contest should receive wide publicity
and a ready sale for their seed at high, but justified, prices. Also,
the Association plans to have a number of trophy and cash awards given
to those competitors whose seed yields the largest amount of maturc corn to the acre.

IMPORTANCE OF COMPARATIVE TESTS

County Demonstrations:—Results of numerous trials which have been made by individual farmers as well as farm bureaus show a difference in yield from five to twenty-five bushels between varieties or strains. For example, such tests have been conducted for several years in Henry County by County Agent Don E. Fish. Of twenty samples compared in 1915 the following table gives the acre production of the four highest as compared with the four lowest yielding strains.

HENRY COUNTY TEST—1915

<table>
<thead>
<tr>
<th>Variety</th>
<th>Bushels per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reid's Yellow Dent</td>
<td>60.4</td>
</tr>
<tr>
<td>Silver Mine</td>
<td>59.4</td>
</tr>
<tr>
<td>Reid's Yellow Dent</td>
<td>58.5</td>
</tr>
<tr>
<td>Bloody Butcher</td>
<td>57.8</td>
</tr>
<tr>
<td>Reid's Yellow Dent</td>
<td>46.8</td>
</tr>
<tr>
<td>Boone County White</td>
<td>44.8</td>
</tr>
<tr>
<td>Reid's Yellow Dent</td>
<td>43.8</td>
</tr>
<tr>
<td>Reid's Yellow Dent</td>
<td>42.9</td>
</tr>
</tbody>
</table>

In this test both the highest yield of 60.4 bushels to the acre and the lowest yield of 42.9 bushels were produced by strains of Reid's Yellow Dent seed obtained from different growers. Such a marked variation in yield frequently occurs when different strains within a given variety are grown under uniform conditions.

County Agent Dickinson of Floyd county has carried on similar work for four years. The results of the 1918 test conducted on two different farms are given below:

FLOYD COUNTY TESTS—1918

Farm No. 1

<table>
<thead>
<tr>
<th>Variety</th>
<th>Bus. per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver King (Nursery)</td>
<td>61.6</td>
</tr>
<tr>
<td>Livermore White Dent</td>
<td>61.1</td>
</tr>
<tr>
<td>Calico</td>
<td>49.6</td>
</tr>
<tr>
<td>Wimple's Yellow Dent</td>
<td>46.1</td>
</tr>
<tr>
<td>Murdock</td>
<td>44.5</td>
</tr>
<tr>
<td>Golden Jewel</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Farm No. 2

<table>
<thead>
<tr>
<th>Variety</th>
<th>Bus. per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver King (Nursery)</td>
<td>61.0</td>
</tr>
<tr>
<td>Silver King (Burlinghams)</td>
<td>57.8</td>
</tr>
<tr>
<td>Livermore White Dent</td>
<td>53.1</td>
</tr>
<tr>
<td>Silver King (County Farm)</td>
<td>52.8</td>
</tr>
<tr>
<td>Calico</td>
<td>51.0</td>
</tr>
<tr>
<td>Golden Jewel</td>
<td>46.4</td>
</tr>
<tr>
<td>Murdock</td>
<td>45.5</td>
</tr>
</tbody>
</table>

These varieties of corn had all been grown locally and show differences in yield due to the producing ability of the seed. This strain of
Silver King was constantly one of the highest yielders during the four years in which the test was held.

Two corn yield variety demonstrations were conducted in Benton county during 1919. A portion of County Agent Brant’s report on one of the demonstrations states “In the corn variety test on a farm near Blairstown, the highest yielding entry produced seven bushels more than the average for the twelve varieties.”

### BENTON COUNTY TEST—1919

<table>
<thead>
<tr>
<th>Variety</th>
<th>Bus. per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reid’s Yellow Dent</td>
<td>70.25</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>64.5</td>
</tr>
<tr>
<td>Iowa 203</td>
<td>64.25</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>62.25</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>61.5</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>59.75</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>59.5</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>59</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>58.75</td>
</tr>
<tr>
<td>Reid’s Yellow Dent</td>
<td>57.0</td>
</tr>
<tr>
<td><strong>Average Yield</strong></td>
<td><strong>63.0</strong></td>
</tr>
</tbody>
</table>

Results in a number of other counties show as noticeable differences in the yielding power of the seed corn grown by different farmers.

**Experiment Station Tests:** Carefully conducted experiments by the Farm Crops Section of Iowa State College also indicate that when grown under identically the same environmental conditions there are often several bushels difference in the yield produced by various strains of the same variety, even though developed under similar soil and climatic conditions.

H. D. Hughes, in charge of farm crops investigations at the Experiment Station says, “There are hundreds of strains of Reid’s Yellow Dent corn in Iowa and there is as much difference in the yielding power of different strains of this one variety as between distinct varieties. In order to get definite data on this point the Experiment Station obtained, for planting tests at Ames, seed from about fifty growers of Reid’s Yellow Dent in central Iowa. The differences in the quality of the corn and the yielding power of these various strains during the past three years have been very noticeable. This year, for example, some of the strains produced only a little over fifty bushels an acre, while others grown under exactly the same conditions yielded more than seventy-five bushels.”

Several years ago when the Iowa Experiment Station was conducting corn tests in the northern part of the State, good quality Silver King seed was obtained from twelve different men located in the northern tiers of counties. These twelve strains of Silver King were compared under uniform conditions and the results show that one strain yielded eighty-three bushels an acre while another produced only fifty-seven.

### PLAN OF COMPETITION

It is not the object of the Association to replace or duplicate individual farm and county tests by these state wide trials, but rather to aid and supplement them. A special effort will be made to include samples which various local demonstrations have shown to be high
yielding, but regardless of previous tests, competition will be open to all Iowa grown seed. The Iowa Corn and Small Grain Growers' Association expects to co-operate closely with the different agencies which are conducting such comparative tests at the present time.

The plan of conducting the competition is as follows:

1. Twelve testing stations will be established—three in each of the four sections: north, north central, south central, and southern, into which Iowa has been divided for a number of years for the annual State Corn Show. In order to give all the corn entered the most thorough trial, the stations in each section will be distributed from eastern to western Iowa as far as possible on the different soil types. No station will be located on the farm of a competitor.

2. All entries for a section will be grown in competition at all three stations within that section.

3. A number will be assigned each sample when received by the Secretary of the Iowa Corn and Small Growers' Association so that the name of the competitor will not be used or known until the final yields have been computed.

4. Each entry will be planted in five to eight plots of two rows, twenty-five hills in length, at each of the three stations of the section in which the particular sample is entered. The exact number of times a sample will be planted at each station will necessarily depend on the number of entries and the land available for the test.

5. All yields will be reduced to a uniform moisture content but entries which are so immature at husking time as to be unsafe for cribbing in an average season will be disqualified. The results obtained at each station from the individual entries and also the average yields of the same samples at the three stations in each section will be published at the close of the season.
ENTRIES

1. An entry fee of ten dollars (\$10.00) for each sample will be charged to partially pay for the detailed work of making a careful and thorough test. This fee will not cover the necessary cost of making the test. However, a small fund appropriated by the Legislature for the work of the Association will be used to satisfactorily conduct the trials. The fee should be paid to the Iowa Corn and Small Grain Growers' Association, Ames, Iowa, when application for entry is made.

2. Upon payment of an additional ten (\$10.00) dollar fee for each section in which it is entered for competition, the same variety or strain of corn may be entered in more than one section.

3. Applications for entry should be mailed immediately to W. R. Hechler, Secretary of the Iowa Corn and Small Grain Growers' Association at Ames, Iowa. The Association will attempt to accommodate all applications received, but if the entries are too numerous to include in the test, they will be accepted in the order in which received by the Secretary until the necessary limit is reached. A check, postal money order or draft made payable to the Secretary of the Iowa Corn and Small Grain Growers' Association should be mailed with the application for entry.

4. Each sample must have been grown in Iowa and must be entered in the name of the grower of the seed.

5. No competitor may enter more than one sample in a section.

6. Each competitor must supply, free of charge, eighteen pounds of high germinating shelled seed corn ready to plant. This seed becomes the property of the Iowa Corn and Small Grain Growers' Association when received by the Secretary. An eighteen pound sample is required of each competitor so as to obtain an amount large enough to insure the seed being representative of the strain from which it comes, and also to give the Association a sufficient supply for section and state exhibition after the yields have been determined.

7. Each sample should be labeled distinctly as to the name and address of the grower, variety name of the corn, if known, and the section of the State in which it is to compete. Additional entry blanks may be obtained from the Secretary of the Iowa Corn and Small Grain Growers' Association at Ames, or from your County Agent.

8. Entries must be made, fees paid, and samples shipped postpaid to the Iowa Corn and Small Grain Growers' Association at Ames, Iowa, by April 10, 1920.

9. Samples should be shipped in heavy bags or strong containers to insure the corn reaching the Association in good condition. Where corn and containers do not weigh more than twenty pounds, the parcel post charge to Ames is twenty-five cents.
A word about the Iowa Corn and Small Grain Growers’ Association

HISTORY OF ORGANIZATION

The “Iowa Corn Growers’ Association” was organized in 1903, but some years later the name was changed to “Iowa Corn & Small Grain Growers’ Association.” This organization has conducted an annual State Corn and Small Grain Show each year since it was founded. The annual dues of the association are $1.00. Its membership is composed of the most successful crop growers of the state. The Association has undertaken and accomplished many useful things, among which should be mentioned the very large part it took in placing the now famous HORN OF PLENTY EXHIBIT AT THE PANAMA PACIFIC EXPOSITION in 1915—a display which has brought much fame to the state of Iowa.

The first state appropriation for the development of the work of this association was made by the Iowa Legislature in 1917, and this has greatly facilitated and extended its operations.

OBJECTS OF THE ASSOCIATION

Briefly stated, the object of the organization is to increase and improve crop production; and it should be kept in mind that larger crop yields are the foundation of increased production of livestock and dairy products. The Association is endeavoring, thru its annual state show and thru educational talks at its annual convention to create the greatest possible interest in the use of better varieties and in the methods of improvement which may be carried out on the farm. Also by means of the Seed Directories which are issued from time to time, the wide dissemination of good seed of the improved strains and varieties is greatly facilitated.

Annual State Show:—The annual state show of this organization is probably the largest of its kind held anywhere in the world. Each year there are on the tables from 10,000 to 15,000 ears of corn besides hundreds of entries of small grain, clover and grass seeds, soy beans, alfalfa hay, etc.

Seed Directories:—Since state aid was given the Association, it has been possible to publish from time to time a seed directory, listing large quantities of good quality seed offered for sale by growers in all parts of the state. These directories bring the man who wants to purchase seed into direct contact with the grower. They are sent to large numbers of individual farmers, and also in lots to county agents, banks, elevators, etc., for local distribution, so as to make them as widely useful as possible.

Corn Yield Contests:—The object of the Acre-Yield Corn Contest conducted during the past two years, is not to encourage the special care and pampering of a single acre thruout the season, but rather to find out at the end of the year what farmers have produced the largest yields under their regular methods of corn growing and to award a trophy to the grower of the largest acre-yield of dry shelled corn. The purpose of the 1920 Corn Yield Contest is to determine the heaviest producing varieties or strains for each section of Iowa by growing a large number of samples side by side under uniform conditions of soil, planting and cultivation.
ASSOCIATION OFFICERS

President ............................................. Fred McCulloch, Hartwick
Vice-President ........................................ W. E. Krizer, Eddyville
Treasurer ............................................... P. C. Taff, Ames
Secretary ............................................... W. R. Hechler, Ames

DISTRICT VICE-PRESIDENTS

1. F. B. Hanson, Inwood
2. R. W. Butterfield, Irvington
3. Theo. Gronna, Waterville
4. P. M. Peterson, Cherokee
5. W. J. Irving, Webster City
6. C. P. Bley, Cedar Falls
7. Perry Livengood, Castana
8. I. E. Proudfoot, Altoona
9. J. H. Burgy, South Amana
10. Frank Sar, Essex
11. J. A. Mason, Carlisle
12. Ray Redfern, Yarmouth

THE BOARD OF DIRECTORS

consists of the above named officers of the Association and the following ex-presidents:
Asa Turner, Farrar
John Sundberg, Sioux City
A. L. Plummer, Altoona
F. H. Klopping, Neola
F. D. Steen, West Liberty
J. H. Petty, Elliot

APPLICATION FOR ENTRY

I hereby make application for entry in the Yield Contest of the Iowa Corn and Small Grain Growers' Association and agree to ship, prepaid, eighteen pounds of high germinating shelled seed corn to the Association by April 10, 1920. I am the grower of this seed and agree to abide by all the provisions of the contest. My check, money order, draft, (indicate which) for the ten ($10.00) dollar fee is enclosed herewith.

Section in which corn is to compete ........................................-

Variety or strain name of your entry .................................

Maturity compared with other local corn ............................

Name ......................................................

Post Office ............................................

Rural Route ............................................

County ................................................................

INFORMATION REGARDING SAMPLE ENTERED

In what county was your entry grown? ..............................

How long have you produced this variety or strain? ............

From whom did you obtain your first seed? .......................

What have been your average yields from this variety? .........

All applications should be mailed to

W. R. HECHLER,
Secretary Iowa Corn and Small Grain Growers' Association,
Ames, Iowa.
Growing different kinds of corn in the field under uniform soil and planting conditions is the only method of determining definitely which will produce the largest yield.

“He wants the perfect golden ears
    With even rows of kernels deep;
He wants them sound and well matured
    That in the crib will surely keep;
He wants the corn to husk with ease
    That husking may be pleasant work;
But most he wants the heavy yield
    That fills the cribs and makes the pork.”