Ohio Agricultural Experiment Station.

CIRCULAR 76

CO-OPERATIVE CORN WORK FOR 1908.

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The Experiment Station has made plans for the following co-operative corn work for the season of 1908. Material for conducting these experiments will be supplied without expense to such Ohio farmers as are able and willing to give them the proper attention, providing sufficient funds are appropriated by the legislature in time to prepare for the work.

Germination
Date of Planting
Thickness of Planting
Variety to be grown
A—Small Plot Test
B—Medium Plot Test
C—Large Plot Test

Fertilizers
Breeding
Seed Selection
Shrinkage
Greatest Yield on a single acre
County Farm Work

Germination. It is doubtful if Ohio farmers ever had a poorer lot of corn from which to select seed than they have this year. Some years almost any grower who has a few hundred bushels of corn on hand can go to the crib and select from it all the seed corn he needs and feel reasonably sure that he will have at least a fairly good stand. Not so this spring. In some sections of the state, farmers who have good corn, every ear of which they know by germination test will grow, are already selling at from $3.00 to $5.00 per bushel, and many corn growers will realize, before the first of June has passed, that these are bargain prices for such corn. Instructions for making a germination test, by which any farmer may know which of his ears selected for seed will grow, will be supplied upon request.

Date of Planting. Much corn is planted too late. A great deal of the corn in northern Ohio is planted after May 20th. Corn planted at the Experiment Station, in Wayne County, on April 16, 1906, which was frozen to the ground when an inch high, came on

in good shape and yielded as well as the corresponding plot which was planted on the 20th of May. If drainage is good many farmers will find it to their interest to plant two or three weeks earlier than they do. They can then replant, if necessary, and be as early as those who plant later. A rain gage and thermometer will be loaned in connection with this test.

Thickness of Planting. Each farmer should work out for each type of his own soil, the proper thickness at which corn should be planted. For soils on the same farm there will be a variation of as much as a stalk per hill. A rain gage will be loaned in connection with this test.

Variety. There probably is no farm crop that is so sensitive to climatic and soil changes as corn. With some crops the same variety will serve fairly well over the entire state. Such is not true with corn. Different counties frequently need different varieties, indeed different farms in the same township sometimes need a slight change in the strain to get maximum results. In order to help farmers solve this problem the Experiment Station will supply material for three kinds of tests:

A. *The small plot four variety test*, with plots but one by two rods or one eightieth of an acre in size. These are specially adapted to growers who, already having a good variety of their own, wish to try other varieties but on so small a scale that will not risk mixing with their corn.

B. *The medium plot test* with two more varieties. For these sufficient seed will be supplied for two or more plots one tenth acre, more or less, in size. The shape of plots can be varied to suit the convenience of the experimenter.

C. *The large plot tests*, the number and size of plots to be arranged by a representative of the Station after visiting and inspecting the proposed site of test. These tests are planned specially to enable the local Corn Improvement Associations to take up the work in an extensive and thorough manner, either on one of the county farms or on the farm of one of their members whom they may select.

Fertilizers. Material for a few commercial fertilizer tests with corn will be supplied to persons of experience. The size and number of plots in this test will be arranged to suit the conditions.

Breeding. It is now an established fact that there is as much variation in the productiveness of different ears of the same variety as there is between different varieties, that are adapted to a given section. The purpose of this work is to discover these good yielding ears and build up from them better strains than we now have. Instructions for carrying on the work, together with other assistance will be furnished by the Experiment Station.

Seed Selection. There seems now but little doubt but that by selecting seed corn from the stalk at maturing time, the grower can not only have seed of good vitality, but that such seed, when compared with "wagon box" selection of equal vitality, will outyield it. The Experiment Station would be pleased to take up this matter more in detail with those who so desire.

Shrinkage. Now that the elevator men are learning to discriminate between good and bad corn it behooves farmers who make a practice of selling corn to give more thought to its water content. They should make experiments along this line until they are able to estimate very carefully what percent of water their corn contains, just as they are able, by practice, to estimate quite accurately the weight of a hog or steer. Even though they do not propose to sell corn they should be informed on this point. A large amount of good feeding corn was ruined last fall by being cribbed when too wet. Plans for a simple experiment along this line will be supplied upon request.

Greatest Yield per Acre. What is the greatest amount of merchantable corn that can be grown upon an acre of ground? Now that we have our local Corn Improvement Associations this test may be taken up with great advantage. Plans for conducting it will be explained to Secretaries of such Associations as desire to consider it.

County Farm Work. In all counties, where either the Infirmary or the Children's Home is located on a soil that is typical of any large area of the county, the corn growers will find it very much to their interest to arrange to have a number of the above tests taken up quite extensively by the authorities of one or both of these institutions. This movement had best be started by the local Corn Improvement Associations, and looked after by an active energetic committee from same. At the end of the season the Experiment Station will endeavor to assist the Association in holding a very profitable field meeting to inspect and discuss the work.

Instructions or further information regarding making any of these tests will be furnished upon request to any person who fills out and mails the accompanying application to

Experimentalist, O. A. E. S., Wooster, Ohio.

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APPLICATION
for
Co-operative Corn Work—1908.

CIRCULAR 76—A.

Gentlemen:—

I have read your circular regarding Co-operative Corn Work for 1908, and would like further information regarding the following phases of it: 1. Germination. 2. Date of Planting. 3. Thickness of Planting. 4. Variety, A. Small Plot. B. Medium Plot. C. Large Plot. 5. Fertilizers. 6. Breeding. 7. Seed Selection. 8. Shrinkage. 9. Greatest Yield on a Single Acre. 10. County Farm Work. (*Underscore the ones you select.*)

I own .....acres of land; rent..... ..acres; manage..... ...acres;

devote on an average . ..... acres annually to the corn crop, grow

.... corn and usually plant about the..... . .....

week of .. ..

(*In case the work you select requires a visit by a representative of the Station, it may hasten matters to fill out the following.*)

I shall be pleased to meet your representative at.....
Railway or traction station

which is..... miles.. .....of where I live, or at..... ... .
direction

which is.....miles.....of where I live, or at..... ... .
direction

....

I shall wish about..... days notice and am connected with

....telephone exchange at..... .....
Citizens or Bell

My farm is located in..... .....Township.....County

My express office is..... ... .Freight office ... .

Signed..... .....P. O.....

Date of mailing..... 1908

Mail to Experimentalist, O. A. E. S., Wooster, Ohio.

Kindly make any further explanations on the reverse side of this sheet.