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Testing Seed Corn

By E. G. MONTGOMERY and C. W. PUGSLEY.

Testing every ear of seed corn will cost about 5 to 10 cents per acre, and may mean 5 to 10 bushels per acre increased yield. Do it now before the rush of farm work. In many parts of the state not one-half the seed corn will grow. Reports from Farmers' Institutes in various sections indicate that the vitality is very low.

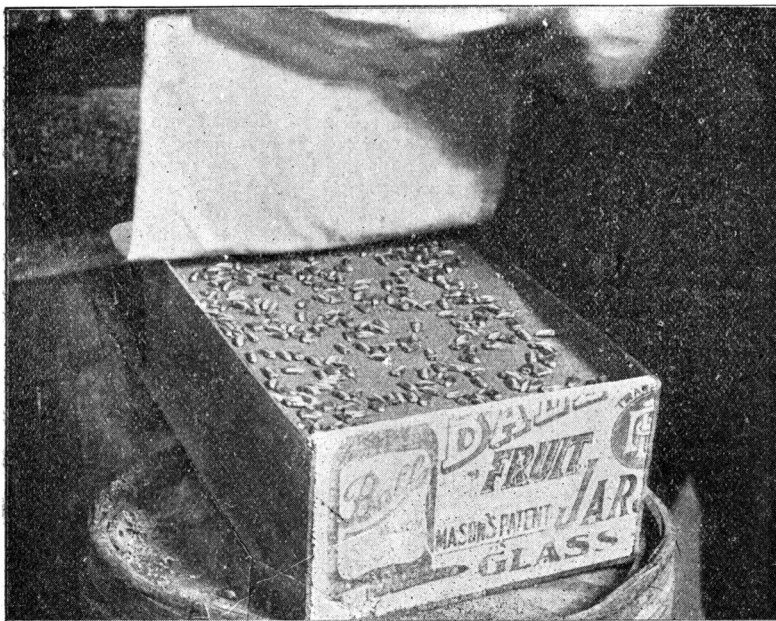


Fig. 1. Preliminary Test.

First make a preliminary test of your seed. Select 100 ears at random. Take three grains from each ear, each grain from a different part. Place 300 grains in a germination box (See Fig. 1). Use any shallow box for a germinator. Place sawdust, sand or soil in the bottom. Cover with clean cloth or blotter. Scatter grains, cover with another cloth or blotter and put some more sawdust, sand or soil on top. Wet down thoroughly and keep in a warm place. Grain should be sprouted in 4 to 6 days.

If 95 per cent of the grains germinate in the preliminary test, your corn is safe to plant. If less than 85 per cent germinate, it will pay to make the ear test.

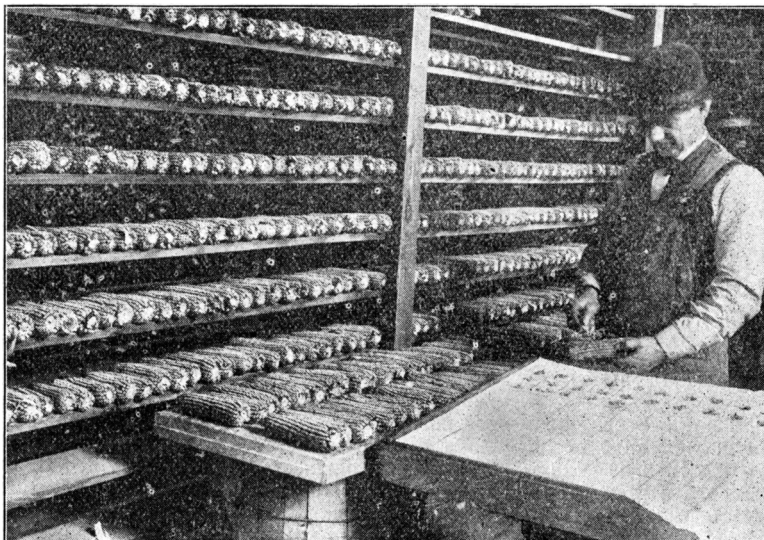


Fig. 2. The Ear Germination Test (Enough corn is seen on the shelves to plant 40 acres).

Lay out all your seed ears side by side on floor, shelves or boards. You should have at least 12 ears for each acre. Keep them in such order that you can easily locate any ear after test is completed. This is easily done by marking the ears which occupy the first space of each row in the tester. It may also be done by numbering each ear to correspond with the number of the squares in the tester. Prepare the germination box (Fig. 2) by placing 2 to 3 inches of sawdust, sand or soil in the bottom. Cover with white cloth marked in 2-inch squares.

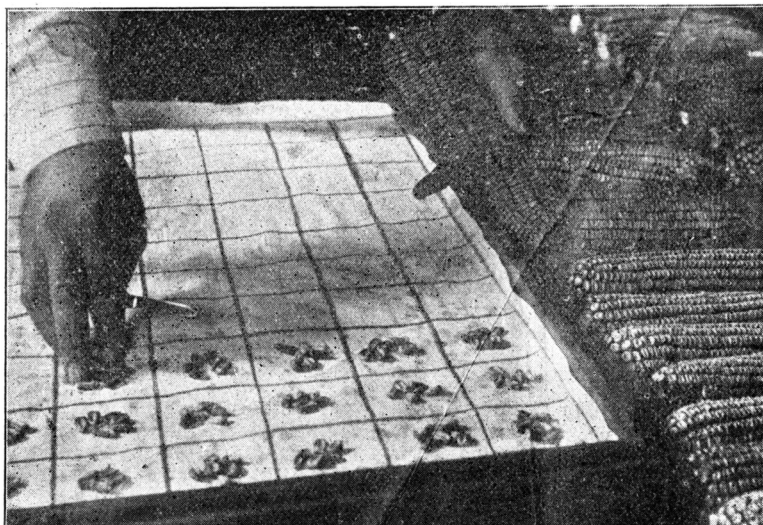


Fig. 3. Placing the Grains in the Germination Box.

Remove 6 kernels from each ear, two from near the butt, two from the middle and two from near the tip. Turn the ear partly around each time. Place the 6 grains from each ear in the germination box in the same order that you have the ears laid out. Remove the kernels with a knife blade, and be careful not to injure the germs. (Fig. 3)

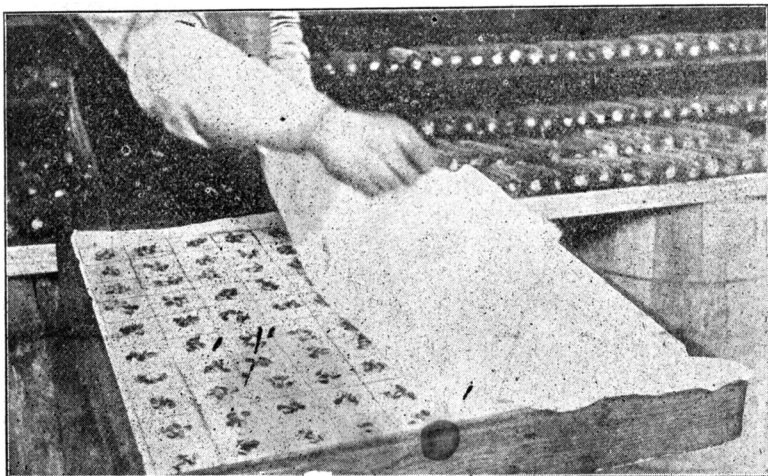


Fig. 4. Ready for the Test.

Cover the kernels with a cloth, and over this place some sawdust, sand or soil. Keep well moistened and in a warm room. In 4 to 6 days germination should be complete. Discard all the ears that have not shown a good, strong germination.

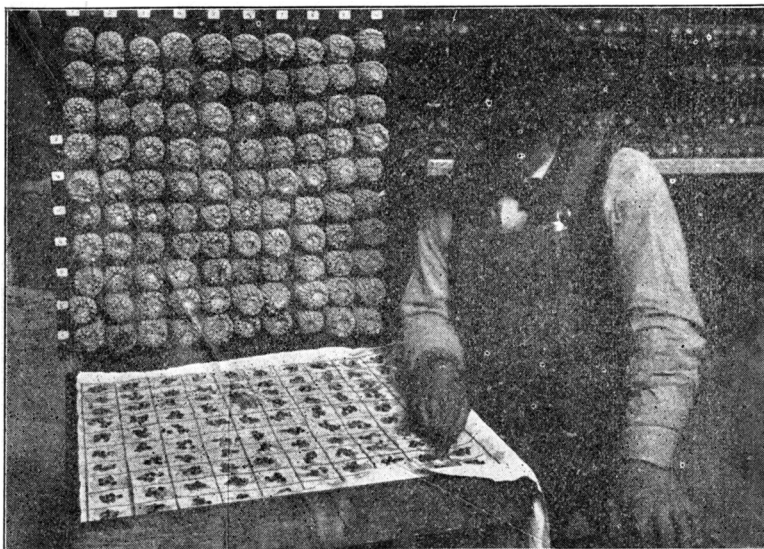


Fig. 5. A Handy Rack.

A handy rack for drying seed corn and for keeping track of the ears in testing may be made by the use of 2x4s and heavy smooth wire. (See Fig. 5.) The ears in the rack correspond to the squares in the germinator, so that it is not necessary to number either the ears or the squares.



Fig. 6. An Ear Germination Test After 3 Days.

Figure 6 shows the test after it has been in the germinator for 3 days. It should be left longer to get the best results. Six grains from each ear were taken. Some of the ears were absolutely dead. In others the sprouts were weak, while with some the sprouts were vigorous. If one ear in every forty fails to grow, you will lose one acre out of every 40 acre field. It is a very simple matter to make the test at home. No material need be purchased, as every farmer possesses rough lumber of which the boxes can be made, and cloth that can be used for the cover. The only thing that is necessary is to keep an accurate record of the ears and to keep the germinator moist and in a warm place.

There are a number of patent germinators now on the market. In many instances these can be purchased at a reasonable price, and some may find it more convenient to buy one ready for use.