

1. Breeding Projects.

Inbreeding has been continued: Northern Cross and Dependogold are providing desirable inbred lines, while sugary derivatives of Cinquantino gave second generation inbreds with good, early germinations. Golden Standard Maize, Cinquantino flint and other maize types are also being inbred. A preliminary growing of Russian maize, obtained through the Board of Trade, showed they grew well here but set seed far too late. They are doubtless mechanical mixtures of yellow and white seeded forms.

As low germination hinders sweet corn production in England, the effects of date of harvesting seed were studied using inbred C 13 and J.I. Hybrid No. 1. Hybrid seed could be harvested over a wide period: from 24 September to end of October, without detriment to germination. C 13 germination was high only for seed picked on 24 September, germination rapidly falling off with later harvestings, Earlier seeds probably gave reduced germinations because they were immature, while falling off in later ones was possibly due to fungal attacks.

In collaboration with Mr. Newell, it was found that sweet corn raised in soil blocks in glasshouses and frames, and then transplanted are earlier, more vigorous and better yielding than direct sowings. Maize normally dislikes transplanting. More important is that they escape detrimental effects of low temperatures on germination and frit-fly attacks. Soil blocks are economically advantageous for sweet corn as a horticultural crop in England.

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