

3. Breeding work.

The work on sweet corn and pop corn (Mezzacappa) continues. As a breeding program for obtaining balanced synthetics the following procedure has been adopted, after a number of preliminary trials: (1) When using completely new material variety crosses with S_0 plants are made to see the extent and nature of heterosis in general. Some races were for instance eliminated since they gave in this test extreme heterosis of plant and ear height, but not of ear size or weight. (2) S_1 tests for general combining ability by top crosses with the original or another test variety. (3) Continued selfing with strong selection for the desired agricultural characters, except productivity and some ear characters until S_3 . (4) Top-cross for general combining ability with S_3 and simultaneously continuation of the S_3 families by sibbing. (5) Tests for special combining ability of the selected S_3 populations.

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