

# APPLICATION OF GYNOECIOUS AND HERMAPHRODITIC LINES IN CUCUMBER BREEDING

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1. Appropriate crosses yielded cucumbers bearing exclusively female flowers with the ability to produce parthenocarpic fruits. Primary studies show that these forms may be of practical use because of their high earliness.

2. The  $F_1$  of hybrids between gynoecious and monoecious lines can be:

a) monoecious, with a sufficient ratio of male and female flowers for pollination to be accomplished; in this case the  $F_1$  can be utilized as a heterotic generation;

b) completely or nearly completely gynoecious, fit for use as mother material for repeated crosses with selected monoecious lines. In this case

it is easy to obtain a larger number of hybrid seeds yielding a population consisting of gynoecious and monoecious plants;

c) gynoecious plants are easily reproduced with the use of a hermaphroditic pollinator. Thus obtained plants may be applied as mother forms in crossing with monoecious lines.

The above given data suggest new possibilities of applying gynoecious and hermaphroditic lines of cucumbers in the production of heterotic hybrids.

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