

**PERFORMANCE OF PLANT POPULATIONS
RAISED FROM SEED OF PODS AT DIFFERENT
POSITIONS ON OKRA PLANTS
(*Abelmoschus esculentus*)**

by
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ABSTRACT

A field experiment was carried out to study the performance and yield of okra plant population raised from seeds of pods at different positions on okra plants.

The ten types of seed used were extracted from 1st to 10th pods okra plants and all entries were arranged in Randomized Complete Block Design (RCBD) with three replicates. After the emergence of seedlings, data collection commenced and measurement as well as observation were made on plant height at first flowering, plant height at first harvest, plant height at last harvest, length of pod, width of pod, weight of pods and number of pods per plant. The collected data were subjected to analysis of variance (ANOVA) and correlation analysis was also performed.

Significant differences in the plant height at first flowering, plant height at first harvest, plant height at last harvest, pods per plant, pod weight, pod length and pod yield were noticed among plants raised from seeds of pods at different positions.

The plant population raised from seeds of 3rd, 4th, and 5th pods showed the best performance with respect to plant growth and development and pod yield, determined through data collected on various plant characters, yield components and pod yield. These groups of plants were found to be significantly better than the rest in pod yield and many other characters.

A highly significant correlation and direct relationship were seen between yield and other characters such as pods per plant, pod weight, pod length, plant height and there by improving one or more of these characters may increase the yield to satisfactory level.

Seeds of different treatment (1st to 10th pods) were tested for germination under laboratory and field conditions. The germination percentage and emergence rate were higher in seeds taken from the 2nd, 3rd, 4th, and 5th compared to others and the germination percentage was found more than 85% in the seeds taken from 2nd, 3rd, 4th and 5th pods after 4 days of planting under laboratory condition and little less than 85% under field conditions. The germination and emergence rate of okra seeds under laboratory conditions were estimated to be higher than under field conditions.

A preliminary experiment was carried out on keeping quality of pods under laboratory conditions. The observation and measurement were made for five days on loss in pod weight, pod appearance, colour changes and fibre nature of pods. It was noted that the weight loss was 8% after 1st day and 31% after 5th day in storage. Colour of pods change gradually from green to brown within 5 days and pods become unacceptable quality only upto be 2nd days under ambient storage conditions.

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