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Vegetable improvement programmes have been emphasized for the last two decades. Several projects for certain vegetables were launched and some results were obtained in several crops. In this project a general objective was kept to inforce work in brinjal crop.

In the modern era of vegetable improvement programme, a lot of emphasis has been given to the breeding for new varieties of Brinjal (Solanum melongena L.). It is a strong annual herbaceous vegetable crop which is grown mainly for its large fruits. It is very much popular in almost all parts of the country. It is a native of India and belongs to the family solanaceae. In our country it has been in cultivation for a long time. There are three main botanical varieties of brinjal under the species of melongena. The round or egg shaped cultivars have been grouped under the variety esculentus-whereas, the variety serpentinum contains the long, skendertype flowers. The dwarf brinjals are classified under the variety Depressum. Brinjal is a crop with hermaphrodite flowers with varying style length. The style may be long with big ovary, medium with medium sized Ovary, pseudo short with rudimentary Ovary and true short with
Brinjal is one of the principal vegetable crops which has got great commercial and nutritional value. Unlike eatable food crops like cereals, Pulses and others it is also highly nutritious. The edible portion of brinjal per 100 g constitutes moisture 92.7 g., Protein 1.4 g, fat 0.3 g, minerals 0.3 g, fibre 1.3 g, carbohydrates 9.0 g, calcium 18 mg - 16 mg, oxalic acid 18 mg, Phosphorus 47 mg, copper 0.17 mg, oxalic acid 18 mg, Phosphorus 47 mg, copper 0.17 mg, Iron 0.9 mg. Sodium 3 mg, Potassium 2 mg, Sulphur 44 mg, Chlorine 32 mg, Vitamin A 124 I.U., thiamine 0.04 mg, riboflavin 0.11 mg, Nicotinic acid 0.9 mg and Vitamin 0-120 mg (Aykround, 1966). Fruits of brinjal are also excellent remedy for certain diseases. Green leaves of brinjal plant are the main source of supply of antiscarbutic vitamin C. Besides, its seeds are also used as a stimulant in the special cases of requirements.

Brinjal possesses some special qualities such as it is hardy in nature, it has got high yielding potential and adoptability to various agroclimatic conditions, thus can be grown successfully all over India with year round production of the fruits. Infact two centres of origin of brinjal have been reported by Vavilov (1951), the
first in the subtropical or tropical India and the second in the China. However, according to Khan (1979) brinjal was for the first time cultivated in India and thereby there is a wealth of variability in this crop which provides a great hope for making improvement.

Infact brinjal (*Solanum melongena* L.) have been proved a tool to provide a most suitable material for genetical studies, as it possesses high genetic variability for the economic characters along with short vegetative phase long flowering span, predominant self pollination and production of large number of seeds per fruit.

The breeding methodology in autogamous crops of brinjal has failed to bring about any significant change in the yield potential. However, in the allogamous crops, the breeding methodology has been tailored spectacularly on the basis of latest researches in the biometrical genetics. The genetic principles developed in this crop may profitably be utilized for brinjal improvement.

In order to achieve the success in any breeding programme, it is very essential to study the genetic variability present in that very crop. It has been observed that greater genotypic variability enhances the Chances of Selecting superior genotypes. However, Phenotypic variability can
not help the breeder much in affecting genetic improvement as it includes environmental coefficient also, Only genetic variability determines the extent of success in hybridization and selection programme, as the selection of superior genotypes depends mainly upon the genetic variability present in the base material. Besides this, heritability are much genetical for assessing the maximum and accurate effect of selection.

The coefficient of variability is an add to the plant breeder as a mean of selection. In variability studies, the ideas about environment as well as genetic variability is absolutely essential as the environmental differences and genes carried of an individual both the responsible for the variability in any character. The genotypic and Phenotypic coefficient of variations are good basis for comparing the extent of variation among different characters with different genotypes. The genotypic variability was partitioned into the component parts by Fisher (1918). Correlation coefficient which measures the mutual relationship between two or more variables have also great importance in improving the quality and quantity of crop. In correlation studies, generally the estimation of direct association among the characters
becomes complex. Hence the path coefficient analysis is also very essential. It helps in splitting the correlation coefficient into direct and indirect effects contributing yield. Path coefficient analysis also determines the cause and effective relationship among the variables.

Considering the above importance it becomes clear that brinjal is an important vegetable crop with high nutrition and medicinal values hence requires much improvement in quality as well as quantity. Thus the present project has been considered essential and it has been taken up with a view to have needful information for making improvement.