



## Research Paper

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# Effect of fruit number on seed yield and quality of okra [*Abelmoschus esculentus* (L.) Moench]

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**ABSTRACT :** An experiment was conducted at Research Farm of Seed Technology and Production Centre, Nauni, Solan to study the effect of fruit number on seed quality and yield of okra. Experiment consisted of five treatments. Six, eight, ten and twelve fruits per plant were retained and in control all the fruits were retained. Retaining six fruits per plant resulted in increased fruit length, fruit diameter, fruit weight, 100 seed weight, seed germination percentage, seed vigor index-I and seed vigor index-II. Seed yield per plant, per plot and per hectare was highest in the treatment where twelve fruits were retained on a plant.

**KEY WORDS :** Okra, Fruit number, Seed yield, Seed quality

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Okra is one of the important summer vegetable crop grown all over the world. Old world tropics is believed to be okra's native home (Shanmugavelu, 1989). This vegetable is grown for its tender green fruits which are generally marketed in fresh stage, but sometimes in canned or dehydrated form (Thakur *et al.*, 2003). It contains vitamin A, vitamin B complex and vitamin C and minerals like calcium, magnesium, sodium and iron (Aykroyd, 1963). It is an excellent source of iodine and useful for control of goiter (Purewal and Randhawa, 1947). The roots and stems of okra are used for clearing the cane juice. It is said to be very useful against genitourinary disorders, spermatorrhoea and chronic dysentery. Okra is grown during summer and rainy season in mid hills of HP. Delayed and erratic germination is the serious problem in okra cultivation. Good germination can be achieved by producing good quality seed. For getting maximum returns from the okra crop, it is essential to increase the yield and quality of okra seeds. Fruit load is believed to have an effect on the quality and yield of okra seed. The reasonable number of fruits to be retained with pinching is a good device for getting better yield and quality in okra.

## RESEARCH METHODS

The present investigation was carried out at the

Experimental Farm of Seed Technology and Production Centre, Dr. Y. S. Parmar University of Horticulture and Forestry, Nauni, Solan in the year 2011. The experimental site is located 15 km away from Solan at 30° 51' N latitude and about 77° 11' E longitudes. The elevation of the farm is 1250 m above mean sea level, which falls under the mid hill zone of Himachal Pradesh. The climate of Nauni is generally sub temperate to sub tropical. May and June are the hottest months and December to February are the coldest months. The annual rainfall ranges between 1000-1300 mm of which 75 per cent is recorded during June to September. Variety P-8 was used for the present investigation. Plants are tall with purple pigmentation, splashes on stem, petiole and lower surface of the leaf base. Stem, petioles, leaves and fruits are sparsely hairy. Fruits are medium long, thin, tender green and 5 ridged. In total there were five treatments including control. In T<sub>1</sub> first six fruits, in T<sub>2</sub> first eight fruits, in T<sub>3</sub> first ten fruits, in T<sub>4</sub> first twelve fruits were retained on a single plant and all other flowers were pinched off. T<sub>5</sub> was control where no pinching was done and all fruits were retained on the plant. The experimental field was thoroughly ploughed and unwanted material like pebbles and stones were removed from the field manually. The field was well drained and subsequent provision for proper drainage was kept. The seeds were sown in the month of May 2011.