



## Research Paper

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# Propagational studies in fig as affected by plant growth regulator

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**Abstract :** A propagation trial on fig cv. DINKAR involving two type of cuttings (Hardwood cuttings and semihard wood cuttings), plant growth regulators IBA (1000, 2500 ppm), NAA (1000, 2500 ppm) their combination (2500 ppm. IBA + 2500 ppm NAA, 1000 ppm IBA + 1000 ppm. NAA) recorded good results for parameters of number of sprout per cutting, Leaf area, no. of leaves, root and shoot dry matter.

**Key words :** *Ficus carica*, Auxin, Semihardwood cutting

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**F**ig (*Ficus carica*) is an important fruit crop grown as subtropical crop, especially in arid and semiarid regions of the world. As fig is tolerant to saline and alkaline there is vast scope for extending its cultivation in such soil and thereby increasing fig production. There is an ever-increasing demand for planting material in India. Very less research work has so far been done on propagation of fig by cuttings using plant growth regulator. Therefore, it is felt necessary to undertake the study on propagation of fig by using different concentrations of plant growth regulators under Akola condition for quicker multiplication in nursery. Considering these circumstances, the present study was carried out to investigate the effect of plant growth regulators at different concentrations on rooting of cuttings of fig.

## RESEARCH METHODS

The present investigation was carried out at the Main garden of Department of Horticulture Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola during the year 2009-2010. The cuttings of fig cv. DINKAR used for this research were selected from 3 years old mother plant. Hardwood cuttings were taken from one year old shoots of 20-22 cm length and of about 1.0 to 1.5 cm diameter having 4-5 nodes each and

semihardwood cuttings were taken from current season growth in the month of July. The basal end of the cutting was given slanting cut to expose maximum surface for effective rooting. There were 14 treatment combinations comprising of two types of cuttings and six concentration of plant growth regulator IBA (1000,2500 ppm), NAA (1000, 2500 ppm), their combinations (IBA 1000 ppm + NAA 100 ppm, IBA 2500 ppm + NAA 2500 ppm) with distilled water, arranged in a FCRD with three replications and 20 cuttings per treatment. The lower portion of cuttings were treated with different concentrations of plant growth regulator by quick dip method for 5 second and allowed to dry for 5 minutes in partial shade and then planted in polybags containing rooting media. Five sprouted cuttings were selected randomly from each treatment of each replication. All observations were recorded after 90 days of planting.

## RESEARCH FINDINGS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarised under following sub heads:

### Number of sprout per cutting :

Maximum number of sprout per cutting was recorded in