EFFECT OF IBA ON ROOTING OF HARD WOODCUTTING OF KIWI CV. HAYWARD UNDER ZERO ENERGY POLY-TRENCH CONDITIONS

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Kiwi fruit (*Actinidia chinensis*. Planch) Popularly known as Chinese gooseberry, has, of late gained importance in India from past two decades, because of almost free from infestation of any serious pest and diseases, long shelf life, high productivity and suitability under a wide range of climatic conditions from low to middle hills. Bat its full potential could not be exploited due to non-availability of genuine planting materials. Hence, the present investigations were carried out to standardize the technique of propagation of Kiwi fruit from hard woodcutting under Zero - energy poly-trench condition.

One year old mature uniform hard wood cuttings of 15 to 20cm (2-3 nodes) with pencil thicknes collected from cb. Hayward growing at Experimental Block of Division of Pomology SKUAST (K) Shalimar in second week of March. Twenty cuttings in each treatments were treated with five different concentrations of IBA (0,3500, 4000, 4500 and 5000 ppm). The cuttings were planted on last week of March,2002 in trays filled with sand and kept under Zero-energy poly-trench condition which kept the humidity high. The observations on percent rooting, number of primary roots per cutting, length of longest root, and final survivality percent were recorded. The experimental was laid out in out in randomized block design with three replications.

Significantly highest percent of cutting (87.66) rooting in 5000 ppm of IBA was observed followed by (78.0%) in 4500 ppm whereas, lowest percent (12.0%) of cutting rooted in control (Table-1), Costa and Baraldi (1983) recorded 75% cutting rooted when treated at 6000ppm IBA. Average number of root per cutting (29.83cm) average root length (12.20cm) and length of longest root (21.53cm) recorded significantly highest and respectively in 5000ppm IBA. Maximum rooted cutting survivality was recorded to be 98.0% followed by 96.67% when treated with 5000ppm and 4500 IBA respectively whereas lowest survival percent (51.01%) recorded in control. These results are in conformity of Rana et al (1991) and Costa and Baraldi (1983). Sandhu et al (1983) reported in Kainth that the application of IBA was found to increase the growth of roots and shoots that emerged. The use of IBA was found effective in increasing the leaf number (Chauhan & Maheshwari, 1970).

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Table 1. effect of IBA on rooting of hard wood cutting of Kiwi fruit c. Hayward

Connection of IBA (ppm)	Cutting Percent rooted	Average number of root	Average root length (cm)	Length of longest root (cm)	Survival percent of rooted plants
0	12.00	8.5	2.00	4.06	51.00
3500	76.83	20.33	6.83	8.33	73.33
4000	74.16	10.5	5.10	6.73	90.33
4500	78.0	23.46	8.06	8.83	96.67
5000	87.66	29.83	12.20	21.53	98.00
C.D.(P)=0.05	2.29	2.60	1.02	0.91	5.35