**Effect of Selected Commercial Rooting hormones on Air-Layering**

**of Jackfruit (*Artocarpus heterophyllus* Lam.)**

K.W.A.S.P.Thakshila1\*, P.K.Dissanayaka1and R.L.Senanayake2

*1Department of Export Agriculture, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka.*

*2Fruit Crops Research and Development Station, Gannoruwa, Peradeniya, Sri Lanka.*

*\**[*priyanithakshila96@gmail.com*](mailto:priyanithakshila96@gmail.com)

**ABSTRACT**

Jackfruit (*Artocarpus heterophyllus* Lam.) belongs to family Moraceae and is the most important, popular, and functional tree in tropical home garden. The sexual propagation is the main vegetative propagation method but farmers give the priority to asexual propagation because it limits the genetic variation. Air layering is a method of propagating a plant by cutting off part of the aerial stem and encouraging root formation by packing the area with a moist medium. Therefore, this experiment was conducted to find out the effect of commercially available rooting hormones on air layering of three jackfruit varieties “Farther long”, “Hirosa” and “Maharagama”. The Plant fix (25mL+distilled water), Roocta (0.5g+distilled water) and control (distilled water) were the treatments used for all three varieties. The experiment was carried out at Fruit Crops Research and Development Station, Gannoruwa, Peradeniya. Three rooting hormones were tested in a Randomized Complete Block Design (RCBD) with three replicates. Callus diameter (mm), callus weight (g), root primordia weight, diameter of root primordia (mm), number of root primordia and survival percentage (%) were measured end of the eight-week interval. Diameter of root primordia is significant in “Farther Long” “Maharagama” and “Hirosa” varieties. Both callus diameter and root primordia weight significant in “Hirosa”. Number of root primordia is significant in all three varieties. Callus weight is significant only in “Hirosa” (p<0.05). It is concluded that plant fix can recommend for “Maharagama”, “Farther Long” and “hirosa” varieties.

**Key words**: *Callusdiameter*, *Plantfix*, *Roocta, Rootprimordia*