Research Paper

Effect of plant growth regulators on rooting survival of air layering in litchi

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ABSTRACT : The experiment was conducted at Bihar Agriculture College, Sabour in 2002- 03 with two Bio-regulators (IBA and NAA) and there combinations in Randomized Block Design with three replication to know the effect of bio-regulators either alone or in combination on rooting percentage, survival percentage, rooting ability, growth and development of air layers in litchi. In this experiment it was found that IBA 5000 ppm produced maximum rooting layers (90.00 %) in litchi cv. PURBI. IBA 5000 ppm also proved better in survival percentage (86.66 %) fresh weight of roots (4.37 g) was found more in case of IBA 5000 treated layers followed by IBA 5000 ppm + NAA 5000 ppm (4.35 g) and minimum (2.24 g) under control, dry weight of roots was found maximum (1.11 g) by IBA 5000 ppm + NAA 5000 ppm treated layers whereas it was minimum (0.71 g) in untreated layers. The diameter of primary roots was maximum (0.83 mm) in untreated layer and minimum diameter of root (0.57mm) was found in bio-regulators (IBA 5000 ppm plus NAA 5000 ppm (T₉) were found best in various parameters of root formation, root development, quality and growth of layers in the nursery.

Key Words : Litchi marcots, IBA, NAA, Rooting percentage, Survival percentage

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