

***In vitro* rooting and acclimatization of *Aeglemarmelos* (L.) correa (bael)**

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An effective protocol for *in-vitro* rooting and acclimatization of *in-vitro* cultured *Aeglemarmelos* (L.) correa (bael) shoots were investigated. The effect of two different growth media (full strength Murashige and Skoog's medium and sterilized sand medium), two auxins (Indole-3-Butric Acid 'IBA' and Napthalene Acetic Acid 'NAA') and three concentrations of each auxin (500, 1000, 2000 mg/L) on rooting and acclimatization was investigated using twelve replicates per each treatment. Two controls were maintained for both media separately. The experiment was conducted under aseptic condition. Ten weeks after establishment, plants were randomly selected and measurements such as rooting percentage, number of roots per shoot, average root length, plant dry weight, survival percentage and plant carbon content were taken. Another set of rooted shoots were acclimatized and survival percentage was taken four weeks after acclimatization.

With respect to the results obtained, the root initiation of shoots treated with auxin was faster than the non-treated shoots. The treatment of 2000 mg/L IBA with MS medium showed the highest rooting percentage (58.3%) while control for MS media gave the lowest (8.3%). Shoots treated with NAA produced more number of roots per shoot, however, IBA treated shoots produced longer roots. Survival percentages of IBA treated plants cultured in both media were higher (100%) at ten weeks after culture establishment and four weeks after acclimatization indicating the performance of IBA is better than NAA. Plant dry weight increased significantly (< 0.05) in MS media due to supply of all the nutrients that plants required. Irrespective of the auxin treatment, organic carbon content of plants in the sand medium was significantly higher ($p < 0.05$) due to their higher photosynthesis. Greater photosynthetic capacity gives plants the ability to overcome the stress during acclimatization and to remain viable. Thus, it can be concluded that, the MS medium with 2000 mg/L IBA (T4) is the most effective treatment for *in-vitro* rooting of bael. Second most effective as well as the most cost effective treatment is the sand medium with 2000 mg/L IBA (T11).