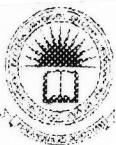
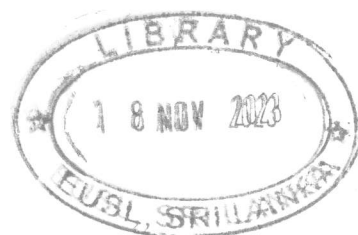


**SELECTING A SUITABLE POTTING MEDIA AND TECHNIQUE  
TO IMPROVE SEED GERMINATION FOR ROOT STOCK  
PRODUCTION OF AVOCADO (*Persea americana M.*)**

**BY**

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## ABSTRACT

One of the common fruit crops planted in Sri Lanka is the avocado (*Persea americana* Mill.). Main propagation technique for Avocado is grafting. It's crucial to produce strong and in good health root stocks for plants to live longer. Improved efficiency of avocado seed germination in nurseries through seed scarification techniques are important.

Therefore, this study aimed to find out suitable growing media and technique to produce avocado root stock. This experiment was conducted from January to April 2023 at Fruit Crop Research and Development Institute, Kananwila. Pre- germination treatment was performed as 1/3 Top cut seeds. Full seeds were used as control. The media was prepared with Sand: Soil: Compost at a ratio of ½:1:1, 1:1:1 and 2:1:1 respectively as potting media. Six treatments with 360 replicates were arranged in a Completely Randomized Design in a sand bed nursery.

The parameters measured during the experiment were percentage of seed germination, Plant height, stem girth, root length, root weight and root volume. Data were checked for normal distribution by using suitable descriptive statistical method. Analysis of variance (ANOVA) is used to compare the effect of treatment combinations by using SAS version 6.122 The result showed that without top cut seed significantly ( $p < 0.05$ ) increased the growth of avocado when compared to the 1/3 top cut seed treatment method. Potting media of sand:soil:compost with the ratio of 2:1:1 respectively showed better growth performances in nursery plants compared to all other treatments. Further, it was noted that this treatment took less number of days for avocado root stock production.

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