

The Effect of Different Media on the Success of Rooting Ramets of Coffee Clones Directly in Polybags

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SUMMARY

In view of the high overhead cost of rooting coffee cuttings in propagators, it became necessary to find other ways of rooting coffee cuttings. To achieve this objective, an experiment was set up at the Cocoa Research Institute of Ghana (CRIG) to investigate the effect of using polybags containing different media in a simplified technique for raising coffee ramets for planting. Single node cuttings (ramets) of four different coffee clones were rooted in holes dibbled in black soil contained in black polyethylene bags measuring 10cm x 20cm. The holes were filled with different rooting media including rice husk, sawdust, river sand, rice husk plus river sand (1:1), or sawdust plus sand (1:1) and a control using black soil alone. Half the number of polybags containing each medium received 5g of triple superphosphate (TSP) per bag whilst the other half did not receive any fertilizer. Significantly ($P \leq 0.01$) higher flushing, rooting and root lengths were recorded from two of the clones (Nos. 96 and 149) but not from the other two (Nos. 138 and 181) within 4 months. The river sand and the topsoil media produced taller suckers probably owing to faster rooting than in the other media. Clones 96 and 149 continued to produce taller suckers and retained more leaves with larger leaf area than clones 138 and 181 after 8 months. It is concluded that coffee cuttings can be successfully rooted directly in polybags with topsoil in the nursery to reduce infrastructural costs.