EFFECT OF TEMPERATURE AND TIME OF IMMERSION OF RUBBER BUDDED STUMPS IN PARAFFIN WAX ON POST-PLANTING SURVIVAL[1]

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Trials carried out at National Rubber and Oil Palm Research Center, Manaus, in February 1983, with rubber budded stumps cut close to the bud-patch and rendered impermeable with molten paraffin wax showed a rate of survival some 80% higher than stumps used conventionally 10 days after planting under draught conditions. Subsequently, a test was made on the effect of different temperatures of the molten paraffin (80, 100, 120, 140 and 160°C), in which the stumps were rapidly immersed, followed by planting. Based on the results obtained, a way was opened for conducting further studies into the use of paraffin wax as an impermeability agent. This study was aimed at reducing the risks of using paraffin wax at high temperatures and establishly the critical time for immersion without any damage to the stumps. The efficiency of the treatment process was demonstrated by the lowest death rate following planting out in the field. The effect of different periods of immersion in the paraffin during the process of coating gave the same results, showing that the availability of water in the soil during and after planting is most important. It is concluded that the rapid treatment (1 sec.) of stump with paraffin wax at temperature close to 80°C is the most advisable, to secure a higher return in number of treated stumps, relative to other treatments, in addition a lowest risk of damage to stumps.

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