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Effects of hormone on the rooting of semi hard wood, double-nodal leafy stem cuttings of *Gymnema sylvestre* (Masbedda)

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Medicinal plants have always been a part of man's life and thus conservation of rare species is of prime importance. The effects of rooting hormone, indole-3-butric acid (IBA) on the rooting of semi hard wood, double-nodal leafy stem cuttings of *Gymnema sylvestre* were investigated in order to determine the possibility of raising plants through cuttings with or without using a rooting hormone. The cuttings were treated with hormone at four levels of 0 (T1), 10 (T2), 50 (T3), and 100 (T4) ppm.

The Randomise Completely Block Design (RCBD) was used with four replicates. Assessments of percentage survival of cuttings, callused cuttings, rooted cuttings, number of roots per cutting, length of the longest root per cutting were made 75 days after the treatments. Percentage survival of the cuttings differed among the treatments, but differences were not significant ($p \leq 0.05$). Cuttings treated with 10 ppm (T2) had the highest mean percentage survival of 89%, while the lowest (86%) was recorded from the control (T1). Results showed that callusing of cutting was significantly ($p \leq 0.05$) higher in IBA treatted cuttings than that of the control (T1). However, figures of percentage callusing were not significant ($p \leq 0.05$) among the different IBA levels. The highest mean percentage of callused cuttings of 82 % was recorded from T4, followed by T3 with 79 %. Results of percentage rooting showed that rooting was influenced by the IBA treatments. However, even in the control 54% cuttings had produced roots. In conclusion, better performance observed from the control in terms of survival and rooting rates compared to those treated with rooting hormones at higher concentrations, may imply that *Gymnema sylvestre* can be propagated vegetatively by means of cuttings at reduced cost.

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