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RESEARCH ARTICLE :

Response of dragon fruit (*Hylocereus undatus*) explants on MS media with growth regulators under *in vitro* for mass multiplication

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SUMMARY : *Hylocereus undatus* (Dragon fruit) was micro propagated *in vitro* on MS (Murashige and Skoog, 1962) basal medium supplemented with growth regulators like BAP, Kinetin, 2-4 D, NAA and the explants response was observed. Explants were regenerated less number of shoot (1.0±0.20) on MS basal medium without growth hormones and it was acted as the control, but explants regenerated maximum number of shoots (12±0.5) on MS media supplemented with 3 mg/L BAP + 1 mg/L KIN. Explants were regenerated less number (1.0±0.22) and length (0.24±0.02 cm) of roots on MS medium with 3mg/L BAP+1mg/L KIN without NAA and it acted as control. Explants were regenerated maximum number (8.0±0.50) and length (3.6±0.06 cm) of roots on MS basal media with 3 mg/L BAP +1 mg/L KIN + 0.2 mg/L NAA. The minimum size (0.12±0.01 cm) of the somatic embryos was observed on MS media without 2,4-D and its acted as control. The maximum size (1.04±0.02 cm) of the somatic embryos formation was observed on the MS basal media with 2 mg/L of 2,4-D. The maximum number (16 ± 0.82) of shoots and length (3.3 ± 0.17 cm) of the shoots were observed by explants on the MS media + 3 mg/L BAP + 1 mg/L KIN + 40 gm/L sucrose. After shoots and roots formation, the plantlets were transferred into green house and then to soil.

KEY WORDS :
Explants, Callus, Somatic embryos, Acclimatization

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