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Alternative Gelling Agents for the Micropropagation of Some Horticultural Species

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The research was done in order to test the possibility of using some gelling agents for the nutritive media which should be less costly than agar, for the micropropagation of some horticultural species (Jain, 2005). The multiplication cycle was of 2 months. 820 ml jars were used as culture vessels. Tab. 1 presents the gelling agent, the species used in the experiment, the variants of nutritive media and the resulting multiplication rates. The species that were studied presented multiplication rates similar to the ones in agar-gelled media and the plants were vigorous.

Tab. 1

Multiplication rates in different species in the media gelled with Isubgol and Vege-Gel

Species	Nutritive medium and gelling agent	Initial no. of inoculi	Resulted inoculi	Multiplication rate/vessel
Kalanchoe blossfeldiana	DKW+ ***15 g/l Isubgol***	10	380	38.00
Blackberry cv. 'Thornless evergreen'	DKW+0.7mg/l BAP ***+ 15 g/l Isubgol***	10	724	72.40
Exacum affine	MS+ ***15 g/l Isubgol***	15	335	22.33
Sequoia sempervirens	MS+ ***15 g/l Isubgol***	20	100	5.00
Rose cv. 'Pasiune'	MS+0.7 mg/l BAP ***+ 15 g/l Isubgol***	10	119	11.90
Blackberry cv. 'Thornless evergreen'	MS+0.7 mg/l BAP ***+ 6 g/l Vege-Gel***	10	336	33.60
Blackberry cv. 'Thornless evergreen'	MS+0.5 mg/l BAP+7 g/l ***food-grade agar***	5	483	96.6

Fig. 1. *Kalanchoe*, *Exacum*, blackberry propagated *in vitro* on media gelled with Isubgol

REFERENCES

1. Jain R. and S. B Babbar (2005), Guar gum and isubgol as cost-effective alternative gelling agents for *in vitro* multiplication of an orchid, *Dendrobium chrysotoxum*, Current Science, 88.(2):292-295.