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RESEARCH ARTICLE

Low-cost gelling agents for micro-propagation of banana (*Musa acuminate)* cv. 'GRANDE NAINE'

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SUMMARY

Bananas (*Musa* spp.) are important staple crop in tropical and sub-tropical countries providing a good source of carbohydrates, minerals and vitamins. Their trade also creates a considerable income as a cash crop. Micropropagated plants are increasingly becoming the planting material of choice, but the higher costs of plantlets have prevented the growers from benefiting from tissue culture technology. Agar is the most commonly used gelling agent for preparation of media, which adds significantly to the cost of media. The use of cheaper alternative to agar eliminates the need of agar. Therefore, the efficacies of sago, isubgol, semolina, starches of tapioca, corn, wheat, rice and ragi as a gelling agents have been tested to reduce the cost of plantlets. The performance of low cost gelling agent's sago and tapioca starch were found to be best and could compare well with that of agar. The results showed the potential of the cheaper substitutes for economic commercial tissue culture production of banana cv. 'Grande Naine' replacing the costliest gelling agent agar.

Key Words : Banana, Low-cost, Sago, Tapioca starch

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