

## **The effects of temperature on tuberization of nodal cuttings of virus-free potato in vitro**

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In order to have enough explants of Aula cultivar which have been in thermotherapy condition before meristem culture, virus tested plantlets were propagated using single node cuttings on solid MS medium. Then, they transferred into induction medium in completely dark incubator with three different temperature treatments ( $18 \pm 1^{\circ}\text{C}$  ,  $22 \pm 1^{\circ}\text{C}$  ,  $26 \pm 1^{\circ}\text{C}$  ). The effects of these three temperature treatments were considered in two different protocols (with and without liquid propagation medium phase) after 8 weeks.

The data was analyzed using the analysis of variance (ANOVA) in completely randomized design (CRD) and treatment means were compared using Duncan's multiple rang test. By increasing the temperature, the microtuberization percent and microtuber fresh weight decreased in the two protocols.

The results showed that using a protocol with two stages (without liquid propagated phase) is better than the other one with three stages (with liquid peopagated phase). This indicated that when the liquid phase is omitted, production of microtuber in petri-dish is satisfactory considering the save of time and costs.