

**FEASIBILITY STUDY FOR DIRECT PLANTING OF
INVITRO POTATO (*Solanum tuberosum* L.) VARIETIES
GRANOLA AND GOLDEN STAR INAEROPONIC
SYSTEM**

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ABSTRACT

Potato (*Solanum tuberosum* L.) is one of the important and popular tuber crops in Sri Lanka. Producing seed potatoes in large quantity and good quality is the major constraints in potato cultivation. Therefore, this experiment was conducted to find out the feasibility of direct planting of *in vitro* potato varieties Granola and Golden star in aeroponic system. For acclimatizing and for transferring of *in vitro* potato plants in different liquid media (1/2 MS, MS and Albert) were tested. In acclimatizing of *in vitro* potato plants, shoot length growth, root length growth and number of root growth were recorded. In transferring of *in vitro* potato plants to aeroponic system, length of shoot growth, length of root growth, length of stolon growth, number of stolon growth and number of tubers initiated were recorded. The best media for the acclimating of *in vitro* potato plants is Albert solution. After transferring to the aeroponic system, Granola performs well among two varieties. Two potato varieties Golden star and Granola perform differently in different media.

Key words: *In vitro*, Potato variety, Aeroponic, Acclimatizing, Stolon, MS medium, Albert solution