# THE EFFECT OF DIFFERENT VITAMINS COMBINATIONS ON IN VITRO REGENERATION OF POTATO VARIETIES

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The using virus free, healthy seed is the key factor in the potato seed production system wich can only be archievedusing modern biotechnology method. Production of virus free potato elite seed is based on in vitro technology. Selection of best the best MS medium for in vitropotato according varieties are guarantee of theirin vitrogrowth and further reproduction ability.

The aim of this work is to study the influence of MS medium with different combination of vitamins (PP, $B_1$, $B_6$ ) on the in vitro growth-development of potato varieties "Agria", "Sante", "Jelly" amd " Nevsky". Parameters of morphogenesis (high, number of nodes, rooting) were evaluated after 16 day.

It was revealed that various concentration of vitamins had different influence depending on the potato varieties. It was showed that the combination of vitamins 2.5mg/l $B_6$+1.0mg/l $B_1$+2.5mg/ml PP positively effected on the in vitro development of potato varieties "Agria and "Jelly", while the combination 2mg/l $B_6$+1.0mg/l $B_1$+2.0mg/ml PPwas the best for in vitro regeneration of potato varieties "Sante", and "Nevsky".In vitro plants with 6-7 nodes and strong stem were observed only after 16 days.

Within this work the best combination of vitamins for in vitro growth-development of potato varieties: "Agria", "Sante", "Jelly" amd " Nevsky"were selected.

**Keywords** - Potato, In Vitro, Vitamins, Propagation.