EFFECT OF THE CONCENTRATION OF THE PLANT GROWTH REGULATORS ON *IN VITRO* SHOOT GROWTH OF BLACKBERRY

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Berry fruit species, such as *Ribes nigrum*, are highly esteemed in numerous countries for their biological and economic value, being regarded as important species of small fruits. *Ribes nigrum*, indigenous to northern Europe, and northern and central Asia.

Conserving species like blackcurrant, as highlighted in the International Scientific reports, is crucial due to their potential health benefits and contributions to maintaining vascular health, especially in postmenopausal populations. The discovery that blackcurrant extract, rich in phytoestrogens, shows promise in preventing elastin degradation and pathological vascular remodeling underscores the importance of preserving this species.

In Kazakhstan, the preservation of *Ribes nigrum* includes various factors, such as ecological significance, local economic value through agriculture, and conservation priorities since blackcurrant plays a significant role in the country's biodiversity and traditional uses.

The potential of in vitro propagation for rapid mass production of valuable species is substantial. Our study addresses biodiversity conservation by employing this approach. Specifically, we aimed to investigate the impact of nutrient media and growth regulators on shoot multiplication of *Ribes nigrum*.

Our findings reveal that the optimal concentration of plant growth regulators (PGR) significantly influences both the number and length of shoots. Notably, the highest multiplication rate for *Ribes nigrum* was achieved on MS with a combination of BAP at 0.5 μ/L and GA 0.5 μ/L.

In conclusion, our study elucidates the effects of manipulating PGR concentrations in culture media on *Ribes nigrum*. We recommend optimizing these concentrations to enhance the growth of *Ribes nigrum* for potential reintroduction efforts and biodiversity conservation.

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