

REVIEW

of the dissertation by Riaba I. A. «Molecular and biological characterization of raspberry and blackberry viruses and their occurrence in Polissya and Forest-Steppe of Ukraine.», submitted for the degree of Doctor of Philosophy in the speciality 203 “Horticulture, Vegetable Growing, and Viticulture”.

The dissertation by Irina A. Riaba is devoted to a topical and important problem for agricultural science – the study of viral diseases of raspberries and blackberries, which have a significant impact on the productivity and quality of the harvest of these crops. The work is distinguished by its high scientific level, methodological validity and practical orientation.

The author conducted a comprehensive phytovirological study of raspberry and blackberry plantations in the Polissia and Forest-Steppe natural zones of Ukraine. As a result, several viral pathogens were identified and characterized for the first time, including **Raspberry bushy dwarf virus (RBDV)** in blackberry plantations, and **Raspberry vein chlorosis virus (RVCV)** in raspberry plantations. A phylogenetic analysis of Ukrainian virus isolates was performed, revealing their close genetic relationship with European populations, which holds both scientific and practical significance.

The results on the production of virus-free clones of raspberry and blackberry varieties, suitable for further propagation and the establishment of commercial plantations, have significant practical value. For the first time in Ukraine, the effectiveness of using **acyclovir**, **oseltamivir**, and **rimantadine** for virus elimination in *in vitro* culture has been demonstrated.

The scientific novelty of this work lies in the determination of the molecular-genetic characteristics of RBDV and RLBV virus isolates, the identification of patterns in their distribution, and the assessment of the impact of viral infection on the physiological state, photosynthetic activity, and yield of raspberry plants. The obtained results are of significant importance for both scientific research and

horticultural practice, particularly in the context of producing certified planting material and increasing the yield of berry crops.

The dissertation is distinguished by a clear structure, logical presentation, a high level of literature analysis, and the reliability of experimental data. The results have been presented at international scientific conferences and published in specialized journals, confirming the high scientific standard of the research.

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Overall, the dissertation by Riaba I. A. fully meets the requirements for a PhD thesis in the specialty 203 “Horticulture, Vegetable Growing, and Viticulture”, and its author is deserving of the award of this degree.

Conclusion: the work is relevant, scientifically well-founded, methodologically competent, and possesses significant practical potential for the advancement of phytovirology and horticulture in Ukraine.

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