

used have shown a high level of polymorphism in the 37 genotypes of *Juglans regia* L., revealing their efficiency for diversity analysis studies. This will not only help in authentic identification

of the walnut germplasm but later can be used in breeding programmes.

Keywords: *Walnut; Juglans regia; Molecular Marker; ISSR; Genetic diversity.*

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Walnuts with a commercial potential in Latvia

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Purpose. Persian walnut (*Juglans regia*) is one of the most commercially important nut-crop in the world. The nuts of these plants contain a lot of fat, also proteins and carbohydrates. Their nutritional value is significant, as nuts contain a lot of calories and several dietary minerals as well. Walnut cultivation in Latvia used to be fragmentary in past, but these plants are used in breeding work in Latvia as well. Climate changes have created better conditions for growing walnuts, so they can be commercially promising in Latvian conditions as well. Until now, these plants have been little popularized, and their cultivation in Latvian conditions has never been wider explored.

Methods. An initiative by Finnish colleagues in 2021 to obtain walnut genetic material that could be promising for Finnish conditions resulted in amount of important information obtained in several expeditions. During the expeditions, as far as possible, also by surveying citizens, information was obtained both about some particular walnut trees and about the distribution of walnuts in Latvia. The expeditions were carried out in 2021 and continued in 2022. **Results.** It was found

that Persian walnut is grown in Latvia much more than these plants were previously reported in the literature. In terms of climate, Kurzeme and Zemgale regions are more suitable, where these trees are found the most. There is only one commercial plantation in Latvia with an area of 11 ha. Generally, walnuts are grown in backyard gardens, they are specially planted in several cities (e. g. Dobeles, Jūrmala and Ventspils). Trees have also been preserved from the material of Latvian breeders. The best trees are from Viktors Vārns and Pēteris Upītis breeding material. Some trees are from Artūrs Mauriņš material. The last breeding was done in Latvia by Gunvaldis Vēsmiņš. Plants of his selection have also been planted in the first commercial orchard, as well as better known to public. It is necessary to think about the further identification, evaluation and preservation of the most valuable genotypes of the walnut grown in Latvia. Special attention should also be paid to plants that were planted in the first half of the 20th century which has survived number of harsh winters. **Conclusions.** Latvia has sufficient genetic material that can be of commercial importance in the south-western part of the country.

Keywords: *genetic resources; Juglans regia; promising crop.*

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