

**P-144 (183)****FATTY ACID COMPOSITION OF LIPIDS OF JUGLANS REGIA L. FRUITS CULTIVATED IN CRIMEA****Dr. Sergey Khokhlov**, Nikita Botanical Gardens, Yalta, Crimea, Russian Federation; [oceano10@mail.ru](mailto:oceano10@mail.ru) (Presenting author)**Evgeniya Panyushkina**, Nikita Botanical Gardens, Yalta, Crimea, Russian Federation; [aynehz.25@inbox.ru](mailto:aynehz.25@inbox.ru)**Vladimir Vasipov**, St. Petersburg Polytechnic University, St. Petersburg, Russian Federation; [vl.vasipov@gmail.com](mailto:vl.vasipov@gmail.com)**Evgeniy Chupahin**, Immanuel Kant Baltic Federal University, Kaliningrad, Russian Federation; [chupakhinevgen@gmail.com](mailto:chupakhinevgen@gmail.com)**Ilya Gorbunov**, St. Petersburg State University, St. Petersburg, Russian Federation; [i.gorbunov\\_chem@mail.ru](mailto:i.gorbunov_chem@mail.ru)**Igor Kruchina-Bogdanov**, AMT, Ltd General Director, St. Petersburg, Russian Federation; [igogo011@gmail.com](mailto:igogo011@gmail.com)**Andrey Petrov**, Lomonosov Moscow State University, Moscow, Russian Federation; [basolon@gmail.com](mailto:basolon@gmail.com)**Evgeny Kolpakov**, Russian research institute of canning techn, St. Petersburg, Russian Federation; [kolpakov-e@yandex.ru](mailto:kolpakov-e@yandex.ru)

The profiles of fatty acids and total lipid content were analyzed for the fruits kernels of 7 walnut varieties (Alminsky, Arkad, Burluk, Dolinny, Podarok Valentiny, Karlik 3, Karlik 5) of Nikita Botanical Gardens selection (Republic of Crimea, Russian Federation) grown in soil and climatic conditions of the foothill part of the peninsula. Total content of the lipids was determined by exhausting extraction method in the Soxhlet apparatus using n-hexane as an extractant. Methyl esters of fatty acids were isolated using an esterification reaction with sodium methylate. The resulting dimethyl esters of fatty acids were analyzed by gas chromatography with a flame ionization detector. As a result, 24 fatty acids were found and identified. The obtained data show that cis-9,12-octadecadiene (C18:2 $\omega$ 6), cis-9-octadecene (C18:1 $\omega$ 9) and cis-9,12,15-octadecatriene (C18:3 $\omega$ 3) fatty acids are dominant in the lipid fraction of the walnut kernels of all studied varieties.

**Keywords:** walnut, varieties, fatty acids, lipid fraction

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