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**STUDIES OF THE OIL AND MEAL  
OF JAPANESE QUINCE SEEDS**

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Japanese quince (*Chaenomeles japonica*) is cultivated mainly in Baltic and Scandinavian countries. The fruits of Japanese quince are mostly used to produce juice, jelly and candied fruits. From the economical viewpoint seeds and seed oil are interesting objects for investigation, as fruits have up to 10 wt% seeds, which contain up to 20% of oil. This oil has an unusual composition of fatty acids – oleic and linoleic acids form 90%. A range of extracts was prepared using various vegetable oils and different amounts of seeds' additive – all extracts demonstrated better oxidative stability in comparison with pure vegetable oils. Various extracts of Japanese quince seeds obtained using organic solvents were studied for their polyphenol content and antiradical activity. It was established that petroleum ether, hexane, ethyl acetate, acetone, as well as toluene and chloroform extracts in comparison to synthetic antioxidant BHT demonstrate better (or comparable) activity against DPPH. Unfortunately, the seeds and meal of Japanese quince contain cyanogenic compound – amygdalin: this limits their usage in food. We elaborated an effective method for detoxification - extraction of grounded seeds and meal with water at room temperature for 15-30 min followed by washing of the sediments several times with water was established as preferable.

**Key words:** Japanese quince seeds, oil, meal, polyphenols, cyanogenic compounds, amygdalin, antioxidant, oxidative stability.