## UDC 635.13:581.19 SELECTION OF BEETROOTS FOR PROCESSING

## L.F. Skalets'ka, O.V. Zavads'ka, Ilyuk N.A.,

candidates of agricultural sciences

The authors present the results of studying the efficiency of the dry beetroot production, which has been grown up in conditions Ukraine's Forest-steppe, depending on a variety. An complex estimation of fresh and dried products of 5 different varieties and hybrids of beetroot for the content of the basic biochemical, biometric and technological parameters. Select the most suitable for drying and pickles

Beetroot, varieties, roots, quality, biochemical, organoleptic, indexes, processing, drying, pickles

Dried products beet is widely used for cooking soups, so research the suitability of different varieties to this method of processing is important [5].For pickles in Ukraine using slight assortment of vegetables – is mostly cabbage, tomatoes and cucumbers. The timely processing of beet pickles will extend the period of its consumption, reduce losses during storage and expand the range of salted pickled products.

The study was conducted during 2011–2013 years in National University of Life and Environmental Sciences of Ukraine. For experiments selected 5 varieties and hybrids recommended for cultivation in the conditions of Ukraine's Forest-steppe. Standards were determined variety of domestic grade Nosovskii ploskui, used Ukrainian.

Beetroot grown in the experimental field NUBiP Ukraine, which placed in the northern part Forest-steppe of Ukraine. Biochemical, commodity and organoleptic tests were performed in laboratory of storage, processing and product standardization Ya. prof. B.V. Lesyka by the generally accepted methods [3]. To use dryer drying "Sadochok-2M" (TU 23061103.001-98), which refers to convective air dryer chamber type.

Prepared to root beet pickles conclude into packagings under formulation uniformly transferred prepared spices, poured prepared solution of salt concentration 4% share and closing nylon caps.

For biometric parameters and commodity assortment prevailed among the studied sort Nosovskii ploskui (control), the roots of which were most severe (374.9 g) had the greatest transverse diameter ( $114 \pm 10$  mm) were most stable in this indicator and form the most standard roots (91.8%).

Suitability of roots for drying significantly depends on the contents of the main biochemical parameters. The content of dry matter of roots variety Cylindra substantially prevailed control and other experimental variations. Most ascorbic acid accumulated root varieties Detroit  $F_1 - 15.2 \text{ mg} / 100 \text{ g}$ . The highest marketability established in root sort Nosovskii ploskui (91.8 %), and hybrids Detroit  $F_1$  (89.4 %).

For organoleptic characteristics were best roots sort Nosovskii ploskui and hybrids Detroit F<sub>1</sub>. Established direct correlation interrelation between the taste of roots and amounts of sugar ( $r = 0.72 \pm 0.13$ ).

The content of dry matter in the dry of products essential difference between the variants have been identified. The largest amount of sugars in the samples was controlling variant – 66.4%, hybrids Detroit (52.1 %) and sort Cylindra (56.8 %).

Salted products beet varieties Nosovskii ploskui (control), Cylindra and Detroit  $F_1$  were at the natural coloring. The samples these varieties have received maximum points in the tasting by the appearance and consistency. By the appearance salted products Bordo kharkivs'kui and Egypets'kui ploskui received lower scores because they were visible white ring. In grade Egypets'kui ploskui pickled roots had not springy consistency. Excellent (sweet and salty) taste had pickled roots grade Cylindra and Detroit  $F_1 - 5$  points. Taste of root grade Egypets'kui ploskui was insipid, watery.

For complex parameters defined in the fresh and processed products beetroot were most suitable for drying and pickles roots sorts Nosovskii ploskui, Cylindra and hybrid Detroit  $F_1$ .

## List of references

1. Барабаш О. Ю. Біологічні основи овочівництва: Навчальний посібник / О. Ю. Барабаш, Л. К. Тараненко, З. Д. Сич. – К.: Арістей, 2005. – 348 с.

 Державний реєстр сортів рослин, придатних для поширення в Україні у 2010 р. – К.: Алефа, 2010. – 229 с.

 Зберігання і переробка продукції рослинництва / Скалецька Л. Ф., Подпрятов Г. І., Сеньков А. М. та ін. – К.: Мета, 2002. – 342 с.

 Скалецька Л. Ф. Основи наукових досліджень зі зберігання та переробки продукції рослинництва: навчальний посібник / Л. Ф. Скалецька,
Г. І. Подпрятов, О. В. Завадська. – К.: Видавничий центр НАУ, 2006. – 204 с.

5. Скалецька Л. Ф. Технології зберігання і переробки: способи ефективного використання врожаю городини та садовини: Монографія / Л. Ф. Скалецька, Г. І. Подпрятов, О. В. Завадська. – К.: «Центр інформаційних технологій», 2014. – 202 с.