to high grain productivity of the main spike (Nyva Odeska). No other possibilities were found. Depending on this, the key parameters were either the number of productive stems per m2 and the weight of grain per m2, or the weight of grain from the spike.

We are thankful to the Czech Development Cooperation support and to the Czech University of Life Sciences, which allowed this scientific cooperation to start for the project.

UDC 633.11:631.95:575.22

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PRODUCTIVITY OF HAZZELNUT VARIETIES UNDER STEPPE CLIMATIC CONDITIONS

Global climate change provides the emergence of new opportunities for the introduction of new crops into horticultural production in the areas of insufficient precipitation. A worldwide trend is the rapid growth of hazelnut cultivation areas. Thus, be-tween 2013 and 2020, the total area of hazelnuts plantations worldwide increased by 60%. In recent years, the number of people who consume hazelnuts more or less regularly (mainly in the form of confectionery) has risen rapidly from 200 million to 1 billion, according to FAO. FAO forecasts a doubling of the modern cultivation areas for this nut crop by 2035, as well as an increase in the number of consumers on a regular basis to 2 billion, with a significant increase in the number of people who use hazelnuts in their diet as a food additive, a source of valuable food elements, rather than consuming confectionery products. This trend is more characteristic of the North American and Western European countries.

The purpose of the research was to identify the most productive varieties of hazelnuts for cultivation in the northern part of the Steppe of Ukraine – a region with insufficient precipitation and a harsh continental climate, which was previously considered not quite suitable for planting.

The research was carried out during the period from 2020 to 2021 on the hazelnut plantations of TRANSREZERV LLC in the village of Shulhivka, Dnipropetrovsk region (geographic coordinates were 48°44′36″ n.l. 34°23′33″ e.l.). The soil is ordinary black soil on loess. The technology of hazelnut cultivation in the experiment corresponded to the generally

accepted techniques for the areas of planting in Ukraine. Hazelnut yield was registered through by field harvesting, with the scheme of planting of 4 variants of 10 bushes of each variety. Such varieties as Barselonskiy, Katalonskiy, Kosford, and Galle were studied (planting scheme was 4 × 5 meters (inter bushes × interrow). Trimming was carried out by a semi-intensive method.

On the basis of the above, Kosford and Galle quite clearly have been distinguished as more specific varieties. In this case, the Barselonskiy and Katalonskiy varieties are referred to the same set and it is impossible to clearly distinguish between them.

In other words, after the analysis of these parameters, we have obtained the priorities for studying the Galle and Kosford varieties, which have shown their best and worst qualities respectively.

The yield values for all 4 varieties are provided (tree yield, yield and kernel yield). The variety Kosford outperforms the variety Barselonskiy in terms of crop yield, the Galle variety outperforms the varieties Barselonskiy and Katalonskiy, but is less productive than the variety Kosford. The trait is slightly variable in variety Galle, while in other genotypes it varies moderately. Thus, from the economic point of view, the variety Galle and, in part, Kosford are more promising.

The varieties Katalonskiy, Kosford and Galle outperform the variety Barselonskiy in terms of yield, while the variety Galle outperforms all other varieties. The parameter is slightly variable in all varieties except Barcelona.

As for the kernel yield, the parameter varies slightly in all varieties, but Kosford and Galle are significantly superior to Barselonskiy and Kosford, being about the same level, while Barselonskiy outperforms variety Katalonskiy.

Thus, in terms of yields, the Galle variety is extremely promising for introduction into production in the regions with insufficient precipitation, the yield characteristics of the variety Kosford need additional research, which, probably, can also be promising in general, but is inferior to the Galle variety (possibly, with variation in planting and pruning patterns).

The parameters are less variable than in the case of plant morphometry, however this is more important for processability than for cultivation directly. From this point of view, it cannot be said that there are significantly more promising varieties.

We are thankful to the Czech Development Cooperation support and to the Czech University of Life Sciences, which allowed this scientific cooperation to start for the project.

UDC 632.7: 633.853.4

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DOMINANT PESTS IN VARIOUS KINDS OF CABBAGE OILSEED CROPS

In 2013–2021 six species of spring oilseed which belong to the cabbage family (Brassicaceae): Spring rape (*Brassica napus oleifera annua*) grade Ataman, white mustard (*Sinapis alba*) grade Carolina, Brassica juncea, (*Brássica júncea*) grade Tavrychanka, black mustard (*Brássica nígra*) sort Sofia, oil radish (*Raphanus sativum d. var. oleifera*) Zhuravka variety and spring false flax (*Camelina glabrata*) Hyrskij variety were sown on the experimental plots of Educational and Scientific Productive Center "Experimental Field" at Kharkiv National Agrarian University named after V.V. Dokuchayev.

The main reasons to obtain a low yield of oilseed cabbage crops are farming failure and heavy losses because of the pests. The arrears of the harvest, caused by harmful organisms is 30–40 %.

The dominant species of the pests in the oilseed cabbage crops were cabbage cruciferous complex bugs (*Eurydema spp.*): cabbage bug (*Eurydema ventralis* Kol.), rape bug (*E. oleracea* L.), mustard bug (*E. ornata* L.); mealy cabbage aphid (*Brevicoryne brassicae* L.); lesser cabbage moth (*Plutella maculipennis* Curt.); rape blossom beetle (*Meligethes aeneus* F.); blossom feeder (*Tropinota (Epicometis) hirta* L)., cruciferous flea beetles (*Phyllotreta spp.*): black flea beetles (*Phyllotreta atra* F.), blue flea beetles (*Ph. nigripes* F.), large striped flea beetle (*Ph. nemorum* L.), small striped flea beetle (*Ph. undulata* Kutsch.), turnip flea beetle striped flea beetle (*Ph. vittata* Redt.) and horseradish flea beetle (*Ph. armoracie* Koch.).

While studying the dominant pests' species it has been found that different crops were not equally damaged by insects. According to the data given in Table. № 1 it is shown that cruciferous flea beetles prefer to feed soring rape and different kinds of mustard in the selecting of feeding plants.