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RIPENING STAGES AND TASTING EVALUATION OF FRUITS OF SUBTROPICAL FRUIT CROPS UNDER THE CONDITIONS OF THE KHOROL BOTANICAL GARDEN

Actuality. *In the context of climate change, scientific and practical approaches in the field of plant introduction and adaptation make it possible to expand the cultivated ranges of valuable subtropical species. For the first time in the Poltava region, a collection of subtropical fruit crops has been established at the Khorol Botanical Garden, and their fruiting is one of the indicators of adaptation to new soil and climatic conditions. Determining the ripening stage of the fruits and their suitability for consumption is therefore a relevant and timely issue.*

The purpose of the study. The aim of the study is to determine the ripening stage of subtropical fruit crops from the collection of the Khorol Botanical Garden and to conduct their sensory (taste) evaluation.

Materials and methods. *The research was conducted in the scientific zone and nursery of the Khorol Botanical Garden. The study material consisted of fruits of subtropical plant species: Asimina triloba* (L.) *Dunal, Mespilus germanica* L., *Prunus dulcis* (Mill.) D.A. Webb, *Prunus armeniaca* L., *Ziziphus jujuba* Mill., *Ficus carica* L., *Passiflora incarnata* L., *Punica granatum* L., *Diospyros virginiana* L.

Research methods: phenological observations, morphometric analysis, photographic documentation, descriptive assessments, and statistical calculations. Fruit ripeness was evaluated through sensory analysis during the stage of consumer ripeness. The research was conducted over the period 2021–2024.

Research results. *Based on the conducted observations, the consumer ripeness stages of the fruits of subtropical plant species were identified. The beginning and end of these stages were recorded as follows: the beginning was marked by the first possible harvest date of ripe fruits of a given species, and the end was defined as the date of the last harvest.*

The consumer ripeness phase for A. triloba lasted from the II decade (hereinafter referred to as d.) of October to the II d. of November, M. germanica – III d. of October – III d. of December, P. dulcis – II d. of September – I d. of October, P. armeniaca – I d. of September – I d. of October, Z. jujuba – II d. of September – I d. of November, F. carica – II d. of July – II d. of November, P. incarnata – I d. of October – I d. of November, P. granatum – III d. of September – I d. of November, D. virginiana – II d. of September – II d. of November.

According to the sensory/tasting evaluation, the overall quality of each of the five breeding forms of Z. jujuba was rated at 9 points; four cultivars and three breeding forms of D. virginiana – at 7–9 points; 4 cultivars and 1 breeding form of F. carica – at 7–9 points; 1 cultivar and 6 breeding forms of A. triloba – at 7–9 points; 2 cultivars and 1 breeding form of M. germanica – at 7–9 points; 1 cultivar and 1 breeding form of P. dulcis – at 9 points; 1 cultivar of P. armeniaca – at 9 points; 7 breeding forms of P. incarnata – at 7–9 points; 2 cultivars and 1 breeding form of P. granatum – at 7–9 points.

Conclusion. *Based on the results of the conducted research, the consumer ripeness phases of the studied subtropical fruit species were established for the first time under the conditions of the Khorol Botanical Garden. Among the studied species, the earliest to reach consumer ripeness were the fruits of F. carica (second decade of July), while the latest were those of M. germanica (third decade of December).*

According to the sensory evaluation, the fruits of 15 cultivars and 25 breeding forms across 9 species (A. triloba, M. germanica, P. dulcis, P. armeniaca, Z. jujuba, F. carica, P. incarnata, P. granatum, D. virginiana) were of good to high quality, and therefore suitable for consumption.

Key words: *Forest-Steppe of Ukraine, introduction, fruiting, consumer ripeness, taste, fruit quality.*

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ФАЗИ СТИГЛОСТІ ТА ДЕГУСТАЦІЙНА ОЦІНКА ПЛОДІВ СУБТРОПІЧНИХ КУЛЬТУР ЗА УМОВ ХОРОЛЬСЬКОГО БОТАНІЧНОГО САДУ

Актуальність. *За змін клімату науково-практичні підходи в галузі інтродукції та адаптації рослин, дозволяють розширювати культигенні ареали корисних субтропічних видів. Уперше на Полтавщині в Хорольському ботанічному саду зібрана колекція субтропічних плодових культур, а їх плодоношення є одним із проявів адаптації до нових ґрунтово-кліматичних умов. Встановлення фази стиглості плодів і придатності їх до споживання є актуальним питанням.*

Мета дослідження. *Встановлення фази стиглості плодів субтропічних культур колекції Хорольського ботанічного саду та їх дегустаційна оцінка.*

Матеріал і методи. *Дослідження проводилися в науковій зоні та розсаднику Хорольського ботанічного саду. Дослідним матеріалом були плоди субтропічних культур: Asimina triloba* (L.) *Dunal, Mespilus germanica* L., *Prunus dulcis* (Mill.) D.A. Webb, *Prunus armeniaca* L., *Ziziphus jujuba* Mill., *Ficus carica* L., *Passiflora incarnata* L., *Punica granatum* L., *Diospyros virginiana* L.

Методи досліджень: фенологічні спостереження, морфометричні дослідження, фотофіксація, опис, статистичні розрахунки. Стиглість плодів оцінено дегустацією, у фазі споживчої стиглості. Період досліджень – 2021–2024 роки.

Результати дослідження. *На основі проведених спостережень встановлені фази споживчої стиглості плодів субтропічних культур. Їх початок та кінець фіксували за такими датами: початок – за можливості першого знімання стиглих плодів виду; кінець – останнє їх знімання.*

Фаза споживчої стиглості A. triloba – із II декади жовтня до II декади листопада, M. germanica – III декада жовтня – III декада грудня, P. dulcis – II декада вересня – I декада жовтня, P. armeniaca – I декада вересня – I декада жовтня, Z. jujuba – II декада вересня – I декада листопада, F. carica – II декада липня – II декада листопада, P. incarnata – I декада жовтня – I декада листопада, P. granatum – III декада вересня – I декада листопада, D. virginiana – II декада вересня – II декада листопада.

За дегустаційною оцінкою загальну якість кожної з 5 селекційних форм плодів Z. jujuba було оцінено у 9 балів; 4-х сортів і 3-х селекційних форм D. virginiana – по 7–9 балів; 4-х сортів і 1-ї селекційної форми F. carica – по 7–9 балів; 1-го сорту та 6-ти селекційних форм A. triloba – по 7–9 балів; 2-х сортів та 1-ї селекційної форми M. germanica – по 7–9 балів; 1-го сорту й 1-ї селекційної форми P. dulcis – по 9 балів; 1-го сорту P. armeniaca – у 9 балів; 7-ми селекційних форм P. incarnata – по 7–9 балів; 2-х сортів і 1-ї селекційної форми P. granatum – по 7–9 балів.

Висновок. *За результатами проведених досліджень уперше в умовах Хорольського ботанічного саду встановлено фази споживчої стиглості плодів досліджуваних субтропічних видів. Серед досліджуваних видів першими набували споживчої стиглості плоди F. carica (II декада липня), останніми (III декада грудня) набували споживчої стиглості плоди M. germanica.*

За дегустаційною оцінкою плоди 15-ти сортів і 25-ти селекційних форм 9-ти видів (A. triloba, M. germanica, P. dulcis, P. armeniaca, Z. jujuba, F. carica, P. incarnata, P. granatum, D. virginiana) були доброї і високої якості, отже, придатні для харчування.

Ключові слова: *Лісостеп України, інтродукція, плодоношення, споживча стиглість, смак, якість плодів.*

Introduction. Actuality. Subtropical fruit cultivation is an important branch of agro-industrial production in many countries around the world. In the Forest-Steppe zone of Ukraine, subtropical crops are an integral part of the living collections in botanical gardens, where introduction studies are conducted under climatic conditions that are atypical for their natural distribution (Hryhorieva & Klymenko, 2005, pp. 21–26; Mezhenskyi & Mezhenska, 2015, pp. 118–124; Rakhmetov, 2017, pp. 8–24).

In the city of Khorol, Poltava region, subtropical fruit crops have been studied since 1998, and for over 13 years at the Khorol Botanical Garden, where a unique collection of subtropical fruit crops has been established, notable for both its quantity and diversity. The majority of the species in the collection are introduced. Among them are: *Asimina triloba* (L.) Dunal, *Mespilus germanica* L., *Prunus dulcis* (Mill.) D.A. Webb, *Prunus armeniaca* L., *Ziziphus jujuba* Mill., *Ficus carica* L., *Passiflora incarnata* L., *Punica granatum* L., *Diospyros virginiana* L. Their ability to bear fruit is one of the indicators of adaptation to the new soil and climatic conditions of the study region.

Among the wide variety of fruit crops, subtropical species are particularly popular and provide the population with valuable food products. The fruits of *A. triloba* are prized for their high content of beneficial nutrients, and are therefore added to various beverages, snacks, sauces, condiments, sweets, and desserts. They pair well

with coffee- and tea-based drinks, as well as smoothies (Brannan & Powell, 2024, pp. 89–101), in most recipes, they are used as an alternative to bananas (Grygorieva et al., 2021, pp. 26–36), and for long-term storage, the fruits are frozen (Adainoo et al., 2022, pp. 1–16). The fruits of *M.* germanica are valued for their distinctive taste and aroma, which possess important nutritional and medicinal properties (Voaides et al., 2021, pp. 1–30; Sadeghinejad et al., 2022, pp. 1988–1993; Mikulic-Petkovsek et al., 2023, pp. 1–14). The fruits of *P. dulcis* have long been used as a health-promoting food, and in recent years, they have been gaining increasing value (Barreca et al., 2020, pp. 1–22; Masihuzzaman et al., 2020, pp. 9–14; Siddiqui & Begum, 2023, pp. 176–182). The fruits of *P. armeniaca* possess a distinct aroma, refined taste, and high nutritional value, which contributes to the broader cultivation of this species for increased fruit production. Its sweet seeds serve as a valuable by-product and are consumed both raw and roasted. Their chemical composition is most similar to that of *P. dulcis* (Farag et al., 2022, pp. 1–20). The fruits of *Z. jujuba* contain valuable minerals and dietary fiber, which are important indicators of healthy nutrition (Shahrajabian et al., 2020, pp. 194–219). *F. carica* produces two harvests per year. Its fruits contain valuable bioactive compounds and are consumed fresh, as well as used for the production of dried fruits, juices, syrups, jams, and even as additives in baked goods (Rasool et al., 2023, pp. 1–17; Alzahrani et al., 2024, pp. 179–195; Fazel et al., 2024, pp. 1947–1968). The inner part of *P. incarnata* fruit is used in food (Da Fonseca et al., 2020, pp. 1–18), as it is valued for its unique taste (Stafne, 2022, pp. 919–924). The fruits of *P. granatum* are consumed fresh, widely used in the industrial production of juice, and applied in the treatment of various diseases. In recent years, *P. granatum* has received increased attention, encouraging the development of scientifically grounded cultivation methods, expansion of cultivated areas, and broader use in nutrition (Qamar et al., 2018, pp. 1–6; Kandylis & Kokkinomagoulos, 2020, pp. 1–21; Kshirsagar et al., 2023, pp. 1–8; Yamini et al., 2023, pp. 93–104). *D. virginiana* is eaten fresh; its pulp is used to prepare pudding, cookies, cakes, custards, and ice cream, while its ground seeds are used as a coffee substitute (Pomper et al., 2020, pp. 4–7).

Determining the ripening stage and assessing the fruit quality of introduced subtropical crops under new environmental conditions is a relevant and important issue.

Research objective. To determine the ripening stage of subtropical fruit crops from the collection of the Khorol Botanical Garden and to conduct their sensory (taste) evaluation.

Materials and methods of research. The study involved fruits of introduced subtropical crop genotypes from the collection of the Khorol Botanical Garden – 40 genotypes in total (15 cultivars and 25 breeding forms), which, in terms of taxonomic composition, belong to 9 species, 8 genera, and 7 families. The research was conducted over the period 2021–2024.

Research Methods: phenological observations of fruiting and ripening stages of subtropical fruit crops were carried out on the collection and experimental plots located in the scientific zone and nursery of the Khorol Botanical Garden. The average date of phenological observations over the four-year period was determined based on the most frequently occurring date during those years (Tkachyk, 2016).

Morphometric studies were conducted using measuring instruments such as a measuring ruler, caliper, and laboratory scales.

Tasting evaluation of fresh fruits from cultivars and breeding forms of 9 subtropical crop species was conducted in 2024, within 3–5 days after harvest, with the exception of *F. carica*, whose fruits were evaluated on the day of harvest (Tkachyk, 2016).

The standard deviation for the data range was calculated using standard spreadsheet functions (Google Sheets), applying the formula: STDEV ($X_1 : X_n$).

The coefficient of variation (standard deviation divided by the mean) summarizes the degree of variability as a percentage or fraction of the total. The calculation was performed according to the following formula: STDEV ($X_1 : X_n$) / AVERAGE ($X_1 : X_n$).

Research results and discussion. As the fruits of subtropical plants ripened, they developed the color, size, taste, and pulp consistency characteristic of each specific cultivar and breeding form. According to the results of the study, the consumer ripeness phase of the fruits was recorded from July to December, specifically: from the II decade (further on d.) of July to the II d. of November – *F. carica*; from the I d. of September to the I d. of October – *P. armeniaca*; from the II d. of September to the I d. of November – *Z. jujuba*; from the III d. of September to the I d. of November – *P. granatum*, from the II d. of September to the II d. of November – *D. virginiana;* from the II d. of September to the I d. of October – *P. dulcis*; from the II decade of October to the II d. of November – *A. triloba*; from the I d. of October

Fig. Ripe Fruits of Subtropical Fruit Crops:

1 – *Asimina triloba* 'Bananova', 2 – *Mespilus germanica* 'Hoytkhovska',

3 – *Prunus dulcis* 'Desertnyi', 4 – *Prunus armeniaca* 'Kech-Pshar',

5 – *Ziziphus jujuba* Khorolskyi Large-Fruited,

6 – *Ficus carica* 'Dalmatskyi', 7 – *Passiflora incarnata* № 1,

8 – *Punica granatum* 'Crimean striped', 9 – *Diospyros virginiana* 'Sosnivska'

to the I d. of November – *P. incarnata*; from the III d. of October to the III d. of December – *M. germanica.*

Ripe fruits of the subtropical crops (cultivars and breeding forms) from the collection of the Khorol Botanical Garden are shown in fig.

Table 1 presents the morphometric parameters (size and weight) of the fruits of the studied subtropical plants, along with their statistical calculations.

Since in multi-harvest subtropical species such as *A. triloba*, *M. germanica*, *Z. jujuba*, *F. carica*, *P. incarnate*, *P. granatum* and *D. virginiana*, the fruits within a single cultivar or breeding form are not uniform in size, the statistical analysis included both the largest and smallest fruit size measurements in the sample.

An analysis of the morphometric parameters of the subtropical crops showed that, in terms of fruit weight, the largest fruits were observed in: *A. triloba* ('Prima 1216'; 147,0–195,7 g, and Bananova; 100,5–134,4 g); *M. germanica* (Large-fruited late-ripening; 16,8–25,2 g); *P. dulcis* ('Desertnyi'; 6,3–6,5 g); *Z. jujuba* (Khorolskyi large-fruited, 14,0–23,4 g); *F. carica* ('Randino', 118,0–137,0 g); *P. incarnata* (№ 3, 34,0–41,0 g); *P. granatum* ('Crimean striped', 502,0–572,0 g); *D. virginiana* ('Sosnivska' (a hybrid), 46,2–76,7 g), all other cultivars and breeding forms showed lower values.

In terms of dimensions (length, diameter, width, thickness), the indicators correspond to the fruit weight of the subtropical crops. The largest sizes were recorded in: *A. triloba* (Bananova – from 95 to 114 mm; 35–57; 'Prima 1216' – 91–104; 61–68;); *M. germanica* (Large-fruited late-ripening – 25–29; 34–36); *P. dulcis* ('Desertnyi' – 43–45; 25–27; 14–17; Ф-48 – 40–42; 26–30; 17–15); *P. armeniaca* ('Kech-Pshar' – 32–34; 33–36); *Z. jujuba* (Khorolskyi large-fruited – 39–48; 30–31); *F. carica* ('Randino' – 81–97; 60–64); *P. incarnata* (№ 3 – 60–66; 51–55; № 2 – 60–62; 53–55; № 1 – 56–60; 53–65); *P. granatum* ('Crimean striped' – 91–93; 104–112); *D. virginiana* ('Sosnivska' (a hybrid) – 42–48; 44–51).

Tasting evaluation of the fruits of subtropical crops is presented in table 2.

Based on the results of the sensory evaluation, the fruits of the studied subtropical species, cultivars, and breeding forms were rated as having high to good overall quality. A score of 9 points was awarded to: *Z. jujuba* (Khorolskyi large-fruited; 5–3–15; 5–3–17; 6–3–17; 6–3–18); *P. dulcis* ('Desertnyi'; F-48); *P. armeniaca* ('Kech-Pshar') and 7–9 points to (*D. virginiana* ('Early Golden'; 'Prok'; 'Mieder'; 'Sosnivska' (hybrid); Krasava; Krasotka; Krasunia); *F. carica* ('Randino'; 'Dalmatskyi'; 'Crimean Black'; 'Broonswick'; Kerchenskyi); *A. triloba* ('Prima 1216'; Prysadybna; Bananova; Lasunka; Khorolska; Furshetna; Tsukerkova); *M.* germanica ('Hoytkhovska'; 'Haidegger'; Large-fruited late-ripening); P. *incarnate* (№ 1; № 2; № 3; № 4; № 5; № 6; № 7); *P. granatum* ('Crimean Striped'; 'Ak-Dona'; Soft-seeded).

Conclusions. Based on the results of the conducted research, the consumer ripeness phases of the studied subtropical species were established for the first time under the conditions of the Khorol Botanical Garden. Among the studied species, the earliest to reach consumer ripeness were the fruits of *F. carica* (II decade of July), while the latest were the fruits of *M. germanica* (III decade of December).

According to the tasting evaluation, the fruits of 15 cultivars and 25 breeding forms across 9 species (*A. triloba*, *M. germanica*, *P. dulcis*, *P. armeniaca*, *Z. jujuba*, *F. carica*, *P. incarnata*, *P. granatum*, *D. virginiana*) were found to be of good to high quality, and therefore suitable for consumption.

Table 1

Morphometric Parameters of the Fruits of the Studied Subtropical Plant Species (Weight, Size)

Genotype	Min – Max														
	Mass, g	M, ±	V, %	Length, mm	M, ±	V, %	Diameter, mm	M, ±	V, %	Width, mm	M, ±	V, %	Thickness, mm	M, ±	V, %
A. triloba															
'Prima 1216'	147,0–195,7	34,44	20,10	91–104	9,19	9,43	61–68	4,95	7,67	–	–	–	–	–	–
breeding form:															
Prysadybna	70,5–98,8	20,01	23,64	76–93	12,02	14,23	32–53	14,85	34,94	–	–	–	–	–	–
Bananova	100,5–134,4	23,97	20,41	95–114	13,44	12,86	35–57	15,56	33,82	–	–	–	–	–	–
Lasunka	80,7–112,9	22,77	23,52	77–96	13,44	15,53	32–61	20,51	44,10	–	–	–	–	–	–
Khorolska	71,0–92,3	15,06	18,45	81–104	16,26	17,58	33–57	16,97	37,71	–	–	–	–	–	–
Furshetna	81,8–101,3	13,79	15,06	74–98	16,97	19,73	36–51	10,61	24,38	–	–	–	–	–	–
Tsukerkova	68,4–89,2	14,71	18,66	72–91	13,44	16,48	30–59	20,51	46,08	–	–	–	–	–	–
C. germanica															
'Hoytkhovska'	8,0–32,0	16,97	84,85	16–25	6,36	31,04	27–28	0,71	2,57	–	–	–	–	–	–
'Haidegger'	4,5–13,2	6,15	69,51	20–26	4,24	18,45	22–28	4,24	16,97	–	–	–	–	–	–
breeding form:															
Large-fruited late-ripening	16,8–25,2	5,94	28,28	25–29	2,83	10,48	34–36	1,41	4,04	–	–	–	–	–	–
P. dulcis															
'Desertnyi'	6,3–6,5	0,14	2,21	43–45	1,41	3,21	–	–	–	25–27	1,41	5,44	14–17	2,12	13,69
breeding form: F-48	4,3–4,6	0,21	4,77	40–42	1,41	3,45	–	–	–	26–30	2,83	10,10	17–15	1,41	8,84
P. armeniaca															
'Kech Pshar'	18,5–23,6	3,61	17,13	32–34	1,41	4,29	33–36	2,12	6,15	–	–	–	–	–	–
Z. jujuba															
breeding form:															
Khorolskyi large-fruited	14,0–23,4	6,65	35,54	39–48	6,36	14,63	30–31	0,71	2,32	–	–	–	–	–	–
5–3–15	8,0–10,1	1,48	16,41	28–29	0,71	2,48	24–26	1,41	5,66	–	–	–	–	–	–
5–3–17	8,1–11,0	2,05	21,47	27–31	2,83	9,75	24–27	2,12	8,32	–	–	–	–	–	–
6–3–17	5,7–10,9	3,68	44,30	27–33	4,24	14,14	20–25	3,54	15,71	–	–	–	–	–	–
6–3–18	11,9–13,3	0,99	7,86	29–37	5,66	17,14	24–32	5,66	20,20	–	–	–	–	–	–

Genotype	Min – Max														
	Mass, g	M, ±	V, %	Length, mm	M, ±	V, %	Diameter, mm	M, ±	V, %	Width, mm	M, ±	V, %	Thickness, mm	M, ±	V, %
F. carica															
‘Randino’	118,0–137,0	13,44	10,54	81–97	11,31	12,71	60–64	2,83	4,56	–	–	–	–	–	–
‘Dalmatskyi’	66,7–84,3	12,45	16,48	79–83	2,83	3,49	47–53	4,24	8,49	–	–	–	–	–	–
‘Crimean Black’	34,7–42,5	5,52	14,29	40–51	7,78	17,09	39–51	8,49	18,86	–	–	–	–	–	–
‘Broonswick’	26,4–50,0	16,69	43,69	50–53	2,12	4,12	37–42	3,54	8,95	–	–	–	–	–	–
breeding form:										–	–	–	–	–	–
Kerchenskyi	11,9–14,1	1,56	11,97	28–36	5,66	17,68	29–36	4,95	15,23		–	–	–	–	–
P. incarnata breeding form:															
№ 1	24,0–33,0	6,36	22,33	56–60	2,83	4,88	53–65	8,49	14,38	–	–	–	–	–	–
№ 2	30,0–35,0	3,54	10,88	60–62	1,41	2,32	53–55	1,41	2,62	–	–	–	–	–	–
№ 3	34,0–41,0	4,95	13,20	60–66	4,24	6,73	51–55	2,83	5,34	–	–	–	–	–	–
№ 4	20,0–27,0	4,95	21,0	52–63	7,78	13,53	49–55	4,24	8,16	–	–	–	–	–	–
№ 5	22,5–24,5	1,41	6,02	53–60	4,95	8,76	43–46	2,12	4,77	–	–	–	–	–	–
№ 6	19,5–22,0	1,77	8,52	44–50	4,24	9,03	46–52	4,24	8,66	–	–	–	–	–	–
№ 7	19,0–22,0	2,12	10,35	49–54	3,54	6,87	46–59	9,19	17,51	–	–	–	–	–	–
P. granatum															
‘Crimean striped’	502,0–572,0	49,50	9,22	91– 93	1,41	1,54	104–112	5,66	5,24	–	–	–	–	–	–
‘Ak-Dona’	179,7–188,0	5,87	3,19	62–66	2,83	4,42	71–73	1,41	1,96	–	–	–	–	–	–
breeding form:										–	–	–	–	–	–
‘Soft-seeded’	100,4–154,5	38,25	30,02	54–59	3,54	6,26	57–71	9,90	15,47	–	–	–	–	–	–
D. virginiana															
‘Early Golden’	21,9–32,6	7,57	27,77	26–28	1,41	5,24	31–33	1,41	4,42	–	–	–	–	–	–
‘Prok’	27,3–40,0	8,98	26,69	35–40	3,54	9,43	36–42	4,24	10,88	–	–	–	–	–	–
‘Mieder’	32,1–34,4	1,63	4,89	27–30	2,12	7,44	38–41	2,12	5,37	–	–	–	–	–	–
‘Sosnivska’ (a hybrid)	46,2–76,7	21,57	35,10	42–48	4,24	9,43	44–51	4,95	10,42	–	–	–	–	–	–
breeding form:															
Krasava	20,7–23,9	2,26	10,15	28–29	0,71	2,48	34–36	1,41	4,04	–	–	–	–	–	–
Krasotka	34,1–34,4	0,21	0,62	31–33	1,41	4,42	40–41	0,71	1,75	–	–	–	–	–	–
Krasunia	20,9–22,3	0,99	4,58	28–30	1,41	4,88	34–36	1,41	4,04	–	–	–	–	–	–

Table 2

Sensory/Tasting Evaluation of Subtropical Fruit Crops from the Collection of the Khorol Botanical Garden

№	Cultivar / Breeding Form	Points			
		Size	External Appeal	Taste Qualities	Overall Quality
1.	***Z. jujuba***				
	Breeding form:				
	Khorolskyi large-fruited	9	9	7	9
	5–3–15	7	7	9	9
	5–3–17	7	7	9	9
	6–3–17	7	7	9	9
	6–3–18	7	9	9	9
2.	***D. virginiana***				
	‘Early Golden’	9	9	9	9
	‘Prok’	9	9	9	9
	‘Mieder’	7	7	7	7
	‘Sosnivska’ (*hybrid*)	9	9	9	9
	Breeding form:				
	Krasava	7	7	7	7
	Krasotka	7	7	7	7
	Krasunia	7	7	7	7
3.	***F. carica***				
	‘Randino’	9	9	9	9
	‘Dalmatskyi’	9	9	9	9
	‘Crimean Black’	7	9	7	7
	‘Broonswick’	9	9	9	9
	Breeding form:				
	Kerchenskyi	7	7	9	9
4.	***A. triloba***				
	‘Prima 1216’	9	9	9	9
	Breeding form:				
	Prysadybna	7	9	7	7
	Bananova	7	9	9	9
	Lasunka	7	9	9	9
	Khorolska	7	9	7	7
	Furshetna	7	9	7	7
	Tsukerkova	7	9	7	7
5.	***M. germanica***				
	‘Hoytkhovska’	7	7	9	9
	‘Haidegger’	7	7	7	7
	Breeding form:				
	Large-fruited late-ripening	9	9	7	9
6.	***P. dulcis***				
	‘Desertnyi’	9	9	9	9
	Breeding form:				
	F-48	9	9	9	9
7.	***P. armeniaca***				
	‘Kech-Pshar’	7	9	9	9
8.	***P. incarnata***				
	Breeding form:				
	№ 1	7	7	9	9
	№ 2	9	9	7	7
	№ 3	9	9	9	9
	№ 4	7	7	7	7
	№ 5	7	7	7	7
	№ 6	7	7	7	7
	№ 7	7	7	9	9
9.	***P. granatum***				
	‘Crimean Striped’	9	9	9	9
	‘Ak-Dona’	7	9	7	7
	Breeding form:				
	Soft-seeded	7	7	9	9

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Cherniak T. – search for information, translation, design of the article, implementation of the practical part, morphometric measurements;

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