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Formation and Productivity of Harvest Elements in Karakoz and Izumrud Olive Plants

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Abstract:

The fruit of the olive is considered to be a hard seeded fruit. The olive seed is covered with a very hard, woody shell, uneven, oval, with an outer part that is oblong, oval, kidney-shaped, pentagonal, sometimes sharp, sometimes blunt at the tip. The length of the olive fruit is oblong, up to 4 cm in length and 1-2 cm in diameter. Olive fruits are divided into high and first varieties in Russia, where the diameter of the fruit is 16 mm and above in the high varieties and 14 mm and above in the first varieties. When olives are salted and marinated, large ones are obtained, large ones meet the requirements of GOST.

Keywords: olea yeuropaea l, varieties, biological features, productivity, agriculture technology methods, yield capacity.

Olive trees provide the most ecologically valuable vegetable oil, which contains useful substances for humans and it is of great importance for health. Since olive cultivation has just begun, there are large plantations and in the following years, olive fruits are harvested in the farms of farmers and people interested in olives in different regions of the republic. The olive tree, like any other tree, bears fruit in its first year, sometimes producing flowers and not producing fruit. Due to the longevity of this tree, it also comes into fruit relatively later than other trees. Usually, olive seedlings show signs in the third, fourth, fifth, sometimes sixth year. In the first year, it almost does not bear fruit, in order for olives to bear fruit it is also necessary to pay attention to pollination. We studied the number of flowers, fruit buds and the amount of remaining olive fruits of the olive cultivars that bloomed in the second year in our experimental field in the friendship of varieties. The following table provides information on the amount of flowering and fruiting of olive varieties.

As a result of the study of the flowering stage of olive varieties, the number of flowers produced on one bush that bloomed in the second year, the number of fruits that were fertilized from two flowers and the number of fruits were determined. One bush of Izumrud variety produced 4425 flowers, of which 79 were formed, and the remaining flowers fell without pollination. Fertilized buds made up 1.71 percent of the total flower. But not all nodules bear fruit, the number of fruits produced from nodules was 66.3 percent (see table 1.1).

1.1-table. Dynamics of formation of generative organs in olive varieties 2019-2021

Olive varieties	Number of flowers ,pcs	Crop node ,pcs	A fertile node compared to a flower , %	Number of fruits	Fruit produced in relation to a node,%	To bear fruit in relation to the flower, %
Крымская 172	13489	278	2,06	225	85,1	1,42
Qorako‘z	13605	234,5	1,72	169	71,3	1,75
Gaziantep	6815	156,3	2,28	118	78,2	1,69
Izumrud	4425	79	1,71	54,3	66,3	1,07

Our study of the Karakoz variety in the second year of flowering gave the following result: 13,605 flowers were produced on the flower buds of one tree, 234 fruit nodes were formed and 169 fruits were formed from the fruit node. The amount of ripe olives in relation to the harvested node was 71.3 percent. Therefore, the amount of fruit formation in the Karakoz variety was 5% lower than that of Izumrud.

In most cases, small fruits contain a large amount of oil [85; pp. 93-138].

It turned out that the Gaziantep variety, like Izumrud, produced fewer flowers. In the second year, 6,815 flowers were formed on one bush of this tree and the bud was visible only on 156 of them. The rest of the flowers fell. In this variety, it was found that the amount of total bud formation was 2.28 percent. But the amount of fruit production in the Gaziantep variety was 78.2 percent. The Krymskaya 172 variety was imported from Russia and produced a large number of flowers in our conditions, one bush produced 13,489 flowers in the second year of flowering, of which the number of fruit nodes in this variety was 278.

The total number of nodes formed in the tree compared to the flower was 2.06 percent. When counted later, 225 olives ripened on one bush. The indicators of this variety in terms of generative organs were the highest, 85 percent of fruits were formed. Karakoz navi achieved the highest rate of fruit production.

Observations showed that the average yield from one tree of the acclimatized Izumrud variety was about 5.7 kg. At this time, the average of one tree in the control - Gaziantep variety did not exceed 5.1 kg (see Table 1.2).

Productivity of olive varieties per bush (2019-2021).

Varieties	Average yield from one tree, kg		
	2019 year	2020 year	2 year
Izumrud	5,1±1,6	6,3±1,0	5,7
Gaziantep –control	5,1±1,3	5,1±1,8	5,1
Qorako‘z	7,0±1,8	7,1±1,1	7,1
Крымская 172 – control	4,1±1,3	4,1±1,3	4,1
$ЭКФ_{05}$	1,0	1,8	

The average yield per tree of the Karakoz variety was also lower in the corresponding control variant. The average yield from the trees of this variety was 7.1 kg, while the average yield from the control Krymskaya 172 variety was 4.1 kg.

Small fruits are mainly used for oil extraction, in most cases small fruits contain a large amount of oil [85; pp. 93-138].

I.A.Jigarevich[42; According to p. 18-26],, a scientist who conducted scientific research on the olive plant. The weight of olive varieties grown for canning-oil purposes is 4.2-14.6 g, the weight of olive fruits grown for canning is 8.0-14.6 g, the weight of fruits for oil extraction It is required to be -3.2-4.9 g. The amount of ripeness in fruits is required to be 84-89%, 85-88 and 86-90% depending on the group.

The impact of agrotechnical measures and soil-climate conditions on the cultivation of the olive plant was studied, as a result of scientific research, the weight of the olive fruit in the Crimea was from 1.5 to 10.0 grams, while the weight increased in the hot climate of Azerbaijan is recorded to be up to 1.5-14.6. grams.

In our experiments, the fruits of Izumrud and Karakoz olive varieties, newly introduced in our republic, were divided into groups according to the size of the fruits after ripening at the end of September. Factors such as the thickness and weight of the olive flesh were taken into account, and the weight of the fruits in each group was weighed separately.

1.3-table. Izumrud variety of acclimatized olives in groups of fruits division, 2019-2021

2019-2021 yillar

Grouping of fruits by weight	Average weight of 1 piece of fruit, g	The yield of olives fruits in the experiment			
		1 kg fruit		Average weight of 1 piece of fruit, g	Gross weight by fruit weight, g
		On account of pieces	%		
Very large fruit up to 150 pieces per 1kg	6,6±15	-	-	-	
Large fruit 1kg. up to 200	5,0±6,5	32	11,0	5,3	169,6
Average fruit 1 kg.up to 300	3,3±4,9	108	37,4	3,8	410,4
Small fruit 1 kg. more than 300	3,2 g va undan kam	149	51,6	2,8	420,0

Fruits of very large weight were not found in both varieties. Izumrud variety had 289 fruits per 1 kg, and Karakoz variety had 301 fruits. But in the Izumrud variety, 1 kg. the output of large and medium fruits in the fruit (48.4%) is lower compared to the Karakoz variety, large fruits are 32 pieces per 1 kg, the average weight of each fruit is 5.3 g, 1000 Its share in g. was 169.6 g. Average fruits were 108 pieces of 3.8 g to 410 g, while small fruits were noted to be 149 pieces of 2.8 g to 420 g (see Table 1.3).

Large and medium fruits make up 45.9%, the weight of 1 fruit is 5.1-3.5 g, and the percentage of 1000 g is 137.7-388.5 g, respectively, compared to Izumrud variety. 2.5%, 0.2-0.3 g, 31.9-21.9 g less. It was observed that the yield of small fruits was 54.1%, the weight of 1 fruit was 2.9 g, and the percentage of 1000 g was 473.8 g. It was found that the fruits of the Karakoz variety are small according to botanical characteristics. The size or size of olives is often determined by the characteristics of the variety. Olive varieties introduced from Spain are distinguished from olives from other countries by their large fruits (see Table 1.4).

In our experiments, attention was paid to the structure of the fruits of acclimatized olive varieties, that is the amount of flesh and seeds in the fruit was studied.

It is very important to have the maximum amount of flesh in the fruit, because the more fleshy the fruit, the lower the amount of extracted oil.

1.4-table. The division of fruits into groups in the Qorako'z olive variety, 2019-2021

Grouping of fruits by weight	Average weight of 1 piece of fruit, g	The yield of olives fruits in the experiment			
		1 kg fruit		Average weight of 1 piece of fruit, g	Gross weight by fruit weight, g
		On account of pieces	%		
Very large fruit up to 150 pieces per 1kg	6,0±1,5	-	-	-	
Large fruit 1kg. up to 200	4,8±1,7	27	9,0	5,1	137,7
Average fruit 1 kg.up to 300	3,9±2,1	111	36,9	3,5	388,5
Small fruit 1 kg. more than 300	3,2 g and less	163	54,1	2,9	473,8

When studying the Karakoz variety, it was found that the minimum amount of flesh in the fruit group was 74:26 %, which means 74% flesh and 26% seed. It was observed that the percentage of maximum fleshy fruits was 78:22%, and the average amount of flesh and pulp was 76:24 %.

According to the obtained results, the amount of meat in Izumrud variety is relatively high compared to the size of the seed, and the amount of flesh and seed in olives of the first group is 76:24 percent. The weight of the Izumrud variety in our experiments is 76% flesh and 24% grain. In this variety, the maximum amount of meat and grain was 80:20 percent. The minimum and maximum amount of flesh and grain in the fruits was 78:22 percent on average. (see Table 1.5).

Table 1.5. Classification of conditioned olives according to the proportion of flesh and seeds, in %, 2019-2021

Groups	Flesh and seed		Average amount of flesh and seed
	minimum amount	Maximum amount	
Izumrud variety			
The amount of flesh in the fruit is very low	76:24	80:20	78:22
The fruit has a high content of flesh	75:25	78:22	76:23
The amount of flesh in the fruit is average	73:27	77:23	75:25
The amount of flesh in the fruit is low	71:29	76:24	75,5:24,5
Karakoz variety			
The amount of flesh in the fruit is very high	74:26	78:22	76:24
The amount of flesh in the fruit is high	72:28	76:24	74:26
The amount of flesh in the fruit is average	70:30	73:27	73,5:26,5

The amount of flesh in the fruit is very low	68:32	70:30	69:31

In conclusion, it was observed that the amount of flesh and pulp in the fruits of acclimatized olive varieties varies depending on the variety. The fruits of acclimatized olive varieties can be divided into four groups according to the ratio of flesh and pulp:

the amount of flesh in the fruit is very low, more than 76%;

the amount of flesh in the fruit is less than 76%;

the amount of flesh in the fruit is on average up to 70%;

the amount of flesh in the fruit is low, less than 68%.

List of used literature:

1. Yuldasheva X.T. Zaytun sovuqqa chidamlimi? // O‘zbekiston qishloq xo‘jaligi jurnali. – Toshkent, 2014. № 11. – B. 24-25.
2. Yormatova D.Yo., Yuldasheva X.T. Zaytun poya va novdasining o‘sish dinamikasi. // O‘zbekiston qishloq xo‘jaligi jurnali. – Toshkent, 2015. – № 7, – B. 40-41.
3. Юлдашева Х.Т. Способы размножения оливкового растения в Андижанской области. // Журнал Актуалные проблемы современной науки. – Москва, 2018. – № 6 (103). – С. 209-211.
4. Yuldas’heva, K. T., Solieva, M. B., Kimsanova, X. A., Arabboev, A. A., & Kayumova, S. A. (2021). Yevaluation of winter frost resistance of cultivated varieties of olives. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, *11*(2), 627-632.
5. Yuldasheva, K. T., Soliyeva, M. B., Daminov, X. E., Botirov, S. T., & Mamadjanova, G. S. (2021). The process of growth of vegetative organs of olive seedlings in protected areas during the development phase. *ASIAN JOURNAL OF MULTIDIMENSIONAL RESEARCH*, *10*(4), 287-293.
6. Xatamova, X. K., Yuldasheva, K. T., Soliyeva, M. B., Kimsanova, X. A., & Juraboyeva, S. M. (2021). Methods of preserving subtropical fruits. *Asian Journal of Multidimensional Research (AJMR)*, *10*(1), 109-115.
7. Yuldasheva, K. T., Soliyeva, M. B., Xatamova, X. K., & Kimsanova, X. A. (2020). Effect of arbuscular mycorrhiza on micro propagated olive. *ACADEMICIA: AN INTERNATIONAL MULTIDISCIPLINARY RESEARCH JOURNAL*, *10*(12), 1491-1498.
8. Soliyeva, M. B., Yuldasheva, K. T., Xatamova, X. K., Kimsanova, X. A., & Isroilova, S. S. (2021). The effect of shelf life of live cocoons on their temperature and quality. *Asian Journal of Multidimensional Research (AJMR)*, *10*(3), 254-260
9. Soliyeva, M. B., & Mirzaxmedova, G. L. (2024). Basics of the Silk Worm Organism Functions and Growth of the Worm Body. *Web of Semantics: Journal of Interdisciplinary Science*, *2*(2), 31-36.
10. Soliyeva, M. B., & Sirojiddinova, M. A. (2023). Chemical Composition of Coir Fiber. *Information Horizons: American Journal of Library and Information Science Innovation (2993-2777)*, *1*(9), 102-106.