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Periods of Transition of Phenological Phases of Promising Introduced Cultivars of Grape

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Annotation: *The article examines the periods of the phenological phases of the promising introduced cultivars of grapes. Bud growth and branch growth, flowering, ripening phases of bunches, duration of vegetation period of Husayni belyy, Said gulyam, Husayni egri, Kara djanjal, Husayni kelin barmak, Velikan Tashkent sky, Rizaga, Husayni krasnyy, Husayni murgalnyy fergan and Mirnyi varieties of grapes are described.*

Keywords: *grape, variety, phenological phase, flowering, cluster, vegetation, branch, bud, grape bunch.*

Introduction: Horaki varieties occupy a special place among the huge stock of grapes. Ho'raki varieties of grapes, as in many other fruit and berry crops, are a positive sign in any application of the product.

Although the natural soil-climatic conditions of the republic are very favorable for the cultivation of all varieties of grapes, their placement by regions and especially the phenophase processes are important. For this purpose, a thorough study of the growth period, phenological phases in it, knowledge of the environments they pass through, allows timely and high-quality implementation of agrotechnical measures aimed at obtaining a high and high-quality harvest from grapes.

Wintering buds are formed in late May-June in wine-growing grape varieties, and in late July in local horaki and kishmish varieties. Flowers are formed later in the central winter of horaki and Kishmish varieties compared to those of vine varieties. [7; 51-page].

The annual development period of the vine includes a period of growth and rest. The growth period consists of 6 phenological phases, they are as follows: the first phase sap movement (sap movement begins in the vine and continues until the opening period of the buds, that is, until they are stretched); the second phase lasts from the stretching of buds to flowering; the third phase of flowering (begins with the opening of the flowers and the shedding of the calyx caps and continues until the inflorescences are shed); the fourth phase is the gathering and growth of bunches (Gathering starts from the appearance of bunches of nodes and continues until their maturation); fifth phase is ripening of the bunches (it lasts from the time

the pods begin to ripen until they are fully matured); The sixth phase is shedding of leaves - fall of leaves (lasts from the full ripening of the clusters to the shedding of the leaves) [7; 66-page].

In order to determine the best grape varieties, it is very important to study the phenophases in certain conditions in the vineyards.

Scientific research method. Field experiments are conducted in the grape collection and experimental fields of the Research Institute of Horticulture, Viticulture and Winemaking named after Makhmud Mirzaev. "maps of agricultural crop cultivation technology" of the Ministry of Agriculture of the Republic of Uzbekistan (2016)", B.A.Dospekhov "Methodology of field experience" (1985), Kh.Ch. Buriev and others [1; 64 б.], M.A. Lazarevsky [2; 347-400-б.] conducted based on methodologies, sources, recommendations, instructions and methods.

According to the methodology recommended for each experiment, promising horaki varieties were selected from the varieties in the separate vine collection.

Research results. The analysis shows that scientific research observations were made to study the transition periods of the main phenological phases in promising introduced cultivars of grape.

A summary table is presented to clearly visualize the initiation of each of the main phases of the development of introduced grape varieties. (Refer to Table 1.1).

Table 1.1 Periods of transition of vegetation phases in introduced varieties of grapes (2021-2023)

o/n	Sorts	Swelling of buds	Flowering	The ripening of buds	Full ripening of buds	Vegetation period duration, days
1.	Husayni Bely (control)	12/IV	20/V	22/VII	22/VIII	132
2.	Said Gulyami	9/IV	20/V	24/VIII	16/IX	160
3.	Husayni egri	17/IV	22/V	8/VII	6/VIII	114
4.	Kora jandjal	7/IV	19/V	25/VII	12/VIII	158
5.	Husayni kelin barmoq	9/IV	22/V	8/VII	23/VIII	135
6.	Velikan Tashkentsky	11/IV	22/V	20/VII	12/IX	154
7.	Rizaga	12/IV	23/V	6/VII	24/VIII	144
8.	Husayni Krasnyi	7/IV	21/V	5/VIII	23/VIII	138
9.	Husayni Murgalnyi Fergan	8/IV	17/V	21/VI	26/ VIII	140
10.	Mirny	9/IV	21/V	8/VII	28/VIII	141

Table data shows that in the studied introduced varieties of grapes, according to the duration of the growing season from the beginning of buds to the full ripening of bunches, grape varieties were conditionally divided into three groups:

Early Ripening varieties (114-135 days) - Husayni egri, Husayni belyy, Husayni kelin barmoq;

medium varieties (138-144 days) – Husayni krasnyy, Husayni murgalnyy fergan, Mirnyy varieties and Rizaga;

late ripening varieties (145-157 days) – Velikan Tashkentsky, Qora Djanjal, Said Gulyami.

The conclusion

1. Knowing the periods of phenological phases of grape varieties allows to place varieties according to the regions, establish vineyards and implement agrotechnical measures.
2. According to the duration of the vegetation period, grape varieties were conditionally divided into three groups:

Early ripening varieties (114-135 days) - Husayni egri, Husayni belyy, Husayni kelin barmoq;

Medium varieties (138-144 days) – Husayni krasnyy, Husayni murgalnyy fergan, Mirnyy varieties and Rizaga;

Late ripening varieties (145-157 days) – Velikan Tashkentsky, Qora Djanjal, Said Gulyami.

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