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STUDYING THE INFLUENCE OF PAPER BAGS ON THE PRODUCTIVITY OF APPLES

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Abstract: Apple fruits were wrapped in paper bags in the orchards of the scientific-research institute of horticulture, viticulture and winemaking named after Academician M.Mirzayev in the following order: during the period of the fruits, 20-40 days after flowering, three types - white, wrapped in yellow and black paper bags. After wrapping, the cord of the bag was attached to the fruit band. After that, the dimensions of the caves were calculated every 10-15 days. The transition of phenological phases of apple and pear was determined.

Keywords: apple fruits, white, yellow and black paper bags, fruit set, phenological phase, ripening period, productivity.

Enter. Apple fruits were wrapped in paper bags in the orchards of the scientific-research institute of horticulture, viticulture and winemaking named after Academician M. Mirzayev in the following order: during the ripening period of the fruits, 20-40 days after flowering, they were wrapped with three types of paper bags - white, yellow and black. After wrapping, a plastic bag was placed on the fruit band. After that, the dimensions of every 10-15 corners were calculated. The transition of phenological phases of apple was marked.

Materials and styles. In the conducted scientific research [1-4, 8, 9], the effect of various paper bags on the fruits of apple varieties ripening in different periods was studied. Measurements were carried out in apple orchards during the growing season, before the technical ripening of fruits, before they were put into storage. Therefore, starting from the beginning, all kinds of fruits were planted. 10 days, 25 days and 38 days after planting the paper bag, as well as every 10 days until the fruit yield was measured.

Results and discussion. According to Mutsunavi apple ripening period, winter is winter. The fruit is large. According to the results of preliminary measurements, a difference of 0.1 cm to 0.5 cm was observed in all options. 52 days after the paper bag was removed, it was determined that the fruit was 4.7-5.6 cm long and 4.0-4.6 cm long. The last measurements carried out in the garden were carried out in the second ten days of September, and on September 20, the fruits were picked and stored in the refrigerator due to technical ripeness. 142 days after putting the paper bag, the fruits were technically ripened. The King David apple is a late-ripening apple. The size of the fruit is average, according to the initial measurements in the options, the difference in the length and width of the fruit is 0.1-0.4 cm. 66 days after putting on the paper bags, the size of the fruits was 5.0-5.6 cm, and the height was 3.9-4.4 cm. Measurements of fruits in the last garden showed that 97 days after the application of paper bags, the fruits reached 5.1-6.7 cm. At the beginning of August, it was determined that the fruits were technically ripe, they were peeled and placed in the refrigerator.

The difference between the fruits wrapped in paper bags and the fruits in the open state is that they all have the same standard color, and during the ripening period, the fruits ripen one after the other according to the color of the paper bags. Because of this, it is considered that the solar energy and light transmittance of different colors are not the same. WilliamsPraydolman is an early autumn fruit variety according to its ripening period. According to the measurements taken in the garden at the beginning of May, the diameter of the apple fruit varied from 2.5 to 3.2 cm, and the height from 3.0

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to 3.6 cm. After 52 days of wearing the paper bag, it was found that the fruit was 5.0-6.0 cm wide and 4.2-5.1 cm tall.. By the beginning of July, the apple fruit began to grow significantly in width compared to its height. The fruit is 5.3-6.5 cm long, 4.7-5.8 cm long. The last measurements carried out in the orchard were carried out at the beginning of August, and because the fruits were technically ripe, they were picked and stored in the refrigerator. 97 days after putting the paper bag, the fruits were technically ripened. When we analyzed the productivity of apple fruits, there were noticeable differences in the use of different paper bags. For example, an average of 80 kg of Pinkled apples without a paper bag, 87 kg when wrapped in a white paper bag, 84 kg in a yellow paper bag, and 83 kg in a black bag were produced. In Galanavi, under the influence of paper bags, the average yield was higher than when paper bags were not used.

At the same time, on average, the yield of four varieties of fruit without paper wrapping showed a lower index compared to those wrapped in paper. On average, according to the varieties, when the fruits were planted with white paper bag - 118.5 kg/bush, yellow paper bag - 123.5 kg/bush, and black paper bag - 123.0 kg/bush (Table 1).

The effect of different paper bags on the yield of apple fruits, kg/bush

Varietal name	The fruits are not wrapped in a bag	Fruits are wrapped in bags		
		White paper bag	A yellow paper bag	A black paper bag
It pinked	80	87	84	83
Gala	100	123	125	120
Starkrimson	153	148	148	145
RedChif	124	116	137	144
Average	**114,3**	**118,5**	**123,5**	**123,0**

Summary. Taking into account the production of apple fruits on the basis of resource-efficient technologies, it is considered appropriate to use special paper bags for fruits in different soil and climate regions of the republic. The paper bags and bags put on the fruits are different from the unused fruits, and they all meet the standard requirements. In this case, they should be of the same color and the color of paper bags during storage one after the other of the fruits.

Paper bags partially affect the size of fruits. The results of previous research can be an example of this. It was observed that the size of the fruits wrapped in white paper bags was slightly increased, and the color of the fruits was uniformly colored when they were wrapped in yellow bags. In Karakopcha, it was found that the fruits were slightly discolored, and they did not turn red. Fruit growth in black paper bags was slightly slower than in white and yellow paper bags.

As a result of covering apple fruits with different types of bags, their chemical composition changed, as well as the quality of the fruit improved. According to researches, the amount of pears is reduced due to the effect of black pods, and the sourness of the fruits is increased in yellow pods.

The possibility of preventing the spread of pesticide residues in the environment, in the current state of organic production, and the possibility of growing apples and fruits without the use of pesticides, can be clearly seen from the use of paper bags.

Because all the pests that fall on the fruits are wrapped in paper bags at the beginning of the growing season, as well as when the fruits appear in the form of a cave, and they are not removed from the paper during the ripening period, the appearance of insects in the fruits has not been observed.

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