

UDC: 634.22(497.2)
original scientific paper



Acta Agriculturae Serbica, Vol. IX, 17 (2004) 73-76

Fruiting wood habit of some plum cultivars

Valentina Bozhkova

Fruitgrowing Institute, Plovdiv, Bulgaria

Abstract: The objective of the present study was to describe fruiting wood habit of five plum cultivars. The characteristics were made by accounting the number of fruits on different old wood during three years- 2002-2004. The results showed that Tuleu timpuriu and Renclod Hramovih have the highest percentage of fruiting on 1-year old wood, in comparison with other three cultivars. Cacanska leptica and Tuleu timpuriu bearing predominantly on 2 and 3-years old wood, while Stanley and Malvazinka distribute their bearing steady on different old wood.

Key words: fruiting wood, habit, plum cultivars.

Introduction

The plum growing in Bulgaria has a long tradition, and this species takes up a second place after the apple in Bulgaria in terms of orchard area and production. In the 90's the following cultivars were mainly planted: Stanley, Cacanska leptica, Tuleu timputiu, Cacanska najbojia, Ruth Gerstetter, Green Gage, Mirabelle de Nancy and some other cultivars tolerant to PPV. To apply proper pruning and training specialists need of knowledge about fruiting cultivars habit. The aim of this investigation was to observed these characteristics in the plum cultivars Stanley, Cacanska leptica, Tuleu timpuriu, Malvazinka and Renclod Hramovih.

Materials and Methods

The investigation was conducted in the period 2002-2004 in the orchard of the Fruit-Growing Institute – Plovdiv. The trees had been planted in 1996 at a distance 6,0 x 4,5m. . The experimental plantation was cultivated without pruning last 3 years. The reproductive characteristics and bearing habit have

been followed by the methods of Nedev et al. (1979), Lespinasse (1977, 1980) and Descriptor of IBPGR, FAO (1982) for apples species (item 6.2.6.). The percentage of fruit on different old wood was reported by accounting the number of fruits on 3 skeleton branches per tree of 3-4 trees, for each cultivar.

Results and Discussion

According to the data in Table 1 cultivars Tuleu timpuriu and Renclod Hramovih fruiting on 1-year old wood between 15 and 19 % respectively.

Table 1. Bearing habit of plum cultivars

Cultivar	Harvested fruits on different old wood (in %)				
	1- year old	2 -years old	3- years old	4- years old	5-years old
Tuleu timpuriu	15	25	33	19	6
Renclod Hramovih	19	23	24	18	11
Cacanska leptica	7	31	38	14	10
Malvazinka	3	17	34	23	22
Stanley	6	22	16	36	17

Cacanska leptica and Tuleu timpuriu bearing predominantly on 2 and 3-years old wood - more than 58%, like apple type III (Descriptor of IBPGR, FAO (1982) for apples species). So to get high and regular production is very important to keep the growth of this cultivars trees. The opposite Stanley and Malvazinka distribute their bearing steady on the skeleton branches. Between 17 and 22 % of fruits are on 5-year old wood. This type of bearing may to compare with I apple type. The results are interesting because they showed - this two cultivars can stand stronger pruning without decreasing bearing in the same year, and on the other hand, they have good potential to produce even without annual pruning. During the economical changes in Bulgaria (after 1989) some orchards were neglected for a short time, but we impressed good production on cultivar Stanley. It is not mean that plum trees should be grow without pruning. The opposite, this results only can help fruit producers to chouse right type of pruning depending of fruiting wood habit.

Conclusions

The investigations showed that the highest percentage of fruit harvest on 1-year old wood have cultivars Tuleu timpuriu and Renclod Hramovih. Cacanska leptica and Tuleu timpuriu bearing predominantly on 2 and 3-years old wood, while Stanley and Malvazinka distribute their bearing steady on the skeleton branches.

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SVOJSTVA PLODNOSTI STABLA KOD NEKIH SORATA ŠLJIVE

- originalni naučni rad -

Valentina Bozhkova

Institut za Voćarstvo, Plovdiv, Bugarska

Rezime

Cilj ovog izučavanja je opis osobina plodnosti kod pet sorata šljive. Osobine su definisane na bazi broja plodova na starim stablima tokom 2002-2004. god. Rezultati istraživanja pokazuju da Tuleu timpuriu i Renclod Hramovih imaju najveći procenat plodnosti kod jednogodišnjih stabala u odnosu na ostale sorte. Čačanska lepotica i Tuleu timpuriu imaju plodnost uglavnom na dvogodišnjim i trogodišnjim stablima, dok Stanley i Malvazinska pokazuju stalnu plodnost na različitim vrstama starijih stabala šljive.