Fruiting wood habit of some plum cultivars

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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 lepotica 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 lepotica, Tuleu timpuriu, 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 lepotica, 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 Renklod Hramovih fruiting on 1-year old wood between 15 and 19 % respectively.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Harvested fruits on different old wood (in %)</th>
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<tbody>
<tr>
<td></td>
<td>1-year-old</td>
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<tr>
<td>Tuleu timpuriu</td>
<td>15</td>
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<td>Renclod Hramovih</td>
<td>19</td>
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<tr>
<td>Cacanska lepotica</td>
<td>7</td>
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<tr>
<td>Malvazinka</td>
<td>3</td>
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<td>Stanley</td>
<td>6</td>
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</tbody>
</table>

Cacanska lepotica 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 1 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 choose right type of pruning depending of fruitering 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 lepotica 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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