SELECTION OF SOME AUTOCHTHONOUS PLUM CULTIVARS SEEDLING ROOTSTOCKS IN THE REGION OF NORTH MONTENEGRO

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Abstract

Plum is the major fruit species in the area of North Montenegro. Over a long period of growing in this region, autochthonous cultivars adapted, and have been achieving satisfactory results, despite poor growing conditions. A study conducted over a period of tree years in North Montenegro region included in situ identification of autochthonous plum cultivars. Observation and recording of their phenological and pomological traits were performed using IBPGR and UPOV methodologies.

Eighteen cultivars derived from *Prunus domestica* L. and two cultivars derived from *P. insititia* L. were identified. Flowering started between 26th March and 12th April and fruit ripening between 13th July (Petrovača) and 18th September (Trnovača). Fruit weight ranged from 6.65 ± 0.235 to 53.88 ±. 0.654 g and stone weight from 0.16 ± .0.003 to 2.20 ± 0,711g. The cultivars were classified as being extremely small in terms of fruit size, except for cultivars Crvena durgulja (small fruit size). Rounded fruit shape and light green ground color were dominant. Skin color ranged from amber to black. Yellow green was a dominant flesh color and medium flesh firmness predominated. The fruits of the above cultivars could be processed, particularly into plum brandy, or they could be used fresh or dried.

The selected plum cultivars can be used both in breeding programs and as rootstocks. The study was made to assess the performance of autochthonous plum cultivars seedlings as rootstocks. Selection process consisted of tree stages: a) initial selection from the population and pomological characterization, b) evaluation of seedling rootstocks, and c) evaluation of scions. The considerable genetic diversity was detected between seedling progenies of different autochthonous plum cultivars especially concerning rootstock vigor, branching and uniformity. Autochthonous plum cultivars rootstocks have significantly influenced tree size of Čačanska rodna plum, respectively, including plant height and stem diameter.

***Key words**: Fruit, genetic bases, germplasm, Prunus domestica L., Prunus insititia L.*