

POMOLOGICAL AND CHEMICAL CHARACTERISTICS OF FRUIT OF SOME SOUR CHERRY CULTIVARS GROWN IN THE COUNDITIONS OF BIJELO POLJE

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Abstract

This study described some pomological and chemical traits of fruits in 6 sour cherry cultivars (Rexelle, Heimanns Konservenweichsel, Heimanns Rubin, Kelleris 14, Čačanski Rubin and Oblačinska) grown in ecological conditions of Bijelo Polje in the period from 2010 to 2012. The study focused on few segments. Very first one included recording of the phenological traits - first flowering, full flowering, end of flowering and harvest date. The other segment comprised pomological and chemical characteristics of fruit [fruit weight (g), stone weight (g), percentage of flesh (%), petiole length (mm), total soluble solids (%) and total acidity (%)].

Phenological characteristics were determined as below: the beginning of flowering was recorded when at least 5% of the flowers bloomed; full flowering was accepted when at least 80% of the flowers bloomed, the end of flowering was determined when 90% of the flowers bloomed and corollas began to fall off, and harvest date was established when the fruits were sufficiently colored and soft. Fruit weight and stone weight were determined by measuring by the electric scale Metler 1200. Petiole length were measured by Vernier scale. Total soluble solid content was determined by refractometer. The acidity was measured by titration with 0.1 N NaOH.

The earliest flowering was recorded in Oblačinska sour cherry and the latest in Kelleris 14. Except Oblačinska sour cherry and Čačanski rubin, all the other cultivars ripened in the first decade of July. The values for fruit weights ranged from 2.9 ± 0.28 g to 5.6 ± 0.36 g, stone weight ranged from 0.27 ± 0.07 g to 0.41 ± 0.05 mm and petiole length ranged from 29.1 ± 2.14 mm to 37.1 ± 2.19 mm. The values for fruit total soluble solid contents ranged from $13.71\% \pm 0.35$ to $15.00\% \pm 0.44$ and titrable acid contents ranged from $1.49\% \pm 0.3$ to $1.71\% \pm 0.5$.

Agro-ecological conditions of Bijelo Polje and its surrounding environment fully correlate to the intensive sour cherry production, hence the agro-biological characteristics of researched cultivars can be demonstrated in an economically justified manner.

Key words: Sour cherry, Cultivar, Chemical characteristics, Pomological characteristics.