



# THE BOOK OF ABSTRACTS

*V Balkan Symposium on Fruit Growing*  
*June 18-21, 2023*  
*Zagreb, Croatia*



**University of Zagreb Faculty of Agriculture  
Department of Pomology**



# **V Balkan Symposium on Fruit Growing**

**The Book of Abstracts**



**June 18-21, 2023, Zagreb, Croatia**

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## THE LATER, THE BETTER? DIFFERENCES IN FIELD PERFORMANCE AND FRUIT QUALITY TRAITS IN NEWLY INTRODUCED ITALIAN SHORT-DAY STRAWBERRY CULTIVARS

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### Abstract

The aim of this study was to compare newly introduced mid- and late-ripening strawberry cultivars ('Arianna', 'Tea' and 'Federica') with the commercially important cultivar 'Joly' to identify the best-performing ones for extended market supply. A field study was carried out in a strawberry plantation situated in the municipality of Šid (Serbia), in the period of 2021–2022. The orchard was planted in July 2020 in double rows on beds covered with black polyethylene foil. Cultivars were evaluated for their flowering and ripening time, yield components, and plant growth, as well as for biometrical fruit traits (fruit weight, index of fruit shape) and nutritional value (the content of soluble solids - SSC, total acids - TA, vitamin C, total anthocyanins –TACY, total phenolics - TPC and total antioxidant capacity - TAC). This research revealed that the earliest average beginning of ripeness was recorded in cultivar 'Arianna' (May 19), while the latest was in cultivar 'Federica' (May 29). The number of branch crowns and leaves per plant was significantly lower in cultivars 'Tea' and 'Federica' compared to the cultivar 'Joly', whereas no significant differences in plant height were observed among the tested cultivars. 'Tea' was superior in terms of highest productivity (947 g/plant and 4.17 kg/m<sup>2</sup>), followed by the cultivar 'Joly' (865 g/plant and 3.81 kg/m<sup>2</sup>). Contrary to this, the lower yield was found in the two other tested cultivars 'Federica' (698 g/plant and 3.07 kg/m<sup>2</sup>) and 'Arianna' (773 g/plant and 3.40 kg/m<sup>2</sup>). The most productive cultivar 'Tea' had the largest fruit weight (29.7 g) and it was also characterized by the lowest content of TA, TACY, and TPC (0.56%, 18.5 mg PG-3-G eq 100 g<sup>-1</sup> FW and 0.72 mg GA eq g<sup>-1</sup> FW, respectively). Significantly higher amounts of soluble solids were found in all newly introduced cultivars in comparison to the standard cultivar 'Joly' (9.15%). The differences in TAC levels between 2021 and 2022 were significant showing higher values in the second year of trial with the dominance of cultivar 'Arianna' (1.24 mg AsA eq g<sup>-1</sup> FW).

*Keywords:* ripening time, plant growth, productivity, fruit size, nutritional value