

Applying Organic Natural Fertilizer to 'Orange Rubis' and 'Farbaly' Apricot Growth, Yield and Fruit Quality

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Abstract : Biostimulants are known as the organic fertilizers that can be applied in agriculture in order to increase nutrient uptake, growth and development of plants and improve quality, productivity and the environmental positive impacts. The aim of this study was to test the effects of some commercial biostimulants products (Bion® 50 WG, Hendophyt® PS, Ergostim® XL and Radicon®) on vegeto-productive behavior and qualitative characteristics of fruits of two emerging apricot cultivars (Orange Rubis® and Farbaly®). The study was conducted during the spring-summer season 2015, in a commercial orchard located in the agricultural area of Cerignola (Foggia district, Apulian region, Southern Italy). Eight years old apricot trees, cv 'Orange Rubis' and 'Farbaly', were used. The experimental data recorded during the experimental trial were: shoot length, total number of flower buds, flower buds drop and time of flowering and fruit set. Total yield of fruits per tree and quality parameters were determined. Experimental data showed some specific differences among the biostimulant treatments. Concerning the yield of 'Orange Rubis', except for the Bion treatment, the other three biostimulant treatments showed a tendentially lower values than the control. The yield of 'Farbaly' was lower for the Bion and Hendophyt treatments, higher for the Ergostim treatment, when compared with the yield of the control untreated. Concerning the soluble solids content, the juice of 'Farbaly' fruits had always higher content than that of 'Orange Rubis'. Particularly, the Bion and the Hendophyt treatments showed in both harvest values tendentially higher than the control. Differently, the four biostimulant treatments did not affect significantly this parameter in 'Orange Rubis'. With regard to the fruit firmness, some differences were observed between the two harvest dates and among the four biostimulant treatments. At the first harvest date, 'Orange Rubis' treated with Bion and Hendophyt biostimulants showed texture values tendentially lower than the control. Instead, 'Farbaly' for all the biostimulant treatments showed fruit firmness values significantly lower than the control. At the second harvest, almost all the biostimulants treatments in both 'Orange Rubis' and 'Farbaly' cultivar showed values lower than the control. Only 'Farbaly' treated with Radicon showed higher value in comparison to the control.

Keywords : apricot, fruit quality, growth, organic natural fertilizer

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