

THE IMPACT OF THE BUD LOAD ON PRODUCTION AND EFFICIENCY INDICES IN DIFFERENT GRAPEVINE CULTIVARS USED FOR WINE PRODUCTION

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Abstract

The experiment for the determination of the optimal bud load for the grapevine cultivars for wine production was conducted during the period between 2010-2012 in Dushk municipality, part of Lushnja district, in a farm of circa 2 ha. The study object was the impact of the bud load in the beginning of the vegetation, on the production performance, on the sugar percentage and the economic efficiency for the cultivars Sangiovese, Black Shesh and White Shesh. The experiment was conceived in four variants x three repetitions. The variants were V1=45 buds/plant, V2=16 buds/plant, V3=24 buds/plant and V4=32 buds /plant. The two year data proved that, for the cultivar Sangiovese, the highest percentage of fruit scions results in V4 = 32 buds /plant or 85.1%, for the cultivar Black Shesh in V3 = 24 buds/plant or 89.5% and for the cultivar White Shesh in V3 = 24 buds/plant or 74.7%. The optimal KPA (coefficient of absolute productivity) values for the cultivar Sangiovese are obtained in V4=1.89, for White Shesh in V3=1.64 and for Black Shesh in V2=1.86. By increasing the bud load from 16 to 32 buds/plants, the sugar percentage decreases by 0.4% in Sangiovese, 0.8 in Black Shesh and 1.3% in White Shesh. The highest income is obtained in the variants V3 and V4 where the load is 24 and 32 buds/plant. The increase of the load beyond this level, in the Sangiovese cultivar is accompanied with an increase by 43.7% of the income, at the Black Shesh with 28.3% and at White Shesh with 21.9%. The analysis of variance for the productivity and income for unit area indices proves statistical differences between the variants. The optimal bud load for the Sangiovese cultivar is 121 216 buds/ha, while for the cultivar White Shesh and Black Shesh is 90 888 buds/ha. This load combines perfectly the productivity indices with the sugar percentage and the net income in the interest of the farmer.

Keywords: *bud, load, cultivar, variant, scion*