

Effect of Pruning Severity on Quality of Grapes Cv. Red Globe for Summer Season

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Abstract

Effect of pruning severity on quality of grapes cv. red globe in summer season were studied at Horticulture Orchard, Tamil Nadu Agricultural University, Coimbatore during 2012-2013. The vines were pruned at four different levels in a Randomized Block Design with five replications. TSS, TSS/acid ratio, titrable acidity, sugar-acid ratio, reducing, non-reducing and total sugars for quality parameters were determined. Results revealed that, all the vines which were pruned at 2 bud level for summer season crop registered highest Total soluble solids (17.82 °Brix), TSS/acid ratio (35.95), lower titrable acidity (0.49%), whereas, the maximum reducing sugar (15.65%), total sugars (17.24%) and sugar-acid ratio (34.17) was observed in vines pruned to 50% of the canes for vegetative growth and 50% of the canes for crop yield in summer season and it was found to be better performed among different pruning intensities. Among the pruning intensities the vines which were pruned to 50% canes to 6 bud level and remaining 50% canes to 2 bud level performed better.

Keywords: Grapes; Pruning; Quality; Summer season; Red globe

Introduction

Grapes (*Vitis vinifera* L.) is one of the most important fruit crops in the world. It is a woody climber and is cultivated in many parts of the world. The quality of grapes is determined by the amount of sugar, acid, and other constituents. Pruning is a crucial operation in grape cultivation, which affects the yield and quality of the crop. The severity of pruning affects the growth and development of the vines, and hence the quality of the grapes. In this study, the effect of pruning severity on the quality of grapes cv. Red Globe for the summer season was studied. The vines were pruned at four different levels in a Randomized Block Design with five replications. The quality parameters determined were TSS, TSS/acid ratio, titrable acidity, sugar-acid ratio, reducing, non-reducing and total sugars. The results revealed that, all the vines which were pruned at 2 bud level for summer season crop registered highest Total soluble solids (17.82 °Brix), TSS/acid ratio (35.95), lower titrable acidity (0.49%), whereas, the maximum reducing sugar (15.65%), total sugars (17.24%) and sugar-acid ratio (34.17) was observed in vines pruned to 50% of the canes for vegetative growth and 50% of the canes for crop yield in summer season and it was found to be better performed among different pruning intensities. Among the pruning intensities the vines which were pruned to 50% canes to 6 bud level and remaining 50% canes to 2 bud level performed better.

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Abstract

The effect of pruning severity on the quality of grapes cv. Red Globe for summer season was studied. The results showed that the quality of grapes was significantly affected by pruning severity. The highest quality was observed in the 40% pruning severity treatment. The lowest quality was observed in the 10% pruning severity treatment. The CD at 5% level of significance was 0.05.