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RESPONSE OF QUALITATIVE AND QUANTITATIVE CHARACTERISTICS OF TWO TABLE GRAPE CULTIVARS TO DIFFERENT CATCHMENTS SYSTEMS AND SUPER-ABSORBENT TREATMENT

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Management of precipitation and rain water harvesting in dry areas, is one of the effective measures in water use efficiency. This study was conducted in order to optimum utilization of runoff during rainfall, inefficient use of land and prevent soil erosion in slopping land. An experiment was arranged in a split plot design with catchments systems as the mean factor at three levels: (1-Semi circle shape 2 –Lozenge shape 3-Control), and sub-plots superabsorbent treatment (A200) in five levels (0, 300, 320, 340 , 360 and 380 g/vine) on Askari and Rotabi cultivars in 3 replication in Yasuj region. The results showed that the effect of catchments systems, superabsorbent treatment and cultivar on all quantitative traits were significant. Due to the yield is important as quantity index, this index in catchment systems and the application of super absorbent 360 and 380 grams per vine was increased compared to control also in the Rotabi cultivar was more than Askari cultivar. Catchment systems didn't have significant effect on qualitative characteristics but effects of super absorbent treatment and cultivar on the qualitative characteristics such as TSS, TA and TSS/TA ratio were significant and the highest TSS/TA ratio was observed in the control treatments that it had similar effects to other treatments. However, according to this present study, the application of semi-circular and lozenge catchment systems with the use of super absorbent 360 to 380 grams per vine, in order to create balanced growth, improving quality and quantity of Rotabi and Askari cultivars in the yasuj area is recommended.

Keywords: Askari, Catchment system, rainfed grape, Super absorbant, Quality, Qunity.