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# Timing of Cluster Thinning on Quality of Montepulciano Grapevines in High Altitude Regions of Santa Catarina State - Brazil

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The objective of this study was to determine the best time to perform the cluster thinning. The experiment was conducted on Quinta da Neve vineyard in São Joaquim (28°17' S, 49°56' W, altitude 1350m), Santa Catarina State, Brazil, during 2008/2009 season. The cultivar evaluated was Montepulciano, the dates of cluster thinning were February 09, twenty one days before change in veraison, March 02, during veraison and March 16, day after veraison. The estimated production was 8 ton/ha<sup>-1</sup>. The experimental design was randomized blocks, with three blocks and ten plants per plot. The variables analyzed were 50 berries weight, berry diameter, total soluble solids, pH, acidity, total polyphenols, anthocyanins, tannins and color intensity. Data was submitted to analysis of polynomial regression. For the variables total polyphenols, berry diameter and acidity the maximum efficiency point calculated was obtained approximately three days before veraison. The thinning made before veraison promoted best results for variables anthocyanins and total soluble solids. The timing of cluster thinning did not affect 50 berries weight, tannins, pH and color intensity.