

The Effect of Different Training Systems on Vegetative and Productive Performance of Apple Trees Cultivar 'Maxigala'- in Southern Brazil

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Fruit production has an important social and economic role in some regions. Apple is the most important temperate climate fruit in Brazil, the growers are concentrated in the Southern states of the country. Different orchard training systems are developed around the world for apples trying to be more efficient and profitable. The aim of this work was to observe orchard behavior when trained to different training systems. An experiment was implanted in the year 2010 at Vacaria-RS (-28,44 S; -50,85 W), with three different training systems: Tall Spindle, Vertical Axis and Solaxe, with cultivar Gala (Clone Maxi Gala) grafted on M.9 rootstock. Tall spindle is a simple system that requires just few number of rules to train, that makes an easier system to implant. Solaxe is called the centrifugal system, because of the way shoots are trained and bud extinction makes the productive buds produce at the centrifugal area off the plant. Vertical axis is the traditional system used in Vacaria orchards. The evaluations on this trial refer to the seasons of 2013/14, 2014/15 and 2015/16. The Vertical Axis system is the most vigorous system, and the least demanding in labor for training, as well as to bend down branches. Data show that training system didn't have effect on fruit quality parameters and fruit diameter. The most productive system in fourth leaf was Solaxe, but all have a similar cumulative yield on the two years evaluated.

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