MANAGEMENT OF IRRIGATION ON AVOCADO TREES WITH THE DENDROMETERS

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Dendrometers are sensors that measure micro-variations in trunk and shoot diameters. Since variations in those diameters depend on two factors, internal organ growth and transpirational water losses, continuous changes in diameter can be observed throughout the day, reaching a maximum and a minimum value every 24 hours. This type of variation is called contraction and abnormal contractions are indicative of some degree of stress.

Several years of experience managing avocado orchards in Israel and, in the last months, in the Axarquía region (Malaga), lead us to think that this is a good system to avoid water stress due to water shortage and, at the same time, excess of water that will not translate into an improved plant performance. In short, optimizing irrigation.

Furthermore, we conclude that the use of this technique does not provide clue parameters but it will be the study of plant performance which will indicate anomalies in diameter contractions.