



On the tree stability risk

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There is growing interest in developing models for predicting how root anchorage and tree bracing could influence tree stability. This work presents the results of different experiments aimed at evaluating the mechanical response of plate roots to pulling tests. Pulling tests have been executed with increasing soil water content and soil of different texture. Different types of tree bracing have been examined for evaluating its impact on plant stiffness. Root plate was anchored with different systems for evaluating the change in overturning resistance. The first results indicate that soil water content contributed to modify both the soil cohesion and the stabilizing forces. Wind effect, slope stability and root reinforcement could be better quantified by means of such a results.