

## **Impact of summer conditions of growth (drought, defoliation, ...) on freezing tolerance of trees**

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Low temperature represents one of the most important environmental constraints limiting plant productivity and the distribution.

For freezing tolerance, winter starch mobilization resulting in sucrose increase was an essential step on the way to cold hardiness.

The efficiency hardening may change with the summer conditions of growth. (e.g., Late July defoliation)

The aim of this study is to characterize the freezing tolerance and hardening status of different tissues and organs in relation to their carbohydrate status as induced by contrasted summer conditions of growth (drought,...).