

# **Cold Tolerance Evaluation in *Coffea* sp. Impact on the Photosynthetic Apparatus and the Control of Oxidative Stress Assessed by Gene Expression Analysis**

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## **SUMMARY**

Among *Coffea* sp., some differential ability to cold acclimation has been observed. During previous work of our group, cold acclimation in *Coffea* sp. was associated to the maintenance of membrane function and the strengthening of control mechanisms against oxidative stress (Campos et al., 2003; Ramalho et al., 2003). In order to understand the molecular impacts and the mechanisms that allow plants to cope with chilling exposure, the expression of 24 genes related to oxidative stress control and photosynthesis (Fernandez et al., 2004) has been studied by means of semi-quantitative RT-PCR. From the 24 genes, 18 seem to be related to cold-response, 10 of which might be involved in cold tolerance mechanisms. Here we present preliminary data concerning the expression analysis of three genes, *caCP24*, *cacytf*, and *cadhar*, by means of qRT-PCR.