

The expression of VvPHYA and VvPHYB transcripts is differently regulated by photoperiod in leaves and buds of grapevines

Pérez, Francisco J.

Kühn, Nathalie

Ormeño-Nuñez, Juan

Rubio, Sebastián

Light signals perceived by phytochromes (Phys) and cryptochromes (Crys) play key roles in plant growth and development and in photoperiod dependant process such as flowering, tuberization, seasonal growth cessation and dormancy. The integration of the light signals with the endogenous circadian oscillator provides plants with a mechanism to monitor changes in photo-period or day-length. In a recent report, we established that in *Vitis vinifera* L. cv Thompson Seedless, photoperiod drives the entrance of buds into endodormancy (ED) and modifies the expression of VvPHYA and VvPHYB transcripts in grapevine leaves, suggesting that both VvPHYs could play crucial roles in SD-induced transition of bud into ED. Here, we aimed to establish whether the transition of grapevine buds into ED is a mere consequence of a decision taken in the leaf or whether the bud responds by itself to photoperiod. Results show that in defoliated grapevine canes, bud-ED development is delayed compared with non-defoli