



Sugars are under light control during bud burst in *Rosa* sp.

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Résumé en anglais	<p>Bud burst in certain species is conditioned by the luminous environment. With roses, the requirement for light is absolute, and darkness totally inhibits bud burst. Few studies have looked into understanding the action of light on the physiological bud burst processes. Here, we show the impact of light on certain components of glucidic metabolism during bud burst. Measurements were taken on decapitated plants of <i>Rosa hybrida</i> L. 'Radrass' exposed either to darkness, white, blue or R light. Results show that a mobilization of bud and the carrying stem sucrose reserves only takes place in light and accompanies the bud burst. Furthermore, the activity of the RhVI vacuolar acid invertase which contributes to the breakdown of sucrose in the buds, as well as the transcription of the RhVI gene, is reduced in darkness, although it is strongly stimulated by light. The same analysis concerning the RhNAD-SDH gene, coding an NAD-dependent sorbitol dehydrogenase, shows, on the contrary, a strong induction of its transcription in darkness that could reflect the use of survival mechanisms in this condition.</p>
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Liens

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