



Desiccation tolerance: From genomics to the field

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Résumé en anglais Desiccation tolerance is defined as the ability to survive the removal of all, or almost all the cellular water without irreversible damage. It confers to dried organisms the ability to survive extreme conditions of the environment and to stay alive in a suspended animation for long periods of time. The biotechnological potential of anhydrous biology has been recognized for more than 60 years. With the fast development of "omics" technologies, it is now possible to better appreciate the biotechnological promises that can be made from the understanding of desiccation tolerance. This review will discuss the impact of post-genomics tools on identifying genes or gene products, and will give a comprehensive overview of the agronomical and biotechnological applications. We propose the term desicomics to define the approach consisting of combining "omics" approaches to address the specific issues associated with the dry state.

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