Title Mechanisms of fruit ripening: retrospect and prospects

Authors F.B. Flores, M.T. Sanchez-Ballesta, M. Bouzayen, A. Latché and J.C. Pech

Citation ISHS Acta Horticulturae 712: 317-324. 2006.

Keywords respiration climacteric; ethylene synthesis; ethylene perception; ripening-regulated genes; genetics of

fruit ripening; fruit genomics

## **Abstract**

This paper aims at giving an overview of the progress made during the last decades on the mechanisms of fruit ripening and to present the most recent trends and prospects for the future. Important steps forward will be presented (respiratory climacteric, ethylene biosynthesis and action, isolation of genes involved in the ripening process, biotechnological control of fruit ripening....) by showing how the judicious exploitation of the data published previously, the strategies, methodologies and plant material adopted have been crucial for the advancement of knowledge. Opportunities of co-operation between geneticists and post-harvest physiologists as well as new possibilities offered by genomics, proteomics and metabolomics for the understanding of the fruit ripening process and the development of sensory quality will be developed.