

Pech, J.C., Latché, A., Balagué, C. (ed.): **Cellular and Molecular Aspects of the Plant Hormone Ethylene**. (Current Plant Science and Biotechnology in Agriculture, Vol. 16). - Kluwer Academic Publishers, Dordrecht - Boston - London 1993. 385 pp.

The volume comprises presentations from the international meeting on Cellular and Molecular Aspects of Biosynthesis and Action of Plant Hormone Ethylene held last year in Agen, France. Almost half of the contributions deal with some aspects of ethylene biosynthesis. These are included in the first chapter of the book Ethylene Biosynthesis and Fruit Ripening. The topics most often deal with are multiple genes coding for ACC synthase, isolation and characterisation of ACC oxidase, the role of the expression of genes for both these enzymes in fruit ripening and use of molecular genetic approaches as antisense technique to manipulate fruit ripening. All well known laboratories in this field were represented (S.F. Yang, H. Imaseki, A. Theologis, D. van der Straeten, P. John, J.C. Pech, D. Grierson). Thus, this chapter brings a really up to date knowledge on enzymes involved in ethylene biosynthesis, on genes coding for them and on the regulation of their expression and on their role in fruit ripening. The second chapter Ethylene Action includes only 5 contributions, two of them devoted to binding sites for ethylene (M.A. Hall), one to the effect of buckminsterfullerenes on ethylene release (Y.Y. Leshem), one to the antiethylene effects of diazacyclopentadiene (E.C. Sisler) and the last one to sensitivity to ethylene and senescence (W.G. van Doorn). The third chapter Stress Ethylene, includes several reports on stress ethylene in the plant-pathogen interaction, in the response to heavy metals, to flooding and other stress factors. The fourth chapter is devoted to Flower Senescence and Abscission and most of the contributions describe changes in gene expression during these processes. The last chapter Growth, Development comprises several reports on the role of ethylene in some developmental events, *e.g.* in somatic embryogenesis, *in vitro* regeneration systems, rooting.

It is quite clear from what has been said that the volume brings a useful summary of the latest knowledge on ethylene biosynthesis, its mechanism of action and its physiological effects. It can be recommended not only to researchers in the field, but also to advanced students.

I. MACHÁČKOVÁ (Praha)