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VI. Genes Controlling Vegetative Growth (Regeneration) and Monocarpic Senescence VII. Regulatory Genes and Intracellular Signaling; VIII. Conclusions; References; Chapter 6. Senescence and Genetic Engineering; I. Introduction; II. The Relationship of Cytokinins and Senescence; III. The Relationship of Ethylene and Senescence; IV. Concluding Remarks; References; Chapter 7. Proteolysis; I. Introduction; II. Selective Hydrolysis of Peptide Bonds; III. Proteolytic Activities in Plants; IV. Proteolysis in Relation to Cell Death; V. Regulation of Protein Catabolism; VI. Conclusions; References
Chapter 8. Ethylene Signaling in Plant Cell Death I. Introduction; II. Ethylene Biosynthesis Pathways; III. Temporal and Spatial Regulation of Ethylene Biosynthesis; IV. Ethylene Signal Transduction Pathway; V. Ethylene Cross Talk with Other Plant Hormones; VI. Protease Involvement and Ethylene Biosynthesis in PCD; VII. Hormonal Regulation of Plant PCD; VIII. Perspective; References; Chapter 9. Jasmonates - Biosynthesis and Role in Stress Responses and Developmental Processes; I. Introduction; II. Jasmonates and Related Compounds
III. LOX-derived Compounds and the Biosynthesis of Octadecanoids and Jasmonates

Sommario/riassunto

Programmed cell death is a common pattern of growth and development in both animals and plants. However, programmed cell death and related processes are not as generally recognized as central to plant growth. This is changing fast and is becoming more of a focus of intensive research. This edited work will bring under one cover recent reviews of programmed cell death, apoptosis and senescence. Summaries of the myriad aspects of cell death in plants Discussion of the broadest implications of these disparate results A unification of fields where there has been no cross talk