

Crop Biotechnology

Genetic Modification and Genome Editing

Plant molecular biology came to the fore in the early 1980s and there has been tremendous growth in the subject since then. The study of plant genes and genomes, coupled with the development of techniques for the incorporation of novel or modified genes into plants, eventually led to the commercialisation of genetically modified (GM) crops in the mid-1990s. This was seen as the start of a biotechnological revolution in plant breeding. However, plant biotechnology became one of the hottest debates of the age and, in Europe at least, has been mired in controversy and over-regulation. Nevertheless, recent years have seen further technological innovation in the development of a range of techniques that enable scientists to make specific changes to target genes. These techniques have been called genome editing, and are described in detail in this edition.

Through a detailed history and development of the science and techniques that underpin crop biotechnology, this title is concise, comprehensive and readable. As well as new sections on genome editing, this edition includes expanded sections on current GM crops and future developments in plant biotechnology, and updated sections on techniques, legislation and the GM crop debate.

The previous edition of this book, titled *Genetically Modified Crops, 2nd Edition*, was published in November 2011.

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