DESCRIPTION

First discovered as fungal metabolites, the gibberellins were recognised as plant hormones over 50 years ago. They regulate reproductive development in all vascular plants, while their role in flowering plants has broadened to include also the regulation of growth and other developmental processes.

This timely book covers the substantial and impressive recent advances in our understanding of the gibberellins and their roles in plant development, including the biosynthesis, inactivation, transport, perception and signal transduction of these important hormones. An introductory chapter traces the history of gibberellin research, describing the many discoveries that form the basis for the recent progress. The exciting emerging evidence for the interaction of gibberellin signalling with that of the other hormones is critically evaluated. The occurrence of gibberellins in fungal, bacterial and lower plant species is also discussed, with emphasis on evolution. Manipulation of gibberellin metabolism and signal transduction through chemical or genetic intervention has been an important aspect of crop husbandry for many years. The reader is presented with important information on the advances in applying gibberellin research in agriculture and horticulture.

*Annual Plant Reviews, Volume 49: The Gibberellins* is an important resource for plant geneticists and biochemists, as well as agricultural and horticultural research workers, advanced students of plant science and university lecturers in related disciplines. It is an essential addition to the shelves of university and research institute libraries and agricultural and horticultural institutions teaching and researching plant science.
ABOUT THE AUTHOR

**Professor Peter Hedden** graduated with BSc (1969) and PhD (1973) degrees in chemistry from the University of Bristol. After post-doctoral positions at the University of Göttingen, Germany, with Jan Graebe and at UCLA, USA, with Bernard Phinney, he joined East Malling Research Station, in Kent, United Kingdom in 1981. He moved to Long Ashton Research Station (LARS), Bristol, UK, in 1984 and then to Rothamsted Research after the closure of LARS in 2003. His main research interest throughout his career has been the biosynthesis of the gibberellin plant hormones, working initially on delineating the biosynthetic pathways, then on the isolation and characterization of the biosynthetic enzymes and latterly on their regulation by developmental and environmental factors. Current research includes exploiting the gibberellin biosynthesis and signal transduction pathways for the introduction of desirable traits into crop species.

**Dr Steve Thomas** graduated BSc from the University of Southampton in 1991. He gained a PhD in biochemistry at Bristol University in 1996. In the same year he started postdoctoral work at Long Ashton Research Station where he spent four years investigating the regulation of gibberellin biosynthesis and inactivation in sugar beet and Arabidopsis. He then spent three and a half years in Tai-ping Sun’s Laboratory at Duke University dissecting the signalling pathways controlling gibberellin-mediated degradation of DELLA proteins in Arabidopsis. In 2004, he returned to the UK to work with Dr Andy Phillips and Prof. Peter Hedden in the Hormone Signalling Group at Rothamsted Research as a Senior Scientist. He is currently a member of the 20:20 Wheat® Institute Strategic Programme at Rothamsted Research, with his research focused on improving grain yields in wheat by manipulating plant hormone signalling.

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