





Special Issue Reprint

# Advances in Developmental Biology in Tree Fruit and Nut Crops

www.mdpi.com/books/reprint/10854

Edited by Zhaohe Yuan Bo Li Yujie Zhao

ISBN 978-3-7258-3799-1 (Hardback) ISBN 978-3-7258-3800-4 (PDF)



This reprint of the Special Issue "Advances in Developmental Biology in Tree Fruit and Nut Crops" brings together 16 diverse studies that illuminate how genetic, hormonal, and environmental factors shape the growth and productivity of key tree fruit and nut species. Several articles explore hormone-mediated processes, such as the role of exogenous abscisic acid in anthocyanin biosynthesis in blueberry leaves, the effects of gibberellic acid on Shine Muscat grapes, and the influence of endogenous hormones on seed hardness in pomegranate. Other contributions focus on molecular and genomic insights, including the characterization of the PpEXPs family in peach for fruit texture development, identification of laccase genes in grapevine under pathogen stress, and genome-wide analyses of the PYR/PYL/RCAR gene family in pomegranates. Germplasm diversity and phylogenetic relationships also feature prominently, highlighted by research on Caribbean breadfruit, almond S-RNase genotypes, and chloroplast genome profiling of "Oixiadaxiangshui" pear. Meanwhile, integrated transcriptomic and metabolomic approaches uncover stress responses in strawberry and blueberry, and shed light on photoprotective mechanisms in Torreya grandis. Further articles address flower-to-fruit ratios in olives, selective fruitlet retention in avocados, and lipoxygenase gene expression in sweet cherries. Together, these 16 papers offer a comprehensive perspective on the developmental biology driving innovations in tree fruit and nut crops.



Order Your Print Copy You can order print copies at www.mdpi.com/books/reprint/10854



MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



#### **Open Access**

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



#### **Author Focus**

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



### **High Quality & Rapid Publication**

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



## **High Visibility**

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



## **Print on Demand and Multiple Formats**

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG Grosspeteranlage 5 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

