

ABOUT THE SERIES

Basic and advanced concepts, strategies, tools and achievements of genetics, genomics and breeding of 30 major crop plants have been comprehensively deliberated in each volume dedicated to an individual crop or crop group.

The series editor and one of the volume editors, Prof. Chittaranjan Kole, is globally renowned for his pioneering contributions in teaching and research for two-and-half decades on plant genetics, genomics, breeding and biotechnology. His works and edited books have been appreciated by several internationally reputed scientists including six Nobel laureates for the impact of his publications on science and society.

ABOUT THE VOLUME

Sunflower is one of the major oilseed crops of the world. The volume on sunflower genetics, genomics and breeding presents a systematic and detailed commentary on the fundamental and applied contribution of classical genetics and traditional breeding along with molecular genetics and breeding. We are now embarking on the age of genomics that will expedite the approach and success of genetic improvement. This volume is intended to bridge the gap between traditional research and modern molecular investigations on sunflower.

Highlights of the Volume:

Basic information about the sunflower plant and genetic diversity.

- Classical genetics and traditional breeding
- Mapping of single-gene traits
- QTL mapping
- Gene cloning
- Marker-assisted breeding
- Genetic regulation of seed oil content
- Transgenic sunflower
- Future prospects of the sunflower crop.

It is hoped that this book will become a standard reference and definitive resource for those involved in the genomics of the sunflower crop.

ABOUT THE EDITORS

Jinguo Hu, Ph.D. is the Research Leader of the USDA-ARS, Western Regional Plant Introduction Station in Pullman, Washington and an Adjunct Professor at Washington State University. With over twenty years of research experience, Dr. Hu is a well-known expert in the area of developing and applying molecular markers to crop improvement and plant germplasm management.

Gerald Seiler, Ph.D. is a Research Botanist at the USDA-ARS, Northern Crop Science Laboratory, Sunflower Unit, Fargo, North Dakota where he is acknowledged internationally as an authority on wild sunflower species because of his research related to the collection and use of wild sunflower for the improvement of cultivated sunflower.



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