



Hybrid Breeding: Future Status and Future Prospects - Series II

Guest Editors:

Dr. Ioannis N. Xynias

School of Agricultural Sciences,
University of Western Macedonia,
9 Iraklias str., 54636 Thessaloniki,
Hellas, Greece

Dr. Athanasios G. Mavromatis

Department of Plant Genetics &
Breeding, Aristotle University of
Thessaloniki, Thessaloniki,
Greece

Dr. Ioannis Mylonas

Institute of Plant Breeding and
Genetic Resources, Hellenic
Agricultural
Organization–"Demeter", 57001
Thessaloniki, Greece

Deadline for manuscript
submissions:

closed (25 October 2022)

Message from the Guest Editors

Dear Colleagues,

Hybrid breeding is a scientific approach based on the exploitation of heterosis for crop production. The discovery of cytoplasmic male sterility (CMS) facilitated the introgression of hybrid breeding in some cross-pollinated and self-pollinated crop species like wheat, rye, barley, tomato, etc., enabling the production of high yielding hybrids, whereas in other cases hybridization enabled the production of new cultivars (e.g. via transferring useful translocations like the 1BL.1RS and 1AL.1RS in bread wheat) or even crops (e.g. triticale, tritordeum, hordocale). Another important application of heterosis is the production of doubled haploid lines after crossing recalcitrant wheat cultivars to cultivars with good androgenic ability. New sources of CMS and restoration genes have to be discovered to ensure the conservation and broadening of the genetic background for crop plants. This new special issue aims to provide all current prospects regarding a safe and effective application of hybrid breeding for the benefit of farmers, consumers, and seed companies.





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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture,
Water and Environment
Research, Charles Sturt
University, Wagga Wagga, NSW
2678, Australia

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Agronomy Editorial Office
MDPI, Grosspeteranlage 5
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