Special Issue

Breeding for Stability of Crop Yield and Related Traits under Combined Environmental Constraints

Message from the Guest Editor

Breeding for stability of crop yield and related traits under combined environmental constraints. Climate changes models predict an increased likelihood of high temperatures and altered precipitation patterns. In consequence, a combination of abiotic stressors like heat, drought and soil salinity reduces crop yields. Stress escape strategies by earlier sowing or the use of early maturing varieties confront the crop with altered day length and light quality and an increased risk of low temperatures during critical growth periods. Similar challenges arise when crop production moves to higher latitudes or altitudes. Quantifying the interaction between crop genotypes and combined effects of different environmental stressors is challenging. However, these insights allow defining the targets for the breeding of crops with high yield stability in a changing environment. To that end, the special issue will focus the effect of combined abiotic stresses on different genotypes and the interaction of single abiotic stressors and altitude/latitude dependent effectors like day length and light quality.

Guest Editor

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Editor-in-Chief

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