

1. Record Nr.	UNINA9910346755003321
Autore	Gustavo A. Lobos
Titolo	Plant Phenotyping and Phenomics for Plant Breeding
Pubbl/distr/stampa	Frontiers Media SA, 2018
Descrizione fisica	1 electronic resource (369 p.)
Collana	Frontiers Research Topics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>As a consequence of the global climate change, both the reduction on yield potential and the available surface area of cultivated species will compromise the production of food needed for a constant growing population. There is consensus about the significant gap between world food consumption projected for the coming decades and the expected crop yield-improvements, which are estimated to be insufficient to meet the demand. The complexity of this scenario will challenge breeders to develop cultivars that are better adapted to adverse environmental conditions, therefore incorporating a new set of morpho-physiological and physico-chemical traits; a large number of these traits have been found to be linked to heat and drought tolerance. Currently, the only reasonable way to satisfy all these demands is through acquisition of high-dimensional phenotypic data (high-throughput phenotyping), allowing researchers with a holistic comprehension of plant responses, or 'Phenomics'. Phenomics is still under development. This Research Topic aims to be a contribution to the progress of methodologies and analysis to help understand the performance of a genotype in a given environment.</p>