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Sommario/riassunto	<p>The Mediterranean basin is the main area both for the cultivation of durum wheat and for the consumption of derived food products such as pasta, couscous, and bulgur. The ongoing climate changes and new consumer preferences make the selection of genetic materials suitable for the present scenarios particularly difficult. This Special Issue Book covers several aspects of the genetic improvement of durum wheat, collected in seven chapters including two review papers focused on milestones in durum wheat breeding programs across the countries of the Mediterranean basin and sub-Saharan Africa. Water deficit and heat stress occurring during the reproductive stage of wheat have a detrimental effect on yield and grain quality of durum wheat. The papers included in this Special Issue propose selection strategies for traits associated with yield and grain quality (e.g., root architecture, carbon isotope composition of grain, and gluten quality) under natural or artificial environmental conditions of drought, heat, and nutrient stress. This Special Issue presents new breeding opportunities for selecting modern varieties adapted to climate change and expanding durum wheat production.</p>