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Sommario/riassunto	<p>With global populations expected to exceed 9.2 billion by 2050 and available land and water resources devoted to crop production dwindling, we face significant challenges to secure global food security. Only 12 plant species feed 80% of the world's population, with just three crop species (wheat, rice and maize) accounting for food consumed by 50% of the global population. Annual losses to crop pests and pathogens are significant, thought to be equivalent to that required to feed a billion people, at a time when crop productivity has plateaued. With pesticide applications becoming increasingly unfeasible on cost, efficacy and environmental grounds, there is growing interest in exploiting plant resistance and tolerance traits for crop protection. Indeed, mankind has been selectively breeding plants for desirable traits for thousands of years. However, resistance and tolerance traits have not always been those most desired, and in many cases have been inadvertently lost during the domestication process: crops have been effectively 'disarmed by domestication'. Moreover, mechanistic understanding of how resistance and tolerance traits operate is often incomplete, which makes identifying the right combination for crop protection difficult. We aimed to address this Research Topic by inviting authors to contribute their knowledge of appropriate resistance and tolerance traits, explore what is known about durability and breakdown of defensive traits and, finally, asking what are the prospects for exploiting these traits for crop protection. The research topic</p>

summarised in this book addresses some of the most important issues
in the future sustainability of global crop production.
