Achievements and Advances of Plant Sciences Research in China in 2023

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Abstract In 2023, the numbers of original research articles published by Chinese plant scientists in mainstream plant science journals increased significantly improved compared with that in 2022, and important advances have been made in the fields of regulation of intraspecific and interspecific reproductive isolation in Brassicaceae by stigma receptors, supercomplex structure of chloroplast TOC-TIC, mechanisms of crop yield, disease resistance, stress tolerance, the origin and spread of grapes and citrus plants, and the evolution of modern maize, millet and potato germplasm resources. Among them, “Crop Salt and Alkali Tolerance Mechanisms and Applications”, and “A New Method for Precise Manipulation of Single Base to Large Fragment DNA” in 2023 were selected as two of the “Top Ten Advances in Plant Sciences in China”; “The Molecular Mechanism of Mentor Pollen Effect in Plant Distant Hybridization” was selected as one of the “Top Ten Advances in Life Sciences in China” in 2023. Here we summarize the achievements of plant science research in China in 2023, by briefly introducing 30 representative important research advances and sorting out the experimental materials used in plant science research, so as to help readers understand the trend of plant science development in China, and evaluate future research direction to meet major national strategic needs.

Key words China, plant sciences, research advance, 2023

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