Preface

The purpose of this publication

In 1933, the Japan Society for the Promotion of Science founded the University-Industry Cooperation Committee in order to develop basic and applied sciences by bridging the academic and the industrial researchers. A total of 178 committees have been so far established, among which 58 are currently active.

The 160th Committee created the “Plant Biotechnology for the Environment, Food and Resources”, which was set up in 1996 by Dr. Yasuyuki Yamada (Professor Emeritus Nara Institute of Science and Technology and Kyoto University). It focuses on the cooperative research among plant scientists, and has actively performed joint meetings, symposia and workshops as well as promotion of applied biotechnology to contribute to the creation of a sustainable society in the 21st century.

Performing these activities, the Committee reached the conclusion that the application of genetic engineering technology is indispensable for molecular breeding of useful plants, which are tolerant to severe environmental stresses. However, public issues in Japan have long debated the practical application of genetically modified (GM) crops, sometimes restricting not only cultivation of GM plants, but also field assays for basic research. In order to avoid unnecessary conflicts between the researchers and the public, scientific information should be widely and constantly diffused, thereby providing enough materials for the public acceptance of the MG plants. In this context, despite of being active and of a high level, the current status of GM research in Japan has not necessarily been sufficiently introduced to the society, nor even among scientists.

The 160th Committee thus offers this special issue, in which the representative GM researches in Japan, both basic and applied, are selectively presented. The committee is grateful to Dr. Hiromichi Morikawa (Hiroshima University) for organizing and editing all papers.

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