



BUSINESS POTENTIAL FOR AGRICULTURAL BIOTECHNOLOGY PRODUCTS

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Agricultural biotechnology has emerged as a major investment area and has propelled the growth of companies worldwide. Several major players in the food and seed industries are employing biotechnology as the core of their business. Some of them pioneered the use of biotechnology in the development of grain and oil seeds, while others applied advanced biotechnology to nonfood products such as cotton and ornamental plants. Others took more traditional biotechnology approaches in the brewing and fermentation of food products and beverages. Despite recent advances, the application of biotechnology is still in the early stage in many countries in the Asia and Pacific region and its benefits have not reached the majority of the population. In many cases, R&D outputs have not arrived at the commercialization stage, and concerns related to food safety and the environmental ramifications of biotechnology are affecting its wider commercial applications and heightening the uncertainty surrounding its use.

In light of this situation, the APO organized a multicountry study mission on Business Potential for Agricultural Biotechnology Products in May 2005 in the Republic of China. The objectives of the study mission were to review the business potential of agricultural biotechnology products and to suggest how private companies, especially SMEs, could actualize such potential in member countries. The study mission consisted of the presentation and discussion of resource papers and country papers as well as field visits. This volume includes a summary of findings, seven resource papers, and 13 selected country papers prepared for the study mission. The seven resource papers, which address different aspects of the process in which agricultural biotechnology products are commercialized, are:

- Why Agricultural Biotechnology? by Dr. William P. Pilacinski and Dr. John P. Purcell, Biotechnology Regulatory Affairs, Monsanto Company (USA)
- Global Status and Trends of Commercialized Biotechnology in Crops, by Dr. Paul S. Teng, Natural Science and Science Education AG, National Institute of Education, Nanyang Technological University (Singapore), and W. Clive James, International Service for the Acquisition of Agri-biotech Applications, Cornell University (USA)
- Frontiers and Advances in Transgenic Biotechnology of Animals and Fishes, by Dr. Shao-Yang Hu and Dr. Jen-Leih Wu, Institute of Cellular and Organismic Biology, Academia Sinica (Republic of China)
- Development and Application of Biofertilizers in the Republic of China, by Dr. Chiu-Chung Young, Department of Soil and Environmental Sciences, National Chung-Hsing University (Republic of China)
- Current Status of the Transgenic Approach for Control of Papaya Ringspot Virus, by Dr. Shyi-Dong Yeh, Department of Plant Pathology, National Chung-Hsing University (Republic of China)
- Commercial-scale Production of Valuable Plant Biomass and Secondary Metabolites Using a Bioreactor System, by Dr. Sung Ho Son et al., VitroSys Inc. and Dong Yang University (Republic of Korea)
- Commercialization of Agricultural Crop Biotechnology Products by Dr. Paul S. Teng, Nanyang Technological University (Singapore)

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