

# Preface to the 2nd Edition

Our book *The Physiology of Tropical Orchids in Relation to the Industry* has now been published for more than five years. Compared to the other major flower crops such as roses and carnations, the scientific advances made in orchid research are still significantly lesser. The two scientific areas of significant interest to the orchid industry are the physiological responses of orchids to CO<sub>2</sub> enrichment, and the research in transgenic orchids and its related fields. Knowledge gained from the CO<sub>2</sub> enrichment research has an immediate and direct impact on enhancing the growth and development of orchids in large-scale orchid micropropagation and field production. Research in novel transformation of orchids through DNA recombinant technology has increased recently but much remains to be done to put this research into commercial orchid production.

In our present edition, we have included a short review of the recent advances in understanding orchid growth responses to high levels of CO<sub>2</sub>. We have also included an appendix which list the relevant literature on orchid physiology research published since 1997. The recent success in controlling the flowering process in *Phalaenopsis* has rekindle growth in certain sectors of the orchid industry. We thus anticipate that there will be a significant renewed interest in orchid physiology.

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