

Invited keynote lecture

BULBS AND CUT FLOWERS PRODUCTION IN THE GENUS *LILIUM*: CURRENT STATUS FOR THE FUTURE

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Lilies are the most important species among the bulbous plants for cut flower and pot plant use and for use in parks and gardens as a landscaping. At the “First International Symposium on the Genus *Lilium*”, Daejeon, Korea, in 1994, several of research areas were focused: i) the need to preserve the germplasm; ii) the development of a standard breeding and production protocols to meet the needs of market; iii) the introduction of new cultivars with an increased post-harvest life of cut flowers and potted plants, and iv) the introduction of new cultivars resistant to the diseases, particularly viruses. Over the past twenty years, research on the development of new cultivars beyond Longiflorum × Asiatic (LA) hybrid lilies, the production of lily bulbs in the southern hemisphere, genetic study to screen disease resistance cultivars, and characterization of various lilies using molecular markers and morphological characteristics to provide consumers with high quality products. In this presentation, the production and increased availability of lily bulbs produced in the Southern hemisphere (Chile and New Zealand) will be presented in relation to the production of quality products year-round. Development and evaluation of new cut flower varieties for market needs is also examined, initially through the creation of new varieties with new colours and new shapes of Asiatic hybrids, Longiflorum hybrids, and Oriental hybrids. Recent introduction of the new interspecific hybrids obtained by crosses between Longiflorum and Asiatic hybrids (LA), between Longiflorum and Oriental hybrids (LO), between Oriental hybrids and Trumpet species (OT) increases the diversity of cut flowers and potted plant cultivars. Statistics on production, export, and import of flower bulbs and also the production of cut flowers and related flowers markets are presented. The production trends of the past five years are analyzed to predict the future production of *Lilium* bulbs and particularly relating to flower quality (color, shape, scent, etc.) influenced by the market and consumer tastes.