

Invited keynote lecture

SYSTEMATIC STRATEGIES OF LILY BULB PRODUCTION AND FORCING IN KOREA

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As the demand for cut flowers continues to increase, the demands of bulbs for forcing also increase. Cut flower production of lily increased to 861 ha with a total export value of 26,520 million won in 2007. More than 60% lily bulbs for forcing were largely produced in Gangwon-do (Province) and Chungcheongnam-do. To supply quality bulbs, small bulblets propagated by either tissue culture or scaling are planted in a greenhouse using hydroponic systems to produce mid-size bulbs (yearlings production), and bulbs for forcing are produced in field area following year. Recently, many technical information and knowledges have been developed for production and maintenance of virus-free stock and mother stock, scaling, small bulbs mass production, stock bulb production using hydroponics, and commercial bulb production in Korea. Lily bulbs were mainly imported from foreign countries at present, and to cover the shortage of lily bulbs for forcing, systematic strategies of lily bulb production have been developed and production of quality bulbs for forcing is now possible. These researches have been conducted at the Dankook University, National Institute of Horticultural & Herbal Science at the Rural Development Administration, and Taean Lily Experiment Station and other local government research institutes, universities, and growers. The systematic production system will be outlined and presented at this talk. However, the future research should be directed to the breeding of cultivars suitable local growing environments, mass production of disease-free bulbs, lily bulbs long-term cold storage for year-round cut flower production, lily tour industry, production and forcing environment, and integrated management of insect pests, diseases and physiological disorders.