

3rd International Conference on Agriculture & Horticulture

October 27-29, 2014 Hyderabad International Convention Centre, India

Orchid- A diversified component of farming systems for profitability and livelihood security

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Orchids comprise the largest family of flowering plants with 25,000 to 35,000 species belonging to 600-800 genera and covers 10% of the flowering plants.. They are prized for their incredible diversity in the size, shape and colour and attractiveness of their flowers and high keeping qualities even up to 10 weeks. Indian species of *Aerides*, *Bulbophyllum*, *Calanthe*, *Coelogyne*, *Cymbidium*, *Paphiopedilum*, *Rhyncostylis*, *Renanthera* and *Vanda* are used as breeding materials as well as pot plants. They are adapted to diversified climate grown both epiphytically and terrestrially. Orchids respond organically with locally available resources. Many orchids can be grown on rocks and logs for placing in the landscape. A beautiful colour scheme can be developed with *Cymbidium* and *Dendrobium* orchids. Orchid hybrids of *Cymbidium*, *Dendrobium*, *Vanda*, *Phalaenopsis*, *Oncidium*, *Cattleya*, *Paphiopedilum*, *Mokara*, *Aranda*, *Renantanda* etc. with different colour and forms are highly remunerative and used as cut flowers, floral display and as exhibits.

Tribal people of North -Eastern Hill Region of India use wild orchids for a variety of folk medicine as orchids are rich in alkaloids, flavonoids, glycosides, carbohydrates and other phytochemicals. Fragrant orchids like *Aerides multiflorum*, *Aerides odoratum*, *Cattleya maxima*, *Coelogyne cristata*, *Coelogyne ochracea*, *Dendrobium chrysotoxum*, *Lycaste*, *Oncidium sphaceolatum*, *Rhyncostylis retusa* and *Zygopetalum intermedium* are delightful in outdoor living areas. Leaves, tubers and pseudobulbs of different species are used for edible purposes. Vanilla- a major spice crop and source of vanillin comes from *Vanilla planifolia*. *Anoectochilus* leaves are used as vegetables in Indonesia and Malayasia. Pseudobulbs of *Cymbidium maladimum* and *Dendrobium speciosum* and tubers of *Microtis uniflora* and *Caladenia carnea* eaten. Miniature cymbidiums can be used as value added packed items. Bright flowers of orchid genera like *Dendrobium*, *Cymbidium*, *Paphiopedilum* *Cattleya*, *Pholidota* etc. are beautiful items for drying.

Biography

L C De has completed his PhD in Horticulture at the age of 27 years from Indian Agricultural Research Institute, New Delhi. Presently, he is working as Principal Scientist at National Research Centre for Orchids, Sikkim. He has 18 years research and extension experiences in production and post-harvest technologies of horticultural crops of NEH Region and 4 years experience as Joint Director at ICAR, Arunachal Pradesh. He has published 65 research papers and written 12 books, 25 book chapters, 19 bulletins, 66 abstracts, 33 popular articles, 24 reports and 8 training manuals. He is awarded HSI Gold Medal in Floriculture in 2011 and HSI Fellowship in 2013.

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