

Introduction of Lisianthus [*Eustoma grandiflorum* (Raf.) Shinn]) as a Potential New Flower Crop to the Mid Himalayan Region and Assessing the Role of Growth Regulators on its Vegetative Propagation

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Abstract—*Lisianthus* [*Eustoma grandiflorum* (Raf.) Shinn], commonly known by the names 'Texas Bluebell' belongs to the family *Gentianaceae*. It is relatively a new flower crop that has been introduced to the world market and has emerged as one of the fastest growing segment of new flower category worldwide. Twelve lisianthus genotypes were introduced and evaluated for their suitability as a cut flower production under mid Himalayan region. The maximum stem length was recorded in Echo Double Champagne (55.4cm) followed by Echo Double Blue (52.3cm) Echo Double Pink (49.1cm). *Eustoma* hybrid Echo Double Lavender produced the maximum (15.2) number of flower buds per plant followed by Echo double Blue (14.7). The maximum flower size (8.6 cm) and vase life (16.0 days) was recorded in Echo Double Blue. Echo Double Blue, Echo Double Champagne and Echo Double Lavender were found promising for cut flower production. The propagation of lisianthus through seeds have emerged as a great challenge, as it is very much complicated and difficult exercise due to slow germination and growth. Hence, the effect of different doses growth regulators viz. Indole-3-butyric acid (IBA:250&500ppm) and naphthalene acetic acid(NAA:250&500ppm) either alone or in combinations was assessed on vegetative propagation of seven *Eustoma* genotypes. Treatment of cuttings with 250 ppm IBA for 5 minutes induced maximum rooting. The maximum rooting was observed in Echo double Pink Picotee (98.9%) followed by Echo double White(96.1%). The maximum number of roots per cutting was observed in Echo Double Lavender. Although, *Lisianthus* is a newly introduced flower in India, due to its rose-like bloom, excellent post-harvest life and availability of different shades of blue, it has huge potential for its popularization in the Indian market. The vegetative propagation through cuttings can be a viable alternative for its commercial propagation.