

Early Flower Initiation of *Ixora* Hybrids Using Hormone and Fertilizer Under Light and Shade Conditions

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In commercial floriculture venture flower induction at young age by using plant growth regulators and fertilizer is beneficial to earn more profit. An experiment was conducted at the Serendib Horticulture Technologies (Pvt) Ltd, Kalagedihena, using four *Ixora coccinea* hybrids; Vulcanus, Chanmai, Nora grant and Kontiki. Two age groups of these hybrids (3 months and 6 months) which were grown in containers were treated with a flowering hormone containing 'Nitrobenzene' in combination with two fertilizer types (F1 — Bloom special and F2 — Krista K 44). Flowering hormone was sprayed in four concentrations; H1 = 0.075% (WV), H2 = 0.1% (WV), H3 = 0.125% (WV) and H4 0.15% (VN). Both fertilizers were applied as a liquid spray in same concentration (1 g L⁻¹ of water) once a week during the experiment period. Treatments were similarly applied to both age groups of plants and at two light conditions (outdoor light 'L1' and shade house conditions 'L2'). The experiment was laid in two factor factorial experiment in Randomized Complete Block Design (RCBD) with 5 replicates.

Flower initiation in plants was recorded as a percentage for five weeks. In six months aged plants all 3 hybrids except Vulcanus, showed significant flower induction compared to the control ($\alpha = 0.05$). Outdoor light condition induced more flowering than shade conditions in Chanmai. Nora grant showed the best results (100% flowering) in L2H2F2. Chanmai gave the best results (80% Flowering) in L1H2F2. Kontiki gave the best results (80% Flowering) in L1H4F2. In three months aged plants not a single hybrid showed a significant flower induction compared to the control.

Key words: Floriculture, *Ixora coccinea*, Nitrobenzene, Plant Growth Regulators