

## **HORMONE AND FERTILIZER EFFECT ON FLOWERING OF *Ixora coccinea* HYBRIDS 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 hybrids 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 at four concentrations; 0.075% to 0.15% (V/V). Fertilizers were applied as a liquid spray at a concentration of 1 g/L of water once a week during the experiment period and the plants were grown at two light conditions (outdoor light 'L1' and shade house conditions 'L2'). The experiment was laid at a 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 3 hybrids except Vulcanus, showed significant flower induction compared to the control ( $\alpha = 0.05$ ). Outdoor light condition induced more flowering than shade conditions except in Nora grant. Chanmai and Kontiki gave best flowering response in plants under outdoor light conditions at hormone concentrations of 0.1% and 0.15% respectively and Nora grant under shade house condition at 0.1% hormone concentration with Krista K 44 fertilizer. In three months aged plants of hybrids did not showed a significant flower induction compared to the control.

**Key words:** Floriculture, Flowering hormone, Growth regulators, *Ixora coccinea*, Nitrobenzene, Plant growth regulators