



## Research Paper

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# Effect of different shading conditions on growth, flowering and yield of heliconium (*Heliconia* sp) cv. GOLDEN TORCH

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**ABSTRACT :** Heliconium is a tropical cut flower gaining momentum now a days in the floriculture industry due to its attractive foliage and brilliant flower spikes. An investigation was carried out to find the effect of shading on growth, flowering and yield of *Heliconia* sp cv. Golden Torch in Department of Horticulture, Faculty of Agriculture, Annamalai University during the year 2007-09 with objectives of studying different shading conditions (*viz.*, N<sub>1</sub> 75 per cent shade, N<sub>2</sub> 50 per cent shade and N<sub>3</sub> open condition) on growth and yield parameters. The experiment was laid in Factorial Randomized Block Design (FRBD) with above shade treatments in combination with different spacing. The individual effects of shading had significant influence on the growth and yield parameters. The maximum values of growth and yield parameters were observed under 75 per cent shade individually. The shade significantly influenced the yield parameters. The maximum values of yield parameters *viz.*, stalk length (30.21 cm), rachis length (13.21 cm) and number of flowers per plant (4.02) were recorded in N<sub>2</sub> (75 per cent shade). These parameters were the least in N<sub>3</sub> (open condition). The maximum flower yield was obtained in N<sub>2</sub> (173411 flowers) followed by N<sub>1</sub> (154512 flowers).

**KEY WORDS :** *Heliconia* sp, Shade, Growth, Yield

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**H**eliconias are tropical plants of princely dimensions grown for their attractive foliage and brilliant flower spikes. It is hard to tell which are more exotic, the architecturally unique, brightly coloured inflorescences of heliconia or the little jewel like humming birds that dart among them. There are about 89 species under the genus *Heliconia* and more than 350 varieties. They are banana like plants with rhizomes or underground stems having distribution of nutrients and water-like the true stems. They are propagated by bits of rhizomes as well as suckers or side shoots arising from the clumps and rarely from seeds. There are two main types of heliconias, erect heliconia and pendent heliconia. Erect heliconias stand straight with bracts pointing up. Pendent heliconias hang with bracts pointing down. Their blooms are really colourful bracts, which curve upwards and downwards in alternating patterns along a thick stem. The inflorescence is thus actually a cluster of bracts. (Selfert, 1975).

Heliconia are one among the most unusual flora of the

tropics, strikingly elegant flower heads rise from banana like clumps with oval leaves, which are sometimes rather slender and with some varieties, extremely large. They are found naturally in the tropical forests world wide and in moderate climate. Heliconia is a born popular landscape plant and an important cut flower in tropical and subtropical areas of the world. They are native to Central and South America, the Caribbean Islands and some of the Islands of the South Pacific (Kress, 1983). Heliconia have several common names including Lobster's Claw, parrots flower, parrot plantain and false plantain. Depending on variety, heliconia range in height from two to twenty feet, often with extensive rhizomatous growth. The flower or inflorescence of heliconia is nearly always terminal and may last from several days to months. Hence, they are desirable as cut flowers.

Heliconia occurs in shaded rain forests, isolated valleys and along open roads and river banks from sea level to 2000 m elevation in Central and South America and to 500 m in South