Manurial Studies on Yield and Quality of Turmeric (*Curcuma longa* L)

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Introduction: Turmeric (*Curcuma longa* L) is one of the most valuable spices all over the world and commonly known as "*Haldi*" in India, belongs to family Zingiberaceae and native to tropical South-East Asia.

Materials and Methods: The investigation was carried out in RBD with three replications at Vegetable Research Farm and Quality Analysis Laboratory of the Department of Vegetable Science, Dr YSPUHF, Nauni, Solan (HP) during *Kharif* season 2018. The treatments comprised of five manurial practices (M) *viz* M_1: Manure (200 q/ha FYM), M_2: Seed treatment with *Beejamrit* + spray of *Jeevamrit*, M_3: Manure (200 q/ha FYM) + *Beejamrit* + *Jeevamrit*, M_4: RDF (200 q/ha FYM + 30 kg N + 30 kg P_2O_5 + 60 kg K_2O per ha) and M_5: Absolute control; and three stages of harvesting (S) *viz* S_1: 180 DAP, S_2: 210 DAP and S_3: 240 DAP planted in plot size of 3×1 m and spacing 30×20 cm. The observations were recorded on crop parameters like plant height (cm), tiller girth (cm), number of tiller per plant, number of leaves per plant, leaf length and width (cm), leaf area index, yield per plant (g) and projected yield per hectare (q); rhizome length and breadth (cm), number of primary and secondary rhizomes, specific gravity (g/cc), dry rhizome recovery (%), essential oil (%), oleoresin content (%), total curcuminoid content (%), and soil parameters like soil pH, electrical conductivity, organic carbon, available N, P and K (kg/ha).

Results: The analysis of variance showed significant differences among the treatment combinations for majority of characters studied. The turmeric variety Palam Lalima gave the highest fresh rhizome yield of improved quality i.e 346.53 q/ha at 240 DAP by the application of FYM (200 q/ha) + seed treatment with *Beejamrit* + spray of *Jeevamrit* having a net return of Rs 7,60,456 with B : C ratio 2.72; whereas, yield of 289.52 q/ha was obtained by the application of seed treatment with *Beejamrit* + spray of *Jeevamrit* having a net return of Rs 6,47,169 with maximum B : C ratio 2.92.

Reference:

Seereddy Chaitanya Lakshmi 2019. *Manurial Studies on Yield and Quality of Turmeric* (*Curcuma longa* L). MSc Thesis. Department of Vegetable Science. Dr YS Parmar University of Horticulture and Forestry, Nauni, Solan (HP) 173 230 India. 77p.

Thematic Area:
B. Spice Production Technology