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Research Paper

Effect of foliar spray of vermiwash and nutritional treatments on growth and yield performance of curry leaf var. SUVASINI

R. SIDDAPPA AND N.K. HEGDE

See end of the article for authors' affiliations

Correspondence to:

N.K. HEGDE

Department of Spices and Plantation Crops, K.R.C. College of Horticulture, ARABHAVI (KARNATAKA) INDIA Email:nkhegde@yahoo.com

ABSTRACT

A field trial was conducted during 2006-07 at Kittur Rani Channamma College of Horticulture, Arabhavi, Gokak (Tq.), Karnataka to study the nutritional treatments on the performance of curry leaf var. Suvasini. Foliar spray of vermiwash produced vigorous growth with significantly higher fresh leaf yield (13.07 t/ha) compared to control (11.13 t/ha). Among nutritional treatments, RDF + FYM (10.00 kg/plant) with vermiwash foliar spray at 50 per cent dilution recorded higher fresh leaf yield (17.74 t/ha) followed by FYM + RDF without vermiwash (15.79 t/ha) and FYM along with vermiwash (15.65 t/ha) compared to control (6.32 t/ha) in curry leaf var. Suvasini.

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Key words: Curry leaf, Farm yard manure, Vermiwash, Vermicompost, Yield

Yurry leaf (*Murraya koenigii* Spreng) is one of the under-exploited species of Indian origin and its aromatic spicy leaves are used for flavouring of dishes and food stuffs. Foliar spray of nutrient solution and plant growth substances are one of the cultivation practices significantly influencing productivity of horticultural crops. Vermiwash obtained from earthworm bed contains many growth regulating substances (Nielson, 1965). Vermiwash is a very good foliar spray solution containing abundant beneficial microbes, viz., heterotropic bacteria, fungi, actinomycetes including nitrogen fixers, phosphate solubulisers enriched with enzymes, hormones and vitamins (Shweta et al., 2005). Beneficial effect of integration of organic manures, viz., FYM and vermicompost with inorganic fertilisers is well established. Present study was undertaken to assess the response of curry leaf to foliar spray of vermiwash and nutritional treatments with particular reference to leaf yield and quality.

MATERIALS AND METHODS

A field experiment was conducted at Kittur Rani Channamma College of Horticulture, Arabhavi, Gokak (Tq.), Karnataka during 2006-07. Soil of the experimental plot was medium deep black with a pH of 7.8. Experiment

was laid out as split plot design replicated thrice on curry leaf var. Suvasini planted in the year 2004. Main plot treatments included foliar spray of vermiwash (50%) (M₁) and control (no foliar spray) (M₂) and sub-plot treatments included RDF (300: 50: 50 g NPK/plant/year) (S₁), RDF + FYM @ 10 kg per plant (S₂), FYM @ 10 kg per plant alone (S₃), vermicompost @ two kg per plant (S₄) and control (no manures and fertilisers) (S₅). Recommended dose of fertilisers (300 : 50 : 50 g NPK/plant) was applied in four splits at three months intervals after each clipping. Full dose of phosphorus and potassium was applied as basal dose during the commencement of monsoon (i.e., June 2006) (Anonymous, 2004). The plants were spaced at 3.0 x 1.5 m and were trained as individual bush at a prescribed height at 1.2 m. Observations were recorded on growth and yield attributes.

RESULTS AND DISCUSSION

Significant variation in growth attributes at 90 days after fourth clipping during June month was observed due to foliar spray of vermiwash at 50 per cent dilution and nutritional treatments (Table 1). The treatment sprayed with vermiwash (M_1) recorded higher plant height (170.77 cm), number of primary branches (6.84), crown size (1.27 cm) and leaf area of compound leaf (49.50 cm²)