

Effect of fertigation on herbage yield at different growth stages of coriander

G. RAJARAMAN, P. PARAMAGURU, P. ARUNA* AND I.P. SUDAGAR

Horticultural College and Research Institute, Periyakulam, THENI (T.N.) INDIA

ABSTRACT

The present investigation was taken up to find out the influence of fertigation on growth, of leafy types coriander. Drip fertigation with water soluble fertilizer at 75 %, 100 %, 125 % RDF along with the recommended normal fertilizer applied to soil with furrow irrigation. At 45 DAS, the plants applied with 125 per cent RDF (T_1) recorded the maximum herbage yield 17.29 and 18.81 g per plant during first and second season respectively. Regarding the interaction effect, the maximum estimated yield was recorded in Co CR-4 with 125 per cent of fertigation (T_1V_1) in harvesting stages of the crop growth followed by T_1V_2 in both two seasons.

Rajaraman, G., Paramaguru, P., Aruna, P. and Sudagar, I.P. (2011). Effect of fertigation on herbage yield at different growth stages of coriander. *Internat. J. agric. Sci.*, 7(1): 177-179.

Key words : Coriander, Fertigation, Herbage yield

INTRODUCTION

The correct quantity of fertilizers application not only increases the yield but also improves the quality. Fertigation allows applying the nutrients exactly and uniformly only to the root volume, where the plants active roots are concentrated. Hence, the present investigation was taken up to find out the influence of fertigation on growth, of leafy types coriander. Coriander (*Coriandrum sativum* L.) is an annual herb with several branches and lacy leaves with jagged edges belonging to the family Apiaceae. It is native of Mediterranean region. This aromatic herb is found in many parts of the world. In India, coriander is mainly cultivated in Rajasthan and Gujarat with a sizeable acreage in Madhya Pradesh, Haryana, Punjab, Uttar Pradesh, Andhra Pradesh, Tamil Nadu and Bihar.

MATERIALS AND METHODS

The field experiment was conducted at the University orchard of Horticultural College and Research Institute, Tamil Nadu Agricultural University, Coimbatore. Two genotypes (Co CR-4, CS 11) were selected for this study, as the genotypes proved well for use as leafy type. The experiment was laid out in FRBD design with 4 treatments replicated thrice. Drip fertigation with water soluble fertilizer at 75 %, 100 %, 125 % RDF along with the recommended normal fertilizer applied to soil with furrow irrigation.

RESULTS AND DISCUSSION

The effect of fertigation on herbage yield at different growth stage of coriander in varieties are furnished in

the Table 1. The treatments had a significant influence on herbage yield at all stages of observation.

At 35 DAS, application of nutrients through fertigation significantly influenced the herbage yield. Application of 125% RDF (T_1) recorded 11.55 and 12.83 g per plant in first and second season, respectively. With regard to variety Co CR-4 (V_1) had high yield than CS 11 (V_2).

At 45 DAS, the plants applied with 125 per cent RDF (T_1) recorded the maximum herbage yield 17.29 and 18.81 g per plant during first and second season, respectively. The lowest herbage yield was registered in the treatment with recommended NPK applied to soil with furrow irrigation (T_4) with values of 7.00 and 7.64g per plant during first and second season, respectively. Variety Co CR-4 produced more herbage yield than C 11.

Regarding the interaction effect, maximum herbage yield was recorded in Co CR-4 with 125 per cent of fertigation (T_1V_1) in all the stages of the crop growth followed by T_1V_2 in both two seasons.

The effect of fertigation on yield per plot at harvest stage of coriander in varieties are furnished in the Table 2. The treatments had a significant influence on yield per plot at harvest stage of observation.

Application of 125 per cent RDF (T_1) recorded the maximum yield per plot of 3.72 and 3.59 kg per plot during first and second season, respectively. The lowest yield per plot was registered in the treatment with recommended NPK applied to soil with furrow irrigation (T_4) with values of 1.53 and 1.30 kg per plot during first and second season, respectively. With regard to variety Co CR-4 (V_1) had maximum yield per plot than CS 11 (V_2).

Regarding the interaction effect, maximum yield per