



Research Article

Effect of different agronomic practices on nutrients of lentil

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Abstract : A pure and healthy seed of lentil genotype LH 90-54 was sown on November 17, 2005 as per planting technique treatments with three replications and total number of treatment combinations $3 \times 2 \times 3 = 18$ were tested against the growth parameters of lentil (*Lens culinaris*) at Pulse Research Area of CCS Haryana Agricultural University, Hisar during Rabi 2005-06. The nitrogen content in grain and stover remained at par under all the three planting methods. The higher uptake of nitrogen in grain (37.42 kg ha^{-1}) as well as in stover (84.77 kg ha^{-1}) uptake were significantly higher under raised bed planting. Phosphorus and potassium content in grain and stover were not influenced significantly by planting methods. However, raised bed planting improved both the phosphorus and potassium uptake significantly. Nitrogen content was recorded more in irrigated treatment in both grain and stover over the unirrigated check. However, the phosphorus and potassium content of grain was more in irrigated and unirrigated plot, respectively. The amount of nutrient removed by lentil plants was significantly higher due to weed control measures compared to weedy check. The uptake of nitrogen, phosphorus and potassium by both grain and stover was highest in raised bed planting over the other planting techniques. Irrigation significantly increased the nitrogen, phosphorus and potassium uptake both in grain and stover when lentil was irrigated at flowering stage over the unirrigated treatment. Weed control treatment also significantly influenced the uptake of nitrogen by lentil compared to control whereas pendimethalin treated plot recorded the highest uptake of phosphorus and potassium by grain and Stover, respectively.

Key Words : Lentil, Agronomic practices, Nutrients

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INTRODUCTION

Lentil (*Lens culinaris*) is one of the oldest and valuable

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human food crop. Mostly it is consumed as a dry grain (decorticated and split). Dehulled lentil grains contain 24-26 per cent protein, 1.3 per cent fat, 2.2 per cent ash, 3.2 per cent fibre and 57 per cent carbohydrate. It is a rich source of calcium (68 mg/100g grain), phosphorus (300 mg/100g grain) and iron (7 mg/100g grain). India represents 50 per cent of the world's acreage and 41 per cent of the world's production. The production of lentil in India is around 1.00 million tonnes from an area of 1.4 million hectare with the productivity of 660 kg/hectare (Anonymous, 2005).

Inadequate soil moisture and heavy infestation of weeds are the important factors, which results in poor productivity of this crop. Timely sowing of lentil is very essential for getting higher yield. Lentil can be sown 7-10 days earlier by zero tillage machine directly without any field preparation after the harvest of rice crop by using