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Effect of phosphorus and sulphur and their interaction on mustard crop

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ABSTRACT

Oilseed Brassicas, rapeseed mustard accounting for over 13.2 per cent of the world's edible oil supply are third most important edible oil source after soyabean and palm. In India, it is the major oil crop rank second acreage with 6.23 million ha, superseded by the groundnut only. Phosphorus is an essential component of deoxyribonucleic acid (DNA), the seat of genetic inheritance, and of ribonucleic acid (RNA), which direct protein synthesis in both plants and animals. Sulphur is the 13th most abundant element in the earth's crust, an essential secondary plant nutrient, is required by plant and animals in approximately the same amount as phosphorus. In Brassicas, which are more susceptible to S-deficiency as it enhance oil quantity and quality both. In the past, farmers were using S-containing fertilizers *viz.*, ammonium sulphate and SSP but recently they have started using high N and P fertilizers which are S-free *viz.*, urea, DAP, and triple super phosphate. Therefore, the present study was taken up to find out the optimum dose and source of Sulphur fertilizer for mustard crop grown on an alluvial soil for optimum mustard oil production. In the study it was found that sulphur significantly responsible for oil content of mustard and when applied with phosphorus at 30 kg/ha, gives best response.

Key words : Alluvial soil, Brassicas, DNA, Interaction, Phosphrus, RNA, Sulphur

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