reduction in the yield.

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In this study, four levels of each phosphorus (0, 30, 60 and 90 kg P_2O_5/ha) and sulphur (0, 40, 80 and 120 kg S/ha) were tried in R.B.D. with four replications in irrigated chickpea crop (var. T-3) at Varanasi. The quadratic response surface function was fitted between the yield and combination of phosphorus and sulphur in each year separately and for the pooled yield data of two years for describing yield-fertilizer relationship. With the help of these equations, physical and economic optima of phosphorus and sulphur were calculated. Pooled yield quadratic response surface equation, the marginal products, yields isoquants, marginal rate of substitution and least cost combination were worked out. With the help of

these, the yield-fertilizer relationships have been discussed.