



## RESEARCH PAPER

# Response of yield and quality parameters of maize hybrid to single super phosphate and gypsum

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**Abstract :** Maize has the highest potential yield and responds greatly to applied fertilizers especially in the irrigated conditions in Tamil Nadu. Phosphorus and sulphur are the major yield limiting factor after nitrogen in the study area- Sivagangai district of Tamil Nadu. Therefore, this study was initiated with the aim of increasing the yield of hybrid maize by optimizing the phosphorus and sulphur fertilizers in the farmer's field. The experiment was laid out in a Factorial Randomized Block Design replicated thrice with five levels of phosphorus viz., 0, 50, 75, 100, 125 kg P<sub>2</sub>O<sub>5</sub> per ha and five levels of sulphur viz., 0, 20, 40, 60, 80 kg S per ha. The results revealed that plant height, dry matter production, cob length, cob girth, the number of grains per cob and hundred grain weight were significantly increased with increased dose of P and S, and significantly higher at 125 kg P<sub>2</sub>O<sub>5</sub> per ha and 80 kg S per ha. Similarly, the maize grain yield was higher at 125 kg P<sub>2</sub>O<sub>5</sub> per ha (5964 kg per ha) and 80 kg S per ha (5035 kg per ha). Interaction of phosphorus and sulphur was additive with respect to growth and yield of maize.

**Key Words :** Maize, Phosphorus, Sulphur, Yield, Quality

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