



Effect of sulphur and phosphorus on growth and yield attributes on summer green gram [*Vigna radiata* (L.) Wilczek]

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Abstract : A field experiment undertaken to study the effect of sulphur and phosphorus on growth, yield and quality of summer green gram [*Vigna radiata* (L.) Wilczek] during summer 2010. The results of the present investigation showed that significantly the highest plant height (43.53 cm), number of branches per plant (5.79), leaf area index (3.97, 4.17 and 4.65 at 20, 40 and 60 DAS, respectively) and dry matter content (4.64, 7.63 and 10.65 g/plant at 20, 40 and 60 DAS, respectively) were observed in treatment S₃ (30 kg S/ha). With respect to yield attributes and yield the results indicated that significantly the maximum number of pods per plant (20.47), weight of 100 seeds (4.07 g), seed yield (819 kg/ha) and straw yield (1551 kg/ha) were found with the application of 30 kg S/ha. With respect to phosphorus, the results revealed that the application of phosphorus @ 60 kg P₂O₅/ha (P₃) registered significantly the highest plant height (43.85 cm), number of branches per plant (5.70), leaf area index (3.97, 4.17 and 4.65 at 20, 40 and 60 DAS, respectively) and dry matter content (4.65, 7.63 and 10.64 g at 20, 40 and 60 DAS, respectively). In case of yield attributes and yield, the results showed that significantly the maximum number of pods per plant (20.83), weight of 100 seeds (4.03 g), seed yield (814 kg/ha) and straw yield (1563 kg/ha) were found with the application of 60 kg P₂O₅/ha. A combined application of 30 kg S/ha and 60 kg P₂O₅/ha (S₃P₃) was found significantly higher in respect of grain yield (937 kg/ha) and straw yield (1853 kg/ha).

Key Words : Summer green gram, Sulphur, Phosphorus, Growth, Yield attributes, Yield

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