Agronomic Response of Pigeonpea to Potassium and Zinc Nutrition

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ABSTRACT

A field experiment entitled "Productivity and quality of redgram as influenced by potassium and zinc nutrition" was carried out during *kharif*, 2014-15 on sandy loam soils of dryland farm of S.V. Agricultural College, Tirupati campus of Acharya N.G. Ranga Agricultural University. In redgram at harvest, the tallest plants (255.0 cm), with the highest dry matter production (7893 kg ha^{-1}) and largest leaf area index (1.55) were recorded with foliar application of 1% KNO_3 + 0.2% $ZnSO_4$ at flower bud initiation and pod formation stage along with RDF, which was significantly superior over the rest of the nutrient management practices but the leaf area was however comparable with foliar application of 1% KNO_3 once at flower bud initiation or at flower bud initiation and pod formation stage along with RDF, foliar application of $ZnSO_4$ @ 0.2% at flower bud initiation, twice at flower bud initiation at pod formation stage along with RDF and foliar application of 1% KNO_3 + 0.2% $ZnSO_4$ at flower bud initiation stage along with RDF. Foliar application of 1% KNO_3 + 0.2% $ZnSO_4$ at flower bud initiation and pod formation stage along with RDF took significantly lesser number of days to 50% flowering. The highest number of pod bearing branches $plant^{-1}$ (17.6) were recorded with soil application of 50 kg K_2O ha^{-1} + 25 kg $ZnSO_4$ ha^{-1} along with RDF. Foliar application of 1% KNO_3 + 0.2% $ZnSO_4$ at flower bud initiation and pod formation stage along with RDF recorded significantly higher number of pods $branch^{-1}$, number of seeds $pod^{-1}$and hundred seed weight. which was superior over the rest of the treatments. The foliar application of 1% KNO_3 + 0.2% $ZnSO_4$ at flower bud initiation and pod formation stage along with RDF recorded the highest seed, stalk and harvest index in pigeonpea than the rest of the nutrient management practices.

Key words: *Growth parameters, Pigeonpea , Yield attributes, Yield.*