

Effect of nitrogen, sulphur and boron on mustard (*Brassica juncea* L.) under rainfed condition

Alok Malviya, N.Malviya, V.C. Chaturvedi, P.Sriothia and U.S.Mishra

Faculty of Agriculture, M.G.C.G.V.V., Chitrakoot, Satna (M.P.)

Received December 14, 2013 and Accepted March 21, 2014

ABSTRACT : A field experiment was conducted at Rajaula Agricultural Research farm of Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Satna (M.P.) during rabi season 2011 on sandy-loam soil having pH 7.8 to assess the effect of nitrogen, sulphur and boron on mustard (*Brassica juncea* L.) under rainfed condition with eighteen treatment combination 2N-levels (40 & 80 kg/ha), 3S-levels (20,40 and 60 kg/ha) and 3B –levels (control, one spray 300 ppm at 40 DAS and two spray 300 ppm at 40 & 60 DAS) were tested under factorial randomized block design with three replications. Results revealed that application of 80 kg N/ha proved superior over 40 kg N/ha in all the growth and yield attributes characters of mustard. Sulphur application @ 40 kg S/ha performed better than lower dose of 20 kg S/ha in respect of growth and yield of mustard. Foliar application of boron with 300 ppm solution at 40 and 60 DAS improved growth and yield of mustard over no boron application and none of the interaction effects was found significant on mustard. However, the treatments combination of 80 kg N + 40 kg S + 2 sprays of boron produced highest seed yield of 674 kg/ha. The highest net return (Rs. 11380/ha) of mustard was found with treatment combination of 80 kg N/ha + 40 kg S/ha + 2 sprays of boron at 40 & 60 DAS. Their interaction was found not significant.

Key Words : Nitrogen, Sulphur, Boron, Rainfed, Chitrakoot area, Mustard