

## SOURCES AND LEVELS OF SULPHUR EFFECTS ON PROTEIN CONTENT AND SULPHUR REMOVAL BY INDIAN MUSTARD CULTIVARS

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**ABSTRACT :** A field experiment was conducted during the *rabi* season of 2004-05 and 2005-06 at the Agricultural Research Farm of S.D.J.P.G. College Chandeshwar, Azamgarh (U.P.) The experiment was using three cultivars of Indian mustard (Varuna, Vardan and Narendra Rai-1) in main plots and three sources of sulphur (gypsum, elemental sulphur and pyrites) and four levels of sulphur (0, 20, 40 and 60 kg S/ha) in sub plots. Cultivar Varuna recorded significantly higher protein content over Vardan and Narendra Rai-1. The uptake of sulphur was also affected by different varieties of Indian mustard. The cultivar Narendra Ra-1 showed significantly higher total uptake of sulphur by seed and stover than Vardan and at par with Varuna. All the sources of sulphur i.e. gypsum, elemental sulphur and pyrites were equally effective in respect of uptake of sulphur. The protein content were also not affected due to various sources of sulphur. Protein content also increased significantly with increasing levels of sulphur upto 40 kg S/ha and non-significant differences were observed between 40 and 60 kg S/ha in respect of protein content during both the years. Total uptake of sulphur by seed and stover increased significantly with increasing levels of sulphur upto 40 kg S/ha, however, it was found at par with 60 kg S/ha during both the years. The magnitude of increase over control due to the application of 40 kg S/ha was recorded 38.18% and 34.34 % in the first and second years, respectively.

**Key Words :** Gypsum, elemental sulphur, varieties, oilseed, sulphur uptake.