

# EFFECT OF FERTILIZER AND MOISTURE CONSERVATION PRACTICES ON PERFORMANCE OF MUSTARD (*BRASSICA JUNCEA* L.) UNDER RAIN FED CONDITION

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**Abstract:** A field experiment was carried out to know the effect of fertilizer *i.e.* control, 40 N + 15 S, 80 N + 30 S and 120 N + 45 S kg ha<sup>-1</sup> and moisture conservation practices *i.e.* control, dust mulch created by weeding and hoeing at 25 and 35 DAS and organic mulch @ 5 t ha<sup>-1</sup> of paddy straw at 25 DAS on mustard [*Brassica juncea* (L.) Czernj & Cosson] at students instructional farm of C. S. Azad University of Agriculture and Technology, Kanpur (U.P.), during *Rabi* season of 2008-09 and 2009-10. Results reveals that fertilizer 120 N + 45 S kg ha<sup>-1</sup> gave significantly higher plant height, number of primary branches plant<sup>-1</sup>, number of secondary branches plant<sup>-1</sup>, dry matter accumulation plant<sup>-1</sup>, siliquae length, number of siliqua plant<sup>-1</sup>, number of seeds siliqua<sup>-1</sup>, 1000-seed weight, grain yield, stover yield, harvest index and protein content (%) than other levels of fertilizers *i.e.* control, 40 N + 15 S and 80 N + 30 S, during both years. However, the application of moisture conservation practices *i.e.* dust mulch creating by weeding and hoeing at 25 and 35 DAS and organic mulch @ 5 t ha<sup>-1</sup> of paddy straw at 25 DAS increased growth, yield attributing characters and seed yield as well as nutrient content and nutrient uptake by mustard over control. On the basis of economics use of 120 N + 45 S kg ha<sup>-1</sup> and organic mulch @ 5 t ha<sup>-1</sup> of paddy straw at 25 DAS was found most profitable.

**Key words:** Mustard, Moisture conservation practices, Fertilizer, Nutrient and Economics

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