

Significance of nitrogen (application time and method) in two sorghum cultivars on occurrence of sorghum pests in Malwa region of M.P.

Dharmendra Ambiya, R.K. Choudhary and Vivek Kashyap, J.K. Patidar and P.K. Singh

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ABSTRACT : A field experiment was carried out on sorghum (*Sorghum bicolor* L. Moench) to study the significance of nitrogen (method and application time) on occurrence of pests of sorghum, during *Kharif* 2014-15 at All India Coordinated Improvement Sorghum Project, College of Agriculture, Indore (M.P.). The influence was recorded for the insect pests viz., shoot fly (*Atherigona soccata* Rondani), stem borer (*Chilo partellus* Swinhoe), ear head bug (*Calocoris angustatus* Leth.) and ear head worm (*Cryptoblabes gnidiella* Mab.) on sorghum crop in factorial randomized block design with three replication. There are revealed that the nitrogen application time and cultivars were significantly effective for incidence of ear head worm, whereas Cultivar CSV 20 was recorded with significantly lowest incidence of pest, treatment N₁ (50 % at sowing + 50 % at 30 DAS) maximum no. of 7.17 ear head bug / three cob, minimum stem tunneling (4.46%), treatment N₂ (50 % at sowing + 25 % at 30 Day after sowing + 25 % at boot-leaf stage) maximum leaf injury (5.28 %), maximum stem tunneling 5.78 %, minimum ear head worm (12) / three plants, treatment N₃ (25 % at sowing + 50 % at 30 Day after sowing + 25 % at boot-leaf stage) minimum ear head bug 4.44 / three panicle, maximum shoot fly dead hearts (57.63%) at 28 DAE, treatment N₄ (25 % at sowing + 50 % at 30 Day after sowing + 15 % at boot-leaf stage + 10% at grain filling stage) maximum dead hearts of shoot fly (53.89%) at 21 DAE, minimum leaf injury (4.21 per cent) maximum stem borer dead heart (50.11per cent), minimum ear head bug 4.44 / three panicle, treatment N₅ (25% at sowing+45% at 30 Day after sowing +5% foliar spray at 45 das+15% boot-leaf stage +10% grain filling stage) lowest shoot fly dead hearts (43.40 and 50.57 %) at both 21 and 28 DAE, minimum stem borer dead heart (42.80 per cent), maximum ear head worms 19.67 / three panicle.

Key Words : Sorghum cultivars (*Sorghum bicolor* L.), nitrogen levels, sorghum pests, shoot fly (*Atherigona soccata*), stem borer (*Chilo partellus*), ear head bug (*Calocoris angustatus*), ear head worm (*Cryptoblabes gnidiella*), interaction.