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CULTURAL AND CHEMICAL CONTROL OF SHOOT FLY, *ATHERIGONA NAQVII* STEYSKAL ON SPRING MAIZE IN PUNJAB

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ABSTRACT: The seed treatment with thiamethoxam 30 FS (4 and 6g/ kg seed), single and double row of protected and unprotected sorghum as a trap crop and alteration in irrigation frequency were compared with recommended seed treatment with imidacloprid 600 FS @ 6 ml/ kg seed and furrow application of carbofuran 3 G @ 12.5 kg/ ha during 2011 and 2012 spring season for the control of shoot fly, *Atherigona naqvii* Steyskal. The egg count per plant in different treatments did not differ significantly during 2011, but in 2012 it was significantly lower in plots with one week delayed irrigation after emergence. The mean shoot fly incidence (leaf injury and deadhearts) was significantly lower in imidacloprid 600 FS (8.79 and 2.28%) and carbofuran 3 G (16.96 and 7.49%) treatments. However, the incidence in thiamethoxam 30 FS @ 6 g per kg seed (27.97 and 15.71%) and one week delayed irrigation at emergence (21.62 and 18.16%) being on par was significantly lower than untreated control (32.12 and 27.92%), sorghum as a trap crop in different combination (27.85–31.00 and 23.50–26.72%) and thiamethoxam 30 FS @ 4 g per kg seed (29.17 and 21.64%). The grain yield was also more in recommended seed treatment and furrow application. The monitoring of the shoot fly at susceptible stage i.e. 3–10 days after germination vis-à-vis alteration in irrigation may be helpful in strengthening the IPM for shoot fly.

KEY WORDS: *Atherigona naqvii*, imidacloprid, sorghum, spring maize, trap crop