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The Little millet (Panicum sumatrense) belongs to the family gramineae and is an indigenous crop of the Indian subcontinent. It is a short duration crop, takes about 65 to 75 days, depending on the variety cultivated. In India, it is grown in the state of Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Madhya Pradesh, Jharkhand, Chhattisgarh, Odisha and Gujarat. Total millet production in 2010 in India was 10.94 million tons and productivity was 9513 hectogram/ hectare (FAO, 2011). In Jharkhand, mostly short duration variety of Gundli is preferred by the farmers as they get ample time to grow another crop after the harvest of little millet. Gundli is grown mainly in the districts Ramgarh, Bokaro, Dhanbad, Palamu, Chatra, Garhwa and Hazaribagh. Total area under Gundli cultivation in Jharkhand is 14.3 hectare and production is about 9.2 tonne with the productivity of 644 kg per hectare. Nearly 32 per cent of the crop is lost due to the attack of insect pests in India (Borad and Mittal, 1983). Shoot flies (Atherigona pulla Wiede) rank first among the insect pests that attacks little millet, often resulting in heavy loss in the crop yield (Anonymous, 1991). As the shootfly is now being considered as a key pest of little millet in Jharkhand and the desired management practices are lacking, it becomes necessary to take up a detailed study on different aspects of this dreaded pest. Keeping in view the importance of shootfly on little millet crop, the present investigation entitled “Ecofriendly management of shootfly (Atherigona pulla) infesting little millet “ was undertaken at small millets research plots of Ranchi Agriculture College under Birsa Agricultural University, Kanke, Ranchi during kharif, 2017-2018 with objectives such as 1. To study the effect of important abiotic factors on the incidence of shootfly in little millet 2. Screening of little millet germplasms against the shoot flies. 3. To find out effectiveness of various eco-friendly treatments comprising cultural practices and botanical (neem-based) against shoot flies in little millet. The outcome of the research could be summarized as – the effect of different abiotic factors on the occurrence of shootfly indicated that maximum infestation of Atherigona pulla was observed in the 3rd week after germination (i.e. 3rd week of July). Field experiment on varietal screening revealed that out of the 19 genotypes tested, IIMR LM7012, BG 1, DLM95, and OLM217 recoded the lowest damage and were considered to be least susceptible to shootfly. Higher grain yield was also recorded in above cultivars. The cultivar OLM 203, with 27.31 per cent deadhearts, was considered to be the most susceptible one against shootfly.In another set of experiment, total nine treatments including control were tested which includes two culture treatments (early sowing of Gundli and 1.5 times of recommended seed rate), three botanicals (Neem oil 3%, neem/azadirachtin 1500ppm and NSKE 5%), one insecticide (chlorpyriphos) and one untreated were evaluated against shootfly infesting little millet. The mean deadheart percentage was significantly lowered in spraying of 1500ppm at 7 DAS against shootfly infesting little millet followed by the seed treatment with chlorpyriphos 20 EC @ 2.5ml/kg of seed. The highest seed yield (688 kg/ha) was obtained in application of spraying of 1500ppm neem/azadirachtin at 7 DAS followed by seed treatment with chlorpyriphos 20 EC (635 kg/ha). Highest 1:21:64 benefit : cost was obtained from the treatment chlorpyriphos 20 EC followed by spraying of 1500ppm neem/azadirachtin at 7 DAS (1:12:18).
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