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Keywords: MANAGEMENT OF SHOOT FLY (Atherigona Pulla) INFESTING LITTLE MILLET
Abstract: The Little millet (Panicum sumatrense) belongs to the family gramineae and is an indigenous crop of the Indian subcontinent. 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 (FAO, 2011) and productivity was 9513 hectogram/ hectare (FAO, 2011). 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). This crop is attacked by a number of insect pests of which shootfly is considered to be the major limiting factor in successful cultivation of this crop in almost all the states where this crop is grown. As the little millet is considered as poor man’s crop, marginal and sub-marginal farmers cannot afford to take up chemical control measures because of increased cost of cultivation, practical difficulties in spraying operations and also due to the fact that this crop has a low market value. As the shootfly is now being considered as a key pest of little millet in Jharkhand, and the design 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 “Management of shootfly infesting little millet “ was undertaken at small millets research plots of Ranchi Agriculture College under Birsa Agricultural University, Kanke, Ranchi during kharif, 2012-2013. The experiment was planned with seven treatments replicated thrice. The levels of days were three viz. 10 DAE, 17 DAE and 24 DAE. The outcome of the research could be summarized as – The effect of different abiotic factors on the occurrence of shootfly was also studied. Maximum infestation of A. pulla was observed in the 3rd week after germination (i.e. 3rd week of July). Mahapatra and Dhir (1994) also reported that the attack of shootfly was more severe in case of late sowing as compared to early sown (before 21st July) of little millet Field experiment on varietal screening revealed that out of the 21 genotypes tested, KRI 10-03, JK 8 and BL 6 recorded the lowest damage and were considered to be least susceptible to shootfly. Highest grain yield was also recorded in above cultivars. The cultivar CO 2, with 38.49 per cent deadhearts, was considered to be the most susceptible one against shootfly. In another set of experiments, six insecticides/ botanicals and one untreated control were evaluated against shootfly infesting little millet .The treatment comprised of four insecticides and two botanicals. The mean deadheart percentage was significantly lowered in Furrow application of Carbofuran @ 10 kg/ ha against shootfly infesting little millet followed by Spraying of Bamboo extracts (5%). The highest seed yield (11190 kg/ha) was obtained in Furrow application of Carbofuran followed by Spraying of Bamboo extract (10950 kg/ha) but bamboo extract (1:113.48) gives maximum profit against the cost of investment followed by seed treatment with Thiamethoxam (1:63.45).