

CONTROL OF MANGO GALL FLY (*Procontarina matteiana*) KIEFFER & CECCONI BY USING DIFFERENT INSECTICIDES

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ABSTRACT

A field experiment was conducted to evaluate the efficacy of different insecticides against mango gall fly at Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, Gujarat. The result showed that two two spray application of imidacloprid 17.8 SL @ 0.28 ml/lit or dichlorvos 76 EC @ 0.65ml/lit at 15 days interval during the month of August to September proved most effective for the control of gall fly on mango.

KEY WORDS: *insecticides, gall fly, Procontarina matteiana (Kieffer & Cecconi)*

INTRODUCTION

Mango belongs to genus *Mangifera* which finds its origin in South - East Asian and Indo - Myanmar region. Among the fruits of universal importance, mango is on the top because of attractive colour, high palatability, taste, quality and being rich in sugar, vitamins and minerals. It is rightly referred as a “King of Fruits.” India rank first by producing 54 per cent of total world production of mango. In India, the cultivation under mango is about 22,96,000 hectares with production of 15.18 million tonnes (Anon., 2011).

MATERIALS AND METHODS

To evaluate the Efficacy of various chemicals against gall fly on mango, an experiment was carried out at Horticultural Instructional Farm, SDAU, Sardarkrushinagar. An experiment was laid out in the Randomized Block Design. Ten

years old three trees mango with spacing of 6 m x 6 m were selected and tagged. Three replications and ten treatments were selected and total 30 trees were selected for the purpose. From each tree, four branches from East, West, North and South direction were selected and five leaves/branch were selected randomly and tagged with plastic label. The number of galls from one sq. cm area. A square of 1 x 1 cm from the hard plastic paper was prepared and kept on the leaves and number of galls were counted and recorded. The observations on number of galls were taken before spray and 7 and 14 days after application of insecticide

RESULTS AND DISCUSSION

The pooled results of two sprays showed that all the treatments were significantly superior over untreated control (7.95 galls/sq.cm). Among various treatments, imidacloprid 17.8 SL @ 0.28

ml/lit was significantly superior over rest of the treatments and recorded the lowest number of galls (4.49 galls/sq.cm). However, it was at par with treatment of dichlorvos 76 EC @ 0.65 ml/lit recorded 4.70 galls/ sq.cm, bifenthrin 10 EC @ 2 ml/lit recorded 4.97 galls/sq.cm and clothianidin 50 WDG @ 0.5 ml/lit recorded 5.36 galls/sq.cm and proved to be the second effective treatments. The remaining insecticides thiamethoxam 25 WG @ 0.32 g/lit, (5.96 galls/sq.cm), triazophos 40 EC @ 1ml/lit (6.02 galls/ sq.cm), acephate 75 SP @ 1 ml/lit (6.70 galls/sq.cm), fenthion 1000 EC @ 0.1 ml/lit (6.82 galls/sq.cm) and neemmark @ 2 ml/lit (7.39 galls/sq.cm) were recorded more number of galls per sq.cm and found less effective against mango gall fly. Samui and Jha (2012) reported that thiamethoxam @ 0.008%, imidacloprid @ 0.006% and monocrotophos @ 0.005% were found effective against branch gall midge.

CONCLUSION

From the overall results, it can be concluded that two spray application of imidacloprid 17.8 SL @ 0.28 ml/lit or dichlorvos 76 EC @ 0.65ml/lit at 15 days interval during the month of August to September proved most effective for the control of gall fly on mango.

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Table 1 : Efficacy of different insecticides against mango gall fly, *P. matteiana*

Sr.	Treatments	Concentration	Average no. of galls/sq.cm	
			Before Spray	Pooled #
1.	Imidacloprid	0.005	2.10 (4.40)	2.12 (4.49)*
2.	Dichlorvos	0.05	2.09 (4.39)	2.17 (4.70)
3.	Acephate	0.075	2.10 (4.43)	2.59 (6.70)
4.	Fenthion	0.1	2.09 (4.37)	2.61 (6.82)
5.	Neemark	0.05	2.08 (4.37)	2.71 (7.39)
6.	Clothianidin	0.025	2.09 (4.36)	2.28 (5.36)
7.	Triazophos	0.04	2.09 (4.42)	2.45 (6.02)
8.	Bifenthrin	0.02	2.08 (4.34)	2.23 (4.97)
9.	Thiamethoxam	0.008	2.11(4.44)	2.44 (5.96)
10.	Untreated control	-	2.08 (4.33)	2.82 (7.95)
S.E m. $\pm$			0.09	0.06
C.D. at 5 %			NS	0.19
S x T S.E m. $\pm$			-	0.04
S x T			-	NS
C.V. (%)			7.21	10.12

*Outside parenthesis are $\sqrt{X + 0.5}$ transformed values, while values in parenthesis are retransformed values

pooled after two spray application. S = spray

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