EFFECT OF DATE OF SOWING ON INCIDENCE OF STEM FLY, *OPHIOMYIA PHASEOLI* ON SOYBEAN IN MID HILLS OF MIZORAM

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Soybean (*Glycine max* (L) Merrill) has recently become an important food crop in Mizoram. It is attacked by several inspect pests during its various growth stages (Sachan and Gangwar, 1980) of which stem fly, *Ophiomyia* (Melanogromyza) *phaseoli* (Tryon) (Agromyzidae : Diptera) causes yield loss to the tune of 9.8% (Azad Thakur, 1984). The present study reports population fluctuations of stem fly on soybean in relation to different dates of sowings.

Soybean var. 'Bragg' was sown starting from April 1st to July 15th , 1998 and 1999 at fortnightly intervals, at ICAR Research Complex Farm, Kolasib. Seeds were sown at 40 x 10 cm spacing in a plot size of 2x2.5 m replicated in a trial. The recommended agronomic practices were followed throughout the season. No insecticidal treatment was applied at any stage of the entire crop growth.

Weekly observations for stem fly infestation were recorded by dissecting the stems/shoots of 100 randomly selected plants 15 days after sowing.

During 1998 and 1999, there was no stem fly infestation on soybean plants immediately after germination (Table 1). The infestation started 15 days after sowing (DAS) only on those plants, which were sown on April 1st and 15th, 1998 and 1999, respectively. Seedlings of 22 to 60 DAS were infested heavily in all the dates of sowing, however, the infestation declined after 60 DAS.

Forty-five days old crop was infested maximum in all the sowings. (Azad thakur, 1988 was recorded earlier the peak activity of the pest on April sown (30-35 days old) crop. However, April sown crop suffered more heavily than those sown in the other months. High rainfall in July might have affected build up of pest resulted in low infestation. It is expected that these findings will help in evolving Integrated Pest Management (IPM) of this pest on soybean.

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Table 1. Seasonal activity of *Ophiomyia phaseoli* on soybean crop

1998

Date of sowing	Percent of plant infested days after sowing (DAS)							
	15	**21**	**30**	**37**	**45**	**52**	**60**	**67**
April 1	8.13	9.46	19.09	28.86	3.11	30.66	25.10	14.13
April 15	4.69	21.12	23.58	24.12	27.06	24.12	15.00	9.46
May 1	0.00	15.68	21.97	28.45	31.11	26.56	20.27	8.13
May 15	0.00	19.09	23.58	24.58	31.11	27.49	11.54	0.00
June 1	0.00	17.76	20.88	23.03	34.45	15.00	12.52	0.00
June 15	0.00	15.00	19.09	21.39	21.97	15.00	12.52	0.00
July 1	0.00	13.31	16.43	19.64	23.58	17.16	16.43	6.55
July 15	0.00	8.13	17.76	19.09	19.64	10.47	9.46	0.00
April 1	9.46	15.00	16.43	17.76	30.66	20.88	17.16	15.00
April 15	6.55	14.18	19,09	23.03	31.50	20.88	9.46	4.69
May 1	0.00	18.44	27.06	31.11	33.65	22.55	19.09	9.46
May 15	0.00	14.18	21.97	25.55	27.97	21.97	11.54	0.00
June 1	0.00	17.76	20.88	25.62	27.49	17.76	9.46	0.00
June 15	0.00	10.47	14.18	15.00	21.97	12.52	6.55	0.00
July 1	0.00	6.55	12.55	18.44	19.64	10.47	4.69	0.00
July 15	0.00	4.69	6.55	6.55	8.13	6.55	0.00	0.00