

Population Dynamics of *Thrips palmi* on Mungbean (*Vigna radiata* L. Wilczek)

Key words: Mungbean, Population dynamics, *Thrips palmi*.

Mungbean leaf curl caused by groundnut bud necrosis virus (GBNV) is one of the important diseases on mungbean and caused considerable loss in Uttar Pradesh, India (Nene and Singh, 1972). The diseases has already assumed alarming levels in several southern states of India (Prasada Rao *et al.* , 2003) and is reported to be transmitted by *Thrips palmi* (Sreekanth *et al.*, 2006). Experiments were conducted at Allahabad Agricultural Institute – Deemed University,

Allahabad (AAI-DU) during *Kharif* 2006, *Summer* 2007 and *Kharif* 2007 in Central Agricultural farm, Allahabad to study the population dynamics of *T. palmi* by erecting white stick traps (Lewis, 1959 ; Wilde, 1962) in 50 x 20 m plot in each season. Data on *T. palmi* population from stick traps counts was recorded from seven days after sowing to 63 DAS at weekly intervals during all the studied seasons, *T. palmi* was identified based on taxonomic keys (Palmer *et al.*, 1990). At 35 and 42 DAS *T.*

Table1. Population dynamics of *T palmi* karny in mungbean.

Standard Week	<u>Kharif-2006</u> <i>T palmi</i> Population (per 5 traps)	Standard Week	Summer -2007 <i>T palmi</i> population	Standard Week	<u>Kharif-2007</u> <i>Thrips</i> <i>palmi</i> population
36 (7DAS)	82.00*	12 (7DAS)	73.56	35 (7DAS)	89.46
(1 st week of August)	(9.07)	(2 nd week of March)	(8.57)	(5 th week of July)	(9.45)
37 (14 DAS)	163.24	13 (14DAS)	152.31	36 (14DAS)	175.28
(2 nd week of August)	(12.77)	(3 rd week of March)	(12.34)	(1 st week of August)	(13.23)
38 (21DAS)	204.32	14 (21DAS)	196.45	37 (21DAS)	212.33
(3 rd week of August)	(14.29)	(4 th week of March)	(14.01)	(2 nd week of August)	(14.57)
39 (28DAS)	223.84	15 (28DAS)	211.31	38 (28DAS)	236.27
(4 th week of August)	(14.96)	(5 th week of March)	(14.53)	(3 rd week of August)	(15.37)
40 (35DAS)	281.87	16 (35DAS)	275.65	39 (35DAS)	292.47
(5 th week of August)	(16.78)	(1 st week of April)	(16.60)	4 th week of August)	(17.10)
41(42DAS)	268.47	17 (42DAS)	247.65	40 (42DAS)	271.58
(1 st week of September)	(16.38)	(2 nd week of April)	(15.73)	(5 th week of August)	(16.47)
42 (49DAS)	185.27	18 (49DAS)	169.41	41(49DAS)	191.29
(2 nd week of September)	(13.61)	(3 rd week of April)	(13.01)	(1 st week of September)	(13.83)
43 (56DAS)	49.67	19 (56DAS)	45.87	42 (56DAS)	52.64
(3 rd week of September)	(7.04)	(4 th week of April)	(6.77)	(2 nd week of September)	(7.25)
44(63DAS)	42.36	20 (63DAS)	39.51	43 (63DAS)	43.24
(4 th week of August)	(6.50)	(5 th week of April)	(6.28)	(3 rd week of September)	(6.57)
SEm±	1.016		0.873		0.973
CD(0.05)	2.06		1.77		1.983

* Figures in parenthesis are square root transformed values

palmi abundance was significantly high with its peak coinciding flowering stage, among seasons, population was more in *Kharif* than Summer (Table 1). Therefore, control measures should be taken before 14 DAS after sowing well before the onset of peak in vector population to control mungbean leaf curl disease.

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