

Incidence of Marginal Gall Forming Thrips on Pepper in South Wynad

In India, more than 20 species of insect pests have been recorded in black pepper, out of which 'pollu' beetle, *Longitarsus nigripennis* Motschulsky, top shoot borer, *Cydia (Laspeyresia) hemidoxa* Meyrick and marginal gall forming thrips, *Liothrips (Gynaikothrips) karnyi* Bagnall are the three major pests causing considerable crop loss. Though these pests are found active in plains of Kerala, information is not available about their distribution and activity in high altitude pepper growing tracts of Kerala. A survey was carried out from July 1979 to June 1980 to observe the incidence of these three major pests in Pulpally area of South Wynad (more than 900 m above MSL). A total of 16 gardens consisting of five cultivars of pepper (Panniyur-I, Karimunda, Kalluvally Arakkulam munda and Aimperian) were covered under the survey. It was observed that there was no incidence of 'pollu' beetle in the spikes as well as on the leaves. The incidence of top shoot borer was also negligible throughout the period of observation. However,

the incidence of marginal gall forming thrips was high in the area. Observations on the incidence of this pest during different seasons of the year were carried out. In each cultivar, 50 vines were considered for recording observation. To record the incidence of the thrips, total and infested leaves were counted in 30 cm. area around the bottom, middle and top portion of individual vines. The data on mean percentage of damaged leaves is presented in Table I. From the Table it can be seen that the cultivar Kalluvally has significantly less damaged leaves and is least susceptible among the cultivars and Panniyur-I is highly susceptible. In general, the leaves of the middle portion of the vines were most preferred by thrips compared to the top portion. Incidence of this pest was significantly minimum in October 1979 and maximum in February 1980.

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Table I. Percentage of leaves damaged by thrips in different cultivars of pepper

Cultivars	Percentage of damaged leaves				
	June 1979	October 1979	February 1980	July 1980	Mean
Panniyur - I	21.7 (27.8)	9.4 (17.8)	15.8 (23.4)	8.9 (17.4)	13.9 (21.6)
Aimperian	5.0 (12.9)	3.0 (10.0)	22.8 (28.5)	14.4 (22.3)	11.3 (18.4)
Arakkulam munda	8.4 (16.8)	9.1 (17.6)	14.4 (22.3)	7.2 (15.6)	9.8 (18.1)
Karimunda	6.4 (14.6)	5.4 (13.4)	14.2 (22.1)	6.7 (15.0)	8.2 (16.3)
Kalluvally	3.1 (10.1)	2.3 (8.7)	3.0 (10.0)	2.2 (8.5)	2.6 (9.3)
Mean	8.9 (16.5)	5.8 (13.5)	14.0 (21.3)	7.9 (15.7)	

(Figures in parentheses are transformed values)
C. V. % = 8.1

C. D. at 1% for comparing cultivars = 1.6
C. D. at 1% for comparing months = 1.4

Central Plantation Crops Research Institute,
Regional Station, Calicut 673 012, Kerala, India.

S. K. BANERJEE
K. M. A. KOYA
T. PREMKUMAR
S. S. SINGH GAUTAM