

Abundance of thrips on groundnut flower in Bikaner

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Abstract

Infestation of thrips on flower groundnut was investigated during kharif season of 2015 on agronomy farm, college of Agriculture and ARS, Bikaner. Results revealed that activity of thrips varied ranged from 0.5 to 3.1 thrips/10 plant's flowers at ARS, field and from 0.3 to 3.3 thrips/10 plant's flowers COA field, Bikaner.

Key words: thrips, weather parameters, correlation, flower

Introduction

Groundnut suffers several insect pest during its growing period. Among these insect pest thrips (*Scirtothrips dorsalis*) are important pest of this crop. Thrips pest suck cell sap from the flower living inside the flower and the flowers fall down from the plant. Both nymphs and adults feed by rasping the surface of rapidly growing leaf tissues and suck the released plant fluid. They cause tiny scars on leaves leading to stunted plant growth. Damaged leaves may become papery and distorted, infested terminal leaves lose color, rolled up and drop before maturity. Thrips are also known to transmit peanut bud necrosis virus in groundnut (Sunkad et al,2012). On the basis of weather parameters play an important role on the population of thrips on groundnut and also yield loss in groundnut crop due to thrips incidence Jayanthi et al,1993 and Prasad et al, 2008).keeping this point in view this test was carried out to know the when infestation of thrips on groundnut flower.

Materials and Methods

Thrips infestation on flower groundnut was investigated on agronomy farm ,college of Agriculture, Bikaner. First of all two places in SKRAU, Bikaner was selected and observations were made on all ten plants selected from the each field and tagged them.

Numbers of thrips were counted in the total number of flower of each plant. Thus five observations were taken at weekly interval. Weather data was taken from ARS, Bikaner.

Results and Discussion

Survey of thrips inside the flower of groundnut was recorded in two places at weekly interval starting before seven August. However its range was from 0.5 to 3.1 thrips/10 plant 's flowers at ARS, field and from 0.3 to 3.3 thrips/10 plant 's flowers COA field. Therefore, management of thrips is essential before seven August and started foliar spray mid July or at the time of flowering with systemic insecticides.

Table 1: Survey of thrips on groundnut's flower during 2015

Observation Date	Mean Population of thrips/inside flower	
	ARS FIELD	COA FIELD
7/8/2015	1.4	1.1
14/8/2015	2.1	2.3
22/8/2015	2.4	3.3
29/8/2015	3.1	2.5
7/9/2015	0.5	0.3

Table 2: Correlations between weather factors and thrips during 2015

Correlation	Temperature (°C)		R.H.(%)		Wind Velocity (km./hr.)
	Max.	Min.	Max.	Min.	
ARS, Bikaner	-0.31234	0.540829599	0.504838	0.561191	0.363405
COA, Bikaner	-0.64623	0.542119289	0.531853	0.617563	0.571343

Correlation:

Correlation between weather parameters and thrips was negative significantly with maximum temperature and positive with relative humidity and wind velocity at farm of Agriculture Research station and College of Agriculture, Bikaner (Table- 2).

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