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Identifying the critical stages for Pink Stem Borer, S.inferens (Walker) incidence in maize

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Green house experiment was conducted during 2010-11 to estimate the critical stages of maize crop due to S.inferens infestation in a susceptible single cross hybrid DHM 117. Five densities of newly hatched larvae viz., 0, 5, 10, 15 and 20 (here after called L_1 , L_2 , L_3 , L_4 and L_5 , respectively) were released into the leaf whorl at four different leaf stages of crop growth viz., 2 leaf (7 days after germination) (DAG), 4 leaf (14 DAG), 6 leaf (21 DAG) and 8 leaf (28 DAG) stages (hereafter called A_1 , A_2 , A_3 and A_4 , respectively). Results clearly indicated that irrespective of the larval density, plant age between 7 and 14 days was found to be more susceptible to pink borer as evidenced by decrease in LIR at 21 and 28 days age. With increase in the larval density there was an increase in the LIR irrespective of the stage of the crop. Based on the present results, it is important to protect the crop at early stages that is from 7 to 14 days to prevent economic damage by the borer.

Larval density/ plant	Crop age (days after germination)										
	7 (2 leaf stage)		14 (4 leaf stage)		21 (6 leaf stage)		28 (8 leaf stage)		Mean		
	LIR (1-9 scale)	Per cent dead hearts	LIR (1-9 scale)	Per cent dead hearts	LIR (1-9 scale)	Per cent dead hearts	LIR (1-9 scale)	Per cent dead hearts	LIR (1-9 scale)	Per cent dead hearts	
0	0	0.00 (0.00)	0	0.00 (0.00)	0	0.00 (0.00)	0	0.00 (0.00)	0	0.00 (0.00)	
5	5.17	8.00 (16.40)	4.37	0.00 (0.00)	2.77	0.00 (0.00)	2.70	0.00 (0.00)	3.75	2.00 (4.10)	
10	6.36	12.33 (20.54)	5.10	0.00 (0.00)	4.33	0.00 (0.00)	3.23	0.00 (0.00)	4.75	3.08 (5.13)	
15	6.83	12.00 (20.25)	5.30	0.00 (0.00)	4.30	0.00 (0.00)	3.52	0.00 (0.00)	4.98	3.00 (5.06)	
20	7.27	8.66 (17.11)	6.38	0.00 (0.00)	5.14	0.00 (0.00)	3.84	0.00 (0.00)	5.66	2.16 (4.27)	
Mean	5.13	8.2 (14.86)	4.23	0.00 (0.00)	3.31	0.00 (0.00)	2.65	0.00 (0.00)			
	CD at 5%					SE(m)±					

	LIR	Percent dead hearts	LIR	Percent dead hearts
Larvaldensity	0.20	0.31	0.07	0.11
Crop age	0.18	0.28	0.06	0.10
Larvaldensity X Crop age	0.41	0.63	0.14	0.22

Biography

T Pavani has completed her M.Sc. Ag at College of Agriculture, ANGRAU , Hyderabad. and now she is doing her Phd programme at ICRISAT, Patancheru.

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