

Table 1: Diversity, evenness and richness of insect pest complex of pigeon pea during two seasons

Year	Total number of species	Number of individuals	Simpson index of diversity (%)	Shannon-weiner index (%)	Species evenness	Species richness
2016-17	57	4382	0.859	2.416	1.37	15.37
2017-18	59	5397	0.868	2.451	1.38	15.34

Table 2. Biology of major pod borers of pigeon pea (Duration in days)

Stages of the pest	<i>Helicoverpa armigera</i>	<i>Maruca testulalis</i>	<i>Exelastis atomosa</i>	<i>Melanagromyza obtusa</i>
	Mean±SE			
Egg period (days)	4.16 ± 0.36	2.5±0.23	3.16±0.36	2.75 ± 0.31
Larval period (days)				
I st Instar	1.50±0.16	1.73 ± 0.11	1.66 ± 0.13	8.58 ± 0.24
II nd Instar	1.63 ± 0.12	1.66 ± 0.13	2.16 ± 0.13	
III rd Instar	2.36 ± 0.12	2.0 ± 0.23	2.75 ± 0.11	
IV th Instar	3.50 ± 0.18	1.5 ± 0.25	5.0 ± 0.47	
V th Instar	5.55 ± 0.18	2.5 ± 0.21	7.0 ± 0.47	
VI th Instar	6.16 ± 0.28			
Total larval period (days)	20.66 ± 0.16	8.33 ± 0.72	18.58 ± 0.55	
Pre-pupal (days)	1.83 ± 0.12	1.91 ± 0.18	1.5 ± 0.23	0.58 ± 0.06
Pupal (days)	8.5 ± 0.16	6.5 ± 0.23	7.0 ± 0.47	10.33 ± 0.18
Adult longevity (days)	8.0 ± 0.33	8.75 ± 0.11	6.25 ± 0.11	4.0 ± 0.47
Total life cycle (days)	43.16 ± 0.74	28.0 ± 1.50	36.5 ± 1.25	26.25 ± 0.58

Table 3. Correlation between various weather parameters and incidence of pod borer complex of pigeon pea

Name of the pest	Year	Weather parameters				
		Maximum Temperature (°C)	Minimum Temperature (°C)	Maximum Relative Humidity (%)	Minimum Relative Humidity (%)	Rainfall (mm)
<i>Helicoverpa armigera</i>	2016-17	0.431	0.042	-0.360	-0.570*	-0.305
	2017-18	0.454	0.257	-0.501*	-0.448	-0.081
<i>Maruca testulalis</i>	2016-17	-0.682**	-0.477*	0.662**	0.533*	-0.180
	2017-18	-0.792**	-0.468	0.612**	0.647**	-0.235

<i>Melanagromyza obtusa</i>	2016-17	0.746**	0.386	-0.632**	-0.730**	-0.236
	2017-18	0.729**	0.489*	--0.501*	-0.492*	-0.307
<i>Exelastis atomosa</i>	2016-17	0.178	0.174	-0.379	-0.496*	-0.304
	2017-18	0.709**	0.479*	-0.484*	-0.472*	-0.305
<i>Apion clavipes</i>	2016-17	0.466	0.720**	-0.132	-0.160	-0.198
	2017-18	0.710**	0.480*	-0.483*	-0.472*	-0.306

Note: ** Correlation is significant at the 0.01 % level (2-tailed), * Correlation is significant at the 0.05 % level (2 tailed)

