

Table 1. Relative populations of *Autographa nigrisigna* and *Heliothis armigera* larvae observed on chickpea at Faizabad, U.P., India.

Month	Week	1979			1980		
		Total larvae collected	Per cent		Total larvae collected	Per cent	
			<i>Autographa nigrisigna</i>	<i>Heliothis armigera</i>		<i>Autographa nigrisigna</i>	<i>Heliothis armigera</i>
March	I	*	*	*	194	79	21
"	II	172	90	10	196	76	24
"	III	254	87	14	226	88	12
"	IV	138	89	11	116	75	25
April	I	*	*	*	71	58	42
"	II	*	*	*	46	48	52

* Observations could not be made.

Are Bruchids Field Pests of Chickpea?

Chickpea plants, probably because of their acid exudate, have a relatively small range of insect pests when compared with other grain legumes. Apart from the *Heliothis* spp, leaf miners, aphids, cutworms, and termites there are also few other pests that have been extensively recorded to feed upon the chickpea crop.

Bruchids (mainly *Callosobruchus* spp) are well known as being very damaging in stored chickpea seeds and have apparently been reported as field pests on this crop. However, reports in literature on bruchids as field pests are based on collection of adults "on the crop", usually from sweepnets.

In our studies at ICRISAT, and in surveys of chickpeas across India and in other countries, we have examined millions of pods collected from fields and have not yet recorded a bruchid infesting a pod in any field! We have exposed intact mature chickpea pods to bruchids in our laboratory and recorded egg laying on the surface of the pods, but no subsequent larval infestation of the seeds.

In the absence of any evidence to the contrary we conclude that bruchids do not normally infest chickpeas in the fields. This is of importance in the consideration of bruchids as storage pests in this crop. If there are no bruchids in the container into which the newly harvested crop is to be

stored, and if the entry of bruchids into that container is prevented subsequently, then there should be no problem. This is in contrast to the situation with other grain legumes, including pigeonpea, where bruchids commonly infest the pods in the fields and so the harvested crop contains its own "starter infestation" of pests.

We would be grateful if anybody who has definite evidence of finding bruchids infesting chickpea pods in fields could communicate this fact to us.

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Microbiology

Genetic Variation in Root Growth and Nodulation in Chickpea

Though the root system is known to play vital mechanical and physiological functions in shoot development, very scanty information is available on genetic diversity for root growth and nodulation in chickpea. Such information may prove to be of immense importance for the breeder in evolving types tolerant to drought and with high nitrogen-fixing ability.