

Effect of Different Types of Food on the Development of Cotton Jassid, *Amrasca biguttula biguttula* (Ishidu)*

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Jassid (*A. biguttula biguttula*) is the most important pest of cotton (*Gossypium hirsutum* L.) and other malvaceous and solanaceous crops in India including Gujarat. Lal (1941) have re-

ported that cotton jassid is a serious pest of this crop. Hussain and Lal (1940) stated that eggs are deposited on holly-hock (*Athaca rosea*), brinjal (*Solanum melongena* L.) and potato (*Solanum tuberosum*) and that the infestation spreads from them to cotton and okra (*Abelmoschus esculentus* S.). Effect of different host plants, viz. okra, cotton, holly-hock and brinjal, on duration of each nymphal instar as well as on total nymphal period of jassid was studied at an average laboratory temperature and humidity, of 27.94° C

TABLE 1

Effect of different types of food on the development of *A. biguttula biguttula*.

Instar/ Particulars	Nymphal Duration on different host Plants (Days)			
	Okra	Cotton	Holly-hock	Brinjal
First	1-3 (2.13)**	1-3 (1.86)	1-3 (2.13)	2-4 (2.66)
Second	1-2 (1.35)	1-2 (1.42)	1-2 (1.35)	1-2 (1.50)
Third	1-2 (1.21)	1-2 (1.38)	1-2 (1.46)	1-3 (1.90)
Fourth	1-3 (1.76)	1-2 (1.69)	2-4 (2.23)	2-3 (2.40)
Fifth	1-2 (1.55)	1-3 (1.92)	1-4 (2.23)	2-3 (2.60)
Total nymphal period (days) 'a'	7-9 (8.00)	7-10 (8.38)	8-10 (9.38)	10-12 (11.20)
% Adult obtained 'b'	93.33	86.66	86.66	66.66
Growth Index 'b'÷'a'	11.66	10.34	9.23	5.95

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**Figures in parenthesis are the average values.

N.B.=In each case 50 individuals were observed.

and 76.77% respectively. The results obtained are summarized in Table 1.

The data revealed that the average nymphal period was 8.0, 8.38, 9.38 and 11.20 days when reared on the leaves of okra, cotton, holly-hock and brinjal respectively. The jassid took the longer time to complete each of the instars as well as the total nymphal period on the crop of brinjal as compared to rest. The shortest nymphal period recorded was 7.0 days on okra and cotton. It can also be seen that among all the host plants the highest growth index (11.66) was recorded on okra, while the lowest growth index

(5.55) was observed on brinjal. Thus, okra was the better suited crop for laboratory rearing of the jassid and cotton and holly-hock were the next best, while brinjal can be considered as the least suited host.

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