

(F78)

COTTON: *Gossypium hirsutum* L., 'BXN 47'

Cotton aphid: *Aphis gossypii* Glover

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EVALUATION OF ACETAMIPRID FOR CONTROL OF APHIDS IN COTTON, 1999: Plots were replicated four times in RCB design and were four rows (40-inch centers) x 45 ft. Cottonseed 'BXN 47' were planted on a Bruin silt loam on 5 May with a John Deere 7300 series planter. Foliar spray treatments were applied with a CO<sub>2</sub>-charged spray system with 80015 fan tips (2/row) at 28 psi to deliver 10 gpa finished product. Insecticide treatments were applied on 18 Jun. Control of aphids was assessed by randomly selecting 5 terminals per plot on 21, 23 and 28 Jun. Plant samples were processed by using whole-plant washing procedures to remove insects. Insect counts were made with the aid of a dissecting microscope. Plots were mechanically harvested on 17 Sep using a John Deere spindle type picker. Yields were converted to lb seed cotton/acre.

All insecticide treatments significantly reduced aphid densities compared with the check plot at 3 DAT. There were no significant differences in seed cotton yield among treatments.

Treatment/ formulation	Rate lb (AI)/acre	No. aphids/5 plants			Seed cotton yield (lb/acre)
		3 DAT	5 DAT	10 DAT	
Check	—	1027.5a	1137.5a	236.5a	2461a
Acetamiprid 70WP	0.025	286.0c	373.3a	67.0b	2432a
Acetamiprid 70WP	0.038	127.5c	596.3a	80.8b	2370a
Acetamiprid 70WP	0.050	158.8c	24.5a	53.5b	2356a
Provado 1.67F	0.047	629.8b	337.5a	253.8a	2675a
Furadan 4F	0.25	107.8c	44.8a	96.3b	2265a
CGA-293343 5FS	0.05	240.5c	292.0a	83.8b	2265a
(P > F)		<0.01	0.16	0.01	0.24

Means followed by a common letter within a column are not significantly different (P=0.05, DMRT).