

Two-Spotted Spider Mite Management in Soybeans - 2004: Southern States 'RT-4495' were planted on May 24 at the University of Delaware, Research and Education Center located near Georgetown, DE. Four-row, 25 ft long plots on 30-inch centers were replicated 4 times in a RCB design. Materials were applied on June 30 and July 7 in study #1 and on July 7 in study #2. All foliar treatments were broadcast applied with a CO₂ pressurized backpack sprayer delivering 21 gpa @ 40 psi. Mite populations were evaluated on a weekly basis from June 12 through July 26 by collecting 10 leaflets per plot and using a mite brushing machine to determine the number of mites per leaflet. Data were analyzed using ANOVA and means were separated by Ryan's q-test (P=0.05).

Spider mite pressure was heavy. In study #1, all treatments provided significantly better spider mite control compared to the untreated check on July 12 and 20. In the second study, Acramite provided significantly better spider mite control compared to dimethoate and the untreated check on July 20. No phytotoxicity was observed.

Table 1. Soybean Spider Mite Study #1

Treatment	Rate	Yield BU/A	Spider Mites per 10 leaves			
			June 28 Pre-treatment	July 6 6 DAT	July 12 6 DAT	July 20 14 DAT
Acramite 4 SC + Silwet	32 oz + 4 oz/100 gal	57.36a	583.50a	384.00a	125.00c	0.00b
Acramite 4 SC + Silwet	24 oz + 4 oz/100 gal	58.64a	616.50a	381.00a	298.50c	27.00b
Acramite 4SC + Silwet	16 oz + 4 oz/100 gal	54.84a	866.00a	460.50a	189.00c	28.50b
Acramite 4SC + Silwet + Choice	16 oz + 4 oz/100 + 1 qt/100 gal	58.34a	1062.00a	1416.00a	168.00c	40.50b
Capture 2EC	5.12 oz	58.86a	604.50a	423.00a	181.50c	12.00b
Zeal WDG	2/3 oz	59.93a	496.50a	441.00a	183.00c	6.00b
ZealWDG	1 oz	54.22a	1042.50a	921.00a	79.25c	3.00b
Dimethoate 4 EC	16 oz	50.93a	1740.50a	750.00a	870.00b	79.50b
Lorsban 4EC	16 oz	49.25a	666.00a	840.00a	427.50c	57.00b
Untreated	-----	40.01a	700.50a	855.00a	1573.50a	180.00a

Means within a column followed by the same letter are not significantly different (Ryan's q-test; P=0.05).

Table 2. Soybean Spider Mite Study #2

Treatment	Rate	Yield BU/A	Spider Mites per 10 leaves			
			July 6 Pre-Treatment	July 12 6 DAT	July 20 14 DAT	July 26 20 DAT
Acramite 4SC + Silwet	16 oz + 4 oz/100 gal	45.18a	1171.50a	760.50a	18.00c	6.00a
Acramite 4SC + Silwet	12 oz + 4 oz/100 gal	46.21a	2260.50a	863.00a	30.00c	4.00a
Acramite 4SC + Silwet	8 oz + 4 oz/100 gal	46.57a	1455.00a	772.50a	33.00c	0.00a
Dimethoate	16 oz	37.71ab	1587.00a	1324.00a	97.50b	2.00a
Untreated	-----	32.68b	1924.50a	2005.50a	253.50a	2.00a

Means within a column followed by the same letter are not significantly different (Ryan's q-test; P=0.05).