

Table 18. Leaf and stem pubescence, bract trichomes, tarnished plant bug (TPB) effect on flower damage and boll load, and response to bacterial blight for entries in the 2022 RBTN at Keiser, Arkansas (Cooperator: Fred Bourland)¹.

Entry	Designation	Leaf Pubescence ²	Stem Pubescence ²	Bract Trichomes ³	Damaged Flowers ⁴	TPB Boll Load ⁵	Bacterial Blight ⁶
		rating	rating	no.	%	rating	%sus
1	AU72028	3.6	2.4	28.0	50	4.1	41
2	AU90098	2.7	2.7	35.3	50	3.6	44
3	Ark 1414-28	5.2	4.1	37.3	60	4.5	32
4	Ark 1414-43	1.6	5.1	34.5	55	5.0	0
5	Ark 1414-47	2.6	4.1	41.0	54	5.5	0
6	Ark 1410-32	1.5	4.4	31.2	47	5.3	4
7	Ark 1406-21	3.5	4.3	33.8	48	3.6	0
8	Ark 1410-56	2.7	4.3	35.2	52	5.1	0
9	TAM 17 SHK-43	3.4	4.3	36.7	50	3.3	15
10	TAM 18 SHA-27	3.7	3.7	33.0	52	3.6	0
11	TAM 17 WSH-12	4.8	4.8	43.5	57	2.6	72
12	TAM 17 WSG-51	3.1	3.3	31.6	51	3.4	58
13	TAM 17 WSE-66	3.3	3.2	29.7	46	4.4	0
14	TAM 17 WSE-68	3.4	4.4	27.7	42	3.6	48
15	OA-22-1	2.8	1.0	30.7	56	4.6	97
16	OA-22-2	1.1	2.0	29.0	52	5.4	0
17	OA-22-3	1.7	2.3	21.7	46	5.2	0
18	CSX5432	3.0	5.8	29.6	58	4.3	0
19	MS 2010-87-37	2.3	2.6	30.8	55	4.3	18
20	MS 2010-87-42	2.1	4.2	29.2	43	4.5	51
21	MS2010-87-44	3.3	3.4	33.0	54	4.6	14
22	MS 2010-96-8	2.3	3.8	36.8	56	3.7	20
23	MS 2010-66-16	2.8	2.8	27.4	52	4.6	19
24	MS 2010-28-27	2.9	4.6	34.8	49	5.1	34
25	DP 393 CK	3.1	3.9	31.1	50	5.2	9
26	DP 493 CK	2.4	3.3	31.3	43	3.6	0
27	FM 958 CK	3.3	4.3	36.4	55	3.7	15
28	UA 222 CK	3.8	4.4	35.6	46	5.4	6
	Frego bract CK1 ⁷	—	—	—	88	2.8	—
	Frego bract CK2 ⁷	—	—	—	91	2.9	—
	Frego bract CK3 ⁷	—	—	—	87	2.8	—
	Frego bract CK4 ⁷	—	—	—	88	2.8	—
	Mean	2.8	3.5	32.7	55	4.2	23
	LSD (0.10)	1.2	1.5	6.6	7	0.6	23
	Entry (P>F)	<0.0001	<0.0001	0.0011	<0.0001	<0.0001	<0.0001
	C.V.(%)	35.5	35.8	17.1	15.9	16.6	73.2
	R-Square	55.8	60.9	54.7	70.0	65.8	78.0
	Reps	4	4	4	8	8	3

¹ Planted May 12, 2022, and harvested on October 23, 2022, on a Sharkey clay soil in northeast Arkansas.

² Leaf and stem pubescence visually rated from 1 (smooth leaf) to 7 (very hairy).

³ Marginal trichome density of bracts determined on 6 bracts/plot at Keiser irrigated test.

⁴ Response to tarnished plant bug populations was evaluated in a separate test (managed for high TPB populations) at Keiser by examining white flowers (6 flowers/plot/day for 6 days) for presence of anther damage. Plots consisted of a single row with 8 replications. Trial was planted May 29, 2022.

⁵ Effect of TPB on boll load was evaluated in a separate test (managed for high TPB populations) at Keiser by rating both ends of a plot based on a scale of 0 (no bolls) to 10 (excellent boll load). Plots consisted of a single row with 8 replications. Trial was planted May 29 and plots rated on October 21, 2022.

⁶ Seed of each entry were planted in greenhouse flats (10 seed/flat, 3 replications) and scratch inoculated with *Xanthomonas citri* pv. malvacearum. Inoculum was obtained from naturally infected leaves collected in 2019 at Marianna, AR. Scratch wounds were examined for water-soaking, and percentage of susceptible plants were determined.

⁷ Frego bract, Round-up Flex breeding lines were included as tarnished plant bug (TPB) susceptible check entries.