

TITLE:

Results of the Nematode Variety Test at AG-CARES, Lamesa, TX, 2002.

AUTHORS:

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MATERIALS AND METHODS:

Test: Nematode Strains
 Planting Date: May 9
 Row Spacing: 40-in.
 Planting Pattern: Solid
 Herbicide: Prowl @ 3pt/A applied pre-plant
 Fertilizer: 10-34-0 @ 100 lb/A on April 18
 32-0-0 @ 45 lb/A on July 3 and July 23
 Irrigations: 1.175 in. pre-plant
 (center pivot)

May	June	July	August	September
10 -.3 in.	12 - .5 in.	1 - .4 in.	3 - .4 in.	3 - .4 in.
13 -.3 in.	25 - .45 in.	5 - .4 in.	6 - .4 in.	6 - .4 in.
16 - 3 in.		17 - .4 in.	9 - .4 in.	
19 - .3 in.		20 - .4 in.	12 - .4 in.	
28 - .3 in.		22 - .4 in.	15 - .4 in.	
30 - .3 in.		26 - .4 in.	18 - .4 in.	
		28 - .4 in.	21 - .4 in.	
		30 - .4 in.	23 - .4 in.	
			26 - .4 in.	
			28 - .4 in.	
			31 - .4 in.	

Insecticide: Temik @ 3.5 lbs/A at planting
 Harvest Aids: Ginstar @ 6 oz/A + Boll'd @ 1 pt/A on September 18
 Cyclone @ 16 oz/A on September 30
 Harvest Date: October 11
 Freeze Date: November 28

RESULTS AND DISCUSSION:

Yields in this test ranged from 1403 lbs. Lint/A down to 761 lbs. Lint/A. One of the experimental lines developed by Terry Wheeler and John Gannaway ranked second in yield. The nematode counts were number of eggs per 500 cc. Of soil. These counts ranged from 43,080 to 960. The two experimental lines had egg counts of 960 and 1300. 'Stoneville LA 887', the resistant check, produced only 1165 eggs.

Table 1. Results of the irrigated nematode strains cotton variety test at AG-CARES, Lamesa, TX, 2002.

Designation	Source	Yield	Agronomic Properties								% Open		
			% Turnout		% Lint		Boll	Seed	Lint	Seed Per	Bolls	Storm	Nematodes
			Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	9/16	Resistance	Nematodes
Stoneville 5599 BR		1403	32.0	44.3	42.9	34.0	5.3	8.8	6.9	32.5	53	2.3	2220
TW 1318xTW 1320	01-44-403	1237	30.9	44.1	39.0	29.5	4.6	9.6	6.5	27.8	67	2.7	1300
Paymaster 2167 RR		1236	30.2	45.7	40.8	31.6	4.7	8.4	6.1	31.6	79	2.7	13770
Deltapine 458 B/RR		1216	31.7	45.4	39.7	30.8	4.0	7.7	5.3	29.8	51	2.3	16140
Stoneville 5303 R		1180	31.9	44.5	41.7	32.0	5.0	8.8	6.6	31.5	67	2.3	43080
PhytoGen 98M-3196		1158	30.8	42.3	41.9	32.0	4.3	8.6	6.6	27.2	72	2.0	7740
Deltapine 555 BG/RR		1123	32.0	41.7	43.2	33.6	3.9	6.9	5.5	30.9	57	2.1	17880
Stoneville 457		1115	30.2	43.3	39.4	29.7	4.2	8.7	6.1	27.4	74	2.1	6330
All-Tex Top-Pick		1104	27.3	43.6	39.2	28.6	4.7	9.0	6.1	30.5	62	2.3	25800
Suregrow 215 BG/RR		1085	30.3	43.4	39.7	30.3	4.5	8.8	6.1	28.9	61	2.2	18000
Stoneville LA 887	Check	1042	29.9	40.5	41.0	30.6	5.2	9.7	7.2	29.4	52	2.2	1165
All-Tex Atlas	Check	1004	27.9	46.8	36.2	27.1	4.6	10.0	6.0	28.2	75	2.8	7170
Syngenta 2723c		1004	30.1	42.7	39.9	29.8	4.6	10.2	7.1	25.8	86	2.7	1240
Deltapine 5690 RR		996	30.2	47.1	37.8	30.2	4.2	8.5	5.4	29.0	75	2.0	11865
Paymaster 2266 RR		978	26.9	45.4	37.0	28.0	5.2	10.2	6.4	29.9	86	2.7	23130
FiberMax 5024 BXN		974	26.5	45.1	38.6	28.2	3.9	8.6	5.7	26.8	75	3.0	11280
Syngenta 00516		965	27.6	43.5	39.8	30.3	4.4	9.8	6.8	25.6	61	2.4	11070
Paymaster 2280 BG/RR		935	28.9	47.7	36.5	28.2	4.5	8.6	5.2	31.6	81	2.7	9900
Paymaster 2344 BG/RR		916	27.2	47.3	35.2	26.8	4.7	10.5	6.2	26.4	77	2.8	8310
All-Tex Atlas RR		901	28.6	47.1	37.4	28.3	4.3	9.3	5.8	27.5	81	2.8	11340

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Designation	Source	Yield	Agronomic Properties								% Open		Nematodes
			% Turnout		% Lint		Boll	Seed	Lint	Seed Per	Bolls	Storm	
			Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	9/16	Resistance	
Holland x TW 1318	01-44-404	897	28.7	45.8	37.3	28.4	4.9	9.4	5.9	30.9	81	3.0	960
Paymaster 2326 RR		890	27.8	47.3	37.5	28.6	4.3	8.7	5.5	29.1	80	2.8	3060
All-Tex Excess		868	27.7	43.8	37.8	29.2	4.8	9.7	6.2	29.1	88	2.7	13890
All-Tex 211		761	30.2	45.9	38.6	29.7	4.6	8.9	5.8	30.5	79	2.4	9150
Mean		1041	29.4	44.7	39.1	29.8	4.5	9.0	6.1	29.1	72	2.5	
C.V.%		11.8	3.5	2.3	2.5	3.3	6.7	3.6	6.4	4.6	13.3	8.9	
LSD 0.05		145	1.8	1.8	1.6	1.7	0.5	0.6	0.7	2.6	11	0.3	

Nematode Counts were obtained September 6th 2002.

Table 1a. Results of the irrigated nematode variety test at AG-CARES, Lamesa, TX 2002.

Designation	Source	Micro- narie	Length	Uni- formity	Strength	Elon- gation	Leaf Index	Rd	+b	Color Grade ^L
Stoneville 5599 BR		4.6	1.06	80.8	28.7	5.0	2	77.7	8.4	31-1
TW 1318xTW 1320	01-44-403	4.5	0.99	80.0	25.0	5.2	2	77.9	8.1	31-1
Paymaster 2167 RR		4.6	0.98	81.1	27.0	5.4	3	77.4	8.3	31-2
Deltapine 458 B/RR		4.6	1.06	82.0	29.1	6.4	2	80.9	7.5	21-2
Stoneville 5303 R		4.7	1.04	82.9	30.4	5.1	2	78.3	8.3	31-2
PhytoGen 98M-3196		4.4	1.05	81.9	28.4	6.4	2	77.6	8.9	21-2
Deltapine 555 BG/RR		4.2	1.02	80.1	27.0	4.5	2	80.6	7.1	31-2
Stoneville 457		4.4	1.04	82.1	28.9	7.9	2	76.9	8.3	31-2
All-Tex Top-Pick		4.5	1.11	83.0	28.3	6.0	1	80.4	8.2	21-2
Suregrow 215 BG/RR		4.7	1.02	81.8	25.7	6.6	2	77.0	9.2	21-2
Stoneville LA 887	Check	4.8	1.07	82.3	29.4	5.7	3	76.3	8.7	31-2
All-Tex Atlas	Check	4.6	1.02	82.0	30.0	6.0	3	77.5	7.8	31-2
Syngenta 2723c		4.0	1.02	82.2	26.5	5.1	2	77.2	8.9	31-1
Deltapine 5690 RR		4.2	1.06	81.8	29.9	5.1	2	80.9	7.8	21-2
Paymaster 2266 RR		4.3	1.00	82.2	28.6	7.0	3	76.6	7.9	31-2
FiberMax 5024 BXN		4.0	1.03	81.9	28.6	5.5	2	80.0	7.8	31-1
Syngenta 00516		4.1	1.07	81.5	28.9	6.5	2	75.0	8.0	31-2
Paymaster 2280 BG/RR		4.3	1.05	81.9	29.0	5.6	3	76.9	8.0	31-2
Paymaster 2344 BG/RR		4.6	1.03	82.5	28.9	6.3	2	77.0	7.1	31-2
All-Tex Atlas RR		4.4	1.01	82.2	27.9	6.0	2	78.0	8.0	31-1

Table 1A. Cont. Results of the irrigated nematode variety test at AG-CARES, Lamesa, TX 2002.

Designation	Source	Micro- narie	Length	Uni- formity	Strength	Elon- gation	Leaf Index	Rd	+b	Color Grade ^{1/}
Holland x TW 1318	01-44-404	4.6	0.96	80.4	25.2	5.9	2	75.1	9.1	31-4
Paymaster 2326 RR		4.2	1.02	82.1	29.6	6.4	3	77.2	7.8	41-1
All-Tex Excess		4.7	1.00	81.4	27.9	4.8	3	75.9	7.9	41-1
All-Tex 211		4.7	1.01	81.7	29.0	4.4	2	78.0	8.4	31-2
Mean		4.4	1.03	81.7	28.2	5.8	2	77.7	8.1	
C.V.%		6.7	0.8	0.9	2.6	7.5	33.8	1.4	4.2	
LSD 0.05		0.5	0.03	1.3	1.3	0.7	1	1.9	0.6	

^{1/} Fiber quality determinations were made on samples from two reps. If the color grade from these two samples were identical, only one color grade is reported. If they were different, both are reported.