

COTTON DISEASE LOSS ESTIMATE COMMITTEE REPORT
Compiled by: Don Blasingame and Mukund V. Patel
Extension Plant Pathologists, Retired
Mississippi State, MS

Table 1. Estimated Reduction in 2002 Cotton Yield Resulting from Diseases.*

DISEASES	AL	AZ	AR	CA	FL	GA	LA	MS
	Note: Table entries are % loss (top figure) and bales lost (lower figure)**							
Fusarium Wilt <i>F. oxysporium f. sp. vasinfectum</i>	0.50 5,435	-	2.50 48,225	0.10 2,096	Trace	0.50 10,286	1.50 13,473	Trace
Verticillium Wilt <i>V. dahliae</i>	-	0.50 3,341	0.50 9,645	1.50 31,447	-	-	Trace	Trace
Bacterial Blight <i>X. malvacearum</i>	-	-	-	-	-	-	Trace	-
Phymatotrichum Root Rot <i>P. omnivorum</i>	-	1.00 6,681	-	-	-	-	Trace	-
Seedling Diseases Several fungi	7.00 76,087	1.00 6,681	3.00 57,870	1.50 31,447	2.00 3,702	1.50 30,857	3.00 26,946	2.50 60,976
Ascochyta Blight <i>A. gossypii</i>	0.5 5,435	-	-	-	-	Trace	Trace	Trace
Boll Rots	10.00 108,696	0.50 3,341	3.00 57,870	Trace 31,447	5.00 9,254	2.50 51,429	5.00 44,910	5.00 121,951
Nematode (Total)	8.50 92,391	5.00 33,406	6.50 125,385	1.50 31,447	5.10 9,439	7.00 144,000	7.00 62,874	10.00 243,902
<i>Root-knot</i>	0.50 5,435	5.00 33,406	4.50 86,805	1.50 31,447	4.10 7,588	4.50 92,571	2.00 17,964	2.50 60,976
<i>Reniform</i>	2.00 21,739	-	2.00 38,580	-	1.00 1,851	2.00 41,143	5.00 44,910	7.00 170,732
<i>Others</i>	-	-	-	-	-	0.50 10,286	-	0.50 12,195
Leaf Spots And Others***	4.50 48,913	0.10 668	-	Trace	0.10 185	1.00 20,571	Trace	0.50 12,195
TOTAL PERCENT	31.00	8.10	15.50	4.60	12.20	12.50	16.50	18.00
BALES LOST	336,957	54,118	298,994	96,436	22,580	257,143	148,204	439,024
YIELDS IN BALES****	1,086,957	668,118	1,928,994	2,096,436	185,080	2,057,143	898,204	2,439,024

*Cotton disease loss estimates were made by extension and research plant pathologists and agronomists with cotton responsibilities in their respective states.

**Rounding errors present.

***Leaf spots (*Alternaria*, *Cercospora*, *Phomopsis*, etc.) and various root rots.

****Yield potential had not disease been present.

Cotton Disease Loss Estimate Committee

AL - Dr. William Gazaway, Auburn University
 AR - Dr. Terry Kirkpatrick, University of Arkansas, Hope
 AZ - Dr. Mary Olsen, University of Arizona
 CA - Dr. Mike Davis, University of California
 FL - Dr. Richard Sprenkel, University of Florida, Quincy
 GA - Dr. Bob Kemerait, University of Georgia, Tifton
 LA - Dr. Patrick Colyer, LSU, Bossier City
 MS - Dr. Gabe Scuibato, Mississippi State University, Stoneville

MO - Dr. Al Wrather, University of Missouri
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 SC - Dr. John Muller, Clemson University, Blackville
 TN - Dr. Melvin Newman, University of Tennessee, Jackson
 TX - Dr. Harold Kaufman, Texas A & M, Lubbock
 VA - Dr. Patrick Phipps, Virginia Tech, Tidewater

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Table 1. (continued)

MO	NM	NC	OK	SC	TN	TX	VA	BALES LOST	AVG. % LOST
-	-	0.01	0.30	0.50	0.01	0.20	-	93,382	0.38
-	4.50	103	550	1,104	107	12,002	-		
-	5,700	0.01	0.30	-	0.10	1.00	-	111,866	0.53
-	Trace	103	550	-	1,069	60,012	-		
-	Trace	-	0.20	-	-	4.00	-	240,413	0.26
-	Trace	-	367	-	-	240,047	-		
-	Trace	-	-	-	-	3.00	-	186,716	0.25
5.00	0.50	2.50	0.30	0.50	20.00	2.50	0.75		
34,043	633	25,849	550	1,104	213,813	150,029	800	721,387	3.35
0.50	-	-	0.20	Trace	2.00	-	-	30,587	0.20
3,404	-	-	367	Trace	21,381	-	-		
-	Trace	4.60	.10	15.00	5.00	0.70	2.00		
0.50	5.00	47,562	183	33,129	53,453	42,008	2,133	575,919	3.65
3,404	6,333	1.00	020	2.50	1.50	2.70	3.50		
0.50	5.00	10,340	367	5,521	16,036	162,032	3,733	950,610	4.22
3,404	6,333	0.40	0.20	1.00	0.10	2.50	0.50		
-	-	4,136	367	2,209	1,069	150,029	533	504,272	2.18
-	-	0.40	-	0.50	1.40	0.20	Trace		
-	-	4,136	-	1,104	14,967	12,002	Trace	351,164	1.34
-	-	0.20	-	1.00	-	-	3.00		
-	-	2,068	-	2,209	-	-	3,200	29,957	0.33
-	Trace	-	0.20	Trace	0.30	0.30	Trace		
-	Trace	-	367	Trace	3,207	18,004	Trace	104,110	0.44
6.00	10.00	8.12	1.80	18.50	28.91	14.40	6.25		13.27
40,851	12,667	83,957	3,299	40,859	309,067	864,168	6,667	3,014,990	
680,851	126,667	1,033,957	183,299	220,859	1,069,067	6,001,168	106,667	20,675,824	

Comments:

- AL Heavy rains late in the season resulted in heavy boll rot loss in the south part of the state. The reniform nematode continues to spread. Dr. Ed Sikora and Dr. Dale Monk assisted with the estimates.
- GA Conditions were less favorable for seedling disease and boll rot this year. The reniform nematode was found in more locations in 2002.
- MS Late season rain increased boll rots as well as caused problems with harvesting and reducing quality. Dr. Gary Lawrence assisted with estimates.
- SC Boll rots, hard-lock, tight-lock, and stink bug damage was severe in 2002. The prolonged wet weather attributed to the problems.
- TN Loss estimates were taken from research and extension plots, as well as reports and estimates from extension agents. Seedling disease losses were the highest in the last 30 years.
- TX July rains caused leaf spots in the upper coast, the coastal bend and central Texas that were associated with premature defoliation. There were also late defoliating wilts on the High Plains that could not be attributed to either Fusarium or Verticillium wilts.
- VA Reniform nematode damage in cotton was found in Southampton county. Dr. Eisenback, nematologist, confirmed the ID. Southern root-knot was confirmed on the north side of the James river, in our northern most cotton production area.