

**COTTON DISEASE LOSS ESTIMATE
COMMITTEE REPORT
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1996 Cotton Disease Loss Estimate**

Comments

Alabama

Disease incidence and nematode damage in cotton was considerably less in the 1996 growing season than last year. Cotton yields overall are expected to be 50 to 60% greater than 1995. Boll rot increased this year across the state, particularly in south Alabama due to late season rains. General favorable growing conditions moderated nematode damage to cotton.

In August, scattered cotton fields were prematurely defoliated. Stemphyllium leaf spot along with some Alternaria was strongly associated with the defoliation. However, we feel that potassium deficiency was the primary cause. Stemphyllium leaf spot is thought to have finished the premature defoliation process.

Arizona

Alternaria leaf spots unusually heavy. Cotton leaf crumple earlier and more widespread than past 10 years. Estimated 1.5% reduction in yield.

Arkansas

Boll rots were more severe than usual. In some cases this was due to extended cloudy weather and rain resulting in rank cotton. However, we also saw increased boll rot in normal growing cotton. Reniform nematode incidence continues to increase. We added 59 newly detected fields to the list so far in 1996.

Georgia

Nematode damage continues to increase due to the lack of sampling by growers in fields with continuous cotton. More education is necessary to lower this percent loss by nematodes.

Louisiana

Late summer rains contributed to rank cotton growth. This and high rainfall prior to harvest resulted in increase in boll rots.

New Mexico

The increased incidence of boll rots was associated with abnormally high damage from boll worms and pink boll worms.

South Carolina

Due to weather conditions, disease pressure was much lower in 1996 than in the past few years. Ample moisture offset some losses to nematodes.

Texas

There was more damage due to the vascular wilts, bacterial blight, and seedling diseases on the high plains with few problems in the central and south areas due to dry weather.

Table 1. Estimated Reduction in 1996 Cotton Yield Resulting from Diseases.*

DISEASES	AL	AZ	AR	CA	GA	LA	MS	MO	NM	NC	OK	SC	TN	TX	BALES LOST	AVG. % LOST
Note: Table entries are % loss (top figure) and bales lost (lower figure)**																
Fusarium Wilt <i>F. oxysporium f. sp. vasinfectum</i>	Tr.	-	0.50 9,302	0.10 2,640	1.00 23,529	1.00 15,294	Tr.	-	-	-	1.00 1,437	Tr.	0.01 74	0.70 32,586	84,862	0.31
Verticillium Wilt <i>V. dahliae</i>	Tr.	3.00 30,385	2.00 37,209	2.00 52,798	Tr.	Tr.	0.50 10,170	-	5.50 5,121	0	1.50 2,155	0	1.50 11,043	2.00 93,103	241,984	1.29
Bacterial Blight <i>Xanthomonas malvacearum</i>	-	-	-	-	Tr.	0	-	-	Tr.	0	0.50 719	0	-	0.90 41,897	42,616	0.10
Phymatotrichum Root Rot <i>P. omnivorum</i>	-	5.00 50,641	-	-	-	Tr.	-	-	Tr.	0	-	0	-	2.50 116,379	167,020	0.54
Seedling Diseases <i>Rhizoctonia solani</i> , <i>Pythium</i> spp., <i>Fusarium</i> spp., etc.	5.00 46,552	2.00 20,256	4.00 74,419	2.00 52,798	2.00 47,059	3.00 45,882	2.50 50,848	1.50 9,231	0.50 466	5.00 58,235	1.50 2,155	2.50 11,813	5.00 36,811	2.00 93,103	549,628	2.75
Ascochyta Blight <i>A. gossypii</i>	-	-	-	-	Tr.	Tr.	Tr.	-	-	0	0.50 719	Tr.	-	0.10 4,655	5,374	0.04
Boll Rots	2.00 18,621	1.00 10,128	3.00 55,814	Tr.	5.00 129,412	5.00 76,471	4.50 91,525	0.5 3,077	1.00 931	10.00 116,471	0.30 431	1.00 4,725	4.00 29,448	0.40 18,621	555,675	2.73
Nematode Spp.	5.50 51,207	5.00 50,641	4.50 83,721	1.20 31,679	6.50 152,941	6.00 91,765	4.00 81,356	0.50 3,077	5.00 4,655	Tr.	0.50 719	5.00 23,626	0.20 1,472	4.00 186,207	763,066	3.42
Leaf Spots And Others***	0.50 4,655	6.00 60,769	-	-	Tr.	Tr.	Tr.	-	1.00 931	0	0.25 359	0.50 2,363	1.00 7,362	0.40 18,621	95,060	0.69
TOTAL PERCENT	13.00	22.00	14.00	5.30	15.00	15.00	11.50	2.50	13.00	15.00	6.05	9.00	11.71	13.00		11.86
BALES LOST	121,035	222,821	260,465	139,916	352,941	229,412	233,899	15,385	12,104	174,706	8,694	42,527	86,210	605,172	2,505,287	
YIELDS IN BALES****	931,034	1,012,821	1,860,465	2,639,916	2,352,941	1,529,412	2,033,898	615,385	93,103	1,164,706	143,693	472,527	736,210	4,655,172		

*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.

