COTTON DISEASE LOSS ESTIMATE COMMITTEE REPORT, 2014

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Abstract

The National Cotton Council Disease Loss committee submitted estimates of the losses due to each disease during the 2014 growing season. Estimates are calculated by cotton specialists in each state discussing disease incidence observed across each state during the year. Yield losses are determined by using the USDA "Crop Production" published at www.usda.gov/nass/PUBS/TODAYRPT/crop1114.pdf which documents cotton acreage planted,

harvested, and average yields for each state. Total average percent loss was estimated at 11.7% which is down 0.84% from 2013. Plant parasitic nematodes were the group of pathogens responsible for the greatest average percent loss, resulting in an estimated 5.5% increase from the previous two years. Georgia, Alabama, and Louisiana, suffered the greatest disease losses of greater than 15%; although these states were followed closely by Mississippi, Tennessee, South Carolina, and Florida which estimated losses greater than 10%. Oklahoma, New Mexico, and California appeared to have the best growing conditions with the least amount of disease loss.

Table 1. Cotton disease loss estimates for the 2014 season.

2014	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	loss %	Total	%
Percent disease loss estimates	**AL**	**AZ***	**AR**	**CA***	**FL**	**GA**	**LA**	**MS**	**MO**	**NM***	**NC**	**OK**	**SC**	**TN**	**TX***	**VA**	**Bales lost**	**Bales lost**
Fusarium Wilt (F.o. vasinfectum)	1.0	0.0	0.0	1.5	0.0	0.1	0.0	trace	0.1	0.0	0.0	0.0	1.0	0.5	0.0	0.0		0.2
Bales lost to Fusarium (x 1,000)	*7*	*0*	*0*	*11*	*0*	*3*	*0*	*0*	*1*	*0*	*0*	*0*	*5*	*2*	*0*	*0*	*28*	
Verticillium Wilt (V. dahliae)	1.5	1.5	1.6	0.4	0.0	0.0	0.0	trace	0.1	1.0	0.0	0.5	0.0	0.5	1.6	0.0		0.8
Bales lost to Verticillium (x 1,000)	*10*	*8*	*13*	*3*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*1*	*0*	*2*	*96*	*0*	*133*	
Bacterial Blight (X. malvacearum)	trace	0.0	0.3	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.0		0.1
Bales lost to Xanthomonas (x 1,000)	*0*	*0*	*2*	*0*	*0*	*0*	*2*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*18*	*0*	*24*	
Root Rot (P. omnivora)	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0		0.2
Bales lost to Phymatotrichopsis (x 1,000)	*0*	*8*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*8*	
Seedling Diseases (Rhizoctonia & Etc.)	4.5	0.5	2.5	1.5	0.3	2.0	3.0	2.1	3.0	0.5	2.0	0.1	0.5	6.0	2.5	2.0		2.3
Bales lost to Seedling disease (x 1,000)	*29*	*3*	*20*	*11*	*1*	*50*	*12*	*21*	*17*	*0*	*20*	*0*	*3*	*30*	*149*	*5*	*370*	
Ascochyta Blight (A. gossypii)	0.5	0.0	0.0	0.0	1.0	trace	0.3	trace	0.0	0.0	0.5	0.0	0.1	0.5	0.0	0.1		0.1
Bales lost to Ascochyta (x 1,000)	*3*	*0*	*0*	*0*	*2*	*0*	*1*	*0*	*0*	*0*	*5*	*0*	*1*	*2*	*0*	*0*	*15*	
Boll Rots (Rhizopus, etc.)	2.0	0.1	1.0	trace	3.0	2.0	1.5	3.4	3.0	0.0	3.0	0.0	0.3	1.0	1.0	1.0		1.5
Bales lost to Rhizopus (x 1,000)	*13*	*1*	*8*	*0*	*6*	*50*	*6*	*34*	*17*	*0*	*30*	*0*	*2*	*5*	*60*	*2*	*233*	
Nematodes (All)	5.0	2.5	4.0	0.1	4.0	13.0	6.0	7.9	2.0	0.5	4.0	0.1	8.0	3.0	4.0	3.0		5
Bales lost to Nematodes (x 1,000)	*33*	*13*	*32*	*1*	*8*	*325*	*25*	*79*	*11*	*0*	*40*	*0*	*43*	*15*	*239*	*7*	*870*	
Nematodes (Meloidogyne spp.)	1.0	2.5	2.0	0.1	3.0	10.0	3.0	1.6	0.5	0.5	2.5	0.1	4.0	0.0	2.0	2.0		1.7
Bales lost to Meloidogyne (x 1,000)	*7*	*13*	*16*	*1*	*6*	*250*	*12*	*16*	*3*	*0*	*25*	*0*	*22*	*0*	*120*	*5*	*494*	
Nematodes (Reniform reniformis)	4.0	0.0	2.0	0.0	1.0	2.5	3.0	5.8	1.0	0.0	0.5	0.0	2.0	3.0	2.0	0.0		2.1
Bales lost to Reniform (x 1,000)	*26*	*0*	*16*	*0*	*2*	*63*	*12*	*58*	*6*	*0*	*5*	*0*	*11*	*15*	*120*	*0*	*333*	
Nematodes (Other spp.)	0.5	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.5	0.0	0.2	0.0	2.0	0.0	0.0	1.0		0.2
Bales lost to other Nematodes (x 1,000)	*3*	*0*	*0*	*0*	*0*	*13*	*0*	*5*	*3*	*0*	*2*	*0*	*11*	*0*	*0*	*2*	*39*	
Leaf Spots & Others	1.0	0.0	0.3	0.0	2.0	2.5	4.0	1.4	0.1	0.0	0.5	0.5	0.2	0.8	0.3	0.2		0.9
Bales lost to Leaf spots & Others (x 1,000)	*7*	*0*	*2*	*0*	*4*	*63*	*16*	*14*	*1*	*0*	*5*	*1*	*1*	*4*	*18*	*0*	*136*	
Total Percent Lost	16.0	6.1	9.7	3.5	10.3	19.6	15.3	14.9	8.3	2.0	9.2	1.4	10.1	12.3	9.7	6.3		11.7
Total Bales Lost (x 1,000)	*104*	*31*	*78*	*25*	*22*	*490*	*63*	*149*	*46*	*1*	*91*	*3*	*54*	*61*	*580*	*14*	*1811*	
Total Yield in Bales (x 1,000)(USDA Dec'14)	650	500	800	705	210	2500	410	1000	560	71	990	235	540	495	5975	230	15871 **	

notes:

* for AZ, CA, NM and TX: yields include upland and pima cotton production

** Total estimated US yield excludes 52,000 bales produced in KS (disease losses not known)

Comments:

AL Warm wet spring with rainfall in late June and July and a very dry late summer and fall. Nematode damage was greater especially on irrigated land. Fusarium and Verticillium wilt incidence and severity were greater. Corynespora leaf spot was very light this season.

GA Our season was characterized by extremes. Planting was, in some cases, delayed by excessive rains. However, once significant planting commenced and throughout much of the rest of the season, drought was punishing. Seedling disease was a problem, but reduced from 2013. Stemphylium leaf spot was problematic as a result of drought; target spot was less of a problem than in 2013. Nematodes continue to be our biggest challenge and loss of aldicarb continues to be an issue. Also, in 2014 many growers who would have used Telone II did not because of delayed planting due to rains. Fusarium wilt continues to gain importance. While still only affecting a small percentage of the acreage, where it does occur can be very damaging. Lastly, boll rot was problematic, but down from 2013 because of drought.

OK Lack of water was their biggest problem.