

ESTIMATED SMALL GRAIN LOSSES FROM RUST IN 2002

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Acreage harvested and yield production records based on 2002 Crop Production Summary, Agricultural Statistics Board, USDA. Loss data are a summary of estimates made by personnel of the State Departments of Agriculture, University extension and research projects, Agricultural Research Service, USDA, and the Cereal Disease Laboratory.

Losses were calculated for each rust as follows:

$$\text{Loss (specific rust)} = \frac{(\text{Production}) \times (\text{Percent loss})}{(100\%) - (\text{Percent loss due to rusts})}$$

Losses were indicated as a trace when the disease was present but no fields were known to have suffered significant losses. When a few fields suffered measurable losses this was reflected as a percent of the state's production. Zeros indicate the disease was not reported in that state during the season. Blanks for stripe rust indicate that the disease was not reported nor does it occur annually in that state. Trace amounts were not included in the calculation of totals and averages.

Please note: The small grain rust loss reports are maintained on our webpage (<http://www.cdl.umn.edu>). To request a hardcopy E-mail David Long or write to the Cereal Disease Laboratory

WINTER WHEAT

State	1,000 acres harvest	Yields in bushels per acre	Production in 1,000 of bushels	Losses due to:					
				Stem Rust		Leaf Rust		Stripe Rust	
				Percent	1,000 bushels	Percent	1,000 bushels	Percent	1,000 bushels
Alabama	60	40.0	2,400	0.0	0.0	2.0	49.0	T	T
Arkansas	840	46.0	38,640	0.0	0.0	T*	T	5.0	2,033.7
California	300	75.0	22,500	0.0	0.0	3.0	741.8	6.0	1,483.5
Colorado	1,650	22.0	36,300	0.0	0.0	0.0	0.0	0.0	0.0
Delaware	58	70.0	4,060	0.0	0.0	0.0	0.0	0.0	0.0
Florida	7	43.0	301	0.0	0.0	T	T	0.0	0.0
Georgia	200	41.0	8,200	0.0	0.0	1.0	82.8	T	T
Idaho	690	79.0	54,510	0.1	54.9	0.2	109.9	0.5	274.7
Illinois	650	49.0	31,850	0.0	0.0	T	T	0.0	0.0
Indiana	330	53.0	17,490	0.0	0.0	T	T	T	T
Iowa	16	50.0	800	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	8,100	33.0	267,300	T	T	1.0	2,700.0	T	T
Kentucky	340	53.0	18,020	0.0	0.0	T	T	0.0	0.0
Louisiana	220	40.0	8,800	0.0	0.0	3.5	299.5	3.0	273.6
Maryland	180	66.0	11,880	0.0	0.0	T	T	0.0	0.0
Michigan	490	67.0	32,830	0.0	0.0	T	T	0.0	0.0
Minnesota	30	30.0	900	T	T	T	T	0.0	0.0
Mississippi	205	44.0	9,020	0.0	0.0	2.0	184.1	0.0	0.0
Missouri	760	45.0	34,200	T	T	1.0	347.2	0.5	173.6
Montana	750	28.0	21,000	0.0	0.0	T	T	0.0	0.0
Nebraska	1,520	32.0	48,640	0.0	0.0	T	T	0.0	0.0
New Jersey	32	58.0	1,856	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	170	22.0	3,740	0.0	0.0	0.0	0.0	0.0	0.0
New York	128	58.0	7,424	0.0	0.0	T	T	0.0	0.0
North Carolina	480	42.0	20,160	0.0	0.0	T	T	0.0	0.0
North Dakota	70	38.0	2,660	0.0	0.0	T	T	0.0	0.0
Ohio	810	62.0	50,220	0.0	0.0	T	T	T	T
Oklahoma	3,500	28.0	98,000	0.0	0.0	2.0	2,000.0	T	T
Oregon	710	41.0	29,110	0.1	29.3	0.2	58.7	0.5	146.7
Pennsylvania	185	54.0	9,990	0.0	0.0	T	T	0.0	0.0
South Carolina	190	37.0	7,030	0.0	0.0	T	T	0.0	0.0
South Dakota	625	29.0	18,125	T	T	1.0	183.1	0.0	0.0
Tennessee	300	46.0	13,800	0.0	0.0	T	T	0.0	0.0
Texas	2,700	29.0	78,300	0.0	0.0	2.0	1,614.4	1.0	807.2
Utah	125	35.0	4,375	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	170	63.0	10,710	0.0	0.0	T	T	T	T
Washington	1,750	59.0	103,250	0.2	210.0	0.5	523.0	1.0	1,050.4
West Virginia	7	48.0	336	0.0	0.0	0.0	0.0	0.0	0.0
Wisconsin	170	62.0	10,540	T	T	T	T	T	T
Wyoming	120	19.0	2,280	0.0	0.0	0.0	0.0	0.0	0.0
Total from Above	29,638	38.5	1,141,547		294.2		8,844.5		6,078.6
U.S. % Loss				0.03		0.76		0.53	
U.S. Total	29,651	38.5	1,142,802						

*T = Trace

SPRING WHEAT

State	1,000 acres harvest	Yields in bushels per acre	Production in 1,000 of bushels	Losses due to:					
				Stem Rust		Leaf Rust		Stripe Rust	
				Percent	1,000 bushels	Percent	1,000 bushels	Percent	1,000 bushels
Colorado	24	100.0	2,400	0.0	0.0	0.0	0.0	0.0	0.0
Idaho	510	65.0	33,150	0.0	0.0	0.2	6.8	0.5	166.9
Minnesota	1,800	34.0	61,200	0.0	0.0	2.0	1,249.0	0.0	0.0
Montana	3,500	23.0	80,500	0.0	0.0	T*	T	T	T
Nevada	2	75.0	150	0.0	0.0	0.0	0.0	0.0	0.0
North Dakota	6,000	28.0	168,000	T	T	3.0	5,195.9	0.0	0.0
Oregon	140	35.0	4,900	0.0	0.0	0.1	4.9	1.0	49.5
South Dakota	1,000	24.0	24,000	0.0	0.0	2.0	489.8	0.0	0.0
Utah	11	47.0	517	0.0	0.0	0.0	0.0	0.0	0.0
Washington	615	43.0	26,445	0.2	56.7	0.5	141.7	6.0	1,700.6
Wisconsin	7	33.0	231	T	T	T	T	0.0	0.0
Wyoming	4	24.0	96	0.0	0.0	0.0	0.0	0.0	0.0
Total from Above	13,613	29.5	401,589		56.7		7,088.1		1,917.0
U.S. % Loss				0.01		1.73		0.47	
U.S. Total	13,613	29.5	401,589						

*T = Trace

DURUM WHEAT

State	1,000 acres harvest	Yields in bushels per acre	Production in 1,000 of bushels	Losses due to:					
				Stem Rust		Leaf Rust		Stripe Rust	
				Percent	1,000 bushels	Percent	1,000 bushels	Percent	1,000 bushels
Arizona	89	95.0	8,455	0.0	0.0	0.0	0.0	0.0	0.0
California	90	100.0	9,000	0.0	0.0	0.0	0.0	0.0	0.0
Minnesota	4	35.0	140	0.0	0.0	0.0	0.0	0.0	0.0
Montana	570	22.0	12,540	0.0	0.0	0.0	0.0	0.0	0.0
North Dakota	2,000	25.0	50,000	0.0	0.0	0.0	0.0	0.0	0.0
South Dakota	5	22.0	110	0.0	0.0	0.0	0.0	0.0	0.0
Total from Above	2,758	29.1	80,245		0.0		0.0		0.0
U.S. % Loss				0.00		0.00		0.00	
U.S. Total	2,758	29.1	80,245						

OAT

State	1,000 acres harvest	Yields in bushels per acre	Production in 1,000 of bushels	Losses due to:			
				Stem Rust		Crown Rust	
				Percent	1,000 bushels	Percent	1,000 bushels
Alabama	NA**	NA	NA	0.0	0.0	0.0	0.0
Arkansas	NA	NA	NA	T	T	T	T
California	27	80.0	2,160	T	T	T	T
Colorado	8	58.0	464	0.0	0.0	0.0	0.0
Georgia	25	60.0	1,500	0.0	0.0	T	T
Idaho	25	70.0	1,750	0.0	0.0	0.0	0.0
Illinois	50	69.0	3,450	0.0	0.0	T	T
Indiana	14	62.0	868	0.0	0.0	T	T
Iowa	175	76.0	13,300	T	T	T	T
Kansas	60	52.0	3,120	0.0	0.0	T	T
Maine	29	90.0	2,610	0.0	0.0	0.0	0.0
Michigan	65	64.0	4,160	0.0	0.0	T	T
Minnesota	285	56.0	15,960	1.0	162.9	1.0	162.9
Missouri	35	48.0	1,680	T	T	T	T
Montana	55	49.0	2,695	0.0	0.0	0.0	0.0
Nebraska	55	43.0	2,365	T	T	T	T
New York	55	66.0	3,630	0.0	0.0	1.0	36.6
North Carolina	35	57.0	1,995	0.0	0.0	T	T
North Dakota	290	44.0	12,760	2.0	263.1	1.0	131.5
Ohio	60	61.0	3,720	0.0	0.0	0.0	0.0
Oklahoma	30	37.0	1,110	0.0	0.0	T	T
Oregon	35	88.0	3,080	0.0	0.0	0.0	0.0
Pennsylvania	115	61.0	7,015	0.0	0.0	0.0	0.0
South Carolina	30	43.0	1,290	0.0	0.0	0.0	0.0
South Dakota	100	45.0	4,500	T	T	T	T
Texas	160	44.0	7,040	1.0	73.3	3.0	220.0
Utah	5	90.0	450	0.0	0.0	0.0	0.0
Washington	10	65.0	650	0.0	0.0	0.0	0.0
Wisconsin	250	60.0	15,000	T	T	T	T
Wyoming	15	54.0	810	0.0	0.0	0.0	0.0
Total from Above	2,098	56.8	119,132		499.3		551.0
U.S. % Loss				0.42		0.46	
U.S. Total	2,098	56.8	119,132				

*T = Trace

BARLEY

State	1,000 acres harvest	Yields in bushels per acre	Production in 1,000 of bushels	Losses due to:					
				Stem Rust		Leaf Rust		Stripe Rust	
				Percent	1,000 bushels	Percent	1,000 bushels	Percent	1,000 bushels
Arizona	40	110.0	4,400	0.0	0.0	0.0	0.0	0.0	0.0
California	75	68.0	5,100	0.0	0.0	T	T	2.0	104.1
Colorado	72	100.0	7,200	0.0	0.0	0.0	0.0	0.0	0.0
Delaware	23	84.0	1,932	0.0	0.0	0.0	0.0		
Idaho	710	76.0	53,960	0.0	0.0	0.0	0.0	0.5	54.0
Kansas	7	34.0	238	0.0	0.0	0.0	0.0		
Kentucky	8	64.0	512	0.0	0.0	0.0	0.0		
Maine	26	80.0	2,080	0.0	0.0	0.0	0.0		
Maryland	41	82.0	3,362	0.0	0.0	0.0	0.0		
Michigan	19	52.0	988	0.0	0.0	0.0	0.0		
Minnesota	165	39.0	6,435	T*	T	T	T		
Montana	950	42.0	39,900	0.0	0.0	0.0	0.0	0.0	0.0
Nebraska	5	43.0	215	0.0	0.0	0.0	0.0	0.0	0.0
Nevada	2	97.0	194	0.0	0.0	0.0	0.0		
New Jersey	3	74.0	222	0.0	0.0	0.0	0.0		
New York	10	47.0	470	0.0	0.0	0.0	0.0		
North Carolina	20	69.0	1,380	0.0	0.0	T	T		
North Dakota	1,240	46.0	57,040	T	T	T	T		
Ohio	5	48.0	240	0.0	0.0	0.0	0.0		
Oregon	74	50.0	3,700	0.0	0.0	T	T	0.5	18.6
Pennsylvania	60	74.0	4,440	0.0	0.0	0.0	0.0		
South Dakota	45	41.0	1,845	T	T	T	T		
Utah	45	64.0	2,880	0.0	0.0	0.0	0.0		
Virginia	40	77.0	3,080	0.0	0.0	0.0	0.0		
Washington	340	54.0	18,360	0.0	0.0	0.1	18.5	0.5	92.4
Wisconsin	40	45.0	1,800	0.0	0.0	0.0	0.0		
Wyoming	70	70.0	4,900	0.0	0.0	0.0	0.0		
Total from Above	4,135	54.9	226,873		T		18.5		269.1
U.S. % Loss				T		0.01		0.12	
U.S. Total	4,135	54.9	226,873						

*T = Trace

RYE

State	1,000 acres harvest	Yields in bushels per acre	Production in 1,000 of bushels	Losses due to:			
				Stem Rust		Leaf Rust	
				Percent	1,000 bushels	Percent	1,000 bushels
Georgia	45	16.0	720	0.0	0.0	T	T
Illinois							
Kansas							
Michigan							
Minnesota							
Nebraska							
New York							
North Carolina							
North Dakota	9	38.0	342	0.0	0.0	0.0	0.0
Ohio							
Oklahoma	70	19.0	1,330	0.0	0.0	T*	T
Pennsylvania							
South Carolina							
South Dakota	10	27.0	270	0.0	0.0	0.0	0.0
Texas				0.0	0.0	T	T
Wisconsin							
Other US States***	152	24.4	4,323				
Total from Above	286	24.4	6,985		0.0		T
U.S. % Loss				0.00		T	

*T = Trace

*** Other US States include IL, KS, MI, MN, NE, NY, NC, PA, SC, TX, and WI