

ESTIMATED SMALL GRAIN LOSSES FROM RUST IN 2006

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Acreage harvested and yield production records based on 2006 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 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.ars.usda.gov/mwa/cdl>). 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	45	58.0	2,610	0.0	0.0	1.0	26.4	*T	T
Arkansas	305	61.0	18,605	0.0	0.0	1.0	189.8	1.0	189.8
California	250	58.0	14,500	0.0	0.0	1.0	172.6	15.0	2,529.1
Colorado	1,900	21.0	39,900	0.0	0.0	T	T	T	T
Delaware	45	67.0	3,015	0.0	0.0	T	T	0.0	0.0
Florida	5	42.0	210	0.0	0.0	T	T	T	T
Georgia	120	49.0	5,880	0.0	0.0	T	T	T	T
Idaho	710	77.0	54,670	0.0	0.0	T	T	0.3	164.5
Illinois	910	67.0	60,970	0.0	0.0	T	T	T	T
Indiana	460	69.0	31,740	0.0	0.0	T	T	T	T
Iowa	18	66.0	1,188	0.0	0.0	T	T	0.0	0.0
Kansas	9,100	32.0	291,200	0.0	0.0	0.1	291.5	T	T
Kentucky	320	71.0	22,720	0.0	0.0	1.0	229.5	T	T
Louisiana	105	53.0	5,565	0.0	0.0	1.0	57.4	2.0	114.7
Maryland	125	68.0	8,500	0.0	0.0	T	T	T	T
Michigan	650	73.0	47,450	T	T	1.0	479.3	T	T
Minnesota	45	62.0	2,790	0.0	0.0	1.0	28.2	T	T
Mississippi	73	59.0	4,307	0.0	0.0	1.0	43.5	T	T
Missouri	910	54.0	49,140	0.0	0.0	1.0	496.4	T	T
Montana	1,920	43.0	82,560	0.0	0.0	0.0	0.0	0.6	498.4
Nebraska	1,700	36.0	61,200	0.0	0.0	0.1	61.3	0.0	0.0
New Jersey	22	60.0	1,320	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	120	32.0	3,840	0.0	0.0	0.0	0.0	0.0	0.0
New York	95	61.0	5,795	0.0	0.0	1.0	58.5	0.0	0.0
North Carolina	420	59.0	24,780	0.0	0.0	T	T	T	T
North Dakota	180	44.0	7,920	0.0	0.0	2.0	161.6	0.0	0.0
Ohio	960	68.0	65,280	0.0	0.0	T	T	0.0	0.0
Oklahoma	3,400	24.0	81,600	0.0	0.0	T	T	0.0	0.0
Oregon	730	53.0	38,690	0.0	0.0	T	T	0.2	77.5
Pennsylvania	150	59.0	8,850	0.0	0.0	T	T	0.0	0.0
South Carolina	123	50.0	6,150	0.0	0.0	T	T	T	T
South Dakota	1,150	36.0	41,400	0.0	0.0	1.0	418.2	T	T
Tennessee	190	64.0	12,160	0.0	0.0	1.0	122.8	T	T
Texas	1,400	24.0	33,600	T	T	T	T	T	T
Utah	125	45.0	5,625	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	155	68.0	10,540	0.0	0.0	T	T	T	T
Washington	1,800	66.0	118,800	0.0	0.0	0.0	0.0	0.2	238.1
West Virginia	6	61.0	366	0.0	0.0	T	T	0.0	0.0
Wisconsin	230	78.0	17,940	0.0	0.0	1.0	181.2	T	T
Wyoming	135	27.0	3,645	0.0	0.0	T	T	0.0	0.0
Total from Above	31,107	41.7	1,297,021		T		3,018.2		3,812.1
U.S. % Loss				T		0.23		0.29	
U.S. Total	31,117	41.7	1,298,081						

*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	19	85.0	1,615	0.0	0.0	0.0	0.0	0.0	0.0
Idaho	470	73.0	34,310	0.0	0.0	0.0	0.0	0.5	172.4
Minnesota	1,650	47.0	77,550	0.0	0.0	1.0	783.3	0.0	0.0
Montana	2,900	22.0	63,800	0.0	0.0	0.0	0.0	0.1	63.9
Nevada	2	88.0	176	0.0	0.0	0.0	0.0	0.0	0.0
North Dakota	6,850	31.0	212,350	0.0	0.0	0.5	1,067.1	0.0	0.0
Oregon	115	50.0	5,750	0.0	0.0	0.0	0.0	0.5	28.9
South Dakota	1,420	30.0	42,600	0.0	0.0	0.5	214.1	0.0	0.0
Utah	11	45.0	495	0.0	0.0	0.0	0.0	*T	T
Washington	425	50.0	21,250	0.0	0.0	0.0	0.0	0.5	106.8
Wisconsin	10	35.0	350	0.0	0.0	T	T	0.0	0.0
Wyoming	6	39.0	234	0.0	0.0	0.0	0.0	0.0	0.0
Total from Above	13,878	33.2	460,480		0.0		2,064.5		372.0
U.S. % Loss				0.00		0.45		0.08	
U.S. Total	13,878	33.2	460,480						

*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	74	100.0	7,400	0.0	0.0	0.0	0.0	0.0	0.0
California	65	99.0	6,435	0.0	0.0	T	T	3.0	199.0
Idaho	15	89.0	1,335	0.0	0.0	0.0	0.0	0.0	0.0
Montana	395	17.0	6,715	0.0	0.0	T	T	0.0	0.0
North Dakota	1,260	25.0	31,500	0.0	0.0	T	T	0.0	0.0
South Dakota	6	15.0	90	0.0	0.0	0.0	0.0	0.0	0.0
Total from Above	1,815	29.5	53,475		0.0		T		199.0
U.S. % Loss				0.00		T		0.37	
U.S. Total	1,815	29.5	53,475						

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	10	40.0	400	0.0	0.0	T	T
California	20	86.0	1,720	T*	T	T	T
Colorado	10	70.0	700	0.0	0.0	0.0	0.0
Georgia	30	53.0	1,590	0.0	0.0	0.0	0.0
Idaho	20	72.0	1,440	0.0	0.0	0.0	0.0
Illinois	40	77.0	3,080	0.0	0.0	T	T
Indiana	14	80.0	1,120	0.0	0.0	T	T
Iowa	110	76.0	8,360	T	T	T	T
Kansas	40	45.0	1,800	0.0	0.0	T	T
Maine	30	55.0	1,650	0.0	0.0	0.0	0.0
Michigan	65	62.0	4,030	0.0	0.0	T	T
Minnesota	200	56.0	11,200	0.1	11.3	1.0	113.2
Missouri	28	65.0	1,820	0.0	0.0	0.0	0.0
Montana	24	46.0	1,104	0.0	0.0	0.0	0.0
Nebraska	55	41.0	2,255	T	T	T	T
New York	67	74.0	4,958	0.0	0.0	T	T
North Carolina	26	61.0	1,586	0.0	0.0	T	T
North Dakota	120	41.0	4,920	T	T	1.0	49.7
Ohio	55	75.0	4,125	0.0	0.0	T	T
Oklahoma	8	30.0	240	0.0	0.0	0.0	0.0
Oregon	20	95.0	1,900	0.0	0.0	0.0	0.0
Pennsylvania	110	64.0	7,040	0.0	0.0	T	T
South Carolina	18	55.0	990	0.0	0.0	T	T
South Dakota	95	57.0	5,415	T	T	1.0	54.7
Texas	100	37.0	3,700	T	T	T	T
Utah	7	77.0	539	0.0	0.0	0.0	0.0
Washington	8	75.0	688	0.0	0.0	0.0	0.0
Wisconsin	230	64.0	14,490	0.1	14.7	1.0	146.5
Wyoming	12	50.0	684	0.0	0.0	0.0	0.0
Total from Above	1,572	59.5	93,544		26.0		364.1
U.S. % Loss				0.03		0.39	
U.S. Total	1,576	59.5	93,764				

*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	22	115.0	2,530	0.0	0.0	0.0	0.0	0.0	0.0
California	65	55.0	3,575	0.0	0.0	1.0	36.5	1.0	36.5
Colorado	42	115.0	4,830	0.0	0.0	0.0	0.0	0.0	0.0
Delaware	24	80.0	1,920	0.0	0.0	0.0	0.0		
Idaho	510	84.0	42,840	0.0	0.0	0.0	0.0	0.1	42.9
Kansas	18	27.0	486	0.0	0.0	0.0	0.0		
Kentucky	14	88.0	1,232	0.0	0.0	0.0	0.0		
Maine	17	50.0	850	0.0	0.0	0.0	0.0		
Maryland	32	87.0	2,784	0.0	0.0	0.0	0.0		
Michigan	14	49.0	686	0.0	0.0	0.0	0.0		
Minnesota	90	60.0	5,400	0.0	0.0	T*	T		
Montana	620	50.0	31,000	0.0	0.0	0.0	0.0	0.0	0.0
Nevada	2	100.0	200	0.0	0.0	0.0	0.0		
New Jersey	2	57.0	114	0.0	0.0	0.0	0.0		
New York	12	55.0	660	0.0	0.0	0.0	0.0		
North Carolina	17	80.0	1,360	0.0	0.0	0.0	0.0		
North Dakota	995	49.0	48,755	0.0	0.0	T	T		
Ohio	4	68.0	272	0.0	0.0	0.0	0.0		
Oregon	42	58.0	2,436	0.0	0.0	0.0	0.0	0.1	2.4
Pennsylvania	46	81.0	3,726	0.0	0.0	0.0	0.0		
South Dakota	14	40.0	560	0.0	0.0	T	T		
Utah	30	76.0	2,280	0.0	0.0	0.0	0.0		
Virginia	42	77.0	3,234	0.0	0.0	T	T		
Washington	190	63.0	11,970	0.0	0.0	0.0	0.0	0.1	12.0
Wisconsin	30	54.0	1,620	0.0	0.0	T	T		
Wyoming	57	83.0	4,731	0.0	0.0	0.0	0.0		
Total from Above	2,951	61.0	180,051		0.0		36.5		93.8
U.S. % Loss				0.00		0.02		0.05	
U.S. Total	2,951	61.0	180,051						

* 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	25	26.0	650	0.0	0.0	T*	T
Oklahoma	65	16.0	1,040	0.0	0.0	T	T
Other states**	184	29.9	5,503	0.0	0.0	T	T
Total from Above	274	26.3	7,193		0.0		T
U.S. % Loss				0.00		T	
U. S. Total	274	26.3	7,193				

* T = Trace

** Other states include: IL, KS, MI, MN, NE, NY, NC, PA, SC, TX, and WI.