



United States  
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Agriculture

National  
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Service



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# Small Grains 2019 Summary

## September 2019

# USDA





### Special Note

When producers were surveyed, there was significant unharvested acreage of barley in Idaho, Maine, Minnesota, Montana, North Dakota, Oregon, South Dakota, and Washington; significant unharvested acreage of oats in Idaho, Maine, Minnesota, Montana, North Dakota, Oregon, and South Dakota; significant unharvested acreage of Durum wheat in Idaho, Montana, and North Dakota; and a large proportion of other spring wheat acreage not yet harvested in Idaho, Minnesota, Montana, North Dakota, South Dakota, and Washington. The unharvested area and expected production were included in the totals published in this report.

NASS will re-contact respondents who previously reported acreage not yet harvested in these States. If the newly collected data justifies any changes, NASS will update the September 30 estimates in the November 8 *Crop Production* report. Stocks estimates are also subject to review since unharvested production is included in the estimate of on-farm stocks.

**All wheat** production totaled 1.96 billion bushels in 2019, up 4 percent from the revised 2018 total of 1.89 billion bushels. Area harvested for grain totaled 38.1 million acres, down 4 percent from the previous year. The United States yield was estimated at 51.6 bushels per acre, up 4.0 bushels from the previous year. The levels of production and changes from 2018 by type were: winter wheat, 1.30 billion bushels, up 10 percent; other spring wheat, 600 million bushels, down 4 percent; and Durum wheat, 57.7 million bushels, down 26 percent.

**Oat** production was estimated at 54.2 million bushels, up 1 percent from 2018 for comparable States. Yield was estimated at 64.4 bushels per acre, down 0.9 bushel from the previous year for comparable States. Harvested area, at 842,000 acres, was 2 percent above last year for comparable States.

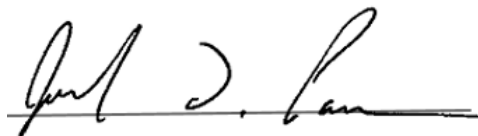
**Barley** production was estimated at 171 million bushels, up 12 percent from the revised 2018 total of 154 million bushels. The average yield per acre, at 77.4 bushels, was down 0.1 bushel from the previous year. Producers seeded 2.72 million acres in 2019, up 7 percent from last year. Harvested area, at 2.21 million acres, was up 12 percent from 2018.

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This report was approved on September 30, 2019.



Secretary of Agriculture  
Designate  
Warren P. Preston



Agricultural Statistics Board  
Chairperson  
Joseph L. Parsons

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## Oat Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019

State	Area planted <sup>1</sup>			Area harvested		
	2017 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)	2017 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)
Alabama <sup>2</sup> .....	40	40	(NA)	10	15	(NA)
Arkansas .....	11	10	5	8	7	3
California .....	110	110	75	10	6	2
Colorado <sup>2</sup> .....	50	95	(NA)	9	7	(NA)
Georgia .....	50	60	70	15	15	15
Idaho .....	50	40	60	10	10	12
Illinois .....	35	40	70	20	25	10
Iowa .....	115	135	215	42	33	69
Kansas .....	100	120	120	25	18	18
Maine .....	22	21	22	21	19	19
Michigan .....	55	75	70	40	50	25
Minnesota .....	170	180	240	95	105	100
Missouri .....	30	35	50	13	16	6
Montana .....	70	70	70	18	23	30
Nebraska .....	110	125	120	35	22	18
New York .....	55	69	56	35	43	39
North Carolina .....	35	30	22	10	11	7
North Dakota .....	295	300	355	80	105	125
Ohio .....	60	55	75	20	30	25
Oklahoma .....	45	50	100	16	10	25
Oregon .....	25	20	20	10	5	9
Pennsylvania .....	70	65	85	40	35	50
South Carolina <sup>2</sup> .....	20	19	(NA)	8	7	(NA)
<b>South Dakota .....</b>	<b>290</b>	<b>290</b>	<b>245</b>	<b>60</b>	<b>95</b>	<b>75</b>
Texas .....	455	450	400	60	50	40
Washington <sup>2</sup> .....	16	17	(NA)	4	4	(NA)
Wisconsin .....	180	200	265	85	90	120
Wyoming <sup>2</sup> .....	25	25	(NA)	5	9	(NA)
United States .....	2,589	2,746	2,810	804	865	842

See footnote(s) at end of table.

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**Oat Area Planted and Harvested, Yield, and Production – States and United States:  
2017-2019 (continued)**

State	Yield			Production		
	2017 (bushels)	2018 (bushels)	2019 (bushels)	2017 (1,000 bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)
Alabama <sup>2</sup> .....	60.0	63.0	(NA)	600	945	(NA)
Arkansas .....	85.0	75.0	70.0	680	525	210
California .....	65.0	70.0	60.0	650	420	120
Colorado <sup>2</sup> .....	65.0	50.0	(NA)	585	350	(NA)
Georgia .....	49.0	71.0	55.0	735	1,065	825
Idaho .....	71.0	84.0	90.0	710	840	1,080
Illinois .....	79.0	83.0	65.0	1,580	2,075	650
Iowa .....	77.0	63.0	58.0	3,234	2,079	4,002
Kansas .....	54.0	49.0	64.0	1,350	882	1,152
Maine .....	67.0	67.0	74.0	1,407	1,273	1,406
Michigan .....	54.0	63.0	57.0	2,160	3,150	1,425
Minnesota .....	75.0	59.0	62.0	7,125	6,195	6,200
Missouri .....	65.0	45.0	47.0	845	720	282
Montana .....	47.0	43.0	45.0	846	989	1,350
Nebraska .....	49.0	69.0	63.0	1,715	1,518	1,134
New York .....	55.0	54.0	60.0	1,925	2,322	2,340
North Carolina .....	66.0	66.0	71.0	660	726	497
North Dakota .....	58.0	82.0	87.0	4,640	8,610	10,875
Ohio .....	70.0	65.0	46.0	1,400	1,950	1,150
Oklahoma .....	42.0	48.0	50.0	672	480	1,250
Oregon .....	83.0	99.0	99.0	830	495	891
Pennsylvania .....	58.0	46.0	53.0	2,320	1,610	2,650
South Carolina <sup>2</sup> .....	51.0	62.0	(NA)	408	434	(NA)
South Dakota .....	70.0	82.0	83.0	4,200	7,790	6,225
Texas .....	45.0	50.0	50.0	2,700	2,500	2,000
Washington <sup>2</sup> .....	42.0	46.0	(NA)	168	184	(NA)
Wisconsin .....	59.0	61.0	54.0	5,015	5,490	6,480
Wyoming <sup>2</sup> .....	85.0	57.0	(NA)	425	513	(NA)
United States .....	61.7	64.9	64.4	49,585	56,130	54,194

(NA) Not available.

<sup>1</sup> Includes area planted in preceding fall.

<sup>2</sup> Estimates discontinued in 2019.

**Barley Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019**

State	Area planted <sup>1</sup>			Area harvested		
	2017	2018	2019	2017	2018	2019
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Alaska .....	(X)	5	6	(X)	4	5
Arizona .....	20	14	17	17	11	14
California .....	75	65	60	29	26	43
Colorado .....	70	60	54	68	53	52
Delaware .....	32	25	21	18	14	14
Idaho .....	530	550	540	510	530	520
Kansas <sup>2</sup> .....	(NA)	17	14	(NA)	6	4
Maine <sup>2</sup> .....	(NA)	17	16	(NA)	16	15
Maryland .....	50	45	32	27	24	17
Michigan <sup>2</sup> .....	(NA)	20	11	(NA)	5	8
Minnesota .....	80	80	70	68	67	55
Montana .....	770	790	920	565	600	765
New York <sup>2</sup> .....	(NA)	10	10	(NA)	8	4
North Carolina <sup>2</sup> .....	(NA)	11	11	(NA)	8	6
North Dakota .....	520	470	580	400	385	450
Oregon .....	47	43	40	38	26	32
Pennsylvania .....	60	45	35	45	33	25
South Dakota <sup>2</sup> .....	(NA)	48	37	(NA)	13	9
Utah .....	25	21	17	18	16	10
Virginia .....	30	30	30	11	9	7
Washington .....	95	85	95	85	67	85
Wisconsin <sup>2</sup> .....	(NA)	25	24	(NA)	10	8
Wyoming .....	82	72	81	63	51	66
United States <sup>3</sup> .....	2,486	2,548	2,721	1,962	1,982	2,214

See footnote(s) at end of table.

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**Barley Area Planted and Harvested, Yield, and Production – States and United States:  
2017-2019 (continued)**

State	Yield			Production		
	2017 (bushels)	2018 (bushels)	2019 (bushels)	2017 (1,000 bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)
Alaska .....	(X)	43.0	38.0	(X)	172	190
Arizona .....	131.0	100.0	126.0	2,227	1,100	1,764
California .....	50.0	69.0	66.0	1,450	1,794	2,838
Colorado .....	132.0	145.0	138.0	8,976	7,685	7,176
Delaware .....	85.0	78.0	80.0	1,530	1,092	1,120
Idaho .....	95.0	101.0	105.0	48,450	53,530	54,600
Kansas <sup>2</sup> .....	(NA)	31.0	33.0	(NA)	186	132
Maine <sup>2</sup> .....	(NA)	73.0	84.0	(NA)	1,168	1,260
Maryland .....	76.0	70.0	85.0	2,052	1,680	1,445
Michigan <sup>2</sup> .....	(NA)	43.0	44.0	(NA)	215	352
Minnesota .....	76.0	76.0	67.0	5,168	5,092	3,685
Montana .....	51.0	56.0	58.0	28,815	33,600	44,370
New York <sup>2</sup> .....	(NA)	58.0	52.0	(NA)	464	208
North Carolina <sup>2</sup> .....	(NA)	80.0	66.0	(NA)	640	396
North Dakota .....	65.0	74.0	72.0	26,000	28,490	32,400
Oregon .....	62.0	53.0	78.0	2,356	1,378	2,496
Pennsylvania .....	70.0	63.0	70.0	3,150	2,079	1,750
South Dakota <sup>2</sup> .....	(NA)	55.0	44.0	(NA)	715	396
Utah .....	75.0	86.0	93.0	1,350	1,376	930
Virginia .....	73.0	70.0	65.0	803	630	455
Washington .....	53.0	73.0	70.0	4,505	4,891	5,950
Wisconsin <sup>2</sup> .....	(NA)	45.0	46.0	(NA)	450	368
Wyoming .....	102.0	100.0	107.0	6,426	5,100	7,062
United States <sup>3</sup> .....	73.0	77.5	77.4	143,258	153,527	171,343

(NA) Not available.

(X) Not applicable.

<sup>1</sup> Includes area planted in preceding fall.

<sup>2</sup> Estimates began in 2018.

<sup>3</sup> Beginning in 2018, United States total includes data for Alaska. For 2017, Alaska data is not included in United States total.

**All Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019**

State	Area planted <sup>1</sup>			Area harvested		
	2017 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)	2017 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)
Alabama .....	150	160	130	100	110	85
Arizona .....	115	96	34	105	77	33
Arkansas .....	200	175	110	125	95	50
California .....	420	425	420	182	147	122
Colorado .....	2,260	2,260	2,150	2,029	1,954	2,000
Delaware .....	75	75	60	60	45	50
Florida <sup>2</sup> .....	20	15	(NA)	10	10	(NA)
Georgia .....	160	200	150	70	70	50
Idaho .....	1,175	1,191	1,195	1,109	1,136	1,130
Illinois .....	500	600	650	470	560	550
Indiana .....	290	310	330	240	260	260
Iowa <sup>2</sup> .....	16	16	(NA)	8	6	(NA)
Kansas .....	7,600	7,700	6,900	6,950	7,300	6,500
Kentucky .....	480	450	460	310	300	330
Louisiana <sup>2</sup> .....	20	15	(NA)	13	10	(NA)
Maryland .....	410	360	345	185	200	165
Michigan .....	480	510	540	425	470	480
Minnesota .....	1,170	1,621	1,450	1,135	1,575	1,410
Mississippi .....	45	55	45	25	30	21
Missouri .....	640	740	550	540	520	390
Montana .....	5,140	5,390	5,450	4,665	5,165	5,295
Nebraska .....	1,120	1,100	1,070	1,020	1,010	970
Nevada <sup>2</sup> .....	29	23	(NA)	14	8	(NA)
New Jersey .....	23	18	19	17	15	14
New Mexico .....	330	320	360	135	105	105
New York .....	140	110	90	125	95	66
North Carolina .....	450	460	290	375	370	225
North Dakota .....	6,680	7,735	7,505	6,260	7,635	7,365
Ohio .....	490	490	500	460	450	385
Oklahoma .....	4,500	4,400	4,200	2,900	2,500	2,750
Oregon .....	775	800	740	763	770	730
Pennsylvania .....	210	195	180	150	145	140
South Carolina .....	90	80	70	75	65	45
South Dakota .....	1,887	1,883	1,500	1,196	1,628	1,385
Tennessee .....	370	380	280	275	285	215
Texas .....	4,700	4,500	4,500	2,350	1,750	2,050
Utah .....	134	130	125	120	103	116
Virginia .....	210	230	180	145	155	105
Washington .....	2,195	2,220	2,260	2,140	2,165	2,205
West Virginia <sup>2</sup> .....	8	7	(NA)	4	3	(NA)
Wisconsin .....	210	240	195	170	200	150
Wyoming .....	135	130	125	105	115	110
United States .....	46,052	47,815	45,158	37,555	39,612	38,052

See footnote(s) at end of table.

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**All Wheat Area Planted and Harvested, Yield, and Production – States and United States:  
2017-2019 (continued)**

State	Yield			Production		
	2017 (bushels)	2018 (bushels)	2019 (bushels)	2017 (1,000 bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)
Alabama .....	77.0	72.0	72.0	7,700	7,920	6,120
Arizona .....	100.8	102.6	104.0	10,589	7,898	3,432
Arkansas .....	52.0	55.0	52.0	6,500	5,225	2,600
California .....	68.2	81.5	59.4	12,404	11,985	7,244
Colorado .....	43.2	36.1	49.0	87,598	70,504	98,000
Delaware .....	73.0	71.0	72.0	4,380	3,195	3,600
Florida <sup>2</sup> .....	37.0	36.0	(NA)	370	360	(NA)
Georgia .....	47.0	54.0	56.0	3,290	3,780	2,800
Idaho .....	81.8	91.9	87.8	90,723	104,410	99,170
Illinois .....	76.0	66.0	67.0	35,720	36,960	36,850
Indiana .....	74.0	71.0	62.0	17,760	18,460	16,120
Iowa <sup>2</sup> .....	68.0	58.0	(NA)	544	348	(NA)
Kansas .....	48.0	38.0	52.0	333,600	277,400	338,000
Kentucky .....	77.0	66.0	76.0	23,870	19,800	25,080
Louisiana <sup>2</sup> .....	46.0	65.0	(NA)	598	650	(NA)
Maryland .....	71.0	63.0	75.0	13,135	12,600	12,375
Michigan .....	79.0	76.0	71.0	33,575	35,720	34,080
Minnesota .....	66.9	59.0	57.0	75,935	92,930	80,370
Mississippi .....	58.0	49.0	47.0	1,450	1,470	987
Missouri .....	68.0	59.0	63.0	36,720	30,680	24,570
Montana .....	27.3	38.3	42.2	127,430	197,630	223,290
Nebraska .....	46.0	49.0	57.0	46,920	49,490	55,290
Nevada <sup>2</sup> .....	105.7	112.5	(NA)	1,480	900	(NA)
New Jersey .....	64.0	62.0	66.0	1,088	930	924
New Mexico .....	30.0	15.0	30.0	4,050	1,575	3,150
New York .....	67.0	69.0	63.0	8,375	6,555	4,158
North Carolina .....	55.0	57.0	56.0	20,625	21,090	12,600
North Dakota .....	37.9	47.6	48.4	237,133	363,483	356,300
Ohio .....	74.0	75.0	56.0	34,040	33,750	21,560
Oklahoma .....	34.0	28.0	40.0	98,600	70,000	110,000
Oregon .....	63.0	67.0	68.0	48,069	51,590	49,640
Pennsylvania .....	72.0	65.0	73.0	10,800	9,425	10,220
South Carolina .....	49.0	54.0	48.0	3,675	3,510	2,160
South Dakota .....	34.8	44.4	48.4	41,678	72,294	67,100
Tennessee .....	70.0	65.0	67.0	19,250	18,525	14,405
Texas .....	29.0	32.0	34.0	68,150	56,000	69,700
Utah .....	52.0	52.0	54.0	6,240	5,356	6,264
Virginia .....	66.0	60.0	62.0	9,570	9,300	6,510
Washington .....	66.6	70.8	64.7	142,500	153,210	142,735
West Virginia <sup>2</sup> .....	69.0	46.0	(NA)	276	138	(NA)
Wisconsin .....	68.0	71.0	64.0	11,560	14,200	9,600
Wyoming .....	28.0	34.0	43.0	2,940	3,910	4,730
United States .....	46.4	47.6	51.6	1,740,910	1,885,156	1,961,734

(NA) Not available.

<sup>1</sup> Includes area planted in preceding fall.

<sup>2</sup> Estimates discontinued in 2019.

**Winter Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019**

State	Area planted <sup>1</sup>			Area harvested		
	2017 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)	2017 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)
Alabama .....	150	160	130	100	110	85
Arizona <sup>2</sup> .....	25	22	(NA)	16	4	(NA)
Arkansas .....	200	175	110	125	95	50
California .....	385	380	390	155	110	100
Colorado .....	2,250	2,250	2,150	2,020	1,950	2,000
Delaware .....	75	75	60	60	45	50
Florida <sup>2</sup> .....	20	15	(NA)	10	10	(NA)
Georgia .....	160	200	150	70	70	50
Idaho .....	720	720	730	670	680	680
Illinois .....	500	600	650	470	560	550
Indiana .....	290	310	330	240	260	260
Iowa <sup>2</sup> .....	16	16	(NA)	8	6	(NA)
Kansas .....	7,600	7,700	6,900	6,950	7,300	6,500
Kentucky .....	480	450	460	310	300	330
Louisiana <sup>2</sup> .....	20	15	(NA)	13	10	(NA)
Maryland .....	410	360	345	185	200	165
Michigan .....	480	510	540	425	470	480
Minnesota <sup>2</sup> .....	10	11	(NA)	5	5	(NA)
Mississippi .....	45	55	45	25	30	21
Missouri .....	640	740	550	540	520	390
Montana .....	1,750	1,650	2,000	1,590	1,570	1,900
Nebraska .....	1,120	1,100	1,070	1,020	1,010	970
Nevada <sup>2</sup> .....	14	13	(NA)	5	5	(NA)
New Jersey .....	23	18	19	17	15	14
New Mexico .....	330	320	360	135	105	105
New York .....	140	110	90	125	95	66
North Carolina .....	450	460	290	375	370	225
North Dakota .....	70	85	85	35	70	70
Ohio .....	490	490	500	460	450	385
Oklahoma .....	4,500	4,400	4,200	2,900	2,500	2,750
Oregon .....	700	720	740	690	695	730
Pennsylvania .....	210	195	180	150	145	140
South Carolina .....	90	80	70	75	65	45
South Dakota .....	910	830	860	520	660	770
Tennessee .....	370	380	280	275	285	215
Texas .....	4,700	4,500	4,500	2,350	1,750	2,050
Utah .....	120	120	125	108	94	116
Virginia .....	210	230	180	145	155	105
Washington .....	1,700	1,700	1,750	1,650	1,650	1,700
West Virginia <sup>2</sup> .....	8	7	(NA)	4	3	(NA)
Wisconsin .....	210	240	195	170	200	150
Wyoming .....	135	130	125	105	115	110
United States .....	32,726	32,542	31,159	25,301	24,742	24,327

See footnote(s) at end of table.

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**Winter Wheat Planted and Harvested, Yield, and Production – States and United States: 2017-2019** (continued)

State	Yield			Production		
	2017 (bushels)	2018 (bushels)	2019 (bushels)	2017 (1,000 bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)
Alabama .....	77.0	72.0	72.0	7,700	7,920	6,120
Arizona <sup>2</sup> .....	100.0	40.0	(NA)	1,600	160	(NA)
Arkansas .....	52.0	55.0	52.0	6,500	5,225	2,600
California .....	64.0	77.0	50.0	9,920	8,470	5,000
Colorado .....	43.0	36.0	49.0	86,860	70,200	98,000
Delaware .....	73.0	71.0	72.0	4,380	3,195	3,600
Florida <sup>2</sup> .....	37.0	36.0	(NA)	370	360	(NA)
Georgia .....	47.0	54.0	56.0	3,290	3,780	2,800
Idaho .....	80.0	90.0	87.0	53,600	61,200	59,160
Illinois .....	76.0	66.0	67.0	35,720	36,960	36,850
Indiana .....	74.0	71.0	62.0	17,760	18,460	16,120
Iowa <sup>2</sup> .....	68.0	58.0	(NA)	544	348	(NA)
Kansas .....	48.0	38.0	52.0	333,600	277,400	338,000
Kentucky .....	77.0	66.0	76.0	23,870	19,800	25,080
Louisiana <sup>2</sup> .....	46.0	65.0	(NA)	598	650	(NA)
Maryland .....	71.0	63.0	75.0	13,135	12,600	12,375
Michigan .....	79.0	76.0	71.0	33,575	35,720	34,080
Minnesota <sup>2</sup> .....	45.0	60.0	(NA)	225	300	(NA)
Mississippi .....	58.0	49.0	47.0	1,450	1,470	987
Missouri .....	68.0	59.0	63.0	36,720	30,680	24,570
Montana .....	42.0	50.0	50.0	66,780	78,500	95,000
Nebraska .....	46.0	49.0	57.0	46,920	49,490	55,290
Nevada <sup>2</sup> .....	107.0	120.0	(NA)	535	600	(NA)
New Jersey .....	64.0	62.0	66.0	1,088	930	924
New Mexico .....	30.0	15.0	30.0	4,050	1,575	3,150
New York .....	67.0	69.0	63.0	8,375	6,555	4,158
North Carolina .....	55.0	57.0	56.0	20,625	21,090	12,600
North Dakota .....	37.0	43.0	53.0	1,295	3,010	3,710
Ohio .....	74.0	75.0	56.0	34,040	33,750	21,560
Oklahoma .....	34.0	28.0	40.0	98,600	70,000	110,000
Oregon .....	63.0	67.0	68.0	43,470	46,565	49,640
Pennsylvania .....	72.0	65.0	73.0	10,800	9,425	10,220
South Carolina .....	49.0	54.0	48.0	3,675	3,510	2,160
South Dakota .....	40.0	48.0	52.0	20,800	31,680	40,040
Tennessee .....	70.0	65.0	67.0	19,250	18,525	14,405
Texas .....	29.0	32.0	34.0	68,150	56,000	69,700
Utah .....	52.0	52.0	54.0	5,616	4,888	6,264
Virginia .....	66.0	60.0	62.0	9,570	9,300	6,510
Washington .....	73.0	76.0	70.0	120,450	125,400	119,000
West Virginia <sup>2</sup> .....	69.0	46.0	(NA)	276	138	(NA)
Wisconsin .....	68.0	71.0	64.0	11,560	14,200	9,600
Wyoming .....	28.0	34.0	43.0	2,940	3,910	4,730
United States .....	50.2	47.9	53.6	1,270,282	1,183,939	1,304,003

(NA) Not available.

<sup>1</sup> Includes area planted in preceding fall.

<sup>2</sup> Estimates discontinued in 2019.

**Other Spring Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019**

State	Area planted			Area harvested		
	2017	2018	2019	2017	2018	2019
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Colorado <sup>1</sup> .....	10	10	(NA)	9	4	(NA)
Idaho .....	430	460	460	415	445	445
Minnesota .....	1,160	1,610	1,450	1,130	1,570	1,410
Montana .....	2,500	2,900	2,900	2,290	2,820	2,860
Nevada <sup>1</sup> .....	15	10	(NA)	9	3	(NA)
North Dakota .....	5,350	6,550	6,700	5,050	6,490	6,600
Oregon <sup>1</sup> .....	75	80	(NA)	73	75	(NA)
South Dakota .....	970	1,050	640	670	965	615
Utah <sup>1</sup> .....	14	10	(NA)	12	9	(NA)
Washington .....	495	520	510	490	515	505
United States .....	11,019	13,200	12,660	10,148	12,896	12,435

State	Yield			Production		
	2017	2018	2019	2017	2018	2019
	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Colorado <sup>1</sup> .....	82.0	76.0	(NA)	738	304	(NA)
Idaho .....	85.0	95.0	89.0	35,275	42,275	39,605
Minnesota .....	67.0	59.0	57.0	75,710	92,630	80,370
Montana .....	21.0	34.0	37.0	48,090	95,880	105,820
Nevada <sup>1</sup> .....	105.0	100.0	(NA)	945	300	(NA)
North Dakota .....	41.0	49.0	49.0	207,050	318,010	323,400
Oregon <sup>1</sup> .....	63.0	67.0	(NA)	4,599	5,025	(NA)
South Dakota .....	31.0	42.0	44.0	20,770	40,530	27,060
Utah <sup>1</sup> .....	52.0	52.0	(NA)	624	468	(NA)
Washington .....	45.0	54.0	47.0	22,050	27,810	23,735
United States .....	41.0	48.3	48.3	415,851	623,232	599,990

(NA) Not available.

<sup>1</sup> Estimates discontinued in 2019.

## Durum Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019

State	Area planted			Area harvested		
	2017	2018	2019	2017	2018	2019
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Arizona .....	90	74	34	89	73	33
California .....	35	45	30	27	37	22
Idaho .....	25	11	5	24	11	5
Montana .....	890	840	550	785	775	535
North Dakota .....	1,260	1,100	720	1,175	1,075	695
South Dakota <sup>1</sup> .....	7	3	(NA)	6	3	(NA)
United States .....	2,307	2,073	1,339	2,106	1,974	1,290

State	Yield			Production		
	2017	2018	2019	2017	2018	2019
	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Arizona .....	101.0	106.0	104.0	8,989	7,738	3,432
California .....	92.0	95.0	102.0	2,484	3,515	2,244
Idaho .....	77.0	85.0	81.0	1,848	935	405
Montana .....	16.0	30.0	42.0	12,560	23,250	22,470
North Dakota .....	24.5	39.5	42.0	28,788	42,463	29,190
South Dakota <sup>1</sup> .....	18.0	28.0	(NA)	108	84	(NA)
United States .....	26.0	39.5	44.8	54,777	77,985	57,741

(NA) Not available.

<sup>1</sup> Estimates discontinued in 2019.

## Wheat Production by Class – United States: 2017-2019

[Wheat class estimates are based on the latest available data including both surveys and administrative data]

Crop	2017	2018	2019
	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
<b>Winter</b>			
Hard red .....	750,132	662,249	833,181
Soft red .....	293,222	285,558	239,166
Hard white .....	23,724	19,347	19,954
Soft white .....	203,204	216,785	211,702
<b>Spring</b>			
Hard red .....	384,193	587,007	558,901
Hard white .....	8,772	13,510	11,960
Soft white .....	22,886	22,715	29,129
Durum .....	54,777	77,985	57,741
<b>Total</b> .....	1,740,910	1,885,156	1,961,734

## Wheat Class Percentage Estimates

The following percentages are the basis for the United States wheat production by class estimates each year. These estimates are based on the latest varietal or class survey data available. These end-of-season percentages will be used during the 2020 forecast season. However, if an unusual situation significantly distorts a State's normal distribution, then updated percentages will be used to forecast the production by class.

### Winter Wheat Production Distribution by Class – States: 2018 and 2019

State	Hard red		Soft red		Hard white		Soft white	
	2018 (percent)	2019 (percent)	2018 (percent)	2019 (percent)	2018 (percent)	2019 (percent)	2018 (percent)	2019 (percent)
Alabama .....	2	2	98	98	-	-	-	-
Arizona <sup>1</sup> .....	99	(NA)	-	(NA)	1	(NA)	-	(NA)
Arkansas .....	-	-	99	100	1	-	-	-
California .....	88	88	-	-	7	7	5	5
Colorado .....	91	94	-	-	9	6	-	-
Delaware .....	-	-	100	100	-	-	-	-
Florida <sup>1</sup> .....	-	(NA)	92	(NA)	-	(NA)	8	(NA)
Georgia .....	-	-	99	100	-	-	1	-
Idaho .....	20	20	-	-	-	-	80	80
Illinois .....	-	-	100	100	-	-	-	-
Indiana .....	-	-	100	100	-	-	-	-
Iowa <sup>1</sup> .....	48	(NA)	52	(NA)	-	(NA)	-	(NA)
Kansas .....	96	96	1	1	3	3	-	-
Kentucky .....	-	-	100	100	-	-	-	-
Louisiana <sup>1</sup> .....	-	(NA)	100	(NA)	-	(NA)	-	(NA)
Maryland .....	-	-	100	90	-	-	-	10
Michigan .....	-	-	59	61	-	-	41	39
Minnesota <sup>1</sup> .....	100	(NA)	-	(NA)	-	(NA)	-	(NA)
Mississippi .....	-	-	100	100	-	-	-	-
Missouri .....	1	1	99	99	-	-	-	-
Montana .....	100	100	-	-	-	-	-	-
Nebraska .....	93	94	-	-	7	6	-	-
Nevada <sup>1</sup> .....	36	(NA)	-	(NA)	-	(NA)	64	(NA)
New Jersey .....	-	-	99	100	-	-	1	-
New Mexico .....	100	100	-	-	-	-	-	-
New York .....	3	6	94	92	-	-	3	2
North Carolina .....	-	-	100	100	-	-	-	-
North Dakota .....	100	100	-	-	-	-	-	-
Ohio .....	-	-	100	100	-	-	-	-
Oklahoma .....	99	99	1	1	-	-	-	-
Oregon .....	8	8	-	-	-	-	92	92
Pennsylvania .....	1	-	98	100	-	-	1	-
South Carolina .....	-	-	100	100	-	-	-	-
South Dakota .....	100	100	-	-	-	-	-	-
Tennessee .....	-	-	100	100	-	-	-	-
Texas .....	93	96	7	4	-	-	-	-
Utah .....	72	74	-	-	1	2	27	24
Virginia .....	-	-	100	100	-	-	-	-
Washington .....	14	14	-	-	-	-	86	86
West Virginia <sup>1</sup> .....	9	(NA)	90	(NA)	-	(NA)	1	(NA)
Wisconsin .....	3	2	97	98	-	-	-	-
Wyoming .....	86	97	-	-	14	3	-	-

- Represents zero.

(NA) Not available.

<sup>1</sup> Estimates discontinued in 2019.



## Other Spring Wheat (excluding Durum) Production Distribution by Class – States: 2018 and 2019

State	Hard red		Hard white		Soft white	
	2018	2019	2018	2019	2018	2019
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Colorado <sup>1</sup> .....	66	(NA)	15	(NA)	19	(NA)
Idaho .....	50	40	31	29	19	31
Minnesota .....	100	100	-	-	-	-
Montana .....	100	100	-	-	-	-
Nevada <sup>1</sup> .....	6	(NA)	4	(NA)	90	(NA)
North Dakota .....	100	100	-	-	-	-
Oregon <sup>1</sup> .....	66	(NA)	1	(NA)	33	(NA)
South Dakota .....	100	100	-	-	-	-
Utah <sup>1</sup> .....	57	(NA)	4	(NA)	39	(NA)
Washington .....	54	27	1	2	45	71

- Represents zero.

(NA) Not available.

<sup>1</sup> Estimates discontinued in 2019.

## Winter Wheat Head Population

The National Agricultural Statistics Service conducted objective yield surveys in 10 winter wheat estimating States during 2019. Randomly selected plots in winter wheat fields were visited monthly from May through harvest to obtain specific counts and measurements. Data in this table are actual field counts from this survey.

### Winter Wheat Heads per Square Foot – Selected States: 2015-2019

State	2015	2016	2017	2018	2019
	(number)	(number)	(number)	(number)	(number)
<b>Colorado</b>					
July .....	51.1	43.0	43.4	40.6	49.3
August .....	49.3	43.6	43.2	41.0	50.8
Final .....	49.3	43.6	43.2	41.0	50.8
<b>Illinois</b>					
July .....	56.7	57.4	56.4	60.9	48.1
August .....	56.9	57.3	56.4	60.9	49.2
Final .....	56.9	57.3	56.4	60.9	49.2
<b>Kansas</b>					
July .....	43.1	54.7	44.3	37.3	46.9
August .....	43.1	54.7	44.6	37.3	47.2
Final .....	43.1	54.7	44.6	37.3	47.2
<b>Missouri</b>					
July .....	52.5	53.7	53.9	53.7	56.4
August .....	52.5	53.7	53.9	53.7	56.4
Final .....	52.5	53.7	53.9	53.7	56.4
<b>Montana</b>					
July .....	48.9	54.6	44.4	44.1	45.2
August .....	47.7	55.2	46.2	44.8	43.5
Final .....	47.7	55.2	46.2	44.7	43.1
<b>Nebraska</b>					
July .....	47.9	60.2	52.5	50.5	53.1
August .....	47.6	60.3	53.3	50.4	53.7
Final .....	47.6	60.3	53.3	50.4	53.7
<b>Ohio</b>					
July .....	51.0	58.0	58.2	70.3	52.0
August .....	51.2	58.0	58.2	70.3	53.0
Final .....	51.2	58.0	58.2	70.3	53.0
<b>Oklahoma</b>					
July .....	39.6	41.8	35.7	32.9	38.1
August .....	39.4	41.8	35.7	32.4	38.1
Final .....	39.4	41.8	35.7	32.4	38.1
<b>Texas</b>					
July .....	34.3	34.4	26.6	30.9	34.3
August .....	34.3	34.4	26.8	30.9	34.3
Final .....	34.2	34.5	26.8	31.1	34.5
<b>Washington</b>					
July .....	31.3	36.1	34.3	41.8	34.2
August .....	31.3	35.3	35.8	42.3	34.3
Final .....	31.3	35.5	35.7	42.3	34.6
<b>10 State</b>					
July .....	42.8	48.3	41.2	40.1	44.0
August .....	42.4	48.4	41.7	40.1	44.1
Final .....	42.4	48.4	41.7	40.2	44.2

## Rye Area Planted and Harvested, Yield, and Production – States and United States: 2017-2019

State	Area planted <sup>1</sup>			Area harvested		
	2017	2018	2019	2017	2018	2019
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Georgia <sup>2</sup> .....	210	190	(D)	25	15	(D)
Minnesota .....	(D)	(D)	50	(D)	(D)	18
North Dakota .....	(D)	(D)	85	(D)	(D)	57
Oklahoma .....	260	240	260	45	50	55
Pennsylvania .....	(D)	(D)	100	(D)	(D)	14
Wisconsin .....	(D)	(D)	220	(D)	(D)	20
Other States <sup>3</sup> .....	1,491	1,581	1,150	230	208	146
United States .....	1,961	2,011	1,865	300	273	310

State	Yield			Production		
	2017	2018	2019	2017	2018	2019
	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Georgia <sup>2</sup> .....	19.0	26.0	(D)	475	390	(D)
Minnesota .....	(D)	(D)	39.0	(D)	(D)	702
North Dakota .....	(D)	(D)	45.0	(D)	(D)	2,565
Oklahoma .....	24.0	22.0	27.0	1,080	1,100	1,485
Pennsylvania .....	(D)	(D)	26.0	(D)	(D)	364
Wisconsin .....	(D)	(D)	34.0	(D)	(D)	680
Other States <sup>3</sup> .....	37.8	33.4	33.1	8,697	6,942	4,826
United States .....	34.2	30.9	34.3	10,252	8,432	10,622

(D) Withheld to avoid disclosing data for individual operations.

<sup>1</sup> Includes area planted in preceding fall.

<sup>2</sup> Beginning in 2019, estimates included in Other States.

<sup>3</sup> In 2017 and 2018, Other States include Illinois, Kansas, Maine, Maryland, Michigan, Minnesota, Nebraska, New Jersey, New York, North Carolina, North Dakota, Pennsylvania, South Carolina, South Dakota, Texas, Virginia, and Wisconsin. Beginning in 2019, Other States include Georgia, Illinois, Kansas, Michigan, Nebraska, New York, North Carolina, South Dakota, and Texas.

**Small Grain Annual Summary Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2018-2019**

Crop	Area planted		Area harvested	
	2018	2019	2018	2019
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Barley .....	2,548	2,721	1,982	2,214
Oats .....	2,746	2,810	865	842
Rye .....	2,011	1,865	273	310
Wheat, all .....	47,815	45,158	39,612	38,052
Winter .....	32,542	31,159	24,742	24,327
Durum .....	2,073	1,339	1,974	1,290
Other spring .....	13,200	12,660	12,896	12,435
Crop	Yield per acre		Production	
	2018	2019	2018	2019
	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)
Barley .....	77.5	77.4	153,527	171,343
Oats .....	64.9	64.4	56,130	54,194
Rye .....	30.9	34.3	8,432	10,622
Wheat, all .....	47.6	51.6	1,885,156	1,961,734
Winter .....	47.9	53.6	1,183,939	1,304,003
Durum .....	39.5	44.8	77,985	57,741
Other spring .....	48.3	48.3	623,232	599,990

**Small Grain Annual Summary Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2018-2019**

Crop	Area planted		Area harvested	
	2018	2019	2018	2019
	(hectares)	(hectares)	(hectares)	(hectares)
Barley .....	1,031,150	1,101,160	802,100	895,980
Oats .....	1,111,280	1,137,180	350,060	340,750
Rye .....	813,830	754,750	110,480	125,450
Wheat, all .....	19,350,250	18,274,990	16,030,580	15,399,260
Winter .....	13,169,420	12,609,740	10,012,840	9,844,890
Durum .....	838,920	541,880	798,860	522,050
Other spring .....	5,341,910	5,123,380	5,218,880	5,032,320
Crop	Yield per hectare		Production	
	2018	2019	2018	2019
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
Barley .....	4.17	4.16	3,342,660	3,730,550
Oats .....	2.33	2.31	814,720	786,620
Rye .....	1.94	2.15	214,180	269,810
Wheat, all .....	3.20	3.47	51,305,540	53,389,650
Winter .....	3.22	3.60	32,221,540	35,489,150
Durum .....	2.66	3.01	2,122,400	1,571,450
Other spring .....	3.25	3.24	16,961,600	16,329,050

## Crop Comments

**Oats:** Production was estimated at 54.2 million bushels, up 1 percent from 2018 for comparable States. Yield was estimated at 64.4 bushels per acre, down 0.9 bushel from the previous year for comparable States. Harvested area, at 842,000 acres, was 2 percent above last year for comparable States. Record low acres were harvested in Arkansas, California, Georgia, Illinois, Maine, Missouri, and North Carolina.

Record high yields were estimated in Idaho and North Dakota.

Nationally, oat producers had seeded 50 percent of the 2019 acreage by May 5, four percentage points behind the previous year and 22 percentage points behind the 5-year average. Fifty-three percent of the oat acreage had emerged by May 19, eleven percentage points behind the previous year and 23 percentage points behind the 5-year average. Heading of the oat acreage advanced to 58 percent complete by June 30, twenty-two percentage points behind the previous year and 23 percentage points behind the 5-year average. Oat producers had harvested 32 percent of the acreage by August 4, seventeen percentage points behind both last year and the 5-year average. At that time, harvest progress was at or behind the 5-year average in 8 of the 9 weekly *Crop Progress* estimating States. Eighty-four percent of the Nation's oat acreage was harvested by September 1, nine percentage points behind the previous year and 7 percentage points behind the 5-year average.

Beginning in 2019, oat estimates were discontinued in Alabama, Colorado, South Carolina, Washington, and Wyoming.

**Barley:** Production was estimated at 171 million bushels, up 12 percent from the revised 2018 total of 154 million bushels. The average yield, at 77.4 bushels per acre, was down 0.1 bushel from the previous year. Producers seeded 2.72 million acres in 2019, up 7 percent from 2018. Harvested area, at 2.21 million acres, was up 12 percent from 2018.

Record high yields were estimated in Oregon, Utah, and Wyoming.

Two percent of the Nation's barley was planted by April 7, one percentage point behind the previous year and 7 percentage points behind the 5-year average. Nationwide, barley producers had seeded 28 percent of the Nation's acreage by April 28, four percentage points ahead of the previous year but 13 percentage points behind the 5-year average. By April 28, emergence was evident in 6 percent of the Nation's barley acreage, equal to the previous year but 9 percentage points behind the 5-year average. Nationally, 94 percent of the barley acreage was sown by June 2, two percentage points behind the previous year and 3 percentage points behind the 5-year average. Seventy-three percent of the barley acreage had emerged by June 2, seven percentage points behind the previous year and 12 percentage points behind the 5-year average. Heading of the Nation's barley acreage advanced to 55 percent complete by July 7, nineteen percentage points behind the previous year and 20 percentage points behind the 5-year average. By August 4, barley producers had harvested 3 percent of the Nation's acreage, 11 percentage points behind the previous year and 15 percentage points behind the 5-year average. Overall, 74 percent of the barley acreage was reported in good to excellent condition on August 11, compared with 81 percent at the same time last year. By September 22, ninety-two percent of the barley acreage was harvested, 7 percentage points behind both the previous year and 5-year average.

**Winter wheat:** Winter wheat production for 2019 totaled 1.30 billion bushels, up 10 percent from the revised 2018 total of 1.18 billion bushels. The United States yield, at 53.6 bushels per acre, was up 5.7 bushels from 2018. Area harvested for grain was estimated at a record low 24.3 million acres, down 2 percent from the previous year. Record high yields were estimated in Colorado, Maryland, Montana, Nebraska, New Jersey, Oklahoma, Pennsylvania, and Wyoming for 2019.

Compared with 2018, harvested acreage was up 1 percent, or 185,000 acres, in the major Hard Red Winter (HRW) growing States, the primary winter wheat producing area. As a result of the increased harvested acreage and higher yields in 2019, HRW production totaled 833 million bushels, up 26 percent from 2018.

In the Soft Red Winter (SRW) growing area, planted and harvested acreage decreased from 2018. SRW production totaled 239 million bushels, down 16 percent from 2018.

White winter production totaled 232 million bushels, down 2 percent from the previous year. Harvested acreage in the Pacific Northwest (Idaho, Oregon, and Washington) was up 3 percent from 2018. Yields were up in Oregon but down in Idaho and Washington compared with last year.

Seeding of the 2019 winter wheat acreage began in early September with 5 percent of the intended 2019 acreage sown by September 9, equal to both the previous year and the 5-year average. Winter wheat planting progress was most advanced in the Pacific Northwest as of September 9. By the end of September, producers had sown 43 percent of the Nation's winter wheat acreage, 9 percentage points ahead of the previous year and 3 percentage points ahead of the 5-year average. Nationwide, 14 percent of the winter wheat crop was emerged by September 30, four percentage points ahead of the previous year but unchanged from the 5-year average. Emergence was at or behind the 5-year average pace in 11 of the 18 weekly *Crop Progress* estimating States.

By October 7, producers had sown 57 percent of the Nation's winter wheat acreage, 11 percentage points ahead of the previous year and 3 percentage points ahead of the 5-year average. By October 28, producers had sown 78 percent of the Nation's winter wheat acreage, 5 percentage points behind the previous year and 7 percentage points behind the 5-year average. Winter wheat planting was nearing completion in 6 of the 18 weekly *Crop Progress* estimating States at that time. Nationally, emergence was 63 percent complete by October 28, unchanged from the previous year but 4 percentage points behind the 5-year average. Overall, 53 percent of the 2019 winter wheat acreage was reported in good to excellent condition on October 28, compared with 52 percent at the same time the previous year.

By November 4, producers had sown 84 percent of the Nation's winter wheat acreage, 6 percentage points behind both the previous year and the 5-year average. Nationally, emergence was 70 percent complete by November 4, four percentage points behind the previous year and 7 percentage points behind the 5-year average. Overall, 51 percent of the 2019 winter wheat acreage was rated in good to excellent condition on November 4, 2018, four percentage points below the same time the previous year. By November 25, winter wheat planting was complete or nearing completion in all weekly *Crop Progress* estimating States except Arkansas, California, Missouri, and North Carolina, with 95 percent of the Nation's winter wheat acreage sown, 4 percentage points behind both the previous year and the 5-year average. Nationally, winter wheat emergence was 86 percent complete by November 25, five percentage points behind the previous year and 6 percentage points behind the 5-year average. Overall, 55 percent of the 2019 winter wheat acreage was rated in good to excellent condition on November 25, five percentage points above the same time the previous year.

On March 31, fifty-six percent of the 2019 winter wheat acreage was reported in good to excellent condition, compared with 32 percent at the same time last year.

By April 7, three percent of the Nation's winter wheat acreage had reached the headed stage, equal to last year but 1 percentage point behind the 5-year average. Sixty percent of the 2019 winter wheat acres was reported in good to excellent condition as of April 7, thirty percentage points above the same time last year. In Kansas, the largest winter wheat-producing State, 58 percent of the acreage was rated in good to excellent condition at that time. In Texas, where areas of the State had been abnormally to moderately dry, 47 percent of the winter wheat acreage was in rated good to excellent condition.

By May 12, forty-two percent of the Nation's winter wheat acreage had reached the headed stage, 1 percentage point behind last year and 12 percentage points behind the 5-year average. For the week ending May 12, sixty-four percent of the 2019 winter wheat acreage was reported in good to excellent condition, 28 percentage points above the same time last year. In Kansas, 56 percent of the winter wheat crop was rated in good to excellent condition at that time, a decrease of 2 percentage point from the previous week.

As of June 2, seventy-six percent of the Nation's winter wheat acreage had reached the headed stage, 6 percentage points behind last year and 8 percentage points behind the 5-year average. Heading progress was behind by 30 percentage points or more compared with the 5-year average in Michigan, Nebraska, and South Dakota at that time. On June 2, sixty-four percent of the 2019 winter wheat acreage was reported in good to excellent condition, 27 percentage points above the same time last year. Harvest of the 2019 acreage began in early June with eight percent harvested by June 16, seventeen percentage points behind last year and 12 percentage points behind the 5-year average. Harvest was at or behind

the 5-year average in all of the weekly *Crop Progress* estimating States at that time. By June 30, ninety-seven percent of the Nation's winter wheat acreage had reached the headed stage, 3 percentage points behind both last year and the 5-year average. Twenty-eight percent of Kansas's winter wheat acreage was harvested by June 30, forty percentage points behind last year and 33 percentage points behind the 5-year average. On June 30, sixty-three percent of the 2019 winter wheat acreage was reported in good to excellent condition, 26 percentage points above the same time last year.

Forty-seven percent of the 2019 winter wheat acreage was harvested by July 7, fourteen percentage points behind both last year and the 5-year average. Eighty-two percent of the 2019 winter wheat acreage was harvested by August 4, seven percentage points behind last year and 10 percentage points behind the 5-year average. Winter wheat harvest progress continued with advances of 16 percentage points or more reported in Michigan, Montana, Nebraska, Oregon, South Dakota, and Washington during the week ending August 4.

Harvest of the 2019 acreage was wrapping up by late August. Ninety-six percent was harvested by August 25, four percentage points behind last year and 3 percentage points behind the 5-year average. Winter wheat harvest progress was complete or nearing completion in all weekly *Crop Progress* estimating States except Idaho, Montana, South Dakota, and Washington.

Beginning in 2019, winter wheat estimates were discontinued in Arizona, Florida, Iowa, Louisiana, Minnesota, Nevada, and West Virginia.

**Other spring wheat:** Production for 2019 was estimated at 600 million bushels, down 4 percent from the 2018 total of 623 million bushels. Harvested area totaled 12.4 million acres, down 4 percent from 2018. The United States yield was estimated at 48.3 bushels per acre, tied with the 2018 record high. A record high yield was estimated in North Dakota for 2019. Of the total production, 559 million bushels were Hard Red Spring wheat, down 5 percent from the 2018 total.

Seeding of the 2019 spring wheat acreage began in early April. Spring wheat planting progress was behind the 5-year average pace in all 6 weekly *Crop Progress* estimating States and planting had not yet begun in the Northern Plains as of April 7. By April 28, thirteen percent of the spring wheat acreage was seeded, 4 percentage points ahead of last year but 20 percentage points behind the 5-year average. Spring wheat planting progress was behind the 5-year average pace in all weekly *Crop Progress* estimating States at that time.

By May 12, forty-five percent of the spring wheat acreage was seeded, 9 percentage points behind last year and 22 percentage points behind the 5-year average. Spring wheat planting progress was behind the 5-year average pace in all weekly *Crop Progress* estimating States. By May 12, ten percent of the Nation's spring wheat acreage had emerged, 3 percentage points behind the previous year and 24 percentage points behind the 5-year average.

By June 2, ninety-three percent of the spring wheat acreage was seeded, 3 percentage points behind both last year and the 5-year average. South Dakota was the furthest behind compared with the State's 5-year average pace. Sixty-nine percent of the Nation's spring wheat acreage had emerged by June 2, nine percentage points behind the previous year and 15 percentage points behind the 5-year average. On June 2, eighty-three percent of the Nation's spring wheat acreage was rated in good to excellent condition, 13 percentage points above the same time last year.

Fifty-six percent of the Nation's spring wheat acres had reached the headed stage by July 7, twenty-two percentage points behind last year and 17 percentage points behind the 5-year average. Based on conditions as of July 7, seventy-eight percent of the Nation's spring wheat acreage was rated in good to excellent condition, 3 percentage points above the previous week but 2 percentage points below the same time last year.

Harvest of the 2019 spring wheat acreage began during the week ending August 4. At that time, two percent of the spring wheat was harvested, 10 percentage points behind last year and 12 percentage points behind the 5-year average. Harvest progress was behind the 5-year average in all 6 weekly *Crop Progress* estimating States. On August 4, seventy-three percent of the Nation's spring wheat acreage was rated in good to excellent condition, 1 percentage point below the same time last year.

As of September 1, fifty-five percent of the spring wheat acreage was harvested, 31 percentage points behind last year and 23 percentage points behind the 5-year average. On September 1, sixty-seven percent of the Nation's spring wheat acreage was rated in good to excellent condition, 7 percentage points below the same time last year. By September 22, eighty-seven percent of the spring wheat acreage was harvested, 12 percentage points behind last year and 10 percentage points behind the 5-year average. Spring wheat harvest progress was complete or nearing completion in all weekly *Crop Progress* estimating States, except Montana and North Dakota.

Beginning in 2019, spring wheat estimates were discontinued in Colorado, Nevada, Oregon, and Utah.

**Durum wheat:** Production for 2019 was estimated at 57.7 million bushels, down 26 percent from the revised 2018 total of 78.0 million bushels. Area harvested for grain totaled 1.29 million acres, down 35 percent from the previous year. The United States yield was estimated at a record high 44.8 bushels per acre, up 5.3 bushels from the 2018 yield. Record high yields were estimated in Montana and North Dakota for 2019. Production in North Dakota, the largest Durum wheat-producing State, was down 31 percent from 2018. Declines in production are attributed to declines in harvested acres across the Nation. Harvest began in the two major Durum-wheat producing States of Montana and North Dakota in early August. As of September 22, harvest was 51 percent complete in Montana and 73 percent complete in North Dakota.

Beginning in 2019, Durum wheat estimates were discontinued in South Dakota.

**Rye:** Production for 2019 was estimated at 10.6 million bushels, up 41 percent from the 2018 total for comparable States. Harvested area totaled 310,000 acres, up 65,000 acres from 2018 for comparable States. The United States yield, at 34.3 bushels per acre, was up 3.5 bushels from the previous year for comparable States.

Beginning in 2019, rye estimates were discontinued in Maine, Maryland, New Jersey, South Carolina, and Virginia.



## Statistical Methodology

**Survey procedures:** Objective yield and farm operator surveys were conducted to gather information on small grain acreage, yield, and production. The objective yield survey was conducted in 10 States that accounted for 74 percent of the 2019 winter wheat production. Early in the growing season, farm operators were interviewed to seek permission to randomly locate two sample plots in selected winter wheat fields. Throughout the growing season, counts such as number of stalks, heads in late boot, and number of emerged heads were collected from these plots. The plots were revisited each month until crop maturity when the heads were clipped, threshed, and weighed. After the farm operator harvested the sample field, enumerators revisited the sample to collect data in order to measure harvesting loss.

Data from operators was collected by mail, internet, telephone, or personal interview to obtain information on crop acreage, yield and production for the 2019 crop year. Approximately 63,100 producers were interviewed during the first two weeks of September and asked questions pertaining to planted and harvested area as well as yield and production.

**Estimating Procedures:** National and State level objective yield and grower reported data were reviewed for reasonableness and consistency with historical estimates. The survey data were also reviewed considering weather patterns and crop progress compared with previous years. Each Regional Field Office submits an estimate and written analysis for their State to the Agricultural Statistics Board (ASB). The ASB uses the survey data, administrative data, and the State analysis to prepare the estimates published in this report.

**Revision Policy:** Estimates contained in this report may be revised in the *Crop Production Annual Summary* report published in January should new information become available. Previous year acreage, yield, and production estimates can be revised in the *Small Grain Summary* published the following year, if new information is available that would justify a change. Estimates will also be reviewed after data for the 5-year Census of Agriculture are available. No revisions will be made after that date.

**Reliability:** The surveys used to make the acreage, yield, and production estimates contained in this report are subject to sampling and non-sampling type errors that are common to all surveys. Reliability of the objective yield and farmer survey must be treated separately because the survey designs for the two surveys are different. The objective yield indications are subject to sampling variability because all acres of winter wheat are not included in the sample.

The farm operator survey indications are also subject to sampling variability because all operations with small grains are not included in the sample. This variability, as measured by the relative standard error at the National level, is approximately 1.7 percent for winter wheat, 6.3 percent for Durum wheat, and 4.0 percent for other spring wheat. This means that chances are approximately 95 out of 100 that survey estimates for production will be within plus or minus 3.4 percent for winter wheat, 12.6 percent for Durum wheat, and 8.0 percent for other spring wheat of the value that could be developed by averaging the estimates produced from all possible samples selected from the same population and surveyed using the same procedures. The relative standard errors for barley, oats, and rye are 4.8, 4.9, and 11.3 percent, respectively.

Survey indications are also subject to non-sampling errors such as omission, duplication, imputation for missing data, and mistakes in reporting, recording, and processing the data. These errors cannot be measured directly, but they are minimized through rigid quality controls in the data collection process and a careful review of all reported data for consistency and reasonableness.

## Information Contacts

Listed below are the commodity statisticians in the Crops Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to [nass@usda.gov](mailto:nass@usda.gov)

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Chris Hawthorn– Corn, Flaxseed, Proso Millet .....	(202) 720-9526
James Johanson – County Estimates, Hay .....	(202) 690-8533
Jeff Lemmons – Oats, Soybeans .....	(202) 690-3234
Jannety Mosley – Crop Weather, Barley.....	(202) 720-7621
Sammy Neal – Peanuts, Rice .....	(202) 720-7688
Jean Porter – Rye, Wheat .....	(202) 720-8068
Chris Singh – Cotton, Cotton Ginnings, Sorghum .....	(202) 720-5944
Travis Thorson – Sunflower, Other Oilseeds .....	(202) 720-7369

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- Cornell’s Mann Library has launched a new website housing NASS’s and other agency’s archived reports. The new website, <https://usda.library.cornell.edu>. All email subscriptions containing reports will be sent from the new website, <https://usda.library.cornell.edu>. To continue receiving the reports via e-mail, you will have to go to the new website, create a new account and re-subscribe to the reports. If you need instructions to set up an account or subscribe, they are located at: <https://usda.library.cornell.edu/help>. You should whitelist [notifications@usda-esmis.library.cornell.edu](mailto:notifications@usda-esmis.library.cornell.edu) in your email client to avoid the emails going into spam/junk folders.

For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: [nass@nass.usda.gov](mailto:nass@nass.usda.gov).

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