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Small Grains 2020 Summary

September 2020

USDA



All wheat production totaled 1.83 billion bushels in 2020, down 5 percent from the revised 2019 total of 1.93 billion bushels. Area harvested for grain totaled 36.7 million acres, down 2 percent from the previous year. The United States yield was estimated at 49.7 bushels per acre, down 2.0 bushels from the previous year. The levels of production and changes from 2019 by type were: winter wheat, 1.17 billion bushels, down 11 percent; other spring wheat, 586 million bushels, up 4 percent; and Durum wheat, 68.8 million bushels, up 28 percent.

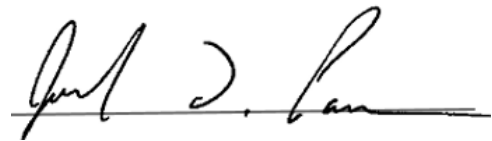
Oat production was estimated at 65.4 million bushels, up 23 percent from 2019. Yield was estimated at 65.1 bushels per acre, up 0.8 bushel from the previous year. Harvested area, at 1.00 million acres, was 21 percent above last year.

Barley production was estimated at 165 million bushels, down 4 percent from the revised 2019 total of 172 million bushels. The average yield, at 77.5 bushels per acre, was down 0.2 bushel from the previous year. Producers seeded 2.62 million acres in 2020, down 5 percent from 2019. Harvested area, at 2.13 million acres, was down 4 percent from 2019.

This report was approved on September 30, 2020.



Secretary of Agriculture
Designate
Robert Johansson



Agricultural Statistics Board
Chairperson
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Oat Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted ¹			Area harvested		
	2018 (1,000 acres)	2019 (1,000 acres)	2020 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)	2020 (1,000 acres)
Alabama ²	40	(NA)	(NA)	15	(NA)	(NA)
Arkansas	10	5	8	7	3	5
California	110	90	80	6	2	4
Colorado ²	95	(NA)	(NA)	7	(NA)	(NA)
Georgia	60	70	80	15	15	20
Idaho	40	60	50	10	12	14
Illinois	40	70	60	25	10	15
Iowa	135	215	170	33	69	73
Kansas	120	120	140	18	18	16
Maine	21	22	26	19	19	22
Michigan	75	70	70	50	25	30
Minnesota	180	240	255	105	100	160
Missouri	35	50	35	16	6	10
Montana	70	75	70	23	26	38
Nebraska	125	120	135	22	18	29
New York	69	56	52	43	39	32
North Carolina	30	22	37	11	7	12
North Dakota	300	355	365	105	115	105
Ohio	55	75	55	30	25	15
Oklahoma	50	100	110	10	25	11
Oregon	20	20	20	5	9	7
Pennsylvania	65	85	86	35	50	55
South Carolina ²	19	(NA)	(NA)	7	(NA)	(NA)
South Dakota	290	245	310	95	75	140
Texas	450	400	470	50	40	60
Washington ²	17	(NA)	(NA)	4	(NA)	(NA)
Wisconsin	200	265	300	90	120	131
Wyoming ²	25	(NA)	(NA)	9	(NA)	(NA)
United States	2,746	2,830	2,984	865	828	1,004

See footnote(s) at end of table.

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**Oat Area Planted and Harvested, Yield, and Production – States and United States:
2018-2020 (continued)**

State	Yield			Production		
	2018 (bushels)	2019 (bushels)	2020 (bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)	2020 (1,000 bushels)
Alabama ²	63.0	(NA)	(NA)	945	(NA)	(NA)
Arkansas	75.0	70.0	64.0	525	210	320
California	70.0	60.0	75.0	420	120	300
Colorado ²	50.0	(NA)	(NA)	350	(NA)	(NA)
Georgia	71.0	55.0	54.0	1,065	825	1,080
Idaho	84.0	92.0	102.0	840	1,104	1,428
Illinois	83.0	65.0	58.0	2,075	650	870
Iowa	63.0	58.0	78.0	2,079	4,002	5,694
Kansas	49.0	64.0	52.0	882	1,152	832
Maine	67.0	76.0	63.0	1,273	1,444	1,386
Michigan	63.0	57.0	55.0	3,150	1,425	1,650
Minnesota	59.0	62.0	66.0	6,195	6,200	10,560
Missouri	45.0	47.0	43.0	720	282	430
Montana	43.0	55.0	45.0	989	1,430	1,710
Nebraska	69.0	63.0	63.0	1,518	1,134	1,827
New York	54.0	60.0	53.0	2,322	2,340	1,696
North Carolina	66.0	71.0	67.0	726	497	804
North Dakota	82.0	86.0	78.0	8,610	9,890	8,190
Ohio	65.0	46.0	60.0	1,950	1,150	900
Oklahoma	48.0	50.0	45.0	480	1,250	495
Oregon	99.0	97.0	100.0	495	873	700
Pennsylvania	46.0	53.0	50.0	1,610	2,650	2,750
South Carolina ²	62.0	(NA)	(NA)	434	(NA)	(NA)
South Dakota	82.0	82.0	77.0	7,790	6,150	10,780
Texas	50.0	50.0	45.0	2,500	2,000	2,700
Washington ²	46.0	(NA)	(NA)	184	(NA)	(NA)
Wisconsin	61.0	54.0	63.0	5,490	6,480	8,253
Wyoming ²	57.0	(NA)	(NA)	513	(NA)	(NA)
United States	64.9	64.3	65.1	56,130	53,258	65,355

(NA) Not available.

¹ Includes area planted in preceding fall.

² Estimates discontinued in 2019.

Barley Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted ¹			Area harvested		
	2018	2019	2020	2018	2019	2020
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Alaska	5	6	6	4	5	5
Arizona	14	18	12	11	15	8
California	65	65	55	26	47	31
Colorado	60	54	53	53	52	45
Delaware	25	21	21	14	14	15
Idaho	550	550	530	530	530	500
Kansas	17	14	16	6	4	6
Maine	17	15	15	16	14	14
Maryland	45	32	34	24	17	21
Michigan	20	11	11	5	8	8
Minnesota	80	70	70	67	55	50
Montana	790	950	890	600	760	725
New York	10	10	9	8	4	5
North Carolina	11	11	14	8	6	8
North Dakota	470	580	530	385	445	460
Oregon	43	45	37	26	35	25
Pennsylvania	45	35	45	33	25	30
South Dakota	48	37	35	13	9	14
Utah	21	18	17	16	11	10
Virginia	30	30	31	9	7	7
Washington	85	95	90	67	84	71
Wisconsin	25	24	26	10	8	13
Wyoming	72	81	74	51	66	62
United States	2,548	2,772	2,621	1,982	2,221	2,133

See footnote(s) at end of table.

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**Barley Area Planted and Harvested, Yield, and Production – States and United States:
2018-2020 (continued)**

State	Yield			Production		
	2018 (bushels)	2019 (bushels)	2020 (bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)	2020 (1,000 bushels)
Alaska	43.0	38.0	43.0	172	190	215
Arizona	100.0	126.0	122.0	1,100	1,890	976
California	69.0	66.0	47.0	1,794	3,102	1,457
Colorado	145.0	138.0	145.0	7,685	7,176	6,525
Delaware	78.0	80.0	84.0	1,092	1,120	1,260
Idaho	101.0	104.0	110.0	53,530	55,120	55,000
Kansas	31.0	33.0	51.0	186	132	306
Maine	73.0	82.0	54.0	1,168	1,148	756
Maryland	70.0	85.0	73.0	1,680	1,445	1,533
Michigan	43.0	44.0	56.0	215	352	448
Minnesota	76.0	67.0	47.0	5,092	3,685	2,350
Montana	56.0	59.0	63.0	33,600	44,840	45,675
New York	58.0	52.0	60.0	464	208	300
North Carolina	80.0	66.0	77.0	640	396	616
North Dakota	74.0	72.0	63.0	28,490	32,040	28,980
Oregon	53.0	78.0	72.0	1,378	2,730	1,800
Pennsylvania	63.0	70.0	76.0	2,079	1,750	2,280
South Dakota	55.0	43.0	44.0	715	387	616
Utah	86.0	93.0	85.0	1,376	1,023	850
Virginia	70.0	65.0	63.0	630	455	441
Washington	73.0	70.0	90.0	4,891	5,880	6,390
Wisconsin	45.0	46.0	46.0	450	368	598
Wyoming	100.0	107.0	96.0	5,100	7,062	5,952
United States	77.5	77.7	77.5	153,527	172,499	165,324

¹ Includes area planted in preceding fall.

All Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted ¹			Area harvested		
	2018 (1,000 acres)	2019 (1,000 acres)	2020 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)	2020 (1,000 acres)
Alabama	160	130	135	110	85	70
Arizona	96	36	44	77	35	43
Arkansas	175	110	145	95	50	75
California	425	420	385	147	122	100
Colorado	2,260	2,150	1,900	1,954	2,000	1,520
Delaware	75	60	75	45	50	55
Florida ²	15	(NA)	(NA)	10	(NA)	(NA)
Georgia	200	150	190	70	50	85
Idaho	1,191	1,195	1,240	1,136	1,125	1,164
Illinois	600	650	570	560	550	520
Indiana	310	330	300	260	260	250
Iowa ²	16	(NA)	(NA)	6	(NA)	(NA)
Kansas	7,700	7,100	6,600	7,300	6,700	6,250
Kentucky	450	460	510	300	330	340
Louisiana ²	15	(NA)	(NA)	10	(NA)	(NA)
Maryland	360	345	355	200	165	150
Michigan	510	550	490	470	490	450
Minnesota	1,621	1,450	1,430	1,575	1,400	1,360
Mississippi	55	45	40	30	21	20
Missouri	740	550	480	520	390	370
Montana	5,390	5,450	5,540	5,165	5,135	5,455
Nebraska	1,100	1,070	900	1,010	970	830
Nevada ²	23	(NA)	(NA)	8	(NA)	(NA)
New Jersey	18	19	25	15	14	18
New Mexico	320	365	330	105	110	115
New York	110	90	150	95	66	120
North Carolina	460	290	450	370	225	350
North Dakota	7,735	7,505	6,650	7,635	6,630	6,568
Ohio	490	500	530	450	385	490
Oklahoma	4,400	4,200	4,250	2,500	2,750	2,600
Oregon	800	740	740	770	730	725
Pennsylvania	195	180	235	145	140	190
South Carolina	80	70	110	65	45	95
South Dakota	1,883	1,500	1,400	1,628	1,360	1,360
Tennessee	380	280	300	285	215	230
Texas	4,500	4,600	4,900	1,750	2,100	2,050
Utah	130	125	110	103	116	98
Virginia	230	180	220	155	105	130
Washington	2,220	2,270	2,340	2,165	2,215	2,285
West Virginia ²	7	(NA)	(NA)	3	(NA)	(NA)
Wisconsin	240	195	160	200	150	125
Wyoming	130	125	120	115	110	90
United States	47,815	45,485	44,349	39,612	37,394	36,746

See footnote(s) at end of table.

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**All Wheat Area Planted and Harvested, Yield, and Production – States and United States:
2018-2020 (continued)**

State	Yield			Production		
	2018 (bushels)	2019 (bushels)	2020 (bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)	2020 (1,000 bushels)
Alabama	72.0	72.0	72.0	7,920	6,120	5,040
Arizona	102.6	104.0	99.0	7,898	3,640	4,257
Arkansas	55.0	52.0	55.0	5,225	2,600	4,125
California	81.5	59.4	77.4	11,985	7,244	7,740
Colorado	36.1	49.0	27.0	70,504	98,000	41,040
Delaware	71.0	72.0	73.0	3,195	3,600	4,015
Florida ²	36.0	(NA)	(NA)	360	(NA)	(NA)
Georgia	54.0	56.0	55.0	3,780	2,800	4,675
Idaho	91.9	87.8	96.7	104,410	98,755	112,506
Illinois	66.0	67.0	68.0	36,960	36,850	35,360
Indiana	71.0	62.0	70.0	18,460	16,120	17,500
Iowa ²	58.0	(NA)	(NA)	348	(NA)	(NA)
Kansas	38.0	52.0	45.0	277,400	348,400	281,250
Kentucky	66.0	76.0	63.0	19,800	25,080	21,420
Louisiana ²	65.0	(NA)	(NA)	650	(NA)	(NA)
Maryland	63.0	75.0	73.0	12,600	12,375	10,950
Michigan	76.0	71.0	75.0	35,720	34,790	33,750
Minnesota	59.0	57.0	53.0	92,930	79,800	72,080
Mississippi	49.0	47.0	48.0	1,470	987	960
Missouri	59.0	63.0	62.0	30,680	24,570	22,940
Montana	38.3	42.4	41.7	197,630	217,725	227,345
Nebraska	49.0	57.0	41.0	49,490	55,290	34,030
Nevada ²	112.5	(NA)	(NA)	900	(NA)	(NA)
New Jersey	62.0	66.0	67.0	930	924	1,206
New Mexico	15.0	30.0	28.0	1,575	3,300	3,220
New York	69.0	63.0	66.0	6,555	4,158	7,920
North Carolina	57.0	56.0	60.0	21,090	12,600	21,000
North Dakota	47.6	48.4	47.6	363,483	321,185	312,782
Ohio	75.0	56.0	71.0	33,750	21,560	34,790
Oklahoma	28.0	40.0	40.0	70,000	110,000	104,000
Oregon	67.0	68.0	64.0	51,590	49,640	46,400
Pennsylvania	65.0	73.0	71.0	9,425	10,220	13,490
South Carolina	54.0	48.0	51.0	3,510	2,160	4,845
South Dakota	44.4	48.1	51.9	72,294	65,410	70,520
Tennessee	65.0	67.0	59.0	18,525	14,405	13,570
Texas	32.0	34.0	30.0	56,000	71,400	61,500
Utah	52.0	54.0	53.0	5,356	6,264	5,194
Virginia	60.0	62.0	60.0	9,300	6,510	7,800
Washington	70.8	64.7	72.5	153,210	143,205	165,635
West Virginia ²	46.0	(NA)	(NA)	138	(NA)	(NA)
Wisconsin	71.0	64.0	69.0	14,200	9,600	8,625
Wyoming	34.0	43.0	26.0	3,910	4,730	2,340
United States	47.6	51.7	49.7	1,885,156	1,932,017	1,825,820

(NA) Not available.

¹ Includes area planted in preceding fall.

² Estimates discontinued in 2019.

Winter Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted ¹			Area harvested		
	2018 (1,000 acres)	2019 (1,000 acres)	2020 (1,000 acres)	2018 (1,000 acres)	2019 (1,000 acres)	2020 (1,000 acres)
Alabama	160	130	135	110	85	70
Arizona ²	22	(NA)	(NA)	4	(NA)	(NA)
Arkansas	175	110	145	95	50	75
California	380	390	355	110	100	80
Colorado	2,250	2,150	1,900	1,950	2,000	1,520
Delaware	75	60	75	45	50	55
Florida ²	15	(NA)	(NA)	10	(NA)	(NA)
Georgia	200	150	190	70	50	85
Idaho	720	730	720	680	680	660
Illinois	600	650	570	560	550	520
Indiana	310	330	300	260	260	250
Iowa ²	16	(NA)	(NA)	6	(NA)	(NA)
Kansas	7,700	7,100	6,600	7,300	6,700	6,250
Kentucky	450	460	510	300	330	340
Louisiana ²	15	(NA)	(NA)	10	(NA)	(NA)
Maryland	360	345	355	200	165	150
Michigan	510	550	490	470	490	450
Minnesota ²	11	(NA)	(NA)	5	(NA)	(NA)
Mississippi	55	45	40	30	21	20
Missouri	740	550	480	520	390	370
Montana	1,650	2,000	1,550	1,570	1,900	1,490
Nebraska	1,100	1,070	900	1,010	970	830
Nevada ²	13	(NA)	(NA)	5	(NA)	(NA)
New Jersey	18	19	25	15	14	18
New Mexico	320	365	330	105	110	115
New York	110	90	150	95	66	120
North Carolina	460	290	450	370	225	350
North Dakota	85	85	40	70	70	33
Ohio	490	500	530	450	385	490
Oklahoma	4,400	4,200	4,250	2,500	2,750	2,600
Oregon	720	740	740	695	730	725
Pennsylvania	195	180	235	145	140	190
South Carolina	80	70	110	65	45	95
South Dakota	830	860	630	660	770	600
Tennessee	380	280	300	285	215	230
Texas	4,500	4,600	4,900	1,750	2,100	2,050
Utah	120	125	110	94	116	98
Virginia	230	180	220	155	105	130
Washington	1,700	1,750	1,800	1,650	1,700	1,750
West Virginia ²	7	(NA)	(NA)	3	(NA)	(NA)
Wisconsin	240	195	160	200	150	125
Wyoming	130	125	120	115	110	90
United States	32,542	31,474	30,415	24,742	24,592	23,024

See footnote(s) at end of table.

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**Winter Wheat Planted and Harvested, Yield, and Production – States and United States:
2018-2020 (continued)**

State	Yield			Production		
	2018 (bushels)	2019 (bushels)	2020 (bushels)	2018 (1,000 bushels)	2019 (1,000 bushels)	2020 (1,000 bushels)
Alabama	72.0	72.0	72.0	7,920	6,120	5,040
Arizona ²	40.0	(NA)	(NA)	160	(NA)	(NA)
Arkansas	55.0	52.0	55.0	5,225	2,600	4,125
California	77.0	50.0	75.0	8,470	5,000	6,000
Colorado	36.0	49.0	27.0	70,200	98,000	41,040
Delaware	71.0	72.0	73.0	3,195	3,600	4,015
Florida ²	36.0	(NA)	(NA)	360	(NA)	(NA)
Georgia	54.0	56.0	55.0	3,780	2,800	4,675
Idaho	90.0	87.0	101.0	61,200	59,160	66,660
Illinois	66.0	67.0	68.0	36,960	36,850	35,360
Indiana	71.0	62.0	70.0	18,460	16,120	17,500
Iowa ²	58.0	(NA)	(NA)	348	(NA)	(NA)
Kansas	38.0	52.0	45.0	277,400	348,400	281,250
Kentucky	66.0	76.0	63.0	19,800	25,080	21,420
Louisiana ²	65.0	(NA)	(NA)	650	(NA)	(NA)
Maryland	63.0	75.0	73.0	12,600	12,375	10,950
Michigan	76.0	71.0	75.0	35,720	34,790	33,750
Minnesota ²	60.0	(NA)	(NA)	300	(NA)	(NA)
Mississippi	49.0	47.0	48.0	1,470	987	960
Missouri	59.0	63.0	62.0	30,680	24,570	22,940
Montana	50.0	50.0	51.0	78,500	95,000	75,990
Nebraska	49.0	57.0	41.0	49,490	55,290	34,030
Nevada ²	120.0	(NA)	(NA)	600	(NA)	(NA)
New Jersey	62.0	66.0	67.0	930	924	1,206
New Mexico	15.0	30.0	28.0	1,575	3,300	3,220
New York	69.0	63.0	66.0	6,555	4,158	7,920
North Carolina	57.0	56.0	60.0	21,090	12,600	21,000
North Dakota	43.0	53.0	49.0	3,010	3,710	1,617
Ohio	75.0	56.0	71.0	33,750	21,560	34,790
Oklahoma	28.0	40.0	40.0	70,000	110,000	104,000
Oregon	67.0	68.0	64.0	46,565	49,640	46,400
Pennsylvania	65.0	73.0	71.0	9,425	10,220	13,490
South Carolina	54.0	48.0	51.0	3,510	2,160	4,845
South Dakota	48.0	52.0	58.0	31,680	40,040	34,800
Tennessee	65.0	67.0	59.0	18,525	14,405	13,570
Texas	32.0	34.0	30.0	56,000	71,400	61,500
Utah	52.0	54.0	53.0	4,888	6,264	5,194
Virginia	60.0	62.0	60.0	9,300	6,510	7,800
Washington	76.0	70.0	76.0	125,400	119,000	133,000
West Virginia ²	46.0	(NA)	(NA)	138	(NA)	(NA)
Wisconsin	71.0	64.0	69.0	14,200	9,600	8,625
Wyoming	34.0	43.0	26.0	3,910	4,730	2,340
United States	47.9	53.6	50.9	1,183,939	1,316,963	1,171,022

(NA) Not available.

¹ Includes area planted in preceding fall.

² Estimates discontinued in 2019.

Other Spring Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted			Area harvested		
	2018	2019	2020	2018	2019	2020
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Colorado ¹	10	(NA)	(NA)	4	(NA)	(NA)
Idaho	460	460	510	445	440	495
Minnesota	1,610	1,450	1,430	1,570	1,400	1,360
Montana	2,900	2,900	3,300	2,820	2,730	3,280
Nevada ¹	10	(NA)	(NA)	3	(NA)	(NA)
North Dakota	6,550	6,700	5,700	6,490	5,950	5,630
Oregon ¹	80	(NA)	(NA)	75	(NA)	(NA)
South Dakota	1,050	640	770	965	590	760
Utah ¹	10	(NA)	(NA)	9	(NA)	(NA)
Washington	520	520	540	515	515	535
United States	13,200	12,670	12,250	12,896	11,625	12,060

State	Yield			Production		
	2018	2019	2020	2018	2019	2020
	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Colorado ¹	76.0	(NA)	(NA)	304	(NA)	(NA)
Idaho	95.0	89.0	91.0	42,275	39,160	45,045
Minnesota	59.0	57.0	53.0	92,630	79,800	72,080
Montana	34.0	37.0	38.0	95,880	101,010	124,640
Nevada ¹	100.0	(NA)	(NA)	300	(NA)	(NA)
North Dakota	49.0	49.0	49.0	318,010	291,550	275,870
Oregon ¹	67.0	(NA)	(NA)	5,025	(NA)	(NA)
South Dakota	42.0	43.0	47.0	40,530	25,370	35,720
Utah ¹	52.0	(NA)	(NA)	468	(NA)	(NA)
Washington	54.0	47.0	61.0	27,810	24,205	32,635
United States	48.3	48.3	48.6	623,232	561,095	585,990

(NA) Not available.

¹ Estimates discontinued in 2019.

Durum Wheat Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted			Area harvested		
	2018	2019	2020	2018	2019	2020
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Arizona	74	36	44	73	35	43
California	45	30	30	37	22	20
Idaho	11	5	10	11	5	9
Montana	840	550	690	775	505	685
North Dakota	1,100	720	910	1,075	610	905
South Dakota ¹	3	(NA)	(NA)	3	(NA)	(NA)
United States	2,073	1,341	1,684	1,974	1,177	1,662

State	Yield			Production		
	2018	2019	2020	2018	2019	2020
	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Arizona	106.0	104.0	99.0	7,738	3,640	4,257
California	95.0	102.0	87.0	3,515	2,244	1,740
Idaho	85.0	87.0	89.0	935	435	801
Montana	30.0	43.0	39.0	23,250	21,715	26,715
North Dakota	39.5	42.5	39.0	42,463	25,925	35,295
South Dakota ¹	28.0	(NA)	(NA)	84	(NA)	(NA)
United States	39.5	45.8	41.4	77,985	53,959	68,808

(NA) Not available.

¹ Estimates discontinued in 2019.

Wheat Production by Class – United States: 2018-2020

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

Crop	2018	2019	2020
	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Winter			
Hard red	662,249	844,947	658,640
Soft red	285,558	239,771	266,235
Hard white	19,347	20,266	12,179
Soft white	216,785	211,979	233,968
Spring			
Hard red	587,007	519,929	530,152
Hard white	13,510	11,841	10,687
Soft white	22,715	29,325	45,151
Durum	77,985	53,959	68,808
Total	1,885,156	1,932,017	1,825,820

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 2021 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: 2019 and 2020

State	Hard red		Soft red		Hard white		Soft white	
	2019	2020	2019	2020	2019	2020	2019	2020
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	2	-	98	100	-	-	-	-
Arizona ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Arkansas	-	-	100	100	-	-	-	-
California	88	90	-	1	7	4	5	5
Colorado	94	97	-	-	6	3	-	-
Delaware	-	-	100	100	-	-	-	-
Florida ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Georgia	-	-	100	98	-	-	-	2
Idaho	20	18	-	-	-	1	80	81
Illinois	-	-	100	100	-	-	-	-
Indiana	-	-	100	100	-	-	-	-
Iowa ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Kansas	96	96	1	1	3	3	-	-
Kentucky	-	-	100	100	-	-	-	-
Louisiana ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Maryland	-	-	90	100	-	-	10	-
Michigan	-	-	61	62	-	-	39	38
Minnesota ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Mississippi	-	-	100	100	-	-	-	-
Missouri	1	1	99	99	-	-	-	-
Montana	100	100	-	-	-	-	-	-
Nebraska	94	96	-	-	6	4	-	-
Nevada ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
New Jersey	-	-	100	100	-	-	-	-
New Mexico	100	99	-	-	-	-	-	1
New York	6	6	92	92	-	-	2	2
North Carolina	-	-	100	100	-	-	-	-
North Dakota	100	99	-	-	-	1	-	-
Ohio	-	-	100	100	-	-	-	-
Oklahoma	99	99	1	1	-	-	-	-
Oregon	8	5	-	-	-	-	92	95
Pennsylvania	-	-	100	100	-	-	-	-
South Carolina	-	-	100	100	-	-	-	-
South Dakota	100	100	-	-	-	-	-	-
Tennessee	-	-	100	100	-	-	-	-
Texas	96	96	4	4	-	-	-	-
Utah	74	69	-	-	2	3	24	28
Virginia	-	1	100	99	-	-	-	-
Washington	14	9	-	-	-	-	86	91
West Virginia ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Wisconsin	2	3	98	97	-	-	-	-
Wyoming	97	97	-	-	3	3	-	-

- Represents zero.

(NA) Not available.

¹ Estimates discontinued in 2019.

Other Spring Wheat (excluding Durum) Production Distribution by Class – States: 2019 and 2020

State	Hard red		Hard white		Soft white	
	2019	2020	2019	2020	2019	2020
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Colorado ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Idaho	40	34	29	23	31	43
Minnesota	100	100	-	-	-	-
Montana	100	100	-	-	-	-
Nevada ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
North Dakota	100	100	-	-	-	-
Oregon ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
South Dakota	100	100	-	-	-	-
Utah ¹	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Washington	27	20	2	1	71	79

- Represents zero.

(NA) Not available.

¹ Estimates discontinued in 2019.

Winter Wheat Head Population

The National Agricultural Statistics Service conducted objective yield surveys in 10 winter wheat estimating States during 2020. 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: 2016-2020

State	2016	2017	2018	2019	2020
	(number)	(number)	(number)	(number)	(number)
Colorado					
July	43.0	43.4	40.6	49.3	43.0
August	43.6	43.2	41.0	50.8	42.7
Final	43.6	43.2	41.0	50.8	42.7
Illinois					
July	57.4	56.4	60.9	48.1	52.5
August	57.3	56.4	60.9	49.2	52.4
Final	57.3	56.4	60.9	49.2	52.4
Kansas					
July	54.7	44.3	37.3	46.9	45.3
August	54.7	44.6	37.3	47.2	45.4
Final	54.7	44.6	37.3	47.2	45.4
Missouri					
July	53.7	53.9	53.7	56.4	52.5
August	53.7	53.9	53.7	56.4	52.5
Final	53.7	53.9	53.7	56.4	52.5
Montana					
July	54.6	44.4	44.1	45.2	37.4
August	55.2	46.2	44.8	43.5	38.8
Final	55.2	46.2	44.7	43.1	38.6
Nebraska					
July	60.2	52.5	50.5	53.1	45.8
August	60.3	53.3	50.4	53.7	45.7
Final	60.3	53.3	50.4	53.7	45.7
Ohio					
July	58.0	58.2	70.3	52.0	64.1
August	58.0	58.2	70.3	53.0	63.9
Final	58.0	58.2	70.3	53.0	63.9
Oklahoma					
July	41.8	35.7	32.9	38.1	38.2
August	41.8	35.7	32.4	38.1	38.3
Final	41.8	35.7	32.4	38.1	38.3
Texas					
July	34.4	26.6	30.9	34.3	32.7
August	34.4	26.8	30.9	34.3	32.7
Final	34.5	26.8	31.1	34.5	32.7
Washington					
July	36.1	34.3	41.8	34.2	37.7
August	35.3	35.8	42.3	34.3	38.3
Final	35.5	35.7	42.3	34.6	38.2
10 State					
July	48.3	41.2	40.1	44.0	42.1
August	48.4	41.7	40.1	44.1	42.3
Final	48.4	41.7	40.2	44.2	42.3

Rye Area Planted and Harvested, Yield, and Production – States and United States: 2018-2020

State	Area planted ¹			Area harvested		
	2018	2019	2020	2018	2019	2020
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Georgia ²	190	(D)	(D)	15	(D)	(D)
Minnesota	(D)	50	45	(D)	18	15
North Dakota	(D)	85	75	(D)	57	50
Oklahoma	240	260	270	50	55	52
Pennsylvania	(D)	100	175	(D)	14	36
Wisconsin	(D)	220	215	(D)	20	20
Other States ³	1,581	1,140	1,175	208	146	157
United States	2,011	1,855	1,955	273	310	330

State	Yield			Production		
	2018	2019	2020	2018	2019	2020
	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Georgia ²	26.0	(D)	(D)	390	(D)	(D)
Minnesota	(D)	39.0	38.0	(D)	702	570
North Dakota	(D)	45.0	44.0	(D)	2,565	2,200
Oklahoma	22.0	27.0	14.0	1,100	1,485	728
Pennsylvania	(D)	26.0	52.0	(D)	364	1,872
Wisconsin	(D)	34.0	40.0	(D)	680	800
Other States ³	33.4	33.1	34.2	6,942	4,826	5,362
United States	30.9	34.3	34.9	8,432	10,622	11,532

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

¹ Includes area planted in preceding fall.

² Beginning in 2019, estimates included in Other States.

³ In 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. In 2019 and 2020, 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: 2019-2020

Crop	Area planted		Area harvested	
	2019	2020	2019	2020
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Barley	2,772	2,621	2,221	2,133
Oats	2,830	2,984	828	1,004
Rye	1,855	1,955	310	330
Wheat, all	45,485	44,349	37,394	36,746
Winter	31,474	30,415	24,592	23,024
Durum	1,341	1,684	1,177	1,662
Other spring	12,670	12,250	11,625	12,060
Crop	Yield per acre		Production	
	2019	2020	2019	2020
	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)
Barley	77.7	77.5	172,499	165,324
Oats	64.3	65.1	53,258	65,355
Rye	34.3	34.9	10,622	11,532
Wheat, all	51.7	49.7	1,932,017	1,825,820
Winter	53.6	50.9	1,316,963	1,171,022
Durum	45.8	41.4	53,959	68,808
Other spring	48.3	48.6	561,095	585,990

Small Grain Annual Summary Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2019-2020

Crop	Area planted		Area harvested	
	2019	2020	2019	2020
	(hectares)	(hectares)	(hectares)	(hectares)
Barley	1,121,800	1,060,690	898,820	863,200
Oats	1,145,270	1,207,590	335,080	406,310
Rye	750,700	791,170	125,450	133,550
Wheat, all	18,407,320	17,947,600	15,132,980	14,870,740
Winter	12,737,210	12,308,650	9,952,140	9,317,580
Durum	542,690	681,500	476,320	672,590
Other spring	5,127,420	4,957,450	4,704,520	4,880,560
Crop	Yield per hectare		Production	
	2019	2020	2019	2020
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
Barley	4.18	4.17	3,755,720	3,599,510
Oats	2.31	2.33	773,040	948,630
Rye	2.15	2.19	269,810	292,930
Wheat, all	3.47	3.34	52,580,890	49,690,680
Winter	3.60	3.42	35,841,860	31,870,000
Durum	3.08	2.78	1,468,520	1,872,650
Other spring	3.25	3.27	15,270,500	15,948,030

Crop Comments

Oats: Production in 2020 was estimated at 65.4 million bushels, up 23 percent from 2019. Yield was estimated at 65.1 bushels per acre, up 0.8 bushel from the previous year. Harvested area, at 1.00 million acres, was 21 percent above last year. Record low acres were harvested in Ohio.

A record high yield was estimated in Idaho.

Nationally, oat producers seeded 67 percent of the 2020 acreage by May 3, nineteen percentage points ahead of the previous year but equal to the 5-year average. Sixty-nine percent of the oat acreage had emerged by May 17, nineteen percentage points ahead of the previous year but 1 percentage point behind the 5-year average. Heading of the oat acreage advanced to 74 percent complete by June 28, twenty percentage points ahead of the previous year but 1 percentage point behind the 5-year average. Oat producers harvested 49 percent of the acreage by August 3, twenty percentage points ahead of last year and 6 percentage points ahead of the 5-year average. At that time, harvest progress was at or ahead of the 5-year average in 7 of the 9 weekly *Crop Progress* estimating States. Ninety-one percent of the Nation's oat acreage was harvested by August 31, ten percentage points ahead of the previous year and 1 percentage point ahead of the 5-year average.

Barley: Production was estimated at 165 million bushels, down 4 percent from the revised 2019 total of 172 million bushels. The average yield, at 77.5 bushels per acre, was down 0.2 bushel from the previous year. Producers seeded 2.62 million acres in 2020, down 5 percent from 2019. Harvested area, at 2.13 million acres, was down 4 percent from 2019.

Record high yields were estimated in Colorado, Idaho, Montana, New York, and Washington.

Twelve percent of the Nation's barley acreage was planted by April 12, six percentage points ahead of the previous year but 3 percentage points behind the 5-year average. Nationwide, barley producers seeded 24 percent of the Nation's acreage by April 26, one percentage point behind the previous year and 12 percentage points behind the 5-year average. By April 26, emergence was evident in 8 percent of the Nation's barley acreage, 3 percentage points ahead of the previous year but 3 percentage points behind the 5-year average. Nationally, 93 percent of the barley acreage was sown by May 31, one percentage point ahead of the previous year but 3 percentage points behind the 5-year average. Seventy-four percent of the barley acreage emerged by May 31, six percentage points ahead of the previous year but 7 percentage points behind the 5-year average. Heading of the Nation's barley acreage advanced to 60 percent complete by July 5, twelve percentage points ahead of the previous year but 7 percentage points behind the 5-year average. By August 2, barley producers harvested 5 percent of the Nation's acreage, 2 percentage points ahead of the previous year but 7 percentage points behind the 5-year average. Overall, 79 percent of the barley acreage was reported in good to excellent condition on August 9, compared with 74 percent at the same time last year. By September 13, ninety-five percent of the barley acreage was harvested, 9 percentage points ahead of the previous year and one percentage point ahead of the 5-year average.

Winter wheat: Winter wheat production for 2020 totaled 1.17 billion bushels, down 11 percent from the revised 2019 total of 1.32 billion bushels. The United States yield, at 50.9 bushels per acre, was down 2.7 bushels from 2019. Area harvested for grain was estimated at a record low 23.0 million acres, down 6 percent from the previous year. A record low harvested acreage is estimated in California. Record high yields were estimated in Idaho, Montana, New Jersey, Oklahoma, and South Dakota for 2020.

Compared with 2019, harvested acreage was down 11 percent in the major Hard Red Winter (HRW) growing States, the primary winter wheat-producing area. HRW production totaled 659 million bushels, down 22 percent from 2019.

In the Soft Red Winter (SRW) growing area, planted and harvested acreage increased from 2019. SRW production totaled 266 million bushels, up 11 percent from 2019.

White winter wheat production totaled 246 million bushels, up 6 percent from the previous year. Harvested acreage in the Pacific Northwest (Idaho, Oregon, and Washington) was up 1 percent from 2019. Yields were up in Idaho and Washington but down in Oklahoma compared with the previous year.

Seeding of the 2020 winter wheat acreage began in mid-September 2019 with 8 percent sown by September 15. By October 6, producers had sown 52 percent of the intended 2020 winter wheat acreage, 3 percentage points behind last year and 1 percentage point behind the 5-year average. Nationwide, 26 percent of the winter wheat acreage was emerged by October 6, two percentage points behind last year but equal to the 5-year average. Emergence was at or behind the 5-year average in 11 of the 18 estimating States. Producers had sown 85 percent of the intended 2020 winter wheat acreage by October 27, eight percentage points ahead of last year and 3 percentage points ahead of the 5-year average. Winter wheat planting had double-digit advances in 7 of the 18 estimating States during the week. Nationwide, 63 percent of the winter wheat acreage had emerged by October 27, one percentage point ahead of last year but 1 percentage point behind the 5-year average. Emergence was at or behind the 5-year average in 11 of the 18 estimating States. Overall, 56 percent of the 2020 winter wheat acreage was reported in good to excellent condition based on conditions as of October 27, compared with 53 percent at the same time last year.

Seeding of the 2020 acreage was nearing completion (95 percent) by November 17, three percentage points ahead of last year but equal to the 5-year average. Winter wheat planting was complete or nearing completion in 13 of the 18 estimating States. Nationwide, 87 percent of the winter wheat acreage had emerged by November 24, two percentage points ahead of last year but 3 percentage points behind the 5-year average. Winter wheat emergence advanced by 10 percentage points or more from the previous week in California and North Carolina. Overall, 52 percent of the 2020 winter wheat acreage was reported in good to excellent condition for the week ending November 24, unchanged from the previous week but 3 percentage points below the same time last year as the acreage was entering dormancy.

As the acreage was emerging from dormancy, sixty-two percent of the 2020 winter wheat acreage was reported in good to excellent condition, 2 percentage points above last year as of April 5. In Kansas, the largest winter wheat-producing State, 49 percent of the winter wheat acreage was rated in good to excellent condition. By April 19, fourteen percent of the Nation's winter wheat acreage was headed, 6 percentage points ahead of last year but 1 percentage point behind the 5-year average. On April 19, fifty-seven percent of the 2020 winter wheat acreage was reported in good to excellent condition, 5 percentage points behind both the previous week and last year. In Kansas, the largest winter wheat-producing State, 46 percent of the winter wheat acreage was rated in good to excellent condition.

By May 3, thirty-two percent of the Nation's winter wheat acreage was headed, 6 percentage points ahead of last year but 6 percentage points behind the 5-year average. On May 3, fifty-five percent of the 2020 winter wheat acreage was reported in good to excellent condition, 1 percentage point higher than the previous week but 9 percentage points below the same time last year. In Kansas, the largest winter wheat-producing State, 42 percent of the winter wheat acreage was rated in good to excellent condition. By May 31, seventy-seven percent of the Nation's winter wheat acreage was headed, 4 percentage points ahead of last year but 4 percentage points behind the 5-year average. Three percent of the 2020 winter wheat acreage was harvested by May 31, two percentage points ahead of last year and 1 percentage point ahead of the 5-year average. As of May 31, fifty-one percent of the 2020 winter wheat acreage was reported in good to excellent condition, 3 percentage points below the previous week and 13 percentage points below the same time last year. In Kansas, the largest winter wheat-producing State, 42 percent of the winter wheat acreage was rated in good to excellent condition. Forty-one percent of the 2020 winter wheat acreage was harvested by June 28, fifteen percentage points ahead of last year but equal to the 5-year average. As of June 28, fifty-two percent of the 2020 winter wheat acreage was reported in good to excellent condition, unchanged from the previous week but 11 percentage points below the same time last year.

In Kansas, the largest winter wheat-producing State, 80 percent of the State's winter wheat acreage was harvested by July 5, twenty-eight percentage points ahead of last year and 4 percentage points ahead of the 5-year average. Sixty-eight percent of the 2020 winter wheat acreage had been harvested by July 12, fourteen percentage points ahead of last year and 2 percentage points ahead of the 5-year average. In Kansas, 95 percent of the State's winter wheat acreage was harvested by July 12, twenty percentage points ahead of last year and 5 percentage points ahead of the 5-year average. Eighty-one percent of the 2020 winter wheat acreage had been harvested by July 26, eight percentage points ahead of last year but 1 percentage point behind the 5-year average. Winter wheat harvest progress continued with advances of 20 percentage points or more from the previous week reported in Michigan, Oregon, and South Dakota.

Ninety-three percent of the 2020 winter wheat acreage had been harvested by August 16, one percentage point ahead of last year but 3 percentage points behind the 5-year average. Winter wheat harvest progress was complete or nearing completion in all estimating States except Idaho, Montana, Oregon, and Washington.

Ninety-seven percent of the 2020 winter wheat acreage had been harvested by August 23, two percentage points ahead of last year but 1 percentage point behind the 5-year average. Winter wheat harvest progress was complete or nearing completion in all estimating States except Idaho, Montana, and Washington.

Other spring wheat: Production for 2020 was estimated at 586 million bushels, up 4 percent from the revised 2019 total of 561 million bushels. Harvested area totaled 12.1 million acres, up 4 percent from 2019. The United States yield was estimated at a record high 48.6 bushels per acre, up 0.3 bushel from the previous record high of 48.3 bushels per acre in 2019. A record high yield was estimated in Montana and North Dakota for 2020. Of the total production, 530 million bushels were Hard Red Spring wheat, up 2 percent from the 2019 total.

Seeding of the 2020 spring wheat acreage began in early April. Fourteen percent of the spring wheat acreage was seeded by April 26, three percentage points ahead of last year but 15 percentage points behind the 5-year average. As of April 26, Washington and Idaho led the Nation in planting progress with 88 percent and 61 percent planted, respectively. By April 26, four percent of the Nation's spring wheat acreage had emerged, equal to the previous year but 3 percentage points behind the 5-year average.

As of May 10, forty-two percent of the spring wheat acreage was seeded, 4 percentage points ahead of last year but 21 percentage points behind the 5-year average. Washington and Idaho had the largest percentages of acres planted, with 96 percent and 92 percent planted, respectively. As of May 10, sixteen percent of the Nation's spring wheat acreage had emerged, 8 percentage points ahead of last year but 13 percentage points behind the 5-year average. As of May 24, eighty-one percent of the spring wheat acreage was seeded, 1 percentage point ahead of last year but 9 percentage points behind the 5-year average. As of May 24, fifty-one percent of the Nation's spring wheat acreage had emerged, 10 percentage points ahead of last year but 14 percentage points behind the 5-year average.

As of June 7, ninety-seven percent of the spring wheat acreage had been seeded, 1 percentage point ahead of last year but 2 percentage points behind the 5-year average. As of June 7, eighty-one percent of the Nation's spring wheat acreage had emerged, 1 percentage point ahead of last year but 10 percentage points behind the 5-year average. Eighty-two percent of the Nation's spring wheat was rated in good to excellent condition, 2 percentage points above the previous week and 1 percentage point above the same time last year. By June 21, twelve percent of the Nation's spring wheat acreage had reached the headed stage, 6 percentage points ahead of the previous year but 10 percentage points behind the 5-year average. Seventy-five percent of the Nation's spring wheat was rated in good to excellent condition, 6 percentage points below the previous week but equal to the same time last year.

By July 5, sixty-three percent of the Nation's spring wheat acreage had reached the headed stage, 16 percentage points ahead of the previous year but 5 percentage points behind the 5-year average. Seventy percent of the Nation's spring wheat was rated in good to excellent condition, 1 percentage point above the previous week but 8 percentage points below the same time last year. By July 26, ninety-seven percent of the Nation's spring wheat acreage had reached the headed stage, 1 percentage point ahead of the previous year but 1 percentage point behind the 5-year average. By July 26, one percent of the spring wheat had been harvested, equal to the previous year but 2 percentage points behind the 5-year average. Seventy percent of the Nation's spring wheat was rated in good to excellent condition, 2 percentage points above the previous week but 3 percentage points below the same time last year.

By August 9, fifteen percent of the spring wheat had been harvested, 9 percentage points ahead of last year but 10 percentage points behind the 5-year average. Harvest progress was behind the 5-year average in 5 of the 6 estimating States. Sixty-nine percent of the Nation's spring wheat was rated in good to excellent condition, 4 percentage points below the previous week but unchanged from the same time last year. By August 30, sixty-nine percent of the spring wheat had been harvested, 19 percentage points ahead of last year but 8 percentage points behind the 5-year average. Harvest progress advanced 20 percentage points or more in Idaho, Minnesota, and North Dakota.

By September 6, eighty-two percent of the spring wheat was harvested, 16 percentage points ahead of last year but 5 percentage points behind the 5-year average. Harvest progress advanced 10 percentage points or more in 4 of the 6 estimating States during the week. Harvest of the 2020 acreage was 96 percent complete by September 20.

Durum wheat: Production for 2020 was estimated at 68.8 million bushels, up 28 percent from the revised 2019 total of 54.0 million bushels. Area harvested for grain totaled 1.66 million acres, up 41 percent from the previous year. The United States yield was estimated at 41.4 bushels per acre, down 4.4 bushels from the 2019 yield. Record high yields were estimated in Idaho for 2020. Production in North Dakota, the largest Durum wheat-producing State, was up 36 percent from 2019. Increases in production are attributed to increases in harvested acres across the Nation. Harvest began in the two major Durum-wheat producing States of Montana and North Dakota in early August. Harvest was 80 percent complete in Montana and 86 percent complete in North Dakota by September 13.

Rye: Production for 2020 was estimated at 11.5 million bushels, up 9 percent from the 2019 total. Harvested area totaled 330,000 acres, up 20,000 acres from 2019. The United States yield, at 34.9 bushels per acre, was up 0.6 bushel from the previous year.

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 70 percent of the 2020 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 2020 crop year. Approximately 62,500 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 1.9 percent for winter wheat, 5.3 percent for Durum wheat, and 2.9 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 3.8 percent for winter wheat, 10.6 percent for Durum wheat, and 5.8 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, 4.4, and 13.0 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

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Joshua Bates – Oats, Soybeans	(202) 690-3234
David Colwell – Current Agricultural Industrial Reports	(202) 720-8800
Becky Sommer – Cotton, Cotton Ginnings, Sorghum	(202) 720-5944
James Johanson – Barley, County Estimates, Hay	(202) 690-8533
Greg Lemmons – Corn, Flaxseed, Proso Millet	(202) 720-9526
Jean Porter – Rye, Wheat	(202) 720-8068
John Stephens – Peanuts, Rice	(202) 720-7688
Travis Thorson – Sunflower, Other Oilseeds	(202) 720-7369

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- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit www.nass.usda.gov and click on “National” or “State” in upper right corner above “search” box to create an account and select the reports you would like to receive.
- 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 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@usda.gov.

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