Kansas
Custom Rates
2022

Kansas Department of Agriculture
and
Kansas State University Land Use
Survey Office

KANSAS STATE
Agricultural Economics

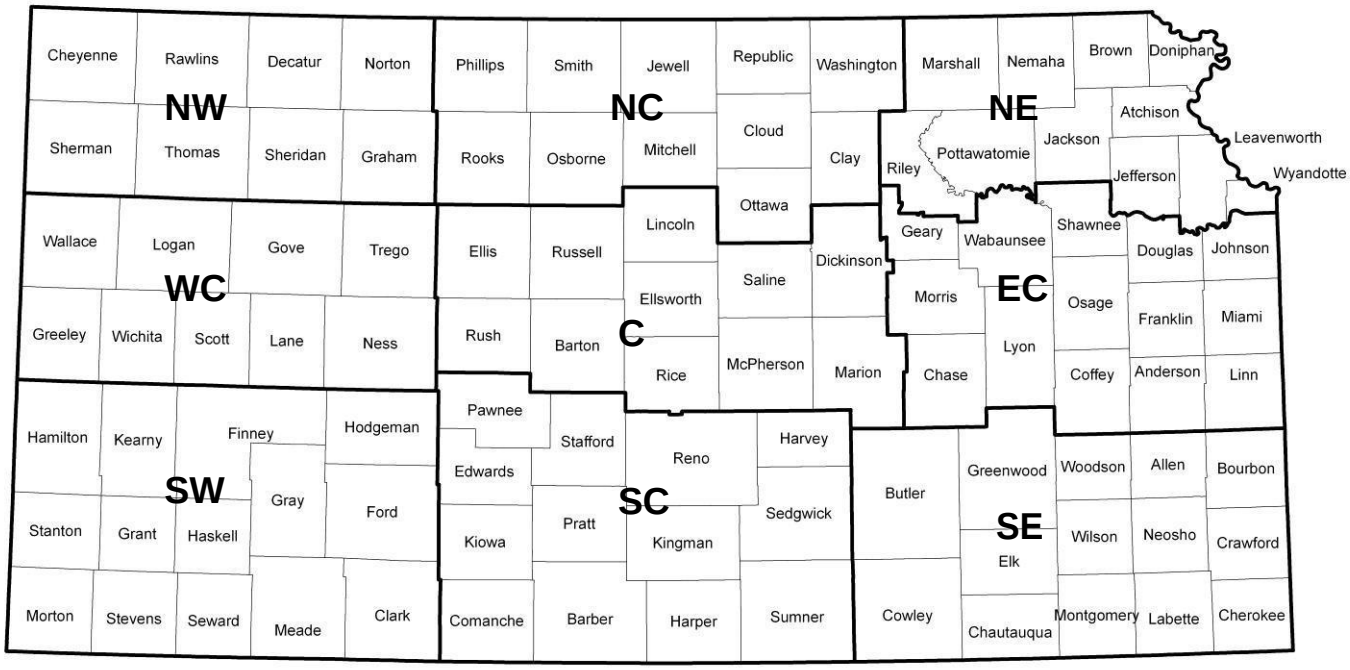
Kansas
Department of Agriculture

2022

RATES PAID BY KANSAS FARMERS FOR CUSTOM WORK

Kansas Department of Agriculture
In Cooperation with
Kansas State University Land Use Survey Office

KANSAS CROP REPORTING DISTRICTS



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INTRODUCTION

With the rising cost of machinery and the uncertainty of local workers, custom agricultural work has become a staple for today's farm. This publication reports the average rates for Kansas agricultural custom work in the period of 2021-2022. Since 2016, the survey has been conducted by the Land Use Survey Office (LUSO)[1] in the Department of Agricultural Economics at Kansas State University in conjunction with the Kansas Department of Agriculture (KDA). In 2018, 2020 and 2022, the survey was available online for Kansas custom operators across the state to complete. Previous versions of this survey and report were written and conducted by the National Agricultural Statistics Service-Kansas office (NASS).

KDA and the LUSO extend a special thanks to Kansas farmers, ranchers, custom operators, co-ops, and elevators for their responses to the 2022 Kansas Custom Rates Survey. We have received many comments about the Custom Rates report from the agricultural community. We appreciate this feedback and encourage readers to continue sharing their ideas and suggestions regarding this survey. Knowledge on accurate, competitive rates is crucial for the sustainability of agricultural operations.

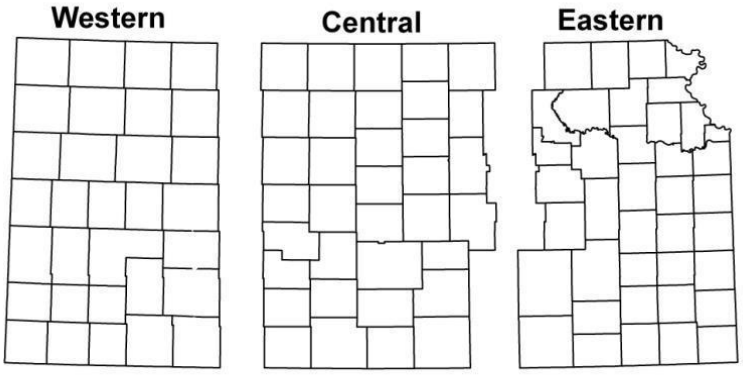
The data in this report provide additional information to Kansas farmers, ranchers, and custom service businesses. The prices reported here should not be regarded as official or established rates. The average figures in this report give equal weight to all responses received.

The prices in this report include charges for machinery, power, fuel, and the operator. These prices do not include the costs of chemicals, seeds, and other materials, unless otherwise specified. The one exception is hay baling materials. Exchange work between farmers is not considered custom work for the purposes of this report.

There are large variations in the rates charged for specific jobs. For many items, the state averages may not be typical of any particular locale. There are many reasons for price differences. Some farmers may charge lower prices to neighbors, relatives, or close friends. Soil conditions and field sizes are also significant factors. The number of responses may also lead to variation in the rates.

This report contains historical tables and graphs that show the results of previous surveys. Some responses are included in more than one district because custom work was performed in multiple districts. For the purpose of this report, Kansas is classified into three regions: western region, central region, and eastern region, as shown below.

For questions regarding this report, please contact Leah Tsoodle at K-State at 785-532-1517 or ltsoodle@ksu.edu or Tori Laird at KDA at 785-564-6726 or Tori.Laird@ks.gov.



[1]The Land Use Survey Office (LUSO) was formerly known and referenced in previous publications as the Land Use Survey Center (LUSC).

GRAIN HARVESTING

WHEAT: Two methods are commonly used to charge for harvesting grain: a flat rate charge and a base rate with extra charge for high yield. Custom harvesters charged an average base rate of $24.92 per acre for harvesting wheat in 2022, $1.90 higher than the 2020 average of $23.01. In 2022, harvesters charged an average of $0.244 extra per bushel of wheat for yields greater than 29 bushels per acre. The base rate bushels increased in 2022 for wheat harvesting compared to that reported in 2020. The average flat rate in 2022 for harvesting wheat was $27.98 per acre, an increase of $3.02 from $24.96 per acre in 2020.

Custom Rates for Wheat Harvest, 2022, by District

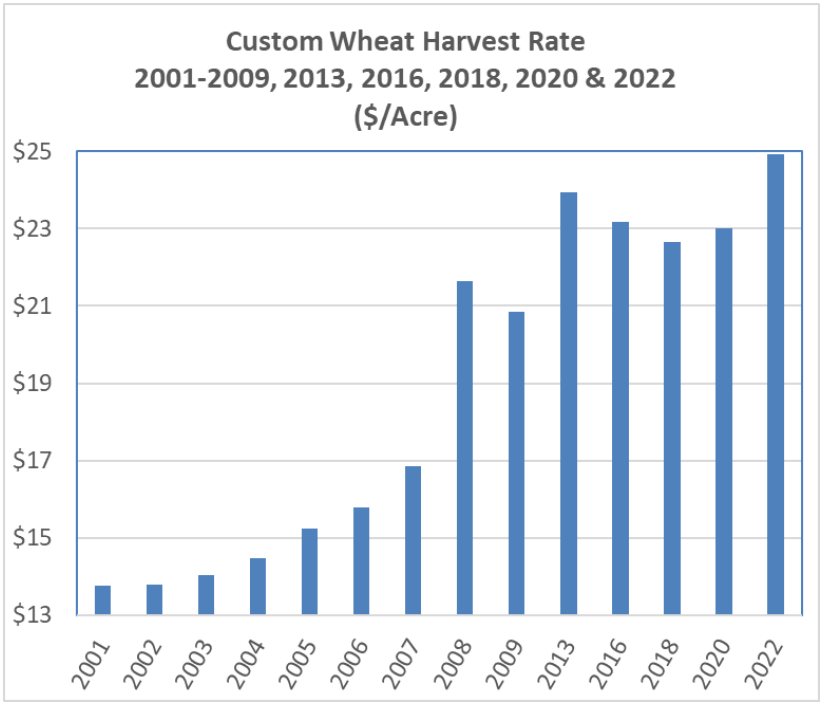
District	Base Rate with Extra Charge for High Yield (if any)						Flat Rate Charge		
	Base Rate ($/Acre)			Extra Charge for High Yield			Dollar Per Acre		
	No. of Reports	Range	Average	No. of Reports	Average ($/Bushel)	Above Bushels	No. of Reports	Range	Average
NW	17	21-26	24.53	17	0.245	27	1/		
WC	30	22-28	24.67	30	0.246	25	1/		
SW	6	22-28	24.83	5	0.248	28	4	25-25	25.00
NC	6	20-25	23.89	6	0.220	29	3	32-32	32.00
C	12	22-30	24.59	12	0.243	29	8	23-65	32.88
SC	16	20-30	25.19	13	0.245	35	9	15-40	26.00
NE	-	-	-	-	-	-	1/		
EC	-	-	-	-	-	-	6	20-35	28.54
SE	4	30-30	30.00	4	0.250	50	4	15-25	22.50
State	91	20-30	24.92	87	0.244	29	38	14-65	27.98

1/ Insufficient number of reports.

Custom Wheat Harvest Historical Rates

Year	Dollars Per Acre	Extra Charge for High Yield	
		Dollar per Bushel	Above Bushels
1996	13.32	0.124	20
1997	13.33	0.126	21
1998	13.32	0.126	21
1999	13.29	0.126	21
2000	13.68	0.128	21
2001	13.77	0.131	20
2002	13.80	0.131	22
2003	14.04	0.136	23
2004	14.48	0.136	21
2005	15.24	0.144	21
2006	15.78	0.149	21
2007	16.85	0.160	21
2008	21.65	0.211	21
2009	20.86	0.200	22
2013	23.93	0.227	23
2016	23.17	0.226	21
2018	22.66	0.227	24
2020	23.01	0.224	27
2022	24.92	0.244	29

Note: Rates before 2016 are from surveys conducted by NASS.



GRAIN HARVESTING (Continued)

GRAIN SORGHUM: Custom harvesters charged an average of $24.86 per acre for harvesting grain sorghum in 2022, $1.18 higher than 2020. Frequently, harvesters include an additional charge per bushel to customers with high yields. In 2022 the extra charge averaged $0.243 per bushel of grain sorghum for yields greater than 45 bushels per acre. The 2022 flat rate charge per acre was $31.79, up $5.60 from 2020.

Custom Rates for Grain Sorghum Harvest, 2022, by District

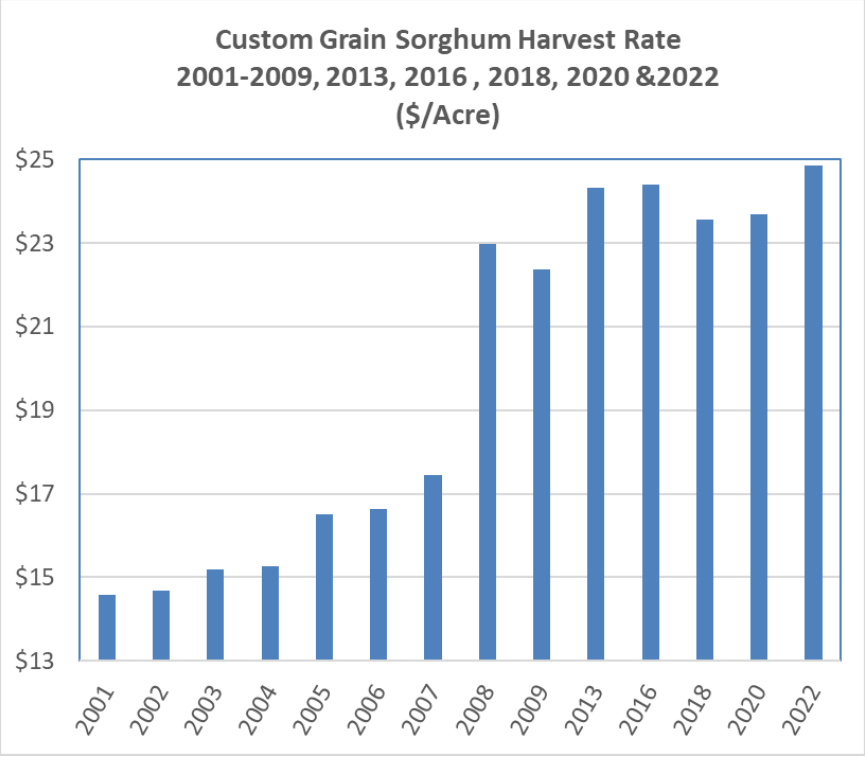
District	Base Rate with Extra Charge for High Yield (if any)						Flat Rate Charge		
	Base Rate ($/Acre)			Extra Charge for High Yield			Dollar Per Acre		
	No. of Reports	Range	Average	No. of Reports	Average ($/Bushel)	Above Bushels	No. of Reports	Range	Average
NW	10	23-28	25.20	10	0.242	43	1/		
WC	27	23-28	24.93	27	0.248	43	1/		
SW	8	22-28	24.25	7	0.234	53	4	25-25	25.00
NC	4	24-30	25.75	4	0.228	51	4	21-32	29.25
C	10	22-30	24.74	10	0.244	44	6	24-50	31.17
SC	11	20-30	24.64	11	0.241	45	7	22-50	41.71
NE	-	-	-	-	-	-	-	-	-
EC	-	-	-	-	-	-	-	-	-
SE	-	-	-	-	-	-	-	-	-
State	70	20-30	24.86	69	0.243	45	24	21-50	31.79

1/ Insufficient number of reports.

Custom Grain Sorghum Harvest Historical Rates

Year	Dollars Per Acre	Extra Charge for High Yield	
		Dollar per Bushel	Above Bushels
1996	14.21	0.123	36
1997	14.35	0.125	37
1998	14.42	0.124	37
1999	14.45	0.127	36
2000	14.64	0.126	34
2001	14.58	0.129	35
2002	14.68	0.130	35
2003	15.19	0.137	35
2004	15.27	0.135	36
2005	16.51	0.146	37
2006	16.64	0.148	36
2007	17.45	0.159	36
2008	22.99	0.216	36
2009	22.37	0.204	35
2013	24.33	0.230	35
2016	24.39	0.229	41
2018	23.55	0.226	48
2020	23.68	0.220	44
2022	24.86	0.243	45

Note: Rates before 2016 are from surveys conducted by NASS.



GRAIN HARVESTING (Continued)

CORN: Custom harvesters charged an average of $29.77 per acre for harvesting corn in 2022, an increase of $3.16 from 2020. The increase brought the cost closer to the 2018 harvest price. The average additional charge to customers with high corn yields was $0.239 per bushel for yields greater than 67 bushels per acre. The average 2022 flat rate charge was $0.381 per bushel or $38.47 per acre. Both rates were higher than the respective averages of 2020.

Custom Rates for Corn Harvest, 2022, by District

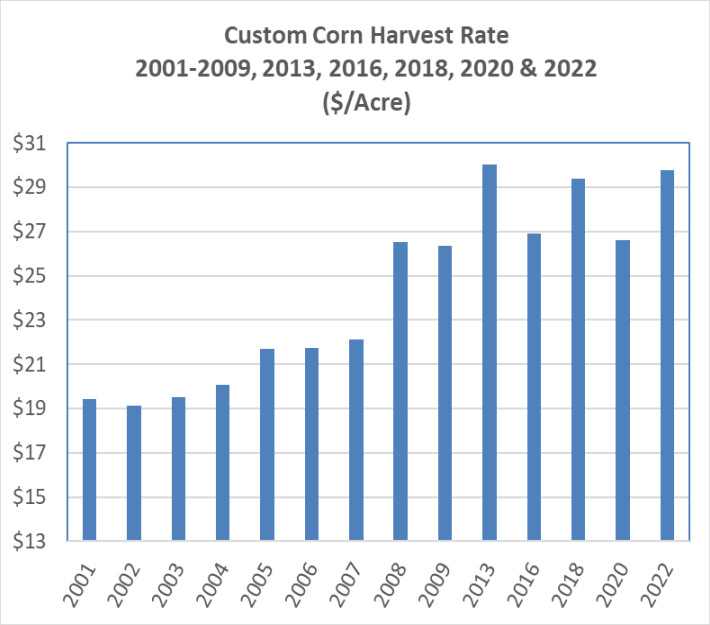
District	Base Rate with Extra Charge for High Yield (if any)						Flat Rate Charge					
	Base Rate ($/Acre)			Extra Charge for High Yield			Dollar Per Acre			Dollar Per Bushel		
	# of Rep.	Range	Average	# of Rep.	Average ($/Bushel)	Above Bushels	# of Rep.	Range	Average	# of Rep.	Range	Average
NW	15	24-39	28.33	15	0.219	71	1/			1/		
WC	19	23-50	29.26	16	0.251	46	-	-	-	5	0.30-0.50	0.418
SW	1/			1/			-	-	-	5	0.09-0.43	0.284
NC	9	28-35	31.44	9	0.254	88	7	35.00-43.00	37.57	-	-	-
C	7	26-30	27.60	7	0.250	60	1/			-	-	-
SC	6	24-30	28.17	6	0.257	72	1/			3	0.40-0.40	0.400
NE	1/			1/			9	30.00-45.00	36.22	-	-	-
EC	-	-	-	-	-	-	6	28.75-100.00	44.96	-	-	-
SE	4	30-30	30.00	4	0.250	70	1/			-	-	-
State	64	23-50	29.77	60	0.239	67	27	25.00-100.00	38.47	15	0.09-0.50	0.381

1/ Insufficient number of reports.

Custom Corn Harvest Historical Rates

Year	Dollars Per Acre	Extra Charge for High Yield		Flat Rate Charge
		Dollar per Bushel	Above Bushels	Dollar per Bushel
1996	18.77	0.126	63	0.23
1997	18.72	0.123	66	0.23
1998	18.96	0.127	59	0.23
1999	19.28	0.120	70	0.24
2000	19.23	0.147	66	0.23
2001	19.43	0.119	48	0.23
2002	19.15	0.148	87	0.24
2003	19.50	0.143	69	0.24
2004	20.09	0.143	76	0.24
2005	21.68	0.142	76	0.26
2006	21.75	0.150	74	0.27
2007	22.14	0.164	71	0.29
2008	26.51	0.203	68	0.32
2009	26.35	0.192	73	0.29
2013	30.02	0.217	71	0.36
2016	26.89	0.240	80	0.35
2018	29.40	0.217	77	0.32
2020	26.61	0.216	61	0.35
2022	29.77	0.239	67	0.38

Note: Rates before 2016 are from surveys conducted by NASS.



GRAIN HARVESTING (Continued)

SOYBEANS: Custom harvesters charged an average of $30.34 per acre for harvesting soybeans in 2022, up $3.10 from 2020. The average additional charge per bushel to customers with yields in excess of 25 bushels per acre in 2022 was 24.5 cents per bushel. The average flat rate was $33.54 per acre, up $3.53 from 2020.

Custom Rates for Soybean Harvest, 2022, by District

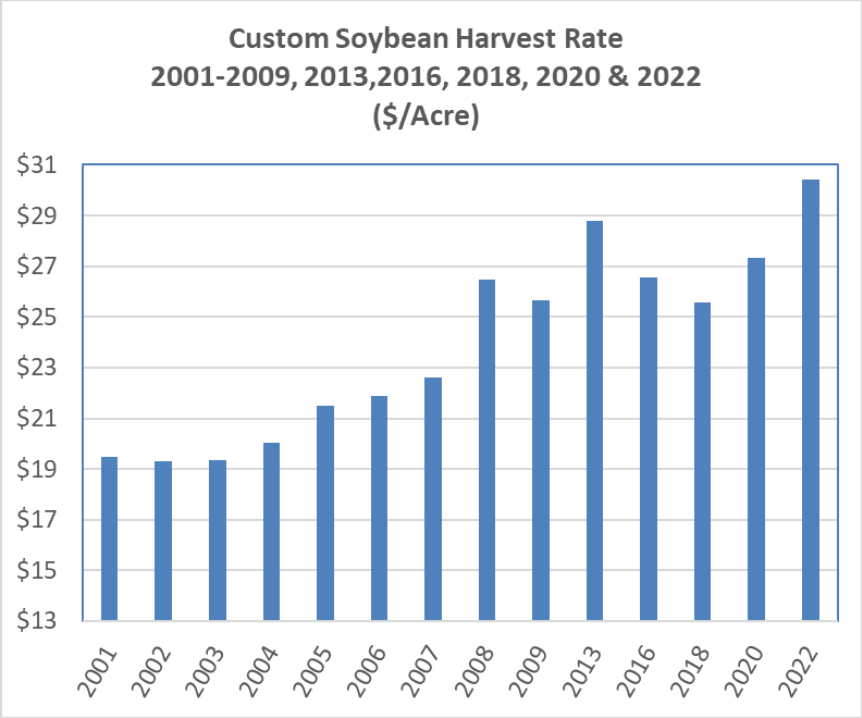
District	Base Rate with Extra Charge for High Yield (if any)						Flat Rate Charge		
	Base Rate ($/Acre)			Extra Charge for High Yield			Dollar Per Acre		
	No. of Reports	Range	Average	No. of Reports	Average ($/Bushel)	Above Bushels	No. of Reports	Range	Average
NW	6	25-30	25.83	6	0.232	23	[1/]		
WC	6	23-50	37.50	3	0.240	23	-	-	-
SW	[1/]			-	-	-	3	40-40	40.00
NC	7	25-31	28.59	7	0.245	25	7	33-40	36.86
C	12	23-35	28.39	12	0.244	25	6	28-50	33.42
SC	10	25-31	28.60	9	0.256	27	7	20-50	33.57
NE	[1/]			-	-	-	13	25-40	34.00
EC	-	-	-	-	-	-	5	27-35	30.57
SE	4	30-30	30.00	4	0.250	30	5	22-27	24.60
State	48	23-50	30.43	41	0.245	25	47	20-50	33.54

[1/] Insufficient number of reports.

Custom Soybean Harvest Historical Rates

Year	Dollars Per Acre	Extra Charge for High Yield	
		Dollar per Bushel	Above Bushels
1996	18.54	0.127	24
1997	18.68	0.124	26
1998	18.85	0.128	27
1999	18.69	0.130	25
2000	19.15	0.125	25
2001	19.48	0.127	24
2002	19.29	0.134	28
2003	19.35	0.133	26
2004	20.06	0.135	26
2005	21.48	0.143	26
2006	21.88	0.172	27
2007	22.61	0.158	28
2008	26.47	0.206	26
2009	25.66	0.198	27
2013	28.78	0.232	27
2016	26.58	0.233	28
2018	25.56	0.233	29
2020	27.34	0.243	31
2022	30.43	0.245	25

Note: Rates before 2016 are from surveys conducted by NASS.



GRAIN HARVESTING (Continued)

SUNFLOWER & COTTON: Custom harvesters charged an average of $39.44 per acre for harvesting sunflowers in 2022, up $2.89 from 2018 but down $3.06 from 2020. The relatively small number of responses may be one of the reasons causing such fluctuations. Too few responses for base rate with extra charge for high yields were reported to be able to publish this year. The average price charged for harvesting cotton was $0.136 per lint pound in 2022, up $0.013 from 2020.

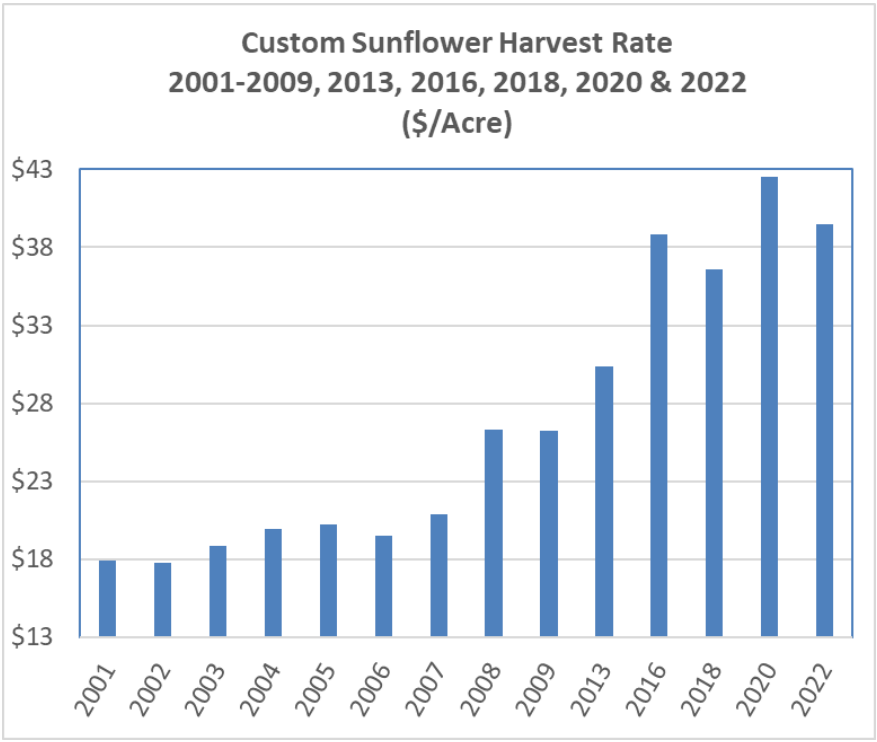
Custom Rates for Sunflower Harvest & Cotton Harvest, 2022, by Region

Region	Sunflower			Cotton		
	Dollar Per Acre			Dollar Per Lint Pound		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	7	35-50	43.57	-	-	-
Central	1/			18	0.13-0.15	0.136
Eastern	-	-	-	1/		
STATE	9	25-50	39.44	19	0.13-0.15	0.136

1/ Insufficient number of reports.

Custom Sunflower Harvest Historical Rates

Year	Dollars Per Acre	Extra Charge for High Yield	
		Dollar per Bushel	Above Bushels
1997	17.69	0.116	5.8
1998	16.94	0.119	11.8
1999	18.35	0.120	10.8
2000	16.33	0.127	9.6
2001	17.93	0.138	8.3
2002	17.80	0.131	6.7
2003	18.90	0.137	6.4
2004	19.95	0.203	7.4
2005	20.24	0.197	7.2
2006	19.55	0.213	12
2007	20.88	0.198	14
2008	26.28	0.265	18
2009	26.26	0.274	19
2013	30.33	1/	1/
2016	38.80	1/	1/
2018	36.55	1/	1/
2020	42.50	1/	1/
2022	39.44	1/	1/



Note: Rates before 2016 are from surveys conducted by NASS.
1/ Insufficient number of reports.

SEED CLEANING

Rates for seed cleaning are higher with treatment than without treatment. Wheat seed cleaning with treatment averaged $4.80 per bushel, an increase of $1.70 from 2020. Rates for cleaning wheat without treatment averaged $0.92 per bushel, 9 cents higher than in 2020. The average cost of cleaning other seeds in 2022 was not reported here because of the small number of responses received.

Custom Rates for Wheat Seed Cleaning ($/Bushel), 2022, by District

District	With Treatment			Without Treatment		
	No. of Reports	Range	Average	No. of Reports	Range	Average
NW	-	-	-	2	0.0-0.95	0.58
WC	2	6.00-6.00	6.00	4	1.00-1.00	1.00
SW	1/			3	0.50-1.00	0.78
NC	6	2.75-8.00	4.71	1/		
C	2	2.75-5.00	3.88	3	0.80-1.00	0.92
SC	-	-	-	8	0.80-1.00	0.89
NE	-	-	-	1/		
EC	-	-	-	1/		
SE	-	-	-	3	1.00-1.00	1.00
State	11	2.75-8.00	4.80	26	0.20-1.30	0.92

1/ Insufficient number of reports.

Historical Custom Rates for Wheat Seed Cleaning ($/Bushel)

Year	With Treatment	Without Treatment
2003	0.90	0.48
2004	0.82	0.47
2005	0.98	0.48
2006	1.14	0.51
2007	1.07	0.54
2008	1.45	0.60
2009	1.36	0.58
2013	2.87	0.73
2016	3.17	0.68
2018	2.55	1.10
2020	3.10	0.83
2022	4.80	0.92

Note: Rates before 2016 are from surveys conducted by NASS.

GRAIN HAULING

Rates for hauling wheat, grain sorghum, corn, and soybeans from the field to the farm or to the nearest elevator in 2022 were slightly higher, with the relatively smaller maximum distance, and lower extra charges, compared to the rates in 2020. The average base rate charged for hauling wheat was 20.6 cents per bushel, with an extra charge of 4.2 cents per bushel per mile over 18 miles. The 2022 average custom rates for hauling corn were higher than 2020 averages and averaged 19.9 cents per bushel plus 2.2 cents per bushel per mile over 18 miles. The average rate for hauling sunflower, cotton, and canola were not reported, as an insufficient number of responses were received.

Custom Rates for Hauling Grain from Field to Farm Storage or Elevator, 2022, by District

District	No. of Reports	Hauling Charge ($/Bushel)	Mile Limits (Miles)	Extra Charge for Longer Distances ($/Bushel/Mile)	No. of Reports	Hauling Charge ($/Bushel)	Mile Limits (Miles)	Extra Charge for Longer Distances ($/Bushel/Mile)
		Wheat				**Grain Sorghum**		
NW	15	0.238	20	0.011	8	0.240	20	0.033
WC	19	0.248	19	0.055	18	0.245	19	0.058
SW	4	0.230	14	0.115	5	0.174	11	0.063
NC	12	0.172	17	0.026	12	0.172	18	0.026
C	14	0.184	17	0.015	11	0.195	18	0.015
SC	10	0.184	15	-	11	0.181	16	-
NE	-	-	-	-	-	-	-	-
EC	4	0.175	30	-	-	-	-	-
SE	6	0.150	15	-	-	-	-	-
State	84	0.206	18	0.042	65	0.206	17	0.047
		Corn				**Soybeans**		
NW	14	0.227	21	0.024	6	0.220	20	0.011
WC	15	0.250	16	0.018	6	0.255	13	0.089
SW	4	0.185	15	[1/]	[1/]			
NC	15	0.183	19	[1/]	16	0.188	20	0.026
C	5	0.186	15	0.020	13	0.174	18	0.015
SC	7	0.163	13	-	8	0.175	14	-
NE	11	0.168	20	0.030	11	0.173	20	0.030
EC	3	0.187	30	-	5	0.180	30	-
SE	6	0.167	15	-	6	0.150	15	-
State	80	0.199	18	0.022	72	0.187	17	0.049

[1/] Insufficient number of reports.

SILAGE OPERATIONS

Custom rates for silage operations were separated into four categories: 1) chopping, hauling, and filling the silo, 2) chopping and hauling, 3) chopping only, and 4) hauling only. The average rate per ton for the complete silage operation was $19.50 per ton, up $8.40 from $11.10 in 2020. Operations which included only chopping and hauling averaged $9.00 per ton, up $0.98 from 2020. Chopping averaged $5.29 per ton, down $0.59 from 2020, and hauling averaged $2.37 per ton, down $0.30 from 2020. The variation between 2022 and 2020 may partly be attributed to the small number of responses. The decreases were not statistically significant at the 1% level.

Custom Rates for Silage Operations, 2022, by Region

Region	Chopping, Hauling, & Filling Silo			Chopping & Hauling		
	No. of Reports	Dollars per Ton		No. of Reports	Dollars per Ton	
		Range	Average		Range	Average
Western	-	-	-	7	7.50-8.00	7.57
Central	2	15.00-25.00	20.00	[1/]		
Eastern	[1/]			3	9.00-12.00	11.00
STATE	3	15.00-25.00	19.50	11	7.5 -13.00	9.00

Custom Rates for Silage Operations, 2022, by Region

Region	Chopping Only			Hauling Only		
	No. of Reports	Dollars per Ton		No. of Reports	Dollars per Ton	
		Range	Average		Range	Average
Western	6	3.50-7.00	4.67	6	0.30-3.00	2.10
Central	[1/]			[1/]		
Eastern	-	-	-	-	-	-
STATE	7	3.50-9.00	5.29	7	0.30-4.00	2.37

[1/] Insufficient number of reports.

ROTARY MOWING AND TREE SHEARING

The custom rate for rotary mowing averaged $44.50 per hour in 2022. In 2020, charges were $65.53 per hour. The average custom rate for skid loader tree shearing was $94.38 per hour in 2022, up $5.08 per hour from 2020. The small number of responses should be considered when the rates between 2022 and 2020 are compared.

Custom Rates for Rotary Mowing and Tree Shearing, 2022, by Region

Region	Rotary Mowing			Skid Loader Tree Shearing		
	Dollar per Hour			Dollar per Hour		
	No. of Reports	Range	Average.	No. of Reports	Range	Average
Western	-	-	-	-	-	-
Central	[1/]			4	75-125	106.25
Eastern	3	14-75	34.33	4	25-120	82.50
STATE	4	14-75	44.50	8	25-125	94.38

[1/] Insufficient number of reports.

HAYING

The average custom rate for mowing or swathing hay was $14.90 per acre in 2022, up $0.94 from 2020. The rate for mowing or swathing forage was higher than for hay, averaging $17.27 per acre, up $2.07 from 2020. Mowing or swathing with conditioning averaged $14.67 per acre in 2022, compared to $14.72 in 2020. The charge for side raking averaged $5.63 per acre, up 73 cents from 2020.

Custom Rates for Mowing or Swathing, 2022, by District

District	Hay			Forage		
	Number of Reports	Dollars per Acre		Number of Reports	Dollars per Acre	
		Range	Average		Range	Average
NW	6	12-16	14.00	2	12-16	14.00
WC	2	15-15	15.00	[1/]		
SW	6	12-20	18.67	5	14-20	18.80
NC	3	15-25	20.00	3	15-25	20.00
C	3	12-17	13.67	3	12-20	16.00
SC	5	14-20	15.80	[1/]		
NE	-	-	-	-	-	-
EC	2	5-12	8.50	-	-	-
SE	4	5-15	9.75	-	-	-
State	31	5-25	14.90	15	12-25	17.27

[1/] Insufficient number of reports.

Custom Rates for Swathing & Conditioning and Side Raking, 2022, by Region

Region	Swathing and Conditioning			Side Raking		
	Number of Reports	Dollars per Acre		Number of Reports	Dollars per Acre	
		Range	Average		Range	Average
Western	2	2-12	7.00	-	-	-
Central	5	18-20	18.80	7	5-8	5.67
Eastern	2	10-14	12.00	[1/]		
STATE	9	2-20	14.67	8	3-8	5.63

[1/] Insufficient number of reports.

HAYING (Continued)

The custom rate for baling small square bales with twine in 2022 was $2.75 per bale. Custom baling of small square bales with net averaged $1.28 per bale in 2022. Custom baling rates of large bales in 2022 were higher than the 2020 average rates. Large round bales weighing less than 1500 pounds with net wrapping cost an average of $14.76 per bale, an increase of $1.34/bale from 2020. Large round bales weighing over 1500 pounds with net wrapping cost an average of $17.65 per bale, up $3.84/bale from 2020. The charge for large square bales weighing about one ton averaged $18.92 per bale, an increase of $2.00 per bale from 2020.

Custom Rates for Baling Hay ($/Bale)

Type of Bale		2022			2020		
		# of Reports	Range	Average	# of Reports	Range	Average
Small Bales, Square	With wire	2	1.05-1.50	1.28	4	1.25-1.50	1.38
	With twine	3	1.50-5.00	2.75	10	0.65-1.75	1.39
Large Round Bales under 1,500 pounds	Without net	1/			4	10.00-14.00	11.50
	With net	27	10.00-22.00	14.76	48	8.00-17.00	13.24
Large Round Bales over 1,500 pounds	Without net	1/			1/		
	With net	31	12.00-30.00	17.65	53	8.00-20.00	13.80
Large Square Bales about 1 ton		12	14.00-22.00	18.92	12	14.50-20.00	16.92

1/ Insufficient number of reports.

Custom Rates for Baling, Square Bales, 2022, by Region

Region	Small Square with Wire			Small Square with Twine			Large Square		
	No. of Reports	Dollars per Bale		No. of Reports	Dollars per Bale		No. of Reports	Dollars per Bale	
		Range	Average		Range	Average		Range	Average
Western	-	-	-	-	-	-	7	14.00-20.00	17.57
Central	-	-	-	2	1.75-5.00	3.38	5	20.00-22.00	20.80
Eastern	2	1.05-1.50	1.28	1/			-	-	-
STATE	2	1.05-1.50	1.28	3	1.50-5.00	2.75	12	14.00-22.00	18.92

Custom Rates for Baling with Net, Large Round Bales, 2022, by Region

District	Under 1500 lbs			Over 1500 lbs		
	Number of Reports	Dollars per Acre		Number of Reports	Dollars per Acre	
		Range	Average		Range	Average
NW	6	12.00-13.00	12.83	2	13-18	15.50
WC	-	-	-	5	14-15	14.40
SW	6	10.00-20.00	17.50	6	14-20	18.17
NC	2	12.50-14.00	13.25	4	13-20	17.75
C	1/			3	12-12	12.00
SC	7	13.00-15.00	14.29	4	15-22	18.75
NE	1/			3	15-16	15.67
EC	1/			1/		
SE	3	12.00-22.00	16.00	3	23-30	25.33
State	27	10.00-22.00	14.76	31	12-30	17.65

1/ Insufficient number of reports.

HAYING (Continued)

Custom Rates for Baling with Net, Large Round Bales, 2022, by Region

Region	2022						2020					
	Under 1500 lbs.			Over 1500 lbs.			Under 1500 lbs.			Over 1500 lbs.		
	# of	Dollars per Bale		# of	Dollars per Bale		# of	Dollars per Bale		# of	Dollars per Bale	
	Rep.	Range	Avg.	Rep.	Range	Avg.	Rep.	Range	Avg.	Rep.	Range	Avg.
Western	12	10.00-20.00	15.17	13	13.00-20.00	16.31	16	8.00-16.00	13.3	10	8.00-20.00	13.90
Central	9	12.50-15.00	14.06	11	12.00-22.00	16.55	22	10.00-15.00	13.4	29	12.00-20.00	13.66
Eastern	5	11.90-22.00	15.18	7	15.00-30.00	21.86	10	10.50-17.00	12.9	14	12.00-17.00	14.04
STATE	26	8.00-17.00	14.78	31	8.00-20.00	17.65	48	8.00-17.00	13.2	53	8.00-20.00	13.80

Custom rates for hauling small bales from the field to farm storage were not published here due to an insufficient number of responses. The cost of hauling large square bales averaged of $4.83 per bale in 2022, up 12 cents per bale from 2020. Rates for hauling large round bales averaged $5.90 per in 2022, an increase of $1.36 per bale from 2020. There were too few reports for hay stacking to provide a reasonable indication of current rates; therefore, the table has not been included.

Custom Rates for Hauling Large Bales from Field to Storage, 2022, by Region

Region	Large Square Bales			Large Round Bales		
	Number of	Dollars per Bale		Number of	Dollars per Bale	
	Reports	Range	Average	Reports	Range	Average
Western	6	4.50-5.00	4.83	8	4.50-8.00	5.34
Central	-	-	-	2	8.00-10.00	9.00
Eastern	-	-	-	2	5.00-5.00	5.00
STATE	6	4.50-5.00	4.83	13	4.50-10.00	5.90

The custom rates for the entire haying operation include cutting, conditioning, raking, baling, hauling, and stacking. The average rate for large round bales was $25.45 per bale in 2022, up $4.80 per bale from 2020. The average rate for large square bales was $31.00 per bale. The entire haying operation custom rates for small bales were not reported because of an insufficient number of reports.

Custom Rates for Entire Haying Operation, 2022, by Region

Region	Large Square Bales			Large Round Bales		
	Number of	Dollars per Bale		Number of	Dollars per Bale	
	Reports	Range	Average	Reports	Range	Average
Western	11	27-35	31.00	12	12-32	27.58
Central	-	-	-	2	25-28	26.50
Eastern	-	-	-	15	12-40	23.60
STATE	11	27-35	31.00	29	12-40	25.45

LAND TILLAGE

Custom rates for tillage operations vary depending on many factors, including location, type of soil tillage practice, size and shape of fields, and the size of equipment. The average charge for disking (including one-way disking), was $15.01 per acre in 2022, up $1.89 from 2020. The average offset disking charge was $20.00 per acre in 2022, up $4.44 from the 2020 rate. Tandem disking averaged $14.90 per acre in 2022, up $3.23 from the 2020 rate.

Custom Rates for Disking, 2022, by Region

Region	Disking			Offset Disk			Tandem Disking		
	Dollar per Acre			Dollar per Acre			Dollar per Acre		
	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.
Western	21	10.00-18.00	15.48	4	20.00-20.00	20.00	8	11.00-18.00	16.38
Central	12	10.00-16.50	13.88	[1/]			10	12.00-20.00	13.70
Eastern	4	10.88-26.00	15.97	-	-	-	[1/]		
STATE	37	10.00-26.00	15.01	6	20.00-20.00	20.00	20	11.00-20.00	14.90

[1/] Insufficient number of reports.

The average custom rate for chiseling, 4-12 inches, was $16.64 per acre in 2022, up $2.43 from 2020. The charge for deep chiseling, over 12 inches, averaged $21.00 per acre in 2022, $3.21 higher than the rate in 2020.

Custom Rates for Chiseling ($/Acre), 2022, by District

Region	Chisel (4-12")			Deep chisel (Over 12")		
	Number of Reports	Dollars per Acre		Number of Reports	Dollars per Acre	
		Range	Average		Range	Average
Western	12	11-18	15.42	12	15-25	20.83
Central	[1/]			-	-	-
Eastern	8	12-20	18.13	[1/]		
STATE	22	11-20	16.64	14	15-25	21.00

[1/] Insufficient number of reports.

The charges for strip tillage averaged $18.92 per acre in 2022, up $0.31 from 2020. Deep strip tillage, over 6", averaged $22.52 per acre, up $2.52 from 2020. The average rate for shallow, high speed vertical tillage, 2-4", was $14.95 per acre in 2022, an increase of $0.89 from 2020.

Custom Rates for Strip and Vertical Tillage, 2022, by District

Region	Strip Tillage			Deep Strip Tillage (over 6" deep)			Vertical Tillage--high speed, shallow (2-4")		
	Dollar per Acre			Dollar per Acre			Dollar per Acre		
	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.
Western	13	15-25	19.77	15	17-30	23.13	13	10-20	16.27
Central	12	12-22	18.25	6	20-22	21.00	8	10-16	12.00
Eastern	[1/]			-	-	-	12	12-18	15.50
STATE	26	12-25	18.92	21	17-30	22.52	33	10-20	14.95

[1/] Insufficient number of reports.

LAND TILLAGE (Continued)

The custom rate for field cultivators, 5 HP per linear foot of implement, averaged $15.39 per acre in 2022, up $4.30 from 2020. The average rate for shallow undercutting operations in 2022 was $12.93 per acre, an increase of $0.33 from 2020. The average rate for undercutting operations with large V blade was $12.84 per acre, up $1.92 from 2020. Custom subsoiling/in-line ripping, about 30 HP per shank, averaged $23.25 per acre in 2022, up $2.78 from 2020.

Custom Rates for Cultivation and Undercutting, 2022, by District

District	Field Cultivator (5 HP per linear foot of implement)			Undercutter (Shallow, e.g. Fallow Master)			Undercutter (Large "V" Blade)		
	Dollar per Acre			Dollar per Acre			Dollar per Acre		
	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.
NW	3	15.00-16.00	15.33	3	10.00-15.00	13.33	12	6.75-16.00	12.40
WC	4	10.00-15.00	13.75	15	8.00-17.00	12.93	19	8.00-19.00	13.24
SW	3	10.00-15.00	12.33	5	10.00-17.00	12.60	6	10.00-19.00	12.67
NC	6	12.00-20.00	14.83	-	-	-	2	12.00-12.00	12.00
C	1/			1/			1/		
SC	-	-	-	3	12.00-12.00	12.00	3	12.00-12.00	12.00
NE	5	15.00-18.00	16.60	-	-	-	-	-	-
EC	2	11.44-12.00	11.72	-	-	-	-	-	-
SE	5	17.00-20.00	19.40	-	-	-	-	-	-
State	29	10.00-20.00	15.39	27	8.00-17.00	12.93	43	6.75-19.00	12.84

1/ Insufficient number of reports.

Custom Rates for Subsoiler/In-line Ripper (about 30 HP per shank), 2022, by Region

Region	No. of Reports	Range	Avg. ($/Acre)
Western	17	18-30	23.53
Central	3	20-20	20.00
Eastern	4	24-25	24.50
STATE	24	18-30	23.25

LAND TILLAGE (Continued)

In 2022, charges for spiketooth harrowing averaged $9.15 per acre, an increase of $1.01 per acre from 2020. The charges for finishing and packing for a seed bed averaged $14.75 per acre in 2022, up $0.92 from 2020. The average rate for springtooth harrowing was unavailable.

Custom Rates for Harrowing & Finishing, 2022, by Region

Region	Spiketooth Harrow			Finisher (Finish & Pack Seed Bed)		
	Dollar per Acre			Dollar per Acre		
	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.
Western	3	8.00-8.00	8.00	7	15.00-18.00	17.29
Central	5	9.00-10.00	9.40	5	10.00-12.00	11.20
Eastern	2	8.50-12.00	10.25	-	-	-
STATE	10	8.00-12.00	9.15	12	10.00-18.00	14.75

Custom rates for land tillage operations in 2022 increased from 2020 rates.

Custom Rates for Land Tillage, Historical Averages ($/Acre)

Type of Operation	2003	2004	2005	2006	2007	2008	2009	2013	2016	2018	2020	2022
Disking	6.42	6.84	7.54	7.79	7.93	9.02	9.06	11.31	12.2	11.85	13.12	15.01
One-Way Disk	6.5	7.22	6.66	8	8.06	9	-	-	-	-		
Offset Disk	7.02	7.01	7.76	8.53	8.37	9.56	9.52	10.98	12.6	13.25	15.56	20.00
Spiketooth Harrow	5.33	5.25	5.31	5.88	6.68	6.71	7.3	8.82	8.33	7.63	8.14	9.15
Springtooth Harrow	4.17	4.88	5.75	5.58	5.83	6.42	8.4	8.25	1/	9.17	-	-
Chisel (4-12")	8.02	7.96	8.45	9.1	9.75	11.19	10.06	12.71	13.95	13.79	14.21	16.64
Deep Chisel (Over 12")	8.94	10.05	10.85	11.88	11.46	15.81	13.7	15.88	13.5	17.78	17.79	21.00
Moldboard Plow	9.98	11.63	11.36	11.04	10.64	15.41	14	14.13	17.5	18.17	18.38	18.00
Undercutter (large V Blade)	5.47	5.58	6.07	6.43	6.66	7.73	7.42	9.34	11.13	11.05	10.39	12.84
Shank Cultivator	6.18	6.27	7.13	7.37	7.25	8.95	8.84	10.4	-	-	-	-
Wheel Springtooth Cultivator	5.27	6	5.75	7.02	7.56	6.93	7.43	8.25	-	-	-	-
Field Cultivator (5 HP per linear foot of implement)	-	-	-	-	-	-	-	-	11.78	10.37	10.37	15.39
Subsoiler/In-line ripper (about 30 HP per shank)	-	-	-	-	-	-	-	-	18.24	18.24	20.47	23.25
Strip Tillage	-	-	-	-	-	-	-	-	17.07	16.56	18.61	18.92
Deep Strip Tillage	-	-	-	-	-	-	-	-	-	19.38	20.00	22.52
Vertical Tillage	-	-	-	-	-	-	-	-	13.33	13.25	14.07	14.95
Finisher	-	-	-	-	-	-	-	-	-	14.38	13.83	14.75

Note: Rates before 2016 are from surveys conducted by NASS.
Disking and One-Way Disking were combined beginning in 2009. Subsoiler/In-line ripper, Strip Tillage and Vertical Tillage were added starting in the 2016 Survey. Finisher and Rotary Hoe were added starting in the 2018 Survey.

PLANTING

Regular-Till

Custom rates for planting crops were separated into four categories in 2022: planting without fertilizer & chemical application, planting with only fertilizer application, planting with only chemical application, and planting with fertilizer & chemical application. Planting rates for the latter two categories were not reported here because the number of responses was too small.

Corn row planting charges without fertilizer and chemical application in 2022 averaged $19.42 per acre, an increase of $2.42 from 2020. Charges for small grain drilling averaged $16.10 per acre in 2022, up $1.99 from 2020. The rate for planting grain sorghum averaged $15.95 per acre in 2022. Soybean planting charges averaged $16.59 per acre for row planting, $14.96 for drilling, and $20.08 for twin-row planting in 2022.

Custom Rates for Regular-Till Planting ($/Acre), 2022, by District without Fertilizer & Chemical Application

District	No. of Reports	Range	Average	No. of Reports	Range	Average
	Small Grain Drilling			**Grain Sorghum- Row Planting**		
NW	-	-	-	-	-	-
WC	4	16.00-18.00	17.00	2	16.00-16.00	16.00
SW	6	13.00-18.00	16.67	1/		
NC	3	12.00-16.00	13.33	1/		
C	2	16.00-16.00	16.00	2	16.00-16.00	16.00
SC	3	16.50-16.50	16.50	5	15.00-17.50	16.50
NE	-	-	-	-	-	-
EC	2	15.00-17.50	16.25	-	-	-
SE	-	-	-	-	-	-
State	20	12.00-18.00	16.10	11	12.00-17.50	15.95
	Corn-Row Planting			**Soybeans-Row Planting**		
NW	-	-	-	-	-	-
WC	2	17.00-17.00	17.00	-	-	-
SW	2	15.00-18.00	16.50	-	-	-
NC	2	18.00-18.00	18.00	-	-	-
C	2	16.00-16.00	16.00	2	16.00-16.00	16.00
SC	3	17.50-17.50	17.50	3	17.50-17.50	17.50
NE	10	18.00-25.00	21.80	4	15.00-20.00	18.75
EC	3	14.50-17.50	15.67	5	14.50-17.50	15.99
SE	6	15.00-25.00	21.67	1/		
State	30	14.50-25.00	19.42	16	13.00-20.00	16.59
	Soybeans-Drilling			**Soybeans-Twin Row Planting**		
NW	-	-	-	-	-	-
WC	-	-	-	-	-	-
SW	-	-	-	-	-	-
NC	1/			-	-	-
C	4	13.08-16.00	14.54	-	-	-
SC	3	16.50-16.50	16.50	3	19.50-19.50	19.50
NE	-	-	-	3	20.00-22.00	20.67
EC	-	-	-	-	-	-
SE	-	-	-	-	-	-
State	8	12.00-16.50	14.96	6	19.50-22.00	20.08

1/ Insufficient number of reports.

Regular-Till

The custom rates for planting small grains, grain sorghum, corn, and soybeans with fertilizer were higher than the corresponding planting rates without fertilizer and chemical application. These rates were also higher than the corresponding 2020 rates, generally. The average rates in 2022 for small grain drilling, grain sorghum row planting, corn row planting, soybeans row plaining, soybeans drilling, and soybeans twin row planting with fertilizer application were $16.95, $17.84, $18.67, $18.20, $17.54, and $20.79, respectively.

Custom Rates for Regular-Till Planting ($/Acre), 2022, by District
With Fertilizer Application

District	No. of Reports	Range	Average	No. of Reports	Range	Average
	Small Grain Drilling			**Grain Sorghum- Row Planting**		
NW	3	15-18	16.00	7	15-22	18.43
WC	9	12-20	16.11	8	14-22	16.88
SW	-	-	-	-	-	-
NC	4	20-20	20.00	3	22-22	22.00
C	4	17-20	18.25	4	18-22	19.00
SC	12	11-30	16.38	9	14-18	16.33
NE	-	-	-	-	-	-
EC	-	-	-	-	-	-
SE	-	-	-	-	-	-
State	32	11-30	16.95	31	14-22	17.84
	Corn-Row Planting			**Soybeans-Row Planting**		
NW	7	15-22	18.57	5	15-22	19.20
WC	6	14-22	17.50	3	14-22	16.67
SW	1/			-	-	-
NC	5	15-22	20.20	5	15-22	20.20
C	4	18-22	19.00	4	18-22	19.00
SC	7	14-21	18.29	8	12-18	16.50
NE	-	-	-	-	-	-
EC	-	-	-	-	-	-
SE	-	-	-	-	-	-
State	30	14-22	18.67	25	12-22	18.20
	Soybeans-Drilling			**Soybeans-Twin Row Planting**		
NW	2	15.00-15.00	15.00	-	-	-
WC	-	-	-	-	-	-
SW	-	-	-	-	-	-
NC	3	20.00-20.00	20.00	3	22.00-22.00	22.00
C	3	17.00-18.00	17.67	1/		
SC	4	16.50-18.00	16.88	3	20.00-20.00	20.00
NE	-	-	-	-	-	-
EC	-	-	-	-	-	-
SE	-	-	-	-	-	-
State	12	15.00-20.00	17.54	7	19.50-22.00	20.79

1/ Insufficient number of reports.

PLANTING (Continued)

Regular-Till

The grass seeding rate averaged $21.00 per acre, an increase of $4.90 per acre from 2020. The price for seeding alfalfa-legumes averaged $21.46 per acre, up $3.69 from 2020.

Custom Rates for Grass Seeding and Alfalfa-Legume Seeding ($/Acre), 2022, by District

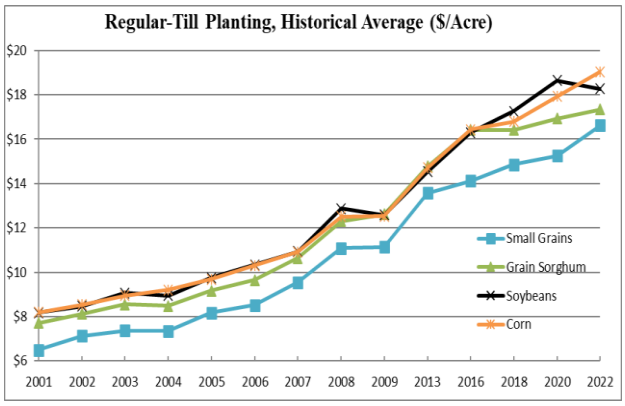
District	Grass Seeding			Alfalfa-Legume Seeding		
	No. of Reports	Range	Average	No. of Reports	Range	Average
NW	-	-	-	8	15-18	17.25
WC	10	15-25	20.60	2	16-16	16.00
SW	7	18-25	22.00	7	22-30	25.43
NC	3	20-20	20.00	3	20-20	20.00
C	2	17-17	17.00	4	18-30	20.75
SC	-	-	-	2	30-30	30.00
NE	-	-	-	-	-	-
EC	2	25-25	25.00	2	25-25	25.00
SE	-	-	-	-	-	-
State	24	15-25	21.00	28	15-30	21.46

The custom charges for planting small grains, grain sorghum, corn, and soybeans has been increasing since 2001. Small grain seeding charges in 2022 averaged $16.63 per acre, up $1.38 from 2020. The average price charged for planting grain sorghum was $17.35 per acre, compared to $16.92 in 2020. Charges for planting corn increased $1.12 per acre from 2020 to $19.04 in 2022. Soybean planting charges averaged $18.27 per acre in 2022, $1.01 higher than the 2018 average of $17.26, and not statistically different from the 2020 average of $18.64 per acre.

Custom Rates for Regular-Till Planting, Historical Averages ($/Acre)

Year	Small Grains	Grain Sorghum	Soybeans	Corn	Grass	Alfalfa-Legume
2001	6.49	7.72	8.17	8.19	8.92	8.59
2002	7.13	8.13	8.47	8.54	9.77	9.83
2003	7.38	8.55	9.06	8.95	10.61	10.29
2004	7.35	8.48	8.95	9.21	10.83	9.63
2005	8.17	9.17	9.76	9.69	11.45	10.52
2006	8.52	9.65	10.33	10.3	11.44	10.79
2007	9.54	10.65	10.94	10.91	12.6	11.35
2008	11.09	12.3	12.87	12.51	14.65	13.75
2009	11.14	12.61	12.58	12.52	14.02	12.68
2013	13.58	14.77	14.53	14.71	15.35	15.04
2016	14.13	16.41	16.29	16.43	13.96	14.88
2018	14.85*	16.42*	17.26*	16.79*	16.04*	16.19*
2020	15.24*	16.92*	18.64*	17.92*	16.10*	17.78*
2022	16.63*	17.35*	18.27*	19.04*	21.00*	21.46*

Note: Rates before 2016 are from surveys conducted by NASS.
*Combined average of planting with fertilizer and planting without fertilizer & chemical.



PLANTING (Continued)

Minimum-Till or No-Till

The average custom rates for minimum-till or no-till planting were higher than the corresponding average rates of regular-till planting in 2022. Minimum-till or no-till planting rates without fertilizer and chemical application in 2022 were higher than corresponding 2020 rates. The custom rates for minimum-till or no-till drilling of small grains and grain sorghum row planting without fertilizer and chemical applications averaged $19.24 per acre and $18.77 per acre in 2022. Corn row planting in 2022 averaged $20.41 per acre, up $3.48 from 2020. Soybean row planting, drilling, and twin row planting without fertilizer and chemical application averaged $19.58 per acre, $17.64 per acre, and $20.30 per acre, respectively.

Custom Rates for Minimum-Till or No-Till Planting ($/Acre), 2022, by District
Without Fertilizer & Chemical Application

District	No. of Reports	Range	Average	No. of Reports	Range	Average
	Small Grain Drilling			**Grain Sorghum- Row Planting**		
NW	3	18.63-18.63	18.63	3	18.49-18.49	18.49
WC	10	18.00-23.00	21.10	11	14.00-23.00	19.91
SW	7	14.00-23.00	18.71	6	18.00-23.00	19.17
NC	6	12.00-20.00	16.83	3	12.00-20.00	14.67
C	8	16.00-22.00	18.50	7	14.00-22.00	18.29
SC	6	16.50-20.00	18.25	4	18.50-20.00	18.88
NE	[1/]			-	-	-
EC	-	-	-	-	-	-
SE	7	15.00-25.00	21.71	[1/]		
State	48	12.00-25.00	19.24	35	12.00-23.00	18.77
	Corn-Row Planting			**Soybeans-Row Planting**		
NW	3	18.49-18.49	18.49	3	18.49-18.49	18.49
WC	10	19.00-25.00	21.70	4	12.50-23.00	20.38
SW	7	18.00-25.00	19.43	4	18.00-23.00	19.25
NC	5	15.00-22.00	17.60	3	15.00-16.00	15.33
C	6	16.00-25.00	19.50	9	12.50-22.00	18.06
SC	4	18.50-20.00	18.88	4	18.50-20.00	18.88
NE	7	18.00-24.00	21.43	6	20.00-24.00	22.33
EC	-	-	-	3	16.00-18.00	16.99
SE	4	25.00-25.00	25.00	5	20.00-25.00	24.00
State	46	15.00-25.00	20.41	41	12.50-25.00	19.58
	Soybeans-Drilling			**Soybeans-Twin Row Planting**		
NW	3	18.63-18.63	18.63	-	-	-
WC	[1/]			-	-	-
SW	3	18.00-18.00	18.00	-	-	-
NC	3	12.00-20.00	14.67	-	-	-
C	9	15.00-22.00	18.11	-	-	-
SC	4	16.50-20.00	17.38	3	20.50-20.50	20.50
NE	-	-	-	2	20.00-20.00	20.00
EC	-	-	-	-	-	-
SE	[1/]			-	-	-
State	24	12.00-22.00	17.64	5	20.00-20.50	20.30

[1/] Insufficient number of reports.

PLANTING (Continued)

Minimum-Till or No-Till

Minimum-till or no-till custom rates for planting small grains, grain sorghum, corn, and soybeans with fertilizer were slightly higher than the corresponding planting rates without fertilizer and chemical application. These rates were also higher than the corresponding 2020 rates, except for soybeans twin row planting. The average rates in 2022 for small grain drilling, grain sorghum row planting, corn row planting, soybeans row plaint, soybeans drilling, and soybean twin row planting with fertilizer application were $19.26, $19.57, $20.42, $20.35, $19.38, and $20.63, respectively.

Custom Rates for Minimum-Till or No-Till Planting ($/Acre), 2022, by District
With Fertilizer Application

District	No. of Reports	Range	Average	No. of Reports	Range	Average
	Small Grain Drilling			**Grain Sorghum- Row Planting**		
NW	12	13.00-20.00	17.17	13	16-22	18.62
WC	22	14.50-25.00	20.57	25	14-25	20.32
SW	7	18.00-25.00	21.14	6	20-25	21.00
NC	2	16.00-19.00	17.50	1/		
C	14	14.50-25.00	19.18	13	16-25	19.69
SC	10	15.00-22.00	18.45	9	8-22	17.78
NE	-	-	-	-	-	-
EC	-	-	-	-	-	-
SE	1/			-	-	-
State	68	13.00-25.00	19.26	67	8-25	19.57
	Corn-Row Planting			**Soybeans-Row Planting**		
NW	13	16.00-22.00	18.54	5	15-22	19.20
WC	21	14.00-27.00	21.38	5	19-27	24.40
SW	8	18.00-27.00	21.00	4	20-27	21.75
NC	2	18.65-23.00	20.83	1/		
C	9	18.00-27.00	20.83	10	18-22	19.80
SC	9	18.00-22.00	19.67	9	13-22	18.89
NE	2	20.00-23.00	21.50	-	-	-
EC	-	-	-	-	-	-
SE	-	-	-	-	-	-
State	64	14.00-27.00	20.42	34	13-27	20.35
	Soybeans-Drilling			**Soybeans-Twin Row Planting**		
NW	2	18.00-18.00	18.00	-	-	-
WC	-	-	-	-	-	-
SW	3	20.00-20.00	20.00	-	-	-
NC	1/			-	-	-
C	8	17.00-25.00	20.25	1/		
SC	5	16.50-22.00	17.90	3	21.00-21.00	21.00
NE	1/			-	-	-
EC	-	-	-	-	-	-
SE	-	-	-	-	-	-
State	20	16.50-25.00	19.38	4	19.50-21.00	20.63

1/ Insufficient number of reports.

PLANTING (Continued)

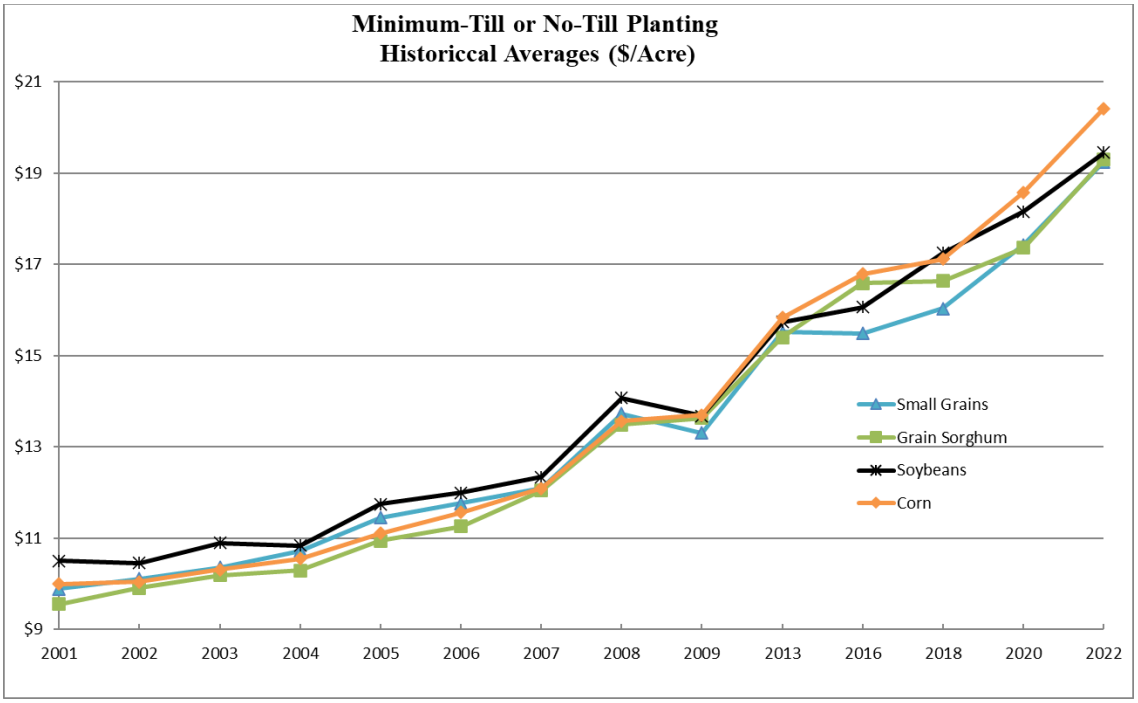
Minimum-Till or No-Till

Over time the custom rates for minimum-till planting of crops have been on the rise. The custom charges for minimum-till or no-till planting small grains, grain sorghum, corn, and soybeans in 2022 were higher than the corresponding 2020 rates. The custom rate for minimum-till or no-till drilling of small grains averaged $19.25 per acre in 2022, up $1.82 from 2020. Minimum-till grain sorghum planting averaged $19.29 per acre, an increase of $1.93 from 2020. Corn planting in 2022 averaged $19.45 per acre, an increase of $1.29 from 2020. Soybean planting averaged $20.42 per acre, up $1.84 from 2020's average of $18.58 per acre.

Custom Rates for Minimum or No-Till Planting, Historical Averages ($/Acre)

Year	Small Grains	Grain Sorghum	Corn	Soybeans
2001	9.89	9.56	10.00	10.50
2002	10.11	9.91	10.04	10.46
2003	10.36	10.19	10.31	10.90
2004	10.72	10.29	10.55	10.84
2005	11.45	10.94	11.11	11.75
2006	11.77	11.26	11.57	12.00
2007	12.10	12.04	12.09	12.34
2008	13.73	13.49	13.57	14.07
2009	13.31	13.63	13.70	13.68
2013	15.52	15.40	15.83	15.74
2016	15.49	16.59	16.79	16.06
2018	16.03*	16.64*	17.12*	17.25*
2020	17.43*	17.36*	18.16*	18.58*
2022	19.25*	19.29*	19.45*	20.42*

Note: Rates before 2016 are from surveys conducted by NASS.
*Combined average of planting with fertilizer and planting without fertilizer & chemical.



PLANTING (Continued)

Cover Crops and Cotton

Regular-till cover crop drilling averaged $16.30 per acre without fertilizer and chemical application and $17.68 per acre with fertilizer application in 2022. Minimum or no-till cover crop drilling rates in 2022 were higher than the corresponding rates in 2020. Minimum-till or no-till cover crop drilling without fertilizer and chemical application averaged $21.00 per acre, an increase of $4.90 per acre from 2020. The rate for minimum-till cover crop drilling with fertilizer application averaged $21.46 per acre in 2022, up $3.69 per acre from 2020.

Custom Rates for Cover Crop Drilling, Regular-Till Planting ($/Acre), 2022, by Region

Region	No Fertilizer & No Chemical Application			With Fertilizer Application		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	-	-	-	5	15.00-18.00	16.60
Central	5	16.00-16.50	16.30	9	16.50-20.00	18.28
Eastern	-	-	-	-	-	-
STATE	5	16.00-16.50	16.30	14	15.00-20.00	17.68

Custom Rates for Cover Crop Drilling, Minimum-Till or No-Till Planting ($/Acre) 2022, by District

Region	No Fertilizer No Chemical			With Fertilizer Application		
	No. of Reports	Range	Average	No. of Reports	Range	Average
NW	-	-	-	8	15-18	17.25
WC	10	15-25	20.60	2	16-16	16.00
SW	7	18-25	22.00	7	22-30	25.43
NC	3	20-20	20.00	3	20-20	20.00
C	2	17-17	17.00	4	18-30	20.75
SC	-	-	-	2	30-30	30.00
NE	-	-	-	-	-	-
EC	2	25-25	25.00	2	25-25	25.00
SE	-	-	-	-	-	-
State	24	15-25	21.00	28	15-30	21.46

Regular-till cotton single row planting averaged $17.79 per acre in 2022. The average custom rate of minimum or no-till cotton single row planting was $19.34 per acre. The average custom rate of cotton single row planting was $19.06 per acre without fertilizer and chemical application and $19.50 per acre with fertilizer application. The custom rate for skip row cotton planting was not included because of the low number of responses.

Custom Rates for Cotton Single Row Planting ($/Acre), 2022, by Region

Region	Regular-Till			Minimum or No-Till		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	-	-	-	-	-	-
Central	7	17.50-18.00	17.79	20	15.00-22.00	19.53
Eastern	-	-	-	2	15.00-20.00	17.50
STATE	7	17.50-18.00	17.79	22	15.00-22.00	19.34

Custom Rates for Cotton Single Row Planting ($/Acre), 2022, by Region

Region	No Fertilizer No Chemical			With Fertilizer Application		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	-	-	-	-	-	-
Central	7	17.50-20.00	18.93	13	15.00-22.00	19.85
Eastern	[1/]			[1/]		
STATE	8	17.50-20.00	19.06	14	15.00-22.00	19.50

[1/] Insufficient number of reports.

CHEMICAL APPLICATIONS

The custom rates for chemical applications presented here include the cost of machine, power, and the operator; however, the costs of the chemicals **are excluded**. Rates charged for row crop cultivation with fertilizer application averaged $13.40 per acre in 2022, up $0.73 per acre from 2020. The average rate for row crop cultivation without fertilizer application in 2022 was $10.39 per acre, an increase of $0.89 from 2020.

Custom Rates for Row Crop Cultivation, 2022, by Region

Region	With Fertilizer Application ($/Acre)			Without Fertilizer Application ($/Acre)		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	1/			3	8.00-15.00	12.67
Central	3	6.50-18.00	10.33	6	6.50-12.00	9.25
Eastern	-	-	-	-	-	-
STATE	5	6.50-18.00	13.40	9	6.50-15.00	10.39

1/ Insufficient number of reports.

The rate for the application of dry fertilizer averaged $6.51 per acre in 2022, up 77 cents per acre from the 2020 rate. Liquid fertilizer application, on average, cost $7.27 per acre in 2022, $1.11 per acre higher than in 2020.

Custom Rates for Fertilizer Application, 2022, by District

District	Dry Fertilizer ($/Acre)			Liquid Fertilizer ($/Acre)		
	No. of Reports	Range	Average	No. of Reports	Range	Average
NW	8	5.50-6.00	5.81	15	5.75-22.00	11.35
WC	12	4.75-7.50	6.00	23	5.00-22.00	6.97
SW	3	4.75-7.50	6.58	6	5.00-7.50	6.29
NC	21	5.50-10.50	7.24	20	5.50-16.00	7.48
C	17	5.25-14.00	7.44	21	5.25-7.50	6.15
SC	28	4.00-8.00	5.99	21	4.00-7.00	5.73
NE	7	4.00-18.00	8.14	3	2.00-20.00	12.67
EC	10	4.00-8.50	5.90	3	5.50-6.50	5.83
SE	18	5.00-7.50	5.92	13	5.50-8.00	6.62
State	124	4.00-18.00	6.51	125	2.00-22.00	7.27

CHEMICAL APPLICATIONS (Continued)

Custom chemical applicators charged an average of $17.72 per acre to apply anhydrous ammonia in 2022, an increase of $1.12 from the 2020 average.

Custom Rates for Application of Anhydrous Ammonia, 2022, by District

District	No. of Reports	Range	Average ($/Acre)
NW	1/		
WC	4	22.00-25.00	24.25
SW	4	14.00-25.00	19.75
NC	13	12.00-20.00	16.85
C	4	15.00-20.00	17.75
SC	8	10.00-18.00	14.00
NE	11	14.00-20.25	17.39
EC	1/		
SE	10	15.00-25.00	19.2
State	57	10.00-25.00	17.72

1/ Insufficient number of reports.

The average cost for aerial application of herbicide in 2022 was $7.92 per acre, comparable to the 2020 average of $7.97. When herbicide was applied with a ground rig, the average cost in 2022 was $6.44, up 45 cents from the average of $5.99 in 2020.

Custom Rates for Herbicide Application, 2022, by District

District	Aerial ($/Acre)			Ground Rig ($/Acre)		
	No. of Reports	Range	Average	No. of Reports	Range	Average
NW	-	-	-	10	4.75-6.50	5.70
WC	9	7.50-8.00	7.56	28	5.00-7.00	6.04
SW	4	6.75-8.00	7.44	8	5.00-6.50	6.09
NC	7	6.50-9.00	8.21	22	5.50-9.00	7.10
C	3	8.00-8.25	8.17	21	5.00-7.50	6.29
SC	4	7.50-10.00	8.13	21	5.25-11.00	6.89
NE	1/			5	6.50-8.00	7.40
EC	3	8.25-9.00	8.50	8	4.00-7.50	6.21
SE	4	5.50-10.00	7.13	10	5.50-6.50	6.25
State	36	5.50-10.00	7.92	133	4.00-11.00	6.44

1/ Insufficient number of reports.

CHEMICAL APPLICATIONS (Continued)

The custom rates for aerial insecticide/fungicide application in 2022 were comparable to the corresponding rates in 2020. The average cost for aerial application of insecticide was $8.13 per acre, comparable to the 2020 average of $8.14. When insecticides were applied with a ground rig, the average cost was $6.34 per acre in 2022, up 35 cents from the 2020 average.

Custom Rates for Insecticide/Fungicide Application, 2022, by District

District	Aerial ($/Acre)			Ground Rig ($/Acre)		
	No. of Reports	Range	Average	No. of Reports	Range	Average
NW	1/			5	5.50-6.50	5.90
WC	7	7.50-8.00	7.64	15	5.00-7.00	5.88
SW	1/			4	5.00-7.00	6.13
NC	7	6.50-9.00	8.21	14	5.50-8.50	7.23
C	4	8.00-8.25	8.13	15	5.25-7.00	6.40
SC	-	-	-	12	5.25-7.00	5.94
NE	1/			4	7.00-8.00	7.63
EC	4	8.25-9.10	8.65	5	4.00-6.50	5.73
SE	-	-	-	15	5.50-7.00	6.27
State	27	6.50-9.50	8.13	89	4.00-8.50	6.34

1/ Insufficient number of reports.

Custom Rates for Chemical Application, Historical Averages ($/Acre)

Type of Operation or Application	2003	2004	2005	2006	2007	2008	2009	2013	2016	2018	2020	2022
Cultivation with Fertilizer	6.64	6.73	7.59	7.60	6.33	8.41	8.00	10.84	9.40	12.02	12.67	12.25
Cultivation without Fertilizer	5.95	6.08	7.05	7.09	6.32	8.46	7.24	9.39	8.27	10.51	9.50	10.39
Dry Fertilizer	3.68	3.78	4.01	4.15	4.20	4.96	4.68	5.31	5.48	5.61	5.74	6.51
Liquid Fertilizer	3.78	3.87	4.17	4.42	4.37	4.98	4.82	5.71	5.65	5.73	6.16	7.27
Anhydrous Ammonia	6.18	6.93	7.12	6.75	8.46	10.20	10.55	12.60	15.15	15.09	16.61	17.86
Herbicide-Aerial	4.30	4.29	4.56	4.83	5.19	6.20	6.93	7.60	7.69	8.07	7.97	7.92
Herbicide-Ground Rig	3.85	4.03	4.26	4.40	4.50	5.01	4.98	5.44	5.61	5.73	5.99	6.44
Insecticide-Aerial	4.83	4.30	4.74	5.20	5.48	6.20	6.60	7.73	7.65	8.48	8.14	8.13
Insecticide-Ground Rig	3.92	4.02	4.33	4.51	4.49	5.07	4.95	5.45	5.62	5.71	5.98	6.34

Note: Rates before 2016 are from surveys conducted by NASS.

FEED PREPARATION

Rates for custom feed preparations are those generally charged by grain elevators and feed mills. For grinding grain, the average custom rate in 2022 was 46 cents per hundredweight (cwt), up 1 cent from 2020. The average rate for rolling grain in 2022 was 41 cents per cwt, comparable to the 2020 average of 45 cents. Too few reports were available for the custom rates of grinding hay to be published. Mixing operations cost an average of 42 cents per cwt in 2022, compared to 46 cents per cwt in 2020. The average rates for rolling and mixing and for grinding and mixing in 2022 were $1.08 per cwt and 78 cents per cwt, respectively, compared with 90 cents per cwt and 91 cents per cwt, respectively, in 2020. The changes from 2020 to 2022 are not statistically significant.

Custom Rates for Feed Preparation ($/cwt), 2022, by District

Region	Grinding Grain			Rolling Grain		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	-	-	-	[1/]		
Central	2	0.50-0.50	0.50	4	0.40-0.50	0.46
Eastern	5	0.41-0.50	0.45	3	0.34-0.34	0.34
STATE	7	0.41-0.50	0.46	8	0.34-0.50	0.41

[1/] Insufficient number of reports.

Custom Rates for Feed Preparation ($/cwt), 2022, by District

Region	Mixing Feed			Rolling and Mixing			Grinding and Mixing		
	No. of Reports	Range	Average	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	-	-	-	[1/]			-	-	-
Central	4	0.30-0.50	0.43	3	0.50-1.00	0.83	2	1.00-1.00	1.00
Eastern	5	0.35-0.50	0.41	7	0.69-1.50	1.15	5	0.60-0.76	0.70
STATE	9	0.30-0.50	0.42	11	0.50-1.50	1.08	7	0.60-1.00	0.78

[1/] Insufficient number of reports.

Charges for pelleting feed operations in 2022 averaged $1.30 per cwt, 36 cents higher than in 2020. Custom rates for grinding, mixing and pelleting operations averaged $1.96 per cwt in 2022, up 27 cents from the 2020 average. Charges for pelleting feed operations and grinding, mixing and pelleting operations in 2022 were unavailable. Sacking operations, excluding the cost of sacks, averaged $1.73 per cwt, up 28 cents from the 2020 average.

Custom Rates for Feed Preparation ($/cwt), 2022, by District

Region	Pelleting Feed Only			Grinding, Mixing, and Pelleting			Sacking Feed		
	No. of Reports	Range	Average	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	-	-	-	-	-	-	-	-	-
Central	2	1.00-1.00	1.00	2	1.50-1.50	1.50	3	1.00-3.00	1.67
Eastern	3	1.50-1.50	1.50	3	2.26-2.26	2.26	9	1.10-2.50	1.74
STATE	5	1.00-1.50	1.30	5	1.50-2.26	1.96	12	1.00-3.00	1.73

FEED PREPARATION (Continued)

Rates for custom feed preparations have been increasing gradually since 2001.

Custom Rates for Feed Preparation, Historical Average ($/cwt)

Year	Grinding Grain	Rolling Grain	Grinding Hay	Mixing Feed	Rolling and Mixing	Grinding and Mixing	Pelleting Feed	Grinding, Mixing, and Pelleting	Sacking Feed (excluding sack costs)
2001	0.34	0.31	0.66	0.23	0.49	0.53	0.70	1.18	0.91
2002	0.36	0.33	0.74	0.26	0.51	0.53	0.76	1.19	0.95
2003	0.35	0.33	0.62	0.26	0.52	0.57	0.84	1.14	1.16
2004	0.36	0.34	0.25	0.26	0.56	0.57	0.79	1.16	1.12
2005	0.39	0.36	0.32	0.28	0.58	0.62	0.89	1.20	1.15
2006	0.38	0.37	0.55	0.28	0.58	0.61	0.86	1.02	1.13
2007	0.44	0.39	0.57	0.33	0.57	0.58	0.83	1.34	1.27
2008	0.40	0.36	0.69	0.34	0.64	0.68	1.03	1.52	1.44
2009	0.41	0.37	0.61	0.32	0.61	0.67	0.90	1.51	1.30
2013	0.37	0.38	0.69	0.33	0.72	0.69	1.17	[1/]	1.49
2016	0.47	0.45	[1/]	0.34	0.77	1.03	0.89	1.47	1.74
2018	0.44	0.47	[1/]	0.42	0.88	0.64	[1/]	[1/]	1.57
2020	0.45	0.45	[1/]	0.46	0.90	0.91	0.94	1.69	1.45
2022	0.46	0.41	-	0.42	1.08	0.78	1.30	1.96	1.73

Note: Rates before 2016 are from surveys conducted by NASS. [1/] Insufficient number of reports.

FEED DELIVERY

Various methods were used to charge for bulk feed deliveries. Rates for the most commonly reported methods are presented. If the feed delivery charge was based on a straight charge per mile, the average rate in 2022 was $3.80 per loaded mile on an average load of 15.60 tons. In 2020, operators charged $3.50 per loaded mile on an average load of 17.29 tons. Operators also had fee structures with a flat rate per load for feed delivery. For an average load of 5.13 tons, an average flat rate of $39.44 per load was charged. If feed delivery was charged per load plus mileage, the rate in 2022 averaged $37.00 per load plus $1.90 per loaded mile for an average load of 9.40 tons. Some operators charged an additional fee for miles beyond a specified limit. For all methods, the extra charge applied after an average of 40.71 miles.

Custom Rates for Feed Delivery, 2022, by Region

Region	Flat Rate per Load			Straight Charge per Mile		
	Number of Reports	Dollars per Load	Avg. Load (Tons)	Number of Reports	Dollars per Loaded Mile	Avg. Load (Tons)
Western	[1/]			-	-	-
Central	5	35.40	5.00	2	3.50	9.00
Eastern	3	39.33	4.33	3	4.00	20.00
State	9	39.44	5.13	5	3.80	15.60

Region	Charge per Load Plus Charge per loaded Mile				Extra Charge (All Methods)	
	Number of Reports	Dollars per Load	Dollars per Loaded Mile	Avg. Load (Tons)	Number of Reports	Maximum Miles
Western	-	-	-	-	2	20.00
Central	[1/]				3	30.00
Eastern	4	35.00	2.00	8.00	9	48.89
State	5	37.00	1.90	9.40	14	40.71

[1/] Insufficient number of reports.

MACHINERY RENTAL

Rental costs listed below do not include the cost of fuel or labor for self-propelled equipment and tractors. Tractors and combines were the most commonly reported rental items, followed by corn headers. Some items, such as no till drills, anhydrous applicators, disks, liquid fertilizer application and chemical sprayers, were reported but had too few reports to summarize.

Combine rental averaged $221.88 per hour, an increase of $21.38 per hour from 2020. Rental charges for corn headers in 2022 averaged $11.78 per acre, up $3.05 from 2020. Rental for tractors with horsepower of 151-250 averaged $115.00 per hour in 2022; while rental for tractors more than 250HP averaged $119.07 per hour. Average rental costs show increases or decreases due to the varied demand and increasing costs of implements. Some of the variation may be due to the small number of reports for some rental items.

Machine Rental Rates, 2022

Machine or Tool	Method of Charge	No. of Reports	Range	Average
Combine	$/Hour	16	150-300	221.88
Corn Header	$/Acre	9	5-16	11.78
Tractor				
151-250 HP	$/Hour	5	75-125	115.00
250+ HP	$/Hour	15	73-175	119.07

MANURE REMOVAL AND SPREADING

Custom rates for manure removal alone averaged $2.75 per ton in 2022. Custom rates for manure spreading alone averaged $4.57 per ton. Manure removal and spreading in 2022 averaged $7.50 per ton, an increase of $0.27 per ton from 2020 average. Additional mileage charge averaged $0.23 per mile hauled for removal only, $0.26 per mile hauled for spreading only and $0.28 for removal and spreading services in 2022.

Custom Rates for Manure Removal, 2022, by Region

Region	Removal Only ($/Ton)			Spreading Only ($/Mile)		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	8	0.50-5.00	2.75	14	4.25-8.00	4.50
Central	-	-	-	3	3.25-3.25	3.25
Eastern	-	-	-	2	7.00-7.00	7.00
STATE	8	0.50-5.00	2.75	19	2.60-7.00	4.57

Region	Removal and Spreading ($/Ton)			Additional Charges per Mile Hauled ($/Mile)		
	No. of Reports	Range	Average	Removal Only	Spreading Only	Removal & Spreading
Western	8	5.00-10.00	7.50	0.23	0.28	0.28
Central	-	-	-	-	0.20	-
Eastern	-	-	-	-	-	-
State	8	5.00-10.00	7.50	0.23	0.26	0.28

TERRACING AND DOZING

The cost of building terraces averaged $3.25 per foot in 2022, up $1.48 from 2020. The average cost for general dozer work was $151.54 per hour, comparable to the 2020 average of $152.17 per hour.

Custom Rates for Terracing and Dozing, 2022, by Region

Region	Terracing			Dozing		
	No. of Reports	Dollars per Foot		No. of Reports	Dollars per Hour	
		Range	Average		Range	Average
Western	[1/]			11	100-160	129.09
Central	[1/]			3	225-225	225.00
Eastern	3	2.00-4.00	3.33	12	120-225	153.75
STATE	5	1.25-5.00	3.25	26	100-225	151.54

[1/] Insufficient number of reports.

HAULING LIVESTOCK

Questions related to rates for hauling livestock were added to the survey starting in 2016. Custom rates for hauling livestock with a belly-semi truck in 2022 averaged $4.84 per mile hauled at 49,000 lbs. capacity. In 2020, the average rate for hauling livestock with a belly-semi was $4.11 per mile with 63,167 lbs. capacity. In 2022, custom rates for hauling livestock with a small truck or gooseneck trailer averaged $3.29 per mile, with average capacity of 18,000 lbs. The average length of trailer was 26.17 feet.

Custom Rates for Hauling Livestock, 2022, by Region

Region	Belly Semi Truck					
	Weight Capacity (lb.)			One-Way Load Charge ($/Mile)		
	No. of Reports	Range	Average	No. of Reports	Range	Average
Western	4	50000-50000	50000	5	4.75-6.00	5.05
Central	4	50000-50000	50000	10	3.00-6.00	4.83
Eastern	2	40000-50000	45000	2	4.25-4.50	4.38
STATE	10	40000-50000	49000	17	3.00-6.00	4.84

Custom Rates for Hauling Livestock, 2022, by Region

Region	Small Truck or Gooseneck Trailer								
	Weight Capacity (lb.)			One-Way Load Charge ($/Mile)			Trailer Length (Foot)		
	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.	No. of Reports	Range	Avg.
Western	2	11000-12000	11500	7	2.00-5.00	3.57	5	20-36	28.00
Central	[1/]			[1/]			3	24-26	24.67
Eastern	3	15000-25000	18333	6	2.00-4.00	2.88	4	22-30	25.00
State	6	11000-30000	18000	14	2.00-5.00	3.29	12	20-36	26.17

[1/] Insufficient number of reports.

FENCE BUILDING

Rates for fence building were reported in the Bluestem Pasture Survey report published in June of 2021. The 2021 average fence building costs were computed from responses in the 14 Flint Hills counties. The reported rates varied considerably due to the difference in materials, equipment, and terrain. The rate charged for building a five-wire fence, excluding materials, averaged $18.13 per rod in 2021. The rate including materials averaged $40.06 per rod, up $0.35 from 2019. In 2021, the additional charge for gates was $138.75 and for corners was $221.38. The hourly rate for rough or rocky terrain averaged $82.50 per hour, up $12.50 from 2019.

Custom Rates for Fence Building, 2021, by Post Types

	5 Wire Including Materials ($/Rod)		5 Wire Excluding Materials ($/Rod)	
Post Type	Average	Range	Average	Range
Steel Post Only	40.06	31.00 – 66.00	18.13	16.00 – 21.88
Steel & Wood Posts	37.32	18.75 – 66.00	17.66	15.63 – 22.00
Combined Rate	41.61	18.75 – 66.00	17.86	15.63 – 22.00

Custom Rates for Fence Building, Additional Charges, 2021

Additional Charges	Average	Range
Additional Charge for Gates ($)	138.75	10-350
Additional Charge for Corners ($)	221.38	42-525
Average Hourly Rate for Rough or Rocky Terrain ($/hour)	82.50	20-120