

**INPUT COST SURVEY
IN KANSAS**

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Sources of the Input Cost Survey

The Land Use Survey Center (LUSC) in the Department of Agricultural Economics at Kansas State University (KSU) conducts one survey each year directly related to the Land Use Value Project. There are four surveys rotated by the LUSC: irrigated farm leases, nonirrigated farm leases, pasture leases, and input costs. During 2018, The Input Cost Survey, ICS, was conducted to gather data on the 2017 crop year production costs. The survey form used is shown in Appendix 1???. Contact information was collected for organizations that sell fertilizer, chemicals, or seed and/or perform custom services, and survey invitations were sent to these organizations. Responses were received from each of the nine crop-reporting districts. The National Agricultural Statistics Service crop reporting districts for Kansas are: Northwest-10, West Central-20, Southwest-30, North Central-40, Central-50, South Central-60, Northeast-70, East Central-80, and Southeast-90 (Figure 1).

Regional Information

The ICS does not cover as many expense categories as the Kansas Custom Rates publication, which can be found at AgManager.info. In the ICS, respondents provided information on fertilizer, chemical, and seed costs for a typical operation in their trade area. Data on crops were collected separately for irrigated and nonirrigated land. Due to limited irrigated acreage and response in the eastern third of Kansas, data for irrigated crops are not discussed for those districts. The ICS is intended to collect production input costs for a *typical* operation in the company's trade area. Therefore, no particular planting method is specified. Data were collected on seven crops: wheat, sorghum, soybean, corn, alfalfa, sunflower, and cotton. Survey results are summarized here to increase the information available on production costs across the state. Previously, the ICS was conducted in 2013, 2008, 2004, 2001, and 1997. The 2018 ICS was conducted by the LUSC; prior ICS versions were conducted through the NASS-Kansas office. Data are reported by crop reporting district, and comparisons of fertilizer, chemical, and seed costs are made between the 2018 and 2013 surveys. If you need additional information, contact Dr. Leah Tsoodle at ltsoodle@ksu.edu.

State Averages

In general, the ICS received more responses for nonirrigated crops than irrigated crops across the state (Table 1). Most respondents provided data on fertilizer, herbicide, and seed. The cost of insecticide received the fewest responses. Wheat and corn received the most responses for nonirrigated crops across all cost categories, except insecticide. Corn and soybeans received the most responses for irrigated crops across all cost categories, except fertilizer. Corn and wheat led responses for fertilizer on irrigated land. On average, fertilizer cost per acre was the highest for corn on both irrigated and nonirrigated land. Both irrigated and nonirrigated cotton land had the highest average per acre herbicide and insecticide cost. Seed cost per acre was the highest for both irrigated and nonirrigated alfalfa acreage, on average.

Northwest Kansas-District 10 (NW-10): Table 2

Fertilizer costs for irrigated wheat, sorghum, soybean, and corn decreased in NW-10 from 2013 to 2018. Fertilizer costs also decreased for nonirrigated wheat, sorghum, corn, and sunflowers from 2013 to 2018. Fertilizer cost per acre on irrigated crops ranged from \$18.00 for soybean to

\$109.22 for corn. Rates for nonirrigated crops ranged from \$15.00/acre for sunflowers to \$45.00/acre for corn.

Herbicide costs for irrigated wheat and corn increased in NW-10 from 2013 to 2018; the per-acre herbicide cost decreased for irrigated sorghum acreage and was virtually unchanged for soybeans. Herbicide costs increased for all nonirrigated crops from 2013 to 2018; however, the per-acre change for soybeans was minimal. Herbicide cost per acre on irrigated crops ranged from \$16.04 for wheat to \$42.22 for corn. Rates for nonirrigated crops ranged from \$25.29/acre for wheat to \$60.00/acre for sunflowers.

Although there were very few observations in 2018 and 2013, results showed that insecticide costs for irrigated corn and nonirrigated sunflowers increased from 2013 to 2018. For irrigated crops, insecticide costs ranged from \$12.36/acre for wheat to \$30.75/acre for corn. For nonirrigated crops, insecticide costs ranged from \$12.06/acre for wheat to \$20.00/acre for sunflowers.

Seed costs decreased for irrigated wheat, and sorghum, from 2013 to 2018; seed cost per acre increased during that time for irrigated corn and soybean. Seed costs for nonirrigated crops decreased for wheat, sorghum, and corn. Seed per acre increased for soybean and sunflower from 2013 to 2018. Seed costs for irrigated crops ranged from \$10/acre for sorghum to \$96.80/acre for corn. Seed costs for nonirrigated crops ranged from \$9.81/acre for wheat to \$69.00/acre for soybean.

West Central Kansas-District 20 (WC-20): Table 3

Fertilizer costs for all irrigated crops decreased in WC-20 from 2013 to 2018. Fertilizer costs for nonirrigated crops decreased for all crops, except sunflower, from 2013 to 2018. Fertilizer costs for irrigated crops ranged from \$18.72/acre for soybean to \$103.95/acre for corn. Fertilizer for nonirrigated crops ranged from \$21.43/acre for sunflower to \$46.27/acre for corn.

Herbicide costs decreased for all irrigated crops from 2013 to 2018. Herbicide costs decreased for nonirrigated crops, except soybean and sunflower, from 2013 to 2018. Herbicide for irrigated crops ranged from \$6.00/acre for wheat to \$56.29/acre for soybean. Herbicide cost per acre for nonirrigated crops ranged from \$13.39 for wheat to \$41.84 for sorghum.

Insecticide costs for all irrigated and nonirrigated crops, except corn, increased from 2013 to 2018. Insecticide per acre costs ranged from \$12.25 for irrigated sunflower to \$21.77 for irrigated corn. Insecticide rates ranged from \$15.00/acre for nonirrigated wheat and sorghum to \$21.67/acre for nonirrigated alfalfa.

Seed costs increased for irrigated alfalfa and sunflower and decreased for irrigated wheat, sorghum, and corn from 2013 to 2018. Seed costs for all nonirrigated crops, except alfalfa, decreased during that time. Per acre seed cost for irrigated crops ranged from \$13.41 for wheat to \$101.36 for soybean. Seed for nonirrigated crops ranged from \$8.77/acre for wheat to \$79.17/acre for alfalfa.

Southwest Kansas-District 30 (SW-30): Table 4

From 2013 to 2018, fertilizer costs decreased for all irrigated crops in SW-30. Fertilizer costs also decreased for all nonirrigated crops during that time period. Fertilizer cost ranged from \$18.24/acre for irrigated soybean to \$86.36/acre for irrigated corn. Fertilizer per acre cost ranged from \$24.54 for nonirrigated wheat to \$37.57/acre for nonirrigated corn.

Herbicide costs for irrigated wheat, sorghum, and soybean increased from 2013 to 2018 and decreased for irrigated corn and alfalfa. From 2013 to 2018, herbicide costs increased for all nonirrigated crops, except corn. Herbicide cost ranged from \$9.69/acre for irrigated wheat to \$48.64/acre for soybean. For nonirrigated crops, herbicide costs ranged from \$11.19/acre for wheat to \$33.56/acre for sorghum.

Insecticide costs increased for irrigated wheat and soybean and decreased for corn minimally from 2013 to 2018. Per acre insecticide cost from 2013 to 2018 increased for nonirrigated sorghum and corn and decreased for nonirrigated wheat. Insecticide cost for irrigated crops ranged from \$5.00/acre for sunflower to \$25.75/acre for corn. Insecticide cost for nonirrigated crops ranged from \$5.00/acre for wheat to \$20.00/acre for corn.

Seed costs decreased for most irrigated crops but increased for soybean from 2013 to 2018. Seed costs for nonirrigated crops decreased for all crops during that time period. Seed cost per acre for irrigated crops ranged from \$8.50 for sorghum to \$92.00 for corn. In 2018, seed cost for nonirrigated crops ranged from \$6.91/acre for sorghum to \$41.46/acre for corn.

North Central Kansas-District 40 (NC-40): Table 5

Irrigated wheat, sorghum, alfalfa, and sunflower showed increased fertilizer costs in NC-40 from 2013 to 2018, but irrigated corn fertilizer costs decreased. Fertilizer costs for nonirrigated crops decreased, except for alfalfa and sunflower, from 2013 to 2018. Fertilizer costs ranged from \$27.29/acre for irrigated alfalfa to \$92.63/acre for irrigated corn. For nonirrigated crops, per acre fertilizer costs ranged from \$20.47 for soybean to \$71.49 for corn.

Herbicide costs increased for irrigated wheat, soybean, corn, and alfalfa from 2013 to 2018. During that time, herbicide decreased for irrigated sorghum and were unchanged for sunflower. Herbicide costs for nonirrigated wheat, sorghum, soybean, and corn increased, those costs decreased for alfalfa and sunflower. Per acre herbicide costs for irrigated crops ranged from \$13.50 for wheat to \$46.71 for soybean. Herbicide costs for nonirrigated crops ranged from \$14.89/acre for wheat to \$46.36/acre for soybean.

Insecticide costs increased for all irrigated and nonirrigated crops, except alfalfa and sunflower, from 2013 to 2018. Irrigated alfalfa insecticide costs decreases; nonirrigated sunflower insecticide costs remained the same. In 2018, per acre insecticide costs for irrigated crops ranged from \$12.00 for wheat to \$23.33 for sorghum. Insecticide costs for nonirrigated crops ranged from \$9.23/acre for wheat to \$16.85/acre for sorghum.

Seed costs for all irrigated crops, except sorghum, decreased from 2013 to 2018. Seed costs for nonirrigated crops, except sorghum and soybean, also decreased during that time period. From 2013 to 2018, per acre seed costs for irrigated crops ranged from \$14.63 for wheat to \$83.13 for

alfalfa. Seed costs for nonirrigated crops ranged from \$13.76/acre for wheat to \$68.44/acre for alfalfa.

Central Kansas-District 50 (C-50): Table 6

Fertilizer costs decreased for all irrigated and nonirrigated crops, except irrigated soybean, in C-50 from 2013 to 2018. Fertilizer costs per acre for irrigated crops ranged from \$27.61 for soybean to \$100.70 for corn. For nonirrigated crops, fertilizer costs ranged from \$21.29/acre for soybean to \$59.83/acre for corn.

Herbicide costs for all irrigated and nonirrigated crops increased, except for nonirrigated wheat, from 2013 to 2018. Herbicide costs ranged from \$9.45/acre for irrigated wheat to \$45.07/acre for irrigated soybean. Nonirrigated crop herbicide costs per acre ranged from \$11.72 for wheat to \$95.00 for cotton.

Insecticide costs increased for all irrigated and nonirrigated crops, except nonirrigated wheat, from 2013 to 2018. Insecticide costs ranged from \$15.00/acre for irrigated sunflower to \$25.00/acre for irrigated soybean. Insecticide costs ranged from \$7.10/acre for nonirrigated wheat to \$21.18/acre for nonirrigated sunflower.

Seed costs for irrigated crops in C-50 from 2013 to 2018 decreased for wheat and corn and increased for soybean. Seed costs increased for nonirrigated sorghum, alfalfa, and sunflower; those costs decreased for wheat, soybean, and corn. Seed costs for irrigated crops ranged from \$14.89/acre for wheat and \$114.29/acre for alfalfa. Per acre seed costs for nonirrigated crops ranged from \$12.75 for wheat to \$79.32 for alfalfa.

South Central Kansas-District 60 (SC-60): Table 7

Fertilizer costs for irrigated soybean, alfalfa, and cotton increased in SC-60 from 2013 to 2018; costs per acre decreased for wheat, sorghum, and corn during that time period. Except for alfalfa and cotton, fertilizer costs for nonirrigated crops decreased from 2013 to 2018. During that time, fertilizer costs for irrigated crops ranged from \$34.29/acre for sunflower to \$124.54/acre for corn. Fertilizer costs for nonirrigated crops ranged from \$17.58/acre for sunflower to \$69.47/acre for corn.

Herbicide costs for all irrigated and nonirrigated crops increased, except nonirrigated wheat, from 2013 to 2018. Per acre herbicide costs for irrigated crops ranged from \$19.40 for wheat to \$71.25 for cotton. For nonirrigated crops, herbicide costs ranged from \$11.77/acre for wheat to \$62.94/acre for cotton.

Insecticide costs for all irrigated and nonirrigated crops increased from 2013 to 2018. Insecticide costs for irrigated crops ranged from \$17.00/acre for wheat to \$41.88/acre for irrigated alfalfa. Per acre insecticide costs for nonirrigated crops ranged from \$12.31 for corn to \$30.60 for cotton.

For irrigated sorghum, alfalfa, and cotton, seed costs increased from 2013 to 2018; seed costs decreased for the other irrigated crops. Seed costs increased for all nonirrigated crops, except wheat and soybean, from 2013 to 2018. Seed costs for irrigated crops ranged from \$14.55/acre

for wheat to \$130.75/acre for alfalfa. Seed costs per acre for nonirrigated crops ranged from \$11.67 for wheat to \$104.19 for alfalfa.

Northeast Kansas-District 70 (NE-70): Table 8

Fertilizer costs increased for nonirrigated wheat, soybean, and alfalfa, but decreased for the other nonirrigated crops in NE-70 from 2013 to 2018. Fertilizer cost per acre ranged from \$50.00 for nonirrigated sunflower to \$100.33 for nonirrigated corn.

Herbicide costs increased for all nonirrigated crops, except alfalfa, from 2013 to 2018. Herbicide costs for nonirrigated crops ranged from \$14.59/acre for wheat to \$55.02/acre for soybean.

Insecticide costs decreased for irrigated wheat, soybean, and corn from 2013 to 2018; insecticide costs for nonirrigated sorghum and alfalfa increased during that time period. Insecticide costs ranged from \$6.08/acre for nonirrigated wheat to \$18.29/acre for nonirrigated sorghum.

Seed costs increased for all nonirrigated crops from 2013 to 2018. Seed costs ranged from \$20.02/acre for nonirrigated sorghum to \$111.67/acre for alfalfa.

East Central Kansas-District 80 (EC-80): Table 9

Fertilizer costs decreased for nonirrigated wheat, sorghum, and corn from 2013 to 2018 in EC-80; fertilizer costs increased for nonirrigated soybean and alfalfa. Per acre fertilizer costs ranged from \$35.97 for nonirrigated soybean to \$76.23 for nonirrigated corn.

Nonirrigated wheat and sorghum herbicide costs decreased from 2013 to 2018; herbicide increased for other nonirrigated crops during that time period. Herbicide costs for nonirrigated crops ranged from \$10.21/acre for wheat to \$49.80/acre for soybean.

Insecticide cost for nonirrigated crops increased for alfalfa and decreased for other crops from 2013 to 2018. Per acre insecticide costs for nonirrigated crops ranged from \$5.58 for sorghum to \$19.99 for alfalfa.

Seed costs decreased in EC-80 for all nonirrigated crops, except alfalfa, from 2013 to 2018. Seed costs for nonirrigated crops ranged from \$10.74/acre for sorghum to \$100.00/acre for alfalfa.

Southeast Kansas-District 90 (SE-90): Table 10

From 2013 to 2018, fertilizer costs decreased for nonirrigated crops, except alfalfa, in SE-90. During that time, per acre fertilizer costs ranged from \$34.47 for nonirrigated soybean to \$69.33 for nonirrigated corn.

Herbicide costs increased for nonirrigated soybean and corn and decreased for other nonirrigated crops from 2013 to 2018. Herbicide cost for nonirrigated crops ranged from \$12.72/acre to \$40.37/acre for wheat and soybean, respectively.

Insecticide costs decreased for all nonirrigated crops, except sorghum, from 2013 to 2018. Per acre insecticide cost for nonirrigated crops ranged from \$6.00 for cotton to \$18.78 for alfalfa.

From 2013 to 2018, seed costs in SE-90 decreased for nonirrigated wheat and sorghum and increased for nonirrigated soybean and corn. Seed costs for nonirrigated crops ranged from \$16.55/acre for wheat to \$79.36/acre for corn.

Figure 1. Kansas Agricultural Statistics Crop Reporting Districts

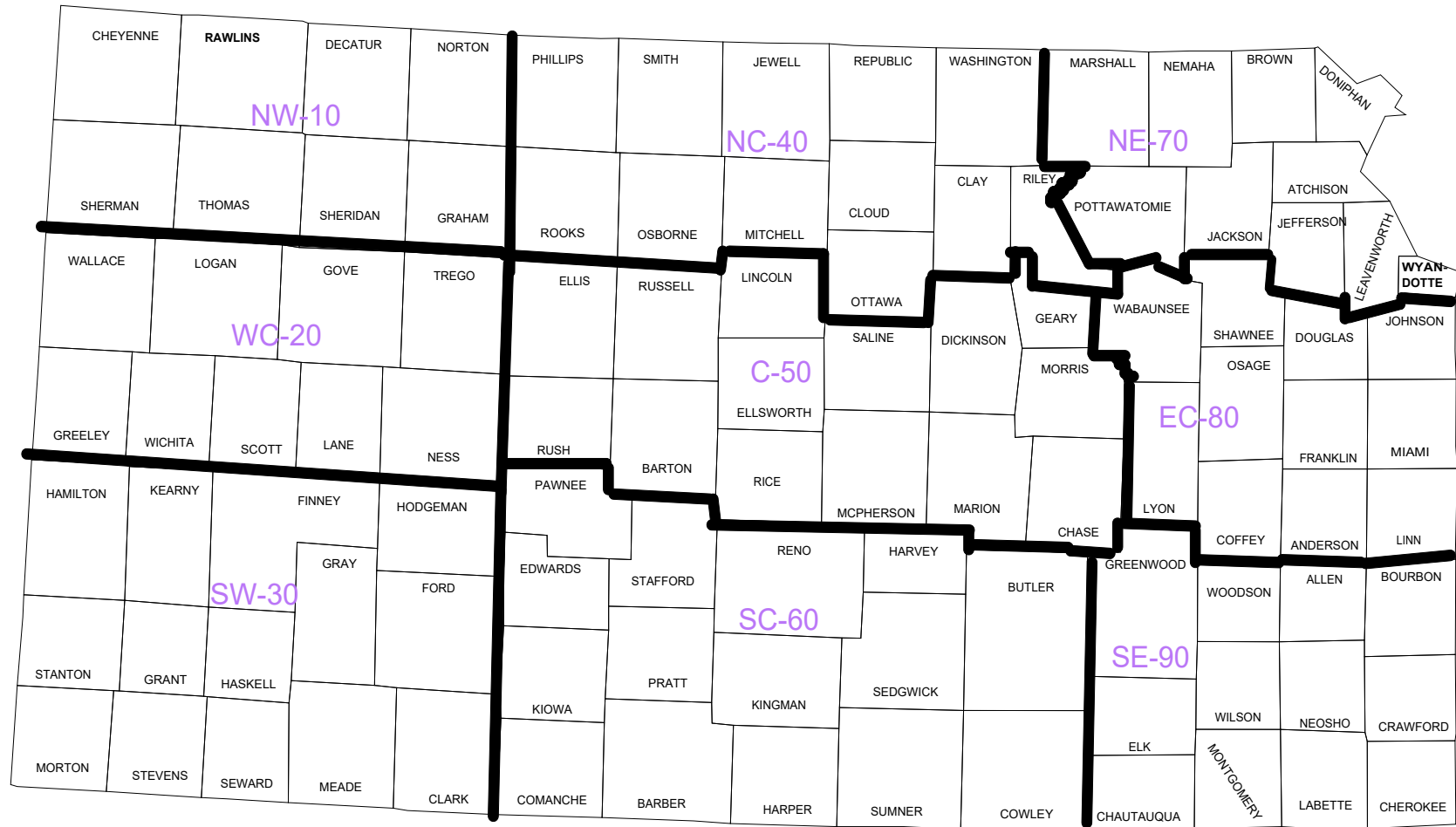


Table 1: Average Input Costs in Kansas, 2018

	Irrigated Crops (\$/Acre)		Nonirrigated Crops (\$/Acre)	
		2018		2018
Fertilizer	# of 2018 Responses	Survey	# of 2018 Responses	Survey
Wheat	73	47.46	230	39.33
Sorghum	58	70.33	176	47.87
Soybeans	72	35.57	150	30.99
Corn	111	103.46	226	67.16
Alfalfa	38	51.63	97	37.29
Sunflowers	23	33.91	28	25.48
Cotton	9	76.44	18	48.16
		2018		2018
Herbicide	# of 2018 Responses	Survey	# of 2018 Responses	Survey
Wheat	67	12.25	203	13.73
Sorghum	55	34.78	164	37.59
Soybeans	71	54.22	171	46.51
Corn	108	44.98	218	40.93
Alfalfa	37	21.41	87	18.99
Sunflowers	19	22.79	26	31.21
Cotton	8	71.25	13	63.65
		2018		2018
Insecticide	# of 2018 Responses	Survey	# of 2018 Responses	Survey
Wheat	10	15.84	51	9.36
Sorghum	15	25.67	59	17.80
Soybeans	20	19.00	68	11.04
Corn	39	22.05	65	12.74
Alfalfa	24	25.63	68	18.03
Sunflowers	19	15.68	23	19.10
Cotton	8	41.25	11	28.36
		2018		2018
Seed	# of 2018 Responses	Survey	# of 2018 Responses	Survey
Wheat	70	14.73	219	12.86
Sorghum	52	19.50	159	16.16
Soybeans	73	63.12	165	53.90
Corn	108	92.36	212	62.79
Alfalfa	32	106.38	59	87.58
Sunflowers	19	33.32	26	31.38
Cotton	12	83.92	20	70.85

Table 2: Northwest Kansas (NW-10)

Fertilizer	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	5	44.94	81.00	50.08	18	29.51	59.63	26.89
Sorghum	1	74.87	106.25	74.44	13	42.40	72.88	38.65
Soybeans	1	18.00	31.50	38.25	0	-	31.25	20.69
Corn	7	109.22	130.20	101.42	14	45.00	80.00	49.57
Alfalfa	0	-	30.00	53.64	0	-	17.50	31.75
Sunflowers	0	-	-	71.25	2	15.00	47.50	34.55
Cotton	0	-	-	64.50	0	-	-	50.00
Herbicide	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	5	16.04	12.60	8.65	18	25.29	18.33	6.16
Sorghum	1	32.00	34.50	30.90	15	46.05	39.25	26.48
Soybeans	1	30.00	29.75	25.54	1	28.00	27.25	21.56
Corn	9	42.22	31.33	27.98	16	47.14	37.71	21.30
Alfalfa	0	-	14.00	20.88	0	-	14.00	19.51
Sunflowers	0	-	-	27.14	2	60.00	30.00	24.01
Cotton	0	-	-	26.50	0	-	-	23.80
Insecticide	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	1	12.36	-	11.27	3	12.06	-	6.85
Sorghum	0	-	-	13.60	3	13.00	-	11.57
Soybeans	0	-	-	12.60	0	-	-	14.67
Corn	4	30.75	26.00	18.53	3	17.33	-	11.38
Alfalfa	0	-	12.00	15.95	0	-	-	15.20
Sunflowers	0	-	10.00	18.83	2	20.00	15.00	15.63
Cotton	0	-	-	18.75	0	-	-	14.13
Seed	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	5	16.20	20.00	16.00	18	9.81	14.21	13.06
Sorghum	2	10.00	11.50	21.10	10	11.94	13.32	19.55
Soybeans	1	65.00	57.33	45.37	1	69.00	31.50	43.26
Corn	10	96.80	85.20	76.72	18	42.06	53.00	53.49
Alfalfa	0	-	-	101.61	0	-	50.00	96.35
Sunflowers	0	-	-	32.91	2	24.00	22.50	27.34
Cotton	0	-	-	29.84	0	-	-	29.84

Table 3: West Central Kansas (WC-20)

Fertilizer	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	16	38.11	52.83	39.86	36	28.28	39.22	24.32
Sorghum	9	67.56	102.60	89.57	30	39.50	55.50	47.16
Soybeans	5	18.72	-	34.38	5	23.40	33.00	24.00
Corn	22	103.95	123.71	123.31	29	46.27	60.40	52.52
Alfalfa	3	36.67	40.00	52.50	4	26.25	40.00	37.15
Sunflowers	8	24.38	50.00	65.00	7	21.43	12.00	50.00
Cotton	0	-	-	-	0	-	-	-
Herbicide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	14	6.00	9.20	11.46	29	13.39	20.25	9.93
Sorghum	11	37.37	46.00	25.67	25	41.84	51.00	23.26
Soybeans	6	56.29	-	15.00	6	29.00	13.00	26.00
Corn	22	41.30	54.00	27.60	28	39.27	56.80	21.02
Alfalfa	2	22.50	35.00	20.00	2	22.50	35.00	17.00
Sunflowers	8	21.00	25.00	20.00	5	38.80	15.00	10.25
Cotton	0	-	-	-	0	-	-	20.73
Insecticide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	7.00	13.41	2	15.00	4.50	11.36
Sorghum	3	16.67	-	18.75	7	15.00	-	16.25
Soybeans	4	12.50	-	14.38	1	20.00	-	12.58
Corn	13	21.77	28.33	20.82	7	19.29	27.50	14.84
Alfalfa	3	21.67	14.00	19.50	3	21.67	14.00	14.25
Sunflowers	8	12.25	-	25.00	7	17.57	-	14.67
Cotton	0	-	-	18.75	0	-	-	-
Seed	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	17	13.41	36.75	12.45	34	8.77	21.94	12.17
Sorghum	7	24.57	51.50	24.87	28	12.51	27.42	23.81
Soybeans	5	101.36	-	45.40	3	55.00	-	42.82
Corn	27	99.35	111.43	71.24	34	49.66	68.00	64.17
Alfalfa	2	80.00	28.00	101.61	3	79.17	28.00	96.35
Sunflowers	8	40.44	35.00	30.39	6	31.33	32.00	28.74
Cotton	0	-	-	29.84	0	-	-	29.84

Table 4: Southwest Kansas (SW-30)

Fertilizer	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	10	32.64	64.32	45.76	19	24.54	43.10	22.74
Sorghum	3	61.45	88.00	70.85	12	31.22	60.83	43.58
Soybeans	5	18.24	43.75	30.50	2	25.00	30.00	26.43
Corn	12	86.36	179.01	103.05	17	37.57	88.27	51.53
Alfalfa	2	70.00	101.33	77.83	0	-	37.50	38.00
Sunflowers	1	25.00	-	46.67	0	-	-	30.00
Cotton	1	58.00	-	-	0	-	-	-
Herbicide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	6	9.69	9.57	9.11	19	11.19	7.88	8.48
Sorghum	4	31.92	31.72	21.13	12	33.56	29.33	18.47
Soybeans	3	48.64	26.25	18.25	3	21.67	20.00	15.67
Corn	10	39.48	44.67	27.74	16	32.38	35.54	19.67
Alfalfa	1	18.00	23.67	17.17	1	18.00	17.50	13.63
Sunflowers	1	20.00	-	22.38	0	-	-	22.50
Cotton	0	-	-	-	0	-	-	25.00
Insecticide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	1	20.00	10.19	8.50	6	5.00	5.74	7.95
Sorghum	0	-	10.33	11.57	2	17.50	5.50	9.63
Soybeans	2	17.50	5.50	10.15	0	-	6.00	9.75
Corn	4	25.75	25.80	20.10	2	20.00	12.00	16.28
Alfalfa	0	-	23.17	13.92	0	-	13.00	9.90
Sunflowers	1	5.00	-	9.90	0	-	-	9.83
Cotton	0	-	-	18.75	0	-	-	-
Seed	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	11	16.36	19.26	14.68	21	9.26	14.18	10.95
Sorghum	2	8.50	10.70	15.91	11	6.91	11.57	12.36
Soybeans	7	80.85	71.67	42.63	1	32.00	56.00	51.25
Corn	11	92.00	96.86	79.76	13	41.46	64.17	65.58
Alfalfa	0	-	95.00	99.35	0	-	64.17	96.69
Sunflowers	1	32.50	-	32.65	0	-	23.00	28.83
Cotton	0	-	-	29.84	0	-	113.00	29.84

Table 5: North Central Kansas (NC-40)

Fertilizer	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	15	52.13	50.47	63.96	39	44.66	68.39	52.78
Sorghum	16	71.88	48.70	60.85	37	61.18	69.90	59.07
Soybeans	17	29.76	26.82	27.22	30	20.47	26.24	30.83
Corn	19	92.63	129.45	81.98	36	71.49	100.73	78.84
Alfalfa	14	27.29	18.05	32.95	25	27.77	22.03	34.68
Sunflowers	5	48.00	30.00	40.50	5	34.20	30.00	47.19
Cotton	0	-	-	-	0	-	-	-
Herbicide	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	11	13.50	9.12	5.84	37	14.89	10.78	7.29
Sorghum	11	32.36	42.50	26.35	31	36.84	36.53	22.55
Soybeans	14	46.71	29.62	21.98	33	46.36	27.75	22.59
Corn	15	40.80	33.20	30.46	32	43.25	29.80	28.26
Alfalfa	10	15.30	15.00	20.28	20	15.87	17.50	18.43
Sunflowers	1	30.00	30.00	17.50	5	25.40	30.00	20.48
Cotton	0	-	-	-	0	-	-	17.63
Insecticide	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	2	12.00	-	6.05	8	9.23	9.00	5.49
Sorghum	3	23.33	-	5.03	10	16.85	-	7.98
Soybeans	3	16.67	7.17	10.00	9	12.28	12.00	8.45
Corn	3	18.33	5.50	8.34	4	13.50	5.50	8.99
Alfalfa	7	12.14	15.00	9.79	16	13.84	14.50	11.11
Sunflowers	1	15.00	-	20.00	1	15.00	15.00	15.22
Cotton	0	-	-	18.75	0	-	-	-
Seed	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	8	14.63	25.62	15.15	37	13.76	18.91	12.60
Sorghum	9	22.44	19.50	17.20	29	17.31	16.24	15.35
Soybeans	12	60.08	61.37	45.56	33	54.17	46.91	46.37
Corn	13	81.31	105.87	69.29	30	59.55	90.72	56.34
Alfalfa	8	83.13	110.00	66.36	16	68.44	73.25	63.33
Sunflowers	1	30.00	40.00	32.41	3	32.67	41.50	34.47
Cotton	0	-	-	29.84	0	-	-	29.84

Table 6: Central Kansas (C-50)

Fertilizer	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	11	49.36	74.50	42.43	39	41.68	45.40	38.47
Sorghum	12	69.75	-	54.30	37	51.32	69.00	45.83
Soybeans	14	27.61	23.00	23.88	25	21.29	29.40	19.13
Corn	18	100.70	147.50	88.22	31	59.83	84.00	52.70
Alfalfa	9	32.78	-	34.18	24	28.40	38.00	24.04
Sunflowers	2	40.00	-	38.67	4	38.52	65.00	31.17
Cotton	0	-	-	-	2	50.50	-	-
Herbicide	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	11	9.45	4.00	11.74	36	11.72	15.76	9.99
Sorghum	13	32.38	-	26.66	38	41.21	28.92	23.68
Soybeans	14	45.07	17.00	23.29	31	43.53	22.71	17.88
Corn	18	42.75	27.00	30.59	30	36.49	30.63	24.67
Alfalfa	9	20.67	-	18.92	19	21.20	20.83	13.99
Sunflowers	2	30.00	-	21.67	4	35.53	38.75	19.00
Cotton	0	-	-	-	1	95.00	-	19.70
Insecticide	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	10.93	7	7.10	9.50	11.73
Sorghum	2	20.00	-	17.21	11	18.99	8.25	10.00
Soybeans	3	25.00	3.50	17.07	12	14.16	9.50	9.61
Corn	5	18.60	10.50	17.47	8	12.91	8.75	10.88
Alfalfa	6	21.67	-	13.86	14	17.14	11.04	10.44
Sunflowers	2	15.00	-	16.13	4	21.18	21.00	12.57
Cotton	0	-	-	18.75	0	-	-	-
Seed	# of 2018	2018	2013	2009	# of 2018	2018	2013	2009
	Responses	Survey	Survey	Survey	Responses	Survey	Survey	Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	9	14.89	15.00	13.92	40	12.75	21.73	12.77
Sorghum	11	15.27	-	16.02	40	22.11	17.00	14.22
Soybeans	12	57.42	45.00	52.40	33	48.83	54.86	42.07
Corn	16	87.19	134.00	84.57	28	58.17	66.56	60.66
Alfalfa	7	114.29	-	57.80	11	79.32	20.00	59.89
Sunflowers	2	30.00	-	33.09	7	33.86	28.50	26.19
Cotton	0	-	-	29.84	2	77.50	-	29.84

Table 7: South Central Kansas (SC-60)

Fertilizer	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	14	62.07	76.16	42.97	43	43.09	50.48	38.60
Sorghum	15	73.00	82.31	61.69	33	40.39	61.69	48.95
Soybeans	22	53.16	30.56	39.53	30	22.64	23.75	29.67
Corn	22	124.54	148.31	137.47	34	69.47	71.48	73.62
Alfalfa	10	103.50	47.21	74.09	19	39.42	29.58	37.48
Sunflowers	7	34.29	-	70.00	9	17.58	-	35.94
Cotton	8	78.75	63.33	-	15	46.73	40.37	-
Herbicide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	15	19.40	16.71	8.97	30	11.77	15.65	8.21
Sorghum	15	37.67	33.17	24.49	29	31.31	24.11	20.70
Soybeans	20	63.80	37.63	32.94	30	46.19	27.36	24.04
Corn	21	56.67	43.38	41.52	28	37.18	27.50	28.05
Alfalfa	10	30.30	22.92	22.96	17	22.68	21.00	18.13
Sunflowers	7	22.14	-	12.93	9	22.03	-	18.62
Cotton	8	71.25	65.00	-	11	62.94	60.24	22.78
Insecticide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	6	17.00	7.83	7.10	9	12.83	7.07	10.22
Sorghum	7	32.14	9.25	9.87	14	24.01	8.90	12.72
Soybeans	8	21.25	11.20	17.77	14	12.40	9.29	16.32
Corn	10	20.30	7.40	24.96	14	12.31	8.00	18.79
Alfalfa	8	41.88	25.50	18.65	14	24.15	24.00	15.30
Sunflowers	7	21.43	-	11.83	9	19.62	-	11.83
Cotton	8	41.25	15.00	18.75	10	30.60	15.00	-
Seed	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	20	14.55	21.93	17.96	39	11.67	15.92	14.20
Sorghum	18	20.83	14.90	16.20	32	14.77	12.87	13.00
Soybeans	24	56.58	69.41	48.94	29	46.13	52.64	40.17
Corn	20	91.10	101.78	78.35	25	61.76	60.00	61.01
Alfalfa	12	130.75	57.67	73.01	16	104.19	71.67	53.75
Sunflowers	7	26.71	32.00	31.49	7	31.00	21.00	36.21
Cotton	12	83.92	72.50	29.84	17	70.00	55.50	29.84

Table 8: Northeast Kansas (NE-70)

Fertilizer	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	77.00	46.90	11	56.62	49.38	54.12
Sorghum	0	-	-	67.50	7	62.98	153.00	78.71
Soybeans	4	45.25	50.00	37.16	32	54.41	47.58	37.53
Corn	6	100.83	98.67	101.35	37	100.33	110.18	98.38
Alfalfa	0	-	-	25.00	14	60.50	47.00	50.26
Sunflowers	0	-	-	-	1	50.00	68.00	43.14
Cotton	0	-	-	-	0	-	-	-
Herbicide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	5.00	4.75	7	14.59	14.07	8.06
Sorghum	0	-	-	22.50	6	39.06	35.00	27.26
Soybeans	5	62.80	26.67	23.96	36	55.02	37.11	22.28
Corn	5	46.20	33.33	33.83	36	46.29	41.77	28.71
Alfalfa	0	-	-	-	13	17.82	22.50	20.00
Sunflowers	0	-	-	-	1	30.00	25.00	17.88
Cotton	0	-	-	-	0	-	-	33.84
Insecticide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	-	2	6.08	8.80	12.30
Sorghum	0	-	-	-	6	18.29	10.00	12.70
Soybeans	0	-	25.00	9.67	15	6.15	13.77	11.67
Corn	0	-	20.00	9.25	15	7.69	14.23	13.19
Alfalfa	0	-	-	-	11	15.14	10.50	11.00
Sunflowers	0	-	-	-	0	-	8.00	9.50
Cotton	0	-	-	-	0	-	-	-
Seed	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	25.00	-	11	27.69	23.22	19.14
Sorghum	3	20.00	-	-	5	20.02	-	19.35
Soybeans	8	62.37	60.00	-	41	63.69	53.75	45.68
Corn	8	92.97	94.00	-	39	87.55	86.47	53.77
Alfalfa	3	70.00	-	-	9	111.67	94.00	64.89
Sunflowers	0	-	-	-	1	28.00	-	31.56
Cotton	0	-	-	-	0	-	-	29.84

Table 9: East Central Kansas (EC-80)

Fertilizer	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	2	55.00	-	75.00	15	49.33	63.64	49.03
Sorghum	2	65.00	-	100.00	4	51.31	75.00	56.00
Soybeans	4	28.90	-	50.00	12	35.97	30.11	29.40
Corn	5	95.80	-	120.00	18	76.23	112.49	75.89
Alfalfa	0	-	-	60.00	6	44.26	40.00	28.60
Sunflowers	0	-	-	-	0	-	-	30.00
Cotton	0	-	-	-	0	-	-	-
Herbicide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	4	10.00	-	5.00	16	10.21	13.30	10.64
Sorghum	0	-	-	20.00	5	22.48	30.00	19.00
Soybeans	7	61.71	20.00	25.00	20	49.80	34.53	24.45
Corn	7	47.71	30.00	35.00	21	43.92	39.25	26.30
Alfalfa	4	20.00	-	15.00	11	17.89	11.86	15.63
Sunflowers	0	-	-	-	0	-	-	15.00
Cotton	0	-	-	-	0	-	-	50.05
Insecticide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	-	8	8.59	8.67	10.83
Sorghum	0	-	-	5.00	3	5.58	-	8.70
Soybeans	0	-	7.00	-	7	9.50	14.25	13.14
Corn	0	-	-	5.00	7	13.58	25.00	16.38
Alfalfa	0	-	-	5.00	6	19.99	10.83	10.13
Sunflowers	0	-	-	-	0	-	-	7.50
Cotton	0	-	-	-	0	-	-	-
Seed	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	-	8	23.38	28.76	17.93
Sorghum	0	-	-	-	2	10.74	72.50	18.32
Soybeans	4	50.80	45.00	-	13	50.63	50.78	43.52
Corn	3	98.33	67.00	-	14	77.13	98.82	52.00
Alfalfa	0	-	-	-	1	100.00	55.00	74.39
Sunflowers	0	-	-	-	0	-	-	31.56
Cotton	0	-	-	-	0	-	-	29.84

Table 10: Southeast Kansas (SE-90)

Fertilizer	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	22.00	10	44.69	52.17	51.13
Sorghum	0	-	-	135.00	3	57.84	86.85	75.89
Soybeans	0	-	-	49.00	14	34.47	47.62	38.95
Corn	0	-	-	121.00	10	69.33	94.56	92.34
Alfalfa	0	-	-	42.0	5	55.01	35.00	54.71
Sunflowers	0	-	-	-	0	-	-	36.61
Cotton	0	-	-	-	1	65.00	-	-
Herbicide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	1	15.00	-	9.00	11	12.72	18.67	7.63
Sorghum	0	-	-	22.50	3	20.94	26.30	23.80
Soybeans	1	29.00	-	24.50	11	40.37	27.86	20.11
Corn	1	38.00	-	33.40	11	40.30	31.23	29.58
Alfalfa	1	7.00	-	10.00	4	13.62	33.25	18.92
Sunflowers	0	-	-	20.00	0	-	-	17.81
Cotton	0	-	-	-	1	40.00	-	15.60
Insecticide	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	-	6	10.20	20.63	11.61
Sorghum	0	-	-	12.00	3	10.31	9.69	10.71
Soybeans	0	-	-	10.00	10	11.78	19.97	10.56
Corn	0	-	-	11.96	5	12.29	20.97	11.32
Alfalfa	0	-	-	-	4	18.78	33.00	12.72
Sunflowers	0	-	-	-	0	-	-	14.75
Cotton	0	-	-	-	1	6.00	-	-
Seed	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey	# of 2018 Responses	2018 Survey	2013 Survey	2009 Survey
	Irrigated Crops (\$/Acre)				Nonirrigated Crops (\$/Acre)			
Wheat	0	-	-	-	11	16.55	20.88	16.44
Sorghum	0	-	-	-	2	21.50	45.00	13.60
Soybeans	0	-	-	-	11	56.45	46.52	40.27
Corn	0	-	-	-	11	79.36	62.93	49.23
Alfalfa	0	-	-	-	3	63.33	-	64.54
Sunflowers	0	-	-	-	0	-	-	31.56
Cotton	0	-	-	-	1	72.00	-	29.84