

**KANSAS BOSTWICK IRRIGATION DISTRICT NO. 2**  
**528 MAIN STREET**  
**P. O. BOX 165**  
**COURTLAND, KANSAS 66939**

BOARD OF DIRECTORS

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## 2006 WEATHER CONDITIONS

MONTH	TEMP		PRECIP	AVE. PRECIP ' 60 to '00
	High	Low		
JAN	66	15	0.08	0.53
FEB	70	0.1	T	0.74
MAR	79	17	2.18	1.95
APR	91	32	2.15	2.44
MAY	98	40	3.42	4.98
JUN	103	57	2.41	4.17
JUL	108	55	3.52	3.78
AUG	106	55	4.91	3.34
SEP	95	39	3.15	3.11
OCT	95	23	1.24	1.91
NOV	86	13	T	1.35
DEC	63	7	<u>3.12</u>	<u>0.84</u>
		Total	26.18	29.14

Moisture measured at Courtland amounted to a total of 26.18 inches, which is approximately 2.96 inches below the 40 year average. Checking the daily record shows that the most moisture measured in a 24 hour period was 2.36 inches on July 10<sup>th</sup>. Measurable precipitation was recorded at Courtland on 68 days during the year and 16 days recorded a trace.

The latest frost date last spring was April 27<sup>th</sup> when a low of 32 degrees was recorded. The temperature dropped to 29 degrees with the first fall frost on October 13<sup>th</sup>.

### RAINFALL DATA

YEAR	JAN-MAR	APR-JUNE	JULY-SEPT.	OCT-DEC	TOTAL
59	N/A	12.82	4.83	2.46	N/A
60	N/A	11.05	8.40	2.46	N/A
61	4.09	15.17	19.59	3.94	42.79
62	2.84	10.24	11.62	3.29	27.99
63	2.28	7.81	6.86	1.73	18.68
64	1.62	8.60	9.84	1.21	21.27
65	5.10	12.5	10.40	1.12	29.12
66	1.89	6.98	11.88	2.33	23.08
67	.64	15.84	11.87	2.86	31.18
68	.58	11.19	19.39	6.18	37.34
69	3.92	9.84	13.15	4.36	31.28
70	1.27	15.27	9.01	3.79	29.86
71	4.30	10.00	7.47	7.04	28.81
72	1.00	13.38	11.23	6.53	32.14
73	7.13	8.35	18.72	9.46	43.66
74	.97	9.91	4.59	3.71	19.18
75	3.36	13.06	5.82	3.73	25.97
76	4.73	7.81	3.81	1.03	17.38
77	3.99	16.61	15.72	3.41	39.73
78	2.21	10.23	10.13	3.66	26.23
79	7.74	8.50	8.75	6.43	31.42
80	6.47	7.39	7.56	2.85	28.24
81	1.64	14.09	10.93	4.54	31.20
82	4.04	12.48	10.69	5.06	32.27
83	3.95	8.74	9.5	4.17	23.36
84	3.38	14.77	3.45	7.90	29.50
85	2.10	12.03	13.06	2.37	29.56
86	1.84	10.67	14.01	6.53	33.05
87	8.19	15.48	6.26	2.81	32.74
88	1.31	10.27	5.76	2.03	19.37
89	1.68	7.30	13.70	1.05	23.73
90	4.15	10.82	6.38	2.10	23.45
91	1.98	8.99	3.66	4.19	18.82
92	4.34	8.92	17.61	9.14	40.01
93	5.90	12.62	24.07	2.67	45.26
94	1.64	10.92	7.55	4.49	24.60
95	2.32	14.69	9.74	1.40	28.15

RAINFALL DATA CONTINUED

YEAR	JAN-MAR	APR-JUNE	JULY-SEPT.	OCT-DEC	TOTAL
96	0.85	9.45	12.49	6.04	28.83
97	1.27	6.54	6.64	6.40	20.85
98	4.81	7.99	7.26	6.82	26.88
99	2.18	13.49	5.65	1.46	22.78
00	4.60	5.18	3.20	4.40	17.38
01	4.96	15.12	11.99	2.41	34.48
02	2.18	8.05	4.61	5.02	19.86
03	2.89	15.7	10.04	3.03	31.66
04	6.41	10.74	8.89	1.71	27.75
05	5.52	10.14	12.55	3.76	31.97
06	2.26	7.98	11.58	4.36	26.18

O&M ASSESSMENTS FOR 2006 – Blocks I, II, III, IV & V

Class #1	25,470.4 acres @ \$22.00 =	Note: 13,354.1 acres above
Class #2	9,228.7 acres @ 21.25 =	Lovewell were assessed a
Class #3	5,689.8 acres @ 21.00 =	flat rate of \$ 10.00/acre.
Class #4	<u>2,638.3</u> acres @ 20.75 =	
	42,967.2	\$775,559.05

REPAYMENT ASSESSMENTS FOR 2006

No repayment assessed for 2006.

2006 CROP CENSUS

**Above Lovewell delivered 3,023 AF to 13,361 total irrigable acres = 2.7"/acre.**

corn - 3,028 acres actually irrigated	146.9 bu acre	value \$1,334,883
sorghum - 474 acres actually irrigated	122.0 bu acre	value \$ 173,718
alfalfa - 705 acres actually irrigated	5.9 ton acre	value \$ 414,800
silage - 13.5 acres actually irrigated	19.9 ton acre	value \$ 6,680
soybeans - 1,704 acres actually irrigated	51.0 bu acre	value \$ 495,737

Total 5,825 acres (44%) per acre value \$409 Total \$2,425,818  
**3,023 AF delivered to 5925 acres = 6.1"/acre**

Scattered deliveries were made from May 23rd to September 9<sup>th</sup> with Harlan County releases being made from June 22nd through July 16<sup>th</sup> for 25 days of release. It took 6 days for the first release to reach the state line and another day to build and make controlled releases. The influence of the Harlan County release lasted about 5 days after releases were shut off at Harlan to 7-30 when the State of Ne. ordered Guide Rock shut off. There were deliveries from draining the canal and an 8-17 rain, which allowed us to make hit and miss deliveries until 9-9. Deliveries were made here and there during a span of 111 days. The Harlan County releases were made over a span of 25 days with the largest deliveries made in about a 14 -day period.

**Below Lovewell delivered 14,711 AF to 29,687 total acres = 5.9"/acre**

Corn - 10,434 acres actually irrigated	167.1 bu acre	value \$5,231,156
Sorghum - 310 acres actually irrigated	93.0 bu acre	value \$ 86,598
Alfalfa - 2,092 acres actually irrigated	6.4 ton acre	value \$1,334,830
Silage - 14.4 acres actually irrigated	23.9 ton acre	value \$ 8,625
Soybean - 9,803 acres actually irrigated	55.6 bu acre	value \$3,105,627

Total 22,6654 (76%) per acre valve \$432 Total \$9,775,783  
**14,711 AF delivered to 22,654 acres = 7.8"/acre**

First deliveries below Lovewell were 6-23 and the last on 8-17 for a total of 57 days.

**District Total**

corn - 13,462 acres actually irrigated	162.6 bu acre	value \$6,566,039
sorghum - 785 acres actually irrigated	110.5 bu acre	value \$ 260,317
alfalfa - 2,797 acres actually irrigated	22.0 ton acre	value \$ 15,305
silage - 27.8 acres actually irrigated	22.0 ton acre	value \$ 15,305
soybeans - 11,507 acres actually irrigated	54.9 bu acre	value \$3,601,364
animal units		value \$ 8,946

**Total 28,580 - 66% of total acres per acre value \$427 valve \$12,201,642**

CROP YIELDS

YEAR	CORN	MILO	BEANS	ALFALFA	SUNFLOWERS
1961	84.0	60.0	24.0	0	0
1962	100.0	88.0	30.0	0	0
1963	85.0	73.0	34.0	0	0
1964	95.0	74.0	24.0	0	0
1965	115.0	97.0	24.0	0	0
1966	95.0	91.0	33.0	0	0
1967	120.0	87.0	32.0	0	0
1968	99.0	72.0	25.0	0	0
1969	107.0	84.0	42.0	0	0
1970	92.0	49.0	25.0	0	0
1971	114.0	90.0	10.0	0	0
1972	129.0	101.0	43.0	0	0
1973	103.0	101.0	28.0	0	0
1974	102.0	81.0	30.0	0	0
1975	107.0	78.0	33.0	0	0
1976	103.0	90.0	44.0	0	0
1977	103.0	107.0	43.0	0	0
1978	123.1	103.6	45.8	0	0
1979	123.1	103.6	45.8	0	0
1980	94.7	63.6	45.2	0	0
1981	134.6	68.9	46.2	0	0
1982	108.0	99.0	37.5	0	0
1983	106.2	78.0	43.6	0	0
1984	139.0	85.8	42.5	0	0
1985	140.5	101.1	44.9	0	0
1986	148.7	131.8	50.4	0	0
1987	137.3	103.7	47.4	0	0
1988	135.2	80.5	46.1	0	0
1989	158.8	85.5	49.0	0	0
1990	139.0	99.0	42.0	5.0	0
1991	110.6	*154.0	39.3	4.0	0
1992	166.0	0	45.8	0	0
1993	92.0	0	36.2	0	0
1994	153.4	0	53.7	6.0	0
1995	135.8	72.8	48.1	4.5	*2,613.3
1996	163.9	138.6	54.2	4.7	0
1997	166.6	114.7	58.7	5.0	5
1998	157.6	101.3	54.8	5.3	5.3
1999	165.4	0	*58.6	5.6	0
2000	143.4	0	47.6	2.0	0
2001	155.0	92.8	47.7	6.1	0
2002	162.0	102.0	47.0	7.6	0
2003	160.7	124.2	49.9	5.6	1,943.5
2004	180.4	134.2	54.8	8.9	1,750.0
2005	*187.0	119.7	58.0	7.6	1,330.2
2006	162.6	110.5	54.9	6.3	0

0 may indicate not enough acres reported.

\* record, highest year recorded.

INFORMATION FROM CROP CENSUS

YEAR	CLASSIFIED ACRES	IRRIGATED ACRES	AF DEL'D INCHES/ACRE	
1958	10,043	N/A	4,383	N/A
1959	30,521	N/A	29,861	N/A
1960	31,979	20,455	27,041	15.8
1961	36,912	21,962	27,051	14.7
1962	36,934	22,395	23,326	12.4
1963	37,206	25,117	36,973	17.6
1964	37,286	22,892	41,948	21.9
1965	37,478	24,118	36,634	18.2
1966	38,386	24,063	38,195	19.0
1967	39,039	28,000	38,418	16.4
1968	40,325	28,000	32,566	13.9
1969	39,565	25,500	23,161	10.8
1970	39,828	27,736	52,959	22.9
1971	39,746	28,634	38,433	16.1
1972	40,120	26,515	26,168	11.8
1973	40,330	30,528	25,394	9.9
1974	40,631	29,907	51,507	20.7
1975	40,947	31,741	49,525	18.7
1976	41,118	30,789	# 69,206	27.0
*1977	41,118	32,248	30,934	11.5
*1978	41,118	33,909	34,335	12.9
*1979	41,468	33,529	29,015	10.4
1980	41,499	33,232	49,626	17.7
*1981	41,892	32,892	22,995	8.3
1982	41,862	33,980	30,963	10.9
1983	41,862	26,222	48,409	22.1
1984	41,883	30,048	48,121	19.2
1985	41,888	31,410	28,224	10.7
1986	41,910	32,085	34,082	12.7
1987	41,945	33,585	36,214	12.9
1988	41,960	29,862	51,016	20.5
*1989	41,987	35,696	39,335	13.2
*1990	41,988	36,667	43,874	14.3
*1991	42,488	30,881	32,621	12.7
*1992	42,458	23,589	4,116	2.1
*1993	42,537	33,858	# 3,326	1.2
1994	42,523	34,933	15,796	5.4
1995	42,523	38,485	42,828	13.4
1996	42,574	35,431	41,074	13.9
1997	42,574	38,985	40,196	12.4
1998	42,547	38,485	41,279	12.9
1999	42,650	38,788	44,734	13.8
2000	42,650	38,788	44,734	13.8

YEAR	CLASSIFIED ACRES	IRRIGATED ACRES	AF DEL'D	INCHES/ACRE
*2001	42,805	39,173	39,243	12.0
*2002	42,922	39,499	43,576	13.2
*2003	43,021	36,460	29,108	9.6
*2004	43,114	23,035	15,632	8.1
*2005	43,100	23,439	15,632	5.8
*2006	43,048	28,580	20,636	7.4

\* YEARS OF SHORT SUPPLY, START SEASON WITH RESTRICTIONS  
# HIGHEST – LOWEST USE



VALUE OF ACTUAL IRRIGATED CROPS FROM CROP CENSUS

YEAR	\$ GROSS	\$ PER/ACRE	ACRE
1970	3,882,835.00	140.00	27,736
1971	3,611,674.76	126.15	28,634
1972	5,114,061.00	192.87	26,515
1973	7,006,234.00	229.50	30,528
1974	9,278,426.00	310.24	29,907
1975	8,278,426.00	260.66	31,741
1976	6,846,199.25	222.29	30,798
1977	5,915,316.01	183.43	32,248
1978	7,618,348.80	238.75	31,909
1979	9,690,680.00	289.02	33,529
1980	9,597,194.54	288.79	33,232
1981	9,799,445.00	297.93	32,892
1982	8,313,569.92	244.66	33,980
1983	8,293,717.20	316.29	26,222
1984	9,922,025.00	330.21	30,048
1985	9,081,424.00	289.13	31,410
1986	7,015,931.65	218.67	32,085
1987	7,039,321.40	209.60	33,585
1988	9,938,060.00	332.80	29,762
1989	11,439,457.00	320.46	35,696
1990	10,407,855.94	283.84	36,667
1991	7,712,559.42	249.75	30,881
1992	7,620,389.10	323.05	23,589
1993	7,493,859.30	221.33	33,858
1994	10,636,665.00	304.49	34,933
1995	13,899,728.33	361.17	38,485
1996	13,463,982.00	380.00	35,431
1997	15,349,478.00	393.73	38,985
1998	11,410,761.21	296.49	38,486
1999	11,856,609.01	305.68	38,788
2000	10,666,977.55	262.02	40,711
2001	10,725,896.65	273.81	39,234
2002	14,809,851.00	375.42	39,449
2003	12,308,765.65	337.60	36,460
2004	6,825,529.50	296.32	23,035
2005	6,908,992.63	294.76	23,439
2006	12,201,642.00	427.00	28,580

This survey was first run in 1990. Pivot acres were counted as pipe and the results were 54% pipe and 46% open ditch.

YEAR	OPEN DITCH	PIPE	PIVOT	DRIP	ACRES
2006	13%	45%	42%	.0009	43,072
2002	17%	56%	27%		42,921
1998	29%	59%	12%		42,421
1994	38%	58%	4%		42,531
1990	46%	54%	0%		42,462

2006 SURVEY BY RIDE

RIDE	OPEN DITCH	PIPE	PIVOT	DRIP	ACRES
1	115.3 – 69%	910.3 – 9%	282.2 – 22%		1,307.8
2	308.9 – 9%	1,657.4 – 49%	1,421.4 – 42%		3,387.7
3	1,053.7 – 21%	1,580.5 – 32%	2,322.7 – 47%		4,956.9
4	959.2 – 23%	1,577.6 – 38%	1,584.9 – 39%		4,121.7
5	6.5 – .006%	368.7 – 36%	657.4 – 64%		1,032.6
6	386.2 – 8%	3,090.4 – 65%	1,270.0 – 27%		4,746.6
7	760.4 – 15%	2,203.2 – 44%	2,054.2 – 40%	45.8 – .009%	5,052.9
8	616.9 – 13%	2,815.1 – 58%	1,401.9 – 29%		4,833.9
9	62.6 – 1%	1,547.4 – 15%	3,056.1 – 65%		4,666.1
10	788.2 – 15%	1,138.9 – 22%	3,217.1 – 63%		5,144.2
11	367.0 – 9%	2,600.2 – 69%	854.7 – 22%		3,821.9
Total	5,424.9 – 13%	19,489.7 – 45%	18,111.9 – 42%	45.8	43,072.3

BOR GI – 5

BOR McCOOK - 2

KS WATER OFFICE - 1

KS AGRI DIV WATER RESOURCES - 2

KANSAS STATE RESEARCH & EXTENSION  
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BOR BILLINGS - 3

DOUG SIMMS - 1

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