#### Dear Kansas Lawmakers:

My name is Reid Shrauner. I farm in Southwest Kansas as well as the Oklahoma Panhandle. I am a 4th generation farmer. My great grandfather homesteaded in Morton County in 1907. He farmed dry land crops until his death in 1941. Irrigation began here in the 1950's and was developed continually through the 1990s. We have been blessed with good wells. My family's livelihood is dependent on irrigated farming put in place by my grandfather and father. I am 36 years old and have not personally drilled a water well, yet everything I do depends on irrigation. I feel that economic circumstances have almost forced us into growing the most irrigation intensive crop, corn. We desperately need a way to farm profitably using less water.

My father is nearly 70 years old, and he will not see the Ogallala aquifer depleted. We monitor the static water drawdown of our wells and one can mathematically predict the end. If I live as long as my dad and granddad, I believe I will see the end of agriculture irrigation as we know it.

I believe in meaningful water conservation. We are as efficient as we can be in our methods of irrigation; the real issue is the economics of our cropping options. I urge you to refer to Kansas State University extension's website, agmanager.info; specifically, crop budgets by practice and region. You will find that corn is the only crop option with a positive return.

The proposed bill HB 2182 seeks to deliver Kansas farmers like myself a cropping option that will be a less water intensive, yet profitable alternative to corn. This is an opportunity that does not come along everyday. We need to allow farmers and Kansas State to research the full potential of this crop. The products made from industrial hemp are beneficial, renewable, and legal. For Kansas to not seek to capitalize on this opportunity would be foolish.

Farm commodity prices are at historic lows, adjusted for inflation. Governor Brownback has made water a top priority. Kansas is the definition of an ag-based economy. There are numerous studies and predictions of what the western Kansas economy will look like post irrigation, it is not good.

We need to take this opportunity to help farmers be profitable, conserve water, and create much-needed additional tax base for the state and counties. Any opposition to HB 2182 would be a disservice to the state of Kansas.

Sincerely

Reid Shrauner

### 717 Irrigated Wheat (Center-Pivot) Cost-Return Budget

-----Western Kansas

Gregg Ibendahl, Dan O'Brien, Lucas Haag, and John Holman

Summary page

Budget date: Oct-01-2016

item unit price quantity amount Sub-total your farm INCOME Product \$244.88 Wheat - Western KS bu \$3.77 65.0000 \$244.88 --TOTAL INCOME--\$244.88 **EXPENSES** Fertilizers lb 89.8000 \$30.19 Nitrogen \$0.35 Phosphorus \$0.33 30.8200 \$10.13 lb \$40.32 \_\_\_\_\_ Herbicides \$7.74 \$7.74 \_\_\_\_\_ Pre-emergence Seeds \$24.30 \_\_\_ \$29.62 \_\_ Crop insurance Miscellaneous \$10.00 \_\_ Fungicides \$9.02 Crop consulting \$6.00 Labor (beyond custom field operations) \$24.00 Custom Field Operations Fertilizer application \$6.14 Harvesting \$29.89 Hauling \$13.36 Planting \$19.07 Spraying \$12.08 \$80.54 \_ Natural Gas \$28.53 \_ Repair & Maintenance \$3.30 \_\_ Interest on operating capital 6% on direct expenses \$7.90 \$7.90 \_\_\_ Depreciation \$76.67 \_\_\_ Interest on durable equipment \$59.22 Cash rent \$136.00 \_\_ \$543.15 \_\_\_\_\_ -- TOTAL SPECIFIED EXPENSES--======= RETURNS ABOVE TOTAL SPECIFIED EXPENSES -\$298.27 \_\_\_\_\_

### 2017 Irrigated Wheat (Center-Pivot) Cost-Return Budget

Gregg Ibendahl, Dan O'Brien, Lucas Haag, and John Holman

Budget date: Oct-01-2016

Detailed budget page(s)

tem	unit	price	quantity	amount	Sub-total	your farm
NCOME						
Product						
Wheat - Western KS	bu	\$3.77	65.0000	\$244.88	\$244.88	***************************************
Other						
Govt payments, indemnity payments, etc.						
TOTAL INCOME					\$244.88	
DIRECT EXPENSES						
Fertilizers						
C - DAP (18-46-0) (1)	lb	\$0.21	67.0000	\$14.35		
C - Urea	lb	\$0.15	169.0000	\$25.97	\$40.32	
ACTUAL POUNDS - 90 N, 31 P, 0 K						
Herbicides		0.000		2400N 20002000		
B - 2, 4-D LV Ester (1)	OZ	\$0.19	8.0000	\$1.52		
B - Ally	oz	\$9.30	0.1000	\$0.93		
B - Banvel 4	oz	\$0.39	4.0000	\$1.55		
B - Glyphosate generic	OZ	\$0.12	32.0000	\$3.74	\$7.74	METERS
Seeds						
Wheat (base)	lb	\$0.27	90.0000	\$24.30	\$24.30	
Crop insurance						
Wheat_West_Irr	acre	\$29.62	1.0000	\$29.62	\$29.62	
Miscellaneous						
Wheat_West_Irr	acre	\$10.00	1.0000	\$10.00	\$10.00	-
Fungicides						
Folicur (1)	OZ	\$0.45	1.3300	\$0.60		
Headline	oz	\$3.15	1.3300	\$4.19		
Quilt	OZ	\$1.21	3.5000	\$4.23	\$9.02	
Crop consulting						
Wheat_West_Irr	acre	\$6.00	1.0000	\$6.00	\$6.00	
Labor (beyond custom field operations)						
Additional labor	hour	\$15.00	1.2000	\$18.00		
Irrigation labor	hour	\$15.00	0.4000	\$6.00	\$24.00	
Custom Field Operations						
FERTAPP-Dry fertilizer	acre	\$6.14	1.0000	\$6.14		
HARVEST-Wheat (base)	acre	\$20.87	1.0000	\$20.87		
HARVEST-Wheat (extra charge for yields above 22 bu)	bu	\$0.21	43.0000	\$9.02		
HAUL-Wheat - hauling	bu	\$0.21	65.0000	\$13.36		
PLANT-Wheat, min-till planting	acre	\$19.07	1.0000	\$19.07		
SPRAY-Ground herbicide	acre	\$6.01	1.0000	\$6.01		
SPRAY-Ground insecticide	acre	\$6.07	1.0000	\$6.07	\$80.54	**************************************
Natural Gas						
Well, pump, and gearhead	Mcf	\$4.00	7.1300	\$28.53	\$28.53	
Repair & Maintenance						
Well, pump, and gearhead	ac-in	\$0.33	10.0000	\$3.30	\$3.30	
Other						
Crop consulting, drying, etc.						
Interest on operating capital	6% on c	irect expens	ses	\$7.90	\$7.90	y
interest on operating capital	0 /0 011 0	neor exheri	000	Ψ1.50	φ1.90	

### 2017 Irrigated Wheat (Center-Pivot) Cost-Return Budget -----Western Kansas

Detailed budget page(s)

Gregg Ibendahl, Dan O'Brien, Lucas Haag, and John Holman				Budget date: Oct-01-2016		
item	unit	price	quantity	amount	Sub-total	your farm
TOTAL DIRECT EXPENSES					\$271.27	
FIXED EXPENSES						
Depreciation						
Irrigation - Center Pivot	acre	\$22.43	1.0000	\$22.43		
Power unit	acre	\$17.60	1.0000	\$17.60		
Well, pump, and gearhead	acre	\$36.64	1.0000	\$36.64	\$76.67	
Interest on durable equipment						
Irrigation - Center Pivot	acre	\$28.04	1.0000	\$28.04		
Power unit	acre	\$3.70	1.0000	\$3.70		
Well, pump, and gearhead	acre	\$27.48	1.0000	\$27.48	\$59.22	Harris Communication of the Co
Cash rent						
All crops_West_irr	acre	\$136.00	1.0000	\$136.00		
TOTAL FIXED EXPENSES					\$271.89	
TOTAL SPECIFIED EXPENSES					\$543.15	-
RETURNS ABOVE DIRECT EXPENSES					-\$26.38	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					-\$298.27	

<sup>12</sup> acre-inches of water applied 300 foot well depth

<sup>\$</sup> fuel cost per acre-inch of water applied

#### 2017 Irrigated Grain Sorghum (Center-Pivot) Cost-Return Budget

-----Western Kansas

Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman

Detailed budget page(s)

Budget date: Oct-01-2016

price quantity amount Sub-total your farm item unit **INCOME** Grain Sorghum - Western KS bu \$3.43 106.0000 \$363.82 \$363.82 \_\_\_\_ Other Govt payments, indemnity payments, etc. \$363.82 \_\_\_ --TOTAL INCOME--**DIRECT EXPENSES** Fertilizers B - DAP (18-46-0) (with planter) lb \$0.21 89.0000 \$19.06 \$41.81 \_ \$22,74 B - Urea lb \$0.15 148.0000 --- ACTUAL POUNDS - 84 N, 41 P, 0 K Herbicides A - 2, 4-D LV Ester (1) \$0.19 8.0000 \$1.52 ΟZ A - Dicamba \$0.46 12.0000 \$5.47 OZ A - Glyphosate generic ΟZ \$0.12 32.0000 \$3.74 B - Atrazine 4L (1) pt \$1.76 0.8700 \$1.53 B - Bicep II Magnum 2.1000 \$10.57 pt \$5.03 B - LumaxEZ 2.7000 \$18.25 \$41.08 \_\_\_\_\_ pt \$6.76 Seeds lb 5.3300 \$2.50 \$13.33 \$13.33 Milo - concep treated Crop insurance Grain Sorghum\_West\_Irr acre \$37.01 1.0000 \$37.01 \$37.01 \_\_\_\_\_ Miscellaneous Grain Sorghum\_West\_Irr \$10.00 1.0000 \$10.00 \$10.00 acre Crop consulting \$6.25 \_\_\_\_ Grain Sorghum\_West\_Irr acre \$6.25 1.0000 \$6.25 Labor (beyond custom field operations) Additional labor hour \$15.00 1.2000 \$18.00 Irrigation labor 0.4800 \$25.20 \_\_\_\_\_ hour \$15.00 \$7.20 **Custom Field Operations** \$0.06 106.0000 DRY-Drying grain sorghum \$6.36 bu \$21.89 1.0000 \$21.89 HARVEST-Milo (base) acre HARVEST-Milo (extra charge for yields above 31 bu) \$0.22 75.0000 \$16.61 bu 106.0000 HAUL-Milo - hauling \$0.20 \$21.59 bu PLANT-Milo, reg-till planting \$17.38 1.0000 \$17.38 acre SPRAY-Ground herbicide acre \$6.01 2.0000 \$12.02 TILL-Cultivating ridge-till acre \$16.45 1.0000 \$16.45 \$112.30 \_\_\_\_\_ Natural Gas \$34.23 \_\_\_\_\_ Well, pump, and gearhead Mcf \$4.00 8.5600 \$34.23 Repair & Maintenance \$3.96 \_\_\_\_\_ Well, pump, and gearhead ac-in \$0.33 12.0000 \$3.96 Other Crop consulting, drying, etc. \$9.76 \$9.76 \_\_\_\_\_ Interest on operating capital 6% on direct expenses \$334.92 \_\_\_\_\_ -- TOTAL DIRECT EXPENSES--

# 2017 Irrigated Grain Sorghum (Center-Pivot) Cost-Return Budget -----Western Kansas Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman

Summary page

Budget date: Oct-01-2016

Gregg Ibendahl, Dan O'Brien, Lucas Haag,		EWARING CONTRACT	Marcollan de la companya de la comp		get date: Oct	
tem	unit	price	quantity	amount	Sub-total	your farm
NCOME						
Product						
Grain Sorghum - Western KS	bu	\$3.43	106.0000	\$363.82		
TOTAL INCOME					\$363.82	·
XPENSES						
Fertilizers						
Nitrogen	lb	\$0.35	84.1000	\$28.35		
Phosphorus	lb	\$0.33	40.9400	\$13.46	\$41.81	
Herbicides						
Burndown				\$10.73		
Pre-emergence				\$30.35	¢41.00	
Fre-emergence				φ30.35	\$41.08	
Seeds					\$13.33	:
Crop insurance					\$37.01	
Miscellaneous					\$10.00	1
Crop consulting					\$6.25	
Labor (beyond custom field operations)					\$25.20	<del></del>
Custom Field Operations						
Drying				\$6.36		
Harvesting				\$38.50		
Hauling				\$21.59		
Planting				\$17.38		
Spraying				\$12.02	<b></b>	
Tillage				\$16.45	\$112.30	
Natural Gas					\$34.23	
Repair & Maintenance					\$3.96	
Interest on operating capital	6% on di	rect expens	ses	\$9.76	\$9.76	
Depreciation					\$76.67	
Interest on durable equipment					\$59.22	
Cash rent					\$136.00	t <del></del>
TOTAL SPECIFIED EXPENSES					\$606.81	
ETURNS ABOVE TOTAL SPECIFIED EXPENSES					-\$242.99	

## 2017 Irrigated Grain Sorghum (Center-Pivot) Cost-Return Budget -----Western Kansas

Detailed budget page(s)

Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman Budget date: Oct-01-2016

		William Co. Co.	SECRETARIA DE SERVICIO DE LA COMPANIONE	CONTRACTOR OF THE PARTY OF THE		
item	unit	price	quantity	amount	Sub-total	your farm
FIXED EXPENSES						
Depreciation						
Irrigation - Center Pivot	acre	\$22.43	1.0000	\$22.43		
Power unit	acre	\$17.60	1.0000	\$17.60		
Well, pump, and gearhead	acre	\$36.64	1.0000	\$36.64	\$76.67	
Interest on durable equipment						
Irrigation - Center Pivot	acre	\$28.04	1.0000	\$28.04		
Power unit	acre	\$3.70	1.0000	\$3.70		
Well, pump, and gearhead	acre	\$27.48	1.0000	\$27.48	\$59.22	
Cash rent						
All crops_West_irr	acre	\$136.00	1.0000	\$136.00	\$136.00	·
TOTAL FIXED EXPENSES					\$271.89	(1)
TOTAL SPECIFIED EXPENSES					\$606.81	n <del></del>
RETURNS ABOVE DIRECT EXPENSES					\$28.89	×
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					-\$242.99	<u> </u>

<sup>12</sup> acre-inches of water applied 300 foot well depth

<sup>\$</sup> fuel cost per acre-inch of water applied

### 2017 Irrigated Corn (center-pivot) Cost-Return Budget

---Southwest Kansas (ave yields)

Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman

Summary page

Budget date: Oct-01-2016

unit price quantity amount Sub-total your farm item INCOME Product Corn - Southwest KS bu \$3.91 210.0000 \$820.36 \$820.36 --TOTAL INCOME--\$820.36 **EXPENSES** Fertilizers \$56.86 Nitrogen lb \$0.35 168.8200 Phosphorus \$0.33 74.0600 \$24.34 \$81.20 \_\_\_\_\_ lb Herbicides \$10.73 Burndown Post-emergence \$1.87 Pre-emergence \$35.10 \$47.70 \_\_\_ Insecticides \$15.67 \_\_ Seeds \$128.00 Crop insurance \$21.38 \$10.00 \_ Miscellaneous Fungicides \$6.93 \_\_ \$6.50 \_ Crop consulting Labor (beyond custom field operations) \$28.80 \_\_\_ Custom Field Operations Drying \$11.34 Harvesting \$61.60 Hauling \$35.45 Planting \$17.48 Spraying \$22.86 Tillage \$16.45 \$165.19 \_\_\_\_\_ Natural Gas \$51.35 \_\_\_\_\_ \$5.94 \_\_\_\_\_ Repair & Maintenance Interest on operating capital \$17.06 \$17.06 \_\_\_\_\_ 6% on direct expenses \$76.67 \_\_\_\_\_ Depreciation Interest on durable equipment \$59.22 \_\_\_\_\_ \$120.00 \_\_ Cash rent \$841.61 \_\_ -- TOTAL SPECIFIED EXPENSES--RETURNS ABOVE TOTAL SPECIFIED EXPENSES -\$21.24 \_\_\_\_\_

### 2017 Irrigated Corn (center-pivot) Cost-Return Budget ....-Southwest Kansas (ave yields)

---Southwest Kansas (ave yields) Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman Detailed budget page(s)

Budget date: Oct-01-2016

item unit price quantity amount Sub-total your farm INCOME Product Corn - Southwest KS bu \$3.91 210.0000 \$820.36 \$820.36 Other Govt payments, indemnity payments, etc. \$820.36 --TOTAL INCOME--**DIRECT EXPENSES** Fertilizers B - DAP (18-46-0) (with planter) lb \$0.21 161.0000 \$34.49 B - Urea lb \$0.15 304.0000 \$46.72 \$81.20 --- ACTUAL POUNDS - 169 N, 74 P, 0 K Herbicides A - 2, 4-D LV Ester (1) \$0.19 8.0000 \$1.52 ΟZ A - Dicamba \$0.46 12.0000 \$5.47 ΟZ \$0.12 A - Glyphosate generic OZ 32.0000 \$3.74 B - Atrazine 4L (1) \$3.52 1.5000 \$5.29 qt B - Covrus 5.6000 \$5.32 \$29.82 ΟZ C - Glyphosate generic (.5) \$0.12 16.0000 \$47.70 \_\_\_\_\_ \$1.87 OZ Insecticides Hero (1) \$1.52 10.3000 ΟZ \$15.67 \$15.67 Seeds Corn - triple stack 1K seeds \$4.00 32.0000 \$128.00 \$128.00 Crop insurance Corn\_SW\_Irr 1.0000 \$21.38 \_\_\_\_\_ acre \$21.38 \$21.38 Miscellaneous Corn\_SW\_Irr \$10.00 1.0000 \$10.00 \$10.00 \_\_\_\_\_ acre Fungicides 1.5750 Headline (.3) \$3.15 \$4.96 OZ \$6.93 \_\_\_\_ Quilt, Xcel \$1.25 1.5750 \$1.97 OZ Crop consulting Corn\_SW\_Irr \$6.50 1.0000 \$6.50 \_\_\_\_\_ acre \$6.50 Labor (beyond custom field operations) Additional labor hour \$15.00 1.2000 \$18.00 Irrigation labor hour \$15.00 0.7200 \$10.80 \$28.80 \_\_\_\_ **Custom Field Operations** DRY-Drying corn (includes fuel, electricity, labor) - bin \$0.05 210.0000 bu \$11.34 HARVEST-Corn (base) \$27.26 \$27.26 acre 1.0000 HARVEST-Corn (extra charge for yields above 65 bu) bu \$0.24 145.0000 \$34.34 HAUL-Corn - hauling \$0.17 210.0000 \$35.45 bu PLANT-Corn, reg-till planting 1.0000 \$17.48 \$17.48 acre SPRAY-Ground herbicide \$6.01 2.5000 \$15.02 acre SPRAY-Ground insecticide \$6.03 1.3000 \$7.84 acre TILL-Cultivating ridge-till \$16.45 1.0000 \$16.45 \$165.19 \_\_\_\_\_ acre Natural Gas Well, pump, and gearhead Mcf \$4.00 12.8400 \$51.35 \$51.35 Repair & Maintenance Well, pump, and gearhead ac-in \$0.33 18.0000 \$5.94 \$5.94

# 2017 Irrigated Corn (center-pivot) Cost-Return Budget -----Southwest Kansas (ave yields) Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman

Detailed budget page(s)

Gregg Ibendahl, Dan O'Brien, Lucas Haag, John Holman				Budget date: Oct-01-2016		
item	unit	price	quantity	amount	Sub-total	your farm
Other Crop consulting, drying, etc.						
Interest on operating capital	6% on (	direct expens	ses	\$17.06	\$17.06	
TOTAL DIRECT EXPENSES					\$585.72	
FIXED EXPENSES  Depreciation  Irrigation - Center Pivot  Power unit	acre acre	\$22.43 \$17.60	1.0000 1.0000	\$22.43 \$17.60		
Well, pump, and gearhead	acre	\$36.64	1.0000	\$36.64	\$76.67	
Interest on durable equipment Irrigation - Center Pivot Power unit Well, pump, and gearhead	acre acre acre	\$28.04 \$3.70 \$27.48	1.0000 1.0000 1.0000	\$28.04 \$3.70 \$27.48	\$59.22	
Cash rent All crops_SW_Irr	acre	\$120.00	1.0000	\$120.00	\$120.00	
TOTAL FIXED EXPENSES					\$255.89	
TOTAL SPECIFIED EXPENSES						1
RETURNS ABOVE DIRECT EXPENSES					\$234.64	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					-\$21.24	7

18 acre-inches of water applied 300 foot well depth \$ 2.85 fuel cost per acre-inch of water applied