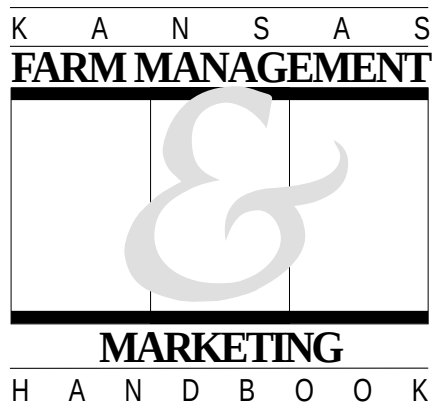




Cost-Return Budgets — Irrigated Crops

Department of Agricultural Economics



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Each KSU Farm Management Irrigated Crop Cost-Return Budget Guide utilizes specific input values and rates for seed, insecticide, herbicide, and fertilizer based on a given yield level. This KSU Farm Management Guide outlines the specific values and rates used for each of the irrigated crop budgets. Producers often have multiple insecticide and herbicide options available to them, in this case the insecticide and herbicide values in "bold" type were used in the KSU budgets. Producers should use their own values, based on production and tillage practices, when completing the blank column for their farm.

Each irrigated crop guide provides budget information for three different yield levels. Input values and rates used in those budgets vary by yield levels as outlined in this guide. Fertilizer and seed rates are based on the expected yield level plus ten percent. Yield levels vary for a number of reasons including soil type or land quality, weather, input levels, and management.

MF-590 Flood Irrigated Wheat **MF-583 Center Pivot Irrigated Wheat**

Item	Yield Levels		
	I	II	III
Yield	41 bu.	48 bu.	55 bu.
Seed (15,000 seeds/lb)	75 lbs	90 lbs	90 lbs
Insecticide	\$0.00	\$0.00	\$0.00
Herbicide	\$4.90	\$4.90	\$4.90
0.75 pt 2, 4-D 4 lb/gal LV Ester			
@ \$16.40/gal = \$1.54			
+ Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	50 lbs	60 lbs	70 lbs
Phosphate	30 lbs	30 lbs	30 lbs

MF-580 Flood Irrigated Grain Sorghum **MF-582 Center Pivot Irrigated Grain Sorghum**

Item	Yield Levels		
	I	II	III
Yield	87 bu.	97 bu.	107 bu.
Seed (15,000 seeds/lb)	6 lbs	6.5 lbs	6.5 lbs
Insecticide	\$10.48	\$10.48	\$10.48
Greenbug — Treatment needed about 50% of the time.			
0.5 lb a i/A Lorsban 4E			
@ \$51.20/gal = \$6.40			
+ Application Cost/A (aerial) = \$4.08			
Herbicide	\$21.86	\$21.86	\$21.86
2 qts Bicep 6L* (PRE)			
@ \$37.00/gal = \$18.50			
+ Application Cost/A = \$3.36			
Followed by cultivation or			
2 pts Marksman (POST)			
@ \$28.90/gal = \$7.23			
+ Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	90 lbs	110 lbs	120 lbs
Phosphate	40 lbs	40 lbs	40 lbs

*Requires Concep treated seed.

MF-577 Flood Irrigated Soybeans
MF-586 Center Pivot Irrigated Soybeans

Item	Yield Levels		
	I	II	III
Yield	45 bu.	51 bu.	57 bu.
Seed (3,000 seeds/lb)			
Rowed	45 lbs	50 lbs	50 lbs
Drilled	55 lbs	60 lbs	67 lbs
Insecticide	\$0.00	\$0.00	\$0.00
Herbicide	\$25.44	\$25.44	\$25.44
1 qt Roundup Ultra* @ \$40.50/gal = \$10.13			
+ Adjuvants @ \$0.50			
+ Application Cost/A = \$3.36			
Followed by			
1.5 pts Roundup Ultra* @ \$40.50/gal = \$7.59			
+ Adjuvants @ \$0.50			
+ Application Cost/A = \$3.36			
Fertilizer			
Phosphate	40 lbs	40 lbs	40 lbs

*Requires purchase of Roundup Ready seed, which includes a \$7.00 per bag (\$0.14/lb) technology fee.

MF-999 Center Pivot Irrigated Dry Edible Beans

Item	Yield Levels		
	I	II	III
Yield (lbs)	1,500	2,000	2,500
Seed	60 lbs	60 lbs	60 lbs
Insecticide	\$0.00	\$0.00	\$0.00
Fungicide	\$28.40	\$28.40	\$28.40
Blights — treat about 50% of the time.			
4 pts/A Champ @ \$15.10/gal = \$7.55			
+ Application Cost/A (aerial) = \$4.08			
As preventative			
2 applications 14 days apart			
2 pts/A Champ @ \$15.10/gal = \$7.55			
+ Application Cost/A (aerial) = \$8.16			
Rust — treat about 70% of the time.			
2 pts/A Bravo Weather Stik @ \$50.75/gal = \$12.69			
+ Application Cost/A (aerial) = \$4.08			
Herbicide	\$18.08	\$18.08	\$18.08
2 pts Eptam @ \$34.10/gal = \$8.53			
1.5 pts Sonolan @ \$33.00/gal = \$6.19			
+ Application Cost/A = \$3.36			
Followed by cultivation, if needed.			
Fertilizer			
Nitrogen	40 lbs	50 lbs	60 lbs
Phosphate	40 lbs	40 lbs	40 lbs

MF-578 Flood Irrigated Corn
MF-585 Center Pivot Irrigated Corn
MF-969 Ridge-Till Flood Irrigated Corn*

Item	Yield Levels		
	I	II	III
Yield	155 bu.	170 bu.	185 bu.
Seeds	28,000	32,000	36,000
Insecticide	\$42.15	\$42.15	\$42.15
Soil Insecticide — Generally recommended for control of rootworms in continuous corn. A seed treatment may be all that is necessary in first-year corn.			
Range in price from:			
6 ozs/1,000 ft (30" rows) Thimet 20G			
@ \$2.50/lb = \$16.34			
8 ozs/1,000 ft (30" rows) Counter 15G			
@ \$2.40/lb = \$20.91			
Seed Treatment			
diazinon or diazinon-lindane			
seed treatment: \$0.75 to \$1.00			
Corn Borer — Southwestern and European Corn Borer—one application is needed most years, but sometimes two applications are necessary.**			
Range in price from:			
0.025 lb a i/A Warrior			
@ \$357.20/gal = \$8.93			
1 lb a i/A Furadan 4F			
@ \$72.90/gal = \$18.23			
+ Application Cost/A (aerial) = \$4.08			
**Planting Bt corn eliminates the Warrior or Furadan treatment. Technology fee for Bt corn = \$0.32/1000 seeds which results in a cost of about \$9-\$12/acre.			
Spider Mites — Some type of spider mite treatment is generally needed in southwest Kansas. There are three options for controlling spider mites. Using Comite early to prevent late-season mite problems, using a Miticide such as Di-Syston alone or in a tank mix with a corn borer insecticide, or using Capture alone to control both mites and corn borers.			
Range in price from:			
0.5 lb a i/A Di-Syston 8			
@ \$76.80/gal = \$4.80			
2.25 pts/A Comite II			
@ \$54.00/gal = \$15.19			
+ Application Cost/A (aerial) = \$4.08			
0.08 lb a i/A Capture 2EC			
@ \$429.00/gal = \$17.16			
+ Application Cost/A (aerial) = \$4.08			
Herbicide	\$37.22	\$37.22	\$37.22
2 qts Bicep 6L (PRE)			
@ \$37.00/gal = \$18.50			
+ Application Cost/A = \$3.36			
Followed by 1 oz Exceed			
@ \$11.50/oz = \$11.50			
+ Adjuvants @ \$0.50			
+ Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	190 lbs	220 lbs	240 lbs
Phosphate	45 lbs	45 lbs	45 lbs

*Herbicide is reduced by one-third.

MF-1000 Center Pivot Irrigated Short-Season Corn

Item	Yield Levels		
	I	II	III
Yield	132 bu.	145 bu.	157 bu.
Seeds	36,000	36,000	36,000
Insecticide	\$13.01	\$13.01	\$13.01
Corn Borer — Southwestern and European Corn Borer—one application is needed most years, but sometimes two applications are necessary.* 0.025 lb a i/A Warrior @ \$357.20/gal = \$8.93 + Application Cost/A (aerial) = \$4.08 *Planting Bt corn eliminates the Warrior treatment. Technology fee for Bt corn = \$0.32/1000 seeds which results in a cost of \$11.52/acre. Short-season corn should be rotated with other crops to avoid problems with corn rootworms			
Herbicide	\$36.68	\$36.68	\$36.68
2 qts Bicep 6L (PRE) @ \$37.00/gal = \$18.50 + Application Cost/A = \$3.36 Followed by 1 oz Exceed @ \$11.50/oz = \$11.50 + Application Cost/A = \$3.36 or 0.33 oz Accent (POST) @ \$33.20/oz = \$10.96 + Adjuvants @ \$0.50 + Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	150 lbs	180 lbs	200 lbs
Phosphate	40 lbs	40 lbs	40 lbs

MF-800 Center Pivot Irrigated Oil Type Sunflowers MF-938 Center Pivot Irrigated Confectionary Sunflowers

Item	Yield Levels		
	I	II	III
Yield			
Oil (lbs)	1,800	2,200	2,600
Confectionary (lbs)	1,700	2,100	2,500
Seeds			
Confectionary	17,600	17,600	17,600
Oil-Type	23,400	23,400	23,400
*Insecticide	\$26.02	\$26.02	\$26.02
Sunflower Head Moth — Generally two applications are needed for control on sunflowers planted before the middle of June. 2 app. 0.025 lb a i/A Warrior 1 EC @ \$357.20/gal = \$17.86 + Application Cost/A (2 app. aerial) = \$8.16			
Herbicide	\$11.76	\$11.76	\$11.76
2 pts/A Treflan (PPI) @ \$33.60/gal = \$8.40 + Application Cost/A = \$3.36 Followed by cultivation			
Fertilizer			
Nitrogen	60 lbs	80 lbs	100 lbs
Phosphate	40 lbs	40 lbs	40 lbs

*Only one application on oil-type sunflowers.

MF-996 Center Pivot Irrigated Popcorn

Item	Yield Levels		
	I	II	III
Yield	3,472 lbs	3,808 lbs	4,144 lbs
Seeds	33,000	33,000	36,000
Insecticide	\$21.24	\$21.24	\$21.24
Seed Treatment diazinon or diazinon-lindane seed treatment: \$0.75 to \$1.00 Corn Borer — Southwestern and European Corn Borer—one application is needed most years, but sometimes two applications are necessary. Range in price from: 0.025 lb a i/A Warrior @ \$357.20/gal = \$8.93 1 lb a i/A Furadan 4F @ \$72.90/gal = \$18.23 + Application Cost/A (aerial) = \$4.08 Spider Mites — Some type of spider mite treatment is generally needed in southwest Kansas. There are three options for controlling spider mites. Using Comite early to prevent late season mite problems, using a miticide such as Di-Syston alone or in a tank mix with a corn borer insecticide, or using Capture alone to control both mites and corn borers. Range in price from: 0.5 lb a i/A Di-Syston 8 @ \$76.80/gal = \$4.80 2.25 pts Comite II @ \$54.00/gal = \$15.19 + Application Cost/A (aerial) = \$4.08 0.08 lb a i/A Capture 2EC @ \$429.00/gal = \$17.16 + Application Cost/A (aerial) = \$4.08 Earworm — Not currently a major problem in southwest Kansas, but if infestation occurs may need to treat every 3 to 4 days for 2 to 3 weeks (4 to 7 treatments). 0.03 lb a i/A Asana 0.66 @ \$133.60/gal = \$6.07 + Application Cost/A (aerial) = \$4.08			
Herbicide	\$21.86	\$21.86	\$21.86
2 qts Bicep 6L (PRE) @ \$37.00/gal = \$18.50 + Application Cost/A = \$3.36 Followed by cultivation or 2 pts Buctril + Atrazine @ \$39.20/gal = \$9.80 + Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	165 lbs	170 lbs	180 lbs
Phosphate	40 lbs	40 lbs	40 lbs

MF-581 Flood Irrigated Corn Silage **MF-589 Center Pivot Irrigated Corn Silage**

Item	Yield Levels		
	I	II	III
Yield	22.3 tons	24.5 tons	26.6 tons
Seeds	28,000	32,000	36,000
Insecticide	\$29.35	\$29.35	\$29.35
Soil Insecticide — Generally recommended for control of rootworms in continuous corn. A seed treatment may be all that is necessary in first-year corn.			
Range in price from:			
6 ozs/1,000 ft (30" rows) Thimet 20G			
@ \$2.50/lb = \$16.34			
8 ozs/1,000 ft (30" rows) Counter 15G			
@ \$2.40/lb = \$20.91			
Seed Treatment			
diazinon or diazinon-lindane			
seed treatment: \$0.75 to \$1.00			
Corn Borer — Southwestern and European Corn Borer—one application is needed most years, but sometimes two applications are necessary.*			
Range in price from:			
0.025 lb a i/A Warrior @ \$357.20/gal = \$8.93			
1 lb a i/A Furadan 4F @ \$72.90/gal = \$18.23			
+ Application Cost/A (aerial) = \$4.08			
* Planting Bt corn eliminates the Warrior or Furadan treatment. Technology fee for Bt corn = \$0.32/1000 seeds which results in a cost of about \$9-\$12/acre.			
Spider Mites — Generally not considered as much of a problem on silage corn as on corn grown for grain.			
Can justify treatment in heavy mite years.			
Range in price from:			
0.5 lb a i/A Di-Syston 8 @ \$76.80/gal = \$4.80			
2.25 pts Comite II @ \$54.00/gal = \$15.19			
+ Application Cost/A (aerial) = \$4.08			
0.08 lb a i/A Capture 2EC			
@ \$429.00/gal = \$17.16			
+ Application Cost/A (aerial) = \$4.08			
Herbicide	\$21.86	\$21.86	\$21.86
2 qts Bicep 6L (PRE) @ \$37.00/gal = \$18.50			
+ Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	200 lbs	220 lbs	240 lbs
Phosphate	45 lbs	45 lbs	45 lbs

MF-998 Center Pivot Irrigated Forage Sorghum Silage

Item	Yield Levels		
	I	II	III
Yield	20.1 tons	22.1 tons	23.9 tons
Seed	15 lbs	17.5 lbs	17.5 lbs
Insecticide	\$10.48	\$10.48	\$10.48
Greenbug — Treatment needed about 50% of the time.			
0.5 lb a i/A Lorsban 4E			
@ \$51.20/gal = \$6.40			
+ Application Cost/A (aerial) = \$4.08			
Herbicide	\$21.86	\$21.86	\$21.86
2 qts Bicep 6L* (PRE)			
@ \$37.00/gal = \$18.50			
+ Application Cost/A = \$3.36			
Fertilizer			
Nitrogen	200 lbs	220 lbs	240 lbs
Phosphate	45 lbs	45 lbs	45 lbs

*Requires Concep treated seed.

MF-584 Center Pivot Irrigated Alfalfa

Item	Yield Levels		
	I	II	III
Yield	4.1 tons	4.6 tons	5.1 tons
Seed	15 lbs	15 lbs	15 lbs
Insecticide	\$12.47	\$12.47	\$12.47
Alfalfa Weevil — Some treatment is needed almost every year.			
0.25 lb a i/A Furadan 4F* @ \$72.90/gal = \$4.56			
0.5 lb a i/A Furadan 4F* @ \$72.90/gal = \$9.11			
1 lb a i/A Furadan 4F* @ \$72.90/gal = \$18.23			
+ Application Cost \$3.36 for ground			
or \$4.08 for aerial			
*Many chemicals are labeled and recommended for alfalfa weevil control. Furadan is used in this example because it covers the extremes in cost variation. Rates or chemicals selected will vary depending on the timing and/or severity of the weevil infestation.			
Herbicide	\$19.34	\$19.34	\$19.34
1 qt Velpar @ \$63.90/gal = \$15.98			
or 2 qts Treflan @ \$33.60/gal = \$16.80			
+ Application Cost/A = \$3.36			
Fertilizer			
Phosphate (Annually)	40 lbs	60 lbs	80 lbs

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