

Crop Budgeting Tool

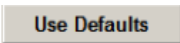
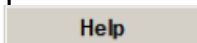
With this program, the user can budget per-acre returns from different crops. These estimates can be used to determine which crops to plant and how much to pay for cash rent.

Information needed to use this program can be found in:

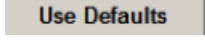

- Past and current financial records
- Crop budgets on the *farmdoc* website (www.farmdoc.uiuc.edu)

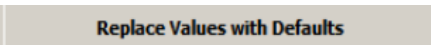
Navigating the Program

The program contains one worksheet where inputs are entered and calculations are made. Included at the top of this worksheet are

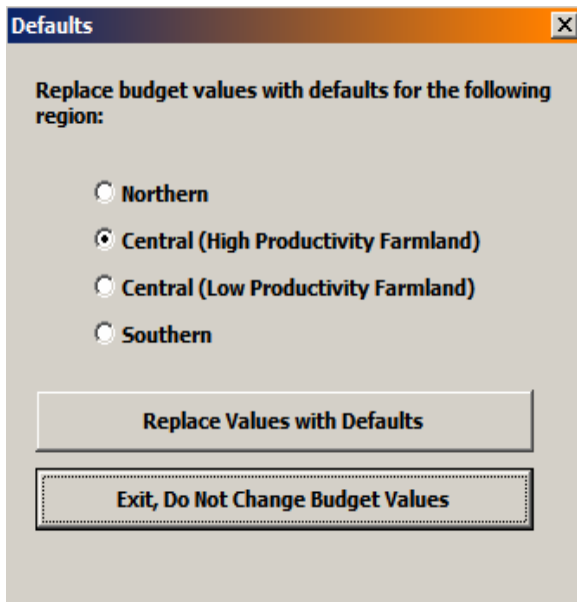
 and  buttons. These buttons are described below.

Defaults

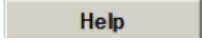
The user can replace per-acre returns and costs for the crops with defaults. These defaults were calculated using data from Illinois Farm Business Farm Management and from *University of Illinois Crop Budgets*. The user places the defaults in the budgets by clicking on . The screen shown below appears and the user can select to use default  for Northern Illinois, Central Illinois farmland with high-productivity farmland, Central Illinois farmland with low-productivity, or Southern Illinois. To use the defaults, click








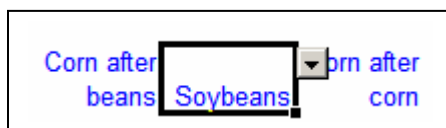
Help

By clicking , the user is provided a description of the program and source of the default data.

Understanding the Worksheet

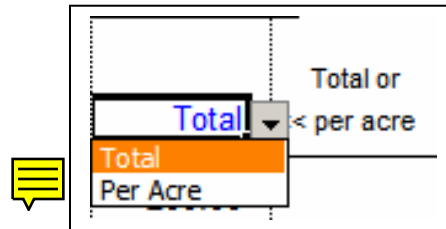
This worksheet has five columns. The first four are per-acre budgets and the final column gives a summary.

Per-Acre Budgets The user can enter per-acre yields, revenues and costs in the first four columns. At the top of each column, the “Type” of budget is entered. The “Type” chosen determines what defaults are entered into the budget column when the  button is clicked. Type may be changed by 1) clicking on the heading, as shown below on the left, and 2) using the drop-down box to select a new heading, as shown below on the right. For example, a user may choose from seven different types of cropping plans: corn after beans, corn after corn, soybeans, double-crop soybeans, wheat, oats and other.



Corn after beans		Wheat	Dbl. crop soybeans
100.00	Soybeans	0.00	0.00
163	Dbl. crop soybeans	75	20
\$2.20	Wheat	\$3.00	\$5.00
	Oats		
	Other		

Summary Column The user can choose to have the data in the summary column listed on either a "Total" or "Per-Acre" basis. As shown in the screen below, the user can use a drop-down box to toggle between the two headings.



The "Total" option provides total revenues and expenses for the parcel of land for each line item shown, i.e., seed expense. This is done by multiplying the revenue or expense for each crop by the number of acres in the crop, and then adding the revenue or expense categories across each crop.

The "Per-Acre" option shows average revenues and expenses for an acre of the parcel. This is calculated by multiplying each revenue and expense category in the per-acre budgets by the proportion of acres in the respective budgets and then summing the results of the multiplications.

Inputs

Inputs are listed in four sections: acres, yields and price; revenue; and expenses. Entries are made where blue figures are shown, while the black figures are calculated by the program. For example, total revenue is shown in black and is calculated by adding crop revenue and government payments.

Acres, Yields and Prices The *acres* entry represents the percentage of each crop that is grown and helps in estimating the total cost of each revenue and expense. The example shows a one-acre plot that has been planted half with corn and half with soybeans. This illustration assists in determining a per-acre budget for the user's operation.

Revenue The revenue section includes crop revenue and government payments. Crop revenue equals yield per acre multiplied by price per bu. It is added to the government payments entry to calculate "total revenue," or total amount of money the farming operation receives per acre. In the example, the total revenue for the entire operation is \$327 per acre.

		Crop Budgeting Tool (version 1.0)				Use Defaults	
						Help	
Type:	Corn after beans	Soybeans	Wheat	Dbl. crop soybeans	Total	Total or << per acre	
Acres	0.50	0.50	0.00	0.00	1.00		
Yield per acre	163	50	75	20			
Price per bu	\$2.20	\$5.00	\$3.00	\$5.00			
Revenue	----- \$ per acre -----					\$/farm	
Crop revenue	\$359	\$250	\$225	\$100	\$304		
Government payments	23	23	23	0	\$23		
Total revenue	\$382	\$273	\$248	\$100	\$327		
Expenses	----- \$ per acre -----					\$/farm	
Fertilizer	\$54	\$19	\$25	\$3	\$37		
Pesticides	33	30	10	16	32		
Seed	34	21	17	15	28		
Drying	10	0	0	0	5		
Storage	7	3	5	2	5		
Crop insurance	8	5	3	2	7		
	0	0	0	0	0		
Total direct expense	\$146	\$78	\$60	\$38	\$112		
Machine hire/lease	\$7	\$4	\$3	\$9	\$6		
Utilities	4	4	4	2	4		
Machine repair	14	13	7	7	14		
Fuel and oil	9	8	5	5	9		
Light vehicle	1	1	1	1	1		
Mach. depreciation	30	25	14	16	28		
	0	0	0	0	0		
Total power expense	\$65	\$55	\$34	\$40	\$60		
Hired labor	\$8	\$8	\$7	\$8	\$8		
Building repair and rent	3	3	3	0	3		
Building depreciation	5	5	3	0	5		
Insurance	5	5	5	0	5		
Misc.	4	4	4	2	4		
Interest	5	5	3	3	5		
	0	0	0	0	0		
Total overhead	\$30	\$30	\$25	\$13	\$30		
Total expenses	\$241	\$163	\$119	\$91	\$202		
Revenue less expenses	\$141	\$110	\$129	\$9	\$125		
Operator's return	30	30	30	30	30		
Total expense	\$271	\$193	\$149	\$121	\$232		
Rev. less expenses ¹	\$111	\$80	\$99	-\$21	\$95		

¹ Revenue available to cover cash rent

Expenses This section of the worksheet consists of three groups: direct expenses, power expenses, and overhead expenses. For each group, a total group expense is calculated. All expenses are entered on a *per-acre* basis.

Direct Expenses

The direct expenses represent crop inputs, drying, storage, and crop insurance.

Expenses	----- \$ per acre -----				\$/farm
Fertilizer	\$54	\$19	\$25	\$3	\$37
Pesticides	33	30	10	16	32
Seed	34	21	17	15	28
Drying	10	0	0	0	5
Storage	7	3	5	2	5
Crop insurance	8	5	3	2	7
	0	0	0	0	0
Total direct expense	\$146	\$78	\$60	\$38	\$112

Power Expenses

The power expenses represent costs attributable to machinery operation and machinery depreciation.

Machine hire/lease	\$7	\$4	\$3	\$9	\$6
Utilities	4	4	4	2	4
Machine repair	14	13	7	7	14
Fuel and oil	9	8	5	5	9
Light vehicle	1	1	1	1	1
Mach. depreciation	30	25	14	16	28
	0	0	0	0	0
Total power expense	\$65	\$55	\$34	\$40	\$60

Overhead Expenses

The overhead expenses represent costs that are independent of the growing crop. For example, property and liability insurances are yearly necessities, or overhead expenses, while crop insurance is purchased for the growing crop, thus crop insurance is a direct expense.

Hired labor	\$8	\$8	\$7	\$8	\$8
Building repair and rent	3	3	3	0	3
Building depreciation	5	5	3	0	5
Insurance	5	5	5	0	5
Misc.	4	4	4	2	4
Interest	5	5	3	3	5
	0	0	0	0	0
Total overhead	\$30	\$30	\$25	\$13	\$30

Total Expenses, Operator’s Return, Cash-Rent Affordability

Total Expenses Represent the sum of all expenses.

Revenue Less Expenses Represents the Total Revenue minus Total Expenses. It is also the cash available for paying cash rent before for the operator’s return as entered by the user.

Operator’s Return Represents the amount the farmer wishes to receive for farming the parcel of farmland. This amount needs to cover the farmer's unpaid labor, management, and equity investment.

Total Expense and Return Represents the sum of “Total Expenses” plus “Operator’s Return.” For example, the total expense for the entire farm, shown below, is \$202 per acre. With an additional \$30 per acre needed for “Operator’s Return,” the “Total Expense and Return” for the entire farm is \$232 per acre.

Total expenses	\$241	\$163	\$249	\$119	\$202
Revenue less expenses	\$141	\$110	\$115	\$99	\$125
Operator’s return	30	30	30	30	30
Total expense and ret.	\$271	\$193	\$279	\$149	\$232
Rev. less expenses ¹	\$111	\$80	\$85	\$69	\$95

¹ Revenue available to cover cash rent

Rev. Less Expenses Represents the cash available for a cash-rent arrangement after accounting for all revenue and expenses. The amount of cash rent an operator can afford to pay is the difference between “Revenue and Expenses” and the “Operator’s Return.” For example, the “Revenue Less Expenses” for the entire farm is \$125 per acre. After accounting for the \$30 per acre for “Operator’s Return,” the available cash remaining is \$95 per acre.