Cooperative Extension Service

User's Guide for Interactive Cow/Calf Budget in Excel

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General Information

Interactive budgets enable users to change data related to specific operations and obtain revenue and costs results that are calculated within a spreadsheet. The worksheet Print is for printing the completed cow/calf budget.

Cow/Calf Budget

The Cow/Calf Budget calculates expenses and revenue on a per brood cow basis and expands the result to total farm expenses and revenue based on the number of breeding cows in the herd. Throughout the interactive program, cells with white color are available for users to enter revised data for a particular operation. Cells with a color other than white contain formulas that determine calculations of costs and returns and should not be changed by users.

The Budget worksheet contains basic information for the operation. Cells B2 through B11 are for data entries that depict basic characteristics of the operation. Cells C13 through D15 are for entries of cull cows, heifers, and steers sold during the year. Weights and prices are entered in lbs.

Other worksheets to the right of the Budget worksheet contain data for production items. Entries in these six worksheets are transferred to the relevant orange colored cell in the Budget worksheet.

Cells C18 and C19 in the Budget worksheet are for acres of pasture and hay per cow. Entries in these cells can be determined by dividing the total pasture (hay) acreage by the total number of brood cows in the herd. Cells C20 and D20 are for tonnage and price of purchased hay per brood cow. This amount can be determined by dividing the total annual tonnage of hay purchased by the number of brood cows in the herd.

Cells C25 and D25 are for salt and minerals purchased per brood cow. Other expenses per brood cow in cell D30 can be calculated by dividing the total annual value of other expenses by the number of brood cows in the herd.

Labor per brood cow in cell C31 can be calculated by dividing the total annual hours for paid labor by the number of brood cows. Cell D31 is for the hourly wage rate.

Cell D33 is the annual interest rate for operating expenses and cell B33 is the number of months the loan is outstanding.

Cell C35 is for rented acreage per brood cow and is the total number of rented acres divided by the number of brood cows. Cell D35 is the per acre rental rate.

Cell D42 is the price paid for replacement heifers purchased during the year, but do not have a calf during the year. The number of these heifers is entered in cell B11.

Itemized Expenses

Data entered as itemized expenses are transferred as calculations in the Budget worksheet.

Worksheets for supplemental feed (Feed) and veterinary expenses (Vet) are for itemized expenses. Separate categories are available for cows, retained replacement heifers, purchased replacement heifers, bulls, and calves.

Itemized expenses for pasture and hay are entered in the Grass worksheet on a per acre basis.

Detailed auction and hauling costs are entered in the Auction worksheet. Entries in this worksheet are for all head sold, and data are converted to a per brood cow basis in cell C34 of the Budget worksheet.

Capital expenses are entered on a per unit basis in the Buildings_Equipment worksheet.

Cows purchased in the Purchased_Stock worksheet are for currently breeding cows that were brought to the farm as purchased replacement heifers. Cell B4 is the percentage of current cows that were purchased in a year before the current year represented by the budget. Entries in line 4 of the Purchased_Stock worksheet allocate capital expenses in the current year for heifers purchased in prior years.

In the Purchased_Stock worksheet, purchased heifers entered in cell B11 of the Budget worksheet are heifers purchased in the current year, but do not have a calf in the current year. Purchased heifers entered in Budget worksheet cell B11 are automatically transferred to line 5 of the Purchased_Stock worksheet.

Hay Practice

The example described above is a budget for producing hay. Application of the budget calculator program for purchasing hay is similar to producing hay. Change 0.75 hay acres to 0 in cell C19. Change purchased hay per cow to 2.25 in cell C20 (2.25 * 40 = 90 tons of hay that is purchased). Instead of producing 90 tons, we are purchasing 90 tons at the price/ton in cell D20. Go to Buildings Equipment Worksheet. Hay production equipment is not needed. Retain the hay barn in cell C7 for storing purchased hay. Retain the tractor in cell C25 to move purchased hay bales

and the brush mower in cell C31 to clean up. Change the disk mower in cell C27 to 0, the hay baler in cell C28 to 0, and the hay rake in cell C29 to 0.

Example for Changing Herd Size and Characteristics

In the Budget worksheet, change cow herd size in cell B2 to 79. Resulting total calves in cell C9 is 67.15. All cattle and calve numbers must be whole numbers. As an example alternative, enter =67/79 in cell B5. The resulting calving rate represents 67 total calves in cell C9.

Heifers in cell C6 and steers in cell F6 are not whole numbers. As an alternative example, enter =33/67 in cell B6. Heifers in cell C6 is 33 and steers in cell F6 is 34. Heifers sold in cell F7 is not a whole number. As an alternative example, enter 1 in cell B4. This represents an assumption of one cow death loss. Heifers sold in cell F7 is not a whole number. Enter =8/79 in cell B9. Culling 8 cows from the total herd of 79 cows represents a culling rate of 10.13% in cell B9.

Cows/Bull is in cell F2. As an alternative example, enter 3 in cell B3. The resulting 26.33 in cell F2 is not a whole number which indicates that at least one bull will be associated with more cows than other bulls. Net returns are calculated in cell F46.

Alternative assumptions of calf death loss are entered in cells B7 and B8. Enter a formula in cell B7 with number for heifer loss divided by heifers in cell C6 (Example: =1/33 entered in cell B7). Enter a formula in cell B8 with the number for steer loss divided by steers in cell F6 (Example: =1/34 entered in cell B8).

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