

Using the Spreadsheet Budgets

The Texas A&M AgriLife Extension Service spreadsheet crop and livestock budgets are intended for those agricultural producers who wish to customize these budgets for their own operations. The example numbers listed in these budgets are for illustrative purposes only and should not be used in a producer's budget without adjustment. Any trade names used in any of these budgets are also for illustrative purposes only and in no way imply endorsement of any particular product.

Extension budgets are organized by Extension District. To determine your Extension District, use the map located at <http://agecoext.tamu.edu/resources/crop-livestock-budgets/build-your-own-budgets/>. There are also links on this page to the spreadsheet budgets for each Extension District. When you open one of the Extension District budget workbooks, you may want to save it to a special folder on your computer. The first page that appears when downloaded is the Menu page. This page lists all the budgets in the workbook. All District workbooks have some crop budgets. Most, but not all, District workbooks have some livestock budgets. There two types of livestock budgets, breeding female and growing animal. If the budget workbook for your Extension District does not have the budget you are looking for, then check the budget workbooks for the Districts adjoining your District and use the workbook that has the desired budget. There are also a generic crop and a generic livestock budgets. These are blank forms without any example numbers. They do not calculate breakeven prices, sensitivity tables, or enterprise totals. These budget forms can be used for any budgets that do not fit the form of an existing budget in the workbook.

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Standard Budget Features

Entry Cells – All entry cells are highlighted in maroon. These cells are where you enter your information. The Units column has the default unit for the Extension budget as an example. You can change these units by typing over them. When you change them, be sure that the quantity and price you enter are consistent with the unit you entered. For the Revenue, Variable Costs, and Fixed Cost sections, there are blank entry cells in column B for other items that you may wish to add to the budget. For livestock budgets there are entry cells in the Sensitivity Table section to gather information needed to calculate the results in the table.

Print Button – In the top right corner of each budget page is a Print Button. Clicking this button will print this budget page on the default printer you have set up for your computer. When the budget is printed, only your information will be included omitting the Extension example information.

Copy Button – Also in the top right corner of each budget page is a Copy Button. This button is for making a duplicate copy of this budget page. When you click this button you will be asked to enter a new name for this duplicate budget. The new budget name will be added to the Menu page and the Your Returns page. Then you will be asked for a short name for the page tab at the bottom of the screen. For example, if you wanted a barley budget in addition to the wheat budget you just finished working with and there is no barley budget in the workbook, you can easily create one. Copy the wheat budget and name it barley. Then adjust the appropriate information in your new barley budget. The Copy Button can be used to create multiple budgets for the same crop if inputs or costs vary from field to field or area to area. The Copy Button is used the same way for livestock budgets. If cow herds have different costs, as many budgets as necessary can be created. Multiple growing animal (stocker) budgets can be developed for different production systems, such as steers versus heifers, or, light calves versus heavier calves.

Breakeven Prices – Breakeven prices to cover both variable and total costs are calculated and displayed at the bottom of the variable and fixed cost sections. These breakeven prices are for those costs listed in the budget. There may be other costs not listed that are relevant to your operation or that you may be interested in. These non-listed costs should be included in you budget entries.

Breakeven Price Table – For crop budgets, breakeven price tables are calculated from the user information entered. Breakeven prices are calculated for five yield levels; the yield level entered by the user, two yield levels below the budget yield, and two yield levels above the budget yield.

Sensitivity Table, Breeding Female Budget – For breeding female budgets, sensitivity tables are calculated from the user information entered. Breakeven calf (lamb or kid) pay weights to cover total costs and breakeven prices to cover total costs are calculated for various weaning percentages. Weaning percentage is the number of calves sold plus any calves held for herd replacement divided by the total number of breeding females in the herd. The user should enter the herd weaning percentage

in the highlighted cell in the left part of the table. The breakeven price to cover total costs is an average calf prices given the number of steers and heifers sold.

Sensitivity Table, Growing Animal (Stocker) Budget – For stocker budgets, sensitivity tables are calculated from the user information entered. There are three entry cells above this table. The expected average daily gain, the grazing days, and the expected sale shrink should be entered in the highlighted cells. Breakeven purchase and sale prices to cover total costs are calculated for various average daily gains.

Comparative Analysis

Your Returns – The Your Returns tab contains a summary table for all budgets in the workbook and any new budgets created by using the Copy button. The table contains the quantity of the budgets (acres, AU's, head), total and variable returns above specified expenses, total and variable direct expenses, and the revenue prices and units for each budget. Additionally, the table calculates the breakeven yields to cover both total and variable expenses.

Crop Budgets

Enter your name for this crop enterprise in A3. Your name will replace the name of this budget on the Menu and Your Returns pages. Enter the acres of this crop enterprise in E7. This acreage should include all acres on which you will raise this crop using the production system that you describe with the outputs and inputs you enter below. If you use different production systems to grow the same crop, use a separate budget for each production system. When naming budgets and budget page tabs for different production systems, indicate the production system in these names.

Revenue Section – Enter your projected yield in the column E and your expected price in column H. You can change the default units in column F by typing over the default. If you change units, be careful and check that your quantity and price are in these units. If your crop has secondary or additional products not listed, enter them and their information in the blank rows provided.

Variable Costs Section – Enter your expected input use in column E and its associated price or cost in column H. You can change the default units in column F by typing over it. If you change units, check to be sure the quantity and price are of this new unit. If an input is not used, leave it blank. For inputs not listed, enter them and their information on the three blank lines in the middle of the section or the two blank lines at the bottom of the section above interest on credit line.

Labor, fuel, and repair costs may be challenging to determine. One way to estimate this information and depreciation and investment cost for the Fixed Costs Section is to use the Machinery Cost Estimator, <https://agecoext.tamu.edu/resources/decisionaids/>. The user enters information about his equipment,

equipment operation, and crop acres and the Estimator calculates labor, fuel, repair, depreciation, and investment costs. This information can then be entered in the budget.

On the interest on credit line row in column H, enter the interest rate for borrowing operating funds to produce the crop. The spreadsheet uses the half-year convention. The input costs listed above the interest on credit line row are totaled and assume to be borrowed for six months at the interest rate entered in column H.

Fixed Costs Section -- Enter your expected fixed costs in column E and H. You can change the default units in column F by typing over it. If you change units, check to be sure the quantity and price are of this new unit. If an input is not used, leave it blank. For inputs not listed, enter them and their information on the two blank lines at the bottom of the section.

Breeding Female Budgets

Enter your name for this enterprise in A3. Your name will replace the name of this budget on the Menu and Your Returns pages. Enter the number of animal units and breeding females for this enterprise in E7 and E8. These numbers will be the same for cows and different for sheep, goats and other species. The number of head should include all breeding females which you will manage using the production system that you describe with the outputs and inputs you enter below. If you use different production systems for other groups of breeding females, use a separate budget for each production system. When naming budgets and budget page tabs for different production systems, indicate the production system in these names.

Revenue Section – Enter the expected percentage (sold animals divided by total animal units) of each type of animal sold expressed as a decimal in the column E. Enter your expected sale weight in column G and your expected price in column J. You can change the default units in column H by typing over the default. If you change units, be careful and check that your quantity and price are in these units. If your enterprise has secondary or additional products not listed, enter them and their information in the blank rows provided.

Variable Costs Section – Enter your expected input use in column G and its associated price or cost in column J. You can change the default units in column H by typing over it. If you change units, check to be sure the quantity and price are of this new unit. If an input is not used, leave it blank. For inputs not listed, enter them and their information on the blank lines in the Miscellaneous, Feed, or Vet. Medicine sections, or, the three blank lines at the bottom of the section above interest on credit line.

Labor, fuel, and repair costs may be challenging to determine. One way to estimate this information is to take last year's tax return information divide it or part of it by the number of AU's. If you know that a particular cost will be higher or lower for the coming year, you can adjust the cost as appropriate.

On the interest on credit line row in column J, enter the interest rate for borrowing operating funds for this enterprise. The spreadsheet uses the half-year convention. The input costs listed above the

interest on credit line row are totaled and assume to be borrowed for six months at the interest rate entered in column J.

Fixed Costs Section -- Enter your expected fixed costs in column G and J. You can change the default units in column H by typing over it. If you change units, check to be sure the quantity and price are of this new unit. If an input is not used, leave it blank. For inputs not listed, enter them and their information on the two blank lines at the bottom of the section.

Growing Animal (Stocker) Budgets

This budget can be used for both grazing animals and feeding animals in a lot. Enter your name for this enterprise in A3. Your name will replace the name of this budget on the Menu and Your Returns pages. Enter the number of animals for this enterprise in E7. The number of head should include all animals that you will manage using the production system that you describe with the outputs and inputs you enter below. If you use different production systems for other groups of animals, use a separate budget for each production system. When naming budgets and budget page tabs for different production systems, indicate the production system in these names.

Revenue Section – Enter the expected percentage (sold animals divided by animals purchased or held for grazing, that is, adjust for death loss) expressed as a decimal in the column E. Enter your expected sale weight in column G and your expected price in column J. You can change the default units in column H by typing over the default. If you change units, be careful and check that your quantity and price are in these units. If your enterprise has secondary or additional products not listed, enter them and their information in the blank rows provided.

Variable Costs Section – Enter your expected input use in column G and its associated price or cost in column J. You can change the default units in column H by typing over it. If you change units, check to be sure the quantity and price are of this new unit. If an input is not used, leave it blank. For inputs not listed, enter them and their information on the blank lines in the Health, Feed, or Miscellaneous sections or the two blank lines at the bottom of the section above interest on credit line.

Labor, fuel, and repair costs may be challenging to determine. One way to estimate this information is to take last year's tax return information divide it or part of it by the number of head. If you know that a particular cost will be higher or lower for the coming year, you can adjust the cost as appropriate.

On the interest on credit line row in column J, enter the interest rate for borrowing operating funds for this enterprise. The spreadsheet uses the half-year convention. The input costs listed above the interest on credit line row are totaled and assume to be borrowed for six months at the interest rate entered in column J.

Fixed Costs Section -- Enter your expected fixed costs in column G and J. You can change the default units in column H by typing over it. If you change units, check to be sure the quantity and price

are of this new unit. If an input is not used, leave it blank. For inputs not listed, enter them and their information on the two blank lines at the bottom of the section.

Other Budgets

There are two other budgets. These budget forms with yellow tabs are for developing a budget for a crop or livestock enterprise that use of one of the budgets discussed above is not appropriate. There is no example information in these budgets to use as a guide. These budgets are simply forms to enter information with built-in calculations. When one of these budget forms is clicked on, a box appears asking if the user wants to use the form to make an enterprise budget or is the users just looking to see what is in the tab or accidentally clicked the tab. If the user selects "Yes" indicating the user is creating a budget, the user is ask for the new budget name and then for the new budget tab name. If the user selects "No", the user can then explore the page and move on to other parts of the workbook. If the user decides to use this form to create a budget, they should click on another tab and then back on this tab so that they can answer "Yes" to the question and go through the naming process. The Print and Copy buttons in the top right corner of the page work as described above. The Print button will only print rows with values.

Crop Budget -- This budget form is for a crop or plant-based enterprise. Cell A3 is for the enterprise name. Cell D5 is for the acreage used. For enterprises using less than an acre, acreage can be entered as fraction of an acre, .XX. Also, acreage can be entered as an equation. For example, 3-100 foot rows three feet wide could be entered as $=3*100*3/43560$ (43560 square feet per acre), or about .02 acres.

Revenue -- Put the primary, main, or major product for this enterprise on the first line of this section. Breakeven prices will be calculated relative to this product. For each product enter its name, the quantity produced, the units that measure production of the product, and the expected price per unit to be receive for the product. One use of secondary product rows is to use them for higher or lower quality portions of the primary product that receive a different price.

Variable Costs -- This section has different areas to organize and enter information. If there are not enough rows in an area, enter the information in another area that is not used. For each expense enter its name, the quantity used, the units that measure the expense, and the expected price per unit to be paid for this expense. Variable costs are those costs that would not be incurred if the crop was not grown. As an example, if the crop is not grown there is no seed or fertilizer cost. Variable costs are typically cash costs. If uncertain about whether an expense is a variable cost or not, review the Fixed Cost section to see if the cost would more appropriately fit in that section.

Custom Field and Harvest Operations area is for any field or harvest operations contracted to be performed by someone else.

Machinery Expenses area is for the machinery expenses, other than custom operations, that are necessary for this enterprise. Typical items may be diesel, gasoline, lubrication, maintenance, and

repairs. One tool for calculating these equipment expenses is the Machinery Cost Estimator, <https://agecoext.tamu.edu/resources/decisionaids/>.

Labor area is for the various labor expenses. Different types of labor may be tractor, hand, irrigation, or other labor. Labor may need to be separated by the different wage rates paid. Units can be changed to day or piece and the appropriate price entered if necessary.

Seed or Transplant area is for seed or transplant cost, seed treatment, seed fees, mulch and any other planting expense items.

Fertilizer and Lime area is for fertilizer, lime and any other soil amendments.

Herbicides area is for any herbicides used.

Insecticides area is for any insecticides used.

Fungicides area is for any fungicides used.

Growth Regulators area is for any growth regulators used.

Other Chemicals area is for any other chemicals used, such as, perhaps, a fumigant or rodent control.

Irrigation area is for irrigation expenses such as well and pump expenses, pump energy costs, maintenance and repairs of well, pump, and irrigation equipment, drip tape or other water distribution items, water purchase costs and any other irrigation cost items.

Miscellaneous Expenses area is for all other variable expense items not listed in the areas discussed above. Crop insurance expenses could be entered in this area.

Operation Interest rate is entered in Cell E116. Operating interest expense will be estimated by the half year convention discussed above.

Fixed Costs -- For each expense enter its name (if not provided), the quantity used, the units that measure the expense, and the expected price per unit to be paid for this expense. Fixed costs are those costs that will be incurred whether or not the crop is grown. As an example if a field is rented, the rent must be paid even if no crop is ever planted. Fixed costs can be cash or non-cash costs. If uncertain about whether an expense is a fixed cost or not, review the Variable Cost section to see if the cost would more appropriately fit in that section.

Land Rent or Expense can be a lease payment or a return to land. If the land is owned by the operator, the operator, being the land owner, may want a return for the land resource. A land owner would likely want to receive a return from the land at a lease rate that the land owner could receive by leasing the land to someone else.

Depreciation – Equipment is an expense that reflects the using up of equipment used in the enterprise. Ideally, for each piece of equipment used in the enterprise, the estimated salvage value of the equipment at the end of its useful life would be subtracted from the purchase price including any trade-

in-value of the equipment. This net value would then be divided by the years of useful life. This annual depreciation would then be adjusted for this enterprise by, typically, either, acres used for various enterprises, or, hours of use of the equipment in the enterprise compared to total annual hours of use of the equipment. One tool for calculating depreciation expense is the Machinery Cost Estimator, <https://agecoext.tamu.edu/resources/decisionaids/>. Depreciation is a non-cash expense.

Equipment Investment is a non-cash cost. The equipment owner (the operator) may want a return for owning the equipment resource, at least the return from investing the same amount of capital in another investment. One tool for calculating equipment investment expense is the Machinery Cost Estimator, <https://agecoext.tamu.edu/resources/decisionaids/>.

Insurance is a cash cost. The share of whole farm insurance should be entered. The share could be determined by the acres in various enterprises or other appropriate methods. Crop insurance should be entered in the Miscellaneous Expenses area of the Variable Costs section discussed above.

Management Fee is an expense for the management of the farming operation. This expense may be the cash cost of a salaried (full compensation) farm manager. On the other hand, a farm operator may want a return for his efforts to perform the management function for the operation.

Owner/Operator Labor is an expense to value the unpaid labor of the owner/operator or other family members and any other unpaid labor.

Salaried Labor is a cash cost. The share of salaried labor for this enterprise could be determined by the acres in various enterprises or other appropriate methods.

There are five open lines for entering other fixed cost that may be appropriate. Other item may be real estate taxes, personal property taxes, or, other farm overhead expenses.

Livestock Budget -- This budget form is for animal-based enterprise. Cell A3 is for the enterprise name. Cell D5 is for the number of animals or, if appropriate, number of groups of animals.

Revenue -- If the enterprise is a breeding activity, detail males and females produced and any cull breeding animals sold in Rows 9-12. If the enterprise is an animal growing activity, detail the animal sold on Row 13. Entering information in this manner will allow breakeven prices to be calculated correctly. For each product enter its name, the quantity produced, the units that measure production of the product, and the expected price per unit to be receive for the product. Three other or secondary product rows are provided.

Variable Costs -- This section has different areas to organize and enter information. If there are not enough rows in an area, enter the information in another area that is not used. For each expense enter its name, the quantity used, the units that measure the expense, and the expected price per unit to be paid for this expense. Variable costs are those costs that would not be incurred if the animal or animals were not owned. As an example if an animal is not owned there would be no feed or health costs. Variable costs are typically cash costs. If uncertain about whether an expense is a variable cost or not, review the Fixed Cost section to see if the cost would more appropriately fit in that section.

Animal Purchase Price, if applicable area is for purchase price of an animal grown to be sold later. If the animal was produced by a breeding enterprise within the livestock operation, the cost of producing the animal or the price it could have been sold for can be entered in this row.

Pasture area is for listing the pasture of types of pastures used in the enterprise. For leased pasture, enter the rent rate. For owned pasture, enter the per acre cost of pasture maintaining the pasture (the Crop Budget can be used to detail and determine this pasture cost) or the rental rate for which the pasture could be rented to someone else. For a gain contract or other grazing arrangement, change the units and enter the appropriate information.

Feed area is for listing feed items used in the enterprise. Three items are prelisted, Hay, Supplement (feed), and Salt Minerals. If any of the feed items are raised on the farm or ranch, the cost to produce the feed item or the price for which it could have been sold can be entered.

Health area is for listing health and breeding items used in the enterprise.

Fuel, lube, repair entry cell (F50) is for the machinery expenses that are necessary for this enterprise. Typical items may be diesel, gasoline, lubrication, maintenance, and repairs. Summing this information from the last tax return and dividing this sum by the number of animals may be a way to estimate this information.

Labor row is for the labor expenses. Different types of labor expense can be totaled and the total divided by the number of animals to estimate this cost. Units can be changed to day or piece and the appropriate price entered if necessary.

Six rows are provided for all other variable expense items not listed in the areas discussed above.

Operation Interest rate is entered in Cell F61. Operating interest expense will be estimated by the half year convention discussed above.

Fixed Costs -- For each expense enter its name (if not provided), the quantity used, the units that measure the expense, and the expected price per unit to be paid for this expense. Fixed costs are those costs that will be incurred whether or not an animal is owned. As an example if breeding stock is owned, their value depreciates regardless of whether or not they produce offspring. Fixed costs can be cash or non-cash costs. If uncertain about whether an expense is a fixed cost or not, review the Variable Cost section to see if the cost would more appropriately fit in that section.

Depreciation – Equipment is an expense that reflects the using up of equipment used in the enterprise. Ideally, for each piece of equipment used in the enterprise, the estimated salvage value of the equipment at the end of its useful life would be subtracted from the purchase price including any trade-in value of the equipment. This net value would then be divided by the years of useful life. This annual depreciation would then be adjusted for this enterprise by ,typically, either, number of animals, acres used for various enterprises, or, hours of use of the equipment in the enterprise compared to total annual hours of use of the equipment. Depreciation is a non-cash expense.

Depreciation – Livestock is an expense that reflects the using up of a breeding animal in the enterprise. Ideally, for each breeding animal used in the enterprise, the estimated salvage value of the breeding animal at the end of its useful life would be subtracted from the purchase price. This net value would then be divided by the years of useful life. This annual depreciation would then be adjusted for this enterprise by, typically, the number of breeding females. Depreciation is a non-cash expense.

Equipment Investment is a non-cash cost. The equipment owner (the operator) may want a return to owning the equipment resource, at least the return from investing the same amount of capital in another investment.

Insurance is a cash cost. The share of whole farm insurance should be entered. The share could be determined by the number of animals or acres in various enterprises or other appropriate methods.

Management Fee is an expense for the management of the farming operation. This expense may be the cash cost of a salaried (full compensation) farm manager. On the other hand, a farm operator may want a return for his efforts to perform the management function for the operation.

Owner/Operator Labor is an expense to value the unpaid labor of the owner/operator or other family members and any other unpaid labor.

Salaried Labor is a cash cost. The share of salaried labor for this enterprise could be determined by the number of animals or acres in various enterprises or other appropriate methods.

There are five open lines for entering other fixed cost that may be appropriate. Other item may be real estate taxes, personal property taxes, or, other farm overhead expenses.

Sensitivity Analysis Tables -- The first table is for breeding female budgets. The expected weaning percent should be entered in Cell B97. Weaning percent is, for this table, offspring sold plus offspring held for breeding animal replacements divided the number of breeding females.

The second table is for growing animal enterprises. In Cell E106 enter the expected average daily gain. In Cell E107 enter the expected number of days that the animal will be fed and/or pastured. In Cell E108 enter a sales shrink percent if applicable.