**Enterprise Budgets for Livestock Operations**

**What is an enterprise budget?**

Enterprise budgets calculate the profitability of an enterprise based on projected costs and incomes.

**Why calculate enterprise budgets?**

For a new enterprise, an enterprise budget consolidates projected data available on revenues and expenses and allows farmers to calculate anticipated profit or loss, break-even price, and return to labor and management.

For existing enterprises, enterprise budgets allow farmers to substantiate their profit and loss projections. Enterprise budgets can also calculate financial impacts of proposed changes or additions to a business. For instance, a dairy farmer could compare the economics of his current system to scenarios where he purchased a different feed, switched to pasturing his cattle, or started milking three times daily.

**What information is needed for an enterprise budget?**

Whether the goal is to add an entirely new enterprise or to change an aspect of an existing enterprise, relevant costs, prices, labor needs, yields, and other information must be available. If starting something new, the best information comes from local yield, gain, and price reports, and the experiences of the manager and others who have similar systems. When changing the current system, much of the data may already be available in terms of labor required, costs, expected production and yields, and possible risks or issues.

**How do I make a budget?**

Revenue

Generally, receipts come first in a budget: how much money will flow into the operation?

For instance, consider a farm that wants to start grazing stocker steers on some underused fields.

* Value of animals sold – determined by the number of animals, size of animals, and selling price per pound.

A dairy considering the switch to grass might ask some different questions.

* Value of milk sold – determined by the number of animals, milk yield per animal, and milk price
* Value of animals sold – including cull cows, heifers, and bull calves; determined by the number of animals, size of animals, and selling price per pound

In the case of the dairy, where an existing system is being changed, the manager must consider both the old and new systems. Pasture-fed dairy cattle often produce less milk than those fed concentrates, but if the appropriate marketing is done, the sale price may be greater than for conventional milk.

Expenses

The costs, both variable and fixed, must then be calculated. Variable costs change with the production level. Feed costs are variable costs: as the herd size changes, the total feed cost changes as well. Fixed costs are those that are present regardless of the herd size. Depreciation, maintenance and bills for the farm, and most labor expenses are considered fixed costs.

Some of the variable costs for the stocker steer enterprise are below.

* Purchase price of the steers
* Veterinary treatments and health costs
* Value of the pasture used, either in terms of hay equivalent (i.e. the value of hay sold if those fields were harvested) or pasture rent value
* Supplements or minerals
* Time and money spent on marketing or animal transport

Fixed costs are those required to keep up the basics of the farm, irrespective of the cattle.

* Maintenance of fencing, buildings, or other infrastructure
* Depreciation
* Electricity, internet, and phone service
* Labor costs

The basic expenses of the grass-based dairy are similar.

* Value of the pasture used
* Feed, supplements, and minerals; for both the cows and their calves, replacement heifers, etc
* Veterinary treatments, breeding expenses, and other health costs

Fixed costs

* Maintenance of fencing, buildings, milking equipment, and other infrastructure
* Depreciation
* Electricity, internet, and phone service
* Labor costs

It is possible for some of the fixed or variable costs to change between the current and proposed enterprises. For instance, pastured cows may require more frequent deworming treatments, but may also require less frequent hoof trimmings. These should be reflected in the budget. In addition, there are many spreadsheets and worksheets available to aid in calculation of depreciation and expenses that may be shared among multiple enterprises on the farm.

Bottom Line

The final step is to determine whether the enterprise generates a profit or loss for the farm. While individual costs and receipts may have been calculated on a per-animal or per-acre basis, now the total receipts and costs should be determined. There are multiple ways to calculate and represent the bottom line.

* Return above total costs: total receipts – total expenses (fixed and variable). This is the simplest and most basic calculation of profit, based purely on whether revenue exceeds expenses.
* Return above variable costs: total receipts – variable costs. This allows the manager to determine potential revenue from the new enterprise or new management system, ignoring the expenses that will always be present (the fixed costs).
* Return to labor and management: total receipts – (total fixed and variable expenses – operator labor and management). This allows the manager to determine the profit generated from his own inputs of labor and management.

Other important and relevant calculations include break-even prices, either for the purchase or selling price of an input. These values tell the manager what is the most he can pay for stocker steers (given a known final selling price) to not lose money, or the lowest price he can accept when selling the finished steers (given a known initial price). For the dairy example, given a set yield level, it would tell the farmer the minimum milk price so that he does not lose money.

* To determine break-even purchase price ($/lb): (receipts – expenses) / weight of purchased steers
* To determine break-even selling price ($/lb): expenses / weight of sold steers
  + Break-even selling price for milk ($/cwt): expenses / cwt of milk produced

**Resources: Sample Enterprise Budgets and Worksheets**

* Practical Farmers of Iowa: Livestock enterprise budget, Excel version (see Enterprise Budget Spreadsheet)
* Iowa State University Extension: Shane Ellis, John D. Lawrence, William Edwards, Ann M. Johans. Livestock enterprise budgets for Iowa - 2012.

<http://www.extension.iastate.edu/agdm/livestock/html/b1-21.html>

* + Covers beef, dairy, pork, sheep.
  + PDF document with sample budgets and details on different species:

<http://www.extension.iastate.edu/agdm/livestock/pdf/b1-21.pdf>

* + Livestock planning prices allowing estimation of purchase, sale, or cull values:

<http://www.extension.iastate.edu/agdm/livestock/html/b1-10.html>

* Penn State Extension: Lynn Kine, Jayson Harper. Ag Alternatives for livestock.

<http://extension.psu.edu/ag-alternatives/animals>

* + Variety of factsheets on different livestock enterprises, which include budget worksheets and some estimated costs of equipment, animals, labor, etc.
  + Covers most livestock species, as well as some nontraditional species (bison, elk, quail, partridge, rabbit, etc), and some non-livestock enterprises (aquaculture, entertainment, maple syruping, etc).
* University of Wisconsin-Madison Center for Integrated Agricultural Systems: Poultry Enterprise Budget.

<http://www.cias.wisc.edu/news/enterprise-budgets-help-farmers-plan-for-profits/>

* National Sustainable Agriculture Information Service:

<https://attra.ncat.org/attra-pub/livestock/livestock.html>

* + Also links to other organizations, universities, and research groups with additional information on budgeting, management, and sustainability.
* British Columbia Ministry of Agriculture: Historical enterprise budgets.

<http://www.agf.gov.bc.ca/busmgmt/budgets_pfp.htm>

* + Covers a wide variety of enterprise types and sizes from case studies and real-world examples.