



Why You Need Enterprise Budgets

Institute for Sustainable Food Systems' new project covers 30 crops and livestock that you grow and raise

By Ermias Afeworki

You have been farming for years, but do you ever evaluate the costs and returns of growing a particular crop?

You've purchased or inherited a piece of land and would like to farm on it. Have you come across any farm budgeting tools to estimate what it will cost you to grow a crop or raise a certain type of livestock?

You are passionate about small-scale farming and you want to start a farming business. Do you have a business plan to apply for credit from financial institutions?

If your answer to any of the above is "no," don't worry! The Institute for Sustainable Food Systems' new project to develop enterprise budgets for small scale farmers can help you assess the profitability of different products in your farm business.

Enterprise budgets, also called production budgets, are an indispensable farm business planning and management tool for aspiring and established farmers. Some of the uses of enterprise budgets include:

- itemizing costs and returns (income)
- listing inputs and production practices
- evaluating the financial efficacy of the enterprise
- estimating benefits and costs of fundamental changes in production practices (for example, investing in irrigation)
- providing a foundation for a total farm plan
- supporting applications for credit.

While small-scale farming is an integral part of the agricultural sector in southwest British Columbia, most of the currently available enterprise budgets generally focus on larger-scale and conventional methods of production. Enterprise budgets for the emergent small-scale, low-input and alternate-market agricultural sector of southwest BC are limited. The Institute for Sustainable Food Systems (ISFS) at Kwantlen Polytechnic University has set out to fill this gap.

ISFS is developing the tools that new and current small-scale farmers need in order to fully understand the costs and revenues of producing and selling food. We are developing enterprise budgets for 30 crops and livestock that can be produced on small lots using low-input farming techniques, and sold through direct-marketing in southwest BC. The budgets created in this project will assist farmers in planning their enterprise mix, calculating revenue and cost figures, and providing benchmarks that can be used to increase efficiency.

Using these enterprise budgets, farmers will be able to assess the profitability of individual crops on a diversified farm and to conduct "what-if" analysis. Ultimately, this project will support the viability of small-scale farms by providing data for farmers to assess their crop costs and yields, and develop financially viable business plans for their farms, including making strategic economic decisions such as allocating resources to the most profitable crops.

Understanding Enterprise Budgets

It is worth noting that the enterprise budgets developed in this project do not represent a particular farm. Instead, they are intended to be used as standard guides for evaluating costs and returns. Using the enterprise budget as a guide, each farmer can input their own cost and revenue numbers to estimate the profitability of each crop or livestock on their farm. Using the enterprise budget as a guide, farmers can input their own cost and revenue numbers to estimate the profitability of each crop or livestock on their farms. The goal is to help farmers become better informed in making economic decisions, minimize inefficiencies, and more production toward optimum levels.

All the enterprise budgets being developed in this project are what are known as “economic budgets.” Economic budgets use the concept of “opportunity cost”, which is defined as the cost of using a resource based on what it could have earned if used for the next best alternative.

For instance, suppose a farmer has \$10,000, which he is considered using in one of two ways: either to purchase a tractor, or to invest in bonds. If the

farmer decides to buy the tractor, the opportunity cost of that choice is the principal plus the interest income (say at five percent) that could have been earned had the farmer chosen the next best alternative: buying bonds. To realize an economic profit from the investment in the tractor, the farm needs to generate income above \$10,500 (interest included).

While economic budgets include both monetary costs and ‘perceived’ non-cash costs, there is a second kind of enterprise budget which accounts for only explicit costs and excludes opportunity costs: cash budgets. Economic budgets cover all the expected costs of running a farm business; therefore, they provide a better picture of expected costs and returns.

However, for producers who have significant equity in their farm businesses, an economic enterprise budget is likely to overestimate costs. For that reason, although the economic enterprise budget may show a negative economic profit, it does not necessarily indicate the business is unprofitable in accounting terms.



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Recruiting Experienced Farmers was Essential

For the budgets to accurately represent small-scale farming in practice, we required input from experienced farmers. We needed to recruit farmers, but quickly discovered there was no comprehensive list of southwest BC farm businesses and contact information. Fortunately, we were able to use internet resources such as BC Farm Fresh and the Certified Organic Associations of BC's online directory of certified organic growers.

While the farmers we contacted were very excited about the project, many were unfamiliar with working with research institutions; they questioned how useful the project outputs might be. We believe the project's outcomes will demonstrate the value to farmers of working with researchers to produce tools and services that can assist farmers in making informed decisions.

With the help and advice of our project partners, and through the recommendation of other farmers, we were able to recruit a total of 26 farmers, who participated in focus-group workshops for data collection. Most of the farmers who provided information for vegetable budgets follow organic practices, some of them certified. Hazelnut and tree fruits farmers characterized their farms as small-scale and direct-market, following a mix of conventional and organic farming practices. For example, they followed integrated pest management practices. Goat, lamb and pork producers characterized their operation as small scale, free range and direct market.

Bringing Small-Scale Farming into Focus: Workshops with Farmers

The best time to conduct focus-group workshops with southwest BC farmers is in the winter between December and March. We arranged 14 workshops between mid-February and the first week of April 2014 to gather data on the 30 crops and livestock products selected. Each workshop had two to four participants and lasted between four and seven hours.

These workshops were a new experience for both the ISFS researchers and participating farmers. Small-scale farms typically produce a variety of vegetables, and in some cases also livestock, on a single farm. Therefore some farm equipment, such as a tractor, is shared between crops. However, enterprise budgets

are prepared separately for each crop so that users will be able to compare them to decide what crops make the best economic sense for their operation. It was sometimes a challenge to determine how to allocate inputs to individual crops.

We asked farmers to tell us the farmland size that would represent a small-scale farming operation in southwest BC. This aroused intense discussions. Many small-scale farmers operate at different sizes and there is no standard definition for small-scale. However, participants agreed that the majority of small-scale farms in southwest BC are smaller than 10 acres, with high concentrations between two and five acres. To give representation to both ends of the spectrum, we decided to base some of the budget calculations on five acres and others on two acres.

The focus group sessions created an opportunity for farmers to come together and share their experiences. Some of the farmers told us these workshops were the first time they were able to discuss farming in detail with other farmers. Some of the questions we asked made them think a lot about the details of costs and returns on their farm operations. For example, while farmers know off the tops of their heads how many tractor hours or the total fuel cost it takes to till the whole farmland, they had to think carefully to estimate the detailed costs for just one specific crop within their mixed farm operation. Farmers answered our questions to their best knowledge and memory.

What's ahead?

The first drafts of the budgets have been developed and are now being reviewed by the participating farmers. All the budgets are expected to be completed by September 2014.

Once the revision and verification process is completed, the budgets will be publicly available on the ISFS website in a standard format. We will be hosting workshops across southwest BC to explain how to use these budgets. To learn more about the project and updates, please visit our website:

 bcfoodsystem.com/enterprise_budgets

Learn More:

1. Hinman, Herbert R. Nov.2002. "Understanding and Using WSU enterprise budgets" Washington

- State University Cooperative Extension
2. Carkner, Richard. Aug.2000. "Using Enterprise Budgets to Make Decisions about your Farm" Pacific Northwest Extension Publications
 3. Harper, Jayson K., Cornelisse, Sarah., Kime Lynn F., Hyde, Jefferey. 2013. "Agricultural Alternatives: Budgeting for Agricultural Decision Making" Penn State University Extension 

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Ermias joined the Institute for Sustainable Food Systems at Kwantlen Polytechnic University in August 2013 as a research associate. His current work involves developing enterprise budgets for 30 crops and livestock. His research interests are economics of regional food systems; community economic development; economic valuation of natural resources; data and statistical analysis. Ermias earned a Master of Science degree in Resource Economics and Policy from the University of Maine, USA in 2011.

*Contributing author: Dr. Kent Mullinix
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Look for Enterprise Budgets on these Crops and Livestock Products

We chose 30 crops and livestock products that are common in the southwest BC small-scale farming market. The final selection was made in consultation with our project partners, Close to Home Organics and Farm Folk City Folk, based on three criteria: suitability to the climate, economic value and nutritional value of the crop/livestock.

Vegetables

bell peppers
beets
broccoli
bok choi
bush beans
brussel sprouts
cabbage
carrots
cucumbers
garlic
kale
lettuce
potatoes
radishes
rhubarb
spinach
tomatoes
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lamb
goatmeat
pork

Fruits

apples
pears
plums
specialty crops
hazelnuts
hops



Pollinators love organics

A recent study published in the journal Animal Conservation has found that organically managed vineyards have significantly higher numbers of interactions between pollinators and flowers than conventional vineyards, thanks to greater numbers of flowering plants. The study authors conclude the results show that organic farming will be critical for maintaining pollinator biodiversity in the future

 organicalberta.org/news/higher-pollinator-biodiversity-in-organic-farms