ANS 408 LAB PROJECT 2010

INTRODUCTION

If profit is the primary motivation, ask the question "If I get this enterprise up and running, will it make money?" An enterprise budget is a tool for estimating expenses, revenue and net returns. If the estimated net returns are acceptable then give some thought to the process of getting the enterprise up and running, including cash flow feasibility and financing. If the enterprise is primarily for a hobby (fun) then the budget will show if the financial outcome is acceptable. The purpose of this class is to provide some hands on experience with developing an enterprise budget.

PROCEDURE

1.   Download the Meat Goat Budget Template. Go to http://www.ag-econ.ncsu.edu/faculty/benson/benson.html. You will find the link under the "Meat Goat Economics" heading. (You can also find instructions and a copy of the checklist used to assemble information for a small ruminant meat enterprise). Download a copy of the budget template and save it on your computer.

2.   Familiarize yourself with the structure of the budget. This is an annual budget. There are two worksheets (pages). Anywhere you see a yellow highlighted cell the user can enter data. Other cells are protected and cannot be changed by the user.

The first page is the actual budget. In the header, you can add a short description of the enterprise in the highlighted cells. For example: "ANS408 Lab Project, 50 does on 20 acres of permanent pasture." The budget information is in table form with five sections and seven columns. There are three sections, each for different types of expense, namely, operating inputs, ownership (or fixed) costs, and labor costs. There is one revenue section. Various measures of net returns are calculated in the last section.

The columns are as follows:
- Column 1 lists categories of expenses, revenue and net returns. These are preset except for one category (row).
- Column 2 provides a very short description of that row item or provides a space for the user to include one.
- Column 3 specifies the unit of measurement for a specific item (row) of expense or revenue, for example, head, acre, $.
- Column 4 is where the user enters the price per unit for a specific category of expense or revenue.
- Column 5 is where the user enters the amount or quantity of an input used or the amount of a product sold.

- Column 6 calculates the total value for a category of expense or revenue from the inputted data. It is important that the unit, price per unit and quantity used are consistent (match up).
- Column 7 is for comments, if any

The second worksheet has three tables. Table 1 lists the investments required for the enterprise and calculates annual ownership or fixed costs. Table 2 is used to estimate operating costs for machinery and equipment and the associated labor use and cost. The annual costs calculated in Tables 1 and 2 automatically transfer to the budget worksheet. Table 3 is a simple sensitivity analysis that shows the effects of higher or lower levels of revenue and expenses

3. We will use the information in the data worksheets (checklist) provided to construct part of the budget. This example is consistent with the production information you have covered in class. The worksheet includes information on:
   - Herd size, type and performance data
   - Feeding program and costs
   - Pasture and pasture management and costs
   - Health program and costs
   - Other listed expenses
   - Labor (own and/or hired) use and costs

   Note that investments in livestock, facilities and equipment and their associated fixed costs are NOT included in this lab project, for reasons of time and to simplify the assignment. These items are included in Table 1 on page 2 of the budget template. These are important costs and should be included in any budget for an actual (real) farm enterprise. Note also that Table 2 should be used to estimate operating costs for machinery and equipment and the associated labor use and cost.

4. Use information from the worksheets to develop entries in the budget spreadsheet. Here are some suggestions and tips, starting at the top of the budget expense categories.
   - Forage. The budget allows for up to four different types of pasture. The class project data checklist identifies the type and acreage of pasture in section C. For permanent pasture costs per acre, go to the NCSU forage budgets at http://www.ag-econ.ncsu.edu/extension/Ag_budgets.html Look for the "Forage Budgets" heading and click on either link, print or spreadsheet version. You will see a list of forage budgets. Click on the link for Cool Season Perennial Grasses for Pasture: Annual (http://www.ag-econ.ncsu.edu/extension/budgets/coolseason_grass_86-2.pdf). Make sure

you have the ANNUAL budget, 86-2, and not the establishment year budget. Use the Total Operating cost figure in the "Price" column. Enter a zero price and quantity in the pasture rows you do not need to use.

- Other feed. The budget allows for three types of supplemental feed – mixed feed for does and kids, and purchased hay – with a separate one for minerals. The class project data checklist provides information on the mixed feeds, purchased hay and minerals in section B. When calculating the quantities of each type of feed and hay fed It will require some calculations on your part to figure up the number of does and kids being fed (Hint: allow for death losses) using the information in section A. Include bucks at the same feeding rates as does. Mineral costs, if fed separately from feed, are included on a per doe basis, even if kids receive minerals. Note the different units of measurement for each type of feed and minerals.
  -- For mixed feed and purchased hay you will need to calculate the total quantity fed per year from the number of head, the amount fed per day, and the number of days a particular feed is fed. In some cases you will need to convert pounds to hundredweights (cwt) or tons.
  --Mineral costs are entered into the budget as a cost per doe per year even though the calculations will involve the numbers of does and kids, amounts fed per day, and the days fed. Calculate a total cost and divide by the number of does to get the cost per doe figure.
- The budget allows for three types of veterinary and health care costs. The class project data checklist provides information on health costs in section D. Include bucks at the same cost as the does.
- Purchased breeding stock. In the class exercise, we buy bucks and keep them for two years. Replacement does are raised on the farm. See section A of the data checklist .
- Predator control animal. This is the annual cost of maintaining a predator animal, if there is one. See checklist section F.
- The miscellaneous line is a catch all category for the small expenses that don't fit elsewhere. Use $2.00 per doe (and buck). See checklist section F.
- Note. There are two categories of repairs, fencing and water, and facilities repairs. These costs are calculated from data in Table 1 on worksheet 2 and transfer automatically from Table 1 to the budget page. Ignore these costs in this lab exercise.
- Note. Equipment operating expense and labor costs are calculated in Table 2 on worksheet 2 and transfer from Table 2 to the budget page. Ignore the equipment operating cost for this lab exercise. Include all labor costs in the Labor Costs section (see below).
- Sales Commission and Transportation. See checklist section F.

- Annual operating capital cost. This is a cost or charge made on the money spent on operating inputs for the herd, calculated and one-half of the total cost of the operating inputs. See checklist section F.
- Note. Ownership or fixed costs (depreciation, interest, taxes and insurance on facilities and equipment) normally are calculated from data in Table 1 on worksheet 2 and transfer from Table 1 to the budget page. Ignore these costs in this lab exercise.
- Labor. There are two categories of labor, Machinery operator labor and Livestock labor. Machinery and equipment operating expenses and labor costs normally would be calculated in Table 2 on worksheet 2 and transfer automatically from Table 2 to the budget page. HOWEVER, for the lab exercise please estimate the total labor required to operate this enterprise and enter it all as "Livestock labor."   Labor costs include time spent moving animals on pasture, putting out feed, working the animals, and any other related chores. Labor cost includes hired labor and/or a charge for family labor. Labor information is in Section E of the checklist.
- Revenue. Revenue includes the sale of meat animals, breeding stock and cull does and bucks. Information for calculating revenue is included in Section A of the checklist. Note that we assume we raise our own replacement females, which reduces the number of female kids we sell for meat. Assume no animals are sold for breeding stock. Note the units of measurement for each type of animal sold. For each type of animal, calculate the number of animals sold. When appropriate, use the average weight to calculate the total weight sold. Use the prices given in Section A.
- Note
    - No land cost or farm overhead costs are included because this is an enterprise budget.
    - Entries are all on a pre-tax basis for income tax purposes and do not consider how IRS rules might affect revenue, costs and returns.
    - Decisions should consider implications for the whole farm, include tax considerations.