Secondary Engagement Programme

Christmas Term

Grade 10

Activity Sheets

Agricultural Science

MINISTRY OF EDUCATION

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SECONDARY ENGAGEMENT PROGRAMME
NOVEMBER 2020
WEEK 10

LESSON # 1

GRADE :10

SUBJECT : AGRICULTURAL SCIENCE
TOPIC : FARM RECORDS
SUB TOPIC : BUDGETING

Objectives

To understand the importance of budgeting
To distinguish between gross farm income and net farm income, gross margin and net profit, fixed and variable expenses.

Budget

Budget is a statement of estimated income and expenditure.

Budgeting is a process of estimating costs, returns and net profit of a farm or a particular enterprise.

It focuses on the physical components and the financial components.

Farm plan is a programme of the total farm activity of a farmer drawn up in advance. Farm plan serves as the basis of farm budgeting.

The budgeting process provides a basic source of information for making farm management decisions.

Budgeting is concerned with the coordination of resources, production, and expenditures.

This process is often referred to as farming on paper, or a financial road map for the next production period to be incorporated in the farm business plan.

Budgets are constructed to *estimate* the outcomes of activities in the *future*, as opposed to records, which are summaries of past outcomes.

Advantages of Farm Budgeting

It evaluates the old plan and guides the farmers to adopt a new farm plan with advantage.

It makes the farmer conscious of the waste (leakage) in the farm business.

It gives comparative study of receipts, expenses and net earnings on different farms in the same locality and in different localities for formulating national agricultural policies.

It guides and encourages the most efficient and economical use of resources.

It serves as a valuable basis for improvements in farm management practices.

Income

Income shows the product(s) produced, the quantity and unit of each product, and the expected price per unit.

Total income (revenue) per product is simply the quantity multiplied by the per unit price. Note that most budgets include a blank for users to enter expected income.

Income is easy to calculate, but it requires careful consideration of expected yields and prices.

Net farm income

Refers to the return (both monetary and non-monetary) to farm operators for their labor, management and capital, after all production expenses have been paid (that is, gross farm income minus production expenses).

It includes net income from farm production as well as net income attributed to the rental value of farm dwellings, the value of commodities consumed on the farm, depreciation, and inventory changes.

Gross farm income

Refers to the monetary and non-monetary income received by farm operators.

Its main components include cash receipts from the sale of farm products, government payments, other farm income (such as income from custom work), value of food and fuel produced and consumed on the same farm, rental value of farm dwellings, and change in value of year-end inventories of crops and livestock.

Variable (Operating) Costs

Variable costs are those cost that vary with changes in production.

Variable costs are grouped according to stage of production.

Variable costs are those expenses that vary with output within a production period and result from the use of purchased inputs and owned assets.

Examples are lime, pesticides, fuel, machinery repairs and maintenance, crop insurance, hourly or seasonal labor, marketing, and interest on operating capital. In livestock budgets, they include expenses for feed, herd health, breeding, labor, marketing, and interest on operating capital.

If land or buildings are rented, they should be included as a variable cost.

Fixed (Ownership) Costs

Fixed costs are those that do not vary with the level of output and result from ownership of assets (and therefore will not change in the short run).

They include depreciation, taxes, interest on investment, land, repairs on fixed assets (like buildings and fencing), and insurance.

Depreciation should be accounted for using the straight-line method based on actual years of use and typical salvage values rather than accelerated methods allowed for income tax purposes.

Sometimes a management fee or a pro-rated cost for salaried employees is also included as a fixed cost.

Indirect, noncash, and overhead costs are other terms used to describe fixed costs.

Total costs

Total costs are variable and fixed costs added together.

To be financially viable an enterprise must earn a profit above total costs in the long-run, but this is not always possible every year.

It is economical to continue production in the short run if your income is higher than your variable costs of production.

The variable/fixed cost concept is critical to most short-run and annual farm decisions.

Most or all the fixed costs associated with your farm will not be affected by annual production decisions.

However, individual crop and livestock enterprises compete for limited farm resources.

The most desirable options are those that pay the highest returns on these fixed resources and thus the greatest return above variable costs.

Gross margin

A gross margin can be defined as the gross income from an enterprise less the variable costs incurred in achieving it.

Variable costs are those costs directly attributable to an enterprise and which vary in proportion to the size of an enterprise. For example:

If the number of breeding cows doubles, then the variable costs associated with carrying the additional stock, such as drench and vaccination costs, will also roughly double.

A gross margin is not profit because it does not include fixed or overhead costs such as depreciation, interest payments, rates and permanent labour, which have to be met regardless of enterprise size.

Gross margins are generally quoted per unit of the most limiting resource, for example, land, labour, capital or irrigation water.

Crop gross margins are provided on a per hectare basis and also per ml of water in the case of irrigated crops.

Types of Budget

Partial budget

Examines relatively minor changes in a whole farm plan and includes only increases or decreases in expected revenues and expenses.

For example, the partial budget approach may be used to determine whether custom hiring or owning harvest equipment would be most economically efficient.

Partial budgeting analysis might also be used to determine the economics of raising and harvesting hay versus buying hay on the market.

Since a partial budget examines only changes in farm plans, it is much quicker to construct than a whole farm budget.

Cash flow budget

Concerned with the timing of receipts and expenses for a production period. Cash flow budgets are usually constructed on a monthly basis.

They provide the owner/manager and lenders with information useful in estimating the amount and timing of borrowing and repayment of operating credit.

Most lenders require a cash flow budget before extending credit.

Complete Budgeting/Total Budgeting:

It refers to preparing budget for the farm as a whole.

Complete budgeting considers all the crops, livestock, methods of production and aspects of marketing in consolidated form and estimates costs and returns for the farm as a whole.

Complete budgeting can be prepared for short run (annual budget) and for long run.

Review questions

1. Differentiate between budget and budgeting.
2. Discuss three advantages of using a farm budget.
3. Differentiate between fixed cost and variable cost giving three examples of each.
4. Differentiate between a partial budget and a complete budget.
5. State the formula for calculating gross margin, net income, estimated profit.

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