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# INCOME STATEMENT



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# Objetives

- To be able to design and prepare the **Income and Expense Statement** for an agricultural enterprise.
- To understand the differences between an **Income and Expense Statement** and a **Budget**.
- To understand **accounting methods** and know which one to use in accounting records.



# Business accounting is different from the accounting used in tax accounting.

Business accounting is used to make decisions or investments, among other uses.



# ACCOUNTING METHODS

- Cash Accounting
- Accrual Accounting



# Cash Accounting

- Transactions are recorded only when there is an exchange of cash, regardless of the date the transaction occurred.
- In other words, the transaction is recorded only when there is money going in or out (“cash in and cash out”).
- **Example:** It is equivalent to using a personal debit card that records all transactions at the moment they occur — purchases, payments, deposits, and other transactions.



# Accrual Accounting

- Transactions are recorded at the moment they occur, even if the cash exchange has not yet taken place.
- The purpose of this method is to ensure that the financial analysis of the business is more accurate, meaning all transactions are recorded within the same accounting period.



# Cash vs. Accrual Accounting

INCOME	CASH	ACCRUAL
Sales	\$10,000	\$10,000
Accounts receivable		\$4,000
Subsidies (to be received)		\$1,000
<b>TOTAL INCOME</b>	<b>\$10,000</b>	<b>\$15,000</b>





# Cash vs. Accrual Accounting

Method	Accounting Record
Cash	Cash Flow
Accrual	Income Statement



# What is Cash?

- Cash available in the company's account.
- Cash-equivalent transactions are investments that can be converted into cash within three months or less.



# Income

- Income is what is received in return for the goods or services offered and includes all income, whether or not it is in cash.
- It also includes government subsidies and non-monetary resources that generate income.

## Examples:

- Change in inventory
- Change in breeding animals' value
- Change in accounts receivable
- Other types of income



# Expenses/Costs

- Expenses are charges incurred for using an input in the production of a good or service.



# Expenses/Costs

- Machinery and equipment maintenance
- Purchase of animals
- Purchase of feed
- Crop production expenses
- Animal production expenses
- Gasoline
- Oil
- Labor
- Property taxes
- Administrative expenses
- Advertising
- Rent
- Water, electricity
- Insurance
- Accounts payable
- Prepaid expenses
- Total interest paid
- Depreciation
- Among others



# Type of Expenses or Costs

- VARIABLE
- FIXED



# Expenses or Costs

- Fixed costs are those independent of the production volume; they occur whether or not production takes place (e.g., building maintenance, insurance, rent, depreciation, etc.).



# Depreciation

- Depreciation is the loss of value (expense) of assets due to use, obsolescence, wear, or deterioration.
- Depreciation will be reported in the income statement for the duration of the useful life.





# RAZONES PARA DEPRECIAR

- Estimate current (book) value
- Calculate expense
- Adjust income for tax purposes



# TYPES OF DEPRECIATION

- Straight-line
- Declining balance (various methods)
- Sum-of-the-years' digits



# DEPRECIACION LINEAL

- Método en el cual la depreciación es constante para cada año de vida útil del activo, es igual para todos los años.
- Es el método más simple



# DEFINITIONS

- **Useful life:** The lifespan of an asset according to the manufacturer.
- **Residual value:** The asset's value at the end of its useful life (usually 10% of original cost).



# STRAIGHT-LINE DEPRECIATION

- Depreciation is constant for each year of the asset's useful life.
- The simplest method.



# STRAIGHT-LINE DEPRECIATION

$$\text{Depreciation} = \frac{\text{Manufacturer Cost} - \text{Residual Value}}{\text{Useful Life}}$$



# Depreciation

A 2023 truck with a manufacturer's cost of \$20,000, residual value of 10% (\$2,000), and a useful life of 5 years.

$$\text{Depreciation} = \frac{\$20,000 - \$2,000}{5} = \$3,600$$

<b>Year</b>	<b>Initial Value<sup>1/</sup></b>	<b>Depreciation</b>	<b>Initial value – Depreciation= Final Value</b>
2023	\$20,000	\$3,600	\$16,400
2024	\$16,400	\$3,600	\$12,800
2025	\$12,800	\$3,600	\$9,200
2026	\$9,200	\$3,600	\$5,600
2027	\$5,600	\$3,600	\$2000
2028	\$2,000	\$0	\$2,000
2029	\$2,000	\$0	\$2,000

1/ if you purchase the asset used, you still have to use the manufacturer's value





The book value in 2025 ?

\$9,200

This value is the one you include in the 2025 inventory.



Depreciation in 2025 ?

\$3,600

This value is the one you include in the 2025  
Income Statement.



# Depreciation

- If improvements are made to a fixed asset, that amount must also be depreciated.
- For example: if \$5,000 is invested in improving farm roads, those \$5,000 must also be depreciated.



# Variable Costs/Expenses

- Variable costs depend on the production volume; they increase or decrease with the amount of product generated (feed, vaccines, pesticides, fertilizers, wages, repairs, utilities, water, electricity, etc.).



# Accounting and Financial Records for Farms

## Sistema de Registros Contables y Financieros para Finca Accounting and Financial Record System for Farms



1. Instrucciones <i>1. Instructions</i>	5. Informe de Ingresos y Gastos Año 3 <i>5. Income &amp; Expenses Report Year 3</i>	9. Liquidez y Solvencia <i>9. Liquidity &amp; Solvency</i>
2. Información General de la Empresa <i>2. General Business Information</i>	6. Hoja de Ingresos y Gastos <i>6. Income Statement</i>	10. Otras Razones Financieras <i>10. Other Financial Ratios</i>
3. Informe de Ingresos y Gastos Año 1 <i>3. Income &amp; Expenses Report Year 1</i>	7. Estado de Situación Financiero <i>7. Balance Sheet</i>	11. Farm Financial Score Card Spanish
4. Informe de Ingresos y Gastos Año 2 <i>4. Income &amp; Expenses Report Year 2</i>	8. Hoja de Flujo de Efectivo <i>8. Cash Flow Statement</i>	12. Referencias <i>12. References</i>



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Agricultural Extension Service  
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# INFORME DE INGRESOS Y GASTOS MENSUAL

- This report is used to facilitate the preparation of the Income Statement.

	YEAR												Total
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	
Operating Income													
Crop Sales													
Animal Sales													
<b>Total Sales Income</b>													
Sales Expenses													
<b>Gain/Loss Operational Costs</b>													
* From Corporate Income Taxes 2019, Puerto Rico IRS													

<b>Expenses/Deductions</b>													
<i>Wages</i>													
<i>Rent</i>													
<i>Health insurance</i>													
<i>Insurances</i>													
<i>Telecommunication service</i>													
<i>Internet</i>													
<i>Electricity</i>													
<i>Water and sewerage</i>													
<i>Advertising</i>													
<i>Interest</i>													
<i>Property Taxes</i>													
<i>Patent and Licenses</i>													
CFSE (only for PR)													
Sales Tax, IVU (for PR)													
<i>Crop insurance</i>													
<i>Depreciation and Amortization</i>													
<i>Retirement contribution</i>													
<i>Social Security</i>													
<i>Unemployment insurance</i>													



<i>Car expenses (gas and oil)</i>														
<i>Other motor vehicles expenses (gas and oil)</i>														
<i>Repairs and maintenance</i>														
<i>Trip expenses</i>														
<i>Food and entertainment expenses</i>														
<i>Office supplies</i>														
<i>Farm supplies</i>														
<i>Grain and feed purchases</i>														
<i>Livestock purchases</i>														
<i>Expenses for crop production</i>														
<i>Expenses for livestock production</i>														
<i>Stamps and receipts</i>														
<i>Shipping and postage charges</i>														
<i>Uniforms</i>														
<i>Parking and Toll</i>														
<i>Office expenses</i>														
<i>Bank charges</i>														
<i>Unchargable debts</i>														
<i>Others</i>														
<b>TOTAL DE GASTOS</b>														

# INCOME STATEMENT

# INCOME STATEMENT

## NAME OF BUSINESS

### ACCOUNTING PERIOD

INCOME	Year 1	Year 2	Year 3
	Value	Value	Value
<i>Cash Sales:</i>			
<i>Crops</i>			
<i>Livestock or livestock products</i>			
<i>Inventory Changes:</i>			
<i>Crops</i>			
<i>Livestock or livestock products</i>			
<i>Government Program Payments (incentives)</i>			
<i>Change in value of breeding animals</i>			
<i>Profit/Loss from sales of breeding animals</i>			
<i>Change in Accounts Receivable</i>			
<i>Other Farm Income</i>			
<i>Other Farm Income</i>			
<b>GROSS FARM INCOME</b>			



# Change in Inventory

$$\text{Change in Inventory} = \text{Sales Value} - \text{Inventory Value of crop/animal}$$

In the Inventory Record you have to include crops or animals that you are Going to sale within 3 months. If there is a difference between the amount you included in the inventory and the value you include in the Income Statement (when sold), then you substract the diferrence to get the inventory value.



# Cambio en el Inventario

- Suppose that in the inventory, the average price of bulls ready for sale was \$1,500.

If the bull was sold for \$1,000:

- $1,000 - 1,500 = -\$500$
- This shows a loss, because in the inventory we had recorded that we would sell the bull for \$500 more than what it actually sold for.
- Therefore, in the Income Statement, a negative sign is placed in front of \$500, **Loss**. If the opposite occurs, the sign will be positive, **Gain**.

<b>GASTOS</b>	<b>Valor</b>	<b>Valor</b>	<b>Valor</b>
<i>Grain and animal feed purchases</i>			
<i>Purchases of animals for resale</i>			
<i>Other Cash Operating Expenses:</i>			
<i>Expenses for crop production</i>			
<i>Expenses in the production of livestock</i>			
<i>Gas and oil</i>			
<i>Workforce</i>			
<i>Repair and Maintenance</i>			
<i>Property taxes</i>			
<i>Insurances</i>			
<i>Electric power</i>			
<i>Water</i>			
<i>Telephone and internet</i>			
<i>Administration Expenses (the minimum must be 10% of the workforce)</i>			
<i>Patent and Licenses</i>			
<i>Other expenses (other expenses already reported in the Income and Expense Report Sheets and not found in this record)**</i>			
<i>Adjustments:</i>			
<i>Change in Accounts Payable</i>			
<i>Prepaid expenses</i>			
<i>Depreciation:</i>			
<i>Total depreciation expenses of the operation:</i>			
<i>Interest paid in cash</i>			
<i>Changes in the interest to be paid</i>			
<i>Total interest expense</i>			
<i>Grain and animal feed purchases</i>			
<b>GROSS EXPENSES/COSTS</b>			

<b>NET FARM INCOME</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<i>Gain/loss on sale of capital assets.</i>			
<i>Machinery (place the negative sign if it is a loss)</i>			
<i>Land (place the negative sign if it is a loss)</i>			
Otro			
Otro			
Otro			
<b>NET FARM INCOME</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Source: Kay, R. D., W. M. Edwards, and P. A. Duffy. Farm Management. McGraw Hill Company Inc., 2008, sixth edition.



# Net Operating Farm Income

$$\text{Net Operating Farm Income} = \text{Total Gross Income} - \text{Total Gross Expenses}$$

- If total gross income is greater than total gross expenses → the business made a profit.
- If total gross income is less than total gross expenses → the business had a loss.

Remember, this record includes non-monetary expenses/payments, so the actual cash amount will be reflected in the **Cash Flow Statement**.





A negative **Net Operating Income** does not necessarily mean the business had losses, since the Income Statement includes non-monetary items: depreciation, accounts payable, and accounts receivable.

Also, in agricultural businesses that are just starting, it often takes more than one year to begin receiving income.



# Farm Net Income

$$\text{Farm Net Income} = \text{Net Operating Income} \pm \text{Capital Gain/Loss}$$

If there is a sale of assets, the difference between the asset's book value (inventory) and the sale price must be included in the Income Statement.



# Ganancia/Pérdida de Capital

- If the truck's book value at the start of 2025 was \$2,000 and it sold at market prices for \$14,000, then:

$$14,000 - 2,000 = \$12,000$$

- This shows a gain because it sold for more than its book value, so the number is positive. If the opposite occurs, it will be negative, and the negative sign will be placed in front of the amount.
- This amount is recorded in the **Capital Gain/Loss** section of the Income Statement.

# **ENTERPRISE BUDGETS**



# Enterprise Budget

- Enterprise Budgets are estimates of income and expenses for an economic activity during one production cycle within a defined space for a single enterprise (Kay, Edwards & Duffy, 2008; Christensen, Howell & Miller, 1993; Ward et al., 2008; Sharp & Kaan, 2013). They also estimate the impact of technologies and examine the effects of economies of scale on the business.
- Agricultural enterprise budgets are tools used to determine potential profitability and to identify which enterprise will generate greater profit. They are planning tools for establishing or expanding agricultural projects and are also used to request financing.



# Enterprise Budgets

- Enterprise budgets represent a business situation that approximates reality for a typical enterprise but should be adjusted to the characteristics of the specific enterprise (Kay, Edwards & Duffy, 2008; Christensen, Howell & Miller, 1993; Ward et al., 2013).
- They can also be used to develop marketing strategies and obtain financing for production plans (Carkner, 2000).



# Enterprise Budget

- Faculty from the **Department of Agricultural Economics and Rural Sociology** and other academic departments in the **College of Agricultural Sciences at the University of Puerto Rico at Mayagüez** have updated several model budgets.
- An interactive online tool has been created through a grant from the **U.S. Department of Agriculture**, allowing users to edit model budget information.
- In this online tool, users can edit: Sale price, Quantity sold, Quantity of inputs, Input prices, Business size, among others.
- The tool also estimates the minimum selling price and minimum production needed to cover costs.



# Enterprise Budget

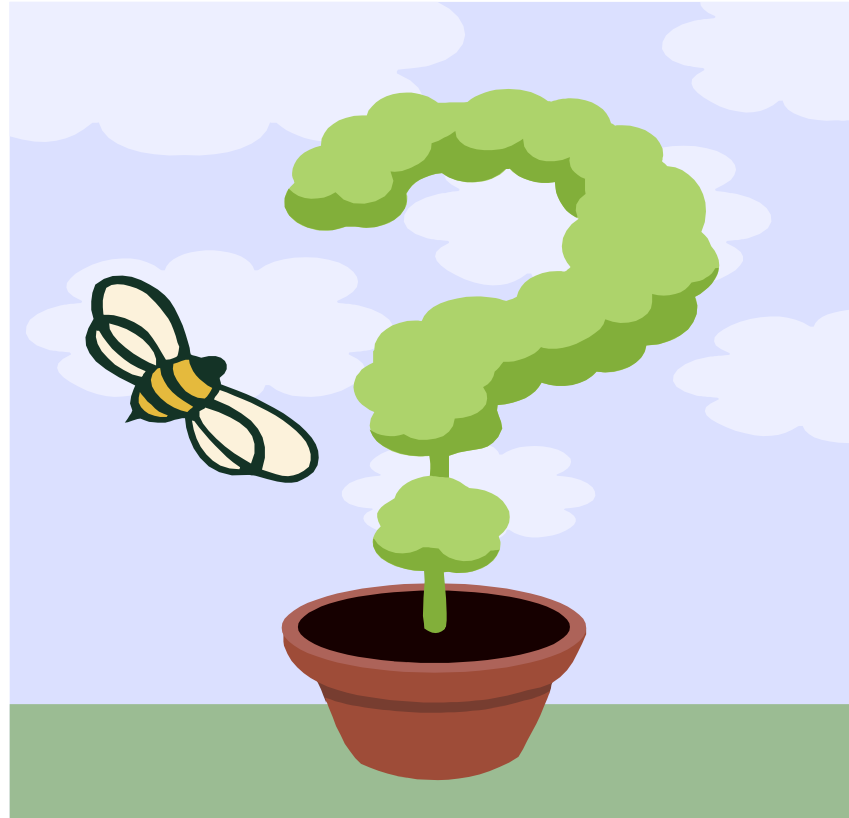
Available:

- Onion
- Pepper
- Cabbage
- Fence construction
- Sweet potato
- Cassava (Yuca)
- Taro (Malanga Lila)
- Yam Habanero
- Yam Diamante
- Yellow and Estela Tannia
- Papaya
- Pumpkin
- Celery Root
- Palm trees
- Trees
- Trees in control environment
- Shrubs in environment
- Sweet chili peppers

<https://www.mercadeoagricolapr.com/herramientas/presupuestos-modelo/>



# Income Statement



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