What is Balance Sheet?

Balance Sheet is a statement of the financial position of a farm business at a particular point of time, showing its assets, liabilities and equity. It is a snap shot of a business at a particular point of time. If the assets are more than the liabilities, it is called **Net worth** or **Equity** and its converse is known as **Net deficit**. A typical balance sheet shows assets on the left hand side and liabilities and equity / net deficit on the right hand side. Both sides are always in balance, hence the name Balance Sheet.

A balance sheet can be prepared at any point of time to know the financial position of the farm business. It can also be prepared to study the performance of a business over years by preparing the same number of balance sheets. If the net worth increases over different periods, it indicates efficient performance of the business.

Usefulness of Balance sheet

1. Useful to know the solvency position of the business
2. Useful to identify different components of the assets and liabilities that influence the financial solvency of the business
3. Useful to develop financial test ratios and decision making
4. Useful to develop financial plans
5. Useful to convince the tenders about the long term and short term solvency of the business for further financing

The prime requisites to prepare a balance sheet are total assets and total liabilities of the farm. The **assets** are those, which are owned by the farmer. The **liabilities** refer to all things, which are owed to others by the farmer.

. Types of Assets

Assets are of two types, viz., current and long term or fixed.

Current assets: These are very liquid or short-term assets. They can be converted into cash, within a short time, usually one year. For Example:

Cash on hand, agricultural produce ready for disposal, i.e., stocks of paddy, black gram, jowar, wheat etc.

Long term assets or Fixed assets: An asset that is permanent or will be used continuously for several years is called a long-term asset. It takes longer time to convert the asset in to cash due to verification of records, legal transactions, etc. For Example: machinery, equipment, livestock, land, farm buildings

Types of Liabilities:

Current liabilities: Debts must be paid in the short term or in very near future. For Example: Crop loans, accounts payable, and hand loans etc.

Long-term liabilities: The duration of loan repayment is five or more years. For Example: livestock loans, machinery loans, tractor loan, orchard loan, land development loan etc.

Procedure of preparing a Balance sheet:

Step 1: List all the current and working assets with their monetary value and sum the values of assets

Step 2: List all the fixed assets with their monetary value and sum the values of assets

Step 3: Estimate the total assets by adding the sum of the values of the current assets and fixed assets

- Total assets = Current assets + Fixed assets

Step 4: List all the current and working liabilities with their monetary value and sum up.

Step 5: List all the fixed or long term liabilities with their monetary value and sum up

Step 6 Estimate the total liabilities by adding the sum of the values of the current liabilities and fixed liabilities:

- Total Liabilities = Current liabilities + Fixed liabilities

Step 7: Calculate the net worth or owners claim in the business

- Net worth or Owners claim = Total assets – Total liabilities

Step 8: Compute the balance sheet by writing the balancing figure at the end of the statement

- Total assets = Total liabilities + Net worth

Balance sheet of a hypothetical farm as on 1st June, 2018

Assets	Amount (Rs.)	Liabilities	Amount (Rs.)
Current assets		**Current liabilities**	
Cash on hand	10000	Crop loans to be repaid to institutional agencies	8000
Savings in bank	8000	Accounts payable	11000
Value of grains ready for disposal	38,500	Hand loans	5000
Livestock products (eggs, birds, etc.) ready for disposal	60000	Money owed to input suppliers	25000
Fruits, fodder, vegetables, etc. ready for sale	8000	Annual instalments of MT and LT loans	19000
Value of bonds and shares to be realized in the same year	2000		
Sub-total	**126500**	**Sub-total**	**68000**
Long term assets		**Long term liabilities**	
Dairy cattle	10000	Livestock loan(outstanding amount)	8000
Bullocks	9000	Machinery loan (outstanding amount)	15000
Poultry birds	15000	Unsecured loans (Outstanding amount)	10000
Machinery and equipment	15000	Tractor loan (outstanding amount)	120000

Tractor	17500 0	Orchard loan (outstanding amount)	35000
Land	60000 0		
Farm buildings	25000		
Sub-total	**84900 0**	**Sub-total**	**188000**
Total of assets	**97550 0**	**Total of liabilities** **Net worth or Equity**	**256000** **719500**
		Total of liabilities + Net worth	**975500**

Analysis of Balance Sheet

Balance sheet is analyzed with the help of test ratio measures so as to know the exact financial position and stability of the farm business. The test ratios included for balance sheet analysis are Current ratio, Intermediate ratio, Net capital ratio, Quick ratio, Current liability ratio, Debt-equity ratio and Equity-value ratio.

The different test ratios can be calculated for a hypothetical farm with the Balance sheet as given below.

$$\textbf{1. Current ratio} = \frac{\text{Total current assets}}{\text{Total current liabilities}} = \frac{126500}{68000} = 1.86$$

The current ratios indicate the capacity of the farmer to meet the immediate financial obligations (liquidity). If current assets are more than current liabilities and if the borrower fails to repay the loan, this is a case of willful default in spite of his position being solvent, which is more common in case of large farmers of financial institutions. A ratio of more than

one indicates a favorable run of the farm business. Current ratio reflects liquidity within one year's time.

$$\textbf{2. Net capital ratio} = \frac{\text{Total assets}}{\text{Total liabilities}} = \frac{975500}{256000} = 3.81$$

The net capital ratio indicates the solvency position of the farmers. If the net capital ratio is more than one, the funds of the institutional agencies are safe. A consistently increasing ratio over the years reveals the sound financial growth of farm business.

3. Acid test ratio or Quick ratio

$$= \frac{\text{Cash receipts} + \text{Accounts receivable} + \text{Marketable securities bonds, shares available in} > 1\ year}{\text{Total current liabilities}}$$

The acid test ratio reflects the adequacy of cash and income surpluses to cover all current liabilities during the period of one to two years. If there is no difference in the income position of farmers within that period, current ratio and acid test ratio reflect the same position.

$$\textbf{4. Current liability ratio} = \frac{\text{Current liabilities}}{\text{Owner's equity}} = \frac{68000}{719500} = 0.09$$

The current liability ration indicates the farmer's immediate financial obligations against the net worth. A ratio of less than one indicates a healthy performance of the farm business and over the years the ratio should become smaller and smaller to reflect a consistently good performance.

$$\textbf{5. Debt} - \textbf{Equity ratio(Leverage ratio)} = \frac{\text{Total liabilities}}{\text{Owner's equity}} = \frac{256000}{719500} = 0.36$$

The debt-equity ratio or leverage ratio presents the capacity of the farmer to meet the long – term commitments. It also throws light on the extent of indebtedness in the farm business. A consistently falling ratio indicates a very heartening performance of the farming and the ability of the farmer to reduce dependence on borrowings.

$$\textbf{6. Equity} - \textbf{value ratio} = \frac{\text{Owner's equity}}{\text{Value of assests}} = \frac{719500}{975500} = 0.74$$

This ratio highlights the productivity gained by the farmer in relation to the assets he has. This ratio has a direct bearing on the type of assets one has. Managerial ability of the farmer is an essential element in raising the productivity of the assets.

Assignment: 1

Given the Balance sheet statement of an Organic Farm, calculate the test ratios and comment on the farm financial position.

Balance sheet of an Organic farm, as on 31st December, 2017 (Amount in Rs.)

Asset s	Amoun t (Rs.)	Liabilities	Amoun t (Rs.)
Current assets		**Current liabilities**	
Savings in bank	700000	Accounts payable	250000
Supplies	150000	Hand loans	122000
Securities marketable	100000	Money owed to input suppliers	65000
Cash value of insurance	200000	Accrued taxes	76000
Accounts receivable	350000		
Long term assets		**Long term liabilities**	
Vehicles	400000	Vehicles loan(outstanding amount)	68000
Poultry birds (2000 hds. @Rs100)	200000	Poultry loan (Outstanding amount)	42000
Machinery and equipment	800000	Machinery loan	50000
Farmland (3 ha @ Rs. 500000 per ha)	1500000	Farm (outstanding amount)	350000
Farm buildings	650000	Building depreciation	280000
Other facilities	210000		

Assignment 2

Prepare a Balance sheet statement by collecting necessary information of a farm and calculate the relevant ratios and draw conclusions about the farm business. **Preparation and Analysis of Income Statement of a Farm:**

Income statement or Profit and loss statement indicates how well the farm business has performed during the accounting period. From this, we can get an idea of the returns to various resources after deducting the expenses and also about overall earnings of the farm. This is an important financial record because it measures the financial progress and profitability over a period of time.

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Definition: Income statement is a summary of receipts and gains minus expenses and losses during a specified period.

Receipts: Receipts are the returns obtained from the sale of crop produce and other supplementary products like milk and eggs, wages, gifts, etc. Gain in the form of appreciation in the value of assets is also included in the receipts. However, returns from the sale of capital assets, such as livestock, machinery, farm buildings, etc. are not included because such returns / income are not really obtained during the period.

Expenses: Operating and fixed costs are recorded in this. Losses in the form of depreciation on the asset value fall under the expenditure item. However, the amounts incurred on the purchase of capital assets are not included.

Income statement is a summary of both cash and non-cash transaction of the farm business. In non-cash financial transaction, we get capital gain and depreciation. Income statement is divided into two major categories, viz., income and expenses. Income includes cash receipts, capital sales of business and changes in inventory value of items produced in the farm. Expenses include operating and fixed expenses.

i) **Inventory:** It is a complete listing of all assets. Items like supplies, grain and feed held for sale are listed on the inventory form.

ii) **Capital Sales of the Business:** The sale of milch animals and equipment are major items under this heading. These types of receipts are separated from normal cash receipts because they must be reported differently on tax forms.

iii) **Changes in Inventory:** In making adjustment for changes in inventory value, both changes in price and quantity should be taken into consideration. If the ending inventory value is greater than the beginning inventory value, it should be treated as a form of income. If opposite holds true it should be considered as negative income.

iv) **Operating and Fixed Expenses**: Operating expenses generally vary with the size of the business operation. Whereas, fixed expenses do not significantly vary with changes in the volume of business done under the period of reporting.

Thus, income statement helps to know the success or failure of a farm business over time. Basically, it constitutes three items, viz., receipts, expenses and net income.

Procedure of preparing a profit and loss statement

Step 1: Sum up the rupee value of the products and services that have been sold during the period specified (period for which profits and loss statement i.e accounting period).

Step 2: Estimate the net sales amount by deducting goods returned, discounts, allowances etc, if any, from the total sales amount.

Total sales = Rs.

Less goods returned = Rs.

Less discounts and

allowances = Rs. So, net

sales= Rs.

Step 3: Estimate the cost of goods sold as follows

- Net inventory costs or charges = beginning inventory – ending inventory
- Cost of goods sold = Net inventory charges + Other purchases

We can arrive at the cost of goods sold by adding the various items of the working costs like materials, raw materials, wages etc., used for production.

Step 4: Calculate the gross margin by taking the difference between total sales and the cost of the goods

- Gross margin = Total sales – Cost of goods sold

Step 5: Estimate and sum up all the other operating expenses not included earlier like marketing, administrative, general over head expenses etc, associated with the specific sales transacted during the accounting period

Step 6: Calculate the net operating margin (NOP) by subtracting the operating expenses from the gross margin.

- Net operating margin = Gross margin – Operating expenses

Step 7: Estimate the non operating income and expenses if any

Step 8: Estimate the Net Profit Before Taxes (NPBT) or Profits Before Taxes (PBT)

- PBT = (NOP + Non operating income) – Non operating expenses

Step 9: Estimate the bottom line of the business ie., Profit After Tax (PAT) ie., Net income or Net Profit After Tax (NPAT) by deducting taxes from PBT

- NPAT = NPBT – Profit tax

Income Statement of a Hypothetical Farm (1st July 2016 to 30th June 2017)

(Amount in Rs.)

	Receipts	Amount (Rs.)		Expenses	Amount (Rs.)
	Cash receipts		**I**	**Operating expenses**	
	Paddy sales	7500	1.	Hired labour	3000
	Sugarcane sales	5500	2.	Hired bullock labour	4000
	Groundnut sales	12000	3.	Fuel and repairs	2500
	Milk sales	6500	4.	Manures	1500
	Broiler sales	12000	5.	Other crop expenses (seed and spray of chemicals)	2400
6.	Miscellaneous income (Hired out human and bullock labour)	1500	6.	Livestock and veterinary expenses	1000
			7.	Interest on current debt	600
			8.	Other miscellaneous expenses	700
	Sub-total	**45000**		**Sub-total**	**15700**
	Net capital gain income		**II**	**Fixed expenses**	
	Sale of purchased milch animal	2000		Land rent	3000
	Sale of farm bred animal	2000		Land revenue and cess and surcharge	800
	Sale of machinery	2000		Land development	4200
	Sub-total	**6000**		Interest on intermediate and long term loan	1000
	Change in inventory value			Equipment depreciation	1500
	Crop inventory	4000		Livestock inventory change	1000
	Livestock inventory	1000		Imputed value of family labour	1000
	Sub-total	**5000**		Building inventory change	600

				Imputed value of operator's management	1500
				Sub-total	**14600**
	Gross Farm Income	**56,000.00**		**Total Expenses**	**30,300.00**
				Net Farm Income	**Rs.25,700/-**

Books referred

1. Essentials of Farm Management by S.S. Johl and C.V. Moore. Today and Tomorrow's Printers & Publishers
2. Agricultural Finance and Management by S. Subba Reddy and P. Raghuram . Oxford & IBP publishing company Ltd. New Delhi.
3. Agricultural Economics by S .Subba Reddy, P. Raghuram, T.V.N. Sastry and I Bhavani Devi. Oxford & IBP publishing company Ltd. New Delhi