

Module 1: Farm Business Planning

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Main objectives of the module:

By the end of the session, participants will be better able to:

- Understand the importance of effective planning for a farm business
 - Define the aim of a farm business plan
 - Organise their personal and business goals and determine a farm business mission statement
 - Make an overview of their farm business and identify their business strengths, weaknesses, opportunities and threats (SWOT analysis)
 - Prepare the basic components of a farm business plan covering all aspects of their business
 - Organise a production plan and keep records of production and business activities
 - Better manage themselves and the people working in their farm business
 - Understand the basics of financial planning, including the most important financial statements and key business ratios for monitoring business viability and competitiveness
 - Use information technology and software applications for farm business planning and monitoring activities
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1.1 An introduction to farm business planning

This module covers the most important aspects of planning for a viable farm business and provides basic knowledge and skills tools for farm business planning and related use of computer software. The text is supported by examples, exercises and case studies and the module provides links and references for further information and guidance.

Today, there is an increasing need to help farmers to become more effective managers of farming enterprises. Careful planning is often critical to the success of a business in every sector of the economy. However, the farming sector is often seen as lagging behind in the application of the modern management and planning techniques that create sound business enterprises. Sometimes this is simply due to a shortage of the necessary skills and knowledge that would help farmers in the planning process.

Planning outlines where your farm business wants to be at some determined time in the future and defines how you intend to get there. A plan is usually a concise summary of activities surrounding the creation and expansion of the business. It describes the product or service, customers, competition, production and marketing plans, management, financing and anything else relating to the product or service that the business will provide.

Many people might ask: *'Why should I prepare a business plan?'* but businesses often need more than money and dreams to keep them alive and profitable; they need careful planning so that:

- Goals* can be defined and explained: i.e.
 - Where is the business going?
 - What needs to be done?
 - What is the role of investors, family members and employees in achieving these goals?
- Problems and pitfalls* can be considered before they happen, moves made to avoid them and advantage taken of opportunities as they come along
- Valuable information* can be collected and prepared ready to use for decision-making and managing change in operations
- Progress can be regularly compared* with expected goals and changes made to plans where needed
- Communication* can be improved. For example goals can be better explained to team members and everyone can then contribute to their achievement
- Capital might be obtained* from private investors, venture capital funds, lenders, banks, trust companies etc. Government financial assistance programmes normally expect a business plan to be submitted with applications for assistance. A well-prepared business plan serves as tangible evidence of your ability to manage, plan and communicate - all skills needed to operate a successful business

[Case study 6 Pingue](#) and [Case Study 22 Cooperativa Euro-ortofrutticola Del Trigno](#) shows how, by careful planning and an effective allocation of resources, a

traditional family business or a small cooperative, can increase to a significant size. While continuing to manage their farm the Pingue family have also expanded their business into processing, retailing and export. They now employ more than 50 people. The Euro-ortofruitticola Del Trigno cooperative has over more than 40 years, changed from a small wine marketing group to one of the largest farmer owned cooperatives of its kind in Italy. It now provides a broad range of input supply, post harvest and marketing services to its members.

In contrast [*Case study 20 Cooperativa Agricola Valdarnese*](#) gives an example of farmers that plan to keep their business small by focusing on limited quantities of traditional but quality production that is targeted at specific local, tourist and export markets.

Planning enables you to examine every aspect of your business. You must be realistic in assessing what opportunities exist and what you are capable of achieving. Some questions to ask yourself are:

- What is the *purpose - mission* of my business? (Be able to express it in a couple of sentences)
- What are my personal and business *goals*? Are they *SMART*? (Specific, Measurable, Attainable, Realistic and Timely)
- What is the *specific market* I am targeting?
- Are *customers* willing and able to purchase my product and service?
- Do I have the necessary *skills, knowledge* and *resources*?
- What are my approximate *cash needs* for start up and beyond? Do I have the resources? If not, where could the *funds* come from?

The answers to the questions above will help you determine the feasibility of your business idea or your business in general. Some of these questions are answered by assessing your current situation. To answer other questions concerning your business environment, customers, competition and business opportunities you can collect information from newspapers, magazines, the internet, seminars, industry meetings and contacts, government agencies, libraries, tips you may have learned from your employees, salespeople, suppliers or competitors.

Various formats are available for business plans but most include the following:

- An introduction to the business history, ownership and activities
- A summary of the plan
- A statement of the business vision and goals
- A statement of strategic and short term objectives
- A description of your products and services
- Details of your proposed production, market and sales, finance and human resource development strategy

A business plan is actually a compilation of several sub-plans covering marketing, production, human resources and financial plans. More details covering each element of the plan is presented below.

1.2 Record keeping

Effective record keeping will help you in preparing your plan and when monitoring its implementation. Record keeping can:

- Serve as a good basis for calculating more precisely your production costs yields and profit for a specific cultivation period and enable better forecasting of future levels
- Help you to organise your production and harvesting period in such a way that you can achieve higher prices in the market
- Enable you to act proactively to protect your produce from potential diseases and your business from worsening conditions
- Allow you to join buyer, national and internationally recognised quality assurance programmes
- Allow you to achieve produce traceability and investigate causes of any potential problems that may arise during production or when delivering a product to a market

It is important to record:

1. **All your incomes and costs** each day so they may be summarised by week, month and year. By comparing your annual income to you annual cost you can determine whether you have made a profit or a loss over the year. Cropping programmes can be optimised through the use of gross margin analysis. Gross margin analysis assesses the comparative profitability of different crops. Gross margins are obtained by subtracting variable costs, such as fertilisers, seeds, agricultural chemicals and temporary labour that are associated with the crop production, from the sales obtained. Fixed costs such as equipment depreciation, owner payments etc. should not be included. An example for apricots is shown below:

Example of gross margins for apricots

AGE OF TREES IN YEARS	5-6	6-7	8-20
Yield tonnes per hectare	20	30	40
Net average price received €/Tonne	158	158	158
INCOME	3,160	4,740	6,320
VARIABLE COSTS			
Fertiliser	400	420	500
Sprays	250	250	250
Casual labour	400	500	600
Other variable costs	200	200	200
TOTAL VARIABLE COSTS	1,250	1,370	1,550
GROSS MARGIN €/hectare	1,910	3,370	4,770

Gross margins received per hectare can then be compared against other crops in order to identify the most profitable cropping pattern and to calculate the working capital requirements per hectare. The following table gives such an example:

Table 2 Comparison of earnings, production costs and gross margins of vegetable crops in the Fucino area (Italy)

		Sugar Beet	Potato	Carrot	Cauliflower	Spinach	Celery	Cicory	Lettuce	Fennel	Tomato	Melon
Farmer's price	€/Kg	0,06	0,15	0,10	0,26	0,13	0,13	0,32	0,15	0,20	0,10	0,40
Net average production	Kg/Ha	70.000	36.000	75.000	25.000	17.000	70.000	25.000	60.000	32.000	80.000	40.000
Processing	€	500	500	500	500	500	500	500	500	500	500	500
Fertilizing	€	500	800	800	300	100	500	300	500	300	500	800
Weeding	€	200	100	100	200	150	50	150	150	150	150	0
Seed/Seedlings	€	160	300	700	1000	400	2500	600	1500	1000	2500	1300
Sowing/Planting	€	100	100	100	100	100	500	100	250	100	500	500
Treatments	€	400	400	400	400	50	500	400	500	500	500	1500
Irrigation	€	300	400	500	400	0	500	500	500	200	500	3000
Crop operation	€	400	200	200	200	50	150	300	500	300	300	1500
Harvesting	€	300	850	1200	1300	50	1500	1500	1500	1500	1500	2500
Transportation	€	50	50	150	50	50	50	500	500	50	50	150
Gross Saleable Product	€	4.200,00	5.400,00	7.500,00	6.500,00	2.210,00	9.100,00	8.000,00	9.000,00	6.400,00	8.000,00	16.000,00
Gross Margin	€	1.290,00	1.700,00	2.850,00	2.050,00	760,00	2.350,00	3.150,00	2.600,00	1.800,00	1.000,00	4.250,00

2. **Sales prices received** for products each day and so a graph can be prepared on prices for specific crops throughout the year and so enabling you to prepare produce for market when the best prices are likely and to negotiate better with buyers
3. **Yields obtained and total sales** (by volume and price) for specific products in order to enable you to compare with previous years and make a forecast for future years
4. **Applications made** such as fertilisers, chemicals, water or machinery (type and usage time), in order to compare costs of applications against increased (or decreased) yields and quality (such as measurement of microbial content in milk or pesticide residues in vegetables)

Measurements and observations can be recorded by hand or recorded on specialised software programmes. The use of information technology for monitoring and production activity has widely expanded in recent years. Software programmes not only keep systematic records but they can also give statistical information and serve as decision-making tools for farm managers.

Observations can be carried out systematically on a daily, weekly or monthly basis according to the production activity. For example, a weekly monitoring of lettuces is adequate for ensuring produce but daily records will need to be made for milk or similar more perishable products.

Case Study 13 Orto Sole and **Case Study 18 Stanaway Farm** provide examples of a farm that use dedicated farm management software to control all information about plots, varieties, dates of plantation, treatments, pesticides, etc.

Exercise: Describe the monitoring and record keeping system for your farm. What other activities do you need to record? Prepare a form for recording this information and which best suits your needs.

1.3 Setting goals and objectives

The first thing you will need to do to when preparing a farm business plan is to clearly define your goals. It is important to consider the following issues:

- What are your *personal and family goals*?
- What is the *vision* for your business? (Stated as a mission statement)
- What are your *business objectives*? (Projections in terms of volume and value during the time period that the plan covers) and how do you plan to achieve them?
- What is our *strategy* for getting there? Where are we now? Where do we want to go? How are we going to get there?
- How much finance do we need, where will we get it from and how will we get our money back?

This information should be summarised in the introduction to our plan and more detail provided later. The introduction should also include information on:

- The size, organisation and ownership (e.g. sole proprietorship, partnership, and corporation) of the business
- Its history explaining how it got to this point
- Its priority markets and customers
- Main market trends and opportunities

The *vision* for your business may be stated as a *mission statement* outlining what your business is and what the business is aiming to be in the future. It should concisely summarise your most important business goals. It is a useful tool to help you to understand and communicate to others the aim of your business and where you stand in the business environment. A mission statement is a first step in preparing a business plan. A mission statement should:

- Provide information but also be inspiring
- Be quite specific but not too limiting
- Be realistic, quantifiable, flexible and adaptable
- Consider customers and other interested groups in the business such as employees, investors and other stakeholders
- Aim for a specific time period
- Be easily understood
- Developed and discussed by all the key people related to your business

Case study 6 Pingue state their mission as being: “to highlight the cultural value of typical products as well as the value of the Abruzzo region and to be leaders on the market for all people who value good taste in food, gourmet foods, quality cuisine and search for high quality food products”.

[Case Study 20 Cooperativa Agricola Valdarnese](#) state their vision as being, “to concentrate on quality production, rather than on quantity and to add value to products through preserving their unique and traditional qualities”.

[Case study 16 Milden Hall](#) state their vision as being: “to continue sustainable farming and to integrate conservation in all aspects of farm management, using pesticides selectively and to a minimum”. This and [Case Study 30 Travaglini Forestry Farm](#) also show how family and community values can also be integrated into business objectives.

Exercises:

1. Read carefully the mission statements in each of the case studies above and evaluate them according to the important considerations mentioned above
2. Identify other examples of mission statements in newspapers, magazines and brochures
3. Try to create a mission statement for your farm business. Present it to your colleagues and discuss it



Mission Statement _____

4. After completing these tasks, how do you think that this mission statement will help you and your colleagues run your business?

Next formulate your business goals and strategy. Business goals are more specific issues concerning your farm business. According to their time orientation they can be categorised into three groups:

- Long-term goals:* These normally refer to a time period of more than 5 years. For example, expansion of your business activity to retailing in the next 5 years
- Medium term goals:* These normally refer to a period of between 1 to 5 years. For example, investments in specific equipment and machinery in the next 2 years
- Tactical and operational goals:* They normally refer to a time period of less than 1 year and to the everyday operation of the business. A time schedule for you, your family and the people working on the farm can enable more effective use of time

Long-term goals are usually the first to be established. They are also considered as being “strategic” goals. The other shorter term goals are defined later as a means to realise them.

1.4 Analysing your business

A SWOT analysis is a particularly valuable tool for determining the ability of your business to compete and survive in a competitive environment. It is the first step in recognising your options and potential problems and in preparing a strategy to act. *SWOT* is an acronym formed from: Strengths, Weaknesses, Opportunities and Threats. It helps business to identify their own strengths and weaknesses (such as the business resources, experience, structure, management, skills, products etc.) as well as the opportunities and threats arising from the external environment.

External environmental issues may include, political, economic, social and technological issues as well as demographic and ecologic factors. The competitive environment will also need to be considered including competitors, customers, suppliers and new products on the market.

The following table presents an example of a SWOT analysis for a cheese-making farm producing traditional products:

Example of SWOT analysis for a cheese-making farm

Strengths	Weaknesses
<input type="checkbox"/> Traditional know how for cheese production <input type="checkbox"/> Skilled and experienced workers <input type="checkbox"/> Strong links with local markets <input type="checkbox"/> Growing sales <input type="checkbox"/> Quality packaging	<input type="checkbox"/> Insufficient storage rooms <input type="checkbox"/> Low production capacity <input type="checkbox"/> Low capitalisation <input type="checkbox"/> Lack of promotion strategies <input type="checkbox"/> Insufficient know how of quality control schemes applications
Opportunities	Threats
<input type="checkbox"/> Greater customers interest in traditional food products <input type="checkbox"/> New markets in foreign countries <input type="checkbox"/> Relatively low milk price	<input type="checkbox"/> Strong price competition <input type="checkbox"/> Strict legislation concerning quality assurance procedures <input type="checkbox"/> Price pressures from retailers

Case study 4 Lane Country Foods is a good example of a farm that developed a five year plan in 1999 and after assessing their strengths, weaknesses and opportunities decided to sell all their breeding stock to an outside breeder and concentrate their efforts on a fattening enterprise and the development and expansion of a cutting and cooked meats area. As a family and a business they have kept their expansions to manageable proportions.

Exercises:

1. Select one of the following case studies:

- a) **Case Study 3 Priors Hall Farm**
- b) **Case Study 5 Marybelle and Suffolk Meadow Ice Cream**
- c) **Case Study 8 Spencers Farm Shop**

Read the text for the case study and summarise what you see to be the business strengths, weaknesses, opportunities and threats and then fill in the following SWOT analysis table. Discuss your conclusions with other participants and decide whether or not, and how, these businesses have addressed the issues.

Strengths	Weaknesses
Opportunities	Threats

2. Think of the strengths, weaknesses, opportunities and threats of your own business. Prepare your SWOT analysis as in the example above.

1.5 Production planning

This part of the plan should provide an outline of your products and business operation and include information related to:

1. **Your business** - *farm location* and how it serves your business needs e.g. proximity to markets, pack-houses, suppliers, transportation and location of competitors

2. **The product or service activity.** Presenting a timetable of production activities and cultivation periods will be useful. You can prepare planting schedules in order to assure harvesting in periods of high prices and enable production stability. *GANTT charts* are a particularly useful way of preparing schedules of production activity. The production process can be separated into major activities that are listed on the left side of the chart. The time frame of the entire production process is indicated at the top or the bottom of the chart. The duration and scheduling for each activity is then shown by a horizontal bar. An example is given below:

Example Gantt Chart

ID	Activity Name	Start	Finish	Duration	Jul 2004				Aug 2004					
					4/7	11/7	18/7	25/7	1/8	8/8	15/8	22/8	29/8	5/9
1	Planting	1/7/2004	2/7/2004	2d	[Gantt bar from 1/7 to 2/7]									
2	Transplantation	15/7/2004	16/7/2004	2d	[Gantt bar from 15/7 to 16/7]									
3	Application of pesticides	2/8/2004	2/8/2004	1d	[Gantt bar on 2/8]									
4	Irrigation	1/7/2004	1/9/2004	45d	[Gantt bar from 1/7 to 1/9]									
5	Harvesting	1/9/2004	10/9/2004	8d	[Gantt bar from 1/9 to 10/9]									

3. **Land, buildings, facilities and equipment** required including their costs and financing (lease or own), renovations, taxes payable and utility costs. You can also combine the necessary machinery with the products produced and summarise this information as shown in the following tables:

Table: Necessary equipment

Type of equipment	Time of purchase or lease	Supplier	Technical properties	Unit of measurement	Quantity	Cost per unit	Total cost
1.							
2.							
3.							
4.							
5.							
6.							
Total							

Table: Necessary equipment combined with products /services offered

Products / Services offered	Necessary equipment for production	Time of production activity start	Time of equipment purchase/lease

4. Your *labour* (family and employee) needs and especially skilled labour, for example for harvesting or specialist use of equipment
5. *Input supplies and materials* (such as seeds, chemicals or fertilisers), including details of where they will be purchased and their cost
6. How *value may be added* to your product, such as by packaging, processing, storage or transport
7. What *after sales support* to customers may be required
8. *Production levels and extra services* that can be realistically achieved with the proposed plan

Exercise: One of our clients has presented us with a commercial budget for the supply of 960 tons of lettuce for the month of July. Can you transform this budget into a weekly supply plan, knowing that for lettuce there are 50 days from transplanting to harvesting and that the average yield is 40 tons/ha? Use the information shown below.

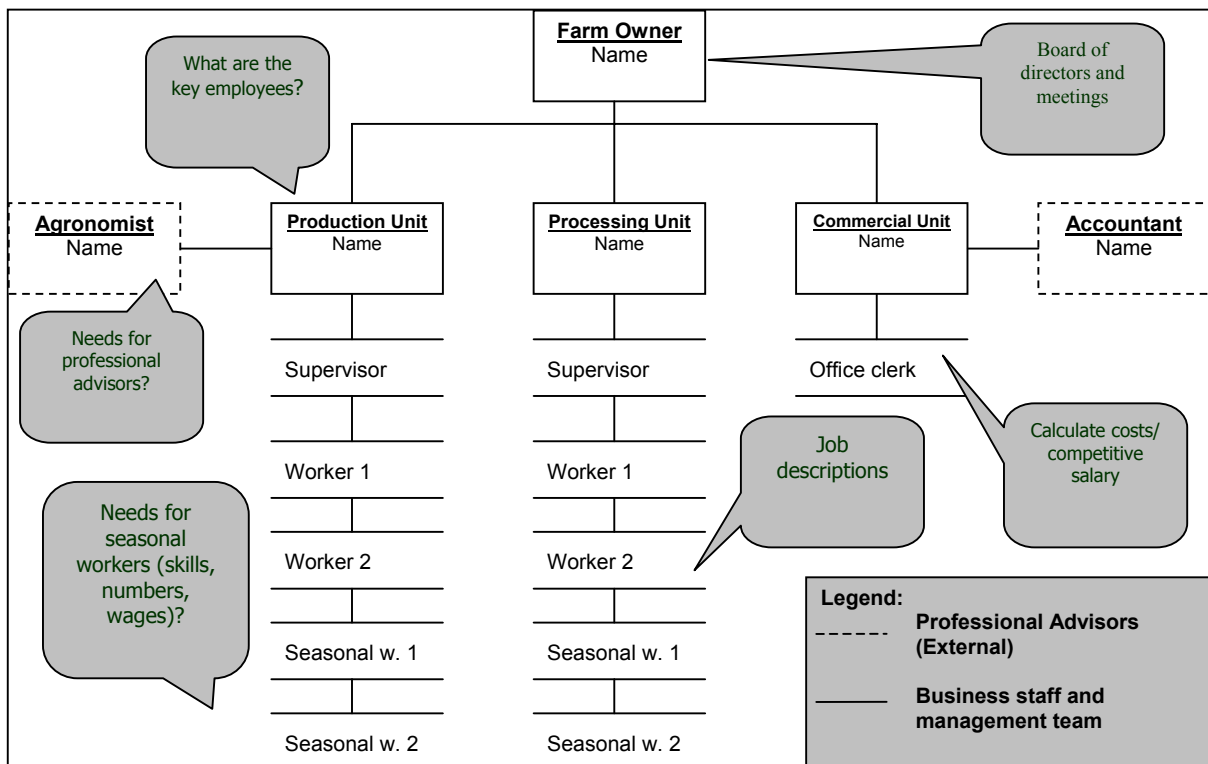
Harvest Date	Planting Date	Days	Variety
01 July		50	Fabula - Prando
07 July		50	Fabula - Prando
14 July		50	Fabula - Prando
21 July		50	Fabula - Prando

Case study 12 Orto 40 S.N.C. provides a good example of effective production planning and based around the coordination of vegetable sowing, transplanting and harvesting at contract farms and in order to better schedule supplies to retailers and processors.

1.6 Human resources planning

Recognition of the contribution by yourself, your family and your employees to business success is essential. Your people plan should outline how you intend to identify, recruit, develop, promote and motivate key people and maintain a strong sense of collective achievement and an effective team. This component of the plan should also include an *organisational chart* (see figure below) and with the role and position of each person outlined. Supporting documents should include job descriptions of key positions in your business.

Example organisational chart



Within your plan you should consider:

- Who are the *key people* in your business? How experienced, skilled, educated and trained are they? Keep records of their curriculum vitae and training attended
- What are your needs for *seasonal workers*? How many will you need? What skills are necessary and how much will you pay them?
- What are your needs for *advice and training* from professionals outside of your business?
- What are the main *strengths and weaknesses* in your people team? Present your strategy to build on their strengths and overcome their weaknesses within a clearly defined time frame e.g. through training recruitment of new employees, hire outside advisors etc.
- Who are the *board of directors* (if any). How often should they meet and what should be their key tasks?
- Calculate the *expected costs for labour* and indicate whether the salary and other benefits you give your staff are competitive. You can use the following table for calculating your labour costs.

Table: Calculation of labour costs

Name	Speciality	Education / training and experience	Month salary + social security cost	Annual cost	Total Cost
TOTAL					

You also need to consider training and development of yourself and those around you. Use the simple table below to assess current skills to improve. For a more detailed assessment use the table provided in the [preamble](#).

Training and development needs		Skills to better exploit on the farm business	
Production management	Who?	Production management	Who?
Marketing management		Marketing management	

Financial management		Financial management	
Human resources management		Human resources management	

Case study 4 Lane Country Foods shows how involving key staff in decision making, product development can help a business to thrive.

1.7 Financial planning

The financial plan is a key component of your business plan because the process of creating financial projections for your business revenues and expenses, cash flow, and financial position will oblige you to examine all the other key components of your plan. In doing this you will be able to describe your plan in financial terms and detect any discrepancies, gaps or unrealistic assumptions you have made earlier. The financial plan is also a valuable tool for creditors, investors or government agencies when evaluating your business needs and use of funds.

Businesses are unable to operate without proper finance. Inputs have to be bought and bills have to be paid. A basic understanding of finance enables a farm manager to make strategic decisions to ensure efficient operations. Important financial statements that you need to generate and understand for your business are:

1.7.1 Balance sheet and profit and loss accounts

A balance sheet describes the assets, the liabilities, and the equity of your business at a particular point in time. It is simply a “snapshot”, usually at the end of the fiscal year, of the assets used by your business and how they have been funded. The term ‘balance’ refers to a balanced relationship: i.e. Total Assets = Total Liabilities + Equity.

Balance sheet information is useful as it allows you and your creditors to compare your forecasts and past performance against industry averages. The balance sheet comprises of two columns respectively headed ‘assets’ and ‘liabilities/equity’. This is shown in the following figure:

Figure: Balance sheet layout

Assets	Liabilities/Equity
Things that are owned by the business - land, buildings, machinery, capital, inventory etc. (or how the money has been spent) 100	Amount owed by the business (or where the money came from) 100

Assets can be further categorised into:

- Long term or fixed assets:* These can be tangible, such as land and buildings, or intangible, such as goodwill, licences, patents etc. Their value is calculated by deducting accumulated depreciation from the original cost of purchase
- Intermediate assets:* Sometimes these are included as fixed assets but might be separated and include equipment, machinery, animal capital etc.
- Current assets:* These assets are cash or items that can be converted into cash quickly such as product stock, debtors outstanding etc.

The liabilities / equity column shows where the money came from to pay for your assets. Liabilities can be categorised into:

- Long term liabilities:* These include mortgages, debentures and long-term loans of more than 5 years
- Intermediate liabilities:* Sometimes these are included as long term liabilities usually represent loans with a repayment period of 3 – 5 years
- Current liabilities:* This is the day-to-day operating cash position and comprises, of accounts payable, interest payments, short-term loans, tax and dividends due

Equity or net worth is calculated from the following relationship:

$$\text{Equity} = \text{Assets} - \text{Liabilities}$$

Equity represents the funds contributed by the owner and can include:

- Capital reserves:* Surpluses from sources other than the normal business activity
- Revenue reserves:* Surpluses generated by the normal business activity
- Common stocks:* Owner paid capital into the business

A common layout of a balance sheet is presented in the following table and is followed by a completed balance sheet for a livestock breeding company.

Table: Balance sheet structure

BALANCE SHEET	
Date: _____	
ASSETS	LIABILITIES
<i>Long Term</i>	<i>Long Term Liabilities</i>
1.	1.
2.	2.
...	...
Total Long Term Assets	Total Long Term Liabilities
<i>Intermediate</i>	<i>Intermediate Liabilities</i>
1.	1.
2.	2.
3.	3.
...	...
Total Intermediate Assets	Total Intermediate Liabilities
<i>Current Assets</i>	<i>Current Liabilities</i>
1.	1.
2.	2.
3.	3.
4.	...
5.	Total Current Liabilities
...	Total Liabilities
Total Current Assets	Equity
	1.
	2.
	...
	Total Equity
Total Assets	Total Liabilities + Equity

Table: Example balance for a livestock breeding company

BALANCE SHEET			
Date: 31/12/2004			
ASSETS		LIABILITIES	
<i>Long Term</i>		<i>Long Term</i>	
Land	30.000€	Long term loans	35.000€
Buildings	10.000€		
...			
Total Long Term Assets	40.000€	Total Long Term Liabilities	30.000€
<i>Intermediate</i>		<i>Intermediate</i>	
Machinery	8.000€	Intermediate loans	15.000€
Equipment	6.000€	...	
Animal capital	16.000€		
...			

Total Intermediate Assets	30.000€		Total Intermediate Liabilities	15.000€
Current			Current	
Cash	4.000€		Operating loans	10.000€
Deposit	10.000€		Accounts payable	3.000€
Accounts receivable	4.000€		Cash advance payments	2.000€
Grain and forage	2.000€		...	
Market livestock	10.000€		Total Current Liabilities	15.000€
...			Total Liabilities	60.000€
Total Current Assets	30.000€		Equity	40.000€
Total Assets	100.000€		Total Liabilities + Equity	100.000€

Exercise: Use the balance sheet structure to prepare a balance sheet for your own business. Things to consider when preparing your balance sheet are:

- Has the date of the statement been recorded?
- Are all assets listed, and in the right category?
- Are reasonable values placed on the value of assets?
- Have you included leased assets (by mistake)?
- Are all the liabilities listed in the right category?
- Are the liabilities and loan balances correct at the date of the statement?

You can compare against the livestock breeding company presented above if you are unsure.

The purpose of a profit and loss account is to show the incomes and expenses from normal operations of your business over a period of time, called the accounting period. The accounting period is usually the calendar year. The profit and loss account measures the profitability of the business over this period. The difference between profit and loss is called net income (profit or loss) for the period. An example of profit and loss account is presented in the following table:

Table: Profit and loss account example

PROFIT AND LOSS ACCOUNT	
Statement from <u> 1/1/2004 </u> to <u> 31/12/2004 </u>	
Sales (turnover)	(+) 12000€
Expenses of sold products.....	(-) 6000€
Profit before interest and tax (PBIT)	6000€
Depreciation.....	(-)500€
Interest.....	(-)1000€
Profit before tax	4500€
Tax.....	(-)1300€
Profit after tax (PAT)	3200€
Dividends.....	(-)0€
Retained earning	3200€

Exercise: Complete the profit and loss account for your own business and so calculate the net income of your business for the last year.

1.7.2 Ratios and business performance indicators

Farm managers use performance indicators all the time. Yield per hectare is one example. Almost every production performance activity can be expressed by comparing two or more elements. The same is true for the financial side of the business. *Ratios* are simple relationships between two sets of financial values and comparing trends of these ratios over time is often more important than simply looking at the numerical values. Comparing actual results to historical trends is one of the best ways to keep on top of your finances.

Some key ratios related to the balance sheet are presented in the following table:

Table: Key balance sheet ratios

Ratio Name	Meaning	Example Value						
Liquidity = Current Assets/ Current Liabilities Working Capital = Current Assets – Current Liabilities	The ability of the business to meet current financial obligations without disrupting current operations Liquidity Values Good Bad	2 Good						
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 2px;">2</td> <td style="padding: 2px;">1.5</td> <td style="padding: 2px;"><1</td> </tr> <tr> <td style="padding: 2px;">1</td> <td></td> <td></td> </tr> </table>	2	1.5	<1	1			
2	1.5	<1						
1								
Leverage = (Total Liabilities/Total	The ability of the business to meet total debt obligations. It provides an	60%						

Assets) x 100	indication of the ability of the business to continue in the event of severe financial adversity e.g. drought, price decline etc. <p style="text-align: center;">Leverage Values</p> <p style="text-align: center;">Good</p> <p style="text-align: center;">Bad</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 25%; text-align: center;">25</td> <td style="width: 25%; text-align: center;">30</td> <td style="width: 25%; text-align: center;">40</td> <td style="width: 25%; text-align: center;">60</td> </tr> </table>	25	30	40	60	Bad
25	30	40	60			

Exercise: Use the balance sheet you created for your own business, to calculate your liquidity, working capital and leverage position. Draw conclusions on your business viability and performance.

Other important ratios for analysing your business based on the balance sheet and profit and loss account are as follows:

Table: Ratios related to balance sheet and P&L account

Ratio Name	Meaning	Example Value				
<p>Return on Total Assets (ROTA)</p> <p>ROTA = Profit before interest and tax (PBIT) / Total Assets (%)</p>	<p>This is a measure of your profitability, and measures the rate of return your farm business earns on its average asset base over the period</p> <p style="text-align: center;">ROTA values</p> <p style="text-align: center;">Good</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 25%; text-align: center;">6</td> <td style="width: 25%; text-align: center;">4</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">0</td> </tr> </table> <p style="text-align: center;">Bad</p>	6	4	2	0	<p>6%</p> <p>Good</p>
6	4	2	0			
<p>Return on Equity (ROE)</p> <p>ROE = Profit after tax (PAT) / Equity (%)</p>	<p>This is a measure of the return on the equity of the business. Equity is capital that could be invested elsewhere (perhaps not in farming). You can compare your investment in farming with other alternatives. A typical ROE is in the 4% to 8% range.</p> <p style="text-align: center;">ROE values</p> <p style="text-align: center;">Good</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 25%; text-align: center;">10</td> <td style="width: 25%; text-align: center;">6</td> <td style="width: 25%; text-align: center;">2</td> <td style="width: 25%; text-align: center;">0</td> </tr> </table> <p style="text-align: center;">Bad</p>	10	6	2	0	<p>8%</p> <p>Good</p>
10	6	2	0			

When the ROE is bigger than the ROTA it is an indication of an economic use of borrowed funds. In other words it was sensible to borrow money because the return on this borrowed capital was greater than the cost of borrowing.

Exercise: By using the balance sheet and profit and loss account you created for your business calculate the ROTA and ROE ratios and draw conclusions.

Remember ratios should not be analysed in isolation. Ensure you compare and contrast a number of ratios in order to get an overall financial picture for your business.

1.7.3 Cash flow statements

A cash flow statement shows the amount of money coming into and going out of your business over a period of time. A forecast of cash flow enables you to decide what you can afford, when you can afford it and how you will keep your business operating on a monthly basis throughout the year. This information is useful to indicate the projected increases or decreases of a bank loan that may be required during the year. Quarterly summaries are adequate but occasionally monthly summaries are required.

The structure of a cash flow statement on a quarterly basis is presented in the following table:

Table: Cash flow statement structure

Cash Flows	1st Q.	2nd Q.	3rd Q.	4th Q.	Total
A. Production activities					
(+) Revenues from customers					
(+) Other revenues from production					
(-) Payments to suppliers					
(-) Payments to employees					
(-) Payments of taxes					
(-) Payments of interest					
(-) Payments of overheads					
...					
A. Net cash flows from production activities					
B. Investment Activities					
(+) Revenues of sold assets					
(-) Purchases of assets					
...					
B. Net cash flows from investment activities					
C. Financial Activities					
(+) Revenues from loans					
(-) Loan Repayments					
(+) Stakeholders capital contribution					
...					
C. Net cash flows from financial activities					
TOTAL (A+B+C)					

You can use the above structure to prepare a cash flow statement for your own business. But customise the statement according to your special needs.

1.7.4 Investment budget forecast and financing schedules

Investors and lenders may require detailed information on the capital purchases that are anticipated during the planning period as well as information on how these assets are to be financed and their expected useful life. Capital assets include land, buildings and equipment. Information can be presented for a new business where forecast values can be given, or for an established or expanding business, which would detail just the changes anticipated. An investment budget can be prepared using the table below:

Table: Investment budget forecast

Type of expense	Description	Cost forecast	%
Land purchase / renovations			
1.			
2.			
3.			
...			
Total			
Machinery / equipment			
1.			
2.			
3.			
...			
Total			
Operational costs			
1. Supplies			
2. Labour			
3. Overheads			
4. Administration			
5. Promotion			
....			
Total			
Total cost of investment			

A financial schedule provides a summary of existing and new loans that will be taken by your business. Information should include the interest rate being paid, frequency of payments, security given, type of loan and expected term of a loan. The name of the financial institution should also be indicated. The following table provides a simple structure for a financing schedule.

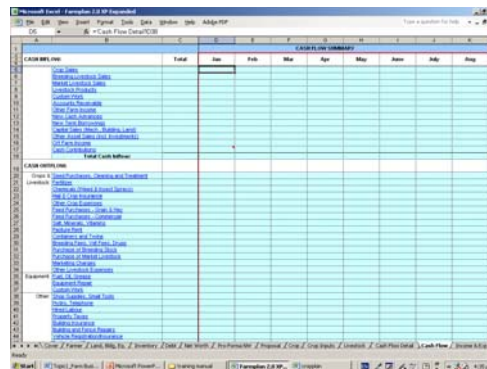
Table: Investment financing schedule

Sources of Funding	Information	Total amount (Value)	%
Your own capital			
Loan financing (types of loans, interest rates, term, name of financial institution etc.)			
Funding from state/grants			
Total			100

1.8 Software tools for business planning

Simple computer programmes have been developed to assist farmers in business planning. The Manitoba Ministry of Agriculture and Food is one example software programme based on the excel office application for Microsoft windows, named FarmPlan¹ (see following figure).

Figure: Screenshot of Farmplan.xls



Farm plan is offered for educational purposes as a business-planning tool and helps in coordinating financial statements. It is a user-friendly programme that offers on screen tips and produces useful reports. It serves as a tool for farmers to prepare, analyse and interpret farm business plans in order to make farm management decisions.

Crop plan is another software program based on the excel spreadsheet programme and enables farmers to calculate, and at the same time keep permanent records of, the quantities of crop inputs needed on the farm as well as costs per acre (1 acre = 0.405 hectares), per field and on a whole farm basis. Notes on weather, growing conditions, yield and other comments can be inserted as required by the user. It also calculates cost of production, net income and break-even prices and yields. More

¹ FarmPlan, Cropplan: Copyright © 1999, the Government of Manitoba, represented by the Ministry of Agriculture and Food

examples of software planning tools specialised for farming are presented in the corresponding section of [further information, links and examples](#) shown below.

1.9 Further information, links and examples

1.9.1 Training and information materials

Getting started in farm management accounting – part 1: using farm accounts to point the way

This booklet aims to help the farmer in "ensuring that the farm business is profitable and viable". It covers how to use the farm profit and loss account and the balance sheet to see how viable the business is. It has been published on the Web by the Department for the Environment, Food and Rural Affairs (DEFRA) since February 2004.

<http://www.defra.gov.uk/farm/fbadvice/farm-accounting/using-accounts1.pdf>

Getting started in farm management accounting – part 2: mapping out a farming future

This booklet looks at how to assess possible changes to the farm business "so that plans are made on as sound a basis as possible". It has been published on the Web by the Department for the Environment, Food and Rural Affairs (DEFRA) since February 2004.

<http://www.defra.gov.uk/farm/fbadvice/farm-accounting/farming-future.pdf>

Agribusiness planning: providing direction for agricultural firms

This report looks at the importance of business planning for agricultural firms, and describes the steps to be taken to produce a business plan. It covers the items that should be covered in a business plan, and looks at SWOT analyses, marketing, production/operations management, human resource management, and financial management. A glossary of terms, and example business plans are included. It is published by the College of Agricultural Sciences at Penn State University.

<http://pubs.cas.psu.edu/freepubs/pdfs/ua371.pdf>

Virtual business plan

BizPlanIt is a leading business planning consulting firm committed to providing high-quality free business planning resources for the do-it-yourself business plan writer. Virtual Business Plan is an online business plan resource based on real-world business planning advice. It has over 100 pages of tips, insights and examples, organized into the major sections of a full-length business plan.

<http://www.bizplanit.com/free.html>

1.9.2 Business plan examples, links and available software

Farmcentre

A management resource from British Columbia for farm business owners and agricultural workers. The site includes information resources on farm management planning, business planning examples, management and financial software demos, training materials and guides. <http://farmcentre.com/english/downloads/index.htm>

British Columbia, Ministry of Agriculture, Food and Fisheries

In the Business Management Web Pages of this site a range of sample business plans are provided for several types of agricultural enterprises such as, chicken broiler producers, dairy business, grains and seeds etc.

http://www.agf.gov.bc.ca/busmgmt/bus_guides/index.htm

Farm analysis solution tools

In a special web page of the University of Illinois computerized decision aids for performing financial analysis can be downloaded for assessing investments decisions and evaluating the economic impact of various management decisions.

<http://www.farmdoc.uiuc.edu/fasttools/index.html>

Farmplan

Farmplan is a set of financial statement templates designed to calculate the net worth, cash flow, income statement and debt service summary based on production and financial management plans for the coming year(s). An excel file can be downloaded from the Manitoba Ministry of Agriculture, Rural Development and Food web – page along with software tool guide.

<http://www.gov.mb.ca/agriculture/financial/farm/software.html>

Farmcentre

A management resource from British Columbia for farm business owners and agricultural workers. The site includes information resources on farm management planning, business planning examples, management and financial software demos, training materials and guides. <http://farmcentre.com/english/downloads/index.htm>

Farmer decision-making on adjustment into the EU. This looks at farmers' decision-making on adjustment into the EU, examining risk management, approaches to decision making, farm management, and case studies on Finnish farmers. This is one in a collection of "E-thesis" publications provided freely on the Web by the Helsinki University Library together with the Helsinki University Press and the faculties of the University.

<http://ethesis.helsinki.fi/julkaisut/maa/talou/vk/sonkkila/>

GIS technology for the use of production planning

PROGIS is a large European Software technology companies offering GIS based tool for production planning <http://www.progis.com>

Financial management of rural enterprises. P. Spathis (2001), Agricultural University of Athens, Athens, Greece.

How to prepare a business plan, Ontario Ministry of Economic Development, Trade and Tourism, web-site:

http://www.omafra.gov.on.ca/scripts/English/external_links/external.asp?url=http://www.ontario-canada.com

Evaluating a rural enterprise. ATTRA – National Sustainable Agriculture Information Service <http://www.attra.org/attra-pub/evalrural.html>

Accounting tools software

MYOB accounting www.account2000.co.uk

Sage www.accounting-software-shop.co.uk

I2 www.i2.com

Navision www.navision.com

Farm Secretary www.iagsa.org.uk