



# Cost of Production

How do I run a profitable agri-business?

(Source: AgriSeta and West Australia Dept. of Agric)

By  
Agnes Hove

# You have a farming business

- List your Total costs?
- What are your direct costs?
- What are your indirect costs?



# Physical Budget

- The income of an agri- business depends on the money received for services rendered, produce delivered and sold at the market and on the number of inputs and their associated value.



- The yield per ha can be similar over a number of years but the price obtained for the specific produce may vary, according to the available markets

# Understanding profit

- Profit is the income left over after all costs have been paid and is calculated as:

$$\text{Net profit} = \text{Gross farm income} - \text{costs}$$

- Gross farm income, also referred to as total revenue or gross farm receipts, is typically calculated as price multiplied by production volume sold.
- Net profit is gross farm income less all costs associated with production and running the business. Costs include fixed and variable operating costs, allowances for the replacement of livestock, plant and machinery (which may be in the form of depreciation), finance costs (interest, lease costs), management allowances (if a salary is not drawn) and taxation.



# How do you make a profit?

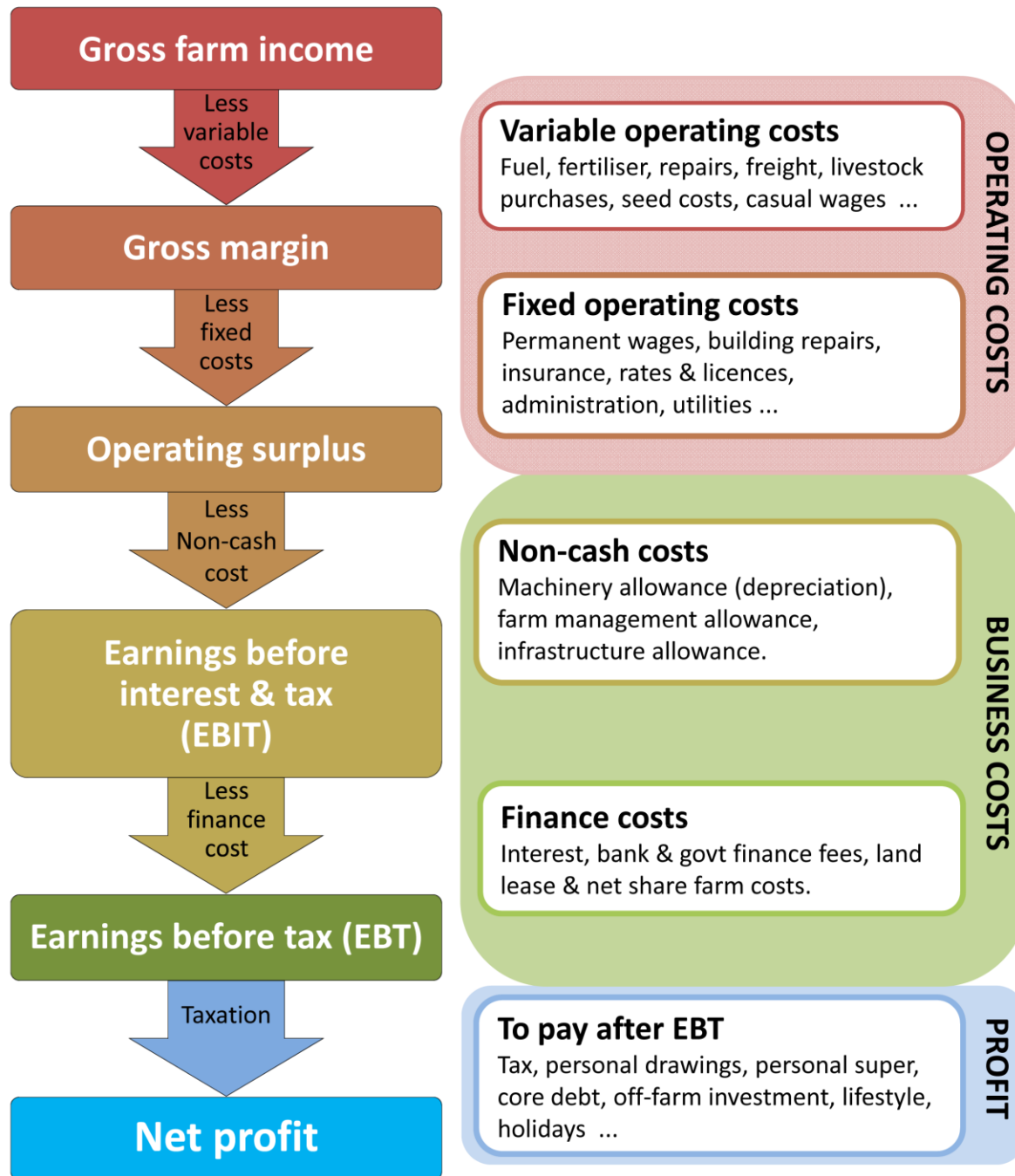


The level of gross margin reached per season for each crop is determined or influenced by several factors:

1. Input costs.
2. Assets.
3. Yield obtained – largely affected by pests and pest control, irrigation and fertiliser, environmental conditions, quality and packaging of a product.
4. Price obtained on the market for the produce
5. Time delivered to the market- whether the farmer has managed to sell all produce (competitors).



# Breakdown of Net Profit



# Profit Calculations



- Many people focus on gross margins, but there are significant costs not captured in the gross margin that need to be factored in when making comparisons across enterprises, analysing profitability and setting price targets.
- Analysis across various profit points (that is, gross margin versus operating surplus versus EBIT versus EBT) will depend on the purpose. For example, a farm manager when comparing enterprises may look at the earnings before interest and tax (EBIT) level; when considering expanding the farm area may look at the net profit after tax level; or when comparing crops that have the same fixed costs may look at the gross margin.

# Know your enterprise's profit drivers

Profit varies across farm businesses and between years and is driven by changes in price, production and costs. Farm business managers should know how each of these key profit drivers affects their business profit. Understanding this enables key decisions, particularly around returns on investment of time and money, to be made with confidence. Knowing a farm's profit drivers assists managers to analyse the risk and resilience of their business and make expenditure decisions within a season and between seasons.

It is the capacity of the farmer to effectively manage each of these drivers that determines a farm's profitability under a range of conditions. Management skill is often the differentiating factor between the top and bottom performers operating in similar environments.





# Managing price to drive profit

- The market price of most grain and livestock products is largely driven by global and local demand and supply fundamentals. Agricultural producers do not 'set' the prices they receive. Prices for many agricultural commodities are highly volatile and difficult to predict.
- They are influenced by the unpredictability of global weather conditions and subsequent impact on global and local production (ie. supply). Prices are further impacted by changes in the exchange rate.



# Marketing tools and sales strategies

- Selling as close as possible to the consumer (direct) to by-pass part of the supply chain and associated costs.
- Selling produce through time, price averaging.
- Targeting niche markets.
- Establishing a brand that is recognisable and associated with attributes desired by the consumer.
- Identifying and, if possible, selling into market windows when prices are typically higher. This may involve changing production schedules (e.g. time of harvesting, joining). However, the opportunity needs to be weighed against any additional costs or yield penalties associated with meeting this market window.
- Timing the sale of your product and holding some grain/wool as stock so you can sell if price spikes without production risk. The cost of holding stock needs to be considered including the opportunity cost of what cash could have been invested in.



# Production planning

- Using decision support tools to help you to better understand the likely production based on seasonal conditions to date and seasonal outlook.
- Controlling or managing the quality of produce to avoid downgrades or penalties.
- Producing 'premium' quality products to improve price (blending grain, grass fed livestock, managing yield/protein relationship).
- Diversifying the enterprise mix to reduce the whole farm profit impact of a significant downward price correction in one commodity.



# Managing costs to drive profit

- Costs can be fixed or variable. Fixed costs are expenses that the business will incur regardless of the season or volume produced. They include both fixed operating and non operating costs such as permanent wages, overheads, depreciation and finance costs.
- Variable costs are direct input costs that vary with the season or volume produced such as fuel, repairs, fertiliser, livestock purchases, supplementary feed, animal health, seed, casual wages, freight costs, levies etc.
- Given the variability in seasonal conditions, farm businesses need to have strategies in place to manage their cost structure. This provides for the flexibility to maximise production opportunity through additional expenditure in the favourable seasons and minimise costs in the poor seasons.



# Factors that can influence income

Factors that can influence income include; material, labour, fixed and variable costs which can vary. These can be influenced from those factors which are influenced by human factors and those influenced by natural factors. Income is often related to available markets and the amount of the produce which is on the market at any specific time. For example, if there are too many potatoes delivered at a specific market at one time, the price will drop (demand vs. supply). Income can be affected by natural circumstances, e.g. hail or rain, which can damage the crop and the farmer can for example not deliver the quantity of onions which was aimed to be produced and thus will receive the expected income.





# Fixed costs

- Fixed costs are those costs, which cannot easily be allocated to the different enterprises or parts that make up the whole of the farm. These costs include transport, the monthly electricity account and rental or purchase payments.
- These costs include:
  - Depreciation in the value of vehicles and machinery.
  - Insurance premiums on fixed assets such as buildings and machinery.
  - Licenses.
  - Permanent labour.
  - Monthly payments for the property if money is still owed.
  - Others



# Variable Costs

These are costs that are needed for production, and will only be incurred when production takes place. Variable costs will change according to the size of farming enterprise.

Variable costs are costs that vary with the extent of production of outputs. When output increases, more labour is needed, more irrigation may be required and more fertiliser will be used. Variable costs include, but are not limited to the following:

Seed to plant crops.

Purchases such as fertilisers, chemicals.

Casual labour.

Transport.

Irrigation costs for field crops.

Marketing costs such as packaging material.



# What is your break-even point?

- Discuss the breakeven point of your particular agribusiness, and mention some alterations that you would do to your business plan or budget if your breakeven point cannot be reached satisfactorily.



# Questions?

