Sectors and Aspects of the Australian Food Industry

Glossary

Agriculture: The cultivation of land to produce food and fibre
Agri-food chain: The production and supply of food for the consumer
Aquaculture: An area for the cultivation, harvesting and production of plants (seaweed, marine algae) or animals (salmon, clams, oysters) in water
AQIS: The Australian Quarantine and Inspection Service is a government body whose main role is to protect Australia’s agriculture and environment from contamination, especially disease and exotic pests.
Biotechnology: The use of biological principles such as microorganisms, or their products, for specific purposes such as processing or production of food with certain desirable attributes
Catering: The provision of food and service for functions, usually on a commercial scale
Clean green: A description of food, which is produced in an environment free from chemical contaminants
CSIRO: The Commonwealth Scientific and Industrial Research Organisation is a government group that undertakes significant research in several areas including the food industry.
Economies of scale: The efficiencies that can be gained from operating on a large rather than small scale; for example buying in bulk may be cheaper.
Embargo: A ban placed on the importation of certain goods.
Exports: Selling goods and services produced in the home country to other markets.
Fishing: Catching fish destined for products such as fish oil and fish fertiliser for the garden rather than for human consumption.
Functional Foods: Various definitions exist but, broadly, it is taken to mean foods that surpass the basic nutrients found in foods that have proven health benefits.
Genetic engineering: A process, which involves removing a gene from a living organism and transferring the gene to another living organism. This is usually done to improve the characteristics of the organism which has the gene added, such as quickly growing, high-yielding tomato plant.
Genetically modified: A food that contains material derived from an organism that has had its genetic material altered in some way other than conventional breeding.
Globalisation: The interdependence of people throughout the world; breaking down of barriers to create a unified global community.
Gross Domestic product: The value of all goods and services produced within a nation in a given year.
HACCP: Hazard Analysis Critical Control Points is a systematic method for identifying, monitoring and controlling hazards
Industrial fishing: Catching fish destined for products such as fish oil and fish fertiliser for the garden rather than for human consumption.
Levels of Operation: Refers to the scale of food production and amount of sophistication of the technology used.
Manufactured foods: Foods which have been made or produced by hand, or more frequently, machinery. Manufactured foods are often processed foods that have undergone a number of processing steps.
Multinational: Belonging to more than one country, or influenced by more than one country
Niche market: A section of the market that is usually quite small and with specific needs
Organic farming: Organic farming is the growing of crops and animals without the use of synthetic chemicals, pesticides and fertilisers, or genetically modified organisms. It uses methods such as crop rotation, weeding, composting, mulching, biological pest control and natural fertilisers to ensure the growth of the crops and animals without having a detrimental effect on the land and the ability to grow crops and animals in the future e.g. hormone free chicken.
Plant Production: Involves preparation of soil for planting, selecting seed, sowing, fertilising, irrigating, harvesting, storage and transporting food to various locations.
Primary Industries: Those businesses that produce food in its most simplest form i.e. Plants and animals
Primary produce: Food, which is produced in its natural state e.g., meat, eggs, and veggies, fruit
Processing: A series of actions that change food from its natural state to a slightly or significantly new form. For e.g. harvested washed potatoes have undergone minimum processing whereas frozen chips are a more processed form of potato.
Probiotics: Types of bacteria that are normally found in a healthy human gut, and which are incorporated into foods to provide health benefits
Quality Assurance: Putting processes in place within an organisation to guarantee the standards achieved during processing; part of the total quality management plan of an organisation
Quality control: Conducting tests to check the standards of raw materials or products before, during or after production.
Quality management: A system to ensure that standards of quality are met
Quarantine: Activities directed at preventing or controlling the introduction and spread of quarantine diseases and pests.

Quota: The total amount of goods that can be imported

Sustainability: In an environmental sense, the ability of ecological systems, including agriculture, industry, forestry and fisheries to be preserved for future generations

Subsidy: Direct aid given to food producers

Tariff: A duty / tax imposed by a Gov. on imports or exports

Technology: The Scientific approach used to improve productivity, quality and consistency (may be simple, such as a hand mixer, or complex e.g. the process of monitoring supply of stock).

Value adding: The processing of goods (heating, cooling, grinding, milling or separating) to increase their selling price.

SECTORS AND ASPECTS OF THE AUSTRALIAN FOOD INDUSTRY

- Sectors of the agri-food chain in the Australian food industry, including agriculture and fisheries, food processing/manufacturing, food service and catering, food retail
- Identify sectors within the Australian Food Industry

The Australian Food Industry consists of:
- Organised production
- Processing
- Storage
- Marketing of food products

Hence, The AFI aims to provide a steady supply of a variety of palatable and convenient foods, which are readily available regardless of geographic location, which have a reasonable shelf life.

The advantages of food production in Australia:
- There are many different climates (northern tropics to arid environments and coastal regions). This allows for the production of a range of raw materials
- Living in the southern hemisphere=seasonal differences. Hence, we can supply to our trading nations, when a food goes out of season
- There are developed technologies, breeding programs, improved genetics, farm management, innovative packaging and transportation systems
- Low pollution levels = better quality agricultural products
- Aus. Government provide financial support for research and development

Agri-food chain:
The Agri Food chain is the production and supply of food for consumer and individual use.
It is extensive/large, accounting for over 90% of the food available in Australia (other imported).

The four main sectors are:
1. Agriculture and fisheries
2. Food Processing and Manufacturing
3. Food Service and Catering
4. Food Retail
These sectors all rely on each other for the success of the AFI. Therefore, no sector is independent. If a problem occurred in one sector, this can have an impact on the other sectors.

For e.g. the impact of cyclone Larry in 2006 on the production of banana crops. This resulted in poor quality crop being sold at an increased price. This impacts on:
- The food processing & manufacturing sector who purchase bananas to produce value added products such as dried banana chips
- The food service & catering sector who may need to change their menu’s as a result of increased banana prices. For example Boost Juice
- The food retail sector who transfer the increased price to the consumer

Another example is sour and small strawberries → are modified in a recipe during manufacturing → food caterer substitutes another dessert with sweeter taste → or retailer advertise strawberries at a “sale” price to sell them.
Without one another these sectors would not exist as there would be no demand and no supply.
Developments in all sectors are driven by: technological advancement as there is a need for companies to grow/prosper, world and local events (i.e. wars, recessions), and consumer expectations.
Agriculture and Fisheries

- This sector involves Agriculture, which can be defined as the cultivation/harvesting of land to produce food derived from plants and animals. Also Fisheries, which involves the cultivation of various cold-blooded aquatic species such as fish usually for a commercial or scientific purpose.
- Since these are raw materials being collected very little or no processing goes into the final produce. For example Tassal’s Tasmanian salmon are grown under a controlled environment and then extracted from the tank in the lake, killed, gutted and packaged in ice to preserve for cold chain distribution. (Aqua culture)
- For example; eggs from poultry farms, beef cattle from beef farms, fish from the ocean or from an aquaculture farm and wheat from a wheat farm.
- Examples of an agricultural and fisheries organization is the Australian Wheat Board, Oysters Australia (oyster farm), Australian egg corporation.
- On the other hand, industrial fisheries catch fish to produce fish oil and fish fertiliser for the garden rather than human consumption.

Other Key Features

- Provides raw materials (plants & animals) for the food processing/manufacturing industry to be, served and sold in Australia and overseas
- Nearly 90% of the total value of Australian agricultural production comes from food. Hence, Foods are imported to increase variety, increase seasonality, cheaper.
- 2/3 of Australian land is used for farming, cropping and pastures
- Plant production involves:
- Preparing soil for planting
- Selecting seed
- Sowing
- Fertilising
- Irrigating (supplying crops with adequate water supply by pipes, sprinklers, streams or ditches)
- Harvesting
- Storage
- Transporting food to various locations
- The production of animals include:
- Producing or supplying fodder/ feed and water
- Breeding
- Treating illnesses and disease
- Transporting the animals to saleyards, abattoirs and other food processing locations.
- Animal production includes lamb, beef, pork, poultry; also small scale production of venison, kangaroo and emu for the gourmet food industry.
- Animal products include meats, milk, cheeses, yoghurts, cream, butter and cooking fats (lard and butter). Hence, Australia’s dairy industry ranks 3rd in the world and is the largest processed food industry in Aus.
- Historically, Australians have lived ‘off the farmer’s back’ as food production has been important to the Australian economy
- There is an availability of fertile land and unpolluted waterways (salt and fresh)
- The climate was harsh but technological advancements were able to compensate for them. These include irrigation, Organic farming and genetic engineering.
- Primary industries contribute significantly to the Australian economy, providing a safe, reliable food supply and a significant export market.
- ‘Clean green image’, of Australian Produce ensures it is highly regarded internationally.
- Our main cereal crops include barley, oats, rice, maize and sorghum. Other crops include, vegetables, fruit and nuts.
- Fishery products include salt and freshwater fish, prawns, yabbies, oyster, lobsters, scallops, mussels etc. Many species are caught in ‘the wild’ e.g. rivers, oceans and lakes. However, Aquaculture is an area growing in popularity and involves the semi-controlled or controlled cultivation or breeding programs (fish farms) of aquatic plants (marine algae, seaweed, kelp) or animals (oysters, salmon and clams) in fresh or saline water providing supplies at stable prices.
- The Rapidly increasing overseas market (especially Asia) has resulted from the ‘clean green’ image of Australian production and the value of the Australian dollar in the international marketplace
- Provides: commodities (raw materials for sale) especially for exports
- Employment for over 300,000
- Business activity and employment in machinery, transport, veterinarians, retail outlets