Module 1: The Australian Food Industry

Students learn about:
- Sectors of the agri-food chain in the Australian food industry, including agriculture and fisheries, food processing/manufacturing, food service and catering, food retail

The agri-food chain refers to the production and supply of food to consumers
- The AFI aims to provide a regular supply of a variety of palatable foods with reasonable shelf life and is responsible for the management of natural resources

Sectors of the AFI
- Production and supply of food known as the agri-food chain
- The sectors of the AFI are:
  1. Agriculture and fisheries
  2. Food processing and manufacturing
  3. Service and catering
  4. Retail

Agriculture and Fisheries
Trends include:
- using technology to overcome harsh conditions
- Contribution to export markets of agriculture and fisheries
- large-scale production of animals/related products
- large variety of crop production
- \( \uparrow \) aqua-culture market

Examples of Agriculture and Fisheries organizations:

![AWB](AWB.png)
- Australian Wheat Board

Food Processing and manufacture
- Food processors may use simple value adding techniques e.g. packaging mixed lettuce or complex techniques e.g. turning milk into cheese
- Trends include:
  - Value added foods e.g. Aussie wheat made into bread (also \( \uparrow \) employment opportunities)
  - more manufactured foods
  - mechanisation of food processing to reduce cost of labour
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Summary

-Many manufacturers are multinational companies (e.g. Bulla, SPC, Lowans, San Remo)

-Diverse industry ranging from home business to multinational companies

Food Retail
- Trends include:
  - larger supermarkets over convenience stores
  - Speciality chain stores (e.g. Red Lea)
  - changing work hours resulting in 24 hr and Internet shopping
  - ↑ consumption of convenience foods
  - ↑ fresh food chains due to ↑ health awareness

Food Service and Catering
Prepares foods ready-to eat and includes restaurants, takeaway, airline catering, canteens and function catering (e.g. wedding).

Trends include:
- non-commercial meals- Foods provided in institutions (e.g. aged care)
- Commercial meals- foods produced for sale (e.g. restaurants)
- Home delivery ↑ (e.g. Dominos, Red Rooster, Nando’s)
- One in four meals eaten away from home

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Operation of organisations within the Australian Food Industry with particular attention to:

- Levels of operation and mechanisation, including household, small business, large companies, multinational

**Level of Operation** refers to the scale and level of technology used in food production. The level of technology (e.g. mechanisation, computerisation) ↑ with the size of an operation. This ↑ job opportunities and employment.

**Trends:**
- Larger companies have greater influence on food issues
- Multinational companies are taking over large Aussie businesses

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Feature</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>Home produce/manufactured goods</td>
<td>Small scale with low tech. levels</td>
<td>Local selling home-made preserves</td>
</tr>
<tr>
<td>Small business</td>
<td>Family business/partnership Usually &gt;20 staff</td>
<td>Usually local</td>
<td>Chinese grocer</td>
</tr>
<tr>
<td>Large business</td>
<td>Operates across state/nation</td>
<td>Usually has several owners servicing the wider community</td>
<td>Arnott’s Tip top</td>
</tr>
<tr>
<td>Multinational</td>
<td>Operates in many countries</td>
<td>Large scale and global</td>
<td>McDonalds Subway Coca Cola</td>
</tr>
</tbody>
</table>

**Research and development** is process used to create new products as result of competition.

It is $S$, so funding usually comes form other organisations. Government research is performed by the CSIRO for a variety of sectors. Government bodies such as FSANZ also fund research into areas that impact the Food Standards Code. Factors influencing R&D include pressure to produce innovative foods from consumers and competing companies.

Features include:
- ↑ marketplace (e.g. ethnic foods) and diverse consumer needs (e.g. health conscious groups)
- Government research in food industry (e.g. CSIRO)
<table>
<thead>
<tr>
<th>Development</th>
<th>Sector/s</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-stop shopping</td>
<td>Retail</td>
<td>Large shopping centres that supply a wide range of food products (e.g. Coles)</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Agriculture and fisheries</td>
<td>Providing water for agriculture</td>
</tr>
<tr>
<td>Convenience meals</td>
<td>Processing and manufacture</td>
<td>Provides readily available no fuss meal options esp. for busy, working people</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>Agriculture and fisheries</td>
<td>Controlled breeding programs (e.g. Fish farming)</td>
</tr>
<tr>
<td>Home delivery service</td>
<td>Food service and catering</td>
<td>Food is ordered via phone and delivered to location (e.g. Dominos)</td>
</tr>
<tr>
<td>Genetic engineering</td>
<td>Agriculture and fisheries</td>
<td>Foods have their genes modified to produce higher yields, disease resistance, superior nutrition</td>
</tr>
<tr>
<td>Value added foods (rather than primary produce)</td>
<td>Processing and manufacture</td>
<td>Foods are processed into other products (e.g. wheat into bread)</td>
</tr>
<tr>
<td>Internet shopping</td>
<td>Retail</td>
<td>Foods ordered via internet</td>
</tr>
<tr>
<td>Breeding leaner meats</td>
<td>Agriculture and fisheries</td>
<td>to meet consumer demands for healthier options</td>
</tr>
<tr>
<td>Pollution control</td>
<td>Agriculture and fisheries</td>
<td>Protects the environment, resources and industries. Aids consumer image of company.</td>
</tr>
<tr>
<td>Australia’s ‘clean green’ image</td>
<td>Agriculture and fisheries</td>
<td>Strict production controls ensures consumer quality esp. to compete with overseas market</td>
</tr>
<tr>
<td>Production of low-fat animal products</td>
<td>Agriculture and fisheries</td>
<td>Meet demands of health conscious consumers. Potential for larger range of processed foods</td>
</tr>
<tr>
<td>Product scanning</td>
<td>Retail</td>
<td>Each product has its own unique barcode that contains product information and allows for inventory tracking</td>
</tr>
</tbody>
</table>

**-quality assurance**

**Quality assurance** is the responsibility of EVERY person involved in food production, from raw materials to processing and retailers.

Features of quality assurance:
- Guaranteed through strict quality control procedures
- Consumer support ensures consumer satisfaction (e.g. Consumer Affairs Bureau, CHOICE)
- Customer complaint procedures (e.g. “Money back guarantee”)
- HACCP (Hazard Analysis Critical Control Points), an International approach to quality assurance
### Consumer Influences

<table>
<thead>
<tr>
<th>Social Trends</th>
<th>Changing Demands</th>
<th>Example Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>↑ single parent families</td>
<td>Low cost nutritious foods</td>
<td>Cheaper cuts of meat Fruit and vegetables in season</td>
</tr>
<tr>
<td>↑ dual income families</td>
<td>Value-added quickly prepared meals</td>
<td>↑ Home meal replacements</td>
</tr>
<tr>
<td>↑ mobile population</td>
<td>↑ take-away</td>
<td>↑ take-away e.g. chips, burgers</td>
</tr>
<tr>
<td></td>
<td>↑ instant foods</td>
<td>Prepared sauces frozen vegetables</td>
</tr>
<tr>
<td>↑ environmental concerns</td>
<td>↑ demand for foods produced environmentally friendly</td>
<td>↑ Organic foods Recyclable/reusable packaging</td>
</tr>
<tr>
<td>↓ family size</td>
<td>↓ use of cheaper, ‘filler’ foods</td>
<td>↓ breads and cereal consumption</td>
</tr>
<tr>
<td>Improved technology</td>
<td>Equipment that is more efficient at storing and preparing home foods</td>
<td>Microwaves Blenders Coffee machines</td>
</tr>
<tr>
<td>↑ life expectancy</td>
<td>Elderly people live alone</td>
<td>Single serve/small portion foods</td>
</tr>
<tr>
<td>↑ education standard</td>
<td>↑ Understanding of nutrition and disease</td>
<td>↓ Processed foods Fresh foods Nutrition e.g. low salt, low fat</td>
</tr>
<tr>
<td>↑ time away from home</td>
<td>↑ Consumption of foods prepared away from home</td>
<td>↑ Restaurant meals</td>
</tr>
</tbody>
</table>

The AFI has responded by producing foods that is:  
- varied in $\$\$  
- quick, simple to prepare (e.g. heat and serve)  
- Single serve portion  
- microwaveable/ easily cooked  
- ↑ nutrition  
- appropriate to varied lifestyles
-impact on the environment, economy, society

Impact on the Environment

Environmental Issues

Noise water and air pollution from:

1) Production of raw materials (chemicals, salinity, soil degradation)
2) Fossil fuels used in manufacturing and transport
3) Packaging and storage

Trends include:
- improved farming techniques and waste disposal
  - organic foods

Impacts on Economy
The AFI is Australia’s largest manufacturing industry and employer, providing extensive export market.

Trends include:
- ↑ food service and catering sector due to ↑ tourism.

Impacts on society
Food production impacts on society but changing lifestyles also impact on food production and choices. The AFI has responsibility to provide accurate labelling and informed advertising.

Trends include:
- Migration and tourism have ↑ food choices
- “Fresh produce” has become trademark of Australia
- ↑ food at celebrations

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**career opportunities and working conditions**

The AFI offers a diverse range of **career opportunities and working conditions**

Trends in career opportunities include:
- ↓ manual labour due to mechanisation
- ↑ marketing and advertising jobs due to completion in AFI

Features of working conditions:
- ↑ shift & public holiday work
- Large proportion of casual & part time
- Employment conditions covered by award
- Payment varies depending on type of work

- **Advisory groups that have a role in formulating and implementing policy and legislation**

  **Advisory groups** are independent organisations that advise governments on policies and legislation

There are 4 main types of advisory groups:

1) **Business group** within the food sector e.g.

   ![Dairy Australia](image1)
   ![Australian Pork](image2)
   ![PCA Packaging Council of Australia](image3)

2) **Groups that focus on specific health issues** e.g.

   ![Heart Foundation](image4)
3) Independent bodies that can change food legislation i.e.

4) Groups that protect local industry against contamination i.e.

Main Advisory Groups

FSANZ (Food Standards Australia New Zealand):
An independent legislative body established in 1991 by government to standardise food laws. It does this through cooperation with all states, levels of government and the AQIS.

FSANZ roles include:
- regulating the *Food Standards Code*, (including research)
- developing *risk assessment policies* for imports
- food *safety education*
- food *surveillance*
- Product *recalls* (food safety hazard)

The Australian Food Standards Code covers:
- labelling & advertising (e.g. nutrition claims- low fat foods must contain ↓ 3% fat)
- date of manufacture
- additives (preservatives, colours, flavours, vitamins & minerals)
- residues in food (chemicals from processing)
- foreign objects in food

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Summary

AQIS (Australian Quarantine Inspection Service):
Operates within The Department of agriculture, fisheries and forestry. Works with customs service, Australia Post and similar organisations in other countries

AQIS roles include:
- protect primary producers
- inspect imports
- quarantine status of travellers
- certify export certificates so Aust. can compete on global market
- negotiate International and National agreements

- Government policies and legislation that impact on the Australian Food Industry

Policy and Legislation

A Policy is a government strategy placed to improve aspects of living

Legislation is government law that describes what can/cannot be done

Main AFI Policies

National Health and Nutrition Policy
Main aim is to educate people to make healthy food choices to improve the overall health of Australians, thus reducing health care costs

Trade policy
Policy of Free trade: reducing tariffs, raising quotas, removing subsidies, ↑ overseas free trade agreements. ↑ imports have created market competition and product variation. ↑ exports have ↑ $ for Australia.
Food Industry Legislation

Federal

1) HACCP
   - International food safety system

2) Trade Practices Act 1974
   - Consumer power through preventing unscrupulous activities

3) FSANZ Act. 1991
   - Cooperation of Govt, AFI and community to maintain food standards

4) Exports Control
   - Regulation of processed food exports

Federal Government

*Trade Practices Act 1974:*
Aims are to **consumer power and competition** in marketplace by preventing unscrupulous practices.

It addresses 4 areas:
1) restrictive trade practices including:
   - misuse of power
   - exclusive dealings
   - price discrimination
   - resale price maintenance
2) unconscionable conduct (e.g. manufacturer puts lamb in beef pie)
3) consumer protection including:
   - unfair practices (e.g. misleading conduct, bait advertising)
4) Liability of manufacturers and imports for defective goods

*Exports control:*
Regulates food exports by making sure processed food orders comply with set standards. For example, canned products must have a registration number on the package.
**HACCP:**
An International food safety & quality management system. It aims to systemically identify critical food hazard areas, set standards for eliminating food hazards, implementing these changes and monitoring these changes.

**FSANZ Act 1991:**
Cooperation between government, AFI and community to maintain food standards

**State Government**

- **Health Act**
  - Hygiene; pest control, diseases; slaughter and sale of meat
  - Clean Air Act 1961
  - Noise Pollution Act 1975
  - Clean Air Act

- **1) Environment Protection Act**
  - Foods must not be underweight

- **2) Trade measurement Act. 1989**
  - Protects health, safety and welfare of all workers

- **4) OH&S Act. 1983**

**Health Act:**
Enforced by each individual state and Territory.
It regulates:
- personal hygiene
- sanitary conditions
- pest control
- infectious diseases
- storage, slaughter and sale of meat

**Clean air act 1961:**
Controls the odours, smoke & gaseous emissions from food processing plants
Clean water Act 1970:
Controls the removal of solid, liquid and gaseous chemicals used in food production into waterways

Noise Pollution Act 1975:
Controls the output of noise, vibrations and sounds from food processing plants

Trade Measurement Act 1989:
Deals with the accurate measurement of weight, size etc of products and how weighting equipment is used in front of consumers.

It is a breach to advertise higher than what product actually measures. For example a company cannot advertise a drink as having 2L if only 1.8L is present or calibrate scales to read more than the actual weight of the product.

OH&S Act 1983:
Protects the health, safety and welfare of all workers. Main aim is to eliminate work related accidents and possible health risks in the workplace

NSW State Government Acts

NSW

Food Act 1989
Prevent adulteration or false description of food

Fair Trading Act 1987
Legislates Fair and honest Trading to protect consumers and traders

NSW Food Act 1989:
Prevent adulteration or false descriptions of food by defining specific food sale terms, hygiene and food standards

NSW Fair Trading Act 1987:
Legislates fair and honest business practices to protect both consumers and traders. Controls unfair practices and provides safety and information standards between suppliers and consumers

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Local Government

![Diagram showing Local Government, Codes for inspection of food & premises, Appointment of food surveillance officers, and Codes for construction and alteration of food premises.]

*Appointment of food surveillance officers:*
An environmental health officer can be appointed as a food surveillance officer under the *NSW Food Act*. A food surveillance officer is responsible for **routinely inspecting** all food premises in the local area.

*Codes for Inspection of food and food premises:*
Local councils form their own codes for inspection. This covers **how routinely** food surveillance officers inspect food premises and any premises which are **exempt** from inspection.

*Codes for construction and alteration of food premises:*
Local councils form their own codes. This covers **building materials and installation guidelines** for equipment (e.g. insulation, ventilation, ovens, refrigeration).