



# SUSTAINABLE AGRICULTURE

## What is Sustainable Agriculture?

Sustainable agriculture is about making farming activities or practices maintain or improve the natural resources of soil, water and air.

Sustainability requires:

- farming activities to be viable and make a profit
- that the food, fibre and other agricultural products are safe to eat or use
- that food fibre and other agricultural products are of a quality that is acceptable to us, the consumer
- that we care for the animals and plants that we farm or grow
- that farming families, and those in the rural community and associated with agriculture, are able to provide for their social and cultural well-being and
- that resources are preserved for future generations.

Farmers are guardians of the land. While they have the land in their care farmers must make sure they don't destroy or damage the land. Farmers believe they should pass the land to the next generation in a better state than they received it.

## Who is involved in Sustainable Agriculture?

Banks and Financial Lending institutions  
 Stock and Station Agencies  
 Scientists  
 Producer Boards and Marketing Organisations  
 Twi  
 Agribusinesses



Regional and District Councils  
 Government Agencies  
 Advisers (Veterinarians Accountants)  
 Farm Consultants  
 Farmer Organisations  
 People who eat and use agricultural products





## Land Use In New Zealand

New Zealand is a land of flat river plains, rolling hills and mountain ranges. Originally New Zealand was covered in native forest, native grasses and alpine forests.

When people arrived in Aotearoa they began to cut down forest and cultivate the land.

The Maori burned areas of forest to hunt animals such as moa, and plant and grow crops. Maori brought kumara, taro, gourds and yams which they grew in the warmer areas of the North Island. Maori met their need for food, clothing, shelter and medicine by living from the land and sea. They hunted and gathered birds, shellfish, fish, plants, and where it was warm enough grew crops.

The Maori developed customs or practices that allowed them to plant and harvest crops at the best times. They used customs like raahui to make sure they did not use too much of their natural resources.

When Europeans arrived more land was cleared to help provide food for the new settlers and to provide timber for export and shipbuilding.

The Maori began to grow crops like wheat, potatoes, barley, maize and fruit and to raise pigs and cows.

The Maori agriculturalists exported wheat, barley and potatoes to Australia. During the land wars of 1860 to 1872 Maori lost much of the fertile land they had used to grow crops.

Many of the new settlers arriving from Britain were farmers, and introduced sheep and cattle to New Zealand. They cut down the forest for timber to build houses and for export and used the land for farming.

New Zealand began exporting wool to Britain. In 1882 the Dunedin, the first sailing ship to carry refrigerated meat left New Zealand for Britain.

By 1920 much of New Zealand's lowland forests had been cleared and were being farmed. New Zealand had developed an agriculture based

economy that depended on exports of wool, lamb, butter and cheese to Britain.



New Zealand research scientists developed pasture plants, like grasses and clovers, and new breeds of crops, sheep and cattle especially suited to New Zealand conditions.

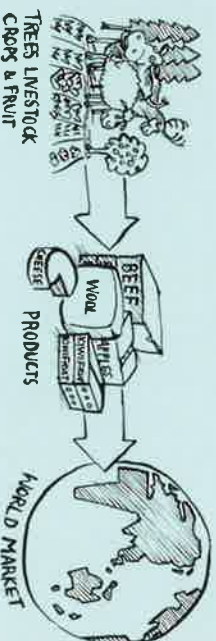
The land was used to farm sheep, cattle and pigs and to provide crops, fruit and vegetables.

Since the 1960's land use in New Zealand has changed. A wider variety of stock and crops are grown and exported.

Fertile, sheltered river plains are used for intensive farming of crops and orchards. Many varieties of fruit are exported including apples, kiwifruit, and stonefruit like peaches and apricots. Crops like wheat, barley, maize, oats and tobacco are grown. Small specialised crops such as nuts or avocados, are grown for profit.

Areas of land have been developed for growing grapes for the wine industry. Deer and goat farms have been established and hill country areas are used to produce timber for export.

Today meat is exported both as whole meat carcasses and specialised meat products designed for a specific market. Some of our wool is processed into carpets and woollen fashion garments before being sold overseas. New Zealand exports agricultural products all around the world.



## CHANGING PEOPLE IN A CHANGING LAND



## SUSTAINABLE AGRICULTURE

In 1992 9.2% of our total population worked directly on the land. Another 8.8% of New Zealanders worked in industries that process, transport or export agricultural products or make equipment that is used in agriculture.

Many other people who work in towns and cities have jobs that are related to agriculture or the money that is earned by agriculture.



- Look at this diagram.
- Make a list of 50 to 100 jobs associated with agriculture that are shown in the diagram or you know about.
- Work out what you think would happen to the economy of this town if a sheep disease was introduced to New Zealand that meant that no sheep products could be exported.