

# New Zealand Agriculture –

## Multi-level social studies based activities investigating the history of innovation and adaptability of New Zealand agriculture



Best suited to Yrs 6-10

### Tuning into New Zealand agriculture

- Remind students of the simple definition of agriculture, **eg** - *when we use land to grow crops and to raise livestock such as sheep or cows.*
- Help students tease out this definition to include activities such as: *flower growing; wine making; market gardening; fruit orchards; deer farming; forestry; olive farms ...*
- Using atlases, have students find the general location of their school and identify the agricultural region of New Zealand they are part of (see map below).
- Have groups brainstorm a preliminary list of the agricultural activities that they know of that take place in their local region. Do they know what agricultural activities take place in other regions of New Zealand?

### Regional Agriculture web research

[www.maf.govt.nz](http://www.maf.govt.nz) > Choose a topic > select publications > select 'Agriculture and Forestry in New Zealand – an overview

- Have students select Agricultural regions of New Zealand and locate regions using the interactive map.
- Assign each group a region(s) and have them conduct web research to:
  - *list the main agricultural activities that take place in that region(s).*
  - *identify any special features of the region (climate, geographic) that make it suitable for these activities*
- Have groups present findings to the class. Were there any surprises?
- Revisit previous MAF Unit *starters & strategies*, March 2004, Pgs 38-39.
- Revise the *'Why is Agriculture So Important'* section to ensure students understand the huge contribution that agriculture makes to our economy every year (20%).



### Let's Go Back in History

- The following section requires that students conduct online research or download and photocopy the pages of the economic history of NZ from the new online encyclopaedia of New Zealand at: [www.teara.govt.nz/NewZealandInBrief/Economy/10/en](http://www.teara.govt.nz/NewZealandInBrief/Economy/10/en)

Major Curriculum Area: Social Studies

Strands: Resources and Economic Activities  
Time, Continuity and Change

Indicative Learning Intentions:

- Identifying and listing the diverse agricultural activities carried out in the regions throughout New Zealand
- Understanding how New Zealand agriculture has changed over time and identifying the reasons for this change.
- Identifying and describing the positive effects that technology, science and research has had on the agricultural industry
- Understanding why people involved in the industry need to be adaptable and innovative

Skills Used and Developed:

Research • Information • Communication • Work & Study

Curriculum Links to: Science, Technology, Language

### Web Research and Discussion Topics

- List the main ways that Māori and Europeans made money in the early and mid 1800s in New Zealand.
- Discuss the idea of sustainability. Why were these early farming and mining industries unable to 'be sustained'?
- Debate: 'Early New Zealand industries were based on greed with no thought to the future'.
- What was the first major agricultural industry developed in New Zealand during the 1850-1860's and where were these established?
- What did it export (to Britain)?

### An Agricultural Breakthrough

- Share the brief *Dunedin* story (over page) with the students.
- Help students understand the great importance of this breakthrough – New Zealand now had millions of new customers for its meat, even though they were on the other side of the world.
- What effect did this have on the amount of pasture being developed in New Zealand?
- Find and list other agricultural innovations that led to 90% of our exports being agriculture based until the 1960s, **eg** - *new grasses, improved breeding, dairy factories ...*



In 1882 a refrigeration machine was fitted to the *Dunedin*, a 1,320-ton sailing ship, sailing to England. The cargo was selected New Zealand sheep and lamb meat. Despite a hazardous 12,000 mile journey, the lamb arrived in excellent condition and the entire shipment was sold within two weeks. New Zealand could now send meat overseas and this changed our whole agricultural industry. The *Dunedin* made 16 voyages

between New Zealand and England when she disappeared without trace, probably around Cape Horn possibly due to a storm or collision with an iceberg. She was carrying a crew of 34 and had sailed from Oamaru for London March 19, 1890 with a cargo of frozen meat and wool. The first voyage of the *Dunedin* however, had opened up millions of new customers for our meat in Britain and started the large increase in New Zealand farms.

- A good example of change and innovation has been the discovery that this land can produce fine wines – especially pinot noir, which has made Otago wine world-famous. Large plantings of grapes are continuing and Central Otago is developing as an important and successful New Zealand wine region.

## What's happening in our region?

- Challenge the students to brainstorm ideas about how we can find out about how agriculture has/is changing in our region. Who can we ask?
- Plan a series of talks by inviting people involved in agriculture to talk to the students in the classroom about the changes and innovations that are happening in your region. (An excellent first contact is Federated Farmers at: [www.fedfarm.org.nz](http://www.fedfarm.org.nz) > Click on CONTACT FFNZ and select your region for contact details)
- In groups, have students prepare a list of questions they would like answered prior to the classroom visits, **eg**

### Our Region

- *what are the different types of agricultural activities that are taking place in our region?*
- *what makes our region suitable for these activities?*
- *what changes have taken place over the last 10 years?*
- *what has brought about these changes?*

### Science, Technology

- Find out how science and technology has changed the way agriculture is carried out **eg**
  - *computers for accounts, stock management and breeding programmes*
  - *electronic irrigation and milking systems*
  - *internet for research and communication*
  - *developments in gene technology and fertilizers*
  - *data loggers for climate and soil temperatures*

### Marketing

- *who do you sell your products to?*
- *how do these people/organisations get to hear about your product?*
- *are you part of a large organisation that markets your product? Does this give you an advantage?*
- If possible, plan class visits to an innovative agricultural business in your area.
- As part of a major class presentation, have each group write an illustrated report on the changes, innovations, methods and technologies used by one of the agricultural activities in your region.
- Invite parents and other classes to the presentation.

### Web research continued...

- Find and discuss the causes of the dramatic fall in the prices we received from our exported agricultural products in the 1960s (*wool price crashed 40% from synthetic fibre competition, the rise in popularity of white meats such as chicken, pork and fish*).
- Explain the effect of Britain joining the European Union in 1973 had on our agricultural exports to Britain.
- In what innovative ways did our agricultural industries begin to overcome this problem in the '70s?
- Have students re-visit their list of current agricultural activities that are carried out in our regions and compare these with those of the 1840s to 1970s.

## Innovation and Change – a new wine region

- Remind students that the history of agriculture in New Zealand is one of change and innovation. Use Central Otago as an example of innovation and change.



- *the high country area has been used to grow fine merino wool for high quality fashion*
- *the hot dry summers are excellent for ripening fruits such as apples, cherries and apricots*
- Much of the Otago landscape however is dry and barren and rabbits have had a devastating effect on the land.