

FOODPRINT MELBOURNE

CAN MELBOURNE'S POPULATION HAVE A SECURE FOOD SUPPLY IN 2050?

INTRODUCTION: FOR STUDENTS

For tens of thousands of years, the area surrounding the place we call 'Melbourne' has been a rich source of food. The peoples of the Kulin Nation carefully managed the abundant resources relying on the diverse and seasonal food supply. Europeans introduced vegetable growing and orchards. In 1839, the city established its first produce market. Market gardens developed to the southern edge of the city and pastures for dairy cattle and orchards to the east.

A GROWING POPULATION

The city fringe was established as an important foodbowl – the highly productive region surrounding Melbourne that provides much of the food needs of its people. Melbourne's foodbowl produces enough food to meet 41% of Melbourne's total food needs although, for some types of food such as vegetables, the foodbowl can meet the majority of Melbourne's food needs. It takes a lot of land, water and energy to feed a rapidly growing city like Melbourne and a significant amount of food waste and greenhouse gas (GHG) emissions are generated as a result. Each Melbournian eats on average 1.2 kilograms of food per day, but farms need to produce approximately 3.45 kilograms per person to meet that need. Food losses occur during processing, and food that is spoiled in production or wasted in our homes contributes to this.

The availability (or supply) of food is one of the key factors that influences food security. It is determined by the level of food production. This is the focus of this unit of work. But to ensure food security three other factors need to be fulfilled:

- access to food must be guaranteed at the household level. This involves having the economic means to buy food supplies
- resources must be available to make use of food supplies, such as facilities for food storage, cooking equipment, water and fuel for cooking
- there must be a stable food supply. If there is inadequate access to food even occasionally, then nutritional levels are at risk. Extreme weather events, economic factors (such as unemployment and rising food prices) and political instability can affect food security

Food security exists when all people, at all times, have physical and economic access to enough safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle.

– World Food Summit, 1996

Australia is generally perceived as a food secure nation. However, about 4% of Australians are unable to buy sufficient food. Rates of food insecurity are significantly higher than this among some population groups, such as Aboriginal and Torres Strait Islander peoples, asylum seekers, people on low incomes and those who are unemployed. While Australia currently produces a large food surplus, there is also evidence that the nation may be unable to produce enough fruit and vegetables to meet the population's needs in future and that climate change is likely to reduce Australia's capacity for food production.

Will Melbourne be able to supply food to a population of over seven million people in 2050?

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INQUIRY SEQUENCES

Inquiry 1. What are the characteristics of Melbourne's foodbowl?

Worksheet 1 – Know your foodbowl

Data Sheet 1

Worksheet 2 – Is Melbourne's foodbowl currently able to feed its population?

Data Sheet 2

Worksheet 3a – Investigating where food grows: Using GIS maps

Worksheet 3b – Investigating where food grows: Using ABS data

Data Sheet 3

Inquiry 2: What factors contribute to a reliable food supply for Melbourne?

Worksheet 4 – What makes Melbourne a first-rate food city?

Data Sheet 4

Inquiry 3. What are the competing land uses in Melbourne's foodbowl regions?

Worksheet 5 – Growing over our food

Data Sheet 5

Inquiry 4. Will there be enough water to grow food in Melbourne's foodbowl in the future?

Worksheet 6 – Water for food – is there enough?

Data Sheet 6

Inquiry 5. What impact will changes in climate have on Melbourne's food supply?

Worksheet 7 – Is Melbourne's food supply at risk with changes in climate?

Data Sheet 7

Inquiry 6. How can Melbourne's foodbowl ensure a reliable food supply in future?

Worksheet 8 – Melbourne grows and grows

Data Sheet 8

Worksheet 9 – A role play

Inquiry 7. Can you make a difference?

Worksheet 10 – Taking action to protect Melbourne's future food supply