



Panama disease and banana prices

All fresh bananas available in Australia are locally grown. No imports are permitted. Australia grows approximately 250,000 tonnes of bananas each year, 85 per cent of those in North Queensland. Over 5,000 people are employed directly in the banana industry, with many more employed in supporting industries.

Panama disease is a fungus that kills banana trees from the roots and leaves the soil unsuitable for future banana growth. Recently, in Northern Queensland, a case of the disease was identified in the area that produces 80% of Australia's bananas. Although the bananas are safe to eat, the disease kills Cavendish banana trees (the most common type grown in Australia).



612 ABC Brisbane: Jessica Hinchcliffe

Read the following *ABC News* item and/or find other information about the disease in Australia.

<https://www.abc.net.au/news/2018-01-24/potential-new-panama-disease-outbreak-at-queensland-banana-farm/9356990>

- For some background on bananas and Panama disease listen to the first 36 mins of this *Freakonomics Radio* program:

<http://freakonomics.com/podcast/season-8-episode-43/>





Finding out

Use the following items to create a flow diagram to show the potential impact should a large proportion of Australian banana plantations be affected by the Panama disease.

- o Reduced employment on Queensland banana plantations
- o A shortage of bananas in the market
- o The price of bananas increases
- o The supply of bananas decreases
- o Panama disease spreads in Australia
- o More competition between consumers with a strong desire for bananas as there are less available
- o Some banana growers move to growing other fruits

Note: A flow diagram isn't necessarily linear. Where one item results in several changes the flow splits. These split flows can continue separately, re-join or split again.

- With a partner, discuss:
 - o the effect on the price of bananas if the total supply in Australia was reduced by 40% due to Panama disease
Hint: Consider the effect of the price elasticity of demand for bananas.
 - o the change (if any) to the price of bananas from areas outside Queensland, such as, Carnarvon in Western Australia, if they were not affected by Panama disease
 - o the effect on resource allocation if large areas of land in Northern Queensland could no longer be used to grow bananas
- As a class, share and compare your flow diagram and your answers to the three situations that you have discussed.





Teacher notes

Purpose

This 'bite' aims to relate a commonly used example of the operation of the market - a supply shock for an agricultural product - to a current 'real world' situation.

Prior knowledge

Students need to have been exposed to the following syllabus content before undertaking this 'bite':

- factors affecting demand
- factors affecting supply
- the concept of market equilibrium
- the effect of changes in demand and supply on market equilibrium
- the concept, and measurement, of price elasticity of demand
- the distinction between goods that are price elastic and price inelastic in demand

They also need to be familiar with the following skills:

- use economic information and data to make predictions on markets
- use economics models, including demand and supply graphs to analyse market behaviour...
- apply economic reasoning to market behaviour...

Follow-up

Another current 'real world' situation to consider is the impact of coronavirus.

