

## Growing Kūmara

Māori tūpuna (ancestors) grew plants that they had bought from tropical Polynesia in carefully positioned māra (garden, cultivation). Māra were owned and worked by everyone in the village. Before planting, Māori carefully prepared the ground, improved soils and worked hard to protect crops from pests.

Kūmara was the most important crop. Four other food plants were also grown:

- Taro
- Uwhi (yam)
- Hue (gourd)
- Tī pore (Pacific cabbage tree)

New Zealand is much colder than Polynesia and food did not grow as quickly or all year round as it had done in Polynesia. Crops had to be kept healthy and stored carefully so that there were seed for next year's planting.

Kūmara were planted on puke (mounds) or in rows. Hue and taro were grown in shallow dips to keep the soil damp. Tūpuna built stone walls and fences to protect the young plants and used shallow ditches to drain water and mark the edges of the māra.

Before planting a garden, Māori cleared and burned the plants and trees already there. The wood ash help fertilise the garden. If fern had grown there all its roots had to be cleared out of the soil. Gardening was hard work and often sand and gravel was added to help improve soil that was too hard to break up and to improve drainage.

Tools were made from hardwoods such as Kānuka and akeake. The tools were made to poke and prod the soil rather than to dig up big clods of earth. Usually, the soil was piled up rather than dug over and this encouraged the kūmara to grow big tubers rather than try and dig deep roots into the ground.

Kūmara was so important that it has a whakapapa that traces its family back to the gods and the parent and protector of kūmara is the star Whānui (the star Vega which is the fifth brightest star in the sky and the brightest in the constellation Lyra – see image below). One oral history is that Whānui's younger brother stole some kūmara and gave it to his wife who gave birth to it on earth and as a curse, Whānui sent down the kūmara moth caterpillar to attack the leaves of the plant and this pest is punishment for the theft. The is still relevant today as when Whānui is observed in the sky, that is the tohu (sign) for harvest time. This is remembered by the whakatauki (proverb).

Ka rere a Whānui, ka tīmata te hauhake.  
When Vega rises, the harvest starts.



### **Questions**

1. What is a māra?
2. What was the most important crop grown by Māori?
3. Name two other food plants grown by Māori besides kūmara.
4. How did Māori protect their crops from pests?
5. What is the significance of the star Whānui in relation to kūmara?
6. What was used to help fertilise the garden before planting?
7. What does "tohu" mean in relation to kūmara?
8. What type of tools did Māori use for gardening?
9. Why did Māori clear and burn the plants and trees before planting a garden?
10. What happens when Whānui's younger brother stole kūmara?

### **Comprehension Question:**

How did the Māori adapt their gardening techniques to New Zealand's colder climate compared to Polynesia, and what role did the star Whānui play in their agricultural practices?

## Answers

1. What is a māra?  
A māra is a garden or cultivation area where plants are grown.
2. What was the most important crop grown by Māori?  
Kūmara.
3. Name two other food plants grown by Māori besides kūmara.  
Taro and uwhi (yam).
4. How did Māori protect their crops from pests?  
Built stone walls, fences, and used shallow ditches to protect the crops.
5. What is the significance of the star Whānui in relation to kūmara?  
Whānui is the parent and protector of kūmara, and its appearance in the sky signals harvest time.
6. What was used to help fertilise the garden before planting?  
Wood ash.
7. What does "tohu" mean in relation to kūmara?  
Tohu means a sign, such as when Whānui appears in the sky, signalling the harvest time for kūmara.
8. What type of tools did Māori use for gardening?  
Tools made from hardwoods like Kānuka and akeake, designed to poke and prod the soil.
9. Why did Māori clear and burn the plants and trees before planting a garden?  
Clearing and burning the plants and trees created a clear space for the garden free of competition plants, and helped fertilise the soil with wood ash.
10. What happens when Whānui's younger brother stole kūmara?  
Whānui sent down the kūmara moth caterpillar which attacks the leaves of the plant as punishment for the theft.

## Comprehension Question:

How did the Māori adapt their gardening techniques to New Zealand's colder climate compared to Polynesia, and what role did the star Whānui play in their agricultural practices?

## Answer:

Māori adapted to New Zealand's colder climate by carefully preparing the soil, improving its quality with sand, gravel, and wood ash, and ensuring crops were stored properly to provide seed for the next planting season. They also protected crops with stone walls, fences, and ditches to maintain a suitable environment for growth. The star Whānui, which is considered the parent and protector of kūmara, played a significant role in signalling the harvest time, linking celestial events with agricultural and growing cycles.