



Grown here

SLO: Students will be able to gain an understanding about King salmon farming in Marlborough.

INTRODUCTION:

Successful King salmon farming includes raising healthy King salmon in optimal conditions, which requires constant monitoring.

WHAT YOU WILL NEED:

- Grown here activity sheet - 1 per student
- Grown here poster

ONLINE VERSION:

kingsalmon.co.nz/ed/activity12

ACTIVITY:

Students use the 'Grown Here' poster to answer the questions on the activity sheet.



ACTIVITY SHEET 1

Grown here

Research King salmon farming in Marlborough using the Grown Here poster and answer the following questions:

1. Are King salmon ova (eggs) hatched in fresh water or salt water?
2. What is the weight (in kilograms) of the King salmon when they are harvested?
3. Name two ways in which waste is reduced in King salmon farming.

1 _____

2 _____

4. What conditions are needed for farmed King salmon to stay healthy? (circle)

Cool, deep, clear water

Cool, shallow, muddy water

No current

Good current

Lots of handling

Minimal handling

5. Name a place in the Marlborough Sounds where there is a King salmon farm.

Grown Here



RAISING HEALTHY SALMON

- Salmon ova (eggs) are hatched and raised in fresh water until 'smoltification', when the salmon are physically ready for the sea.
- At sea, the salmon are fed on a specially formulated, balanced diet for about 16 months until they are ready for harvest at 4 kilograms.
- The salmon must get all the necessary proteins, fats and carbohydrates as well essential vitamins and minerals to thrive and grow.
- Feed contains fish meal, fish oil, chicken meal and oil, vegetable protein meal, wheat/starch, vitamins and minerals; this is a well-balanced specialised diet to achieve optimal health and growth.

IDEAL CONDITIONS

- Salmon need cool, deep, clear water with a good current and no major stressors.
- 2% of the sea pen volume is salmon and 98% is sea water which flows freely through the structures.
- We can produce healthy salmon in a natural way with minimal handling.

ENVIRONMENTAL CARE

- Daily monitoring of oxygen levels, water temperature and salinity ensures conditions are right for the salmon.
- Under-water cameras monitor feeding. When the salmon are full the feeder is switched off to avoid waste and to protect the sea floor.
- Worms and micro-organisms that live under the pens eat and break down the waste.
- The water column and the seabed is monitored by an independent science provider. Environmental standards must be met to comply with resource consents.



ANSWERS SHEET

Grown here

Research King salmon farming in Marlborough using the Grown Here poster and answer the following questions:

1. Are King salmon ova (eggs) hatched in fresh water or salt water?

Fresh water

2. What is the weight (in kilograms) of the King salmon when they are harvested?

4 kilograms

3. Name two ways in which waste is reduced in King salmon farming.

- 1. Under-water cameras to monitor feeding**
- 2. Providing a nutritionally-balanced diet**

4. What conditions are needed for farmed King salmon to stay healthy? (circle)

Cool, deep, clear water

Cool, shallow, muddy water

No current

Good current

Lots of handling

Minimal handling

5. Name a place in the Marlborough Sounds where there is a King salmon farm.
Ruakaka Bay, Otanerau Bay, Clay Point, Te Pangu Bay, Waitata, Ngamahau, Kopāua, Waihinau & Forsyth.