

Establish and maintain green egg incubation

Overview

This standard is about the activities involved with establishing and maintaining the incubation of green (salmonid) fish eggs. It can be applied to any fish hatchery where the incubation is completed. It requires that work is completed in accordance with site standard operating procedures.

This standard is for those who establish and maintain green egg incubation for farmed fish.

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Performance criteria

You must be able to:

1. carry out work safely in line with relevant health and safety requirements
2. harden and prepare fish eggs for incubation
3. estimate fish eggs by volume
4. establish **green eggs** into incubation at specified densities in a manner that avoids causing damage
5. set up and maintain water flow and hygiene throughout incubation
6. maintain environmental conditions within incubation to achieve required development
7. observe and report on the development of fish eggs
8. provide information to maintain records of incubation in accordance with legal and site requirements

Knowledge and understanding

You need to know and understand:

1. the relevant health and safety requirements associated with fish egg incubation
2. how and why eggs are prepared for incubation
3. site procedures for maintaining hygiene and bio-security within a hatchery
4. the process used to produce all female triploid eggs in trout
5. how to estimate fish eggs by volume
6. how and why the viability of fish eggs is checked
7. the developmental and environmental needs of the eggs of the fish being farmed
8. the term "**degree days**" and how it is calculated
9. fish development and incubation periods
10. the differences between **eyed eggs** and green eggs
11. hatchery emergencies and the procedures to follow if an emergency is identified
12. the legal and site requirements for maintaining records of incubation

Glossary

degree days – method of calculating the rate of fish growth by multiplying the number of days by the average water temperature in degrees Celsius for that time period. e.g. 5 days with water temperatures of 10 degrees = 50 degree days. Different species of fish have different "degree day" requirements to reach the required stage of growth.

eyed eggs – eggs that have developed to the point that the pigmentation of the eye can be seen. At this stage they are less vulnerable and can be moved.

green eggs – eggs that are freshly fertilised and are very vulnerable

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