

# STANDARD OPERATION PROCEDURE

Treatment of Lumpfish Eggs with  
Buffodine®





*Authors, Josella Hunt, Robert Smith, Rebecca Stringwell*

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## NEED

Parasitic sea-lice are the biggest threat facing sustainable salmon production in the world with an annual cost to industry of £500 million.

Using lumpfish as cleaner fish offers an attractive alternative to the use of chemicals or medicines.

As lumpfish are being cultured within a recirculating system at CSAR it is important to prevent foreign micro- and macroscopic organisms from entering the system. It is also important to prevent vertical transmission of disease from wild broodstock to the egg mass.

Therefore once the broodstock are certified disease free, there is a need to treat lumpfish eggs with Buffodine® to ensure the surface of the eggs are disinfected before moving them into the main CSAR building.

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## NOVELTY

CSAR are the only facility in the UK involved in the collection of lumpfish broodstock to harvest fresh milt and eggs for incubation. Therefore, no SOP exists which can guide the growing industry on best practice for disinfecting and transferring eggs which have been in contact with wild broodstock parents into a main on-growing facility.

This SOP guides the user on the best practice methods treating lumpfish eggs with Buffodine® and transferring them into RAS B.

## EQUIPMENT USED

- Disposable gloves, aprons & oversleeves
- Buffodine®
- 10 L bucket
- Filter baskets
- Measuring beaker
- Safety goggles
- Mesh
- Elastic bands
- Nets / sieves

## PROCEDURE

Eggs should be treated with Buffodine® after the results for disease screening have come back clear, before moving them over to RAS B.

### Treating with Buffodine®

1. Fill a bucket with 10 litres of system water from the egg shed
2. Add Buffodine® to the water. Dilution is 1:100 parts water (100 ml Buffodine® per 10 litres of water).
3. Place two filter baskets containing mesh into the bucket
4. Carefully lift a batch of eggs from their hopper and place into one of the filter baskets. Gather up any loose eggs from the same batch with a net or sieve and also place into the respective filter basket. It should be possible to treat two batches at the same time unless the batch is very large, then it should be split.
5. Leave the eggs in the Buffodine solution for 10 minutes.
6. Rinse eggs well (at least four or five times) with system water from RAS B and transfer into the appropriate RAS B egg hopper. Move egg record sheet over with eggs.

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