



What is SLICE®?

SLICE® is a fully licensed prescription drug in Canada used by veterinarians to control the number of sea lice on farmed salmon. The active ingredient in SLICE® is emamectin benzoate, a derivative of a naturally occurring chemical produced by soil bacteria. The in-feed drug is licensed for salmon in Norway, the United Kingdom and Chile. Emamectin is also approved for use in Japan and the USA on vegetable crops and also as an Investigational New Animal Drug for salmon in the USA. In Canada, for an interim period in 2009 while updated product packaging and labels are generated, Health Canada will continue to provide veterinarians access to SLICE® through the federal Emergency Drug Release (EDR) program. Health Canada assesses the efficacy, safety and environmental impact of products before providing access to them through EDRs.

How is SLICE® used?

Under veterinary prescription SLICE® is added to the feed of farmed fish at a dose of 50µg/kg of body weight each day for 7 days. Salmon eat the medicated feed and the treatment reaches lice feeding on the salmon by way of the skin and mucous of the salmon.

Does SLICE® work?

In practical terms, sea lice feeding from a host fish ingest emamectin benzoate from the tissues of the host, become paralyzed, die, and drop off. The treatment is effective against all the life stages of sea lice and reduces the abundance of sea lice on affected fish. It also helps to prevent further infestations of the same group of fish for months afterward.

What happens to SLICE® after it is used?

The active ingredient in SLICE® is not very soluble in sea water and instead has a strong tendency to bind to particles like fish feed or faeces or other organic matter. In its bound form, it loses its active properties. It is biodegradable and will eventually be incorporated into soil components.

Is SLICE® safe for fish and other marine animals?

Salmon tolerate treatment with SLICE® well and show no measurable effects at the recommended dose and treatment length. Other animals living in the marine environment adjacent to fish farms have been studied to determine the impacts of the treatment for sea lice. Overall, no

toxic effects were found; however, marine worms living in the sediment are considered to be slightly sensitive to emamectin particles.

Human Food Safety - Is SLICE Harmful to People?

The public can feel confident in the Canadian food supply including farmed salmon. Health Canada and the new drug label outline stringent conditions regarding the use of veterinary products such as SLICE®. The Canadian Food Inspection Agency routinely inspects food products to ensure wholesomeness and to enforce food safety guidelines.

Quick Reference –

Health Canada – Status of Emamectin Benzoate (SLICE®) 2009:

http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/regist/reg_innov_dr-eng.php

Pest Management Regulatory Agency – Integrated Pest Management of Sea Lice in Salmon Aquaculture:

<http://www.hc-sc.gc.ca/cps-spc/pubs/pest/fact-fiche/lice-pou/index-eng.php>

Fisheries and Oceans Canada – Managing Risk and Sustaining Wild Pacific Salmon Populations:

<http://www.pac.dfo-mpo.gc.ca/science/aquaculture/sok-edc/risk-risque-eng.htm>

BC Ministry of Agriculture and Lands – Provincial Sea Lice Management Strategy 2008:

http://www.al.gov.bc.ca/ahc/fish_health/sealice_MS.htm