## UNITED STATES HEALTH REGULATIONS FOR SALMON

## **BACTERIA**

Cold smoking does not inhibit bacterial infection of the salmon product. The two bacterium of concern to Canadian smoked salmon producers are <u>Clostridium botulinum</u>, type E, and <u>Listeria monocytogenes</u>.

Clostridium botulinum type E, generally known as botulism, are a common marine bacteria. Due to its ability to survive in cold, anaerobic conditions, the threat of its presence caused Health and Welfare Canada to issue strict packaging regulations which require vacuum packed cold smoked salmon to be frozen to inhibit bacterial growth. The regulations, contrary to the market preference for a fresh vacuum packaged product, place Canadian smokers at a competitive disadvantage because international competitors do not face similar packaging rules and freezing requirements.

Listeria monocytogenes are a common bacteria most frequently found in dairy products. Listeriosis, the disease caused by the bacteria, is fatal to about one in four people infected. Although no illness has been linked to listeria infected seafood, concerns have been high since the bacteria was found in smoked salmon. The U.S. Food and Drug Administration has instituted testing for Listeria contamination, and restricts entry to the United States to zero level tolerance. Further complicating the smoking industry, is the fact Canadian and U.S. testing protocols are not mutually acceptable, thus testing by Canada does not preclude testing and rejection by the United States. In the case where a test reveals the presence of the bacteria, all subsequent shipments by that smokehouse will be subject to testing and possible rejection by the U.S. authorities. United States authorities tests generally take about ten days, unfortunately, a bacteria free shipment is by then already close to the end of its viable shelf life and may not be accepted by the buyer.

The presence of <u>Listeria monocytogenes</u> bacteria in cross border shipments has directly led to the closure of at least six major Canadian salmon smokehouses. With plant cleanliness as the only preventative measure available to Canadian salmon smokers, the industry must completely eliminate the bacteria from its product. In Europe, many salmon smokehouses employ radiation to kill bacteria. The radiation process is neither acceptable to the public, nor permissable by law in North America.