

Farmed fish safe to eat says EU food regulator

06/07/2005 - Overall there is no difference in health risks to consumers between farmed and wild salmon according to scientists at the European food safety regulator.

In a decision issued this week a [European Food Safety Authority](#) (EFSA) panel this week also said frequent consumers of Baltic herring and wild Baltic salmon are more likely to exceed the recommended limits for intake of cancerous chemicals compared to those who ate the farmed varieties.

"Overall the panel concluded that with respect to their safety for the consumer there is no difference between wild and farmed fish," the EFSA stated.

The decision will boost the marketing efforts of fish farmers, especially those who raise salmon. An international study last year by Pew Charitable Trusts had made consumers distrustful of farmed salmon after scientists found they contained high levels of dioxin-like chemicals. The study pinpointed Scottish salmon has having some of the highest levels of the chemicals.

Brian Simpson, chief executive of the association Scottish Quality Salmon, told FoodProductionDaily.com the industry was pleased with the EFSA decision. Simpson said the association's members, who produce about 65 per cent of Scotland's farmed salmon, were hurt by a fall off in consumer demand in many countries after the international study. The demand has since risen back to previous levels, he said.

However sales of farmed salmon in France actually rose for fish marked with the "Label Rouge" quality assurance standard.

"The sales rise in France really demonstrated to the industry the importance of quality and safety standards," he said.

In its decision the EFSA panel focused on methylmercury and dioxin-like compounds in salmon, herring, anchovies, tuna, mackerel, pilchards, rainbow trout and carp. A special focus was also given to Baltic herring at the request of the European Parliament.

Salmon, rainbow trout and carp are predominantly or exclusively farmed in the EU. The other species are predominantly caught from the wild. About two-thirds of the fish consumed in the EU is caught from the wild.

The highest levels of methylmercury are found in tuna, which is mostly caught from the wild. The fish with the highest levels of dioxin-like compounds such as polychlorinated dibenzo-p-dioxins and furans (PCDD/F), were found in herring which are caught from the wild and salmon which are mostly farmed.

However, like the Pew study the panel noted that more statistical testing needs to be done before a full comparison could be made of the chemical levels in wild and farmed fish.

Species, season, diet, location, lifestage and age have a major impact on both the nutrient and contaminant levels of fish, the panel noted. The levels vary broadly within species and between species in both wild and farmed fish.

"From the limited data available it seems that if there are any differences between farmed and wild fish, they are small when taking into account the above mentioned factor," the EFSA panel stated

Contaminants in fish derive predominantly from their diet, and accumulate the higher the species is in the food chain. Whilst it is not possible to control the diet of wild fish, the levels of contaminants, and of some nutrients, in farmed fish may be modified by altering their feed. Fish meal and fish oil, are the most important sources of contamination of farmed fish feed with dioxin-like compounds. EU

regulations on polychlorinated dibenzo-p-dioxins and furans (PCDD/F) in fish feed were introduced in 2002.

The planned inclusion of the dioxin-like polychlorinated biphenyls (DL-PCBs) in the regulations may help to reduce levels of these contaminants in farmed fish, the EFSA panel noted.

As catches of wild fish decline worldwide production of farmed varieties have been steadily increasing. The total aquaculture production in 2003 totalled 54.8m tonnes, according to the latest figures from the Food and Agriculture Organisation.

Meanwhile the global wild fish catch peaked in 2000 at 96m tonnes and fell to 90m tonnes in 2003.

Scotland is the second largest producer of farmed salmon in Europe after Norway, which is number one in the world. Chile is the second largest producer of farmed salmon in the world followed by Scotland.

The Pew study in 2004, published in *Environmental Science and Technology*, analyzed fillets from 700 farmed Atlantic salmon and wild Pacific salmon. The farmed salmon was produced in each of the eight major farmed salmon producing regions in the world or purchased in 16 large cities in North America and Europe.

The six US and Canadian researchers found salmon farmed in Europe generally more contaminated with dioxin-like compounds than salmon farmed in North America, and North American farmed salmon were more contaminated than salmon farmed in Chile. Dioxin-like concentrations were highest in farmed salmon from Scotland and Western Canada and in wild Chinook from British Columbia.

Dioxin-like compounds are structurally similar to dioxins, which have been linked to cancer and to neurological and developmental effects in humans. Even though no quantitative risk estimates have been done for the compounds, public health experts are concerned because the concentrations of these substances in people have been increasing rapidly over the years.