

Title: Feature: Eating wild salmon is healthier.

Date: 6/11/2003; **Publication:** United Press International;

NEW YORK, Jun 11, 2003 (United Press International via COMTEX)

Nowadays, the pinkish hue of salmon is amazingly popular on America's lunch and dinner menus, served in everything from raw chunks on sushi platters to well-cooked filet steaks. The potential benefits touted by doctors of a diet rich in fish have hooked many of the health conscious, and salmon sales worldwide total more than 4 billion pounds a year.

There is a problem with this rosy picture, however: more and more, salmon are raised in large net cages floating in the ocean. Although the idea of munching on farmed salmon might sound better for the environment, and more reassuring from a quality-control standpoint than wild fish, new research reveals free-range salmon might be healthier for both nature and people, with less fat and pollutants.

"We believe wild-caught salmon from a well-regulated fishery is the most environmentally sound choice," fisheries research biologist Robert Mazurek of the Monterey Bay Aquarium in California told United Press International.

Salmon farming has grown from about 1 percent of global production to more than 50 percent within the past 20 years. More than 20 countries practice farming, and prices have dropped so much salmon now costs as little as \$4 a pound -- less than chicken.

This run for salmon is fueled with the blessing of the American Heart Association, which reports eating at least two servings of salmon each week -- or other fatty fish such as albacore tuna -- can cut risk of heart attack or stroke.

Salmon is loaded with beneficial omega-3 fatty acids that fight heart disease. The problem is farmed salmon also pack on more bad, saturated fats than wild salmon.

"If you picture farmed salmon sitting in a pen their entire lives and pretty much just swimming around in circles, they're going to be a lot more fatty and a lot less lean than wild salmon that swim up to 100 miles a day," Mazurek said.

U.S. Department of Agriculture data show farmed salmon species can contain 60 percent more fat per serving than their wild brethren, with only 16 or 17 percent of that fat as omega-3 fats. Wild salmon species, in contrast, can contain 22 to 27 percent of their fat as omega-3.

The extra fat farmed salmon pack could lead to some disturbing consequences, Mazurek said. "A lot of pesticides can stay in the fat," he explained.

Michael Easton of International EcoGen in North Vancouver, British Columbia, and colleagues looked at wild and farmed salmon bought from Pacific Coast vendors. In

findings published in the journal *Chemosphere*, farmed salmon showed levels of organic pollutants that were three to 15 times higher than in wild specimens.

These included pesticides, the flame retardant polybrominated diphenyl ethers, or PBDE, and toxic polychlorinated biphenyl, or PCB, which the United States banned in the 1970s, but which persists in the wild. The investigators said this contamination likely was linked to the salmon feed, which they also found to be tainted.

Given current World Health Organization data and Canadian health standards, the researchers said eating more than three servings of farmed salmon weekly could prove unsafe. Other researchers studying farmed salmon from Scotland and England have come up with similar contamination findings.

Wild salmon advocates say all that swimming makes other differences, too.

"There is no substitute for wild salmon in terms of taste, texture, health and natural goodness," said Don Staniford of Friends of the Earth Scotland, in Edinburgh. He said salmon farmers add red artificial coloring to the fish's feed to give it that rosy-colored flesh diners have come to expect.

Although Mazurek said there definitely are endangered stocks of wild salmon, "the two largest fisheries of salmon are in Alaska and California, and both are very well managed." The aquarium ranks salmon fisheries as green, yellow or red, so prospective buyers can go ahead, remain cautious or avoid the vendors in question.

"There are some very sustainable fisheries for wild salmon," Mazurek said. "So even though it's wild -- and intuitively one might think eating something farmed would be better -- a lot of times eating wild salmon is better than eating aquaculture."

One problem is salmon pens are exposed to open water. "If you picture anywhere from 12 to 14 pens in the ocean, each pen has over 100,000 salmon in it," Mazurek said. "And there's no filtration whatsoever of their waste, so they're literally going to the bathroom, feces right into the water, and they generate a lot of pollution."

Also, salmon are carnivores, which mean farmed salmon have to be fed wild fish, such as anchovies or herring, which environmentalists argue is a waste of natural resources.

"The industry has been very good in bringing down the amount of wild fish they have to feed the salmon. Ten years ago, the amount that went into one pound of farmed salmon was something like 10 to 1. Now it's something like 3.2 pounds for every pound," Mazurek said.

Wild salmon does remain pricier than farmed salmon, at times costing \$6 a pound or more. Mazurek stressed farmed salmon has come a long way over the years, with only one-tenth the antibiotics going into salmon feed as before. The drugs, when excreted out into the water, would kill microbes essential to nearby ecosystems.

"They're totally making improvements," Mazurek commented. "But they're farming more salmon, so while they might be reducing feed and antibiotics for each salmon, when you're producing more salmon, it all breaks even."

(Editors: UPI photo WAX2003061104 is available. For information, please call 202-898-8071)

By CHARLES Q. CHOI, UPI Science News

Copyright 2003 by United Press International.

News Provided by COMTEX (<http://www.comtexnews.com>)

This document provided by HighBeam Research at <http://www.highbeam.com>