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How salmon farming has evolved and improved over the years

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Cc: Gary Mason <GMason@globeandmail.com>
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[Tab Salmon Farming Then &jpg \(829 KB\)](#)

Mr. Robinson,

I don't speak for the salmon farming industry but I am aware that it has evolved and improved a lot over the years. The attached table (shown below) summarizes some of the changes in terms of technology, techniques, infrastructure, etc.

Sincerely,
Vivian Krause
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Salmon Farming in British Columbia - Then and Now			
		The Early Years	Now
Farms	Main Location	Sunshine Coast	North of Campbell River
	Pens	Home-made cages on log booms with wooden walkways	Steel katamaran systems or PVC "polar circles.
	Nets	Single nets of about the same strength as a seine net.	Double nets. Net strength is regulated and tested by government.
	Anchors	<50 MT per farm	About 200 MT to 700 MT per farm.
	Initial Capital Investment	< \$250,000 per farm	About \$2.5 million per farm
	Fish	Species	Chinook & Coho
Eggs & milt		From hatcheries for wild salmon enhancement	Companies raise their own brood stock.
Smolt size when stocked		7 g	About 50 g
Survival rate		+/- 50%	> 90%
Fish at a farm		100,000	500,000
Feed & feeding practices	Feed	High protein. High fish meal & fish oil	Non-marine ingredients now largely substitute fish meal & oil.
	Feed technology	None. Snow shovels were used in the early days.	Computer-operated, feeding technology. Under-water cameras at every farm.
	Feed Conversion	2.7 kg feed:1 kg salmon	1.2 kg feed:1 kg salmon
Environment Issues	Escapes	Not widely viewed as a problem; Pacific species were farmed.	With better anchoring, net maintenance and trained staff, most farms have had no escape incidents in more than 5 years
	Algae blooms	Caused bankruptcy. Staff lacked microbiology skills to identify pathological algae.	Manageable with careful plankton monitoring. Tarps and air compressors are used to circulate water and bring oxygen-rich water up from below. No chemicals are used.
	Build-up of uneaten feed on the ocean bottom	Occurred because of poor locations in shallow, slow-moving water and no underwater cameras.	Near zero at well-located, well-managed farms. With cameras, feed is used twice as efficiently as before.
Farm Staff		Self-taught, many were former commercial fishers or fisheries biologists.	Multi-disciplinary: each farm is operated by trained technicians, marine biologists and aquatic veterinarians.
Government Regulations		Development of regulations began.	At least 52 federal and provincial acts, standards and regulations are in place.