

Salmon aquaculture generates 80% of the total revenue of finfish aquaculture across Canada. This contribution summarizes the latest research information on Atlantic salmon, production statistics, growth lifecycle, processing, protein production techniques, nutritional and functional properties, peptide production and purification processes, as well as potential health benefits as a nutraceutical product. Several studies have reported that peptides from salmon protein hydrolysates possess bioactivities, including antihypertensive, antioxidant, anti-cancer, antimicrobial, antidiabetic, anti-allergic, and cholesterol-lowering effects. Therefore, it is essential to implement robust, standardized, and cost-effective processing techniques that can easily be transferrable and scale up for industrial applications in view of circular economy and upcycling concept.