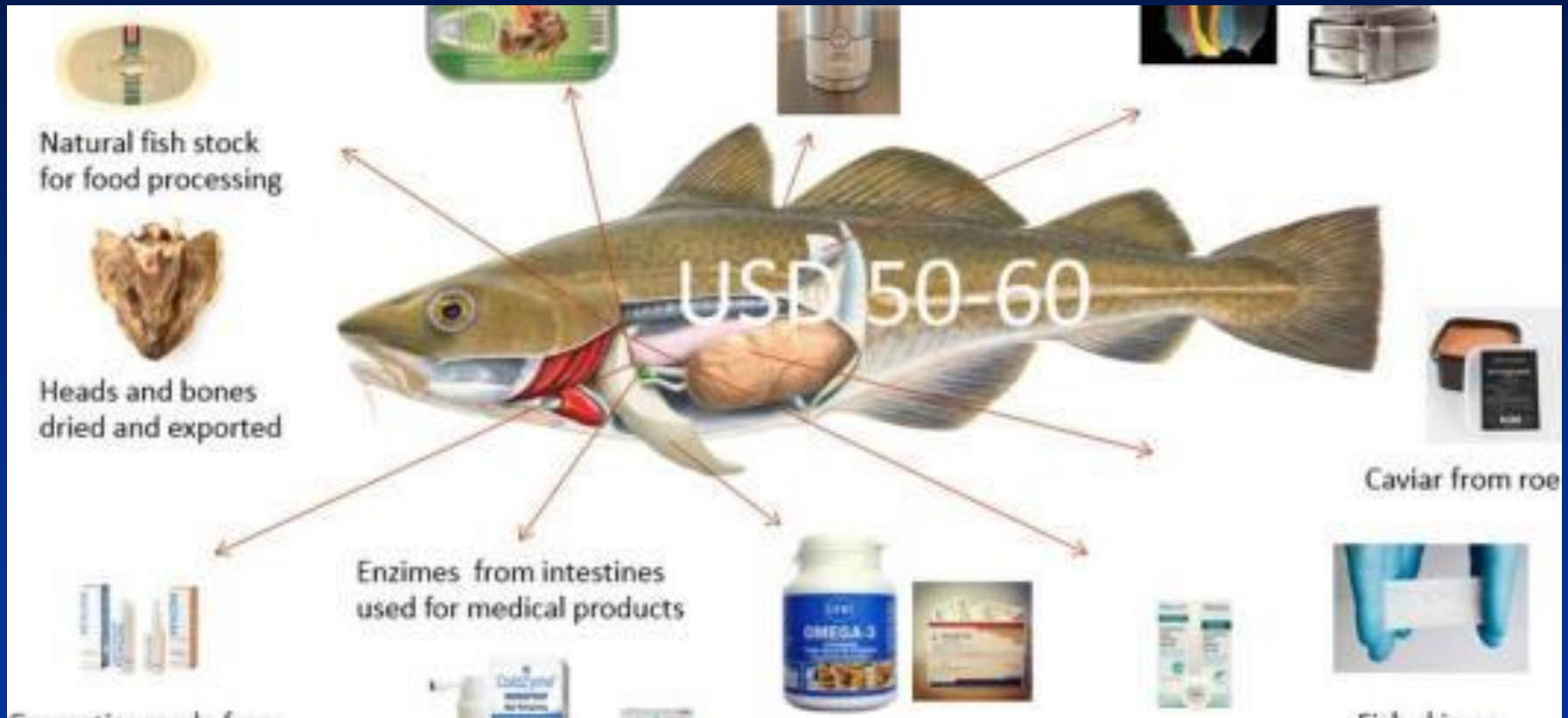


FISH BYPRODUCTS



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FISH MEAL

- **Fishmeal**, is a commercial product made from both whole fish and the bones and offal from processed fish. It is a brown powder or cake obtained by rendering pressing the cooked whole fish or fish trimmings to remove most of the fish oil and water, and then ground. What remains is the "fishmeal".
- The major use of fish meal is as a high-protein supplement in aquaculture feed.



FISH HYDROLYSATE

- **Fish hydrolysate**, in its simplest form, is ground up fish carcasses. After the usable portions are removed for human consumption, the remaining fish body, (which means the guts, bones, cartilage, scale, meat, etc.), is put into water and ground up.
- Fish hydrolysate used as a fish-based fertilizer, an animal food, or even for human consumption.
- The antiproliferative activity of fish protein hydrolysate, which makes it eligible for listing as a nutraceutical.
- Fish protein hydrolysates, particularly those developed from salmon, contain significant cancer growth inhibitors.



FISH EMULSION

- **Fish emulsion** is a fertilizer emulsion that is produced from the fluid remains of fish processed for fish oil and fish meal industrially. Since fish emulsion is naturally derived, it is considered appropriate for use in organic horticulture. In addition to having a typical N-P-K analysis of 5-2-2, fish emulsion adds micronutrients.



ISINGLASS

- **Isinglass** is a substance obtained from the swim bladders of fish (**especially Beluga sturgeon**). It is a form of collagen used mainly for the clarification of wine and beer.



FPC

Fish protein concentrate (FPC) is any stable fish preparation, intended for human consumption, in which the protein is more concentrated than in the original fish.



Fish Sauce

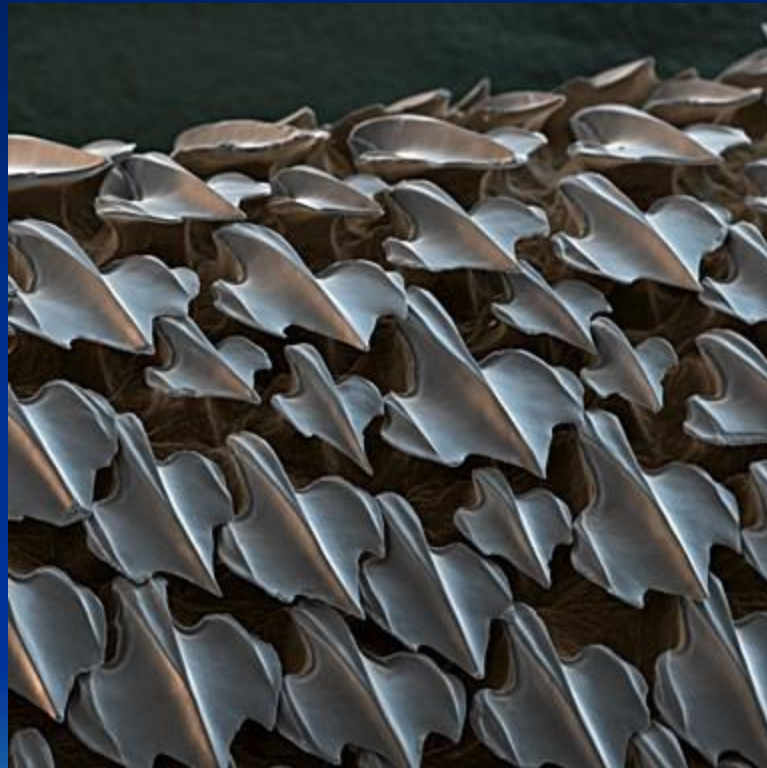


Shark fins



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Shark skin



Shark teeth

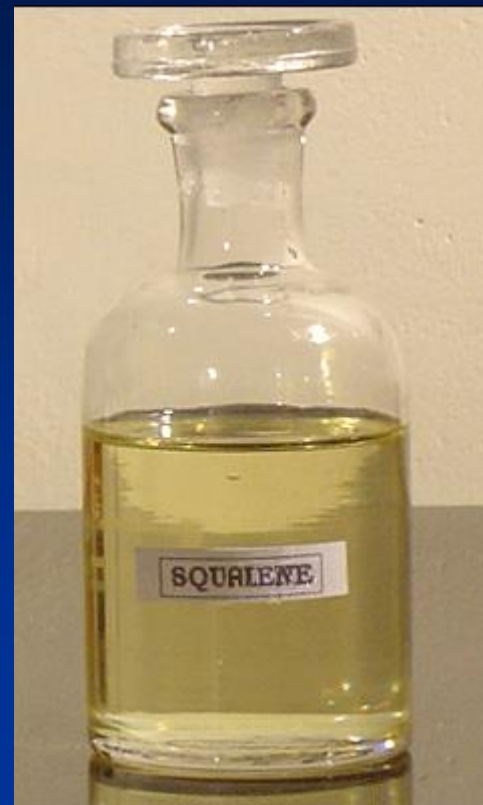


Shark bones



Squalene

Squalene is a natural 30-carbon organic compound originally obtained for commercial purposes primarily from shark liver oil (hence its name, as *Squalus* is a genus of sharks)



Chitosan

Chitosan is a linear polysaccharide

It is made by treating the chitin shells of shrimp and other crustaceans with an alkaline substance, like sodium hydroxide.

Chitosan has a number of commercial and possible biomedical uses. It can be used in agriculture as a seed treatment and biopesticide, helping plants to fight off fungal infections. In winemaking, it can be used as a fining agent, also helping to prevent spoilage. In industry, it can be used in a self-healing polyurethane paint coating. In medicine, it may be useful in bandages to reduce bleeding and as an antibacterial agent; it can also be used to help deliver drugs through the skin.



Prawn pickle



Fish pappad



Fish sandwich



Fish paste



Fish noodle



Fish puff



Fish oil

