

HERRING ROE: Alaska's Fast-Growing Specialty Food Industry

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The use of Alaska herring as a commercial food product dates to the early days of the new Territory. Beginning in the late 1800s, herring salteries were built rapidly along Alaska's coast; by 1928, more than 70 were in operation. The annual production of salt-cured herring peaked in 1922 at 36 million pounds.

Because of poor market conditions in the 1930s, production declined from a high of 13.3 million pounds in 1933 to 3.4 million pounds in 1939. The decline continued during the next decade; by 1947, only 2 million pounds of salt-cured herring worth \$280,000 were packed.

In 1950, when production had dropped to 264,000 pounds, valued at \$42,000, the salted herring industry went out of existence.

Interest Reborn

Interest in Alaska herring as a food was revived in 1964 to meet the demand of a Japanese market for a new kind of specialty product--salt-cured herring roe. In that year, 23,000 pounds of roe were produced for export to Japan. The product sold for as high as \$7 a pound on the Japanese retail market. In 1965, production increased fivefold. Nearly 200,000 pounds of roe worth over \$300,000 were shipped to Japan. By 1968, almost 300,000 pounds of herring roe valued at more than \$500,000 were produced in 7 Alaska processing plants.^{1/} In that year, the wholesale value of this specialty food was 82 percent of the value of all Alaska herring products--although only 40 percent of the herring catch of 8.1 million pounds was used in the roe industry.

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^{1/}Richard C. Nelson. 1970. 1968 Alaska catch and production commercial fisheries statistics. Alaska Department of Fish and Game, Statistical Leaflet 17, 29 pp.

The steps used in processing herring roe for shipment to Japan are shown in figures 1 through 9.

Note: Herring roe production reportedly is "big" this season in the Kenai Peninsula area. About 1,500 tons of herring were caught in Kachemak Bay and Resurrection Bay; processors in Seward and Homer are swamped. Herring roe is being processed in Anchorage for the first time. Some of the larger plants are employing more than 90 employees in this presalmon-season venture. For Alaskans, this fishery has been increasingly profitable. In 1969, fishermen were making as much as \$10,000 a vessel at prices of \$40 a ton.



Fig. 1 - Herring used in roe processing are aged in an open-top tank for 5 to 7 days. Herring are being transferred from aging tank to containers for transfer to processing plant.

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Fig. 2 - Herring roe is removed from the "aged" herring by first breaking the fish just behind the head, then using a squeeze-shake action to extract the roe from the carcass (woman on left). The ripeness of fish when caught is critical because seasonal maturity greatly influences both processing efficiency in removing roe and final quality of roe product. The amount of roe recovered from amount of herring landed is 8% to 10% by weight.



Fig. 3 - "Gibbers"--women who remove the herring roe--work on a piecemeal basis. In this Sitka, Alaska, processing plant, they earn \$28 to \$45 a day.



Fig. 4 - Basket of herring roe is put into a brine solution. During processing, roe is placed for 12 hours in each of three different brine solutions with a 3- to 6-hour drain period between each soak. The first two solutions have a salt content equivalent to sea water, the last a 100% solution of salt.

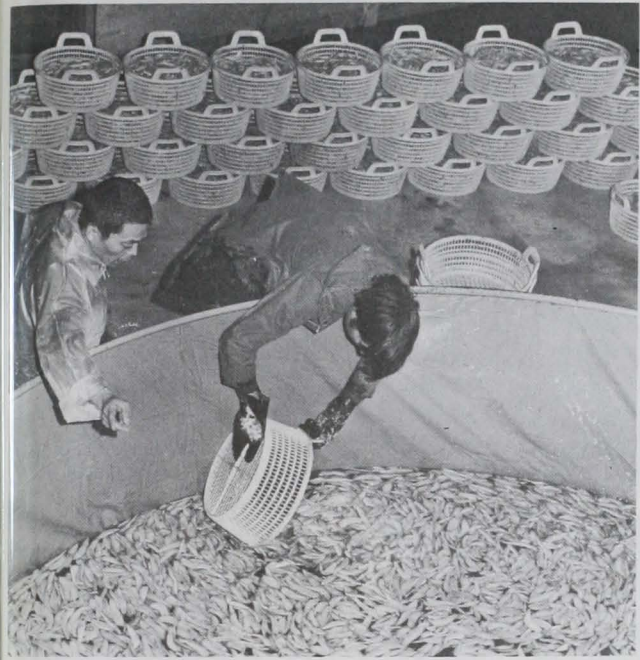


Fig. 5 - A Japanese technician looks on as worker carefully places basket of herring roe in final 100% brine solution. In background, herring roe in mesh baskets go through a 3- to 6-hour drain period.



Fig. 6 - Broken and discolored skeins of herring roe are removed during final inspection.



Fig. 7 - Herring roe in baskets are weighed before they are packed in cartons.



Fig. 8 - Cured herring roe is packed in plastic-lined, heavy-duty cartons for shipment to Japan. Each carton holds 120 pounds of herring roe and 18 pounds of dry salt.



Fig. 9 - Herring roe, a delicacy in Japan, sometimes brings \$7 a pound retail.