

FOREIGN FISHERY TRADE

Imports and Exports

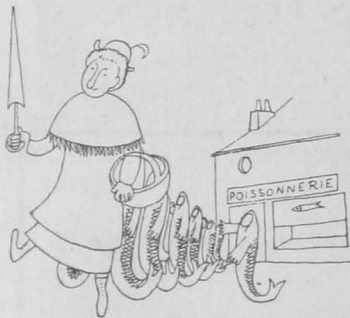
GROUND FISH IMPORTS: During April, there were 1,887,541 pounds of fresh and frozen groundfish imported into the United States under the tariff classification "Fish, fresh or frozen fillets, steaks, etc., of cod, haddock, hake, cusk, pollock, and rosefish," according to a report from the Bureau of Customs of the Treasury Department. This was 55 percent less than the amount imported during the corresponding period in 1946, and is in keeping with the trend of imports for the first third of the year, which were 56 percent less than those for the first three months of 1946.

Country	1947		1946	
	April	4-month Total	April	4-month Total
Canada	1,260,631	4,923,359	3,823,459	12,744,271
Newfoundland	339,910	1,449,660	334,190	1,371,237
Iceland	287,000	871,402	-	2,417,450
Norway	-	-	1,500	1,500
Total	1,887,541	7,244,421	4,159,149	16,534,458



Belgium

PRODUCTION: During the years just before the war, the Belgian fish catch averaged about 40,000 metric tons per year, or about one-quarter of one percent of the world fish catch. The value of the prewar Belgian fish catch averaged about 120 million francs (\$2,745,000) annually. No data are available on production during 1940, but it is known that practically no fishing was done after the German invasion in May. In 1941, only a small amount of fish was caught, as most of the boats had either been sunk or had fled to England, and such fishing as was done was restricted to coastal waters. In 1942, the volume of fish caught reached about half of the prewar total. Beginning with 1943, the Belgian fish catch exceeded the prewar average, due to very large herring runs. For the calendar year 1946, a new high production was attained of almost 70,000 metric tons for a value of 446 million francs (\$10,201,150). Table 1 (see p. 47) shows the quantities and value of fish landed in Belgian fishing ports during the periods indicated.



By far the largest part of the Belgian fish catch is landed at Ostend. The details of some of the above calendar year statistics, by port, are given in Table 2 (see p. 47).

It should be pointed out, however, that the above figures do not represent the total fish catch of the Belgian fishing fleet, as Belgian boats occasionally land and sell their fish catch directly in English and Scotch ports.

Note: The illustrations are reproductions of sketches used by the Belgian Government in an effort to move the quantities of herring referred to in the article.

During the first five months of this year, the Belgian fishing catch has been very satisfactory, both from the standpoint of quantity and value (see Table 3, p. 48).

Table 1 - Annual Catch

Year	F i s h		Shellfish and Mollusk	T o t a l	
	Deep-sea Tons	Salt-water Tons		Tons	Francs
1929	15,453	17,352	110	32,915	82,956
1930	14,093	19,311	103	33,507	91,805
1931	14,461	26,605	141	41,207	76,360
1932	16,758	11,004	270	28,032	65,927
1933	19,161	7,801	180	27,142	75,844
1934	18,352	9,935	247	28,534	77,981
1935	20,438	15,412	2,987	38,837	101,642
1936	23,762	12,762	3,850	40,380	120,226
1937	27,219	7,344	4,344	38,907	118,428
1938	27,333	8,657	3,145	39,135	124,379
1939	26,279	10,590	2,991	39,860	118,253
1941	601	1,470	1,663	3,735	39,393
1942	1,581	19,204	1,371	22,156	177,707
1943	2,546	57,897	122	60,565	367,832
1944	740	49,135	-	49,875	268,837
1945	12,981	32,269	354	45,604	463,763
1946	29,575	38,545	1,574	69,694	445,872

Source: National Statistical Institute. Quantities - Metric Tons. Value - Thous. francs.

Kinds of Fish: From the standpoint of weight, herring are the most important fish caught by the Belgian fishing fleet. Before the war, the herring catch varied

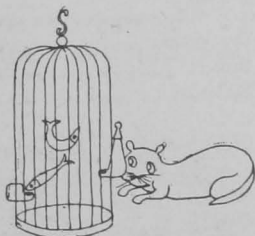
Table 2 - Quantity of Fish Unloaded in Belgian Fishing Ports

Year	Ostend	Blankenberg	Zeebrugge	Nieuport	Total
1946	Kilos	Kilos	Kilos	Kilos	Kilos
1st quarter	20,405,923	241,395	2,593,106	2,940,333	26,180,757
2nd quarter	7,526,666	171,090	1,998,589	527,110	10,223,455
3rd quarter	13,408,033	99,159	1,488,884	312,462	15,308,528
4th quarter	14,955,439	64,394	1,694,649	1,266,563	17,981,045
Total	56,296,061	576,038	7,775,228	5,046,468	69,693,795
Average - 1936-38	32,946,905	480,880	4,413,702	1,630,358	1/39,471,845

1/In 1936, approximately 90,000 kilograms of fish unloaded at Antwerp were not included in the average 1936-38.

Source: Marine Administration

widely, but averaged about 8,000 tons, or 20 percent of the total. Most of the herring catch occurs in the coastal waters off Belgium, with some additional quantities caught in the Flagen area off Scotland.



During the German occupation, the Flagen area was not available to the Belgian fishing boats. By good fortune, however, there were large runs of spent herring in the coastal waters of Belgium. In view of the lack of meat and other protein foods during the war period, the herring supplies were invaluable to Belgium, supplying a substantial part of its protein requirements. No one knows exactly why the herring appeared, but one theory is that many small herring which ordinarily would have been killed in the drag-net operations off the English coast had a chance to grow up because of the reduction in the English trawling. These herring, it is thought, may have migrated to Belgian waters.

Table 3 - Monthly Catch - 1947

Month	Kilos	Francs	Month	Kilos	Francs
January	14,929,307	59,020,062	April	4,170,190	43,365,039
February	6,598,798	38,496,123	May	4,201,216	40,961,370
March	6,400,107	56,796,505			

The season for spent herrings is from about the middle of December to the middle of March. The peak season for spent herring was that of 1943-44, when 48,000 tons of spent herring were caught. Since then, the catch has been declining each year. Table 4 shows the amount of the spent herring catch during the past few seasons.

Table 4 - Seasonal Spent Herring Catch

Season	Kilos	Season	Kilos
1941-42	10,148,293	1944-45	32,309,540
1942-43	45,697,797	1945-46	26,369,350
1943-44	47,999,264	1946-47	22,243,598

From the standpoint of value, flounder (including dab, plaice, sole, and turbot) constitute the most important fish caught by the Belgian fishing fleet,

Table 5 - Quantity of Fish Landed at Belgian Fishing Ports

Kind of Fish	1938	1946	Kind of Fish	1938	1946
<u>Deep Sea:</u>	<u>Kilos</u>	<u>Kilos</u>	<u>Deep Sea (Cont.):</u>	<u>Kilos</u>	<u>Kilos</u>
Flounder	13,376	25,145	Turbot	741,562	798,800
Weever	121,557	3,775	Sole	2,272,495	3,096,550
Angler-fish	412,403	36,609	Pollack	234,955	9,372
Brill	218,396	201,702	Whiting	3,158,577	3,640,640
Porbeagle	18,898	5,106	Sea perch	173,245	16,605
Halibut	35,388	33,296	Dogfish	380,529	413,352
Berger	1,994	11	Spotted dogfish	316,426	525,912
Cod	4,156,880	4,960,870	Conger eel	204,855	44,617
Sebaste	559,610	40,116	Sea dace	50,355	69,063
Red Gurnet	1,031,585	592,088	John-dory	118,677	6,148
Surmullet	9,325	23,395	Miscellaneous	123,620	-
Coalfish	1,586,335	715,111			
Ling	390,180	167,195	<u>Pelagic:</u>		
Brosme	27,025	2,882	Herring	5,883,382	37,131,718
Whiting	1,084,800	12,774	Mackerel	454,830	597,895
Plaice	3,065,051	6,323,201	Sprat	1,159,626	815,152
Scaurel	42,870	49,676	Salmon	-	26
Ray	3,437,759	3,778,591			
Ray (white)	447,690	471,826	<u>Shell and Mollusks:</u>		
Gurnard	304,152	211,633	Outtle-fish	-	2,120
Dab	376,846	182,789	Whelk	18,250	-
Flotte	541,195	123,731	Crabs	13,631	280
Haddock	1,310,075	2,194,475	Lobsters	4,809	(
Scotch Sole	789,039	72,625	Small lobsters	158,752	8,104
Dab Sole	269,874	44,071	Shrimp and others ...	2,949,915	1,563,784
Whiting-putt	450,885	81,788			
Sturgeon	4,298	369	<u>Total</u>	<u>39,135,077</u>	<u>69,693,795</u>

Source: National Statistical Institute

as they usually represent about 35 to 40 percent of the total value of fish caught. A Brussels firm has plans under way for filleting, freezing, and exporting sole to the United States.

Groundfish (consisting chiefly of cod, but also including haddock, hake, and pollock) usually average between 15 and 20 percent of the total catch, both on a weight and a value basis.

Table 5 (see p. 48) shows the quantity of the Belgian fish catch in 1938 and 1946, by type of fish.

Consumption: Before the war, the Belgian consumption of fish averaged about 11 kilograms (24.2 lbs.) per capita per year, as is shown in Table 6.

Table 6 - Per Capita Consumption

	1937	1938	1939	1946
	Kilos	Kilos	Kilos	Kilos
Fish landed at Belgian fishing ports	38,906,884	39,135,077	39,860,137	69,694,000
Imports	71,115,300	69,153,600	60,961,100	73,636,000
Exports	16,096,600	11,115,700	10,112,600	7,134,000
Belgian consumption	93,925,584	97,172,977	91,708,637	136,196,000
Per capita consumption	11.2	11.6	11.0	16.4

During 1946, Belgian consumption of fish rose to a level about 50 percent above prewar, the 1946 total being about 16.4 kilograms (36.1 lbs.) per capita.

The sale of fresh and frozen fish has been entirely free since September 10, 1945. More recently, canned fish has been removed from the ration.

As pointed out in the September 1946 report of Belgium to the FAO, Belgium before the war regulated fish imports and exports by quotas in order to safeguard the interests of the Belgian fish industry and trade.

Belgium possesses an industry for the transformation of fish wastes.

By decree of October 20, 1945, a Professional Council of Sea Fishing was created in Belgium.

Canned Fish: With respect to canned fish, a royal decree issued in 1937 required that their source be marked. Before the war, Belgium imported about two million dollars, annually, of canned fish, of which the bulk came from Japan and Portugal, the United States supplying only about 10 percent of the total. The United States exports of canned fish to Belgium consisted chiefly of pilchards, salmon, and shrimp.

The prewar imports of canned fish amounted to almost 1,000 tons per month. For the first four months of this year, Belgian imports of canned fish have been as shown in Table 7.

Table 7 - Imports of Canned Fish

Month	Metric Tons	Francs	Month	Metric Tons	Francs
January	1,223	31,830,000	March	1,213	30,236,000
February	874	21,380,000	April	488	14,207,000

Average imports for the first four months (Table 8, p. 50) have thus far totaled about the same as before the war. During January, February, and March, about 90

percent of the imports came from Portugal. In April, Norway and Portugal each supplied about 40 percent of the total. The balance of the Belgian imports of canned fish came in small amounts from a large number of other countries. Imports from the United States during the first four months of this year were as shown in Table 8.

Table 8 - Imports of Canned Fish From the United States

Month	Metric Tons	Francs	Month	Metric Tons	Francs
January	6	382,000	March	9	801,000
February	17	128,000	April	31	1,910,000

Areas Fished: Belgian fishing boats operate mostly in the coastal waters of Belgium and in the North Sea, but since the return of the larger boats from England, a few of these have done some fishing in the Mine-Head area west of Ireland and in the neighborhood of Iceland, and even off the coasts of Portugal, Spain, and in the White Sea. The figures on the Belgian fish catch by areas are listed in Table 9.

Table 9 - Quantity of Fish Directly Landed in Belgium From Various Fishing Fields

Fishing Field	Average 1936-38	1 9 4 6				Total
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
	Kilos	Kilos	Kilos	Kilos	Kilos	Kilos
Coast	6,075,660	21,706,499	2,975,754	2,318,282	9,228,438	36,228,973
Southern North Sea ..	9,159,854	2,307,218	3,832,539	1,927,802	1,134,024	9,201,583
Central North Sea ...	3,933,273	1,959,804	1,017,035	761,339	2,086,823	5,825,876
Northern North Sea ..	1,526,436	-	1,212,084	784,777	467,015	2,463,876
Moray-Firth	960,375	-	-	-	-	-
Fladen	1,397,100	56,607	-	8,242,265	4,127,031	12,425,903
Channel	898,988	-	-	-	-	-
Bristol Channel	5,339,397	-	-	-	-	-
Mine-Head	2,576,077	150,629	230,248	573,194	322,269	1,276,340
West Scotland	533,988	-	-	-	-	-
Iceland	3,349,930	-	955,795	679,905	570,367	2,206,067
Portugal-Morocco-						
Spain	3,001,987	-	-	20,974	-	20,974
White Sea	148,230	-	-	-	45,078	45,078

Although the coastal waters supply most of the Belgian fish catch, the catch there consists largely of spent herring, and the quantity of fish caught in these waters is declining as the coastal zone has been practically fished out in the past few years. The Belgian sea coast is quite short, extending only for about 40 miles.

Belgian Fishing Fleet: During the war, the Belgian fishing fleet lost a total of 178 boats, of which 150 were lost in Belgium, and 28 in England. Of the latter, 11 were lost in the service of the British Navy and 17 while fishing for British account.

By the end of 1946, the Belgian fishing fleet had been practically reconstituted to its prewar numbers, due primarily to the retransformation of the fishing boats which had been loaned to England during the war. The total number of boats at the end of 1946 was 479, as compared with 510 in 1939. During 1946, there was also some new boat construction, and the number of fishing boats increased by 80 during the year. The number of large sea-going vessels remains below prewar, as is indicated in Table 10 (see p. 51).

By decree, appearing in the Moniteur Belge of January 15, 1947, fishing in the territorial waters by boats having a motive force exceeding 200 horsepower was forbidden for the duration of the 1946-47 herring season.

Table 11 shows the distribution of Belgian fishing boats, by port, at the end of 1946.

Table 10 - Fishing Craft

Vessels	Year End			Difference 1945-46
	1939	1945	1946	
Shrimp fishing boats	236	269	250	-19
Coastal fishing boats	85	61	72	11
Boats for average fishing	123	58	108	50
Sea-going fishing vessels:				
Limited distance	44	10	35	25
Unlimited distance	22	1	14	13
Total	510	399	479	80

As of May 1, 1947, the Belgian fishing fleet consisted of 479 units as compared with 510 at the end of 1939; on the same dates the motor power was respectively 53,397 horsepower (May 1, 1947) as compared with the 1939 figure of 59,672 horsepower; the latest tonnage was 23,567 metric tons as compared with 28,037 tons in 1939.

Table 11 - Distribution of Fishing Craft

Type	Ports	Firms		Boats	Tonnage Gross	Type	Ports	Firms		Boats	Tonnage Gross
		Number	Number					Number	Number		
Motor boats	{	Blankenberg	18	21	417	Steam boats	{	Blankenberg	-	-	-
		Nieuport	79	91	1,775			Nieuport	-	-	-
		Ostend	213	238	12,500			Ostend	3	13	4,798
		Zeebrugge	100	116	3,689			Zeebrugge	-	-	-
		Total-1946	410	466	18,381			Total-1946	3	13	4,798
Total-1945	353	399	10,922	Total-1945	1	1	1/129				

1/Net tonnage.

Number of Fishermen: During 1946, the number of fishermen increased from 1,617 to 1,992, but the latter total is still about 120 below prewar. Table 12 gives the breakdown of this increase.

Table 12 - Distribution of Fishermen

Item	Blankenberg	Nieuport	Ostend	Zeebrugge	1946 Total	1945 Total
Number of boats equipped	15	79	209	105	408	378
<u>Deck Personnel</u>						
18 yrs. and over:						
Captains	15	79	209	105	408	378
Sailors	18	134	546	173	871	629
Novices	1	21	55	31	108	87
Less than 18 yrs.:						
Shipboys	2	23	92	56	173	183
Machine room personnel	11	65	255	101	432	340
Total	47	322	1,157	466	1,992	1,617
Boat owners	4	27	25	21	77	64

A decree, appearing in the Moniteur Belge of January 15, 1947, fixed the base salaries paid to various categories of fishermen, for use in determining payments due for accident insurance.



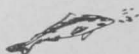
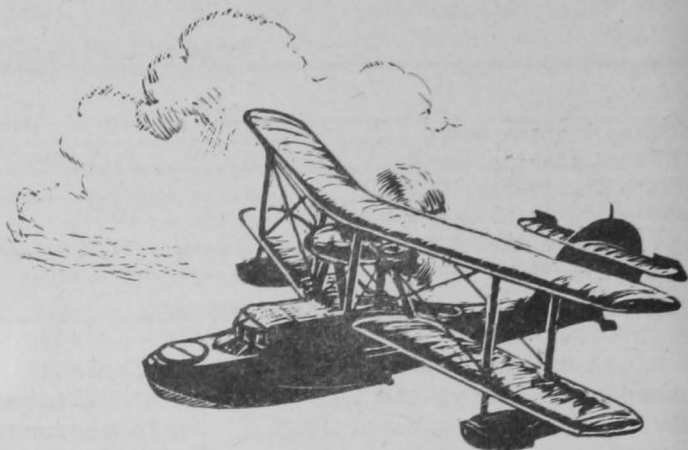
England

WHALING--BY AIR:^{1/} The amphibian aircraft used as whale spotters by the whaler S.S. Balaena during its recent expedition to the Antarctic performed favorably, according to the American Consulate, Bristol, England.

It was revealed that the two aircraft totaled between them 100 flying hours. The planes were launched from the whaling ship by the catapult and taken aboard again by crane when they had completed their patrols. Cruising at about 10,000 feet, the aircraft would radio the location of a school of whales to killers. The aircraft were said to be particularly valuable in spotting sperm whales which spend a great deal of time well below the sea surface.

The lowest temperature recorded was 17° F.; normally it was about 27° or 28°. Sudden squalls were the worst part of the weather.

The potentialities of aircraft as whale spotters were not fully exploited, in the opinion of those engaged in the work, because whales were particularly numerous; it was reported that at one time great schools of them bumped against the Balaena's sides. It is felt, however, that there is a future for aircraft in this work and that they will prove invaluable in seasons when there are not so many whales about.



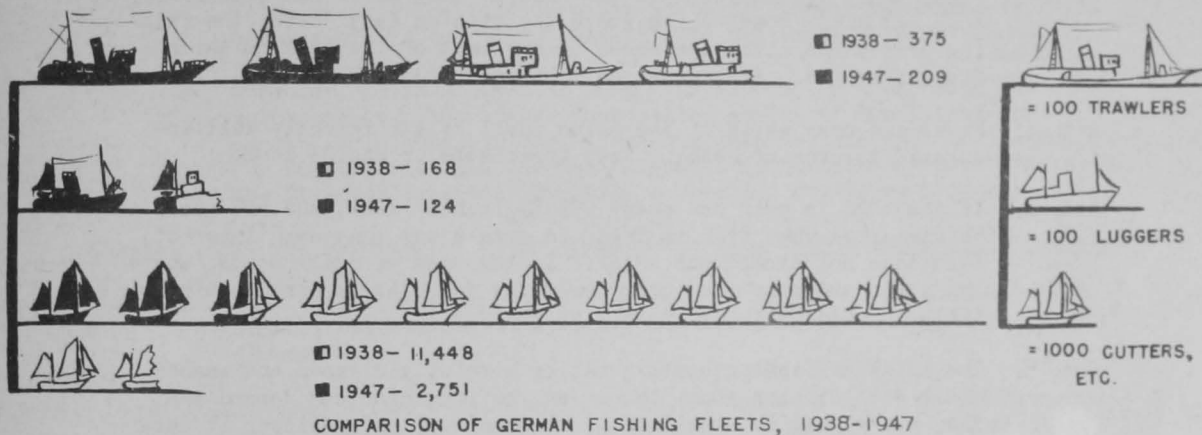
Germany

FISHERIES: In order to increase the fish catch for the bi-zonal area, further steps are now being taken to make available to the German economy for fishing purposes, a portion of the prewar German fishing fleet used by the German Navy during the war and taken over as reparations by the Tripartite Naval Commission, according to the Office of Military Government for Germany (U. S.). The portion allocated by the Commission to the United States consists of 25 trawlers and 129 KFK cutters (Kuesten-Fischerei-Kutter) which will be converted to fishing boats as rapidly as possible.

When this fishing vessel conversion program is completed, the combined British and U. S. Zones will have a fleet consisting of 209 trawlers, 124 luggers, and 2,751 cutters, and other small craft operating in the North Sea, Baltic Sea, and waters adjacent to Iceland and Bear Island. With fish supplementing the supply of fresh meat in the bi-zonal area and, thereby, increasing the protein content of the German diet, the importance of this program cannot be overestimated.

^{1/}"British Whaling Activities," Commercial Fisheries Review, April 1947, p. 37.

The German fishing fleet in 1938 consisted of 375 trawlers, 168 luggers, and 11,448 cutters and other small craft. Most of these vessels at the outbreak of war were taken over by the German Navy to be used for other-than-fishing purposes. The KFK cutters used by the German Navy were so constructed that they could be converted to fishing vessels in case of a Nazi victory. Many of these vessels were sunk or otherwise incapacitated during the war while others that were still serviceable at war's end were either used by the Allies for minesweeping purposes or were operating in the Baltic Sea or other areas not under UK/US jurisdiction. As the minesweeping activities came to an end, more and more of these vessels became available for conversion but shortages of materials and marine railways have seriously hampered the program.



The Fisheries Bipartite Control Group, which is composed of 10 Britishers and 3 Americans, supervises not only operations of the fishing fleet but also fish imports, processing, and distribution. Prior to the bi-zonal economic merger on January 1, 1947, the total catch, which averaged about 20,000 tons monthly during 1946, was pooled with 55 percent going to the British Zone and 45 percent to the U. S. Zone. The distribution of the catch since that date has been arranged on the basis of 500 grams of processed fish per ration period for each non-self-supplier in the combined area.



Iceland

INSPECTION AND HANDLING OF FISH FOR EXPORT: Iceland's interest in producing top quality frozen fish for the export market is well exemplified in the care taken to insure the use of the best possible procedures in the catching and handling of the fish and the preparation, packaging, transportation, and inspection of the product. The regulations governing these matters, as issued by the Ministry of Industries on January 10, 1947, follow:



REGULATIONS ON THE HANDLING OF FISH FROZEN FOR EXPORT

Chapter I. Equipment of Fishing Boats and Ships.

- Art. 1. The holds of fishing vessels and boats, together with racks and shelves in the holds, shall be painted or varnished with durable paint or varnish, at least twice a year. A chief inspector can, however, allow that this be done only once a year if boats are not much used.
- Art. 2. The holds shall be made in such a way that the fish is not liable to be bruised on bars or ruffles. The bottom of the holds shall be covered with closely barred racks. The bearing bars of the racks shall lie longwise on the hold so that water can flow freely down and aft. Boats which store the fish on deck during the fishing trip shall also have racks on the part of the deck on which fish is stored. All racks shall be easy to clean under.
- Art. 3. Front and rear walls of the holds shall be sufficiently well insulated to prevent heating from forecastle or engine room.
- Art. 4. If the hold is over one meter (39.37 inches) deep, shelves shall be installed when fish is iced, in such a way that each layer of fish does not exceed one meter. In the case of small boats, where the holds are only just over one meter deep, it is permissible to fill the holds without installing shelves.
- Art. 5. The holds of fishing boats shall be carefully cleaned and washed after each fishing tour. Moreover, an inspector can demand that they are washed in sterilizing substances if he considers it necessary.

Chapter II. The Handling of the Catch.

- Art. 6. All fish shall be bled by cutting across the thoracic arteries on both sides as soon it comes on deck.
- Art. 7. In the case of boats which do not land the catch daily, all fish shall be eviscerated as soon as possible. Boats which land the catch daily, may bring the fish ashore ungutted, but during the summer it is desirable that all fish is eviscerated immediately on catching.
- Art. 8. All fish, whether it is gutted at sea or on land, shall be washed immediately after gutting. Care shall be taken not to leave any remainders of liver, guts or blood in the belly cavity.
- The supply of water for washing shall be so good that it does not become markedly stained by the washing.
- Art. 9. When fish is carried ashore ungutted and gutted in sheds on land, the sheds shall be carefully cleaned and made in such a way that they may be cleaned easily. The floor shall be plain and, where the fish is piled up, covered with racks providing a free flow of water away from the fish. Evisceration and washing shall begin as soon as the boat comes to port. When carrying the fish to the place of destination all rules of cleanliness shall be fully observed.
- Art. 10. The fish may never be hooked or pricked with fish-forks or other tools, except in the head. Any such handling of the fish which might lead to bruises or other damage to the fish, shall be avoided.

- Art. 11. On boats which are out fishing for more than one day, all fish shall be gutted, and iced in the hold before it stiffens. When iced, round fish shall lie belly down and flat fish dark side down.
- Art. 12. The quantity of ice used for icing shall be decided by inspectors.
- Art. 13. During the period May 15th to September 30th, it is not allowed to keep fish uniced for more than 12 hours from the time of catching until the boat comes to port.

From October 1st to May 14th, fish may lie uniced in boats up to 24 hours. During the same period the Director of Inspection may allow fish on ice to be kept in boats for longer time than is permissible in the period May 15th to September 30th.

Moreover, it is allowed to keep fish on ice, in the period May 15th to September 30th, longer than stated above, if conditions are particularly good, in the Director's opinion, the boat well equipped for keeping fish and the weather and other conditions are favourable. The Director's permission must be obtained on all occasions.

Chapter III. The Handling of Fish in Quick-Freezing Plants and Their Equipment.

- Art. 14. Fish which is taken for filletting must be fresh and undamaged and in all respects perfectly sound merchandise, according to inspector's judgment.
- Art. 15. If, during the period May 15th to September 30th, fish has been uniced in boats and is not iced on land, filletting must be finished not later than 24 hours after catching. Fish may, however, never lie uniced on land for more than 12 hours. During the period October 1st to May 14th such fish may lie uniced on land for 24 hours. If caught by trawler, round fish which has not been iced on land, shall be filleted not later than 36 hours after landing, but fish caught on line may lie up to 48 hours. Flat fish may, if required, be kept on ice for up to 3 days on land.
- Fish which has been iced in the boat but is not iced on land, shall be filleted not later than 8 hours after landing. Fish which has been iced in the boat and is also iced on land before filletting, may be kept for up to 24 hours on land before filletting, on condition that not more than 3 days have elapsed since the time of catching.
- Art. 16. The building in which the fish is kept while it waits for filletting, shall be well finished if made of concrete, or painted if made of timber. In case fish stores are not in accordance with the demands of Director of Inspection, they shall be changed as he decides.
- Art. 17. The space on which the fish lies while it awaits filletting shall be such that water can flow freely from under the fish. The fish shall lie on racks which are installed in such a way that they can easily be cleaned under when work is finished.
- Art. 18. The oldest fish, or that fish which, in the inspector's opinion is least likely to stand being kept longer, shall be cured first.

The fish shall be washed in washing machines which secure that only fresh water or sea comes in touch with the fish. If a washing machine is not available, the fish shall be washed by brushes and in clean, running water or sea.

Water and sea water, which is used for washing the fish at the freezing plants, shall be clean and uninfected in the opinion of inspectors and the Fish Department of the Faculty of Industries of the University.

- Art. 19. Gloves may not be used at filleting unless they are made of rubber or other similar material. If the fillets are not removed from the filleters on conveyor belts, they shall be carried in clean metal pans.
- Art. 20. The fish shall be precisely weighed and scales shall be tested with weights at least twice a day. Care shall be taken that the frozen blocks contain at least as much fish as stated on the wrappers.
- Art. 21. Packing tables should, best of all, be made of rust-free metal (steel), or other material which is easy to clean. If wooden tables are used, they shall be white-painted. Using gloves of other material than rubber or other similar material, for packing, is not allowed.
- Art. 22. If the fillets are wrapped in parchment paper and not laid in cartons, the packages shall be put in the freezing pans without delay or, alternatively, it must be ensured, in some way, that the packages do not get deformed or soiled.
- Art. 23. Every package shall bear the freezing plant's mark of identification and such particulars as the production period and other information which the Director of Inspection may demand.
- Art. 24. Under ordinary circumstances, fillets must not be kept longer than 3 hours before freezing, unless they are kept in temperature of about 0° Centigrade (32° Fahrenheit). They must, however, never be kept longer than 6 hours.
- Art. 25. If multi-plate freezers are used, equal thickness shall be ensured, for example, by installing wooden lists on the edges of the plates.
- Art. 26. When fillets are frozen and stored in moisture-vaporproof wrappers, the blocks shall be glazed in clean water immediately on being removed from the freezer. Care shall be taken that the ice-glaze covers the whole block.
- Art. 27. Floors of storerooms, where fish is stored after freezing, shall be covered with gratings in such a way that the fish cases stand at least 10 cm (3.94 inches) above the floor, and that air can circulate freely under the piles. The space between the fish piles and the walls shall be at least 15 centimeters (4.13 inches), and if there are freezer pipes on the walls, then fish cases shall stand at least 20 centimeters (7.87 inches) away from the pipes. In the same way there shall be space of at least 20 centimeters between the freezer pipes in the ceiling and the pile. Concerning the loading of frozen fish in ships; similar rules shall be adhered to so that air can always circulate freely round the fish cases.
- Art. 28. No smelly articles, or other articles which might have harmful effect on the fish, must be kept in the storerooms. Unfrozen goods must not be brought into the cold stores. All articles or goods which are brought into the cold stores must be about equally cold as the goods which are stored there already.

Art. 29. The temperature in storerooms for fish which is frozen for export, shall be at least 18-20° Centigrade below zero (0° to -4° F.), and shall be kept within these limits as far as possible. The temperature may be lower, however, if it is kept uniform.

In every storeroom there shall be an automatic thermometer or an electric thermometer showing the degree of frost, without the room being opened.

Art. 30. During the loading and transport of frozen fish the cases must be handled as carefully as possible. They must not be trodden on with dirty shoes, or handled with dirty gloves, or soiled in any other way. The cases must not be lifted by the steel straps or wire with which they are reinforced. Care must be taken that they do not get wet. When fish is transported on lorries or boats, it shall be protected against rain and heat with covers or other necessary equipment. The execution of the above shall be in accordance with instructions given by the Director of Inspection regarding the protection of appearances and safety of the fish.

Art. 31. Localities of work, tools, machinery, tables, containers and other equipment used at the curing of fish, shall be carefully washed every day when work is finished. Water supply must be ample in order to facilitate cleanliness. Every freezing plant shall be well stocked with sterilizing substances, approved by the Fish Department of the University, for cleaning working localities and tools when necessary, most preferably every day.

Art. 32. Employees who work on filletting, weighing and packaging shall be tidily dressed. Those who weigh and pack, in particular, shall wear white gowns or white aprons. Women shall wear white caps made of linen or other similar material.

Art. 33. People infected with contagious illnesses must not be allowed to work in freezing plants. Inspectors can demand a health inspection whenever he considers it necessary.

Art. 34. Care shall be taken that utmost cleanliness is observed in the handling of the fish, as far as circumstances allow. Smoking is prohibited in all places where unpacked fish fillets are worked on.

Art. 35. Violation of any of the provisos of these regulations is subject to a fine of kr. 10,000.00 (\$1,546.50).

Art. 36. By the above regulations, regulations No. 64 of June 7th, 1944, and No. 103 of July, 1944 on the inspection of frozen fish and iced fish are cancelled, together with other stipulations which are contrary to the above regulations.

The regulations are issued under the authority of Law No. 92 of May 3rd, 1935, on the handling, cure, and export of sea produce, and come into force immediately.

THE MINISTRY OF INDUSTRIES

January 10, 1947

REGULATIONS ON INSPECTION OF QUICK-FROZEN FISH FOR EXPORT

- Par. 1. All frozen fish exported from Iceland shall be inspected by inspectors in the service of the Director of Inspection of frozen fish.
- Par. 2. In this work the Director of Inspection is assisted by chief inspectors. Their occupation is to travel between the various freezing plants and supervise the production; moreover, to take care of the loading of ships, etc., according to the Director's instructions at any given time.
- Chief inspectors shall be engaged by the Minister of Industries, after consultation with the Director of Inspection.
- Par. 3. Chief inspectors are responsible, for their work, to the Director of Inspection who, in turn, is responsible for the inspection in its entirety. They shall take care that sub-inspectors (inspectors of the individual freezing plants) do their duty, and ensure that all rules and regulations regarding the handling and the quality of the fish and the equipment of fishing boats and freezing plants are obeyed.
- Par. 4. A chief inspector shall visit each freezing plant sufficiently often to be able to keep well informed of everything that concerns the Inspectorate or at least once a week during the main production period of each individual freezing plant, where that is possible.
- A chief inspector shall always be present at the loading of ships, in order that he may ensure that all regulations on the handling of the goods are complied with.
- Par. 5. Exporters of frozen fish shall inform the Director of Inspection of the loading ships, which export frozen fish, sufficiently early for the Director to be able to send a chief inspector on board the ship. The Director of Inspection or a chief inspector authorized by him, shall issue a certificate of inspection covering the cargo when he has convinced himself that the regulations have been complied with and that the fish is a sound merchandise.
- Par. 6. Chief inspectors shall write detailed reports on their work each day and send them to the Director of Inspection every two weeks. These reports shall include descriptions of all aspects of the inspection. Moreover, they shall include statements of the date of visit to each place, the length of stay, the nature of the work being done, and the chief inspector's criticism. These reports shall be written on forms prepared by the Inspectorate's head office.
- Par. 7. Each freezing plant shall have one sub-inspector for frozen fish. His duty is to ensure that all regulations regarding the handling and quality of the fish and the equipment of the plant, are obeyed. In his work he is personally responsible to chief-inspector and the Director of Inspection.

A sub-inspector may occupy other posts at the freezing plant, such as foremanship or any other work, provided that he can, at the same time, perform all his duties as a sub-inspector. He shall always be present when fish is worked on, whatever kind of work that may be. In case he is not able to be present, he shall appoint another man to take his place and bear all responsibility for his work.

Sub-inspectors at the freezing plants shall inform chief inspectors, or the Director of Inspection, without delay, if they are confronted with problems of inspection which they cannot solve.

As long as there is a stock of fish in the plant's cold store, those sub-inspectors who are, at the same time, permanent employees of the freezing plants, such as foremen, shall receive a fee for the supervision, amounting to 20 percent of labourer's wage rates in force at their respective places of work, the time-basis being 25 eight-hour working days each month. The fees are payable by the respective freezing plants.

In case an employee of a freezing plant, who has been a sub-inspector at the same time, neglects his duties as a sub-inspector or is, for some other reasons, not capable of doing his duties as a sub-inspector, the Director of Inspection has power to appoint another man, who attends to the inspection as his sole occupation. The salary of this sub-inspector shall be the same as that of the plant's foreman, and be paid by the freezing plant.

Sub-inspectors shall be authorized by the Chief of Police in accordance with appointments of the Director of Inspection.

- Par. 8. Sub-inspectors shall send reports of production in their respective freezing plants, to the Director of Inspection, in such details as he may decide. The Inspectorate provides forms for these reports.
- Par. 9. The sub-inspector's reports shall be booked in such a way in the Inspectorate's office, that at any given time there are clear statistics at hand as to the quantity of fish in each freezing plant, the total production of each plant during the year, goods sent away, etc. Moreover, all comments made on the respective freezing plants, shall be booked separately.
- Par. 10. The Director of Inspection, chief inspectors or sub-inspectors of frozen fish have powers to stop production, loading, etc. ..., if the quality of the goods is not reasonable or if regulations have not been complied with. Inspectors can prohibit the export of goods if, in their opinion, the handling of the goods has not been in accordance with quality requirements, even if there is not a clear case of a break of regulations.
- Par. 11. The Frozen Fish Inspectorate shall be run in collaboration with the Fish Department of the Faculty of Industries of the University, when that (the Fish Department) has commenced activities. The aim of this institution shall be, among other things, to promote knowledge on the quality of the goods and test the effects of diverse curing methods on the merchandise. The Fish Department shall hold courses for inspectors in collaboration with the Director of Inspection, when that is considered necessary. Alterations of the regulations or stipulations regarding handling and curing methods of the fish are subject to the consent of the Department. If the Department considers any such alterations desirable, the Director of Inspection shall be informed, and the Department, in collaboration with him, shall seek the consent of the Minister of Industries to such alterations.

In the case of dispute between the Inspectorate and producers or other parties, regarding the quality of goods, the dispute shall be referred to the Fish Department for settlement.

The Department has power to take or claim from inspectors or producers, samples of fish in whatever state it may wish for, wherever and whenever it considers necessary.

These regulations are issued under the authority of Law of Althing Nr. 92 of May 3rd, 1935, on the handling, cure, and export of sea produce, and come into force immediately.

THE MINISTRY OF INDUSTRIES

January 10, 1947

Japan

PRODUCTION: Estimated fish production for 1947 is 4,000,000 metric tons, more than 2,250,000 tons above the 1946 catch, according to General MacArthur's report on Japan for February. Predictions were that the trend would continue into 1948, when it is anticipated that the production will reach 4,500,000 metric tons. These projected increases hinge on expected gains in consumer goods for fishermen, an increase in fuel oil allocations, and improvements in sardine herring runs.



Mexico

SHRIMP FISHING AND SHARK LIVERS: With the extension of the open season to May 31, shrimp fishing continued in the so-called protected waters in the upper reaches of the Gulf of Lower California, with the Guaymas fleet concentrating in the Kino Bay section, according to the American Consulate at Guaymas, Sonora, Mexico. Shrimp prices remained high with payments to the fishermen averaging over 5,000 pesos (\$1,030) per ton, but catches were reported to be very low and many boats failed to make expenses. The freezing plants were unable to maintain production schedules and the season closed in an atmosphere of pessimism.

After a slow come-back following last month's break in price, another break in price occurred during the last week in May in shark livers for the vitamin industry. The volume of the catches was reported low, and with a poor market for low potency livers which represented the bulk of the production, the outlook for this part of the fishing industry is considered unfavorable.



Norway

PRODUCTION: Norway produces more medicinal cod liver oil than any other country. It is estimated that production in 1947 will reach 100,000 barrels, according to the Royal Norwegian Information Services. In April, production was reported as double that in 1946. Export opportunities were reported very good as Norway has trade agreements with many countries. Numerous firms have begun to export medicinal oil in flasks instead of barrels and drums, which has caused great interest abroad.

The Government's freezer in Aalesund has begun to pack frozen whalemeat for export. It is cut in steaks and placed in cellophane in 2- and 10-pound cartons.

The 1947-48 budget states that a rationalizing of industry is necessary to overcome the shortage of labor and indicates that agriculture and fisheries, with their current methods of operation, utilize manpower poorly. In the fisheries, which now employs 100,000 men, the administration has set as a goal to be achieved by rationalization, the catching of the same quantity of fish with 30,000 year round and 10,000 seasonal workers.

