

## Maintenance of Quality of Sea Food Products During Transportation

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No industry is more dependent upon the maintenance of quality than the seafood industry, and the maintenance of quality during transportation is of paramount importance. The condition of the product on arrival at the destination is of real concern, as is the transportation charge. The economic importance of reasonable transportation charges cannot be questioned, since these charges account for a major portion of distribution costs. The fisheries industry should remember that it cannot escape the problems of distribution; inefficient distribution reduces net returns to fishermen and to merchandisers of fishery products.

The Department of Agriculture's interest in transportation was initiated by a directive contained in the Agricultural Marketing Act of 1946, in which, for transportation purposes, the term agricultural products includes fish, shellfish and their products. Distribution costs often determine whether a profit or loss is realized in the marketing of fishery products. With the dominating importance of this subject thus identified, an open-minded appraisal of a few objective facts in the current transportation picture will be presented.

It is some comfort to state that during the past twelve months railroad rates, generally speaking, have undergone no upward revision. In a few instances, rates have been reduced for competitive reasons. With the support of the Department rates on canned fishery products, both western and eastern, were reduced as much as 13 cents per 100 pounds, on February 4, 1954. This is the first respite in over eight years.

This situation, however, did not include the railroads' offspring, the Railway Express Agency, because a little over a year ago the Interstate Commerce Commission in Ex Parte 185, permitted an over-all increase of 15 per cent in all express rates. The agency's petition requested approximately 23½ per cent increase. The United States Department of Agriculture opposed this increase and all other increased rates and charges.

Since 1946 there has been an increase of approximately 121 per cent in express rates. In addition, other increases have resulted from cancellation of numerous commodity rates and the substitution of higher class rate schedules. Included were charges for icing l. c. l. (less than carload) shipments in transit. There is now pending before the I. C. C. Docket No. 31342, which is litigation designed to increase rail refrigeration charges by approximately 30 per cent on all carload shipments of perishables. Carload shippers of fish have a valid reason for registering vigorous opposition to this attempt to increase charges. The Department, along with most perishable products' trade associations, has intervened, and is preparing, at considerable expense, extensive testimony in rebuttal to the railroad's petition.

There is always considerable agitation with respect to trucking operations. These carriers are continuously attempting to make their services more flexible and to expand their operations. Competing forms of transport usually

appear as opponents. This makes for considerable litigation before the transportation regulatory agencies.

The I. C. C. recently notified users of exempt trucks for interstate shipments that they are prohibited from shipping pre-cooked breaded fishsticks as an exempt commodity under the provisions of Section 203(b) of the Act. Similar warnings have also been received by shippers of breaded shrimp. It appears likely that this issue will be subject to adjudication before the I. C. C. and the courts.

The railroads often refer enviously to the selectivity of tonnage handled by motor carriers. Unwittingly, perhaps, the railroads themselves have also become selective. Higher freight rates have resulted in loss to the railroads of over four million carloads of freight during the last year. Many fishery shippers have registered complaints that common motor carriers are reluctant to haul fishery products even in truckload quantities. They do not have equipment available at time shipment is offered or they simply do not show up at the shippers' loading dock.

One type of operation by which a limited number of trucking companies and railroads are combining their services for public use is the so-called "piggyback" operation. This consists of moving on railroad flat cars both loaded and empty motor truck trailers, thereby uniting two important types of carriers in a joint enterprise. One of the newest transportation advances is covered by application of the McLean Trucking Company for control of a water carrier, the S. C. Loveland Company. The objective is to create a combined sea-land transportation service by using specially designed vessels to transport truck trailers.

Of all modes of transport used in the distribution of fishery products, the Railway Express Agency was at one time the most important to the average dealer. As a good part of the fisheries trade continues to use express facilities, the industry is quite sensitive to changes in express rates and services.

Of current and utmost importance is the question of containers for the shipping of less-than-carload shipments. Effective September 1 of this year, the Railway Express Agency, despite protests made to the Interstate Commerce Commission by the United States Department of Agriculture and many members of the fisheries industry, no longer obligates itself to furnish Church containers. Oyster shippers in particular are dissatisfied that the Agency no longer supplies Church containers. Predictions were made that the answer to these shippers' problems was the transition to exempt refrigerated motor trucks transport and the use of throw-away containers. The fisheries trade must make a decision whether to use insulated containers or throw-away containers. Perhaps the greatest guarantee of maintaining quality during transportation of l.c.l. shipments would be the use of the standard refrigerated containers. Following a survey, it appears that the trade in general would prefer the Railway Express Agency to supply refrigerated containers for l.c.l. shipments. Such a prospect, however, does not appear too bright. Some shippers have been using small refrigerated containers of their own to effect shipments. These seem to be satisfactory from a quality and cost standpoint. The greatest potential shipping problem now facing the fisheries trade comes with the prospect of the increasing use of throw-away containers. Their use for short distances, provided the time in transit is normal, is no problem but if re-icing is required in transit there is a definite danger that the Express Agency will not follow shippers instructions.

Information from official transportation records of loss and damage claims covering fishery products are generally unavailable and letters addressed to carriers and to some of the more important fishery organizations have resulted in little tangible data.

The following points, if heeded, would assist in preservation of quality of seafood products during transportation.

1. Shippers should inspect all transportation equipment in which their merchandise is to be shipped.
2. Truck equipment should be supplied with floor racks and lading should be placed to permit air circulation throughout the load.
3. Mechanical refrigeration should be checked to assure proper refrigeration of the entire load. Dry ice should be used as a supplement if necessary.
4. Equipment should be pre-cooled. If water ice is used drains should be checked for stoppage and plugs for fit in the ice bunkers.
5. Refrigerator cars should be pre-cooled at least 24 hours during warm or hot weather.
6. Ice and salt should be used liberally during warm or hot weather. A few extra dollars for ice and salt may safeguard against partial defrosting or complete spoilage.
7. The icing stations en route to destination should be checked to insure re-icing every 12 to 16 hours, at least during hot weather.
8. Avoid circuitous routings.
9. Trucks are susceptible to a tremendous amount of heat over the highways during hot weather. Check for unreasonable layovers on long haul shipments.
10. The shipper is generally held responsible for condition of merchandise on arrival at destination. An ounce of prevention will save claims and a disappointed customer.

There is a need for transit quality control tests of shipments of fishery products in the various types of railroads and truck refrigeration equipment. A study could be made at the same time to list the types of equipment, thickness of insulation, cartons and other types of packages and l.c.l. containers. The United States Department of Agriculture is constantly making shipping tests with fruits, vegetables, dairy, poultry, frozen fruit juices, fresh meats and other products via truck and railroads.

There is, however, no provision by which the Department can make similar surveys on fishery products. Perhaps it is consistent here to recommend that efforts be made to have similar tests on fishery products.

One large shipper of fishery products had the following to say: "I must confess I do not know the effect of present day refrigerated transportation methods on seafood quality. If fluctuations in temperature in transit ranging anywhere from zero to +25 degrees are considered together with the length of haul, and transfers and rehandling, considerable product deterioration is possible. A consistent temperature of zero degrees or below in transit would be ideal and, perhaps, the mechanically refrigerated rail car with its cold-hold apparatus, comes closest to this ideal.

Other shipper said: "We do have considerable trouble in shipping our

frozen fish, both by truck and rail, especially during the summer months. We get considerable defreezing in transit. High express rates are forcing the shift to truck facilities”.

When goods are delivered to a common carrier for transportation, they pass from the control of the shipper during transit. The shipper cannot determine what may be happening to his property and must rely entirely on the carrier for safe transport to the designated consignee. In all instances a shipper must get a “clear” bill of lading to show that shipping documents have no notations such as damaged containers or other impairment.

The U. S. Supreme Court has ruled that a claimant is entitled to full, actual loss caused by breach of the transportation contract by the carrier. However, the carrier is not responsible for an act of God, a public enemy, any adverse act of the shipper, or the inherent nature of the goods. He is responsible for any and all causes which do not generally fall within the purview of these exceptions.

The Interstate Commerce Commission has no jurisdiction over loss and damage claims. Such claims must be decided in the courts. However, the Interstate Commerce Act does place certain responsibility upon the carrier. An excerpt from Section 20 of the Interstate Commerce Act asserts that the common carrier shall be liable to the lawful holder of the bill of lading for any loss, damage, or injury to the property covered by that document.

From a practical standpoint the fisheries industry is concerned with getting its products to market safely, in merchantable condition, and at a price the consumer can afford to pay. At the present time inadequate shipping facilities, combined with high transportation costs are the major obstacle in the path of attaining this goal.

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## **Mantenimiento de la Calidad de Mariscos Durante su Transporte**

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### *Abstracto*

El éxito en el comercio de los mariscos depende grandemente en el costo de la distribución y en el mantenimiento de la calidad de éstos durante su tránsito. De todos los medios de transporte de productos pesqueros, el ferrocarril y los camiones son los más importantes para el distribuidor corriente. Los precios del transporte de productos pesqueros entre los diferentes estados so controlados por la I.C.C. Vehículos refrigerados ofrecen un servicio más flexible.

De importancia actual es el asunto de los envases para lotes pequeños. El comercio pesquero debe decidir entre el uso de envases aislados, o envases que se puedan descartar después de ser usados. Para proteger la calidad durante el transporte, el fletador debería inspeccionar el vehículo, insistir en el enfriamiento y envío directo.