

Newfoundland streamlines method of fish-processing

Newfoundland's Fisheries Minister, Walter Carter, recently announced the successful conclusion of a pilot project to develop a way of upgrading the quality of fish in the province.

The program, carried out with the co-operation of the fishermen of Admiral's Beach, St. Mary's Bay, the Fisheries College and the Inspection Branch of the Fisheries and Marine Services, involves the elimination of pronging, keeping fish iced at all times, bleeding and gutting fish whenever possible and processing fish as soon as possible.

A total of \$50,000 in federal and provincial funds was spent in the summer on ice-making facilities, an ice-holding unit, two electric hoists, a lighting system to the government wharf in the community and net bags for the vessels taking part in the experiment. Altogether four longliners and five skiffs, manned by 45 fishermen, participated.

Method

The vessels were supplied with the net bags capable of holding 1,000 pounds each. These bags were put in the holds of the boats, suspended from steel hooks ready for loading, and the loaded bags were lifted out of the holds with the aid of the electric hoists when the vessels arrived at the wharf. A dial scale attached to the hoist was intended to weigh the fish as it was being unloaded. The fish was discharged into wheelbarrows and taken into the holding room of the plant, from where a conveyor system carried it into the processing area.

Specially designed aluminum tables, equipped with safety harness, were purchased for installation aboard the longliners so that fishermen could clean their fish as it was taken on-board. The longliners carried ice if they travelled far from shore or if they remained at sea overnight.

Fishermen were able to unload their catch with very little effort and in a shorter period of time. As much as 5,000 lbs. of fish could be unloaded in a matter of ten minutes while fishermen using the traditional method of pronging had to work harder, took considerable time unloading their catch

and had fish of a lower quality when it reached the processing plant.

It is intended that hoppers or holding bins will be used to carry the fish from the wharf to the holding room. A system of conveyor belts will then carry the fish directly to the processing plant. When the project is in full swing there will be very little physical handling of the fish. The movement of the fish will be carried out through the use of nets, conveyor belts and other machinery.

The average yield of fish entering Newfoundland processing plants is approximately 35 per cent, the remainder is used for fish meal or discarded. The objective is to provide the necessary training and technology to increase the yield, which will result in increased earnings for fishermen and plant workers alike.

"I am looking forward to the day when the results of this project can be transferred to other areas of the province so that in a few years our fishermen will be able to handle their catch so that the finished product is second to none on the world market. It is only through proper care of the raw material that superior products can be produced and I am convinced that fishermen in this province will do everything in their power to see Newfoundland fish products rated the best in the world," declared Mr. Carter.

Portable incubator

A prototype portable incubator developed by the National Research Council of Canada has been pre-tested in collaboration with the Children's Hospital of Eastern Ontario and is now ready for animal trials and clinical evaluation.

In an attempt to ensure against inadequate heating in incubators, which could lead to debilitating hypothermia (low body temperature) in premature or critically ill babies, NRC's Medical Engineering Section has chosen radiant heating in preference to the hot air heating system found in most incubators. This uses less power and provides a faster response to infant needs.

To combat respiratory distress syndrome (RDS), a complexity of problems that includes drying of airways, a specially designed humidifier is employed to keep humidity as high as required. Fogging of windows does not

occur because the transparent plastic double-walled windows are heated as part of the radiant heating supply. All access openings are gasketed. The oxygen supply consists of a small constant flow of oxygen (when needed) with a variable flow of air to dilute it. The air flow is provided by a servo-controlled constant-displacement pump which permits any desired oxygen percentage to be established and maintained independent of external perturbations.

Remote sensing in Latin America

Six Canadians working for private industry are spending most of January in Latin America to demonstrate the value of remote sensing, under the auspices of the federal Department of Energy, Mines and Resources.

The six — captain Ernie Gardiner, pilot Bill Graves, crewman Ed Giles and sensor operators Bruce Fretts, Hugh McKay and Gord Doucette — left Ottawa on January 6. They are using a specially equipped *Falcon* fanjet over test areas in Guatemala, Colombia, Chile and Peru. With infrared film, normal colour film, an infrared line-scanner and other sophisticated equipment, the team will gain information on crops, forests, water resources, geology and land-use practices.

Cost of the work in Guatemala, Columbia and Chile will be paid by the Pan American Institute of Geography and History. The cost in Peru will be borne by the Canadian International Development Agency, as part of a two-year project involving that country.

The countries will benefit in two ways. First, they will obtain useful information on their own resources. Also, they will be able to judge the effectiveness of remote sensing for other areas that have up to now been inaccessible. Success of the survey could result in further contract work for Canadian companies.

The film will be processed in Ottawa by the National Air Photo Library, a section of the Department of Energy, Mines and Resources. The results, in the form of visible imagery, will be sent back to the countries for analysis. Part of the project involves training local people to analyze the results and apply the information to the solution of local problems.