



Arctic Development

***Feasibility Study Of Fish And Food
Processing Operation For Inuvik
Type of Study: Processing / Manufacturing
Date of Report: 1979
Author: Foodwest Resource Consultants
Catalogue Number: 3-9-5***

RESOURCE CONSULTANTS

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Consultants to the Total Food Industry

August 27, 1979

Mr. John Matson
Planning Researcher
Inuvialuit Development Corporation
P.O. Box 2000
Inuvik, N.W.T.
XOE 0T0

Dear Mr. Matson:

In response to your letter of June 8, 1979 to Phillips Barratt, Consulting Engineers, they requested that my firm contact you to discuss the feasibility of a fish processing operation at Inuvik. Since that time we have spoken on the telephone and met in person in Whitehorse, and discussed in some detail the needs of the Inuvialuit Development Corporation.

Your June 8th letter outlined the interest of the Inuvialuit Development Corporation in developing the market for white fish from the McKenzie/Delta area. You also expressed an interest in value added for the processing of reindeer.

In subsequent meetings, we determined that, not only is there a substantial quota of white fish available to the Inuvialuit Corporation, but also other presently unexploited fish species such as herring, cisco, pike and burbot. We also learned that a considerable quantity of seal meat may be available from the Holman Island sealing operation. Of course, there is the continuing potential of a greater yield from the reindeer herd and perhaps future possibilities of caribou meat. Depending upon the economics, a processing plant in or near Inuvik may be adaptable to a number of alternatives and complementary uses. Certainly, to get the most benefit from any processing operation, it should be looked at from both the seasonal and product adaptability point of view.

The quota of herring is very exciting as the value of this product, as you may know, is very high. If herring could be harvested just prior to spawning, this could yield a great deal of income to the people.



You have suggested the possibility of a portable processing plant, as was described in the 1972 study of the Northwest Territorial fish market. This is a possibility. All further processing operations such as canning or smoking of product will be examined.

We have carefully reviewed the various studies and publications on the fishery potential of the McKenzie/Delta. Based on our own experience we believe that a comprehensive feasibility study of establishing food production-processing distribution, business for the Inuvialuit Development Corporation should be based on several things including: possible end products that can be derived, markets (including competitive products, prices, quality, quantity, seasonality, etc.), transportation (to and from plant), raw product availability, desire to the potential fishermen, plant labour supply, and locational factors.

Our research would be based on utilizing the Research Assistant that you presently have funded by Special ARDA. This would reduce the expense of our travel in the area and could provide a superior source of information close to the people that we certainly would not be able to duplicate. We would, as discussed, provide a detailed research plan for your Research Assistant who could conduct on-the-spot data collection and interviewing.

As mentioned, we would review existing studies and, where possible, update the information to make it usable under 1970 conditions. A close liaison would be kept with the Inuvialuit Development Corporation as the study progresses.

This study proposal is phased with the first part a general feasibility of the project. If Part I demonstrates preliminary feasibility, then Part II should be conducted which would include in detail: plant site selection, layout costing, training programs, management system, market strategy financial analysis such as cash flows, capital requirements, etc.

If a plant is built, we are capable of supplying training in fish or meat processing (canning, freezing, smoking, etc.), management, marketing or other operational procedures.

We have considerable experience in the fishing industry as has been outlined in the attached section on the past experience. We have assisted recently a number of native Indian bands in British Columbia in the fishing industry. We set up the jack sockeye fishery and market for the Burns Lake

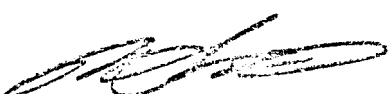
Native Development Corporation, we assisted the Chemainus in examining the dog fish processing and market, we evaluated the potentials for fish processing and for salmon aquaculture for the Nimpkish band, and for the American Indian Development Association of Washington we did a number of market evaluations of products that they were producing from seafood.

I find the entire concept of a multiple use processing plant that can be used for both fish and meat products or even for production of items for pet foods such as seal meat to be most exciting. Most of our consultants, as you will see from their resumes, have experience in the food processing industry. We are not only interested in carrying out a feasibility study for your operation but in assisting you setting it up, starting it and getting it going on a business like basis if the feasibility proves positive.

I greatly appreciate the opportunity you have given us to put forth a proposal on this most interesting and challenging subject. I hope that you will find our proposal answers all the questions that you may have and will be satisfactory to the special ARDA committee in their selection process. Please do not hesitate to call if there are any questions in the proposal and we would be most pleased to discuss. I look forward to assisting you in identifying and developing a feasible and useful business for the Inuvialuit Development Corporation.

Yours very truly,

FOODWEST RESOURCE CONSULTANTS



Robin M.R. Smith,
Managing Director

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FEASIBILITY STUDY OF FISH AND FOOD PROCESSING OPERATION FOR
J. NUVIK

1' METHODOLOGY

The study has been divided into two parts . Part I would be Project Feasibility which would assess the overall feasibility of all or part of the processing plant concept If Part I results demonstrate feasibility then the study should progress to Part II which includes detailed site analysis, layout costing, labour and management planning, financial specifications and the information required to comply with Special ARDA financing to construct and start a plant.

Part I - Project Feasibility

At all times we intend to utilize the services of the Research Assistant of the Inuvialuit Development Corporation who is already funded by Special ARDA.

1. We would, meet in Inuvik with the principals of the Inuvialuit Development Corporation to discuss the project, view the area and get an understanding of the physical constraints and dispersion of the people and the products to be processed, an evaluation of the expectations of the people, discuss in detail the research program for the Research Assistant, and to assess in final form what the results of this study should yield.
2. We would need to acquire samples of potential products in order to better evaluate what can be done with them in the marketplace. We would require the samples of the different types of fish available, reindeer meat and some of the reindeer products that have been made from it, and possibly seal meat from the Holman Island operation".
3. We would determine, in cooperation with the Inuvialuit Development Corporation and their Research Assistant, the types of products that could possibly be made from the available raw

materials. This would include an examination of the products and forms that have been used in the past or produced in the past, plus those that we feel could be produced for the marketplace now. We have considerable experience in development and marketing of unusual food products, and we should be able to provide useful information in this area. Product development, for instance, may even take the form of how the product is packaged, in what size or manner it is presented to the potential client. Realizing that the Inuvialuit Development Corporation has done some product -development," particularly with reindeer, we would utilize that knowledge and that experience in preparing products for the marketplace.

4. We would undertake a very basic market survey of the types of products that could be in demand from the raw ingredients available and would then discuss those with the Inuvialuit Development Corporation. This would include some discussions with various fish and meat processing and distributing companies and with the appropriate federal and territorial government officials (Fisheries, Wildlife, Economic Development, etc.). We would also have detailed discussions with the fresh-water fish marketing board to better determine their experience under current conditions with various fishery products and the potentials that they see for product from the McKenzie/Delta area.
5. After having some basic market potential discussions, we would then develop packages or types of product from the available fish, reindeer, and seal meat supply that could be available through the Inuvialuit Development Corporation. These products would be developed, packaged and made ready for presentation to make a better market assessment possible. Constant discussion would be held during the development of these products with the Research Assistant of the operation.
- 6, We would then assess in detail the market for the various products prepared by discussion and interview with a number of industry and government sources such as fishing companies, food wholesalers, major retail chains, meat processors, pet food companies, etc. This detailed

market examination would entail discussion of the actual products that were available and would result not only in some assessment of what the market is, but a fairly good assessment of the true interest and potential sales for those products. This part of the study would also yield a basic marketing strategy for the short and the long term.

7. We would assess the availability and the cost of supply on a seasonal basis from the various areas of the Western Arctic that would supply the Inuvialuit Development Corporation. This work would include examination of the problems of catching, transportation, storage, etc. of the various products available. A majority of this work would have to be carried out by direct interview with the various people who could be involved and in the communities where they live, and thus would be done in a large part by the corporation's own Research Assistant.
8. We would evaluate the current experience and interest level of potential fishermen by region. This would provide information on who might fish and the expected quantities of product over a seasonal basis. A documentation of past problems with the fishery would be done at this phase. A large proportion of this work would necessarily be done by the corporation's own Research Assistant under an organized research program that we would present.
9. An evaluation of processing plant, processing alternatives and transportation with some rough locational analysis would be carried out. This would include preliminary, capital costs, operational costs, and an assessment of labour requirements and availability.
10. Preliminary financial projections would be prepared.
11. An overall economic feasibility based on the above data would be carried out and an analysis discussed with the corporation's management and Research Assistant.

12. A report would be prepared in draft form and discussed in presentation to the Inuvialuit Development Corporation.
13. The draft report would be finalized and presented.

Part II - Plant Layout, Management and Financing

If Part I shows that any or all of the suggested project is feasible, then the study should continue to Part II where an assessment of specific sites takes place, plant layout and costing in detail is done, labour and management planning is completed, and financial specifications of other information required to comply with Special ARDA financing are completed.

Part A - Plant Site Analysis and Capital Costing

Subcontracted engineering firm, Phillips Barratt of Vancouver, would be retained to conduct the engineering sector of Part A.

1. The engineers would determine the best site location based against the other economic considerations of Part I that would support a processing plant. This would include some basic examination of the bearing structures necessary for a processing plant and all site and development costs that would enter into this.
2. The engineers would provide a site and building plan appropriate to the planned production.
3. The engineers would provide a detailed list of building, machinery, equipment and fixture costs, including installation, taxes, freight, engineering, site development, construction supervision, etc. necessary to give detailed financial costing for this project.
4. The engineers would ensure that various fish inspection acts and pollution control regulations were complied with in the layout and planning of such an operation.

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Part B - Management, Employment, Training

1. We would determine the ^{management} required for the plant and recommend how and where it could be obtained in the short intermediate run. This would include some assessment of possible management personnel from the Inuvialuit Development Corporation and we would be assisted in this by the Research Assistant.
2. We would provide a schedule of jobs including management that would be created, inclusive of all activities planned. This schedule would show the classification, salary and wage rates through three years of operation in the period of employment that we would anticipate on an annual basis.
3. We would lay out training requirements for the labour and management and outline the costs, duration and source of such training that would be required.

Part C - Financial

In this section we would provide detailed financial schedules which would include:

- working capital requirements in years 1, 2 and 3;
- capital costs and **pre-operating** costs;
- source and application of funds;
- proforma operating financial position and cash flows through the first three years of operation.

Part D - Other

We would ensure that the studies Part I and Part II constituted satisfactory application for assistance under Special ARDA for plant construction and start-up if everything proved feasible.

STUDY TEAM

The study team used on this project will consist of a number of Foodwest Resource Consultants employees and two outside associates. The team that we have assembled is done so to utilize the talents available that best fit the project. A

number of people will be used on this study depending upon the need for their talents at that time. At all times the study will be under the direct research and control of Mr. Robin Smith, the Managing Director of **Foodwest**. Resumes of the people listed below as major participants and those who may fill in with special information where required are shown at the back of this proposal.

Robin Smith, B.S.A., M.B.A., P.Ag., Managing Director, Foodwest will direct the study. Mr. Smith will be closely **involved** in the research and direct contact with **Inuvialuit Development Corporation**. Mr. Smith has directed and researched a number of fishery feasibility studies in British Columbia and has been directly involved in the fish processing and catching" industry-in Alaska and British Columbia over the past 19 years. Mr. Smith is also experienced in product development and in marketing.

Gordon Blankstein, B.Sc., M.B.A., Partner Foodwest. Mr. Blankstein will be responsible for all market evaluation and market strategy, development for this project. He has considerable experience in the food marketing field at the retail level.

Maurice Goulet, M.Sc., Consultant, Foodwest will be responsible for the financial projections.

Nancy Baillie, B.Sc.(Ag.), Consultant and Food Technologist Foodwest, will be responsible for assisting in any product development that may be required.

Stafford Hardy, B.Comm., Associate Consultant to Foodwest will assist in the financial analysis for this project. Mr. Hardy spent 25 years with B.C. Packers in the financial planning analysis area and has worked on many consulting projects in the fishery area for both the provincial and federal governments and for native Indian bands.

David Smith, B.Sc., Partner, Foodwest will assist in the evaluation of processing plant requirements. Mr. Smith has been a plant manager for a number of food processing operations in Canada and is very familiar with the proper layout and setup of food processing operations.

Ralph Towsley, Associate Consultant, Foodwest will be responsible for evaluating the meat processing possibilities for reindeer. Mr. Towsley was for thirty years 'in the management of Intercontinental Packers Limited, and for the last 10 years General Manager of British Columbia operations.

COSTS AND TIMING

If this project is started promptly, that is during early October, we should be able to conduct, in conjunction with the Research Assistant of the Inuvialuit Development Corporation, the majority of the data collection and field work in the north before the end of November. Any delay will seriously affect the efficiency of our research due to data collection problems during the winter.

On-site data collection will occur simultaneously to market evaluation which should be completed by the end of December.

The draft of the final report of Part I should be completed by the end of February with the project completed by April 30, 1980, depending upon the amount of changes to the Part I draft.

Only time directly spent on this project will be charged. The figures quoted below are maximum and hopefully will be less. Disbursements such as travel, accommodation, telephone (long distance), copying, secretarial, etc. are charged at cost.

The staff and travel costs for Part I will not exceed:

R. Smith	\$400/day x 35 days	\$14,000
G. Blankstein)		
D. Smith)		
R. Towsley)		
S. Hardy)	\$300/day x 45 days	\$13,500
M. Goulet)	\$225/day x 30 days	\$ 6,750
N. Baillie)		
		<hr/>
		<u>\$34,250</u>

* The above includes time for product development which, if not needed, will reduce the cost by \$2-3,000. The cost may reduce if more work is done by your Research Assistant.

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Disbursements are difficult to estimate for this project as travel costs will be high. We estimate that all disbursements will be \$6-8,000.

Thus the **total** maximum cost of Part I is:

Professional Fees	\$34,250
Disbursements	<u>8,000</u>
	<u>\$42,250</u>

Part II could begin as soon as Part I has been accepted. This part would take an elapsed time of 3-4 months thus with completion about the end of September 1980.

Part II

Professional fees Phillips Barratt	\$11,000
Foodwest Resource Consultants	<u>11,000</u>
	\$22,000
Disbursements	<u>\$ 4,000</u>
	<u>\$26,000</u>

RECENT PROJECTS

AGRICULTURE & FOOD PROCESSING:

1. Government of British Columbia, Department of Economic Development: Examination and identification of primary agricultural development opportunities in the province of the short and long term. provided recommendations on Government development policies.
2. Government of British Columbia, Department of Agriculture: Overall consultant and project manager for studying the feasibility and establishment of an interior poultry processing plant.
3. Maplewood Poultry Processors Ltd.: Investigation and preparation of a report concerning expansion of their business.
4. Government of British Columbia, Department of Economic Development: Report on Higher Value Added Agricultural Products Opportunities in British Columbia. An in depth investigation and economic analysis of all opportunities to process more food products in the province.
5. Osoyoos Indian Band: Identification of agriculture and food processing development opportunities on the reserve for William Kerr & Associates Ltd.
6. Frij -Pak Products Ltd. : Assistance in preparing a presentation for funding by banks and government agencies.
7. General Foods Ltd.: Evaluation of the feasibility of moving major poultry processing facilities for Woods Gordon & Co.
8. British Columbia Food Advisory Council: Identification of the major cost factors of food produced and processed in British Columbia. (Cost from the "farm gate" to the consumer).
9. Government of British Columbia, Department of Agriculture: Assessment of various loan applications from food processing businesses.
10. Southern Interior Beef Corporation: Evaluation of the Okanagan beef market to determine the size, composition and source of supply (assisted the Corporation to arrange the financing for a \$2 million plant).

11. Confection Manufacturer: Assistance in dealings with the Health Protection Branch (Food and Drug) on a product recall.
12. Pan Ready Poultry Ltd. : Assistance with development of a line of further processed poultry products including processing methodology, packaging design and government approvals.
13. Government of British Columbia, Ministry of Economic Development: Assessment of the Impact of the Western U.S.A. Drought on 1977 Processing Fruit and Vegetable Production relative to the British Columbia Industry.
14. Swan Valley Foods Ltd.: Report on the 1976 Potato Crop Marketing. A critical analysis of the marketing methodology and alternatives in 1976.
15. B.C. Swine Breeders Association and the Government of British Columbia: Study of the feasibility and methodology of expanding the swine (hence pork processing) industry of B.C. including a timetable and implementation plan. Included an examination of competing and adjacent market areas in Canada and the U.S.A.
16. Bee Cee Honey Ltd. : Examination of the company viability and the feasibility of export marketing.
17. Food "Research Institute, Agriculture Canada: Study of the economics of plant proteins for use in human consumption with emphasis on Canadian production. This study examined social and economic constraints to consumption and use of various plant proteins as guidance in 'setting research and development plans.
18. Legislature of British Columbia, Select Standing Committee on Agriculture: Direction and co-ordination of \$2.5 million study of the entire B.C. food system and comparisons with Alberta and 'the Pacific Northwest States. This study, the largest of its kind in Canada, involved public hearings and the production of over 85 detailed reports, with many policy alternatives, for the guidance of the B.C. legislature. Subject areas covered included: land availability and use, producer costs and returns, producer marketing systems (boards, agencies), processing, wholesaling and distribution, retailing and food service.

3. Bella Bella Band Council; Marine Resource Study:
Phase II: Development of management systems, product and production details, job descriptions and training plans for a proposed fish processing plant for Edwin Reid and Associates Ltd.
4. Gulf of Georgia Oyster Co-Operative: Product and process development advice, feasibility of various products and assessment of costs, layout of facilities for Edwin Reid and Associates Ltd.
5. Government of Canada, Department of the Environment (Fisheries): An evaluation of the efficiency of the British Columbia Salmon Industry - with reference to the industries' ability to economically process an expanded catch.
6. Chemainus Indian Band: Assessment of the feasibility of establishing a dogfish processing plant - including plant location and layout, process layout, market identification, management and training.
7. Nimpkish Indian Band: Assessment of the feasibility of salmon aquiculture and/or fish processing plant at Alert Bay. This included financial and market feasibility, layouts, management and staff training.
8. American Indian Development Association: Market evaluation study for several prepared fish products.
9. Superior Seafoods: Feasibility study for a new processing plant. This included financial and market feasibility in support of an application for government financial assistance.
10. Europac Seafoods: Feasibility study for a new processing plant designed to handle specialty products for export markets. This included economic, financial, technical and market analyses.
11. B.C. Select Standing Committee on Agriculture:
As part of the B.C. Food Study, detailed studies of the B.C. Salmon Industry and the B.C. Oyster Industry were done. Structure and organization, marketing, fishery economics, processing economics and opportunities and constraints were emphasized in these studies.

19. Rainstar Irrigation Ltd. : Market evaluation study for an irrigation equipment manufacturer. This study encompassed three western provinces and five northwestern states.
20. Stramit Corporation: Examined organization and markets for a manufacturer of office furniture utilizing straw as a base material.
21. B.C. Tree Fruits Ltd: Reviewed various functions including data processing, order handling, fruit storage, order picking, transportation and the politics and personalities of each packing house. Made recommendations on how to rationally organize and eventually automate the fruit inventory and its assignment to orders and transport. Discussed functional weaknesses with management.
22. B.C. Grape Growers Association: Evaluated the feasibility of a winery designed to produce high quality B.C. wines - market, plant, grape supply, skilled management, organization, etc. Met many of the major grape growers, senior wine company executive, government personnel in Agriculture, Economic Development and LCB. Analyzed the grape growing industry and its relationship through the wine manufacturers, to the marketplace and the degree of government interference with market forces.
23. Alberta Lamb Processors: Helped determine the organization and staffing requirements to set up a centralized lamb processing facility in Alberta.
24. Alberta Egg Marketing Board: Examined the functions and role of his organization and determined methods of surplus egg removal.
25. Canadian Sugar Beet Growers Association: Prepared an economic forecast of the market for sugar beet production in Canada.

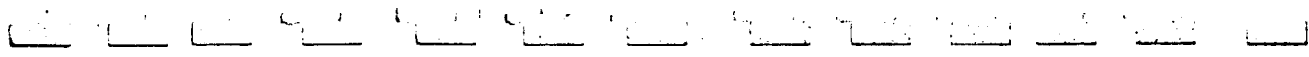
FISHERIES :

1. Government of Canada, Department of the Environment, Fisheries Research Board: Special Advisor for the development of feeds for aquiculture of salmonids.
2. Burn's Lake Native Development Corporation: Phase II: Establishment of, and advice on, processing of "Jack" Sockeye. Marketing of the resultant product.

12. B.C. Marine Resources Branch: Studies on Financing in the B.C. Fishing Industry " " and the B.C. Herring Industry were completed as part of a provincial government policy analysis.
13. Other Fishing Projects:
 - a. A study of the fish buying and accounting functions of a large B.C. fish processor.
 - b. Guidance and advice to government and industry personnel in the fishing industry.
 - c. Guidance to new operations in the "fishing industry" including shell fish and specialty product processors.

OTHER:

1. Martin, Robertson and Bain Ltd.: Investigation and study to " cut costs and improve profits in Canada's largest food brokerage.
2. Woodward's Stores Ltd.: Comparative performance analysis of house and other brands of detergents.
3. Chinese B.B.O. Meat Merchants Association: Evaluation of holding time and temperature on the quality and acceptability of various cooked meats.
4. Restaurant Franchise Chain: Technical advice on operations and development of various products.
5. B.C. Ministry of Economic Development: Review of the expected secondary economic benefits likely to accrue from various coal developments.
6. H.Y. Louie: Site selection analysis for a retail food store.



RESUMES

ROBIN M.R. SMITH, B.S.A., M.B.A., P.AG.

Education **B.S.A.** Food Science, 1965 - University of British Columbia (also majors. in economics and fisheries management).

M.B.A. Business Policy and Management, 1972, Simon Fraser University

P. Ag. **Professional Agrologist**

Professional Experience:

1978 - **Present** FOODWEST RESOURCE CONSULTANTS. , consultants
total food industry

MANAGING DIRECTOR

Mr. **Smith is responsible** for the management of all operations of Foodwest. He has consulted to the Select Standing Committee on Agriculture as **Co-ordinator** of Research for "all studies "dealing with processing, wholesaling, retailing' and' food service. **This study is the largest of its type in Canada and produced over 35 detailed reports in the above sectors for British Columbia with comparative data from Alberta and the Pacific Northwest States.**

1974 - 1978 ROBIN SMITH CONSULTANTS LTD., **Technical and Management Consultants to the Food Industry.**

PRESIDENT

Specifically **involved in** solving technical economic and management problems in the agriculture, fishery and food industries. Clients include government industry, special

Responsible for Food Technology research in the Food Engineering Section (product and systems design, process control, product development) .

1962 - 1964 During the fishing seasons of 1962 - 1964, worked on halibut and salmon vessels as a deckhand, cook and mate.

1961 - 1962 BIOLOGICAL RESEARCH TECHNICIAN for the INTERNATIONAL PACIFIC HALIBUT COMMISSION at sea on a 'crawl survey of Alaska.

Recent Projects:

Agriculture Canada: Economics of Plant Proteins for Human Consumption.

Food Brokerage Firm: Evaluation of operations and methods to improve profits.

Site selection analysis for a retail food chain.

B.C. Select Standing Committee on Agriculture: **Coordinator** of Research for processing, wholesaling, retailing, and foodservice.

B.C. Ministry of Agriculture: Impact of the 1977 Western U.S.A. Drought on Processing Fruit and Vegetable Produce.

B.C. Ministry of Economic Development: Identification of Primary ^{AS} Agricultural Development Opportunities in B.C.: Development Opportunities, Higher Value Added.

Affiliations:

- Canadian Institute of Food Science and Technology (Past National Director)
- B.C. Food Technologists (Past Chairman)
- Institute of Food Technologists (U.S.A.) (B.C. Director)
- Pacific Fisheries Technologists
- Agricultural Institute of Canada
- B.C. Institute of Agrologists (P.Ag.)

inquiries, and others. All sectors of the food system from production through **processing**, distribution, retailing and **foodservice** (restaurants and institutions) are covered.

1970 - 1974 PANCO POULTRY LTD. (Surrey, B.C.) Large (\$50 M/Yr.) totally integrated poultry grower and processor.

DIRECTOR OF RESEARCH, DEVELOPMENT AND QUALITY CONTROL

Responsible for complete organization, administration and operation of all technical functions (product development, production efficiency, quality control); new venture identification and assessment, government liaison, cost/pricing policy **advice** and internal management consultation.

1966 - 1970 B.C. PACKERS LTD., and NELSON BROS. FISHERIES LTD. (Vancouver) Multi plant **fisher** processors (fresh, **frozen, canned**, reduction) of \$140 M/Yr. sales.

SUPERVISOR OF PRODUCT DEVELOPMENT AND CONTROL

Responsible for establishing quality control and product development programs. At B.C. **Packers'**, responsible for all product development and technical programs **in the** canned product section (\$60 million) specifically.

1965 - 1966 STAR-KIST FOODS, INC., (Los Angeles, **California**) Large tuna processor - sales \$250 M/Yr.

RESEARCH FOOD TECHNOLOGIST - FOOD ENGINEERING

GORDON BLANKSTEIN, B.Sc. (Agri.), M.B.A.

B.Sc. - Agriculture, 1973, University of British Columbia.
Majors in Agricultural Economics and Animal Science.

M.B.A. - Marketing, Organizational Behaviour, 1976, University of British Columbia.

Areas of Specialty:

Specifically involved in marketing locational analysis, economic feasibility studies, retailing and market potential.

Recent Projects:

- Reviewed manufacturing plans of Rainstar and evaluated the market potential for irrigation equipment in the Pacific Northwest.
- Analyzed a site and its potential business opportunity for H.Y. Louie (IGA Chain).
- Analyzed the potential for penetration into the Pacific Northwest of Alberta food products for Alberta Department of Agriculture.
- Analyzed the potential markets and availability of government financing for a new processing plant by Superior Sea Foods Ltd.
- Analyzed the herring industry and sources of financing available to the fishing industry in British Columbia for the British Columbia Government.

Various reports for the Select Standing Committee on Agriculture, British Columbia Government including B.C. Tree Fruits Marketing Board, Convenience Store Industry in British Columbia, Dairy Industry in British Columbia, and several others.

Affiliations:

- Association of Professional Economists
- Association of Professional Agrologists
- North American Society for Corporate Planners
- Industrial Relations Management Association
- Board of Management, U.B.C. Alumni Association

STAFFORD Q. HARDY, B. COMM.

B. Comm. - Bachelor of Commerce, 1948, University of British Columbia.

Areas of Specialty:

A qualified accountant with extensive" experience in fisheries and food processing. Financial and economic consultant.

Recent Projects:

- Wine and Grape Industry in B.C., extensive study into the status, economics and possible future growth of these industries in B.C. Compared the grape and wine industries in B.C. to those in Washington State.
- Tree Fruit Industry of B.C., a detailed summary study of the tree fruit industry and marketing board with emphasis on improved "profitability and productivity (includes Pacific Northwest comparison) .
- Roadside Stands, a thorough investigation into the status of direct marketing of fruits and vegetables in B.C. through roadside stands.
- Oyster Industry in B.c., study of the oyster industry as well as the marketing agency involved in distribution and sale of goods.
- The Salmon Industry in B.C., an economic evaluation of costs, returns, structure and performance of the B.C. salmon fishing "industry. Direct and detailed comparisons are made with Washington and Oregon and long term government policy is developed.

DAVID G . M . SMITH, B. SC.

B. SC. - Honours, Chemistry, 1969, University of British Columbia, Vancouver.

Financial Accounting, Psychology (MBA Program)
McMaster University, Hamilton, Ontario.

Areas of Specialty:

Specifically involved in management economics, organization and manufacturing in industry. Prior to consulting spent 10 years in management for large, medium and small businesses.

Recent Projects:

The Impact of Labour on the B.C. Food Industry.

Financial Assistance Programs for the Food Industry in British Columbia.

Government Aid Programs in British Columbia.

Financing in the B.C. Fishing Industry.

The Herring Industry in British Columbia.

Various feasibility studies for fish processing and food processing operations.

Affiliations:

- Association of Professional Economists
- Industrial Relations Management Association
- Chemical Institute of Canada
- Association of Chemical Engineers
- Board of Management U.B.C. Alumni Association

RALPH G. TOWSLEY

Areas of Specialty:

Many years in the meat processing and exporting industry give the experience required for consulting in processing and international marketing.

Recent Projects:

- Examination of the feasibility and methodology of expanding the B.C. swine producing and processing industry (B.C. Ministry of Agriculture) .

Economic Evaluation of the Meat Processing Industry in B.C. - comparison with Alberta and Pacific Northwest with recommendations for future development.

The Tree Fruit Industry of B.C.: a detailed economic study of the tree fruit industry and the marketing board with **emphasis** on improving profitability and productivity (includes Pacific Northwest comparisons) .

The Vegetable Industry of B.C. - an evaluation of structure, costs and opportunities in the B.C. vegetable industry with comparisons with Alberta and the Pacific Northwest States.

Affiliations:

Canadian Manufacturers Association (B.C. Division) - member of the Executive Committee 1975 and 1976.

B.C. Advisory Food Council - Member 1974 and 1975. This council consisted of producer, processor, retailer and consumer representatives (10) who advised the Minister of Agriculture on food policy and other subjects beyond the "farm gate".

Meat Industry Committee - Pacific National Exhibition" Member 1971 - 1975.

Meat Packers Council of Canada - Executive Member 1966 - 1977.

International Missions. Mr. Towsley has travelled extensively on international trade missions, particularly to the Pacific Rim countries.

NANCY E. 13 AILLIE, B.Sc.(Agri.)

B. SC. (Agri.) - Food Science, University of British Columbia.

Areas of Specialty:

A food scientist who concentrates on nutrition, quality control, product development, feasibility studies for processing and distribution, and food service groups.

Recent Projects:

Evaluation of Food Service in Health Care Institutions in British Columbia.

Economic Study of the Food Service Industry in British Columbia, with Pacific Northwest comparisons.

Feasibility study, egg processors

Economics of plant protein for human consumption.

Evaluation of flour and other cereal products; quality control.

Coal mine inventory and assessment.

Affiliations:

- Canadian Institute of Food Science and Technology
- B.C. Food Technologists
- Institute of Food Technologists (U.S.A.)
- B.C. Institute of Agrologists

MAURICE E. GOULET, B. A., M. SC.

B. A. - Honors, Economics and Commerce, 1976, Simon Fraser University.

M. SC. - Business Administration, 1978, University of British Columbia. Operations Research, Finance, Transportation.

Areas of Specialty:

Primarily involved in marketing, economics transportation and finance. Feasibility studies in primary agriculture, food processing and distribution in British Columbia and Alberta.

Recent Projects:

Description and analysis of grain distribution modes and price spreads within the U.S. and Canada for Alberta Transport. Comparisons and recommendations made.

- Assess the relationship of national brands, private brands and generic labelled products in food retail stores, including effects on processors and consumer Prices for the British Columbia Select Standing Committee on Agriculture.
- Examination of the herring fishery for the British Columbia Government. particular attention to industry financing, freezing and processing facilities with a view to maximizing local value added.
- Analyzed the potential markets and availability of government financing for plant expansion of L.D. Neuman Ltd.

Affiliations:

Canadian Operations Research Society