IICA MARKETING AND AGRO-INDUSTRIAL SURVEY OF JAMAICA

A COMPONENT OF THE IICA MARKETING AND AGRO-INDUSTRIAL PROJECT

PREPARED BY:

DR. CECIL A. TAFFE
FOR
IICA OFFICE, KINGSTON, JAMAICA
MARCH 1989
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EXECUTIVE SUMMARY

1. This report presents the results of an agro-industrial marketing survey on Jamaica commissioned by the Inter-American Institute for Cooperation on Agriculture (IICA) as part of its Marketing and Agro-Industrial Project.

2. The survey involved interviews with private food processing operations and agencies supportive to Jamaican agro-industry, combined with a study of the appropriate literature. The numerous sectoral studies conducted recently underline the importance of this sector to Jamaica.

3. The report provides detailed information on various aspects of the local agro-industrial sector. It presents a profile of the sector, identifying major companies, as well as their product lines and markets. The problems and constraints of the sector are outlined along with an account of the major opportunities for expansion into the overseas market, especially North America. The services provided by support agencies are documented.

4. The problems and constraints of agro-industry in Jamaica have stymied growth over the years and are classified in this report under the following headings:
a) Managerial and Technical factors

- diseconomies of scale
- constraints on raw material supply
- old and delapidated buildings, equipment and process lines leading to heavy down-time
- stifling Government red tape

b) Marketing factors

- inappropriate and out-dated packaging and labelling
- small local market
- processors ignorance of overseas market demands

c) Financial factors

- high production costs
- high cost of capital and utilities
- high tariffs on imports
- lack of incentives compared to agriculture

5. The major opportunities for expansion of Jamaican agro-industry into the North American market include:
- tropical fruit juices and purees
- gourmet and specialty foods (jams, jellies etc.)
- processed "ethnic" foods

However, the local tourism market presents a home-based opportunity.

6. A comprehensive range of support services in the following organizations viz.,

- Export and investment promotion agencies
- Development agencies/embassies
- Financing agencies

have attempted to relieve the constraints of agro-industry. Suggestions are made in this report as to how an organization like IICA can lend its support.

7. Subject to the results of feasibility studies and further surveys, future IICA assistance may be targeted to both the private and public sectors as follows:
a) Private sector

- establishment of a model supplier relationship between at least one or two processing operations and proximal farms.

- technical hands-on assistance for targetted processing firms in the areas of processing technology, marketing of selected items and joint-venture investor search

b) Private sector

- assistance to the Food Technology Institute, Bureau of Standards and JAMPRO to better implement their technical programmes to aid agro-industry.
INTRODUCTION

This report was commissioned by the Inter-American Institute for Cooperation on Agriculture (IICA) through its local office in Jamaica, and represents the results of an agro-industrial marketing survey in Jamaica. The survey attempted to identify specific agro-industrial product exports from Jamaica to North America and covers areas of perceived export marketing opportunity for the private sector. The major constraints affecting Jamaica's agro-industry are documented in this report along with a profile of the established and future support agencies and services primarily in the areas of promotion, marketing and finance. Finally, suggestions are made as to future analyses required and where an organization such as IICA may provide support to the agro-industrial sector in Jamaica, both at the private and public sector levels.

The information for this report was gathered by two methods. A survey was conducted among appropriate, leading private food processing operations and support services in Jamaica in order to obtain an up-to-date picture of the situation (products, markets, services, constraints, opportunities etc.) and to complete copies of the "LAC Private Sector Survey Form". (See Appendices). In addition, a review of existing recent literature on Jamaican agro-industry was conducted so as to distill the relevant facts and opinions related to this report.
Most important was the author's familiarity with the state of Jamaica's agro-industrial sector as well as with its personalities, having conducted interviews at over 20 operations and written a policy statement on the sector for AGRO 21 Corporation Ltd., a Jamaican Government agency, in 1987. Additionally, the author coordinated and guided a similar United Nations Development Programme (UNDP) funded survey in 1988 and successfully negotiated funding support from UNDP for a new agro-industrial support unit at AGRO 21 in 1989 (see reference list for respective reports).
DESCRIPTION OF JAMAICA'S AGRO-INDUSTRY

The development of Jamaica's agro-industrial sector, including the area of food processing, is considered by most national planners as an important aspect of overall agricultural development. The Government of Jamaica through its Agro 21 Programme has conducted several market studies in the North American market (see reference list) which have indicated a growing interest in the consumption of tropical (exotic) agro-industrial products. Agro-industry in Jamaica has shown an ability to earn foreign exchange, but as a result of the numerous problems facing the sector, its performance trend over recent years has indicated stagnant growth in exports (Table 1).

Jamaica's domestic exports were put at US$690M in 1987 (Grace Kennedy Library, 1988). Other surveys on agro-industry in Jamaica have attempted to describe the sector, corroborate its reportedly low processing plant capacity utilization and splintered development, and establish reasons for these and other problems. Audits completed by AGRO 21's agro-industrial short-term consultant Gaston Kohn (1983), the United States Agency for International Development (USAID) (1986), AGRO 21, (1987), the United Nations Industrial Development Organization (UNIDO) (1986) and UNDP (1988) provide useful reference material which have been appropriately distilled and combined with observations made in the field survey for this report.
Brief Profile of Agro-Industry in Jamaica

This sector in Jamaica consists primarily of fruit and vegetable processing plants, although it could be defined to include industries producing cured tobacco, (see Table 1) animal feed and soya products. Attempts to determine precisely how many agro-industrial firms exist in Jamaica have not succeeded, as lists are almost never up-to-date or complete.

However, from the several lists examined, it is estimated here that about 60 agro-industrial processing plants exist in Jamaica of which about 25 are involved in non-traditional exports, some intermittently. The major categories of processed foods exported along with a list of the major firms involved in export are presented in Appendix I. The range of food items packaged in Jamaica as identified by the Gaston Kohn audit, as well as exports by value are listed in Appendices IIA, and IIB, although these are by no means exhaustive. Appendix III consists of completed "LAC Private Sector Survey Forms" along with appended additional notes for four leading agro-industrial exporters, who fit the stated criteria for this report.
Major Constraints in Jamaican Agro-Industry

The following general observations on the problems and constraints of agro-industry in Jamaica are based on visits, interviews and analyses conducted by the author during the period 1986-1989, combined with a survey of appropriate literature.

A. Managerial and Technical Factors

1. All of the factories in Jamaica are small by international standards. Appendix IV consists of a few profiles of factories visited in May-June 1988, indicating the size and output of some of Jamaica's largest operations. Even at their moderate capacity levels, utilization of productive capacity is low (see Appendix V). Most processors claim they make no profit.

2. In-house quality control is limited to only absolutely essential functions due to cost constraints. The Bureau of Standards is required to sample every production run and issue certificates as a pre-condition to exporting. However, this process can be slow (as long as six weeks by one report) and costly to the exporter.
3. All processors in Jamaica face supply constraints. Organization of agricultural raw material is poor, and at best, products are irregularly supplied, or at worse, completely unavailable due to the dominance of rain fed agriculture in Jamaica. Most raw materials are obtained from widely scattered sources making them costly on a per unit basis. There is little or no contract growing for processors and the latter have largely refused to backward integrate into farming because of lack of technical know-how, capital and fear of praedial larceny, one of Jamaica's major agricultural problems.

4. Sophisticated cost accounting is not affordable due to the small size of operations. However, Grace Kennedy tracks costs by product to determine direct product costs.

5. In general, the equipment, process lines and buildings are old, small and in disrepair, worse so due to the recent hurricane. As an example, many processors expect their lines to break down regularly and this contributes to the low capacity utilization mentioned earlier.

6. New product development is generally inhibited by the low level of processing equipment and packaging flexibility.
7. Government red-tape is a major complaint of processors in Jamaica who feel that factors such as exchange control and high import tariff inhibit their ability to quickly respond to their need for spare parts, new equipment, raw materials etc., and is a major factor impeding growth and modernization.

B. Marketing Factors

1. Can packing, which is the common packing form in the juice/nectar drink sector in Jamaica, does not give the processors any access to the growing international soft drink market which is moving rapidly towards more sophisticated packages in single-serve packs. Packaging materials made in Jamaica are considered by processors to be costly, suffer from quality control problems (e.g. irregularity in bottle shapes) and are sometimes irregularly supplied. Both the bottle and can manufacturing companies lack local competition and importing sophisticated packaging is too costly for most processors. Such high costs are due to low product volume in food processing operations.

2. Because of Jamaica's small market, viability depends on an operation's ability to penetrate foreign markets, which are demanding in volume, price and quality.
Jamaica's limited and sometimes irregular production associated with raw material constraints (Jamaica is often called a "land of samples") makes it difficult to consistently fill orders even for products of the highest quality.

3. Transportation costs to Europe and North America are considered high by processors. However, a recent study by this author (Taffe, 1987) has shown that quoted cargo rates from Jamaica are highly competitive and that low volumes may be the reason that costs appear high.

4. Most processors feel that they have inadequate information on the international market, despite the existence of several local service agencies providing such information.

C. Financial and Other Factors

1. Despite recent reductions in tariff, most processors complain of high import duty on capital equipment.

2. Processors invariably refer to the high cost of working capital and high utility bills which make it difficult for them to compete internationally.
3. Processors have argued about the need for greater incentives to agro-industry, along the lines of primary production agriculture which is tax free on profits. This is despite the fact that there exists development capital at concessionary rates, and an export tax rebate of 7.5%, for agro-processing operations.

Appendix VI is an extract from a recent report written by a 1988 UNDP/Short Term Advisory Service Mission (UNDP/STAS) on Jamaica's agro-industry. It outlines the general characteristics of the sector as being made up of small plants with out-dated equipment badly laid out, high down-time, wastage of product, low mechanization and other impediments. This, along with the preceding pages, provides an accurate overview of Jamaican agro-industry.

Perceived Export Opportunities for Jamaican Agro-Industrial Products.

The recent UNDP/STAS survey and report coordinated by this author presented a strategic plan that outlined the opportunities for Jamaica in the tropical fruit processing industry (see reference). Other studies for AGRO 21 Corporation and other agencies have examined opportunity niches for processed Jamaican gourmet and specialty foods as well as ethnic foods. This section extracts details from these reports, which are combined with information from interviews with knowledgeable processors.
1. **Tropical Fruit Juices and Purees**

The fruit crops identified that offer the greatest opportunities for Jamaica as a base for a fruit processing industry are citrus, mango, papaya, passion fruit, pineapple and guava. Of these, citrus is the only fruit processed in a commercial way today by an established industry.

The citrus varieties processed are orange, ortanique (a natural hybridization of tangerine and orange) and grapefruit in relative proportions of approximately 50, 20 and 30%.

In all, about 40-50,000 metric tons of citrus are processed annually into 61-65 Brix concentrate. This is sold on the world market as well as to the local juice drink packaging industry in the form of frozen concentrate in 55 gallon (US) steel drums.

Citrus juice concentrate presently commands a very good price on the world market in the range of US$1,900-2,300 per metric ton and approximately US$2,700 as a raw material to the domestic drink packaging industry.

For the exotic fruit crops indicated above there is no existing primary processing industry in Jamaica adequate to handle potential export and domestic requirements. One company processes small quantities of mango puree as well as
other purees and distributes them to the local juice and nectar drink industry. The jam and jelly manufacturers process some or all of the purees they require. Because no wholesale market exists to collect raw material and establish a price, the processor must also locate the fresh fruit himself, negotiate a price and usually transport the produce in his own vehicles. None of the puree is of an adequate standard for the market and the primarily hand peeling operation now used at processors' plant sites is a poor use of the food processors time and facilities.

The UNDP/STAS report states that in developing a market for purees and concentrates, whether this is for the domestic or for the export market, there has to be a continuous source of supply of fruit to the processing plant(s). A stable price base has to be set at the competitive level that satisfies the grower, the processing industry as well as the buyer of the finished products. Any export interruption caused by the imbalance of fruit supply or other causes will disrupt the trade patterns that are built up and can lead to long term losses by both farmers and processors. A stable price formula also imposes restraints on the fruit suppliers at times of shortages of fruit.

The fresh and the processed markets are both required for the long term profitability of the fruit farmer. They must be seen as compatible and not competitive markets if orderly marketing of fruit is to be accomplished.
The UNDP/STAS mission recommended that the problem of raw material supply be addressed in Jamaica's long range strategic plan for the development of this sector and that ways be found to integrate the farmers and fruit orchard owners into the food processing agri-business system. The success that follows farmer participation in the overall system is exemplified in Jamaica by agri-business systems operating for coffee, bananas and citrus.

See Appendix VII for details on exotic fruit juice market (UNDP/STAS Report).

The UNDP/STAS report concluded that there exists an investment need and opportunity in Jamaica for a model exotic fruit primary puree/concentrating plant close to a major growing and plantation area in order to solve the supply constraints of processors by producing high-quality semi-processed raw material. The investment for a plant to handle 10,000 tons of raw fruit was put at US$3.5-5M, depending on availability of infrastructure and utilities.

2. Gourmet and Specialty Foods

The 1986 study by the American Graduate School of International Management (AGSIM) (see references) outlined a marketing plan for Jamaican gourmet and specialty foods.
This is the second category of agro-industrial foods for which there is general agreement that Jamaica has a good opportunity to exploit in North America. The products identified are:

- Jams, Jellies and Honey
- Sauces and condiments
- Cakes
- Spices
- Coffee
- Chocolate

Details on marketing trends for these products are present in an extract from AGSIM (Appendix VIII). The gourmet market is said to be growing at a rate of 12% per annum. In terms of a marketing plan, the study recommended that these Jamaican gourmet and specialty foods enter the retail stores and mail order U.S. market (and presumably Canada as well) as a complete product line, bearing a standard brand name and uniform label appearing on all products. This form of packaging is meant to promote a unified and quality image. The name of the product would denote Jamaica's tropical nature and uniqueness. This approach of placing complementary items near to each other is to encourage customers to make additional purchases other than what they originally came in the store to purchase.
Although there has been a greater trend toward co-packing and contract packing, in Jamaican food processing, the local industry is still highly fragmented and individualistic, and is a long way off from adopting the concept of a unified label for its gourmet foods. Furthermore, despite the uniqueness of its products, inappropriate packaging makes it difficult for Jamaica to enter the gourmet and specialty market, perhaps with the exception of items such as Blue Mountain Coffee produced by JABLUM Ltd., jams and jellies produced by Scott's Preserve and liqueurs by Tia Maria and Sangster's.

The CFTC (1986) study (see reference) on Jamaican gourmet foods entering the CARICOM market has also recommended the use of a unified label for supermarket shelves, but suggested that until competitive packaging is available in Jamaica, promotion of processed foods could be achieved through the food service industry - restaurants, hotels, fast food chains and other catering outlets.

3. "Ethnic" Foods

There is a recognized "ethnic" market in North America and the United Kingdom for Jamaican processed foods. Products such as canned ackee, calaloo in brine, breadfruit, Irish moss, and carrot juice are required by the West Indian and other minority populations in cities such as Toronto, Miami, New York and London.
The CFTC (1986) report (see references) supplies information on the opportunities and problems faced by some of these Jamaican products in the markets, and suggested strategies to overcome these problems. Difficulties in the areas of quality control, ingredient formulation, supply continuity, packaging for the broader "mainstream" market, sales and marketing promotion were outlined. The need to overcome these problems was considered vital, given the limitation of size of the ethnic market, the competition from other producers, and the potential to expand into the mainstream markets. Agencies such as the Jamaica Bureau of Standards and JAMPRO were requested to take the lead in solving the problems identified. No numerical projections were given as to future sales potential for these products.
SUPPORT SERVICES FOR EXPORT MARKET DEVELOPMENT FOR

JAMAICAN AGRO-INDUSTRY

Jamaican agro-industry, despite its numerous problems, has a comprehensive range of support services in the areas of promotion, marketing and finance. For this report, extensive interviews were conducted with officials of the appropriate agencies offering these services. Information was obtained on services offered, problems perceived in agro-industrial marketing, and the strategies being developed to solve them.

This section outlines the roles, functions and constraints of the various organizations and their plans to address the problems of the agro-industrial sector discussed earlier. The facts and opinions presented here will allow for conclusions to be drawn as to how an organization like IICA can assist agro-industrial development in Jamaica. The agencies investigated fall under the headings of:

1. Export and investment promotion agencies
2. Development agencies/embassies
3. Financing agencies

The distinction however should not be regarded as being absolute, as some agencies provide services which could fall into more than one category.
1. Export and Investment Promotion Agencies

The four leading agencies in Jamaica which provide export and investment promotion services to agro-industry are JAMPRO Ltd. AGRO 21 Corporation Ltd., the Jamaica Export Trading Company Ltd. (JETCO) and the Jamaica Exporters Association (JEA). For reasons of clarity and simplicity, a summary of the main points of the discussions held with each agency is presented separately.

a) JAMPRO Ltd.

JAMPRO (short for Jamaica Promotions Ltd.) is the Government of Jamaica’s economic development agency with the responsibility to develop and implement programmes to encourage investment, modernize industries and stimulate export trade for Jamaica. It was formed recently out of a merger of three agencies, the Jamaica National Investment Promotions Ltd. (JNIP), the Jamaica National Export Corporation (JNEC) and the Jamaica Industrial Development Corporation (JIDC). This merger was effected so as to streamline the investment process in Jamaica and to standardize rules and procedures (eg. tariffs on imports) in investment activities. JAMPRO's investment and trade promotions network involves several offices in Jamaica and overseas, including Hong Kong, London, New York, Miami and Toronto. Promotions of Jamaica in general and agro-industry in particular are conducted through
advertisements, trade shows, inward and outward missions, seminars, conferences, distribution of literature and the display of samples of Jamaican agro-industrial products in major North American stores such as Bloomingdales. These have been mostly gourmet type products such as jams, jellies, marmalades and sauces.

JAMPRO also has plans to assist agro-processors to modernize their plants through the provision of advice, information, training, etc., by short-term consultants. However, money has not yet been allocated to implement this project and there appears to be a need for coordination with AGRO 21 in this area (see below).

JAMPRO has also made efforts to verify agro-processors' interest in seeking joint-venture partnerships (Appendix V), and to assist capable companies in this area. The staff interviewed at JAMPRO believe that Jamaica has excellent opportunities for marketing gourmet items, exotic fruits and ethnic foods in North America. However, inadequate supplies, poor packaging and labelling, inconsistent product quality and costly transportation impede growth in market share. JAMPRO will continue in its efforts to improve the situation.

b) AGRO 21 Corporation Ltd.

AGRO 21 is a Government agency responsible for promoting market-led agriculture among Jamaica's
AGRO 21 acts as a catalyst and facilitating agency to encourage and assist investors especially in non-traditional, agricultural exports. Recently, negotiations were completed with the UNDP to establish a new unit at AGRO 21 which will be staffed with an international agro-industrial marketing expert to provide advice, information and training in the areas of management, marketing and technology. The formulation of this project was based on the perception by AGRO 21 that agro-industry in Jamaica needed a focal agency dedicated to the promotion and facilitation of investments and marketing. Much coordination will be needed with JAMPRO to pool resources and avoid duplication in this area.

c) Jamaica Export Trading Company Ltd. (JETCO)

JETCO is a small, Government-owned exporting company which finances itself on its trading profit as well as credits. JETCO either buys from local agricultural/agro-industrial producers and exports or acts as an export commission agent. JETCO, unlike a private sector trader, provides a wide range of services to local producers and exporters either freely in the case of clients from whom it buys or for a fee in other cases. Services such as arranging shipping, export documentation, market research and advising on penetration strategies, packaging design
and promoting goods in overseas trade shows are all performed by JETCO. Although these may appear to be a duplication of JAMPRO's services, JETCO claims that its services are offered freely only to its suppliers of agro-based produce. In any case, JETCO coordinates its overseas activities with JAMPRO.

JETCO has exported only a limited amount of processed foods because of the problems plaguing the industry. Products have included ethnics (ackees, bammies - a cassava product), sauces and seasoning, as well as gourmet items (jams, jellies, exotic fruit).

The problems identified in agro-industry by JETCO are very familiar. Out-dated packaging and labelling, high production costs, unreliability and poor quality of supplies have restricted JETCO's involvement with the trading of agro-industrial products.

d) Jamaican Exporters Association (JEA)

The JEA is a private voluntary association of exporters funded primarily by members' subscription, and run by a small secretariat. The JEA lobbies on behalf of all exporters, airing issues and concerns affecting them and negotiating with Government on their behalf. Other services in agro-industry are similar to those provided by JAMPRO and JETCO. These include promotion of agro-industrial products (eg. jams, jellies etc.) sent
directly as samples to overseas companies, acting as a facilitating agency relative to clearing bureaucratic red tape, liaising with Government and international agencies, providing technical information to exporters, and publishing a national exporters bulletin circulated locally and internationally. Importantly, the JEA organizes and supports Jamaican private sector trade missions to North America, CARICOM and Europe.

The major problems of agro-industry, according to this agency, include shipping's high cost (but see Taffe 1987), limited availability and drug-related security problems, the need for greater tax incentives to exporters and the necessity for more assistance in developing the North American and CARICOM trade.

2. Development Agencies/Embassies

Jamaica is well served by international development agencies (eg. UNDP, UNIDO) as well as embassies from North America. The latter also boast development arms such as USAID in the case of the United States Embassy and the Canadian International Development Agency (CIDA) in the case of the Canadian High Commission. These agencies provide much background support to agro-industry in the areas of investment and trade as well as in training at the technical level.
Often, this support is provided through agencies such as JAMPRO. Below is an outline of the services and programmes sponsored by development agencies and embassies, as well as their perspectives on the problems and way forward for Jamaican agro-industry.

a) Canadian International Development Agency (CIDA)

CIDA has announced (June 1988) a major project to promote Jamaican exports to Canada. The general objective is to assist Jamaica's efforts to increase foreign exchange earnings by enhancing the ability of selected firms to increase exports to Canada. The project is to be administered by JAMPRO and will include processed foods. About J$0.8 million will be spent in phase 1 of the project both in Canada and Jamaica, and this money will be used to help to foster greater knowledge of exporters to Canada's market relative to packaging, distribution methods, increased publicity about Jamaican products in Canada and to develop a JAMPRO information base on Canada. There exists in the Canadian High Commission a Trade Commission to assist in these areas.

A financial window also exists in CIDA to support joint venture partnerships between Canadian and Jamaican businessmen. Financial assistance is also given to Jamaica's Agricultural Credit Bank as proceeds from
sale of Canadian fertilizer donated to Jamaica. This money is on-lent to farmers. The problems perceived by CIDA officials relative to agro-industry are as follows:

i) Lack of interest by Canadian businessmen in investing in or seeking trade links with Jamaica.

ii) Lack of knowledge by Jamaican businessmen of the Canadian market, its opportunities and services.

iii) High transport cost between Jamaica and Canada compared to Jamaica and the U.S.A., which is nearer to Jamaica and has a larger market than Canada.

iv) Uncompetitive Jamaican products in an open Canadian market, despite the CARIBCAN trade programme which allows duty-free entry of most Jamaican products.

Most of these problems will have to be addressed by the CIDA project to promote Jamaican exports to Canada.
b) United States Agency for International Development

USAID provides substantial support to agro-industry in Jamaica. This includes credit to the development banking system, as well as funding of agencies promoting agro-industrial investment and trade. Below is a checklist of key programmes, including those recently concluded.

i) An agro-industrial development programme at the Agricultural Credit Bank (see details under "financial institutions"), which included the conducting of investment and marketing feasibility studies for over 20 Jamaican crops/commodities in agriculture and agro-industry by AGRO 21 Corporation Ltd. This project was completed in 1987.

ii) A study recently commissioned by the USAID Office of Private Enterprise Development (OPED) to examine feeder industries in Jamaica to determine how best to establish better linkages and vertical integration. This study includes agro-industry.

iii) The provision of hands-on, technical assistance to companies involved in modernization, working through JAMPRO and other Government agencies.
Importantly, OPED plans to adopt an innovative approach to investor search in the U.S.A. Private Jamaican company executives will be funded and guided on trips to the U.S.A. to hold face-to-face discussion with pre-contracted potential investors representing reputable corporations, in the pursuance of joint-venture arrangements.

USAID interviewees believe that Jamaica could benefit in its investment in and trading of agro-industrial products by addressing constraints in raw material supplies, transportation, and foreign exchange availability to the businessman needing spare parts and equipment. Large farming corporations, preferably in joint-venture partnerships with Jamaicans, could be attracted to produce at high yields to relieve the supply problem affecting processing plants, using a more direct investment promotions approach involving meetings between Jamaican and North American businessmen to attract such investors.

c) United Nations International Development Organization

This organization, as an implementing arm of the UNDP has recently been evaluating Jamaican agro-industry and formulating programmes of assistance for this sector.
Having conducted studies on the sector (Beale, 1986; UNDP/STAS, 1988), the United Nations development agencies have designed several assistance programmes for agro-industry in Jamaica. These are as follows:

i) Agro-industrial Department at AGRO 21 Corporation Ltd.

As stated earlier under the section on AGRO 21, this project has been approved and will be funded by UNDP. UNIDO staff input was significant in project formulation. The new Department will provide direct service to food processing factories in the areas of advice and information on technology, marketing and management.

ii) Investment Promotions

UNIDO has an international investment promotions network which matches joint-venture partners in developing and metropolitan countries. This effort is coordinated through JAMPRO. Like USAID/OPED, UNIDO is also looking at supporting more direct contact between local Jamaican and overseas businessmen so as to encourage joint-venture partnerships.
iii) Jamaica Design Centre

A new institution is to be established known as the Jamaica Design Centre which will promote and develop innovative designs for Jamaican products, packaging, exhibits, and graphics, in order to assist Jamaican businessmen for the local and export trade. The Centre will also train qualified industrial designers, graphic and packaging designers. Agro-industry should benefit from this new agency as there will be every opportunity to begin to address the problem of poor labelling of Jamaican packaged products.

iv) Feasibility Study Unit

UNIDO proposes to assist Jamaica to establish a feasibility study unit at an organization like JAMPRO. This project is still at the conceptual stage and is being reviewed by the Government of Jamaica.

In terms of the problems of Jamaican agro-industry identified by UNIDO staff, four major areas of concern were mentioned. These are:

- Lack of horizontal and vertical integration by food processors
- Product quality and price eg. production process, machinery, factory layout, and quality control and management are weak and need upgrading.

- Marketing - greater institutional support and information needed to keep processors informed about general trends through:
  - information on marketing potential etc.
  - trade shows, contact with buyers

- Investments - there is a need for a few successful model/companies to raise standards and attract more investments.
3. Financial Institutions

The credit support system for Jamaica's agro-industrial operations is extensive. Funds wholesaled at concessionary rates of interest are available from at least least two banking institutions, both of which were visited by this author. They are the Agricultural Credit Bank of Jamaica (ACB) and the National Development Bank of Jamaica (NDB). These banks downstream credit to the commercial banks who on-lend through retail windows to agro-processors. The two largest commercial banks in Jamaica which also are the largest lenders to agro-industry are the National Commercial Bank (NCB) and the Bank of Nova Scotia (Ja.) Ltd. (BNS).

Detailed discussions were held with all four banks but this outline of lending policy will not be presented under separate bank headings since there exists a common overall credit policy for agro-industry.

a) Lending Criteria

The Structural Adjustment Programme of the Government of Jamaica has influenced the direction of credit to industry in Jamaica. Projects which earn or save foreign exchange, are financially viable, generate employment, and show linkages with other local sectors (i.e. feeder industries) have received support.
However, because loans are retailed through commercial banks who are at risk, stringent criteria such as collateral have been applied to the pre-screening of loan applications ultimately approved by the development banks. Most applications rejected by commercial banks are either non-viable or lack adequate equity participation and security. However, such banks do not keep a record of rejection rate.

Funds are provided for the purchasing of plant and machinery, raw material and packaging material, as well as for establishing feeder operations (eg. farms).

Concessionary interest rates have varied between 15 and 18%, well below market rates in Jamaica. Loan terms include a two-year moratorium, and payback period can be as long as 12 years. International agencies such as USAID, the World Bank, the Caribbean Development Bank, the Inter-American Development Bank have provided low interest loans to Jamaica's agricultural banking system.

b) Beneficiaries

The areas of agro-industry which have benefitted from these loans have included non-traditional agro-industrial exports.
Companies such as Scott's Preserve, Tijule Ltd. and Grey's Pepper (see Appendix I) have been identified as clients. The commercial banks (especially NCB) have attempted to supervise credit so that projects can develop gradually. BNS is planning to set up a monitoring unit to provide evaluation and supervision services to agro-industry.

There is much inter-action between the banks and agencies like JAMPRO and AGRO 21 who assist in project evaluation and the provision of information.

In terms of exposure, agri-business in Jamaica currently benefits to the tune of US$70M from NCB and US$25M from BNS. There is no restrictive ceiling on lending to agricultural or agro-industrial projects.

Attempts were made to get individual profiles of current projects being funded by the banks. However, only one bank was willing to furnish this sort of information, namely the NDB Appendix IX profiles three non-traditional agro-industrial export projects which have recently benefitted from NDB credit.
c) Perceived problems of agro-industry

The availability of credit for agro-industry is not considered to be a problem in Jamaica. The major problem over the years has been the inability of potential clients to meet lending criteria, especially that of collateral requirement. Furthermore, project preparation skills have been lacking both at the level of the investor and in the banking system itself, although an effort has been made to address this problem at ACB.

The problems of agro-industry mentioned by the banks are:

i) Lack of knowledge of marketplace by investors

ii) Non-tariff barriers to exports

iii) Irregularity of supply of the finished product and raw materials

iv) Technological limitations

v) Transportation constraints (viz. availability and drug-related security problems)

vi) Lack of unified marketing approach by Jamaican exporters

vii) Foreign exchange restrictions

It is clear that a remarkable level of awareness and similarity in views on the problems of agro-industry exists among officials in different types of organizations in Jamaica both at industry and support agency levels.
DISCUSSION AND CONCLUSION

Jamaica's agro-industrial sector has the potential to expand and develop if the opportunities identified can be exploited. The importance of the sector to Jamaica is underlined by the fact that a great deal of attention is being paid to it by way of studies, services, projects and other forms of assistance. It has the ability to earn or save foreign exchange, provide employment opportunities and create important economic linkages with the farming community. However, numerous problems beset agro-industry in Jamaica. These problems are well known and frequently discussed by persons involved in the sector, and this report has clearly documented them.

The opportunity areas for expansion and development especially in non-traditional exports are also well known and these also have been accounted for in this report. The question which therefore arises is what can an organization like IICA do to help Jamaica realize its agro-industrial potential? Is there room for additional services? Is there a need for assistance to already-established agencies and services which support agro-industry?

It is necessary first of all to list again the current and future agencies and support services for agro-industry in Jamaica:
<table>
<thead>
<tr>
<th>Agency</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. JAMPRO</td>
<td>Facilitation, promotion, information, technical assistance, trade development.</td>
</tr>
<tr>
<td>2. JETCO</td>
<td>Trade development, information, marketing assistance</td>
</tr>
<tr>
<td>3. JEA</td>
<td>Lobbying, promotion, information</td>
</tr>
<tr>
<td>4. AGRO 21 Corp. Ltd.</td>
<td>Information, advice, technical assistance</td>
</tr>
<tr>
<td>5. USAID</td>
<td>Funding, information, technical assistance, trade and investment promotion</td>
</tr>
<tr>
<td>6. Ministry of Agriculture</td>
<td>Support for small farmers who provide raw materials for processors</td>
</tr>
<tr>
<td>7. Bureau of Standards</td>
<td>Quality control, certification for export, advice on packaging</td>
</tr>
<tr>
<td>8. Food Technology Institute</td>
<td>Research and development, training</td>
</tr>
<tr>
<td>9. C.I.D.A.</td>
<td>Funding, information, technical assistance, trade and investment promotion</td>
</tr>
<tr>
<td>10. UNIDO/UNDP</td>
<td>Funding, technical assistance, investment promotion</td>
</tr>
<tr>
<td>11. Development and Commercial Banks</td>
<td>Credit, project supervision</td>
</tr>
<tr>
<td>12. Jamaica Design Centre</td>
<td>Futuristic; labelling assistance</td>
</tr>
<tr>
<td>13. West Indies Glass Ltd.</td>
<td>Packaging material</td>
</tr>
<tr>
<td>14. Metal Box Ltd.</td>
<td>Packaging material</td>
</tr>
</tbody>
</table>

Although there is some duplication in the system, it is evident that a comprehensive range of services does exist in Jamaica for the investor interested in or involved in agro-industrial production.
The institutional support is quantitatively available in Jamaica or nearly so, and most futuristic assistance will have to support current or planned programmes or agencies. Based on the assessment done on overall industry constraints and problems, as well as on the limitations of current assistance and support programmes, below are some suggestions as to how IICA can assist Jamaican agro-industry.

1. Raw Material Procurement Problem

This perennial Jamaican problem holds the key to the future of agro-industry and indeed to overall agricultural development in Jamaica. Currently, the USAID is studying the relationship between feeder industries and end-user enterprises with a view to understanding reasons for success or failure. The report should be available by mid-1989 and the local IICA office should avail itself of this report and study its findings. A great need exists for the integration of food processing operations and supplier farms in Jamaica, in order to ensure better and more consistent supply flows to factories. IICA's experience among small farmers and its technical assistance capability in this area could be of significant benefit to this process. Perhaps IICA could seek out one or two farming communities in close proximity to factories and attempt on a pilot scale to develop an appropriate form of factory-farm integration based on the
cultural, social, economic and agronomic realities of the areas. The success of such a programme would be complementary to other efforts and could spawn a well-needed revolution in the long run.

2. Factory Technology

The level of technology in Jamaica's food-processing factories is well below the standard needed to fully exploit marketing opportunities. Whereas it is not expected that an organization like IICA will fund equipment modernization at factories, there is no doubt that a great need exists for technical assistance to the process of modernization. Processors need to know what best to purchase, where is the most cost-effective source, how to install the equipment in an efficient layout and how to use and maintain it. Although there is an Industry Modernization Programme for agro-industry at JAMPRO, it lacks staff and money. In any case, high level training missions will be needed to push the programmes at the factory level. The same will hold for the AGRO 21 agro-industrial support unit. IICA should make positive moves to determine the scope and depth of technical assistance needed so that it can assist these agencies in Jamaica's modernization programme.
Other than equipment, product design and improvement are important elements in the state-of-art of any production process. The Food Technology Institute is a Government agency established for research and development as well as training. Currently, it is operating below potential with equipment and manpower deficiencies. This is another entity that IICA could approach to determine the type and degree of help needed on a priority basis, in any attempt to provide support. However, such an evaluation must incorporate the views of food processors, some of whom have in the past expressed skepticism about the role of the Institute. Similarly, assistance is needed to bolster the Bureau of Standards in its quality control function, subject to an appropriate assessment.

3. Trade and Investment Promotions

Between JAMPRO, JETCO and the JEA, the promotion of Jamaica and Jamaican produce have received significant attention over the years. Jamaica simply has not produced in the quantity needed to fill its market potential. IICA does not need to provide any assistance to seminars, conferences, trade shows and other traditional forms of promotion, which although important, need to be complemented by more product and investor specific targeting. Any assistance that IICA may wish to provide for agro-industrial promotion
should be to specific Jamaican companies needing help to target joint-venture investors, to improve in-plant production or to find a niche for a product.

In respect of the Canadian market, it is suggested that the local IICA office begins to forge links with CIDA and JAMPRO in Jamaica, so as to determine the niche it can fill in aiding Jamaican companies to market produce in Canada.

Finally, it would appear that IICA's potential assistance role in Jamaican agro-industry lies in two areas. Firstly, at the private sector level, a model project should be developed among a pilot group of small farmers in reasonable proximity to a factory processing their produce, with the aim of forging an appropriate and reliable supplier relationship between the two entities. This project will require a feasibility study to determine cost, technical, agronomic, and socio-economic factors that would make it viable. In addition, an innovative programme of assistance to individual processors needing to find joint-venture partners, markets and technical improvement should be formulated. IICA's network in North America and the Caribbean provides it with the capability to help in this area. At the public sector
level, agencies such as JAMPRO, the Food Technology Institute and the Bureau of Standards should be approached to assess the help they require to strengthen their agro-industrial technical assistance programmes.
## LIST OF PERSONS INTERVIEWED

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position/Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr. John Bonar</td>
<td>Canadian Trade Commissioner, Canadian High Commission, Jamaica</td>
</tr>
<tr>
<td>2</td>
<td>Ms. Yvette Chong</td>
<td>Canadian Trade Commission, Canadian High Commission, Jamaica</td>
</tr>
<tr>
<td>3</td>
<td>Mr. Walter Coles</td>
<td>Office of Private Enterprise Development, USAID, Jamaica</td>
</tr>
<tr>
<td>4</td>
<td>Mr. Donald Duncanson</td>
<td>Market Director, Brico (Succs) Ltd., Kingston, Jamaica</td>
</tr>
<tr>
<td>5</td>
<td>Mr. Robert Evelyn</td>
<td>Managing Director, Roberts Products Company Ltd., Kingston, Jamaica</td>
</tr>
<tr>
<td>6</td>
<td>Mr. Peter Gebert</td>
<td>Programme Officer, United Nations Industrial Development Organization, Kingston, Jamaica</td>
</tr>
<tr>
<td>7</td>
<td>Mr. Roy Golding</td>
<td>Senior Accounts Manager, Bank of Nova Scotia (Ja) Ltd., Corporate Credit Centre, Kingston, Jamaica</td>
</tr>
<tr>
<td>8</td>
<td>Mr. Winston Gooden</td>
<td>General Manager, Industry Modernization Programme, JAMPRO, Kingston, Jamaica</td>
</tr>
<tr>
<td>9</td>
<td>Mr. Rob. Lothian</td>
<td>CIDA Development Officer, Canadian High Commission, Jamaica</td>
</tr>
<tr>
<td>10</td>
<td>Mr. Donald Menzies</td>
<td>Agricultural Advisor, National Commercial Bank, The Atrium, Kingston, Jamaica</td>
</tr>
<tr>
<td>11</td>
<td>Mr. Noel Osborne</td>
<td>Agricultural Credit Bank, Jamaica</td>
</tr>
<tr>
<td>12</td>
<td>Mr. Dick Owens</td>
<td>Agricultural and Rural Development Office, United States Agency for International Development, Jamaica</td>
</tr>
<tr>
<td>13</td>
<td>Mr. Aaron Parkes</td>
<td>Director of Agri-business, JAMPRO, Kingston, Jamaica</td>
</tr>
<tr>
<td>14</td>
<td>Mr. Lennox Picart</td>
<td>Economic Development Executive, JAMPRO, Kingston, Jamaica</td>
</tr>
<tr>
<td>15</td>
<td>Mr. Howard Piper</td>
<td>Factory Manager, Grace Food Processors Ltd., Kingston, Jamaica</td>
</tr>
<tr>
<td>16</td>
<td>Mr. Norman Prendergast</td>
<td>General Manager, Investment Promotions, JAMPRO, Kingston, Jamaica</td>
</tr>
</tbody>
</table>
(16) Mrs. Brenda Robinson, General Manager, Trade Promotions, JAMPRO, Kingston, Jamaica

(17) Miss E. Stewart, General Manager, Musson (Ja) Ltd. Food Factory Division, Kingston, Jamaica

(18) Mrs. M. Thomas-Richards, Director, Sales and Marketing, Jamaica Export Trading Company Ltd. Kingston, Jamaica

(19) Mr. Don Williams, Credit Supervisor, Bank of Nova Scotia, Corporate Credit Centre, Kingston, Jamaica
REFERENCES QUOTED


Table 1

Total Exports of Non-Traditional Processed Foods, Beverages and Tobacco (US$M)
1983-1987

<table>
<thead>
<tr>
<th>Year</th>
<th>1983</th>
<th>1984</th>
<th>1985</th>
<th>1986</th>
<th>1987</th>
<th>( \frac{1987}{1986} )</th>
<th>( \frac{1986}{1985} )</th>
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<tr>
<td></td>
<td>41.6</td>
<td>40.0</td>
<td>38.8</td>
<td>37.7</td>
<td>41.8</td>
<td>10.9</td>
<td>-2.8</td>
</tr>
</tbody>
</table>

p - Preliminary

Source: Economic and Social Survey Jamaica. Planning Institute of Jamaica. 1987
APPENDIX I

MAJOR JAMAICAN FIRMS INVOLVED IN EXPORT OF NON-TRADITIONAL PROCESSED FOODS
**APPENDIX I**

Major Jamaican Firms involved in Export of Non-traditional Processed Foods

**Fruits and Vegetables**

<table>
<thead>
<tr>
<th>No.</th>
<th>Company Name</th>
<th>Address</th>
<th>Export Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fletcher-Bowman Ltd, Yallahs</td>
<td>P.O. St. Thomas</td>
<td>Caricom, North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Caricom, U.K.</td>
</tr>
<tr>
<td>2.</td>
<td>Grace Food Processors Ltd,</td>
<td>2-6 Twickenham Pk, St. Catherine</td>
<td>Caricom, USA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Musson Jamaica Ltd, 227 Marcus Garvey</td>
<td>Drive Kingston 11, Tel (809)923-6027</td>
<td>Caricom, U.K., North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Roberts Products Ltd, 7 Norwich Avenue</td>
<td>Kingston 11, Tel (809) 923-9048</td>
<td>Caricom, U.K., North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Scott's Preserves Ltd P.O. Box 94,</td>
<td>Twickenham Park, Spanish Town,</td>
<td>Caricom, U.K., North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Brico (Succ.) Ltd, Hillview Ave,</td>
<td>Kingston 10, Tel (809) 929-2119</td>
<td>U.K., Caricom, North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Tijule Co. Ltd, 30 Paisley Pen,</td>
<td>North America</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Jamaica Citrus Growers Ltd,</td>
<td>Bogwalk, Clarendon</td>
<td>North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Coffee Liqueur**

<table>
<thead>
<tr>
<th>No.</th>
<th>Company Name</th>
<th>Address</th>
<th>Export Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Dr. Ian Sangster &amp; Co. Ltd,</td>
<td>17 Holborn Road, Kingston 10</td>
<td>U.K., Caricom, North America</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel (809) 926-8888</td>
<td></td>
</tr>
</tbody>
</table>
Food Flavours

10. Virginia Dare (Ja) Ltd, U.S.A.
    5 Leonard Road, Kingston 10
    Tel (809) 926-6750

Sauces

11. Pickapeppa Company Ltd, North America,
    Shooters Hill, Caricom, Europe
    Manchester
    Tel (809) 962-2928

12. Fachoys Foods Ltd, Falmouth, North America,
    Trelawny Caricom, U.K.
    Tel (809) 954-3507

13. Gray's Pepper Products,
    North America,
    P.O. Box 81, Chantilly,
    Caricom, U.K.
    Stathbogie Road, Sav-la-mar
    Westmorland

14. Lewis Kelly & Sons Ltd, U.S.A
    281 Spanish Town Road,
    Kingston 11.
    Tel (809) 923-6631
APPENDIX IIA

RANGE OF FOOD ITEMS PACKAGED IN JAMAICA

APPENDIX IIB

EXPORTS OF PROCESSED AGRICULTURAL PRODUCE BY VALUE
FOOD PRODUCTS PACKAGED IN JAMAICA
(FROM AGRO 21 SURVEY BY GASTON KOHN, 1983)

The following list of food products packaged in Jamaica is an attempt to identify what products are being packed in what type and size of containers. It may not be complete and should not be regarded as static, as new items are added and old items may be discontinued or packaged in a different form. It serves the purpose of determining the present state of the food packaging industry.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>PACKAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Fruits</td>
<td></td>
</tr>
<tr>
<td>1.1 Canned Fruits</td>
<td></td>
</tr>
<tr>
<td>Grapefruit Segments</td>
<td>211x400, 307x408</td>
</tr>
<tr>
<td>Mangos, Whole</td>
<td>307x408</td>
</tr>
<tr>
<td>Mangos, Slices</td>
<td>307x408</td>
</tr>
<tr>
<td>June Plums</td>
<td>307x408</td>
</tr>
<tr>
<td>Otahiti Apples Halves</td>
<td>307x408</td>
</tr>
<tr>
<td>Pineapple, Slices</td>
<td>303x306, 307x408</td>
</tr>
<tr>
<td>Pineapple, Chunks</td>
<td>307x408</td>
</tr>
<tr>
<td>Pineapple, Crushed</td>
<td>307x408</td>
</tr>
<tr>
<td>1.2 Other Fruits</td>
<td></td>
</tr>
<tr>
<td>Lime Pie Filling</td>
<td>307x408</td>
</tr>
<tr>
<td>Maraschino Cherries</td>
<td>250 ml glass jars</td>
</tr>
<tr>
<td>Mango in Brine</td>
<td>Wooden barrels</td>
</tr>
<tr>
<td>Papaya in Brine</td>
<td>Wooden barrels</td>
</tr>
<tr>
<td>Papaya Chunks Candied</td>
<td>10-kg Polybags</td>
</tr>
<tr>
<td>Pineapple Pie Filling</td>
<td>307x408</td>
</tr>
<tr>
<td>1.3 Fruit Juices</td>
<td></td>
</tr>
<tr>
<td>Apple</td>
<td>202x214, 211x400, 307x408</td>
</tr>
<tr>
<td>Grapefruit</td>
<td>307x408, 1-Quart Pure Pak</td>
</tr>
<tr>
<td>Lime (with preservative)</td>
<td>4000-gal Stainless Steel Tank Car</td>
</tr>
<tr>
<td>Mango</td>
<td>307x408</td>
</tr>
<tr>
<td>Product</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Orange</td>
<td>307x408, 1-Quart Pure Pak</td>
</tr>
<tr>
<td>Orتانique (citrus)</td>
<td>307x408</td>
</tr>
<tr>
<td>Pineapple</td>
<td>211x400, 307x408</td>
</tr>
<tr>
<td>Pineapple - Cherry</td>
<td>211x400, 307x408</td>
</tr>
<tr>
<td>Pineapple - Mango</td>
<td>307x408</td>
</tr>
<tr>
<td>Pineapple - Orange</td>
<td>211x400, 307x408</td>
</tr>
</tbody>
</table>

### 1.4 Fruit Juice Concentrates

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ginger Beer</td>
<td>211x400, 307x408</td>
</tr>
<tr>
<td>Guava</td>
<td>307x408</td>
</tr>
<tr>
<td>Frozen Grapefruit</td>
<td>55-gallon Steel drums</td>
</tr>
<tr>
<td>Frozen Lime</td>
<td>211x400, 55-gallon Steel drums</td>
</tr>
<tr>
<td>Lime with preservative</td>
<td>3 to 4000 gallon Stainless Steel tank cars</td>
</tr>
<tr>
<td>Orange</td>
<td>211x400, 55-gallon Steel drums</td>
</tr>
<tr>
<td>Orتانique (citrus)</td>
<td>55-gallon Steel drums</td>
</tr>
<tr>
<td>Pineapple</td>
<td>307x408</td>
</tr>
<tr>
<td>Tamarind</td>
<td>307x408</td>
</tr>
</tbody>
</table>

### 1.5 Fruit Nectars

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apricot</td>
<td>211x400</td>
</tr>
<tr>
<td>Guava</td>
<td>307x408</td>
</tr>
<tr>
<td>Mango</td>
<td>307x408</td>
</tr>
<tr>
<td>Papaya</td>
<td>307x408</td>
</tr>
<tr>
<td>Peach</td>
<td>211x400</td>
</tr>
<tr>
<td>Pear</td>
<td>202x214, 211x400</td>
</tr>
<tr>
<td>Tamarind</td>
<td>307x408</td>
</tr>
</tbody>
</table>

### 1.6 Fruit Drinks, Squash and Syrups

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coconut Milk</td>
<td>211x400</td>
</tr>
<tr>
<td>Fruit Punch</td>
<td>211x400, 307x408, 1-pint Pure Pak</td>
</tr>
<tr>
<td>Orange</td>
<td>1- Pint Pure Pak</td>
</tr>
<tr>
<td>Pina Colada</td>
<td>211x400</td>
</tr>
</tbody>
</table>
Pineapple - Apple 307x408
Pineapple - Cherry 211x400, 307x408
Pineapple - Grapefruit 307x408
Grapefruit - Orange 307x408
Grapefruit Squash 40-oz Bottles
Orange Squash 40-oz Bottles
Fruit Flavoured Syrups 26-oz Bottles, 1-Gallon Plastic Bottles

1.7 Fruit Marmalades and Jellies

Grape Jelly 12-oz jars
Grapefruit Marmalade 401x400
Guava Jelly 12-oz jars
Guava Marmalade 12-oz jars
Guava Spread 12-oz jars
Lime Marmalade 12-oz jars
Orange Marmalade 12-oz jars
Seville Orange Marmalade 401x400, 12-oz jars
Seville Orange - Grapefruit Marmalade 12-oz jars
Pineapple Jelly 12-oz jars
Pineapple - Cherry Spread 12-oz jars
Pineapple - Ginger Spread 12-oz jars
Pineapple - Passion Spread 12-oz jars
Strawberry Preserves 12-oz jars
Tangerine Marmalade 12-oz jars

2.0 Vegetables

2.1 Canned Vegetables

Ackee in Brine 307x408
Breadfruit Slices in Brine 307x408
Baked Beans 211x400, 303x406
Butter Beans (large lima beans) 211x400, 303x406 Petort Pouches
Lima Beans (baby lima beans) 211x400
Red Kidney Beans 211x400
<table>
<thead>
<tr>
<th>Product</th>
<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>Callaloo in Brine</td>
<td>307x408</td>
</tr>
<tr>
<td>Corn, Cream Style</td>
<td>211x400, Retort Pouches</td>
</tr>
<tr>
<td>Corn, Whole Kernel</td>
<td>211x400, Retort Pouches</td>
</tr>
<tr>
<td>Mixed Vegetables</td>
<td>211x400</td>
</tr>
<tr>
<td>Peas and Carrots</td>
<td>307x408</td>
</tr>
<tr>
<td>Green Peas</td>
<td>211x400, 307x408</td>
</tr>
<tr>
<td>Guango Peas (Pidgeon Peas)</td>
<td>211x400</td>
</tr>
<tr>
<td>Red Peas</td>
<td>211x400</td>
</tr>
<tr>
<td>Sweet Potato Pudding</td>
<td>307x408</td>
</tr>
<tr>
<td>Whole Peeled Tomatoes</td>
<td>307x408</td>
</tr>
<tr>
<td>Yellow Yams</td>
<td>307x408</td>
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</table>

### 2.2 Other Vegetables

<table>
<thead>
<tr>
<th>Product</th>
<th>Container</th>
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</thead>
<tbody>
<tr>
<td>Red Peppers in Brine</td>
<td>Wooden barrels</td>
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### 2.3 Canned Vegetable Juices

<table>
<thead>
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<th>Container</th>
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<tbody>
<tr>
<td>Carrot</td>
<td>307x408</td>
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<tr>
<td>Tomato</td>
<td>307x408</td>
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### 3.0 Condiments, Sauces and Spices

<table>
<thead>
<tr>
<th>Product</th>
<th>Container</th>
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</thead>
<tbody>
<tr>
<td>Chow Chow</td>
<td>250 ml jars</td>
</tr>
<tr>
<td>Hamburg Relish</td>
<td>250 ml jars</td>
</tr>
<tr>
<td>Mango Chutney</td>
<td>12-oz jars, 250 ml jars</td>
</tr>
<tr>
<td>Peppers, Whole Hot</td>
<td>12-oz jars</td>
</tr>
<tr>
<td>Peppers, Ground Hot</td>
<td>12-oz jars</td>
</tr>
<tr>
<td>Peppers, Country Style</td>
<td>250 ml jars</td>
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<tr>
<td>Peppers, Scotch Bonnet</td>
<td>12-oz jars</td>
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<tr>
<td>Peppers, Crushed</td>
<td>12-oz jars, 250 ml jars</td>
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<tr>
<td>Pepper Jelly</td>
<td>12-oz jars</td>
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<tr>
<td>Pickled Hot Peppers</td>
<td>12-oz jars</td>
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<tr>
<td>Pickles, Hot Mixed</td>
<td>250 ml jars</td>
</tr>
<tr>
<td>Pickles, Sweet Mixed</td>
<td>250 ml jars</td>
</tr>
<tr>
<td>Hot Pepper Sauce</td>
<td>3-oz Bottles</td>
</tr>
<tr>
<td>Pepper Sauce</td>
<td>12-oz Bottles</td>
</tr>
<tr>
<td>Barbecue Sauce</td>
<td>12-oz Bottles</td>
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</tbody>
</table>
- 5 -

Tomato Ketchup
Hot Tomato Ketchup
Steak Sauce
Cane Vinegar
Black Pepper Spice
Celery Salt
Garlic Salt
Onion Salt
Thyme
MSG
Meat Tenderizer

12-oz Bottles, 28-oz Bottles, 404x700
12-oz Bottles
5-oz Bottles
16-oz P.E. Bottles
8.5 gm pouches
8.5 gm pouches
8.5 gm pouches
8.5 gm pouches
8.5 gm pouches
8.5 gm pouches
8.5 gm pouches

4.0 Prepared Foods

4.1 Canned Prepared Foods

Baked Beans in Tomato Sauce
Black Beans and Pork
Pork and Beans
Sausage and Beans
Spaghetti in Tomato Sauce

211x400
211x400
211x400
208x208, 211x400
211x400

4.2 Dried Foods

Dehydrated Chicken Noodle Soup
Dehydrated Beef Soup

2 1/8 and 1 4/5-oz Laminated AL foil pouches
2 1/8 Laminated AL foil pouches

5.0 Meats and Poultry

5.1 Canned Meats

Vienna Sausage
Potted Meat
Beef Ball in Gravy
Pear Shaped Hams

208x208
208x208
211x400
1 - lb Cans
### 5.2 Other Meats and Poultry

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<th>Item</th>
<th>Package Details</th>
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<tr>
<td>Hams, Bone-in-leg</td>
<td>Saran Film with string Net, Cryovac</td>
</tr>
<tr>
<td>Hams, Smoked</td>
<td>Saran Film with string Net, Cryovac</td>
</tr>
<tr>
<td>Ham, Pork Shoulders</td>
<td>Saran Film with string Net, Cryovac</td>
</tr>
<tr>
<td>Bacon, Streaked</td>
<td>Sliced</td>
</tr>
<tr>
<td>Bacon Canadian</td>
<td>Sliced</td>
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<tr>
<td>Sausages, Bologna</td>
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</tr>
<tr>
<td>Sausages, Breakfast</td>
<td></td>
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<tr>
<td>Sausages, Frankfurters</td>
<td>1 lb. shrink wrapped</td>
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<tr>
<td>Sausages, Salami</td>
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</tr>
<tr>
<td>Pickled Pork</td>
<td>35 lbs Plastic Pails</td>
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<tr>
<td>Frozen Beef Burgers</td>
<td>Cartons (Five 3-oz burgers</td>
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<tr>
<td></td>
<td>10 lbs. Poly Bags</td>
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<tr>
<td>Minced Meat</td>
<td>Institutional for Patty Makers</td>
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<tr>
<td>Kidney Suet</td>
<td>Institutional for Patty Makers</td>
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<tr>
<td>Whole Chicken Broilers,</td>
<td>P P Bags</td>
</tr>
<tr>
<td>Frozen</td>
<td></td>
</tr>
<tr>
<td>Whole Chicken Broilers,</td>
<td>P P Bags</td>
</tr>
<tr>
<td>Iced</td>
<td></td>
</tr>
<tr>
<td>Chicken Parts, Frozen</td>
<td>P P Bags</td>
</tr>
</tbody>
</table>
6.0 Fish Products

- Sardines in Soya Oil
- Mackerel in Tomato Sauce
- Frozen Breaded Fish Sticks
- Frozen Breaded Fish Fillets
- Dried Salted Fish
- Green Salted Fish
- Pickled Mackerel in Brine

1/2 lb oblong cans
307x113
12-oz Cartons
12-oz Cartons
25 - 1 lbs Corrugated Boxes
1 -1 lb PE overwrapped Polystyrene Tray
35 - 1 lbs Plastic Pails

7.0 Dairy Products

- Pasteurized Whole Milk
- Sterilized Whole Milk
- Sweetened Condensed Milk
- Unsweetened Condensed Milk
- Soya Base Milk Drink (Supligen)
- Malted Milk Powder
- Sweetened Cocoa Powder
- Pasteurized Process Cheese
- Cheese Spread
- Yoghurt
- Butter

1 - Quart Pure Pak Cartons
300x401, 1-lb Tetra Brik Cartons
300x304
300x401
300x401
1/2 and 1-lbs Jars, 3 can sizes, 28 gm foil pouch
250-gm cans
603x502
9-oz Plastic cups
8-oz Plastic cups
1/2 and 1 lb packages

8.0 Miscellaneous Foods

- Coconut Cream
- Coconut Rundown Sauce
- Fruit Flavoured Ice-Cream Toppings
- Pure Pineapple Ice-Cream Toppings
- Honey
- Vegetable Steaks
- Linketts (Vegetable Sausages)

211x400
211x400
4 gallon jars
4 gallon jars
12-oz jars
211x400
211x400
Vita-Burger Chunks
Redi-Burger
Vegi-Mince
Breakfast Cereals
Vacuum Packed Roasted Peanuts
Roasted Peanuts
Peanut Butter
Tea
Coffee
211x400
211x400
211x400
8-oz PE pouches,
12-oz Cartons
4 and 7-oz Cans
40-lbs bags
8 to 16-oz jars
Tea bags
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<tr>
<td>Frozen string beans, not packed</td>
<td>761,612</td>
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<tr>
<td>Other frozen vegetables, not packed</td>
<td>200</td>
<td>1,810</td>
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<td>20,842</td>
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<td>22,852</td>
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<td>Other vegetables in brine</td>
<td>11,038</td>
<td>3,549</td>
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<td>439</td>
<td>5,596</td>
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<td>Pickles in airtight containers</td>
<td>39,531</td>
<td>1,451,227</td>
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<td>Other vegetables not in airtight containers, preserved in vinegar</td>
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<td>23,957</td>
<td>105,508</td>
<td>44,820</td>
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<td>Peas and beans not in vinegar</td>
<td>109,960</td>
<td>227,438</td>
<td>103,965</td>
<td>119,474</td>
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<td>Fruits and parts of plants preserved by sugar</td>
<td>61,880</td>
<td>104,343</td>
<td>14,671</td>
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<td>Jam</td>
<td>383,042</td>
<td>267,881</td>
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<td>492,810</td>
<td>347,876</td>
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<td>Pineapple Jam</td>
<td>2,174</td>
<td>10,267</td>
<td>9,317</td>
<td>357</td>
<td>1,953</td>
<td>24,068</td>
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<td>Mango Pulp</td>
<td>18,300</td>
<td>4,117</td>
<td>79,884</td>
<td>5,320</td>
<td>66</td>
<td>107,687</td>
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<tr>
<td>Other jams, fruit jellies</td>
<td>311,647</td>
<td>226,325</td>
<td>188,530</td>
<td>115,125</td>
<td>24,253</td>
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<td>Frozen fruit with sugar added</td>
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<td>6,110</td>
<td>66,953</td>
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<td>Other frozen fruit</td>
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<td>49,988</td>
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<td>Other frozen peas in packages</td>
<td>-</td>
<td>51,680</td>
<td>3,645</td>
<td>837</td>
<td>231</td>
<td>56,393</td>
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<tr>
<td>Mangoes preserved</td>
<td>521,965</td>
<td>525,760</td>
<td>233,414</td>
<td>78,117</td>
<td>50,507</td>
<td>1,409,763</td>
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<td>Other frozen peas not packaged</td>
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<td>2,623</td>
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<td>218</td>
<td>2,841</td>
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<tr>
<td>Tomatoes in airtight containers in vinegar</td>
<td>-</td>
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<td>352</td>
<td>352</td>
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<tr>
<td>Ackee preserved</td>
<td>12,491,310</td>
<td>13,808,312</td>
<td>5,097,125</td>
<td>4,095,385</td>
<td>2,262,313</td>
<td>37,754,445</td>
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<td>----------</td>
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<td>----------</td>
</tr>
<tr>
<td>Other fruits Reserved</td>
<td>889999</td>
<td>187,695</td>
<td>64,274</td>
<td>126,796</td>
<td>146,680</td>
<td>130,488</td>
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<td>Other fruits provisionally reserved</td>
<td>886390</td>
<td>-</td>
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<td>19,064</td>
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<td>Mangoes in Brine</td>
<td>886310</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,052</td>
<td>207,552</td>
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<td>Other Fruit Juices</td>
<td>885390</td>
<td>37,992</td>
<td>529,622</td>
<td>99,956</td>
<td>12,864</td>
<td>190,323</td>
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<td>Pineapple Juice</td>
<td>885400</td>
<td>818,444</td>
<td>1,067,082</td>
<td>463,824</td>
<td>230,766</td>
<td>342,593</td>
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<td>Tomato Juice</td>
<td>2,523</td>
<td>48,732</td>
<td>17,405</td>
<td>6,649</td>
<td>4,587</td>
<td>79,896</td>
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<td>Other Fruit Juices</td>
<td>885719</td>
<td>358,843</td>
<td>220,138</td>
<td>223,103</td>
<td>43,208</td>
<td>66,859</td>
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<td>Other Vegetable Juices</td>
<td>885720</td>
<td>450,393</td>
<td>292,789</td>
<td>335,414</td>
<td>112,856</td>
<td>102,997</td>
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<tr>
<td>Pineapple-Based Juices</td>
<td>885520</td>
<td>1,380,611</td>
<td>687,163</td>
<td>274,524</td>
<td>316,410</td>
<td>225,545</td>
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<tr>
<td>Other Mixed Juices</td>
<td>885890</td>
<td>902,783</td>
<td>957,045</td>
<td>611,322</td>
<td>461,364</td>
<td>317,038</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>21,028,506</td>
<td>23,605,307</td>
<td>10,532,818</td>
<td>8,231,530</td>
<td>5,244,066</td>
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<tr>
<td><strong>Annual % Change value</strong></td>
<td></td>
<td>-11</td>
<td>+124</td>
<td>+28</td>
<td>+57</td>
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</table>
APPENDIX III

COMPLETED LAC PRIVATE SECTOR SURVEY FORMS
IICA MARKETING AND AGRO-INDUSTRY PROJECT

LAG PRIVATE SECTOR SURVEY FORM

NOTE: THIS INTERVIEW WILL REQUIRE AT LEAST 1 HOUR TO COMPLETE ADEQUATELY

Country: JAMAICA Date: 15/3/89

Name of Business: MUSSON (JAMAICA) LTD. FOOD FACTORY DIVISION

Address: 178 SPANISH TOWN ROAD, KINGSTON 11

Tel. No. (809) 923-9008

Contact Name & Position: MISS E. STEWART, GENERAL MANAGER

NOTE: The following questions comprise no more than a check-list. Please expand this data as time and responses permit.

*******************************************************************************

Company Activities

General Type of Products Processed (You may mark more than 1):

Fruits X Vegetables X Meats __ Dairy __ Grains __ Oils __

Spices & Extracts __ Beverages __ Other Edible X __ Non-Edible __

Type of Packaging (You may mark more than 1):

Freezing __ Drying __ Canning X Bottling X Aseptic Pack __ Other __


Size of Operations (Sales per annum): Less than US$100,000 __

US$100,000-500,000 __ US$500,000-1,000,000 __ Greater than US$1,000,000 X

Comments: THIS FACTORY WAS BOUGHT BY MUSSONS IN 1979. MAJOR SHAREHOLDER IS DESMOND BLADES. THE COMPANY IS JAMAICAN OWNED WITH OTHER BRANCHES IN CARICOM COUNTRIES.

No.of Employees (permanent): Less than 5 __ 5-25 __ 25-100 X __ > 100 ______

Comments: ____________________________
Distribution of Sales (%): Domestic Sales 86, Export N.Am 5, Export Other 9

SOME OF THESE EXPORTS ARE DONE BY OTHER LABELS SUCH AS EVE, DELITE AND GEDDES. MUSSON'S LABEL IS NuPAK

Principal Products & Destinations (by value):
- DESCRIBE IN DETAIL -

1. FRUIT JUICES AND SLICES TO THE VALUE US$ 56,000 TO CARICOM, US$6500 OF CARROT JUICE TO BRITAIN AND US$6,500 TO U.S.
   Destination(s): LOCAL MARKET AND CARICOM FOR ALL JUICES EXCEPT CARROT JUICE. SHIPPED TO N. AMERICA AND BRITAIN (ETHNIC MARKET)
   Packaging & other details CANs ARE 20 OZ. SIZE

2. JAMS AND JELLIES TO THE VALUE OF US$4000 TO CARICOM
   Destination(s): CARICOM AND LOCAL MARKETS
   Packaging & other details 12 OZ. JAM JAR BOTTLES

3. VEGETABLES TO THE VALUE OF US$80,000
   Destination(s): CARICOM AND LOCAL MARKETS
   Packaging & other details 10 & 16 OZ. CANs

(Note other important products on separate sheet if necessary)

Any Other Current or Recent Exports (5 years) to North America:

1. IRISH MOSS DRINK VALUED AT US$6400 TO U.S. MARKET (ETHNIC)

2. SYRUPS (US$4000) TO THE CARICOM, U.S. AND LOCAL MARKETS

3. 

4. 

(Note others on additional sheet if necessary)
Export Opportunities & Constraints:

Current products which respondent believes to have significant export potential for North American markets? Why? (Describe in detail)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

(Note others on additional sheet if necessary)

What other agro-industrial product areas are believed by respondent to have significant export potential for the N. American market (even if not in respondent's area)?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Which, if any, of the following factors are in the opinion of the respondent, serious impediments to successfully placing a new product in the North American market?

Health/Sanitary Regulations __ Packaging Standards __ Transport __

Quality Standards __ Links to N. American Brokers/Importers __ Financing __

Institutional Barriers to Entry __ Information about Market Opportunities __

Market Prices __ In-Country Production Costs __ Other __________

Please comment: __________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
LAC PRIVATE SECTOR SURVEY FORM - PAGE 4

If the firm has ceased to market any product within 5 yrs in N. America, or has delayed attempting market entry of a promising product, why?:


Does the firm have linkages to any N. American company (marketing, joint-venture, technology licensing etc.). If so please describe. If not, do they seek one? What sort?

- An agent in Canada does marketing of Musson products.


Assistance to Exporters:

Is the respondent aware of any National agency established to assist exporters (please name)? JAMPRO/JNEC, BUREAU OF STANDARDS

Has the company ever used their services? Y/N When last? RECENTLY

Which of the following services, to the best knowledge of the respondent, (a) is offered by the agency (b) has the company used:

Note: Please distinguish between those volunteered by respondent and those acknowledged after prompting

N.Am.Mkt Information ___ N.Am.Import Regulations X Locating Financing ___
Locating N.Am.Mkt Contacts ___ Information on Quality/Packaging Standards ___
Trade Shows/Visits ___ Shipping Assistance ___ Document Preparation ___
Technical Advice ___ Joint-Venture Promotion ___ Export Credits ___ Other ___

Please comment on the usefulness and problems of the agency: Regarding North American import regulations related to ingredients permitted, information was not easily obtained on Irish Moss as the JAMPRO staff were not knowledgeable. What is required is a list of prohibited ingredients not accepted by other countries. However, JAMPRO/JNEC library itself is useful.
Has the company looked elsewhere for assistance in developing export markets? If so, where and how?


Has the company ever had contact with N. American agencies such as OPIC, USDA, USAID or CIDA in connection with export development? If so which:


What was the purpose of the contacts?


Comments:


Interviewer: Please attach separate summary of interview (suitability and capacity of firm to enter/expand in export market, seriousness of interest, management capability etc.) together with conclusions re. company operations and any other additional material.
1. Modernization of Agro-Industrial Plants in Jamaica

In order to become more efficient and competitive, many Jamaican food processing plants need upgrading, re-tooling and modernization. However, Mr. Duncanson feels that there is greater need for both financial assistance at highly concessionary interest rates (refinancing) as well as technical assistance to encourage operations to undertake modernization. High interest rates (especially on working capital) is a major constraint impeding growth and development in agro-industry.

2. Government Red Tape

There is a need to further eliminate Government red tape and to make it simpler and cheaper for operations to export. A case in point is the Jamaican Bureau of Standards which is charged with monitoring standards and effecting quality control in the food industry. Mr. Duncanson feels that the Bureau is more reactive than pro-active, often making it difficult for exporters to satisfy delivery schedules, as shipments are often help up by the slowness of testing of samples. For example, the Bureau has been known to take as long as six weeks to certify the quality of a shipment. Each production run has to be tested by sample and up to May 1988, the cost to the exporter was J$125 per sample.
ADDITIONAL NOTES FROM PREVIOUS INTERVIEWS WITH BRICO (SUCCESSORS) LTD. - MR. DONALD DUNCANSON

1. Best Export Potentials for Jamaica

Tropical fruit pulp made from the following exotic fruit:

- Mango
- Guava
- Papaya
- Soursop
- Tamarind
- Passion fruit

METHODS IN USE FOR PROCURING RAW MATERIALS

Brico uses a number of methods for procuring raw materials supplies.

1. Procurement agents who go out in trucks and pick up supplies.
2. Independent sellers bring raw materials to Brico's factory.
3. Brico enters into contract arrangements to supply product at a specified price.

CONSTRAINTS TO EXPANSION OF PRODUCTION

Fruits required for the food processing industry are seasonal items. Therefore, if there is no planned approach, and programmed implementation in place for provision of seasonal fruit (raw materials) then the Jamaican food processing industry cannot operate on a viable basis.

In the best of worlds, returns to a medium sized company like Brico averages 6-8% on sales. Therefore, the ideal situation is long production runs, maximum utilization of capacity, thereby high volume throughput, minimizing costs and maximizing profits.

In order the constraints to expansion of the industry are:

1. Sustained availability of raw materials.
2. Availability of appropriate packaging (can) sizes for export. Metal Box now produces a 10 oz and 20 oz size. The popular international sizes are 12 oz, 20 oz and 46 oz (supermarket sizes) and 120-128 oz institutional size. There is also a reed for a 6 oz can and flip top cans primarily 6 oz 10 oz and 12 oz sizes.
These sizes are necessary if our processed juices are to penetrate the North American supermarket, and institutional trade.

3. Lack of information re the competition. Brico needs information on the price structure and market presence of the international competition. eg. BRAZIL, INDIA, AFRICA, and the PHILIPPINES in juices and pulps. Can our Trade Commission provide this information?

CAPACITY UTILIZATION

Brico now averages 60% capacity utilization. Peak production is in May, 85%. On the averages Brico uses 2-2 1/2 shifts.

PROSPECTS FOR BRICO AND THE FOOD PROCESSING INDUSTRY

The prospects for Brico are good. The company has identified 70 acres of land as a production base for securing raw material supplies.

As a supplemented measure, Brico will continue to seek for contractual arrangements with growers of raw materials.

This is particularly so in the case of short term crops, eg. papaya, but also true in the case of long term orchard crops, eg. mangoes.

Brico is also addressing the question of seasonality of fruit, eg. papaya where the pulp may be processed and stored over a period of time.

Brico is also examining the bulk market for fresh produce. For example, in the case of peppers it is possible to market bulk crushed peppers.

The prospects for the industry as a whole will only be good if the industry can take a long term view providing linkages with raw material producers, and if the constraints shown above can be addressed at a national level.

The processing industry from Brico's stand point is viable as the tropical fruit juice market is one of the fastest growing in the area of processed fruit.

INCENTIVES TO THE FOOD PROCESSING INDUSTRY

There are a number of areas where incentives can help the export processor.

1. Profits generated from agro-processing could be abated.

2. In the area of international transport, government should consider providing subsidies, as shipping rates from Jamaica are exorbitant. Note from Brico, in the Far East Government provides a shipping subsidy.
THE ROLE OF THE FOOD TECHNOLOGY INSTITUTE

The Food Technology Institute may have outlived its usefulness. Most testing, is done in-house by processors (large).

They are a limited number of items which Jamaica can produce primary among which are juices, sauces, jams, and preserves. Therefore, in order to be effective, the FTI would need to be creative.

If the FTI is to exist it must exist to carry out creative research, testing and training of personnel.

The control structure should be an appropriate mix of government and private sector. Clearly government will have to fund the project.
IICA MARKETING AND AGRO-INDUSTRY PROJECT

LAC PRIVATE SECTOR SURVEY FORM

NOTE: THIS INTERVIEW WILL REQUIRE AT LEAST 1 HOUR TO COMPLETE ADEQUATELY

Country: JAMAICA Date: 15/3/89

Name of Business: ROBERTS PRODUCTS COMPANY LTD.

Address: 7 NORWICH AVENUE, KINGSTON 11 JAMAICA

Tel. No. (809) 923-9048

Contact Name & Position: MR. ROBERT EVELYN, MANAGING DIRECTOR

NOTE: The following questions comprise no more than a check-list. Please expand this data as time and responses permit.

Company Activities

General Type of Products Processed (You may mark more than 1):

Fruits X Vegetables X Meats __ Dairy ___ Grains ___ Oils __

Spices & Extracts X Beverages __ Other Edible X Non-Edible __

Type of Packaging (You may mark more than 1):

Freezing __ Drying __ Canning X Bottling X Aseptic Pack __ Other __

Description: FRUIT AND FRUIT JUICES (MANGO, ORANGE, PINEAPPLE WITH 12-14 BRIX CONTENT) IN 10 OZ. & 20 OZ. CANS. SAUCES AND JAMS AND JELLIES IN BOTTLES. SIZES AND SHAPES VARY i.e. 3, 5, & 12 OZ. FOR SAUCE BOTTLES AND 12 OZ. FOR JAMS AND JELLIES.

Size of Operations (Sales per annum): Less than US$100,000 ___
US$100,000-500,000 ___ US$500,000-1,000,000 ___ Greater than US$1,000,000 X

Comments: THIS IS A 30 YR. OLD FAMILY OWNED BUSINESS. STRONG EXPORT DRIVE TO BARBADOS. A TEMPORARY STOPPAGE HAS HOWEVER RESULTED FROM HURRICANE 'GILBERT.' PRODUCTION SHOULD RESUME END OF APRIL 1989.

No. of Employees (permanent): Less than 5 ___ 5-25 ___ 25-100 X > 100 __

Comments: ADDITIONAL 60 CASUAL EMPLOYEES DURING PEAK SEASON
Distribution of Sales (%): Domestic Sales 40  Export N.Am 5  Export Other 55
THE CARICOM MARKET RECEIVES 50% OF EXPORTS, WHILE THE U.K. 5%

Principal Products & Destinations (by value):
- DESCRIBE IN DETAIL -

1. JAMS AND JELLIES MADE FROM FRUITS VALUED AT US$0.25M
   Destination(s): CARICOM
   Packaging & other details BOTTLE Sized AT 12 OZ. ROBERT'S LABEL USED

2. CANNED VEGETABLES SUCH AS ACKEE. VALUED AT US$0.5M
   Destination(s): NORTH AMERICAN ETHNIC MARKET
   Packaging & other details

3. JUICES EXPORTED UNDER ROBERT'S LABEL ARE VALUED AT US$0.75M
   Destination(s): CARICOM
   Packaging & other details 10-20 OZ CANS WITH PLANS TO IMPORT 6 OZ
   CANS FROM CARICOM SOURCES.
   (Note other important products on separate sheet if necessary)

Any Other Current or Recent Exports (5 years) to North America:

1. 

2. 

3. 

4. 

(Note others on additional sheet if necessary)
Export Opportunities & Constraints:

Current products which respondent believes to have significant export potential for North American markets? Why? (Describe in detail)

- Sauces have potential for general market.
- Exotic jams and jellies made from mango, guava, local cherries and numerous other Jamaican fruit. The exotic flavour of Jamaican fruit products offers great potential for gourmet and even wider markets, but Jamaica cannot compete because of wrong bottle/can sizes and shapes.
(Note others on additional sheet if necessary)

What other agro-industrial product areas are believed by respondent to have significant export potential for the N. American market (even if not in respondents area)?

Which, if any, of the following factors are in the opinion of the respondent, serious impediments to successfully placing a new product in the North American market?

Health/Sanitary Regulations ___ Packaging Standards ___ Transport ___
Quality Standards ___ Links to N. American Brokers/Importers ___ Financing ___
Institutional Barriers to Entry ___ Information about Market Opportunities ___
Market Prices ___ In-Country Production Costs ___ Other ___

Please comment: Freight rates are high because of low export volumes.
Jamaican product prices (e.g. sauces etc.) are high because of high cost of production related to scale of operations and irregularity of raw material supplies.
If the firm has ceased to market any product within 5 yrs in N. America, or has delayed attempting market entry of a promising product, why?:

__________________________
TAMARIND NECTAR HAS CEASED BEING EXPORTED BECAUSE OF INSIGNIFICANCE OF TRADE. HOWEVER, EXPORT OF GOURMET PRODUCTS ARE SEVERELY RESTRICTED BY LACK OF APPROPRIATE PACKAGING MATERIAL IN JAMAICA.

Does the firm have linkages to any N. American company (marketing, joint-venture, technology licensing etc.). If so please describe. If not, do they seek one? What sort? ____________________________________________________________________________

______________________________________________________________________________

Assistance to Exporters:

Is the respondent aware of any National agency established to assist exporters (please name)? JAMPRO, AGRO 21, JAMAICA EXPORTERS ASSN. (JEA)(Private Sector), BUREAU OF STANDARDS

Has the company ever used their services? Y/N When last? JAMPRO (Currently)

Which of the following services, to the best knowledge of the respondent, (a) is offered by the agency (b) has the company used:

Note: Please distinguish between those volunteered by respondent and those acknowledged after prompting

N.Am.Mkt Information X N.Am.Import Regulations X Locating Financing __
Locating N.Am.Mkt Contacts X Information on Quality/Packaging Standards X
Trade Shows/Visits X Shipping Assistance __ Document Preparation __
Technical Advice __ Joint-Venture Promotion __ Export Credits __ Other __

Please comment on the usefulness and problems of the agency: _______________________

This exporter prefers to speak directly to the Canadian and U.S. Health and Standard regulation agencies, whereby it is felt information can be trusted, and is more speedily obtained on the phone.

Furthermore, knowledgeable customers abroad are very helpful

in providing information
Has the company looked elsewhere for assistance in developing export markets? 
If so, where and how? THIS EXPORTER RELIES ON HIS IMPORTERS TO 

WIDEN HIS MARKET 

Has the company ever had contact with N.American agencies such as OPIC, USDA, 
USAID or CIDA in connection with export development? If so which: 

YES, CIDA assisted in funding visit to a trade show in 

Vancouver. In 1985, UNIDO assisted in factory visits to the U.S. 
What was the purpose of the contacts? 

SEE ABOVE 

Comments: There is an expression of deep frustration with Government 

red tape over the years which this exporter feels is the 
greatest barrier to progress in Jamaican industry. He 
also feels that the establishment of farmers wholesale 
markets to regularize raw material supplies is very important. 

He cannot backward integrate because of inadequacy of time, 
money and management. More information is required by processors 
on agricultural raw material supplies (i.e. quantities, location, 
and timing). 

Interviewer: Please attach separate summary of interview (suitability and 
capacity of firm to enter/expand in export market, seriousness of interest, 
mangement capability etc.) together with conclusions re. company operations and 
any other additional material.
1. Methods of Expanding Jamaica's Market Share for Processed Foods in North America

Mr. Evelyn considers trade shows to be a useful starting point for gaining general knowledge of the marketplace and to make business contacts. However, he believes that no meaningful expansion of Jamaica's market share for gourmet products (exotic processed fruit products) can take place without the elimination of out-dated packaging material currently in use here. Most Jamaican exporters are merely aiming at the ethnic market with their out-sized cans and bottles.

Mr. Evelyn also suggested that like Jamaica's effective tourism advertisements in the North American media, our gourmet products could benefit from similar exposure, even by piggy-backing on the tourism advertisements.

2. Quality Standards of Jamaican Agro-industrial Products

Mr. Evelyn feels that North America does not create an unreasonable barrier to Jamaican goods based on quality. However, it is CARICOM with its variable standards between the islands that is a difficult market to handle in this respect. He would prefer harmonization of quality standards in CARICOM.

3. Raw Materials Procurement

Roberts uses middlemen to procure raw materials. The bulk of raw materials is procured from local sources. Roberts has experimented unsuccessfully with procurement via contract farming.

Constraints to Agro-Industry

- Mr. Evelyn views the lack of a consistent available supply of raw materials as a major impediment to industry expansion.

- Mr. Evelyn also feels that agro-processors should be allowed to import required raw material and pay for advertising out of export earnings.

- The availability and cost of packaging is a severe constraint.

As a way of solving the procurement problem, Mr. Evelyn suggests a central intermediary organization geared to buying.
This organization would perform a central purchasing function, be private sector managed, and government owned.

Level of Operations

The Company indicates that it operates at an average of 70% of capacity.

Incentives

The agro-processing sector needs tax relief on agro-processing profits. In addition, Mr. Evelyn feels that there should be a tax rebate on import of raw materials for the agro-processing sector. In addition, the capital tax on machinery imports should be re-examined.

The Food Technology Institute

In Mr. Evelyn's opinion, there is a need for a Food Technology Institute. The structure should be a Food Processors Foundation, with the individual companies paying membership fees.

General

Mr. Evelyn emphasized the need for a Jamaican Agro-Processors Association.
APPENDIX IV

MAY-JUNE 1988 PROFILE OF

SEVERAL FOOD-PROCESSING PLANTS IN JAMAICA
PROFILE OF FOOD PROCESSING INDUSTRY IN JAMAICA

Name of Company/Factory: GRACE FOOD PROCESSORS (CANNING) LIMITED

Address of Company/Factory: 2-6 TWICKENHAM CLOSE, KINGSTON 11

Owner's Name: GRACE, KENNEDY & COMPANY LIMITED

Product Line: DRY PACK SOUPS, SAUCES, CANNED VEGETABLES, CANNED JUICES, READY TO EAT MEALS, FRUIT PUREES (MANGO & PAPAYA), JAMS & JELLIES

Work Force: 76 PERMANENT WORKERS/85 CASUAL WORKERS

Management Structure:

- FACTORY MANAGER
- ADMIN. MANAGER
- QUALITY CONTROL MANAGER
- PRODUCTION MANAGER
- MAINTENANCE MANAGER
- STORES
- ACCOUNTS

Manufacturing & Warehousing space: 53,000 Square foot of Factory Space

Operating System: SEMI-MECHANICAL

Average Operating Capacity: 540,000 cases

Factory Operating Capacity: 768,000 cases

Average Efficiency Level: 70%

Weekly Out-put: 11,250 cases
Specific types of product if more than one type please state:

Dry Pack Soups; Sauces (Tomato Ketchup - 12 and 28 ounces); Canned Vegetables (10 and 20 ounces); Canned Juices (20 ounces); Syrups (26 fluid ounces); Portion Pack Jams & Jellies

Marketing: Local (90%) Caricom (7.5%) Third Countries (2.5%)

Raw Materials: Frozen Concentrate & Vegetables, Cans & Bottles, Pouches, Cartons, Sugar and local farm products

How procured: Via Purchasing Depts. & Agents

30% Local Material 70% Imported Material


Equipment: Boilers (3) Compressors (3)

OTHER RELEVANT INFORMATION

Manufacturing Label: Grace

Name of Affiliated Company: Grace, Kennedy & Company Limited, Merchandise Division

Year of Formation: 1921

Does the Company have Social Benefits for its Employees? Health Scheme, Pension Plan, Subsidized lunches, Shift benefits

Is the Company presently operating with a Worker's Union? Yes

National Workers Union and Trades Union Congress
Is your Costings/Operation Done by Time and Motion Study?  NO

At This Time, How Many Functional Machines are in This Factory?  ALL

When Marketing Your Products Do You?

a) Manufacture according to orders  ...............(a)

b) Produce and then look for sale.  ...............NO(b)

c) Manufacture on contract.  ...............YES(c)

d) Sell through local agents or through your own sales agents.  ...............OWN........

e) Sell in your own stores.  ...............NO........(e)

Are There any Plans Of Increasing Your Production Level;

a) At the moment.  ...............YES....

b) In the future.  ...............YES........(b)

Under What Wage System do you Operate?

a) Flat rate.  ...............YES......

b) Guaranteed minimum and incentive.  ...............YES

c). Piece rate.  ...............YES........(c)

What kind of Production Control System do you have in place? (Factory).

a) Batch ticket system  ..........X..........(b)

b) Worker work sheet system.  ...............X

c) Supervisor chart control method.  ..........X

d) By constantly counting items:  ...............X........(d)

Contact Person:  DONALD C. DUNCANSON

Telephone:  (809) 92-92119 OR 92-95311

Telex Code:
Please list under the following headings your specific problems and concerns which you would like consultancy assistance with.

a) Marketing ____________________________

Export Assistance

b) Factory Technology __________________ Yes

c) Product Development __________________ Yes

d) Financial Management _____________ OK.
APPENDIX V

SELECTED DATA ON MAJOR FOOD PROCESSORS IN JAMAICA. 1986
## APPENDIX V

### SELECTED DATA ON MAJOR FOOD PROCESSORS IN JAMAICA - 1986

<table>
<thead>
<tr>
<th>NAME OF COMPANY</th>
<th>TYPE OF PRODUCTS</th>
<th>SIZE OF FACTORY (sq. ft.)</th>
<th>VOLUME OF OUTPUT</th>
<th>CAPACITY UTILIZATION</th>
<th>% OF GOODS EXPORTED</th>
<th>EXPORT MARKETS</th>
<th>JOINT VENTURE INTERESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott’s Preserves</td>
<td>Guava jelly, pepper jelly, marmalades, mango chutney, ackees, callaloo, orange juice, fruit punch, guava nectar, mango nectar, hot pepper sauce, whole or crushed peppers.</td>
<td>17,000</td>
<td>35,000 to 40,000 cases per year</td>
<td>15%</td>
<td>70%</td>
<td>USA, UK, Canada</td>
<td>Contract packing of products requiring input of technical assistance and supply of packaging materials and labels. Also in the area of marketing gourmet products.</td>
</tr>
<tr>
<td>7½ Mining Road, Kingston 5</td>
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<td>Tel: 62250-9/66768</td>
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<tr>
<td>Contact: Marguerite R. Orane</td>
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<tr>
<td>Brico Successors Limited</td>
<td>Bulked packed fruit purees, canned juices and fruits. Planned expansion into jams and jellies and dried fruits.</td>
<td>3,000 (11,000 proposed)</td>
<td></td>
<td>70%</td>
<td>65%</td>
<td>USA, UK, Canada</td>
<td>Overseas interests.</td>
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<tr>
<td>P.O. Box 100, Kingston</td>
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<td>Tel: 95311/92119</td>
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<tr>
<td>Contact: Donald C. Duncanson</td>
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<tr>
<td>Musson Jamaica Limited</td>
<td>Tamarind and apple juices, jams, jellies, syrups, vegetable sauces, pepper jelly, browning.</td>
<td>20,171</td>
<td>60,000 cases per year</td>
<td>20%</td>
<td></td>
<td></td>
<td>Expansion of overseas markets.</td>
</tr>
<tr>
<td>Food Factory Division, 227 Marcus Garvey Drive Kingston</td>
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<td>Tel: 36078</td>
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<tr>
<td>Contact: Mr. R. Senior</td>
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<tr>
<td>Negri Pride Food Products</td>
<td>Banana, plantain and potato chips.</td>
<td>440,000</td>
<td>3,000 cases per month</td>
<td>70% with present staff and equipment</td>
<td></td>
<td>Not</td>
<td>Expand operations by acquiring equipment for packaging. Also to market products overseas.</td>
</tr>
<tr>
<td>14 Central Road, Kingston 10</td>
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<td>Tel: 62170/62160</td>
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<tr>
<td>Contact: Ms. Herma Perkins</td>
<td></td>
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<tr>
<td>MFV Limited</td>
<td>Sauces, spices, hot peppers, steak sauces, pickled peppers.</td>
<td>Approximately 15,000</td>
<td>4,000 cases per month</td>
<td>50%</td>
<td>Presently 30% for rest of 1987. Up to 1985, 80% export via O.E.R.</td>
<td>USA - Miami Atlanta, New York</td>
<td>Interested in contract manufacturing for overseas investors.</td>
</tr>
<tr>
<td>33B Brentford Road, P.O. Box 303</td>
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<td>Tel: 68141-3</td>
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<tr>
<td>Contact: Mr. C. J. Walter, Jnr. General Manager</td>
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<tr>
<td>NAME OF COMPANY</td>
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<td>JOINT VENTURE INTEREST</td>
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<td>---------------------------------------------</td>
</tr>
<tr>
<td>Grace Food Processors</td>
<td>Jams, jellies, fruit juices, canned vegetables, syrups, tomato-based sauces and</td>
<td></td>
<td>100,000 cases per year for</td>
<td>50%</td>
<td>25%</td>
<td>CARICOM, Virgin Island, Aruba, Curacao, Grand Cayman, USA, Canada, UK, Germany, Italy (bulk rum for blending).</td>
<td></td>
</tr>
<tr>
<td>50 Riverton Boulevard</td>
<td>ketchup, dried packed soups, retort pouch (vegetable and meat products).</td>
<td></td>
<td>250,000 for local market</td>
<td></td>
<td></td>
<td>Market expansion.</td>
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<td>DaCosta Brothers Limited</td>
<td>Jams, jellies, fruit juices, canned vegetables, syrups, tomato ketchup and sauces, packed soups.</td>
<td>40,000</td>
<td>60,000 cases per month</td>
<td>50%</td>
<td>22-25%</td>
<td>Canada, UK, USA, CARICOM</td>
<td>Needs reputable company - local and foreign for input in expansion, production and marketing.</td>
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<tr>
<td>Contact: Tom O'Brien, General Manager</td>
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<td>Dairy Industries (Ja.) td.</td>
<td>Processed cheese, butter and other dairy products</td>
<td>87,120</td>
<td>900,000 cases per year</td>
<td>65% for processed cheese; 20% for butter packing.</td>
<td>5-10%</td>
<td>CARICOM</td>
<td>Overseas interest in area of dairy processing - cottage cheese or green cheese.</td>
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<td>Jamaica Food Processors</td>
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<th>SIZE OF FACTORY (sq. ft.)</th>
<th>VOLUME OF OUTPUT</th>
<th>CAPACITY UTILIZATION</th>
<th>% OF GOODS EXPORTED</th>
<th>EXPORT MARKETS</th>
<th>JOINT VENTURE INTERESTS</th>
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<tr>
<td>Jamaica Citrus Growers Ltd.</td>
<td>Frozen concentrated orange and grapefruit juices, canned marma-</td>
<td>Preserving Plant - 21,922</td>
<td>6,000 drums (52 gals.)</td>
<td>30%</td>
<td>60%</td>
<td>USA, Canada, Europe, CARICOM</td>
<td>Citrus growers for supplies, equity, capital for expansion, contract manufacturing for export. Looking for company already involved in food processing.</td>
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<tr>
<td>Bog Walk</td>
<td>lade, ackees, jams and jellies, dried citrus pulp, fruit purees, mango, papaya and tamarind.</td>
<td>Processing Plant 19,716</td>
<td>of orange concentrate; 80,000 bags (50 lbs.) citrus pulp; 12,000 cases marma-</td>
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<tr>
<td>it. Catherine</td>
<td>Packaging Plant 15,280</td>
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<td>lade; 5,000 cases jams and jellies (pre-ordered)</td>
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<td>ure Company of Jamaica Ltd.</td>
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<td>Contact: Douglas McDonald Asst. Manager</td>
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<td>leecher Bowman Limited</td>
<td>Company presently in receivership.</td>
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APPENDIX VI

GENERAL CHARACTERISTICS OF JAMAICAN AGRO-INDUSTRY

(UNDP/STAS MISSION REPORT)
APPENDIX VI

GENERAL CHARACTERISTICS OF JAMAICAN AGRO-INDUSTRY (UNDP/STAS MISSION REPORT)

To a major degree, the problem of small, old equipment is present in all the businesses visited by the mission. Also, the waste level is high, the amount of down time is high and the level of mechanization generally is low. Further, the capacities of equipment in various steps in the process system often do not match.

All cooking and pasteurization of products is done in batches which is very energy-consuming, inefficient and offers no possibilities for heat recovery.

Continuous cooking/pasteurization, rather than the present batch systems, would lead to product improvement by assuring more constant and controlled thermal impact on product, and more consistent product composition and quality.

The factory buildings, including particularly their floors, are generally in poor condition by international standards making "good manufacturing practice" extremely difficult as well as complicating the tasks of good housekeeping, sanitation and pest and rodent control.

The layout of the machinery in the process lines and in the buildings is generally congested, making it very difficult to achieve an economic use of labour and an efficient flow of raw materials, products, and packaging material.

It was interesting to the mission that each of these points on changes needed for the export market was generally understood by management. The required line changes were recognized but essentially are not possible today in light of the low volume of production and the uncertainty of future markets.

Despite the above problems it was impressive to the team that food processing enterprises in Jamaica are made up of "survivors." They adjust to changes and have maintained their core businesses.

COMMENTS ON IDENTIFIED CONSTRAINTS

There were a number of current constraints identified by processors as important inhibitors of profitability.

1) The supply of locally produced ingredients is unpredictable and variable in price. Frequent down time is caused by the absence of fruit or puree when needed. This is aggravated by the general lack of a dependable relationship between processors and farm commodity suppliers.
The mission's major proposal addresses this problem because this specific factor may be crucial to the solution of other constraints.

2. The high interest rates for operating capital. Rates vary from a high of 27% to a low of 15%. Agri-business processors do not have access to low interest agricultural credit funds. In general, loans for non-fixed assets are difficult to obtain in Jamaica. Financing inventory and raw materials, as a result, can add 2% a month to product cost.

3) The "tax" on exporters who are also in the domestic trade. The export incentives for such food processors are cumbersome, slow and, with attendant fees, result in an export cost higher than a domestic sales cost. This has been discussed with JAMPRO and others but might well be further documented.

4) As mentioned previously, the present system of Bureau of Standards certification, and the special certification for export, is for many a costly burden because of the time inventory must be held. It should be noted that every processor insisted on the importance of the Bureau to the success of the industry. They were also complimentary on the consistency of the Bureau's rules and the work performed; and understanding of the pressure on staff as demand increases for non-food product standards. Additional funds and trained staff may be necessary.

5) The fragmentation of the industry and duplication of item production in various plants limits run lengths for each plant. At the present market demand, modern high-speed production changes cannot be made. The growing trend toward co-packing is helpful. Enlarging the market and introducing new products are important. It appears that the gourmet jelly and preserve project is the only significant recent new product line. The fragmentation, although less widespread, is even more critical in the concentrate and puree segment of the business. This factor is addressed in the mission proposal.

6) In general, the high cost and inability of present packaging suppliers to respond to new market realities (for instance, there is an immediate market for single-serve fruit-based soft drinks in aseptic packages for the 1 million tourists who traditionally consume large quantities in such packaging at home).
APPENDIX VII

THE MARKETS FOR TROPICAL JUICES AND PUREES
UNDP/STAS REPORT
APPENDIX VII

THE MARKETS FOR TROPICAL JUICES AND PUREES (UNDP/STAS REPORT)

Unfortunately trade in mango, guava and papaya puree as well as passion fruit is poorly documented. Often it is not taken into account whether products are single-strength or concentrate. This leads to fragmented and unreliable statistics.

MANGO

With the exception of pineapple, mango is the most important tropical fruit traded today as processed fruit. The single most important producer of mango products is India. Others are Taiwan, Pakistan, The Philippines, Sri Lanka, Thailand, Brazil, Cuba, Mexico, The United States and several others.

From 1983 to 1985 India alone supplied between 17,000 and 25,000 tons of mango puree annually. The Middle East countries absorb approximately 25,000 tons of puree annually, most of which comes from India.

European consumption is approximately 6,000 tons, out of which about 50% is supplied by India and the balance by Brazil, Peru and Columbia.

Generally, prices of mango puree are much more stable than those of other tropical fruit juices, because the mango tree has a longer cultivation period, and supply is not changed so quickly.

One thing to remember when discussing prices of mango purees is that the quality of different materials can vary greatly. This makes pricing of mango puree difficult. However, there are certain varieties that are considered to be of higher quality, and normally, material produced from a mixture of different varieties or from wild mango is considered to be of lower quality.

The Alphonso variety is considered superior to all others. A single-strength puree of 15-16 degree Brix is sometimes traded at prices as high as US$1,800 per ton C&F Europe, but prices normally range between US$1,000 and $1,400 per ton.

PAPAYA

There are no statistical data available on papaya puree and internationally papaya puree is not traded to any great extent as yet. In Europe the total market is less than 1,000 - 2,000 tons but growing.
Appendix VII cont'd.

PASSION FRUIT

Apart from pineapple and mango juice, passion fruit juice is the only tropical fruit traded in any significant quantities worldwide.

Traded volumes are approximately 25,000 tons of single-strength equivalent, with Europe absorbing about 80% of the traded material.

Passion fruit juice trade has shown a dramatic rise in the last decade, with only about 1,500 tons in the mid-seventies and 10,000 tons by 1980.

Passion fruit juice has shown violent price fluctuations which have had a negative impact on the market's growth. Price fluctuations seem to move in cycles of four-five years.

As an example, the price in 1979, was US$2,000/ton, rising to US$2,400 in 1981 and US$1,000 in 1985. Today's price is approximately US$2,200 in single strength equivalent. The fluctuations in price are mainly a result of changes on the supply side of fresh fruit in the producing countries.

Passion fruit plants grow very quickly and give fruit the first year after planting. Also, the plant normally gives fruit for only three years, and new plants must then be planted. This enables very quick changes on the supply side. A high price attracts new growers who start to plant and eventually an abundance of fresh fruit will be produced and prices will fall. For the grower, the lowest tolerable price of a single-strength juice is considered to be US$1,200/ton.

A normal, long term average price for 50 degree Brix concentrate is about US$3,500-4,000 per ton C&F Europe. The consumer market for passion fruit is basically Europe, presently taking 80% of the world trade. West Germany probably accounts for almost 50% of the European consumption, although according to trade statistics, the Netherlands is the main importer. Most of the Dutch import, however, is later re-exported to other markets in Europe.

The United States and Canada are markets with a large and untapped potential. The larger North American consumers want to be able to operate with long-term prices and secured supply sources. In these large markets a demand could be created but it takes great effort and costs. Once created, the secure supply of the raw material is the most important aspect.
Appendix VII cont'd.

The violent price fluctuations in the past have definitely slowed down the interest in passion fruit. For Jamaica, this represents an opportunity, if the producer is willing to enter into a long term contract for a part of the production.
APPENDIX VIII

MARKET SPECIFICATIONS AND TRENDS FOR RELEVANT GOURMET PRODUCTS IN THE U.S.A. (AGSIM, 1986)
APPENDIX VIII

MARKET SPECIFICATIONS AND TRENDS FOR RELEVANT GOURMET PRODUCTS IN THE U.S.A. (AGSIM, 1986)

Jams, Jellies, Honey

The United States Drug Administration has set standards in identifying jelly, preserves, and jams. According to these standards, jams and preserves must contain at least 45 percent fruit and no more than 55 percent sugar. Jellies must contain at least 45 percent fruit juice and no more than 55 percent sugar. There are no United States standards which identify marmalades. However, these products typically include suspended fruit or peel and contain more than 50 percent sugar. These products are typically used as fruit spreads on breads, or in filling baked goods. There are currently over 300 producers of jams, jellies, and honey in the United States. Most of these manufacturers are located near metropolitan areas, typically in California and New York. These two states account for over one-third of the nation output.

From 1978-1982, consumption of jams, jellies and marmalades in the United States was estimated to be one billion pounds annually. United States production accounted for 99 percent of consumption. Grape and apple jelly, along with strawberry jam accounted for 40 percent of the total consumption.

From 1978-1982, imports of jams, jellies and marmalades rose from 8.1 million pounds to 9 million pounds. Although this is a modest increase, the increase in price rose by 35 percent from $4.8 million to $6.5 million.

The United Kingdom and Canada are the principal suppliers, accounting for 50 percent of annual imports. Orange marmalade accounted for 24 percent of total imports.

In general, the market is stable, but segmented. There are numerous possibilities for importers manufacturing unique and quality jam and jelly products. The wholesaler and distributor survey respondents ranked demand of jams, jellies, and honey to be quite high. Jamaican guava jelly, passion fruit jelly, orange-ginger marmalade, honey, and mango jam will secure a favourable market position due to their tropical uniqueness and quality image.

Sauces and Condiments

Sauces and condiments have been gaining ever mounting acceptance in the United States gourmet market. Consumers are becoming more creative in the kitchen and are livening up the flavour of food with the use of these products. The
Coffee

Specialty coffee sales are continuing to rise. Due to its popularity and profitability, more gourmet retailers are adding coffee to their product line. In 1985, 55 percent of all adult Americans drank coffee. The market for this product is extremely broad. Coffee is generally grown between the Tropic of Cancer and the Tropic of Capricorn where the climate is warm and humid. Currently, over 15 nations are exporting gourmet coffees into the United States market. Annual consumption is growing at the rate of seven percent. Gourmet coffee is currently sold in the whole bean form. Major consumers of this form of coffee are traditional, well-educated and affluent, and they have been drinking coffee for at least five years. Flavoured coffees, such as chocolate, amaretto, or almond have become popular in the United States. Serious coffee drinkers demand a coffee which has a distinctive taste, is full-bodied, fresh, and contains a rich aroma. These consumers tend to stick with a particular brand and purchase it weekly. Jamaican Blue Mountain coffee has experienced a tremendous success in the United States market. In fact, consumption and demand are so great that retailers have experienced difficulty keeping the item in stock. For this reason, success of other Jamaican coffees in the United States is predicted. Ellen Jordan of the First Colony Coffee & Tea Company states, "Specialty coffee would stop being 'special' when there was no longer a perceived quality differential."

Chocolate

Sales of both domestic and imported specialty chocolates are growing at an annual rate of 20 percent. Quality and freshness are the major criteria which the consumer uses when making a purchase decision. Belgian and Swiss chocolate currently have the highest reputation for quality. Handmade chocolates are also perceived as having a higher level of quality than machine produced chocolate. Sales of chocolate tend to fluctuate at different times of the year. Holidays stimulate consumption whereas the hot summer months deter the sale of this product. Since Jamaica does produce a fine quality cocoa, the capability of producing a high quality chocolate seems inevitable. However, proper promotion and quality control must be utilized in order to ensure success in the United States market.

Packaging

Proper packaging is an essential element in marketing gourmet products. In fact, according to James Moran, spokesman for the Campbell Soup Company, "Packaging has become almost as important as the product itself." Not only should packaging be functional, it should be aesthetically pleasing. The packaging of a product makes a statement about
wholesaler and distributor survey respondents noted that consumer demand for such products is currently medium to high. Other experts expect this area to stay strong for the next five to ten years. From these indications, the entry of sauces and condiments in the Jamaican product line will definitely secure a solid market share in the food market.

Cakes

Specialty baked goods have experienced a rapid growth rate in the United States market. However, the vast majority of these baked goods tend to be daily fresh baked goods available from the baker or the kitchen of the retail outlet. Survey results indicate that retail demand for packaged fruit cakes, rumcakes and other liqueur cakes is low. These items experience fluctuation in demand throughout the year. Peak sales tend to be around holiday seasons. For these reasons, it is recommended that Jamaica utilize mail order sales in distributing these products. Mail order will promote these low demand items on a year round basis through the use of the mail order catalog, thus booking early sales for later mail distribution.

Spices

Herbs and spices play a major role in the preparation and flavouring of food. This trend has become more noticeable with the increasing affluence and education of the consumer. Today there are over 50 herbs and spice blends in general use. Spices are not grown in vast quantities in the United States. Exceptions are paprika, mint leaves, mustard seed and red pepper. Thus, imports account for the majority of domestic spice consumption. From 1979-1983, imports of spices rose by 12 percent from 243 million pounds to 273 million pounds. Indonesia supplied 22 percent of all spice imports into the United States during that time. Other major suppliers were Brazil (14 percent), Canada (8 percent), India (8 percent), and Spain (6 percent). Black pepper imports accounted for one-fourth of all spice imports from 1979-1983. In 1983, oregano, sage, thyme, and basil accounted for 77 percent of the 21 million pounds of herb imports. Most herbs and spices enter the United States in a crude rather than processed form. Gourmet product consumers tend to be very selective in their choice of spices. Freshness, blend, quality, and place of origin are all items which are considered when making a purchase selection. Ethnic and unique spices are becoming even more popular. Survey results demonstrate a medium demand for such products. These factors indicate that tropical spices produced in Jamaica and exported to the United States under the Jamaican product line will secure a market niche capable of producing favourable distribution and sales.
the contents it contains. This statement is especially true for gourmet products. Jamaican specialty foods have a very high quality which needs to be reflected in their packaging. The product line packaging should be designed in such a way to emphasize the tropical nature and freshness of the products. Warm and bright colours should be used, but the packaging should not be too overpowering. Consumers like to see exactly what they are purchasing. For this reason, the use of glass and plastic packaging rather than cans and cardboard is recommended. With jams and preserves, a clear glass jar displays the fresh chunks of fruit which the product contain. This form of packaging informs the customer that the producer has nothing to hide. If the products have aesthetically pleasing characteristics, they will sell themselves.

A recent trend in gourmet packaging has been the use of reusable containers. Consumers perceive an added value when they know they will be receiving benefit long after the product is gone. The Jamaican product line containers should convey a clean, crisp and modern image. Size of containers is very important. Gourmet and specialty products are not purchased in large quantities. For this reason the containers must be relatively small and allow the product to be consumed before the product becomes unfit for usage.

Many gourmet products are sold in the form of a gift pack. In packaging these items, containers which are typical of the island, such as straw baskets, or small wood crates, should be utilized.

As was mentioned in the product emphasis section, standardized labelling and branding will be used. Standardization and uniformity among products promotes a quality and reputable image.

**Positioning**

High quality and tropical uniqueness are characteristic of Jamaican specialty foods. For this reason it is recommended that these products be positioned in the United States market as up-scale items. Currently the gourmet market is favourable for the entry of such products. Premium prices and selective distribution will further support the positioning of these products.
APPENDIX IX

PROFILES OF THREE AGRO-INDUSTRIAL PROJECTS
BENEFITTING FROM NDB CREDIT
APPENDIX IX

PROFILES OF THREE AGRO-INDUSTRIAL PROJECTS BENEFITTING FROM NDB CREDIT

PROJECT A

Loan Amount US$0.4M
Time Disbursed Mid-end 1988
Product Produced Oleoresin ginger
Volume of Product Initial capacity to extract 100 metric tons of dried ginger per annum
Nature of Processing Solvent extraction
Market Arrangements 95% of production to be exported to USA and Western Europe. The remaining 5% to be sold locally to compound flavours for soft drink manufacture. A major shareholder is also a leading international supplier of flavour and fragrance materials and so has an internationally captive market for the product.
Main Uses of Product Flavouring in the bakery, meat, sugar confectionary and beverage industries, either directly or compounded with other flavourings.

PROJECT B

Loan Amount US$1.8M
Time Disbursed Late 1987
Product Produced Hydrous ethanol
Volume of production Initially 6.5 million US gallons per annum
Nature of Processing Fermentation and distillation of alcohol based raw materials.
Market Arrangements Product to be sold to related company for further processing into anhydrous ethanol exclusively for export to USA and other markets.
Main Uses of Product  Used as gasoline additive

**PROJECT C**

Loan Amount  US$0.6M

Time Disbursed  1985/1986

Product Produced  Retort food pouches

Volume of Production  $1.0M per annum

Nature of Processing  Washing/peeling/blanching/dicing/deboning/cooking/pressurizing/sealing.

Market Arrangements  50% local and 50% export mostly to ethnic markets in UK, USA, Canada.

Note: US$1.00 = J$5.5