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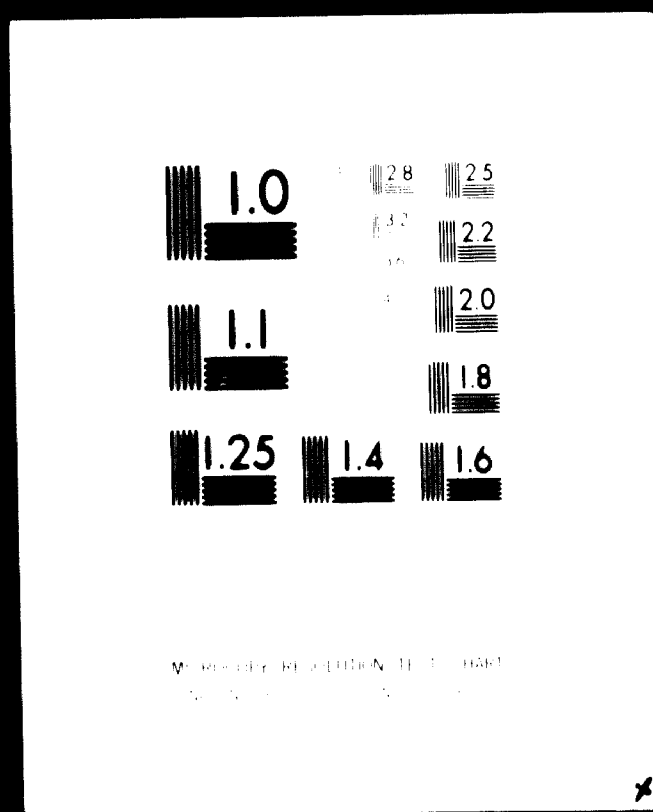
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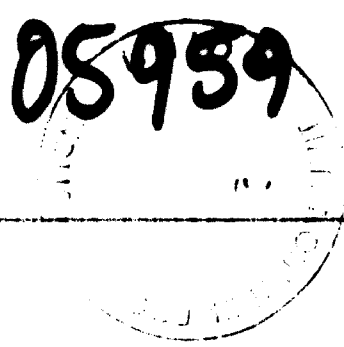
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UNITED NATIONS INDUSTRIAL  
DEVELOPMENT ORGANIZATION

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FINAL REPORT

MARKETING OF PROCESSED AGRICULTURAL AND  
FOOD PRODUCTS IN TRINIDAD AND TOBAGO<sup>1/</sup>

by

Clyde L. Rasmussen  
UNIDO Expert

→ E. Remert  
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UNIDO EXPERT FINAL REPORT

SPECIAL FUND PROJECT IN TRINIDAD & TOBAGO

CARIBBEAN INDUSTRIAL RESEARCH INSTITUTE

PORT-OF-SPAIN (ST. AUGUSTINE)

TRINIDAD

PROJECT NO. TRI-69-505

PROJECT POST TITLE: EXPERT IN THE MARKETING OF  
PROCESSED AGRICULTURAL AND  
FOOD PRODUCTS

PROJECT CODE: TRT-081-SB (SF/ID)

POST DURATION: 6 MONTHS

NAME OF EXPERT: MR. CLYDE L. RASMUSSEN

REPORT PREPARED AND SUBMITTED TO UNIDO  
MARCH 29, 1974.

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## 1.0

## SUMMARY

1. This report covers my activities as a marketing consultant at the Caribbean Industrial Research Institute (CARIRI) from September 28, 1973 to March 27, 1974.
2. The principal project activities involved a study of line products marketing and establishing an information base to assist in agro-industrial development. Export market development has suffered by a lack of locally grown produce in sufficient quantities and at prices to justify commercial processing. The current world crisis and escalating food prices should help to promote more agricultural development in Trinidad and Tobago by increasing returns to growers and raising the status of agriculture in the total society. Steps must be taken, however, to greatly reduce rural larceny.
3. The training programme for the counterpart staff consisted essentially in a five-part seminar series on marketing and marketing research, daily consultation with the staff, and assistance in outlining the scope of marketing activities at CARIRI.
4. Several collections of scientific journals and agricultural yearbooks were contributed to the Library of the Technical Information Service. Additional collections are being obtained through a contact established with the American Chemical Society.
5. Recommendations made include the following :
  1. Continued co-operation with the Government and University of the West Indies in the Agri-Business study.
  2. Inclusion of the agricultural sector in the study.
  3. Incorporation of the now independent line factory into the citrus co-operative.
  4. Marketing research to determine problem areas and possible fields of involvement for CARIRI in addition to the necessary economic studies for specific projects.

## 2.0

## BACKGROUND

2.1 Terms of Reference and Reports

6. The Job Description (Appendix B) covering this assignment was DP/TRI/69/505/11-05-05/08, under the title "Expert in the Marketing of Processed Agricultural and Food Products". The period of time covered was from 28 September 1973 through 27 March 1974.

7. My wife and I arrived in Trinidad on 30 September and were met and assisted at Piarco Airport by Mr. and Mrs. C.L. Wrenshall. On 1 October I was taken to UNDP Headquarters where I met and talked with Mr. Antonio Patriota, Regional Representative, Mr. Namarra S. Subbaraman, Deputy Regional Representative, Mr. Kuchibhotla Vyasulu, Senior Industrial Development Adviser (UNIDO), and Mr. Gerard King, Administrative Officer. The following day, 2 October, I reported to CARIRI where I met with Mr. Hollis Charles, Director and Mr. Martin Riley, Head of the Engineering and Economics Division, where I was assigned to work. Mrs. Angela Cropper, Economist, was designated to act as Counterpart until the newly hired Marketing Economist, Mr. Edwin Skinner, reported on 13 February 1974.

8. The Job Description outlined the following duties :

- a. Assist in identifying marketing opportunities and providing the necessary technical assistance to local food producers and food product manufacturers with a potential export market.
- b. Assist in export market investigations and economic analyses of food products being developed at CARIRI.
- c. Train the professionals at CARIRI in marketing analysis as a general part of feasibility studies.
- d. Assist in developing the Institute's Industrial Information and Documentation Service in his field of work.

9. These duties were amended somewhat by CARIRI Management in their selection of tasks I was asked to carry out. While there may have been several fields of activity in which my experience may have been helpful, I undertook only those assignments that I was requested to do.



10. Item (a) involved most of my time and the work was done under two projects for which I was named Project Leader. One project was concerned with the marketing of lime products (from lime fruit), and the other, with a survey of agro-industrial plants to identify problem areas and prospects for new product development and market expansion.

11. Item (b) did not become fully operational as I was not advised or aware of any new product developments at CARIRI that had export potential. Some research was underway in evaluating local raw materials for processing (corn, for example) mainly for import substitution. As a result of the studies carried out under Item (a), I advised CARIRI of several potential outlets for lime juice and the Food and Chemistry Division is considering research to investigate the matter.

12. Item (c) was pursued actively throughout the entire assignment. In addition to five seminars on various aspects of marketing analysis, many discussions were held with staff members.

13. Item (d) was quite successfully exploited, resulting in the addition to CARIRI's Technical Information Service of many journals and other publications.

14. Two progress reports were submitted to UNIDO, a preliminary report on 31 October 1973 and an interim report on 21 January 1974.

## 2.2 Local Conditions in respect of the Expert's Specialized Field

15. The Job Description largely stressed export development, whereas Trinidadian agriculture, except for a few traditional crops, is hardly in a position to supply the necessary raw materials for processing for local sale, let alone export. While quantitative data are unavailable, I would judge that most food products made in Trinidad are from imported raw materials (again excepting items such as sugar, rum, cocoa, coconuts, and citrus).

16. Reported attempts by processors to supply large foreign orders for processed fruits and vegetables have been thwarted by the unavailability of locally grown produce. Two examples will be given. Catelli-Prima said they had sent a sample of canned tropical fruit cocktail to England. An order for 40,000 cases was received. The company, however, was unable to obtain the needed fruit from local sources. The cocktail was made up of papaya, grapefruit, mandarin (red) oranges, pineapple, passion fruit juice, and sugar syrup.

17. The K.H. Li Industries cited a canned okra product of which samples were sent to England. A trial order of 1,000 cases was received. No production was possible because growers would not contract to supply the fresh okra, preferring to wait until harvest to see if the fresh market would return more.
18. The problem of local processors to obtain adequate supplies of raw material from local sources is highlighted in the following comment made by the Resident Manager of the Metal Box Company. He said that there is no point in having a food processing industry in Trinidad unless local agriculture grows the food. "Industry", he said, "is geared to process several million cases of pigeon peas a year, but has never processed that many because pigeon peas have never been available in the quantities planned. There is always some reason why production does not reach the projected level."
19. Prædial larceny is reported to be a serious problem in farming. Many a grower has gone to his farm in the morning to harvest a crop only to find someone harvested it during the night. Even when caught hauling a load of produce away from a farm, a thief may evade prosecution because the grower may not be able to prove that the produce was taken from the particular farm.
20. Production statistics are published for only the major crops, and I saw no data for the fruits and vegetables sold on the fresh market. Even for major crops such as grapefruit and oranges, the only data published are for the deliveries made to the Citrus Co-operative mainly for processing. Quantities of these crops sold locally are not known. In 1973, the Co-op. reported that "most of the oranges went to the local market instead of being sent to the Shed."
21. Any agro-industry survey must also investigate the problems from the growers viewpoint. The factories sometimes are to blame for actions injurious not only to their own production and marketing activities, but also to the growers. For example, in 1973 a fairly large lime crop was available for harvest. Things looked promising for lime growers after the short 1972 crop, but in the middle of the 1973 harvest season, the lime factory stopped accepting limes because its shipments of lime juice were delayed by a shortage of barrels, and all storage tanks were full. After several weeks, limes were again received, but the losses suffered by growers were not recovered.

22. A weakness of the local agricultural sector has been the lack of any organized planting of desired kinds and varieties of fruits and vegetables. Many of the tropical fruits which would seem to have export potential are planted a tree at a time around a farm, or exist only in the wild state. Mango, guava, and breadfruit are almost totally in this latter category. Again, only the citrus fruits are an exception to this pattern, but even they could be improved by more organized plantings. Of the other fruits, a good deal, if not most, of the trees are not of the most desirable varieties for processing.

23. The Agricultural situation in Trinidad has deteriorated in recent years and productivity has suffered. The most striking feature of the agricultural sector is the unattractiveness of agriculture as a means of livelihood. Other industries, particularly petroleum and manufacturing, pay much higher wages. Another facet of the problem is a devaluation of the rural life style. For the majority of Trinidadians, success is achieved in the town rather than in the countryside. These problems of the agricultural community have received much study by the Government and the University of the West Indies. One paper given at the National Consultation on Agriculture, March 19-23, 1973, Chaguaramas, Trinidad, summarized the following points concerning problems facing domestic agriculture :

1. Unstable system of guaranteed prices (but in some cases, no guarantee at all).
2. Unsatisfactory marketing facilities.
3. Uneconomic sizes of parcels of land, and unsatisfactory land tenure system.
4. Lack of a sufficient amount of supervised credit.
5. Ignorance on the part of the individual farmer of technological innovations and improvements.
6. Low levels or even lack of adequate infrastructure: access roads, irrigation, etc.
7. Topographical constraints against the use of some modern equipment.
8. Weakness in the administration of planning and policy objectives.

24. For the export market the high costs and uncompetitive nature of Trinidadian export crops were cited. It would seem, however, that the canned citrus products from Trinidad compete very well in export markets. Recent problems of the citrus crop arose from the drought in 1973, and, in 1974, from a threatened shortage of imported tinplate and of sugar.

25. The current world food crisis with the accompanying rapid escalation of prices may prove more beneficial to Trinidadian agriculture than harmful. Processors of imported foodstuffs are finding that not only are prices advancing rapidly, but lack of supplies and long lines of communication and transportation are adding to the problem. Hence, local supplies look more attractive. Also with higher prices, the low price levels of the past might be significantly raised to improve the farm income picture as well as to increase production. At a recent meeting (March 1974) of the Standing Committee of CARIFTA Ministers of Agriculture in Port-of-Spain Mr. Lionel Robinson of Trinidad said: "The food crisis could make people of the region aware of the importance of agriculture to their economies, it could assist them to concentrate efforts upon rapidly increasing production and speedily changing the pattern of consumption; and it could make them conscious of the need to fall back on their own resources."

26. The key to processing and exporting is a surplus of produce above the needs of the local fresh market, and for most fruit and vegetable crops, that surplus has been lacking.

**2.3 Assist in developing the Institute's Industrial Information and Documentation Service :**

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27. The difficulty new libraries have in obtaining past files of pertinent publications has been alleviated somewhat for CARIRI by the contribution I was able to make, by the reprints and publications obtained on subjects of interest, and by the contact established with the Journal Project of the American Chemical Society (ACS).

28. From my own library, CARIRI Technical Information Service is getting the following publications :

1. FOOD TECHNOLOGY - from 1965 to the present.
2. NEW PRODUCT DEVELOPMENT - from Vol. 1 No. 1 published in Feb. - March 1967 to the present.
3. U.S. DEPARTMENT OF AGRICULTURE YEARBOOKS - most issues since 1941.
4. 1973 DIRECTORY AND GUIDE - THE IFT WORLD. A publication of the Institute of Food Technologists.

29. The Journal Project of the California Section of the ACS has obtained from its members and forwarded to CARIRI the following publications :

1. Food Technology - 1957 through 1965.
2. FOOD RESEARCH/JOURNAL OF FOOD SCIENCE - 1936 and 1938 through 1966. This will be completed through 1973 at an early date.

Other journal series that are available but awaiting decision from CARIRI include :

Journal of American Oil Chemists Society  
 Industrial and Engineering Chemistry  
 Chemical Engineering  
 Cereal Chemists  
 Poultry Science  
 The Worlds Poultry Science Journal  
 Journal of Animal Science  
 Advances in Food Research  
 Journal of Lipid Chemistry  
 Journal of Agricultural and Food Chemistry.

The cost of mailing is paid by CARIRI, and the collection, packaging, and mailing is done by the ACS. The completion of my mission will not end this contact, and CARIRI will continue to benefit from this Educational Project of the ACS for as long as it desires and/or as long as the ACS supports the project.

30. Lists of reports and other publications which I obtained for CARIRI use are given in Appendix II. These were obtained in connection with various projects under investigation. Subjects covered include :

Lime and lime product marketing.  
 Lime product technology, Standards.  
 Bagasse and furfural manufacture.  
 Cotton thread technology.  
 Peanut butter processing.  
 Marketing.

3,0

## PROJECT ACTIVITIES

31. I was assigned to the Engineering and Economics Division and worked directly with the sole Economist on two projects. On 13th February, the new Marketing Economist reported for duty, and he became my counterpart, taking over the responsibility for the remaining activity on the Lime Marketing Project.

32. I was involved in discussions of several projects with other members of the Engineering group and with the Food and Chemistry Division.

3.1 Lime Products Marketing

33. I acted as chief of an external project on lime products marketing done under contract with the Ministry of Finance. Three areas of research were specified:

1. Examination of world trade in lime juice, concentrate, and oil.
2. Inventory of secondary products in which the above primary products are used.
3. An investigation of ways in which lime skins may be utilized.

34. In addition to providing the client with the required information on marketing, this activity became a demonstration project in marketing research.

35. Secondary sources of information that were tapped included publications of and contacts with the Tropical Products Institute, International Trade Center, US Department of Agriculture and its Regional Research Laboratories, and pertinent scientific and trade periodicals.

36. Primary sources of information were reached in several ways. A questionnaire was prepared concerning lime products uses, preferences, and standards. This was sent to about 100 companies in Europe, North America, Australia, and New Zealand. The results of this survey are still coming in at the time this report is being written, but valuable information has already been obtained.

37. Specific enquiries were directed to individuals known to have first hand information about lime products marketing and research. Local companies either using lime products or having the potential for using them were visited. Contact was established with the Department of Livestock Sciences at UWI in an attempt to initiate some feeding trials of lime waste ensilage. It is hoped when the processing season starts next summer, sufficient quantities of lime skins will be made available to the University for a study of ensilage.

38. Several new food product possibilities became evident, of which two will require some testing and research by CARIRI. One is canned blends of grapefruit and orange juices with lime juice; and the other, rum punch made with clarified lime juice instead of artificial flavouring material and/or citrus oils. The Food and Chemistry Division will make some preliminary investigations with the view to developing the investigation into an externally financed project. I wrote much of the final project report on Lime Products Marketing before my assignment came to an end.

### 3.2 Industrial Liaison

39. Efforts to expand the Agro-Industrial Sector of the economy and increase both local and export markets must be based upon a thorough knowledge and understanding of the problems and potentials of the agricultural and processing components of the industry. It is the belief of the Committee for Agro-Industrial Development (representing Government, the University of the West Indies, and CARIRI) that much of the analysis of the past has been approached on an ad hoc basis. Needed in the future is better co-ordination of the work of the various organizations with a view to a more unified and structured approach to the problem. 1/

40. A part of this approach is an investigation into the current status of the food processing industry taking into account historical development and factors that contributed to successes and failures. It is hoped that it will serve as a basis for proposals regarding the commercial organization of new and expanded firms in the Agro-Industrial sector and research that is needed in agriculture, processing technology, and marketing.

41. It was decided by CARIRI Management that I should accept the invitation of the UWI to co-operate in the study and serve as a member of a team to survey selected processing companies. In addition to the benefits in overall agro-industrial development already outlined, such participation has special value to CARIRI. It is providing comprehensive information about processing companies, particularly with respect to problems in which CARIRI might become involved.

1/ Reference:  
Cropper, J., Sammy, G.M., and Wiltshire, W.W., "Food Processing and the interdependence of Agriculture and Industry", prepared for the National Consultation on Agriculture, March 19th-23rd, Chaguaramas, Trinidad and Tobago.

42. As of the date this report is being written, twelve companies have been surveyed specifically for this study and comprehensive reports on them prepared. An additional fourteen companies have been visited in connection with other matters, and reports of information gathered are also incorporated into CARIRI's Agro-Industrial file. It is hoped that the new marketing economist at CARIRI will continue this co-operation with the Committee for Agro-Industrial Development so that the information available will be as complete as possible.

43. It is also hoped that this agro-industrial study will include a survey of the agricultural sector to obtain directly from growers their version of problems and potentials. Industry has been critical of agriculture for its failure to produce and deliver raw material for processing. But, obviously, all the blame is not on one side. The study should have some input from the farming sector.

### 3.3 Other Activities

44. I participated in a number of other activities to a limited extent. I reviewed and offered comments on the market assessment portion of the study to evaluate the feasibility of making egg boxes from waste newsprint in Trinidad.

45. Advice was given regarding plant layout in two projects involving the construction of new factories to make pepper sauces and peanut butter, among other products.

46. I participated in the discussions with a client regarding the manufacture of "pastelles", a cooked and frozen product consisting of a meat filling in a folded pancake-like dough mixture.

47. I manned the CARIRI exhibit one evening at the Science Exhibition sponsored by the Natural Science Advisory Council on the UWI Campus.

48. I served on the taste panel for evaluating processing studies on such vegetables as black-eye peas, pigeon peas, gub gub beans, and corn.

49. Discussions were held with staff members concerning equipment needed to conduct research on freezing.

50. I attended the Seminar on Standardization sponsored by the Bureau of Standards of Trinidad and Tobago.

### 3.4 Training of Counterpart Staff

51. When I reported to CARIRI on the second of October, 1973, the counterpart staff consisted of a junior economist, recently employed. Negotiations were in progress for hiring a Marketing/Economist with 12 years experience.



He reported for duty at CARIRI on February 13, 1974. He was immediately involved in the lime marketing study and is contributing significantly to its completion.

52. Because the counterpart staff for most of the time of my assignment consisted of only one economist who already had the responsibility for several projects of her own, the training programme was somewhat circumscribed. To expand the audience for discussion on marketing, it was decided to conduct a series of marketing seminars for all interested in attending. The programme outlined consisted of five subjects:

1. The costs and impact of the marketing system.
2. Marketing functions.
3. Marketing research.
4. Test marketing, covering specific examples.
5. Marketing considerations for the scientist.

A part of item 5 is a bibliography of pertinent publications which is included herein as Appendix III.

53. Close contact was maintained with the junior economist for most of the assignment period and with the marketing economist after he arrived. Daily conversations were held about various aspects of marketing, sources of information, and procedures to be used in project studies.

54. The Board of Management of CARIRI has approved a Fellowship in Economics for the Junior Economist, and I have discussed programmes and institutions with her. Information was obtained from the International Training Section, Foreign Development Division of the US Department of Agriculture, concerning recommended universities.

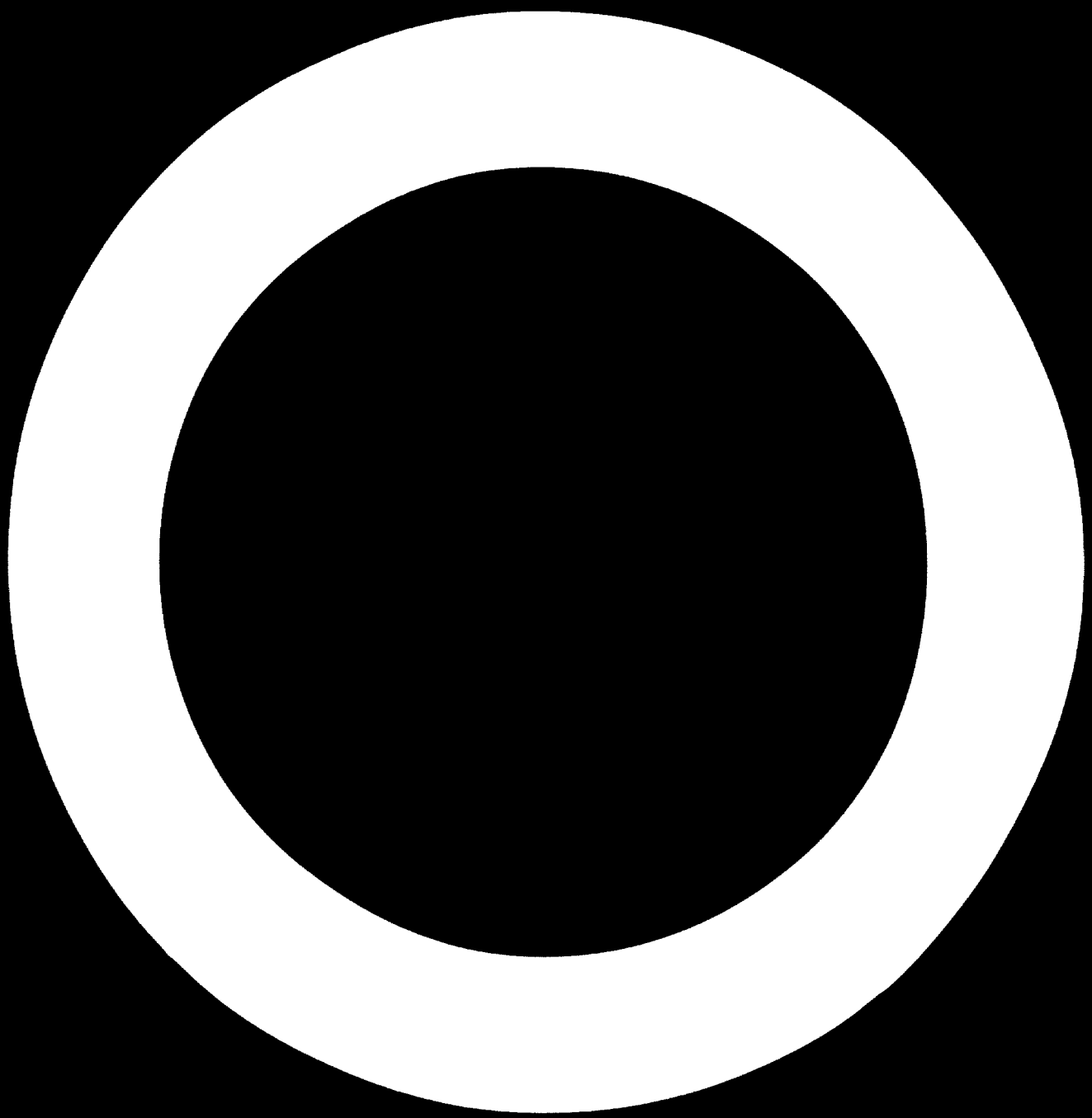
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## EVALUATIONS AND RECOMMENDATIONS

1. The future can be predicted and even partially programmed only when we have adequate knowledge about the past and present. The agro-industry survey helps provide such knowledge and should be supported in the future. Not only should additional companies be surveyed, but data already in the file should be kept up-to-date. The survey should be expanded to include the agricultural segment to get a complete picture of all contributing factors.
  
2. The difficulties processing plants apparently have had in getting adequate supplies of locally grown raw materials suggests a comprehensive study of the problems involved and how they can be overcome. Some companies have said that all contractual arrangements should be handled by the Central Marketing Agency (CMA). Whatever system is devised, it will be successful only if the growers and processors contract in good faith and confidence.
  
3. The local lime processing plant is small and could function more efficiently if its operations were taken into the citrus co-operative. Joint use of facilities, especially for weighing and unloading fruit, would be advisable. Both managements are looking into the concentration of juice and a single evaporator would serve both. Dehydration of any lime skins for stock feed would be possible only if they could be combined and dried with orange and grapefruit peels during the period of time the season overlaps. There is indication that canned blends of lime and orange and grapefruit juices would be good new product possibilities involving a minimum of development and promotion. One single but broader marketing effort would help solve some of the marketing problems now being experienced by the lime factory.
  
4. Marketing activities at CARIRI should function in two main areas :
  - (i) to investigate general marketing matters and problems with the view to determining possible involvement for CARIRI;
  - and (ii) to provide market analysis for projects under investigation.

To ensure the fullest benefit to CARIRI of these activities, the market analysts must be brought into the projects having marketing implications at the earliest possible time, even in preliminary discussions with potential clients. A formal procedure might be found necessary to implement fully this involvement. The outline of one such procedure was given to help guide CARIRI in determining what procedure will best fit local needs.

5. The consumer panel at Michigan State University which is expert in determining consumer reaction to new products was approached to solicit their co-operation. For such consumer products as Trinidad might want to export to the United States, a test by this panel would be invaluable. It is recommended that this contact be followed up in the event the need for such product testing may be indicated.
  
6. Soaring world prices for agricultural commodities should benefit Trinidadian agriculture, especially in making locally grown commodities more competitive in price. World prices are not likely to recede to previous levels, hence the benefit is likely to be long lasting. Some items now imported might well be produced locally, thus confirming research already underway on new varieties, processing methods, and new product development, and might even suggest increased efforts.
  
7. The outlook for the Marketing Economist would be broadened if he were to become a member of outside marketing groups such as the American Marketing Association.
  
8. The Technical Information Service should maintain contact with the Journal Project of the American Chemical Society in California so as to take full advantage of scientific journal collections donated to the Project by retiring chemists and food technologists. The cost to CARIRI is nominal, consisting only of the charge for transportation.



## UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

## UNIDO

Caribbean Industrial Research Institute, Port-of-Spain

## JOB DESCRIPTION

- POST TITLE:** Expert in the Marketing of Processed Agricultural and Food Products
- DURATION:** 6 months, with possible extension
- DATE REQUIRED:** 1 July 1973
- DUTY STATION:** St. Augustine, Trinidad
- DUTIES:** The expert will be a member of a professional team of experts under the general supervision of the Project Manager of the Caribbean Industrial Research Institute (CARIRI). He will have the opportunity to co-operate with the local counterpart staff and to use the services available at the University of the West Indies (UWI) on which campus CARIRI is located. He will, *inter alia*, be expected to :
1. Assist in identifying marketing opportunities and providing the necessary technical assistance to local food producers and food product manufacturers with a potential export market.
  2. Assist in export market investigations and economic analyses of food products being developed at CARIRI.
  3. Train the professionals at CARIRI in marketing analysis as a general part of feasibility studies.
  4. Assist in developing the Institute's Industrial Information and Documentation Service in his field of work.
- QUALIFICATIONS:** University degree or equivalent in food technology or economics with emphasis on marketing of processed agricultural and food products. Broad experience at a senior level within food product industries desirable. Experience in marketing of tropical food products from developing countries would be advantageous.
- LANGUAGE:** English

**BACKGROUND  
INFORMATION:**

The Government of Trinidad and Tobago in an effort to supply needed testing, consulting and technological services to the industry of the Caribbean region has established the Caribbean Industrial Research Institute (called CARIRI) with the assistance of the Special Fund of the United Nations Development Programme (UNDP). The duration of the assistance is for 5 years.

CARIRI is providing industry and Government with advisory, testing and research services which will, inter alia, include:

technical information service, co-operation and service to the Bureau of Standards which will be erected;

chemical analysis and quality control of food and other products;

physical testing and measurements;

materials testing, possibly electrical testing;

engineering services, including product development and establishment of new or improved production, maintenance and repair problems and trouble shooting;

technical feasibility studies including market studies with a view to identifying bankable projects;

undertake specific research programmes related to industrial operations in the country;

possibly give similar assistance to countries in the region outside Trinidad and Tobago.

The Institute was established during 1970 as an administratively and financially autonomous institution. CARIRI is located on the campus of the St. Augustine branch of the University of the West Indies (UWI) which have Faculties of Engineering and Agriculture as well as sections of the Faculty of Natural Sciences and of other Faculties, and a close relationship and co-operation exist. The two modern airconditioned buildings have a working area of approximately 2,000 m<sup>2</sup> and equipment worth US\$300,000. By the end of 1972 it had a staff of 60 persons, 19 of which have an academic background. The budget, not including UN assistance, is of the order of US\$500,000 per year. In addition, there will be 4-5 UN experts at any time during the period of assistance.

A fee is charged for the services of the Institute and this revenue is to some extent a yardstick of success and is being used to expand the scope of the Institute.

APPENDIX IIList of Reports and Publications obtained by Expert for CARIRIthe manufacture of Peanut Butter

- Excerpt from the Membership Directory of the National Peanut Council, 1969-70.**  
**Peanuts - Production, Processing, Products,** by Jasper Guy Woodroof,  
 Chapter 7, page 439.
- Results of peanut butter research at Southern Regional Research Laboratories**  
 (USDA, Southern Region); reprints No. 462, 501, 725, 734, 735, 952,  
 953, 957, 1019, H03, H06, H07 and H09.
- Powdered peanut butter and pb-and-honey.** Food Processing-Marketing 29(1): 27, Jan. 1968
- Powdered peanut butter has fresh peanut taste.** Food Processing 32(5): 32, May 1971.
- Low-heat, 200 mesh milling provides smooth, uniform product.** Food Processing-  
 Marketing 19(5): 44-45, April 1968.
- Food Oils and Their Uses** by Theodore J. Weiss. Chapter 7 entitled "Peanut Butter",  
 The AVI Publishing Company, Inc., Westport, Conn., 1970, pp 177-193.
- Prices, Marketing Margins, and Uses of Peanuts in Peanut Butter,** by Virginia M.  
 Farnworth, USDA, ERS, MED, MRR No. 624, Washington D.C., December 1963,  
 25 pages.
- United States Standards for Grades of Peanut Butter, Effective March 23, 1962, Second**  
**Issue,** USDA, AMS, Washington, D.C., published in Federal Register of February  
 20, 1962 (27 F.R. 1549).
- Interim Federal Specification - Peanut Butter, Z-P-00196b (AGR-AMS) April 20, 1962,**  
 superseding Fed. Spec. Z-P-196a, Sep. 6, 1944, 12 pages, GSA, Washington, D.C.,  
 62-15384
- Interim Federal Specification - Peanut Butter Z-P-00196c (Army-GI) April 16, 1968,**  
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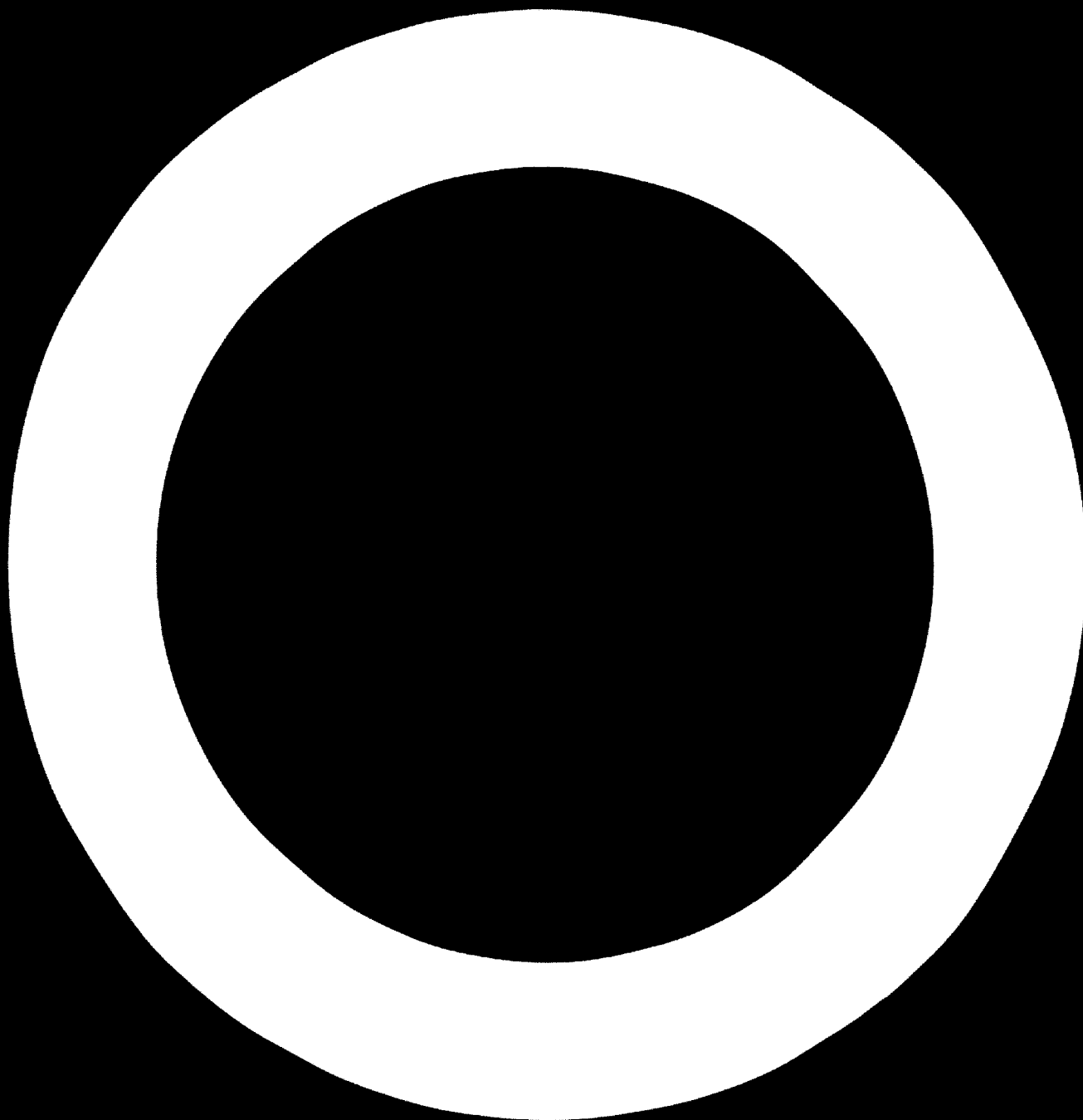
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APPENDIX IVList of persons and organizations contacted  
and/or visited during the assignment

<u>DATE</u>	<u>ORGANIZATION</u>	<u>PERSONS CONTACTED</u>
1 October 1973	UNDP	Mr. A. Patriota Mr. K. Vyasulu Mr. G. King
8 October 1973	Ministry of Finance	Mr. H.N. Adams Mr. B. Cosier - Also Board Chairman, Trinidad Lime Products.
10 October 1973	Trinidad Lime Products Ltd.	Mr. M.B. Remie, Manager Mr. C. Sinclair
16 October 1973	U.S. Embassy	Mr. Wm. L. Scholz, Agric. Attache Mr. T.O. Bertmore, Agric. Spec.
16 October 1973	United Nations Economic Commission for Latin Am.	Mr. Hensley Francis, Statistician
22 October 1973	Ministry of Industry & Commerce	Mr. Val Rogers, Export Promotion Officer
25 October 1973	Rapsey Nursery	Mr. Peter Rapsey
1 November 1973	Catelli-Primo Ltd.	Mr. Neil Lau, Managing Director and others
4 February 1974		
1 November 1973	Lever Bros. WestIndies Ltd.	Mr. R.S. Ripper, Technical Director
5 November 1973	Carib Glassworks Ltd.	Mr. G.M. Reid, General Manager Mr. G. Donowa, Works Manager
6 November 1973	Trinidad & Tobago Printing & Packaging Ltd.	Mr. Bruno Rivas, General Manager
7 November 1973	Mrs. Yvonne Cross Home made Food Products	Mrs. Yvonne Cross, Owner
9 November 1973	Liquid Carbonic W.I. Ltd.	Mr. J. Marc de Pompignan, Gen. Man.
9 November 1973	Dr. J.C.B. Siegert & Sons	Dr. M. Patel
11 November 1973		Mr. Clive Cook, Quality Control.
4 February 1974		

<u>DATE</u>	<u>ORGANISATION</u>	<u>PERSONS CONTACTED</u>
November 1973	Control Marketing Agency	Mr. Charles John
November 1973		
November 1973	Trinidad Processing Co. Ltd.	Mr. Yoon Chin, Gen. Manager
November 1973	Holidays Ltd.	Mr. Lennox Assing, Gen. Manager
February 1974		
November 1973	Metal Box Mfg. of Trinidad Ltd.	Mr. John G. Richardson, Gen. Man.
November 1973	Trinidad Food Products (Biscuits) Ltd. Quality Control.	
November 1973	Dept. of Economics, UWI	Mr. Gordon Draper
November 1973		
November 1973	Co-operative Citrus Growers Association.	Mr. Terrence Beddoe, Field Officer
November 1973	School of Agriculture, UWI	Mr. C. F. Robinson, Dean Dr. David Edwards, Economist
November 1973	Commonwealth Caribbean Regional Secretariat, (Georgetown, Guyana)	Mr. Frenn Arjoon, Secretariat Mr. Bertil Motlander, UN
November 1973	National Canners Ltd.	Mr. George Matouk, President
November 1973	Polymer Caribbean Ltd.	Mr. Leonard Aqui, Manager
December 1973	Caribbean Packaging Ltd.	Mr. R. B. Massey, Managing Director
December 1973	Department of Agriculture, Economics and Farm Man., UWI	Mr. John Cropper Mr. Dennis Pantin
December 1973	Van Leer Containers Ltd.	Mr. I. H. van der Beukel, Gen. Man.
December 1973	Hi Grade Products Ltd.	Mr. Henry Faurel, Owner
December 1973	National Flour Mills Ltd.	Mr. Allan H. James, Gen. Man.
February 1974		
December 1973	Bureau of Standards	Dr. M. G. Lines, Director
December 1973	Department of Livestock Science, UWI	Prof. Holman Williams, Head Mr. Ed. Unsworth Dr. Paschal O. Osuji
January 1974		



<u>DATE</u>			<u>ORGANIZATION</u>	<u>PERSONS CONTACTED</u>
7	January	1974	Co-operative Citrus Growers Association	Mr. G. de Verteuil, Gen. Man.
7	February	1974		Mr. T.W. Beddoe, Field Officer
19	February	1974		
16	January	1974	K.H. Li Industries, Ltd.	Mr. K.H. Li, Owner
18	January	1974	Economy Products Ltd.	
28	January	1974	C.A. Correia (Trinidad) Ltd.	Mr. Luciano Gomes, Director
29	January	1974	Caroni Limited, Rum Division	Mr. Charles M.B. Forest, Manager
30	January	1974	Cannings Industries Ltd. Dairy Products Division	Mr. Rupert L. Shannon
6	February	1974	Chief Brand Products Ltd.	Mr. Hassan M. Khan, Sec./Director.
13	February	1974	F.M.C. Corp., US and Latin American Representatives	Mr. Mel Brown, Panama City Mr. L.B. Le Gendre, Port of Spain Mr. J. Gary Cooper, San Jose, Calif. Mr. Gordon Hearst, San Jose, Calif.
27	February	1974	Carlma Ltd.	Mrs. E.L. Toppin, Manager
7	March	1974	International Foods Ltd.	Mr. Vic Gianetti

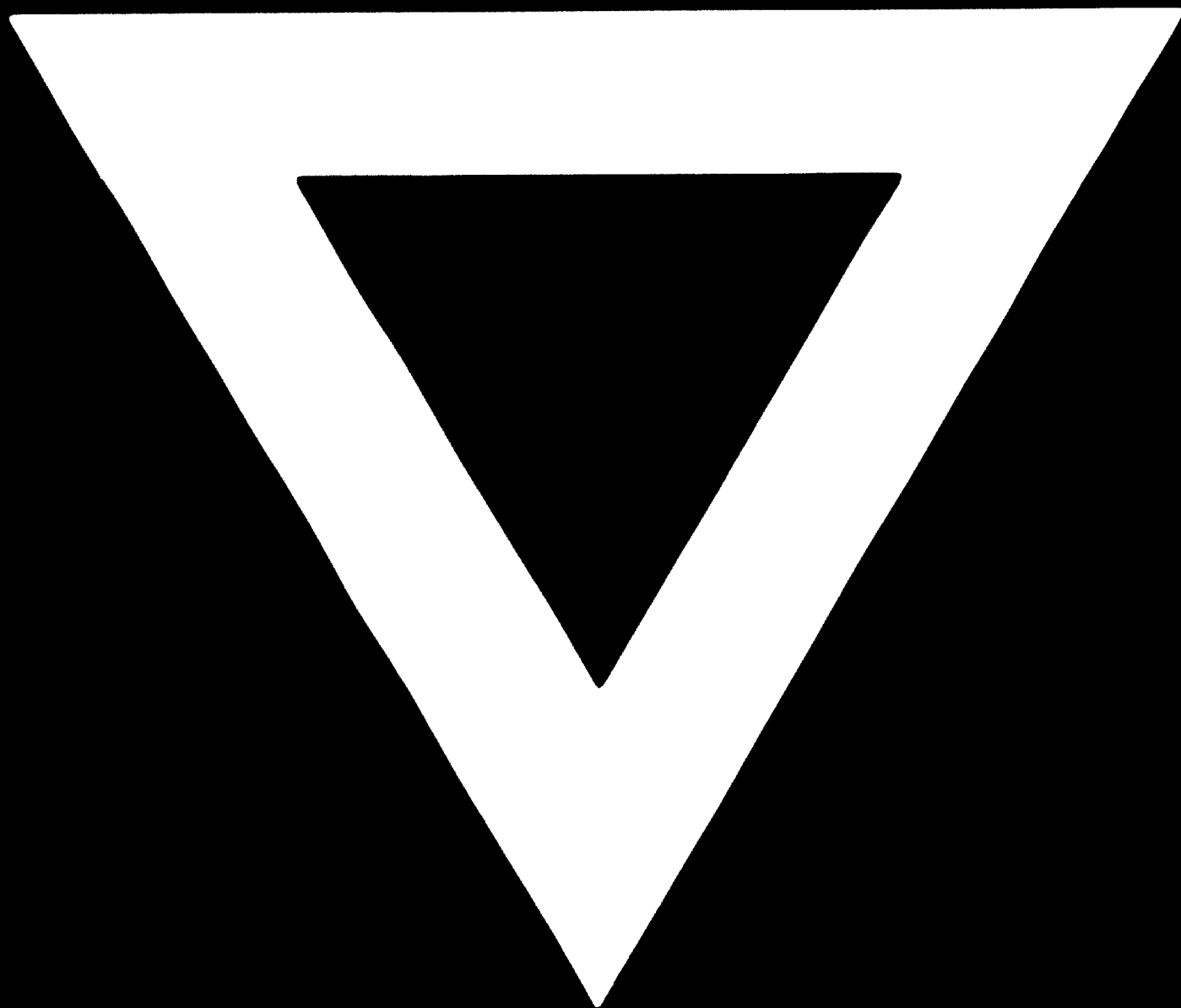
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**Prices Paid by Food Companies in Trinidad and Tobago  
for Imported Materials for Processing**

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	<u>UNIT</u>	<u>Prices Paid before rapid price escalation</u>	<u>Recent Quotes</u>
<b><u>Frozen vegetables</u></b>			
Cut Corn	lb.	TT\$ 0.26	TT\$0.72
Green Peas	lb.	0.22	0.68
Carrots	lb.	0.18	0.48
<b><u>Dry seeds for curry</u></b>			
Coriander	lb.	0.26	0.37
Tumerle	lb.	0.39	0.93
Cumin	lb.	0.44	1.32
Mustard	lb.	0.17	0.72
Black Pepper	lb.	0.82	1.50
<b><u>Dry legumes</u></b>			
Peanuts	lb.	0.35	0.70
Chick peas	lb.	0.30	0.45
Pea beans	lb.	0.36	0.98
Peas (green)	lb.	0.24	0.83
Pigeon Peas	lb.	0.28	0.36
Flour	lb.	0.08	0.18
Corn meal	lb.	0.12	0.25
Cheese - dehydrated powdered	lb.	1.50	2.75
<b><u>Containers</u></b>			
8 oz. plastic (for powder)	each	0.13	0.20

**B-657**



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