A STUDY OF
THE SYSTEM OF MARKET RETURNS
IN TRINIDAD.
1946 - 47.

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INTRODUCTION.

Trinidad, like most British Colonies, has developed a system of agriculture in which the main emphasis has been on export crops. It appears that up till quite recently the dominant note in British Colonial policy has been the production in the Colonies of raw materials: foods, fibres and fats and oils which Britain needs for her consumption or her trade but cannot produce for herself nor obtain cheaply elsewhere. Thus in agriculture, in particular, the development of cash crops in the Colonial Empire was given a great deal of attention almost to the total exclusion of subsistence crops. This tendency was very much stimulated in the inter-war years in consonance with the emphasis on the policy of Colonial governments being responsible for balancing their budgets. This is evidenced by the phenomenal growth of the West African cocoa industry, cotton in Uganda, sisal in Tanganyika and tea in Nyasaland.

Trinidad's agricultural activities have centred in sugar and cocoa and to a lesser extent in coconuts - all export crops. She has had therefore to rely on imports for her food supply. Thus even now she gets the bulk of her potatoes from abroad, beef from South America, poultry from Canada, Sweet potatoes from St. Vincent, plantains and rice from British Guiana. It is true that she produces a certain quantity of her food crops including vegetables, some tannias, bananas and fruits. But her reliance on imported foodstuffs is great enough to give a certain amount of concern.

This state of affairs offers many interesting subjects of investigation for the student of economics, viz., problems of production, transport, distribution and marketing, how far prices are influenced by scarcities, the advisability or otherwise of increasing local food production, the prospects of food preservation.
food preservation and even the development for export of crops like tomatoes which tend to be overproduced in their season.

Investigation of these subjects will require full-time research over a period of time much longer than the writer had at his disposal. The work embodied in this report is therefore a study of only one aspect of the problem of marketing certain food crops. The study is based on the weekly market reports which are sent from the various markets, once a week, to the Marketing Officer in Port of Spain.

To enable the investigators to have an intimate knowledge of the conditions on the markets, brief visits were paid to the markets at various centres.

The main purpose of the study was to see what coordinated story, if any, could be built from the market records, whether they could give a scientific picture of the supply position on the island or whether they did not signify much that was of interest and value. Was there any effect of supplies and seasonality on prices and could such an effect be indicated by the returns in their present form? If the market returns could not supply answers to these questions in what way might they be improved?

II. TRINIDAD MARKETS.

Agricultural production may be classified under two main heads - (a) production for export and (b) production for home consumption. Among the export crops are cacao, coconuts, coffee, sugar cane, tonca beans and citrus. Some of these commodities are exported after a certain stage in the process of manufacture; thus cacao is exported as dry bean, coconut mainly as oil, sugar cane as sugar of a certain percentage purity and citrus may be exported either as fresh fruit or canned juice.
The products that come within this group are handled by:

(a) Licensed dealers which may be special or general merchanting firms.

(b) Processing factories which may be owned by cooperative organizations; e.g. the Citrus Growers' Association with a grading and canning factory in Port of Spain; and the Coconut Growers Association with an extracting plant and equipment for margarine production in Port of Spain. Some are owned and operated by private companies such as the Sugar factories in the country.

(c) Purchase by Government for export.

Foodstuffs for local consumption which consist of ground provisions (plantains, tannias, eddoes, sweet potatoes etc.), fruits and vegetables may be disposed of in a number of ways by a number of different selling agencies or vendors. These crops are generally produced on small farms and peasant holdings, land settlements such as Aranguez Estates and to some extent from large farms.

Among the first category of dealers may be mentioned

(a) Hucksters - these are itinerant traders or salesmen "who may be either producers or traders ......... Licences are required in Port of Spain and other boroughs, but not for the country districts".

(b) Street Stalls - These are commonly found in country villages. They may be operated by producers themselves or hucksters who have bought from wholesale markets or from the farms of producers.

(c) Estate Markets - For the convenience of estate workers, some of the sugar estates sometimes organize markets on pay days where foodstuffs with the exception of meat may be sold. They are not supervised markets and usually take place in the open.

(d) Licensed dealers which may be special or general merchanting firms.
(d) **Licensed Dealers** - consist of small or large shopkeepers in the country districts or large towns. They deal in the retail trade.

(e) **Public Markets in large towns.** These are really well organized markets fitted with stalls. They are covered markets, the size of which depends on the size of population which they serve. Thus in the central Market (Port of Spain, Eastern) we have "818 stalls for the sale of meat, fish, poultry, eggs, ground provisions, vegetables and fruits". This market has two departments, the wholesale section and the retail section. Stalls may be rented at various rates from 4 cents to 12 cents a day of 10½ hours from 5.00 a.m. - 3.30 p.m. Scales for the use of vendors are provided free of charge and the market is washed and disinfected each day in the afternoon. Control of the Eastern Market is vested in the Municipality of Port of Spain and is managed by a Clerk of the market.

There are now in a large number of the villages, covered markets with some of the facilities which the larger markets in places like Port of Spain, offer. Tunapuna, Arima, Sangre Grande, Princes Town, San Fernando, Penal, La Brea, Point Fortin, San Juan, Curepe, Chaguanas, Fyzabad, Siparia and Scarborough in Tobago boast of covered markets. These markets have clerks who among other duties are responsible for preparing weekly market reports for submission to the Marketing Officer in Port of Spain.

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III.

MARKET RECORDS.

A circular letter went out in October, 1945, from the officer-in-charge, Local Food Production and Marketing in Port of Spain to the Market Clerks throughout the country introducing /\ **"A new system .......**
"A new system of Weekly Market Reports based on the submission of a separate form in respect of each market to show both the supply position and prevailing prices". (Appendix A)

Under this system the commodities were grouped under the headings:

1. **Ground Provisions**: Sweet potatoes, Tannias, Yams (ordinary and Lisbon), Dasheen, Cassava, Eddoes, Plantains, Green figs and Irish potatoes.

2. **Fruits**: Bananas, Oranges, Grapefruit.

3. **Green Vegetables**: Tomatoes, Cucumbers, Melongenes, Cabbages, Cauliflower, Lettuce, Cress, Salad beans etc.

4. **Corn**: dry or green.

5. **Pulses**.

The quantities on the market were to be estimated by the recorder or the market clerk and indicated on the return sheet in an appropriate column by inserting the figures (1) to denote Abundant supply;

(2) Plentiful;

(3) Satisfactory;

(4) Fair;

(5) Scarce.

There is no way of determining the weights of produce on the markets. These figures are purely arbitrary and entirely dependent on the judgment of the recorders.

These records are taken once a week, generally on Fridays, and at one particular time. In Tunapuna, for instance, the clerk does it as a part time job, usually filling the record form on his way to his work on Friday mornings. This at once raises the questions (a) whether Friday morning conditions can be said to be typical of the whole week and (b) whether that particular hour during which the records...
the records are taken has any significance. It would appear that this practice leaves much to be desired for during the week there is likely to be great day to day variations and for the same day variations from hour to hour, considering that some of the sales-people have to come from the country and may arrive when the records have already been taken. Thus an item marked "scarce" to represent the week's supply on Friday at 8.00 a.m. may by 10.00 a.m. have assumed the proportions of "abundance". It is also possible to imagine a case where a particular food-crop may not have been obtainable from Monday till Thursday on one particular market but may be abundant on Friday due to the coming in of a boat from one of the islands nearby. In such a case the report would give a completely unreliable picture of the week's supply position.

It is therefore clear that the returns would be subject to several errors.

The Marketing Officer in Port of Spain made a monthly Summary based on these weekly reports of the supply position of the country for submission to the Director of Agriculture. (Appendix B)

It was the accumulated reports of 1946 and 1947 that the writer and his colleague studied. Records covering all the markets of the Country for the years 1946 and 1947 were obtained from the Marketing Department, Port of Spain. Out of these fifteen odd markets the following were picked out for study: Port of Spain (Eastern), Tunapuna, Sangre Grande and San Fernando. These were chosen because (a) they seemed well scattered over the island; (b) they were situated in important centres of population and (c) Sangre Grande and San Fernando were connected by important roads and railways to Port of Spain where the ground provisions from the north east...
and the vegetables from the south came sometimes to be trans­ported back by dealers to the markets near the centres of pro­duction. It is stated that often vegetables produced in districts east of San Fernando came to Port of Spain where they were wholesaled to dealers who carried them back to San Fernando to retail.

Again on preliminary investigation they seemed to have had their returns sent in fairly regularly with a comparatively few misses. It was realised that if the final analysis were to show a true picture of the country's market conditions and supply position, it was necessary that the reports should be well and truly entered and regularly sent in to Head Office; particularly is this essential since some of the food items have seasonal distribution and misses are therefore apt to distort the picture.

Having chosen the markets, a selection of commodities was decided upon for study since time did not allow of a study of all the thirty to forty items. From among the Ground Provisions, plantains, tannias and sweet potatoes were selected as representing foodstuffs mostly locally produced, almost wholly locally produced, and chiefly imported respectively.

Irish potatoes were included to represent the wholly imported foodstuffs but supplies were so irregular and erratic that they had to be withdrawn. Among the foodstuffs coming under Fruits, bananas as a crop partly locally produced and partly imported was chosen, and oranges were selected as locally produced.

Tomatoes and Lettuce represented the green vegetables. Corn had to be abandoned because of the irregularities both in returns and in the Unit in which it was entered. This differed so much from time to time on the same market and from place to place that it was decided to have it withdrawn.

For a study of this nature it was considered that fort­nightly returns would give as rough a picture as weekly returns.
Thus returns for every other week commencing from January 18th were considered, the week before or after a particular fortnight being taken when the appropriate report was missing.

**Clipped Card System.**

The returns of each crop under survey were transferred on to index cards which were clipped appropriately and filed. Each card had on it all the necessary information about a particular crop during a particular fortnight. It had on it the crop, the estimated quantity as indicated by the appropriate number, the wholesale and retail prices and whether the retail price varied greatly (V) or insignificantly (v). Along the edges the cards were clipped for the crop, the market, the fortnight under review and the year.

This clipped card method has several advantages over the normal forms. The cards are easier to handle, much more easily and readily sorted out according to years, fortnights, markets, or crops (Appendix C). They can be arranged in a way as to display a good picture of the supply position and price level over a given period. Thus by arranging the cards for Tannias in their order of fortnights for one or two years for a particular market, a mental graph of the supply of Tannias and of the wholesale and retail prices over the period can easily be constructed.

**Preliminary Study.**

Prices and supplies of each foodstuff on each market were plotted against time on graphs to show the trends in prices throughout the year in their relation to supplies and seasonality. (Appendix D).

A preliminary study of the graphs showed tendencies quite different from market to market and different behaviours among the items. For instance, whereas in Port of Spain the prices of tannias in 1946 and 1947 according to the returns seemed to have been determined by the supply and therefore...
moved in a grand manner according to the Law of Supply and Demand (Appendix D, (A)(6)); the price of lettuce on the same market for 1946 moved contrary to expectation in relation to supply. (Appendix D, (A)(1), 1946)

Since wholesale and retail prices are easily ascertainable the discrepancies in supply-price relationships are likely to be due to errors of judgment of the quantities by the market clerk whose judgment in the case of tannias seemed to be reasonably correct. There is also the possibility that he may have been given wrong price quotations by the vendors, or that some of the commodities in this case, lettuce, had been hidden from him. It is also feasible that he may have chosen the wrong time for his visits to the market as far as that particular crop was concerned.

Of the markets selected, Sangre Grande weekly reports were most irregular particularly for the year 1947 in which no reports were returned after April for the rest of the year when Mr. Huggins, the market clerk, was apparently transferred to Port of Spain.

In some cases prices of certain commodities on certain markets remained persistently steady throughout the year suggesting an effective price control mechanism. The price of lettuce on the same market for 1947 showed an effective price ceiling. Prices moved with supply but never went beyond what appeared to be a maximum fixed by the authorities namely 7 cents a head. (Appendix D (B)(1)) These trends however, are not typical of all the markets. The situation indicates that if there were a maximum price it was more effective on some markets than on others - a case which calls for further investigation. These discrepancies raised a number of questions; were the market clerks sending in correct reports; had they any standards to go by; were the inconsistencies due to the uncoordinated nature of the methods employed by the various clerks in the market centres?
market centres? At this point it became necessary for each of the two students working on the project to pursue different aspects of the investigation. Mr. A.D. Hunt was to make a special study of the markets by personal visits and discussions with the clerks and to explore the possibilities of devising a more scientific and reliable method of making market reports. The writer was left to study further the material in hand.

It came out in Mr. A.D. Hunt's work that the regularity with which the market reports were sent in left much to be desired. In the two years 1946-47 the number of weeks in which the reports were not returned to the Marketing Officer varied from 2 from Port of Spain Eastern Market to 102 in San Juan where only two weeks reports were submitted in 1946 and none in 1947.

<table>
<thead>
<tr>
<th>Market</th>
<th>No. of Misses (Weeks)</th>
<th>Total No. of Misses</th>
<th>% returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Port of Spain (Eastern)</td>
<td>2</td>
<td>2</td>
<td>98.0</td>
</tr>
<tr>
<td>2. Tunapuna</td>
<td>6</td>
<td>10</td>
<td>90.5</td>
</tr>
<tr>
<td>3. (Curepe (San Fernando)</td>
<td>13</td>
<td>13</td>
<td>87.5</td>
</tr>
<tr>
<td>4. Penal</td>
<td>17</td>
<td>17</td>
<td>83.6</td>
</tr>
<tr>
<td>5. Chaguanas</td>
<td>26</td>
<td>26</td>
<td>75.0</td>
</tr>
<tr>
<td>6. Sangre Grande</td>
<td>37</td>
<td>37</td>
<td>64.5</td>
</tr>
<tr>
<td>7. Arima</td>
<td>52</td>
<td>52</td>
<td>50.0</td>
</tr>
<tr>
<td>8. Scarborough</td>
<td>60</td>
<td>60</td>
<td>42.3</td>
</tr>
<tr>
<td>9. Point Fortin</td>
<td>68</td>
<td>68</td>
<td>34.6</td>
</tr>
<tr>
<td>10. (Fyzabad (Princes Town)</td>
<td>86</td>
<td>86</td>
<td>17.3</td>
</tr>
<tr>
<td>11. Siparia</td>
<td>97</td>
<td>97</td>
<td>6.7</td>
</tr>
<tr>
<td>12. San Juan</td>
<td>102</td>
<td>102</td>
<td>1.1</td>
</tr>
</tbody>
</table>

General trends
General trends in supplies of foodstuffs.

In spite of the discrepancies in and the arbitrariness of the market returns, the picture given by a study of the graphs seems remarkably to tally with the crop year. The banana season seems to be at its peak in about January falling off round about April and May. From then on supply may be steady or oscillate between the levels of "Satisfactory" and "Plentiful" getting scarce by about the middle of June. From July to October supply remains at a precarious level and may fall off completely on all the markets under study.

Tomatoes seem to be available throughout the year, though supplies vary considerably from season to season. In general it may be said that there are three scarcity periods in the country. In about April, that is towards the end of the dry period, a slight drop in supplies is experienced. During the rainy season June, July and August, tomatoes are very short and lastly from October to December there is a reduction in available supplies. In between these periods of shortages are seasons of increased production particularly from January to April when the markets are glutted.

There was something very peculiar with the returns for lettuce on the Port of Spain Market for the year 1946. Whereas the trends in supplies moved according to expectation reaching scarcity in June, prices moved in a peculiar manner in direct proportion to supply. Thus prices dropped or rose according as there were decreases or increases in supplies. There can be many reasons for this peculiar relationship between supply and price, for instance -

(a) Inaccuracies in judgment of quantities by the market clerk.

(b) Faulty declaration of prices and supplies by vendors which might have been due to suspicion on the part of sellers at the inception of the system and controlled prices.
This anomalous behaviour did right itself in 1947 on the market under consideration.

The market at Tunapuna seemed to have been short of lettuce throughout the year 1946 whereas in 1947 supplies varied between "satisfactory" and "plentiful". In this year lettuce prices in Tunapuna exhibited a certain peculiarity in that whereas they wavered around an average annual price level of 6.02\% per head they never went beyond a certain level of 7\% per head though they hit that level quite frequently in periods of scarcity.

This suggests that there was an effective price control mechanism operating or it may be due to the supposition that the market clerk took it for granted that the sellers would not sell beyond the scheduled price and therefore returned the scheduled price when supplies were low. It is also quite possible, in fact, it is quite suggestive that prices might have reached illegal limits during periods of prolonged shortage. (Appendix D, (A)(1) 1946; (B)(1) 1947)

Oranges begin to run low in March - April and get very scarce until September when they begin to come in again. Sweet Potatoes follow similar lines. Supplies are abundant in January showing tendencies to fall until August when they become very scarce. On all the markets and at the same time, about August, there seems to be a rocketing of prices. At this time supplies are very short indeed.

Irish potatoes and Yams which are both effective substitutes, become scarce at this time of the year. Irish potatoes may not be obtainable at all thus Sweet potatoes tend to have an increased demand hence, perhaps, the high prices at this time.

Tannias - reports for this commodity seem to be very erratic except for Port of Spain market which followed the behaviour of the other ground provisions reaching a scarcity
level in July - September. Plantains largely imported from Demerara shewed just as much irregular returns. Reports from the markets were anything but full.

The general position is that supplies of foodstuffs are adequate at the first part of the year. Green vegetables are more abundant in the dry season up to about April. All the figures show quite definitely that from about the end of June to the beginning of September there is a shortage of food. This season is known in Trinidad as the "hungry months". From about October supplies begin to improve. This seems to be a fair summary of conditions in Trinidad, and the market reports in spite of their inaccuracies and arbitrariness do bring these points out effectively.

Supply Price and Scarcities.

A study of the graphs shewed that there was a general tendency for prices to be fairly steady from the beginning of the year to about May or June, when rather violent fluctuations occurred due to the uncertainty of supplies and general shortage of foodstuffs. In about July prices usually shewed an upward trend and in some cases actually did shoot up. Prices of lettuce, tannias, plantains, oranges and sweet potatoes have the tendency to get out of hand at this scarcity period in San Fernando. This may probably be due to the fact that foodstuffs have to be transported from the orchards and food gardens of the north and north-east to the south. It is claimed that market garden crops produced in the districts east of San Fernando are generally sent up to Port of Spain where they are wholesaled to retailers and wholesalers for sale in San Fernando. To what extent this uneconomic practice goes on will be interesting to discover. Also the problems of production and distribution of food crops will afford a very interesting study. How far prices of foodstuffs...
in San Fernando and the markets of the South, Penal, Fyzabad, Siparia etc. are influenced by this alleged double journey, awaits investigation.

The average prices throughout the year in San Fernando compare very favourably with those obtaining in other markets. The questions raised here are whether it is indeed true that market garden crops sold in San Fernando generally do a double journey to Port of Spain and back to the South, and if so how far transport costs affect their prices.

A study of wholesale prices on the two markets for tomatoes for the year 1946 seemed to indicate that, except from the middle of April to the middle of May when wholesale prices were actually lower in San Fernando than in Port of Spain, wholesale prices in San Fernando were higher than in Port of Spain.

### TOMATOES

<table>
<thead>
<tr>
<th>Wholesale and Retail Prices, 1946. (¢/lb.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th F/N</td>
</tr>
<tr>
<td>W/sale</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Port of Spain</td>
</tr>
<tr>
<td>San Fernando</td>
</tr>
</tbody>
</table>

F/N ....... Fortnight; W/sale ..... Wholesale; R/tail ... Retail

It is interesting to note that from January to June the supplies in Port of Spain remained persistently at the level of "plentiful" falling off to "satisfactory" in the 1st and 11th fortnights whilst supplies in San Fernando remained at the level of "satisfactory", and rose up to "plentiful" from the middle of April to the middle of May. This coincides with the period of lower wholesale prices.

The question is whether the overall difference between the wholesale prices in Port of Spain and the retail prices in San Fernando (assuming that the sellers in San Fernando are retailers) is enough to cover cost of transportation and leave a reasonable margin of profit. Ignoring the period from the middle of April to the middle of May the range of difference is _/ from 3 to 8
from 3 to 8 cents per lb. with an average of 4.6 cents per lb.
If on the other hand the dealers sell wholesale in San Fernando
then their margin will be considerably reduced to 2.9 cents per
lb. from which transport costs are to be accounted for.

These same trends were in evidence when the prices on
the two markets were compared for 1947. Lettuce, however, did
not exhibit this characteristic behaviour. Prices, wholesale
and retail, remained almost the same on both markets. But
they had the tendency to be slightly lower in San Fernando
than in Port of Spain. In 1947 prices of lettuce were in
general higher in San Fernando than in Port of Spain. This
may be accounted for by the fact that for a greater part of
the year, from December 1946 - April 1947, supplies in Port
of Spain wavered between the levels of "abundance" and
"plentiful" whereas in San Fernando at the same time the
level persisted at "satisfactory". Perhaps there was not
much movement of this commodity from place to place as it
is still more susceptible to deterioration on handling and
transportation than tomatoes. Thus on the whole it may
be concluded that prices, with the exception of lettuce in
Port of Spain in 1946 did move in a remarkable way according
to the supply position on the markets. Supply and price
therefore in some cases (tomatoes and tannias in Port of
Spain), shewed a negative correlation.

Price variations from market to market for the same
food item varied only slightly generally by a fraction of a
cent. Thus over the two years prices of commodities
according to the reports have been remarkably steady.
<table>
<thead>
<tr>
<th>COMMODITY</th>
<th>Clip-</th>
<th>Port of Spain (E)</th>
<th>Tunapuna</th>
<th>San Fernando</th>
<th>Average price of commodity for 2 years over the 4 markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sw. Potatoes</td>
<td>3</td>
<td>4.9 4.5 4.7</td>
<td>4.6 5.6 5.1</td>
<td>4.5 4.5 4.5</td>
<td>5.3 5.4 5.4</td>
</tr>
<tr>
<td>Tannis</td>
<td>4</td>
<td>7.6 8.2 7.9</td>
<td>6.6 9.0 7.8</td>
<td>6.4 6.2 6.3</td>
<td>6.5 7.5 7.0</td>
</tr>
<tr>
<td>Plantains</td>
<td>5</td>
<td>6.5 6.9 6.7</td>
<td>6.7 6.9 6.8</td>
<td>6.0 6.0 6.0</td>
<td>7.0 6.9 6.9</td>
</tr>
<tr>
<td>Bananas</td>
<td>6</td>
<td>5.2 4.1 4.6</td>
<td>4.1 4.0 4.1</td>
<td>4.0 4.0 4.0</td>
<td>4.0 4.3 4.1</td>
</tr>
<tr>
<td>Oranges (1)</td>
<td>7</td>
<td>2.7 2.6 2.6</td>
<td>2.6 2.5 2.6</td>
<td>2.4 1.8 2.1</td>
<td>2.2 3.1 2.6</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>8</td>
<td>20.1 17.4 18.7</td>
<td>18.7 17.8 18.3</td>
<td>19.5 19.9 19.7</td>
<td>18.9 17.1 18.0</td>
</tr>
<tr>
<td>Lettuce (ii)</td>
<td>9</td>
<td>5.4 4.7 5.1</td>
<td>6.0 6.0 6.0</td>
<td>5.1 5.5 5.5</td>
<td>5.1</td>
</tr>
</tbody>
</table>

(i) $/each
(ii) $/per head
The above discussion has brought out the fact that the market reports can at least be a guide to the trends in the supply position on the island. They also show the trends in market prices fairly well. The main question then is how much reliance can one place on the reports in their present form.

There are undoubtedly many defects in the system as operating now. The irregularity with which they are returned and their incompleteness make it difficult for one except a trained statistician to give a proper and true interpretation to them. The method of assessing quantities by the market clerks seems to be quite unreliable. The markets are not equipped with weighbridges and there is at present no means of knowing the actual quantities of the individual commodities that come to the markets. It goes without saying that a knowledge of this would be a dominant factor in the appreciation of the supply position throughout the country within a given period. The total weights of imported foodstuffs are, however, easily ascertainable from the importers.

As it has been discussed elsewhere in this essay the market clerks, except for Port of Spain Eastern Market, operate as part-time workers. They visit the markets at a particular time of the day and once a week, to make their report which is then taken as representing the conditions prevailing on that market during the week. It is however, easy to realise that such a sample picture is not only unrepresentative but lacks the randomness which is an essential in sampling from large populations. There are the inevitable sampling errors even in the very carefully laid out experiment. In such a case as the one under consideration the sampling error
error over the whole year will be multiplied many times and render the findings and conclusions unreliable.

In the light of the above observations the Marketing Department is advised to adopt a number of measures which will improve upon the present methods employed in making market reports. They will have to employ a more reliable labour which will return without fail weekly reports which will be full and complete in every particular. At the present moment some market clerks, if so they may be called, do not feel their obligation strong enough for them to function efficiently. Regular employees should therefore be taken on and be made responsible for the job.

Assessment of Quantities - The arbitrary figures shewing the supply position are much too relative and unreliable. Efforts should therefore be made to assign true values to them. This should not be very difficult, for in Trinidad foodstuffs are bought and sold by weight on the markets. The sellers will therefore have an idea, however rough, of the weight of their goods. It would be difficult for the market clerk to ascertain from each and everyone on the market how much of the particular commodities they have nor will he find much cooperation from them all. But with a few willing cooperators dealing in each of the commodities he can form a tolerably accurate judgment of the quantities of goods available. Just as it is possible to estimate the weight of a stack of hay or straw by looking at it, it should be possible with practice to tell the weight of a heap of tannias or plantains.

When the market clerks attain this level of efficiency definite values can then be attached to the supply figures for the various markets. The supply figures will necessarily vary in value according to the size of the market and the population it serves.

Having discussed
Having discussed methods whereby we are enabled to obtain a more reliable information about market conditions and to attach values to our arbitrary supply figures, we come now to consider how a representative picture may be obtained.

Sample Periods - If a market clerk is attached permanently to each market, he will be able to study the conditions throughout the week and send a more accurate summary of the week's market conditions to the Marketing Office. It may be argued, however, that since the Marketing Department is strictly speaking, not a research institution it cannot undertake this detailed and laborious study - all it needs being a rough Summary of affairs. In the writer's view a Marketing Department is a kind of research institution or at least must engage in some sort of research if it is to function efficiently. A method is to be described which is supposed to limit to a minimum some of the drudgery which scientific investigations may and often do involve.

It is suggested that the year be divided into 3 seasons and certain periods within the seasons taken at random for closer investigation and accurate determinations. These divisions will be based on a number of factors and conditions affecting food supplies such as the crop year, the dry season and the wet season. From the beginning of the dry season to about May may be taken as one period representing the "dry season" when foodstuffs on the whole may be said to be plentiful. The second period may extend from May to about the end of August within which occurs the period known as "the hungry months", and from about September to the beginning of the dry season may be taken as the third period. This, however, is a suggestion based on the study of Trinidad in general and the weekly market reports in particular. The Marketing Department may have reason to divide the year into more or less periods than have been suggested above. Within these
periods, two to three weeks deliberately chosen, such as the first, middle and last weeks or perhaps taken at random will be more closely studied. During these weeks daily reports will be made at hours picked at random for each day. The weeks and time of sampling can be picked out at the Head Office and communicated in directives to the market clerks at the beginning of the season. The reports will then be sent in to the Head Office for further study and analysis. This it is believed will give a true picture of the year's market conditions.

It would be interesting to find out the sources from which the commodities are produced. For this purpose it would be advisable to divide the country into regions or agricultural districts from the point of view of food production and assign a figure or letter to each district. If the present return forms are used, a column may be provided preferably between supply and wholesale price. This will enable the investigators to find out where the commodities were produced and how far they have been transported to be finally sold.

To remedy some of the inadequacies of the present system, it is suggested:

1. That market clerks be employed who will be under cultivation to do as the Marketing Department direct. They will send full and complete reports regularly to the Marketing Office.

2. That the market clerks with the help and cooperation of the more reliable sellers learn to assess as correctly as possible the weight of the commodities that come onto the market. This will enable the Department to attach meaningful values to the supply figures.
SUMMARY AND CONCLUSIONS.

1. The market reports in their present form do give only a very rough and unreliable picture of the supply position on the markets in Trinidad.

2. The returns are very faulty and incomplete and are very irregularly sent in to the Head Office.

3. The method of assessing quantities of supplies is too arbitrary to be of much value in investigational work. There are no means at present whereby true values may be attached to the supply figures now in use.

5. The time in which reports are made cannot be taken as representing the time when the market conditions are typical of conditions during the week.

6. In spite of their inaccuracies they show quite well the trends in prices and give a rough idea of the rise and fall in the supplies of foodstuffs from season to season.

To remedy some of the inadequacies of the present system, it is suggested,

1. That market clerks be employed who will be under obligation to do as the Marketing Department direct. They will send full and complete reports regularly to the Marketing Office.

2. That the market clerks with the help and cooperation of the more reliable sellers learn to assess as correctly as possible the weights of the commodities that come onto the market. This will enable the Department to attach numerical values to the supply figures.
3. That the year be divided into a number of typical seasons as discussed in the text and a representative sample of weeks taken at random for a more detailed and accurate study.

4. That efforts be made to determine the districts of origin of the produce on the market by an appropriate letter or figure in a column provided for it or a clipping on a clipped card, and

5. That the clipped card system as described earlier in the text and in Appendix C may be considered as a suitable method of recording market conditions.

ACKNOWLEDGMENT.

The writer wishes to express his indebtedness to his tutor, Dr. A.L. Jolly and Mr. L.C. Farrell, the Assistant Marketing Officer, Port of Spain, for their valuable help and cooperation during all stages of the investigation. He has referred to an unpublished report entitled "A Review of the Arrangements for Marketing Agricultural and Animal Products in Trinidad and Tobago prepared in response to a Questionnaire from Sir Frank Stockdale, K.C.M.G., C.B.E., dated 3rd January, 1940". Chapter II of this essay is based on the abovementioned unpublished report, from the Marketing Department, Port of Spain.
# Appendix A.


### Market Report for the Week Ending 26th December 1946

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Supply</th>
<th>Wholesale g/1b</th>
<th>Retail g/1b</th>
<th>ITEM</th>
<th>Supply</th>
<th>Wholesale g/1b</th>
<th>Retail g/1b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GROUND PROVISIONS</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>GREEN VEGETABLES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweet Potatoes</td>
<td>4</td>
<td>4</td>
<td></td>
<td>Tomatoes</td>
<td>2</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Tannias</td>
<td>5</td>
<td>2</td>
<td></td>
<td>Cucumbers</td>
<td>2</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Yams (ordinary)</td>
<td>3</td>
<td>3</td>
<td></td>
<td>Melongenes</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Yams (Lisbon)</td>
<td>2</td>
<td>4</td>
<td></td>
<td>Cabbage</td>
<td>2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Dasheen</td>
<td>5</td>
<td>4</td>
<td></td>
<td>Cauliflower</td>
<td>2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Cassava</td>
<td>5</td>
<td>2</td>
<td></td>
<td>Lettuce</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Eddoes</td>
<td>5</td>
<td>3</td>
<td></td>
<td>Cress</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plantains</td>
<td>4</td>
<td>2</td>
<td></td>
<td>Salad Beans</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Figs</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FRUITS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bananas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oranges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grapefruits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Narrative:** (1) Abundant; (2) Plentiful; (3) Satisfactory; (4) Fair; (5) Scarce.

**Remarks:** Ground Provision has been scarce in market today while tomatoes and cucumbers are on the increase.

**Signature:** Food Production Assistant.
Appendix B.

Specimen Weekly Summary for the country, a copy of which is sent to the Department of Agriculture each week.

LOCAL FOOD CROPS.
Market Report for Week ending 16th November, 1946.

GROUND PROVISIONS:
- Sweet Potatoes: Fair.
- Tannias: Fair, 52,000 lb. arrived from St. Vincent.
- Yams (ordinary): Scarcely.
- Yams (Lisbon): Plentiful.
- Dasheen: Scarce.
- Eddoes: Scarce.
- Plantains: Scarce.
- Green Figs: Satisfactory.
- Pumpkins: Scarce.

GREEN VEGETABLES:
- Fair.

FRUIT:
- Satisfactory.

CORN:
- Scarce.

PULSES:
- Scarce.

Signature

Assistant Marketing Officer.

Date 22/11/46.
Appendix C.

It is proposed here to attempt a description of the clipped card system in economic investigation which may be considered as a suitable method of practical application in this work.

Instead of using forms as have been described in Appendix A, the information is entered on cards which are obtainable in various colours and sizes and with different rulings to suit the purpose and nature of the investigation. Along the edges of these cards are punched holes which may be numbered and/or lettered.

The holes are clipped according as they form a definite group representing a particular feature. For instance, all cards representing returns from Market A may be clipped (1) or (00) or (M) on the cards. By passing a pin specially made for the purpose through the punched hole in question, above the number clipped, all the cards having that particular number clipped and therefore belonging to a particular group, fall out. By this method the cards can easily be sorted out for study. The cards which the writer and his colleague used would be suitable for the market reports.

For work as indicated here records from different markets may be entered on cards of different colour; e.g. all records from Port of Spain Eastern market may be entered on blue, returns from San Fernando on red and those from Tunapuna on, say, green. There will be a card for each commodity and all the particulars about it during the whole of the "sample week" may conveniently be entered on it. Thus

/ holes
holes 1-4 along the side of the card shown above may be clipped for the district from which the commodity was produced. 7-9 may be clipped for the season, 1-9 along the top end for the year, 1, 2, 4, 8, etc. for the commodity and (M), (00).... for the market. On the space marked x may be entered the total weight of the commodity on the market during the week and y the average price per unit during the week. Any other remarks can be made on the back of the cards.

The card shown below will contain the following information:

(a) Commodity (clipping 13) Dry Corn.
(b) District of origin (2 on the right side) Toco.
(c) Market (M) Port of Spain.
(d) Supply - Scarce (5)'
(e) Season (7 on the right side) Dry season.
(f) Year (1 top end) 1945.
(g) Wholesale price 4½ £ per lb.
(h) Retail price 5 £ per lb.
(i) Total weight of corn for the week 3 tons

For ease of handling and filing this system is superior to the old method of recording on ruled foolscap forms.