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SOME ASPECTS OF THE BANANA INDUSTRY IN LATIN AMERICA

—by—

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Mr. Chairman, when I undertook to present this paper, I made it clear that I did not regard myself as fully informed about the Banana Industry in South and Central America. I did also say that it is a subject to which little attention has been given in the British Caribbean, so something ought to be done. You will therefore understand that such contribution as I can make is mainly introductory and exploratory. Having said that, I would now like to invite your attention to certain aspects of the Banana Industry in Latin America, which I think deserve special attention.

The first point which should be noted is that in Central and South America (taking all the countries together) the share of the domestic farmer in banana output is increasing. This I should mention, is due to two main factors : the rapid growth of production in Ecuador, and the recent policy of the fruit companies to expand the purchases they make on contract.

Secondly, several governments in the region have been taking a more direct interest in fluctuations in the banana trade, and in some cases, have taken positive steps to stabilise, and even to encourage production.

Thirdly, the shifting pattern of cultivation both within countries, and between countries (mainly associated with the operations of the big fruit companies) are becoming a less dominant feature because disease control is increasing, and because new varieties less susceptible to hazards are being introduced.

Fourthly, trade continues to be based on the old commercial links between exporters and importers.

And the fifth and final point, the countries of Central and South America do not receive preferential treatment in the market they supply. The implication of these points will become more obvious as I proceed.

Aspects Of Production In Latin American Countries

With production centred in the tropical countries, the banana industry is geared primarily for trade with temperate countries. This traditional pattern was established towards the end of the last century with supplies flowing from Central America to the United States. Panama was one of the first countries to develop a banana industry, and there has been regular trade between Panama and the U.S.A. since about 1866. Commercial shipments from Costa Rica to the U.S.A. were made as early as 1874. In Guatemala the banana industry can be traced back to 1907.

Production

In 1964, North, Central, and South America accounted for some 68% of the world's total banana production, estimated at some 23 million metric tons. Tables I and II give some idea of distribution of world production¹ and of main trends.

Table I. World Production of Bananas for Selected Years

	<i>Production</i> (000 Metric Tons)	
	1948/49- 1952/53	1963/64
North and Central America	3,010	3,690
South America	5,150	11,860
Asia	4,590	5,620
Africa	710	1,100
Others (Europe, Oceania, Mainland China)	(440)	(630)
Total Production	13,900	22,900

Source : *F. A. O. Monthly Bulletins*

¹

No estimates of cultivated areas are shown as figures are reported only for cultivation on plantations and for small producers registered for spraying services ; consequently, aggregated, they do not reflect the real position. The production figures suffer from the defects that in many cases they are built up from estimated yield per acre, in other cases from amounts offered for exports. Even the trade figures are not really suitable for rigorous analysis. Exports are at different times quoted in stems, count bunches, in weight with stems, or weight without stems. Import figures suffer from the same limitations as the export data, though to a lesser degree.

Table 2. *Banana Production : Latin America, 1959-1965*

	(000 tons)						
Country/Year	1959	1960	1961	1962	1963	1964	1965
Brazil	4,885	5,127	5,429	6,013	6,600	6,600	6,700
Colombia	590	650	550	508	580	590	590
Ecuador	1,898	2,075	2,050	2,115	2,320	1,800	2,000
Venezuela	—	688	567	677	874	1,456	1,203
Costa Rica	380	487	410	521	466	529	567
El Salvador	—	296	284	285	339	340	361
Guatemala	178	244	197	130	185	137	78
Honduras	833	832	959	921	885	920	1,242
Mexico	532	613	647	667	692	735	779
Panama	486	432	452	417	422	485	530
Dominican Republic	456	488	424	400	389	350	318
Jamaica	254	263	263	272	281	318	318
Windward Islands	—	—	(102)	(112)	(123)	(142)	(183)
Martinique	—	—	146	165	180	150	200
Guadeloupe	—	—	170	165	163	168	

Source : *Economic Research Service U.S. Department of Agriculture : "Indices of Agricultural Production for the 20 Latin American countries."*

FAO Monthly Bulletin of Agricultural Economics and Statistics.

In Table 1, the very rapid expansion in production, particularly in South America, stands out as also the tremendous continuing importance of Latin American production. But as Table 2 reveals, the overall expansion in output has been accompanied by some shifts in the relative levels of output of individual countries, e.g., the contraction in Guatemala contrasts with expansion in neighbouring countries.

There has been an underlying pattern of shifting cultivation². Disease, particularly Panama disease, has been a major factor in production trends and shifting cultivation. Losses due to this disease are heavy and the attempts to control it (prolonged flood irrigation and rehabilitation of dry fallow areas by some form of crop rotation) have not been particularly successful. Apparently the only reliable answer to Panama disease is the use of disease resistant varieties. In the Central American countries, the old plantations have in the past been devastated by Panama disease, causing changes of location, and in recent years this disease (Panama) has become a growing menace in Colombia.

Leafspot disease (*Sigatoka*) is another major problem. The destruction it caused virtually brought banana exporting by Mexico to a halt ; but a high measure of control is being achieved (e.g. in Panama) through the most modern spraying techniques employing aerially applied fungicides. Similarly in Colombia, *Sigatoka* is present, but is largely kept under control by aerial spraying.

Wind-blow-down is the third major factor in production. The Gros Michel, the popular variety, is extremely susceptible to blow-downs. For example, although Panama is not subject to hurricanes, losses from wind damage in 1962 reached 5 million stems compared with exports in that year of 6.5 million stems. In the Santa Maria area of Colombia, wind-blow-down is the greatest problem and every year leads to a loss of 2 to 3 million bunches (45-65,000 tons).

With the windstorm losses running so high, it is hardly surprising that the search for a wind-resistant or wind-tolerant type of banana should become a factor of top consideration in the banana-breeding programme of some fruit companies. So also is the search for a banana variety that is resistant to Panama disease and meets the required consumer acceptance standards of the North American market.

The answer seems to have been found in the Valery variety. After intensive field trials the Valery variety has proven that

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See the Country Notes in the Appendix.

it is resistant to both Panama disease and wind-storm damage, and also meets the consumer requirements. In terms of disease resistance the Valery equals the Lacatan; but the Valery also has the distinct advantage over the Lacatan and the Gros Michel in that it is a low-growing variety and suffers less wind damage.

Trade And The Role of Government

World banana exports in 1965 were some 5 million tons (10% increase over the previous year) due mainly to increased supplies from new plantings in Central America and Colombia, higher production in the Caribbean, lower import prices, and transition to box packaging which has allowed for: (a) fruit arriving at destination in better condition and (b) wider distribution.

The comparison of pre-war with post-war exports is made in Table 3. It reveals that countries in the Americas made up some 80% of exports in both periods. (Fuller details of exports are given in Table 4.) The banana trade is the mainstay of the economy in Ecuador, Honduras, Panama, the Windward Islands, and Martinique. It is the second most important source of foreign exchange in Costa Rica and Guatemala and contributes a significant share in Jamaica. By the mid-sixties the South and Central American countries were supplying on average, some 70% of world banana exports.

In addition to having the largest exporters of bananas, Latin America also has some countries that are importers; and if the U.N. definition of Latin America which includes all North America

Table 3. World Banana Exports, 1934/38 & 1958/62

	1934-38		1958-62	
	(000 tons)	(%)	(000 tons)	(%)
South America	417.0	17	1,424.4	36
Central America	1,173.3	47	1,227.8	31
Jamaica and Windward Islands	380.5	15	249.0	6
Guadeloupe & Martinique	62.2	3	242.6	6
Africa & Spain (Canary Is.)	270.7	11	713.5	18
Asia & Pacific	166.7	7	122.9	3
World Total	2,470.5	100	3,980.2	100

Source : *F. A. O. Monthly Bulletins.*

Table 4. *Banana Exports — America's & Caribbean 1959-64*

(000 tons)

	1959	1960	1961	1962	1963	1964
South America	1,476.0	1,509.1	1,447.8	1,478.7	1,766.5	1,734.2
Bolivia	—	—	—	—	—	0.6
Brazil	213.1	241.9	245.9	216.3	205.9	225.5
Chile	—	—	—	—	0.1	—
Colombia	203.3	190.7	205.6	147.1	202.6	171.6
Ecuador	1,051.7	1,065.0	985.3	1,100.0	1,340.0	1,320.0
Guyana	0.7	1.7	1.8	—	—	—
Paraguay	2.7	4.9	3.7	6.2	4.1	2.1
Peru	1.0	1.1	0.6	1.4	1.0	0.2
Surinam	0.1	0.1	1.1	1.7	2.3	1.8
Venezuela	3.3	3.4	3.8	4.9	9.5	11.4
North and Central America	1,051.0	1,113.6	1,121.4	1,032.0	1,057.3	1,066.0
Br. Honduras	0.1	0.1	0.3	0.3	0.3	0.4
Costa Rica	213.4	272.8	230.9	292.5	261.9	293.7
El Salvador	2.0	2.4	0.5	0.1	0.8	1.0
Guatemala	146.2	197.6	163.9	89.7	121.5	111.0
Honduras	359.6	363.1	430.4	378.4	343.6	349.0
Mexico	36.1	10.6	22.6	8.4	11.6	17.1
Nicaragua	2.1	3.7	1.3	11.4	18.7	27.2
Panama	291.5	263.3	271.5	251.2	297.9	266.6

Table 4. *Banana Exports — America's & Caribbean 1959-64*

(000 tons)

	1959	1960	1961	1962	1963	1964
Caribbean	638.7	722.7	740.3	749.5	687.1	565.9
Dominican Republic	102.1	181.6	170.2	172.8	119.8	69.1
Dominica	25.4	30.5	28.4	28.1	32.0	42.9
Grenada	13.9	12.0	12.0	12.5	14.6	11.6
Guadeloupe	116.5	115.2	122.4	118.1	108.6	54.8
Haiti	0.1	2.7	4.4	4.6	4.0	0.1
Jamaica	153.8	156.9	159.6	148.5	162.5	177.2
Martinique	131.4	126.2	137.8	151.3	117.0	86.0
Montserrat	0.1	0.1	0.1	0.3	—	—
St. Lucia	27.6	27.7	39.2	48.9	53.2	61.2
St. Vincent	24.5	23.0	21.1	22.1	25.6	—
Trinidad & Tobago	4.2	4.2	2.7	1.6	0.3	0.3
U. S. A.*	39.1	42.6	42.4	40.7	49.5	62.7

* U. S. A. customs area, which includes Puerto Rico.

Source : *FAO Yearbook, 1965*

Table 5. *Banana Imports : The Americas, 1960-1964*

	(000 Tons)					
	1959	1960	1961	1962	1963	1964
Argentina	205.5	191.3	211.8	176.3	163.2	183.2
Chile	29.8	42.5	17.2	25.8	63.8	28.0
Peru	1.0	2.4	4.4	8.1	10.8	5.3
Uruguay	12.3	23.8	30.8	19.3	24.9	30.0
Neth. Antilles	5.2	5.3	4.8	5.1	5.1	4.3
Canada	153.6	171.7	164.2	153.5	151.1	157.0
U. S. A.	1,704.6	1,950.9	1,886.0	1,615.2	1,667.0	1,744.1

Source : *FAO Annual Trade Book 1965*

is applied, it is the largest importing area.³ The United States takes some 40% of total world imports, and has the highest level of per capita imports in the world (23 lb per capita). Argentina, the main importing country in South America, draws its supply from Brazil, with which it has a barter agreement.

Excepting in the cases of the Commonwealth Caribbean countries and the French territories, Latin American countries do not receive preferential treatment in the form of tariff protection, quotas, etc., in any import area. Generally, the role of Government in these countries (i.e. in the "non-preferred" producing countries) has not extended beyond encouragement of investment and trade. This contrasts with the situation in the Caribbean (which in the main supplies sheltered markets) where governments take the "middle road" in influencing production and provision of some services.

In some cases (e.g. Ecuador) the Government has provided credit assistance through national and private banks. In *Ecuador* much of the banana expansion has been financed by loans to producers from local banks out of funds granted by the Government for the specific purpose of promoting agricultural development. From 1950 to 1963 this amounted to \$16m or roughly 17% of total loans granted for cultivation of agricultural products. The peak in a single year was \$1.8m. in 1956. New private bank loans are largely confined to the exporters and intermediaries, and only on a decreased scale to growers.

In 1963, Government, taking regard of the increased competition in the banana trade and reduced returns to farmers, established the DNB (Dirección Nacional del Banano) as the executive and specialised organ to deal with problems related to the production and trade of bananas.

In *Colombia*, Consorcio banana company⁴ makes medium term loans to producers at an interest rate of 9% to 10%, as well as interest-free short term loans (2 to 3 months). At Turbo, United Fruit under its new contract system grants loans for five-year periods, fixed at \$693 per hectare at 9% interest.

In *Costa Rica* the Central Bank (in conjunction with Standard Fruit and Shipping Company) is rehabilitating cultivations at Puerto Limón. A number of government organisations and institutions are also actively co-operating in the project, and these include a technical co-ordinating committee created by the

³

See Table 5

⁴

See Country Notes.

National Council of Production which will control all technical services, and the Planning Office of the Ministry of Crops and Livestock.

The picture in *Honduras* is that the Development Bank of Honduras is essentially interested in encouraging diversification, rather than financing expanded banana output through independent farmers.

The Government of the *Dominican Republic* created, in 1964, the Instituto Nacional para la Promocion del Guineo (Inaprogui) with financial aid provided through the Agricultural Bank, to assist small banana growers, give technical assistance, and to serve as marketing organisation on behalf of producers.

It is worth noting, too, some variations in taxation policies in the region. The banana industry in Ecuador is subject to rather high tax levies by the Government to create infrastructural improvements. In 1963, taxes on bananas accounted for 18% of total direct taxes collected in Ecuador. In 1964, all taxes levied on production, transportation and exportation of bananas were abolished and replaced by a single *ad valorem* tax equivalent to 21.4% of the f.o.b. value.

In contrast, the Government in the Dominican Republic has granted tax concessions to banana farmers, including subsidies on the cost of basic materials and farm requisites. All equipment and materials used for rehabilitation of banana plantations are exempt from taxation. Similarly the two companies hitherto operating in the country have not had to pay tax on imports of equipment and materials to be used in the banana industry, but have been liable to a tax of 15% on their net operating profits.

Some Aspects of Prices and Markets

Under the pressure of increased supplies banana prices have been irregular, and the main tendency since the mid 1950's has been for larger quantities to be sold at lower prices. This is true both for the free markets (U.S.A. and W. Germany) and the sheltered markets (U.K. and France). The declines in the free markets have been sharper, particularly in the U.S.A. The unweighted prices of Table 6 understate the position.

Average import prices have consistently been higher in the protected markets (UK and France). Jamaica and the Windward Islands as Commonwealth territories have special status in the U.K. market, which has a preferential tariff system. Non-Commonwealth suppliers face a duty of roughly 15% *ad valorem*, in addition to a quota system. The system of regulation of the

French market (in favour of Martinique and Guadeloupe) aims as far as possible at an orderly distribution of supplies over the year to maintain stable prices at a remunerative level to the producer ; so that although French imports rose rapidly (362,000 tons 1963 ; 353,000 tons 1964 ; 430,000 tons 1965) the price level did not change appreciably.

Table 6. *Bananas :Average Import Prices, 1958-1965*

(U.S. cents per kilogram)						
Importer	1958	1960	1962	1963	1964	1965
UK (Jamaica Wholesale Price, London)	30.0	28.1	27.5	28.2	30.4	—
France (Gaudeloupe f.o.b. French ports)	23.6	20.1	19.6	22.5	23.5	22.7
Federal Republic of Germany (Ecuador f.o.b. Importer to Wholesaler Hamburg)	14.6	13.3	14.0	14.7	13.2	14.1
USA (Central & South America f.o.b. Importer to Wholesaler New York) (a)	16.3	14.3	13.3	12.6	—	—
(b)	—	—	—	16.8	17.0	
(a) bunches			(b) cartons			

Source : *FAO Commodity Review 1966.*

The French tariff now operates within the Common Market system. For rates see Table 7 below.

Table 7. *Common Market Tariff System.*

	General Rates	Rates to Associated Countries
	(% ad valorem)	
Belgium-Luxemburg	16.5%	9%
France	20.0%	11%
Germany	6.0%	Free
Italy	20.0%	Free
Netherlands	16.5%	9%

A special protocol of the Rome Treaty provided for a duty-free quota in West Germany based on 1956 imports. The Treaty also provides for a 20% *ad valorem* common external tariff, while the tariff to be applied to Associated countries is to be decreased gradually to zero.

The sources of banana imports in the ECM in 1963 are given in Table 8 below :

*Table 8. Proportional contribution of Banana Exporting Countries to E.C.M. Imports, 1963
(Percentage)*

Exporter	E.C.M.	W. Germany	France	Italy	Belg-Lux.	Neth.
Ecuador	22.6	45.0	0.9	—	41.6	16.3
Colombia	17.5	29.7	0.4	—	32.9	48.4
Central America	10.7	21.0	—	—	9.7	19.5
Guadeloupe and Martinique	17.7	—	54.5	2.5	—	1.2
Africa	29.7	4.3	43.9	92.9	12.9	0.3
Others	1.8	—	0.3	4.6	2.9	14.3
All	100.0	100.0	100.0	100.0	100.0	100.0

(In 1963, U.K. drew 76% of its supplies from Jamaica and the Windward Islands, 0.9% from Brazil and 23.1% from Africa and 'Others'.)

In Tables 9 and 10 available information on price formation is indicated. Central American production and distribution are completely integrated so the farm-gate price was deducted from the f.o.b. level. The data shows that the free market exporters are low cost suppliers ; that farm-gate prices are higher for the sheltered suppliers ; that shipping and insurance costs are higher from the Caribbean, than for imports into Western Europe from South America ; that retail prices are double the import price with profit margins in the importing country amounting to one-quarter of retail prices. One interesting feature is the high cost of the box, which is almost as much as the net price received by the farmer.

Table 9. *Banana Price Formation : Farm gate to CIF 1964/1965*

(\$ U.S. per metric ton)

Elements of cost	N. York	Ecuador to Hamburg	Colombia to Hamburg	Dominican Republic to N. York	Central America to N. York	Jamaica to N. York	Martinique to Martinique
Farm-gate Price	30	30	n.a.	20	20-30	47	90
Box Packing	6	6	n.a.	1))))
Carton	22	22	n.a.	20))))
Transport to Wharf	3	3	n.a.	12)	59)	47)	42)
Taxes	11	11	n.a.	3))))
Stevedoring	4	4	n.a.	4)))	16)
Exporters Overhead and Margin	4	4	n.a.)))	
F.O.B. Cost	80	80	70	60	79-89	94	148
Ocean freight and Insurance	32	50	46	36	25	54	69
C. I. F. Cost	112	130	116	96	104-114	148	217
Unloading and Misc. expenses	11	14	14	14	11	10	22
Importers Landed Cost	123	144	130	110	115-125	158	239
Importers Selling Price	140	164	140	140	140	175	263

Source : *F.A.O. (initial attempt to illustrate comparative cost and price patterns).*

Table 10. *Banana Price Formation : CIF to Retail, West Germany, France and United Kingdom, 1963.*
(U.S. Dollars)

	West Germany			France			United Kingdom		
	Price per Kg	% of CIF Price	% of Retail Price	Price per Kg	% of CIF Price	% of Retail Price	Price per Kg	% of CIF Price	% of Retail Price
CIF Price	0.15	100	44	0.21	100	51	.148	100	38
Duties and Taxes	0.02	13	6	0.01	5	3)		
Cost of Imports up to Ripening Storage	0.02	13	6	0.04	19	10)		
Ripening costs	0.05	33	15	0.05	24	12)		
Wholesale Price	\$0.24	159	71	\$0.31	148	76	.286	193	74
Profit margin (Wholesale & Retail)	0.10	66	29	0.10	47	24	.100	68	26
Retail Price	\$0.34	225%	100%	\$0.41	195%	100%	\$.386	216%	100%

Source : *West Germany and France — La Marche de Cafe, du Cacao, et des Bananas dans les pays de le CEE, 1963. U.K. — FAO Papers.*

A study of GATT in 1963 showed that the price paid to growers represented about 15% to 12% of the retail price in the importing country. Packing, transportation to port and handling accounted for another 5%. This means that the f.o.b. price represents between 20% and 25% of the retail price. Insurance and freight charges varied in a range roughly between 10% and 20% of the retail value. Altogether import duties, taxes, storage and ripening costs, distribution expenses and profits represented between 55% and 70% of the retail price.

Some Comments And Projections

The questions of access to markets and recent developments in import policies have increasingly become the focus of attention, and the divergence of views on market access and on organisation of import markets is becoming clearer. There are several points of view corresponding to the traditional market relationship.

First, there is a view of importing countries which impose quantitative controls and grant special tariff or other preferences to certain areas. They consider that these systems are aimed at ensuring regularity of supply at prices which they think provide a remunerative return to producers and at the same time are fair to consumers.

They stress that the organisation of their markets facilitates a steady expansion of per caput consumption, which in fact, has risen substantially in recent years, and which has brought an increase in the income of producers.

They say the quantitative controls are aimed at ensuring adequate supplies throughout the year in accordance with requirements. These importing countries also stress that there are other ways of stimulating consumption than by lowering prices, e.g., by improvements of the presentation of the product and the more effective distribution.

The second point of view from exporting countries which supply those regulating markets, broadly supports these viewpoints. They emphasise that the system enables their countries to plan on sure foreign exchange earnings and enable their farmers to obtain fair and remunerative returns. Some also consider the opportunities for export crops alternative to bananas as limited and in many instances they think that special physical and social factors prevent them from competing with the large scale production of Latin America.

On the other side is the point of view of the South and Central American exporting countries. They take the view that the greatest expansion in consumption over a longer period has taken place in countries with liberal access conditions, where consumers enjoy the benefits of active competition among suppliers. And they consider that although price fluctuations cause serious problems from time to time for exporters, lower prices facilitate expansion of consumption and establish a wider permanent demand for bananas.

They argue that the demand at the new level continued to a larger extent even when prices rose as a result of supply changes, and so provided the dynamics for permanent expansion of consumption.

Generally, they feel that all barriers to trade which raise the prices to consumers and discriminate against producers (quantitative controls, customs duties, distribution taxes, etc.) are detrimental to the growth of consumption and that the removal of such barriers would be to the long term benefits of all producing countries. These exporting countries have stressed the economic and social difficulties which they face as a result of the existence of trade obstacles.

Some importing countries which adopt an open market policy, or which advocate non-discriminatory and free access to all markets are sympathetic to the Latin American view. They contend that per caput consumption was highest in countries in which restrictions did not exist. Furthermore, some of the largest increases in per caput consumption have been secured in countries in which restrictions on imports or customs duties had been progressively relaxed.

South and Central American producers have been particularly concerned with the adverse effect which the full imposition of the common external tariff might have on their exports to the European Common Market, and they still hope that the E.E.C might be able to eliminate this tariff. The E.E.C. view is that producing countries would have to await the results of the Kennedy round of negotiations in the G.A.T.T.

Regarding production programmes and longer term outlook for production and consumption, the situation can be summarised in this way. The general view is that supplies available for export are even now considerably larger than the quantities currently exported (and the small table given on Ecuador in the paper demonstrates the high element of waste). This view also considers that availabilities in 1970 could be very much higher than

the current estimate of 6.8m. tons. Also, some steps have already been taken by some producers to limit expansion because of concern about demand prospects, and the underlying situation is that production could be rapidly increased if new market opportunities are available. Consequently, the predominant Latin American view is that the possibilities for an imbalance in the overall supply-demand picture exists, and the important need is for measures to be taken to increase consumption.

The targets for planting and production suggest that if planned plantings are realised and, given generally moderate yields, that world supplies available for export could be in 1970 more than 50 per cent greater than in 1965. Some calculations indicate a compound growth rate of roughly 7½% per annum, which is considerably higher than the 5% of the 1955-65 period. (Some projections for the countries of this region are shown in Table 11.)

Table 11. Estimated Export Availabilities from the Americas and Caribbean 1970

	1964 Exports (000 tons)	1970 Est. Export Availability (000 tons)	Increase over 1964 (%)
South America	1,492	1,800	+ 24
Colombia	172	400	+132
Ecuador	1,320	1,400	+ 6
Central America	1,066	1,845	+ 73
Panama	267	420	+ 58
Costa Rica	294	500	+ 70
Guatemala	111	200	+ 80
Honduras	349	650	+ 86
Nicaragua	45	75	+ 66
Caribbean	(780)	1,320	—
Dominican Republic	190	250	+ 32
Jamaica	177	300	+ 69
Windward Islands	150	300	+100
Martinique	151	270	+ 80
Guadeloupe	118	200	+ 70

Some similar projections from an alternative source set the total for South America higher at 2 million tons, Central America lower at 1.3 million tons and the Caribbean at 0.8 million tons.

What emerges is the supporting opinion that the largest rate of expansion will be in Colombia ; and that increase taken along with the expected further growth in Ecuador will maintain South America as the main production area in this region. Opinion is divided, however, on how far behind Central America will be ; the wide disparity in estimates for Central America no doubt turning on different views of the outcome of replantings on formerly abandoned plantations.

It appears unlikely that imports *cannot* be expected to grow at a similar rate without depressing prices to very low levels. North American imports are likely to continue to increase both in absolute terms and on a per caput basis but probably only moderately. Import-per-caput increases in Western Europe are likely to be relatively larger than in the United States. The greatest increase is expected in Italy, where low per caput consumption and recent abolition of the State Monopoly provide a large expansion potential.

A growth rate of around 3% per annum is expected for imports in Western Europe and about 2% in Canada and the United States.

There will be some price declines but the effect of box-packaging will be to keep prices more buoyant than they would otherwise be. As the bulk of bananas moving in trade will be shipped in boxes by 1970, it is likely in the next 3 years that this factor could have as great an influence on price as a rise from supply and demand imbalances.

APPENDIX

SOME COUNTRY NOTES¹*Ecuador*

There are some 3,000 farmers registered in the spraying programme, with approximately 190,000 hectares under banana cultivation ; but as the summary table shows, 15% of the farmers control nearly half the acreage.

<i>Size Group</i>	<i>No. of farmers</i>	<i>%</i>	<i>Area under bananas (hectares)</i>	<i>%</i>
Under 25 hectares	1,198	46.2	23,825	13.4
26 — 100 "	990	38.3	69,688	39.7
101 — 500 "	366	14.1	59,723	34.1
Over 500 "	38	1.5	22,429	12.8
All sizes	<u>2,592</u>	<u>100.0</u>	<u>175,665</u>	<u>100.0</u>

Production has risen from 600,000 tons in 1950 to about 2.4 million tons in 1964 ; and it is estimated that banana production as a proportion of total agricultural output, increased from 24% to 46% in the period.

Since 1952, Ecuador has been the largest banana exporter ; its share of total world exports now averages 25%. The present level of exports is more than 1.3 million tons, about 56% of production. Best estimates of disposal of the remainder indicate :

Human consumption and processing :	3 million stems	or 9%
Animal feeding :	6 "	or 18%
Waste :	24 "	or 73%

which are said to represent a fairly normal utilisation pattern.

The bulk of marketing is handled by agents who buy directly from farmers and sell to exporters at port of shipment ; in the case of the large estates there often is direct contact between producer and shipper, but rarely are the relationships from farm to ship covered by contract.

The transition from sale by bunches to box-packaging has

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The bulk of the data is drawn from F.A.O. documents and papers, supplemented by information from other sources. It is assumed throughout that there is already familiarity with the Banana Industry in the Commonwealth Caribbean.

been rapid and is now virtually complete, the packing houses being mainly owned by the shippers who either buy shipside or f.o.b. (On the shipside basis, the shipper pays for packing, boxes, loading on ship and export taxes ; on the f.o.b. basis these costs are borne by the agent or in some cases by the farmer.)

Although there are some 24 exporting companies, about 85% of total shipments are accounted for by 7 firms : three United States companies — (Bananas SA, Standard Fruit and United Fruit, together 39%) ; two West German companies— (USEBA and Export de Fontas del Ecuador, together 24%) ; two local companies — (Exportadora Bananero Noboa and Agricola San Vicente, together 21%).

All of the above except the German group supply *North America* ; the United Fruit and Exportadora Bananera also ship to *Europe* and the German group to *Japan*.

Colombia

Until recently banana production was confined to the region around Santa Marta (about 200,000 tons per year exports) in the province of Magdalena. This production was handled by three companies : Compania Frutera de Sevilla, Federacion de Productores de Bananos, and the Consorcio Bananero. The first is a subsidiary of United Fruit. The other two originated as a limited company in 1948, but split in 1950. In 1965 their comparative positions were :

	<i>Growers under Contract</i>	<i>Area under Bananas</i>	<i>Annual Shipments</i>
	<i>(numbers)</i>	<i>(hectares)</i>	<i>(000 tons)</i>
Consorcio Bananero	230	5,000	65
Compania Frutera de Sevilla	350	na	95
Federacion de Productores	300	3,000	30

The growers contracted to the Federacion are mainly small farmers ; but the Federacion also owns some plantations (2,000 hectares) that are contracted to United Fruit. All the Federacion's fruit are shipped and marketed by the Compania Frutera on a commission basis. Both company ships and chartered vessels are used, from a joint shipping pool operated by United Fruit, a German group (Union Parten Reederei, Bremen) and a Swedish group (Sven Salen, Stockholm).

Consorcio ships and markets its fruit through a joint partnership with the German import firm, Internationale Fruchthimport Gesellschaft (Hamburg).

Only Gros Michel is grown, and only a fraction is exported in boxes. *All shipments are to Europe.*

Further plantings have been started at Turbo (in North-West Colombia) where an estimated area of 200,000 hectares is said to be suitable for banana cultivation. Initial planting up to the end of 1967 is expected to be 14,000 hectares. Yields so far have been around 24 tons (metric) per hectare. The farm units at Turbo average 45-50 hectares, the majority of operators being on contract to United Fruit. Wind-damage reduced output at Turbo to 80,000 tons in 1965.

Costa Rica

Commercial shipments were made to the USA in 1874, which makes Costa Rica one of the oldest banana exporting countries. Exports by 1908 exceeded 10 million bunches; but fell and did not reach that figure again till the mid fifties. The sharp fluctuations which have persisted (See table below) :—

Banana Exports for Selected Years : Costa Rica

<i>Year</i>	<i>Number (million bunches)</i>	<i>Weight (tons)</i>
1957	11.5	412,000
1959	5	213,000
1964	9	295,000

are due to diseases, floods, soil depletion, etc. Nevertheless (after coffee) it has been the second largest export earner. There have been major shifts too in location of the industry. The original plantations owned by United Fruit (for many years the only producer), on the Atlantic Coast round Port Limon were abandoned in the mid-thirties and two new divisions started on the Pacific Coast (Golfito and Quepos). Quepos was gradually abandoned in the fifties and is now out of production.

Present estimates are that United Fruit has 1,000 hectares under bananas at Golfito, and also purchases from local producers operating about 1,500 hectares.

United Fruit Company provides to those producers disease and pest control services, provides irrigation and furnishes transportation to port.

In conjunction with Standard Fruit and Steamship Company, the Central Bank of Costa Rica has started a banana export development programme at Port Limon to re-establish the formerly abandoned area. About 900 hectares were already in production in 1964, and the planting programme 1965-67 is for another 4,000 hectares, rising to a total of 7,000 hectares by 1970. This is all in the hands of independent farmers under contract to Standard Fruit, which has undertaken to purchase all exportable fruit — to be boxed for shipment to North America and Western Europe.

Guatemala

The banana industry can be traced back to 1907. United Fruit is the only company operating and has two divisions — Tiquisate on the Pacific, and Bananera on the Atlantic. Production had been declining at Tiquisate and the company decided to discontinue those operations in 1964. Operations at Bananera are being expanded (Valery) by 6,500 hectares (16,000 acres).

(No further information was available.)

Honduras

An exporter since the earliest days of the banana trade, Honduras has had since the pre-war period exports at the level of 350,000 tons. Banana is the main export item.

Standard Fruit and United Fruit are the two main producers, their own production accounting for the bulk of exports. United Fruit also purchases from independent producers (who are mainly ex-employees).

<i>Company</i>	<i>Acreage</i>	<i>Exportable Production</i>
United Fruit	12,000 hectares (30,000 acres)	400,000 tons
Standard Fruit	4,500 „ (11,250 acres)	200,000 „

Attempts to expand output through self-financed independent planter programmes have been unsuccessful.

Nicaragua

Output of bananas has expanded rapidly in the last few years — and exports reflect this rapid increase from 8,000 tons in 1962 to 45,000 tons in 1964. There are two concentrations of production : on the Pacific Coast at Chinandega, and to the west of Lake Nicaragua in the Rivas irrigation project. (The irrigation project was financed by loans from the World Bank and the IADB.)

It is reported that the United Fruit Company has concluded a 5-year contract to purchase minimum quantities at a minimum specified price.

Dominican Republic

Up to 1965, 80% of the area under bananas was owned by two companies :—

Grenada Company (subsidiary of United Fruit)	2,200 hectares
Dominican Fruit Company	2,000 „

with the balance made up by small farms covering about 1,000 hectares, and supplying under contract one or other of the two large companies. United Fruit withdrew completely from the country in 1965 : its scale of operations had been reducing.

A government programme to rehabilitate 5,600 hectares is intended to offset the departure of United Fruit.

Panama

The regular Panama-United States banana trade dates back to about 1865. Commercial production had been entirely in the hands of the United Fruit Company and its subsidiary, the Chiriqui Land Company.

The United Fruit Company has two main divisions in Panama :

(i) Pacific Coast at Armuelles	10,400 hectares
(ii) Atlantic Coast at Almirante	4,000 „

Within the last 6 years there has been an organisational change in the industry ; the company has introduced a system of Associate Producers who are provided with some basic facilities and services. These include rail transportation, installation and maintenance of packing sheds and aerial spraying. The associate producers purchase and apply fertiliser on their own account. The company guaranteed initial loans to enable them to commence operations, repayments to be made out of purchased fruit. So far there are 14 associates accounting for one quarter of the cultivated area.

Exports rose from \$6m. in 1950 to \$13 million in 1957 and since then has levelled off around \$13.5m per year.* In 1964 earnings from banana exports were in excess of \$20m and represented 45% of total exports.

* See Table 4 for quantity.

The relative stability in level of output during the last few years is partly due to the fact that United Fruit has held its planting programme in abeyance while awaiting results of its research programme on varieties.

Further, there is the time lapse for propagation between introduction of a new variety and the availability of sufficient planting material to meet the needs of a commercial replacement programme.

Martinique

Production is based on some 2,400 farms, many of which are under 1 hectare, as opposed to the 180 large farms that supply most of output and have an average area of 32 hectares.

<i>No. of Farms</i>	<i>Banana Area (Hectares)</i>	<i>Average Yield (Tons/Hectares)</i>
2,200	3,400	20
180	5,900	24

In 1965 some forty per cent of banana supplies to France were from Martinique, France's largest single source. Sales to France are mainly on consignment basis through export-import companies and commissioned importers, the fruit remaining the property of the producer until it is unloaded at port of destination. The smaller producers have formed co-operatives, which have federated into an export bureau for dealing directly with importers or wholesale-ripeners; such sales account for about 11% of total shipments. Matters of common interest are handled by a joint syndicate of producers and exporters. Shipping is handled by Compagnie Generale Transatlantique.

Less than one-quarter of output is sold outside France (in U.S.A. and W. Europe), and to compete in the non-protected markets, producers have set up a stabilization fund out of which sales to such markets are subsidised.

Banana producers in Martinique can obtain long, medium and short-term loans from the "Credit Agricole," as well as reductions in the cost of agricultural equipment (10-15%) and irrigation works (20-50%).

Guadeloupe

Banana cultivation is concentrated in southern Basseterre, the western half of the island. There are about 1,300 banana growers, and some 70% of their farms are 25 hectares or less in extent. The yield is higher for the larger units but this is only an indicative measure as all the farms are under mixed cropping.

<i>Size of Farms</i>	<i>Percentage of banana cultivated area</i>	<i>Yield (Tons/Hectare)</i>
Less than 2 hectares	(20%)	Less than 10
2 - 25	(60%)	n.a.
Larger than 25 hectares	(30%)	25-40

A main feature is the number of co-operatives and organisations intended to assist in the various stages of production and marketing :

The Federation Departementale Guadeloupeemie des Societies d'Interet Collectif Agricole (FEDEG), supplies equipment, provides maintenance and aims at obtaining good prices for small farmers ;

The Societe d'Interet Collectif Agricole de la Guadeloupe, (SICABAG) concentrates on facilitating transport, dealing particularly with freight.

The Union Syndicale Bananiere (UNIBA) speaks for growers and exporters to the Administration ;

The Societe d'Interet Collectif Agricole des Planteurs et Producteurs-Exportateurs de Bananas (SICAPEB), makes contact with transport and transit companies on behalf of growers and exporters ;

The Co-operative Agricole de Traitements Anti-parasitaires de la Guadeloupe (CATAG), supplies fungicides, insecticides, etc.

Shipping is handled by one firm — Campagnie Generale Transatlantique — to France. The link between producers and the shipper is a relatively large number of exporting firms, though quite often large producers export their own bananas and deal directly with the shipper.

As an overseas Department, the Mainland's minimum wage levels apply, so that labour costs are relatively heavy.