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## The United Kingdom market for fresh exotic fruit (ODNRI Bulletin No. 13)

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**THE  
UNITED KINGDOM  
MARKET FOR  
FRESH EXOTIC  
FRUIT**



OVERSEAS DEVELOPMENT  
NATURAL RESOURCES INSTITUTE  
**BULLETIN**

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**OVERSEAS DEVELOPMENT  
NATURAL RESOURCES  
INSTITUTE**

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**Bulletin No. 13**

**THE UNITED KINGDOM  
MARKET FOR FRESH  
EXOTIC FRUIT**

**DAVID HALLAM  
WITH  
JUAN PATRICIO MOLINA**

PUBLISHED BY



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## ABBREVIATIONS

ACP	African, Caribbean and Pacific States
c. and f.	Cost and freight
c.i.f.	Cost, insurance, freight
COLEACP	Liaison committee for promotion of tropical fruit and off-season vegetables from ACP States
EC	European Community
FAO	Food and Agriculture Organization
FFVIB	Fresh Fruit and Vegetables Information Bureau
f.o.b.	Free on board
GSP	Generalized system of preferences
ITC	International Trade Centre
LDDC	Least Developed Developing Countries
NFS	National Food Survey

## INTRODUCTORY NOTES

This study was completed under the terms of an Overseas Development Natural Resources Institute (formerly the Tropical Development and Research Institute) Special Research Fellowship by Dr David Hallam of the Department of agricultural economics, University of Reading, United Kingdom. Dr Hallam was assisted in this by Juan Patricio Molina, a former postgraduate student in the Department of Agricultural Economics, University of Reading, now working as an agricultural economist in Colombia. Juan Patricio Molina assisted in the design of the questionnaires, assembled and reviewed existing information and previous studies concerning the marketing of exotic fruit, and prepared a detailed background paper. A background paper on relevant European Community regulations was prepared by Nick Beard, also of the Department of Agricultural Economics, University of Reading.

Background research, data collection, statistical analysis, trade interviews, and the drafting of a report were all completed in the first six months of 1987.

The views and opinions expressed in this study are those of the author. They are not necessarily those of the Overseas Development Natural Resources Institute.

All values, unless otherwise stated, are given in £ sterling.

1 KSh = £0.04 approximately in 1986

1 \$NZ = £0.77 approximately in 1986

All weights, unless otherwise stated, are metric.



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# Summaries

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## SUMMARY

### The United Kingdom market for fresh exotic fruit

This bulletin examines the nature and structure of the United Kingdom market for fresh exotic fruit. Its findings relate primarily to six exotic fruit – avocados, pineapples, mangoes, paw paws, lychees and passion fruit – which are assumed to be a representative cross-section of exotics in general. The major determinants of the level of exotic fruit consumption are analysed. Particular attention is focused upon the influence of prices and incomes and an attempt is made to obtain estimates of price and income elasticities of demand. The marketing channels through which imported fruit passes between importation and retailing are described, and the nature and functions of firms involved at each marketing stage are examined. Price formation and the transmission of information through the marketing chain between retailers, wholesalers, importers and exporters are discussed. The overall objective of the study is to provide information which will assist developing country exporters in identifying profitable trading opportunities within the market, and give some guidance for the design of their production and marketing strategies such that foreign exchange earnings are maximized.

### STRUCTURE OF THE BULLETIN

Chapter 1 outlines the nature of the market and defines the scope, purpose and methodology of the study, and summarizes the essential characteristics of exotic fruit. Chapter 2 presents profiles of the six exotic fruit upon which the study is primarily based. In each case trends in imports and consumption, major sources of supply and average market prices are described. In Chapter 3 the major factors influencing the level and structure of the demand for exotic fruit are analysed. Chapter 4 describes marketing channels for exotic fruit, price formation and marketing margins, market information and trade regulations. Chapter 5 draws together the preceding discussion and traces its implications for developing country exporters. The bulletin includes four appendices. Appendix 1 contains statistics of the quantity and value of United Kingdom imports of the selected exotic fruit. Appendix 2 provides a brief guide to data and information sources. Appendix 3 describes the econometric analysis of the influence of price and income upon demand for exotic fruit. Finally, in Appendix 4, names and addresses of some United Kingdom importers of exotic fruit are listed.

### THE UNITED KINGDOM MARKET

The United Kingdom is one of the two biggest markets in Western Europe for exotic fruit. For the fruit trade, exotics are the single most dynamic element in an otherwise static fruit and vegetable market. Exotics appear to have a strong appeal for consumers, not only in the ethnic communities but also in the indigenous population. The best marketing prospects appear to lie with the latter. Rates of growth of consumption of exotics are unprecedented: mango imports have more than trebled and pawpaw imports increased tenfold in the last eight years (since 1979). Total consumption is still low, however. In 1986 the quantity and value of imports of the more significant exotic fruit were: avocados – 14,900 tonnes, £13.5 million; pineapples – 19,100 tonnes, £10.1 million; mangoes – 8,800 tonnes, £9.3 million; pawpaws – 700,000 tonnes, £0.8 million. With the notable exception of mangoes, the markets for most of the selected exotic fruit are currently dominated by particular countries: avocados by Israel; pineapples by Côte d'Ivoire; pawpaws by Brazil; lychees by South Africa; and passion fruit by Kenya.

## THE DEMAND FOR EXOTIC FRUIT

Per capita consumption of fresh fruit in general in the United Kingdom is static and is amongst the lowest in Europe. The apparent trend in the consumption of exotics is strongly upward. Trade opinion expects a continuation of this trend, particularly for avocados, pineapples and mangoes, as a greater proportion of the indigenous population begins to buy. The ethnic market is expected to be relatively static. Currently the indigenous market appears to be largely confined to the wealthier socio-economic groups. Income levels appear to be an important influence on the level of consumption. The relatively high prices of exotics also appear to be a major constraint on market growth. Reductions in price lead to more than proportionate increases in demand. Quality was stressed by the trade as being the most significant factor determining exotics sales. The novelty of exotics to most consumers means that sales promotion and consumer education are an essential component of exotic fruit marketing. Exporters or export organizations have to accept much of the responsibility for organizing or funding sales promotion.

## MARKETING CHANNELS FOR EXOTIC FRUIT

The range of marketing channels for exotic fruit is broadly the same as that for other imported fruit. Some importers and wholesalers specialize in exotics, but for most, exotics are just one relatively small component of their business. The basic functions of the marketing system are importing, wholesaling, retailing, transportation and storage. Additional services such as ripening, quality control, packing, repacking, and labelling are also increasingly demanded by the supermarket chains and department stores which command an increasing share of the retail fruit market. They take an active part in the promotion of exotics. Their strictly specified requirements are for reliable deliveries of high-quality produce in the required, often large, amounts. There are now some sizeable integrated importing-wholesaling companies which deal in particular with these large retail organizations. This trade by-passes the wholesale markets, which continue to decline in market share. The major customers of the wholesale markets, the traditional greengrocers, have lost market share to the supermarket chains. In general the traditional greengrocers have a relatively limited interest in exotics. Different channels can differ in terms of the range of fruit they handle, the quality standards they expect, and the services they demand. The nature and size of returns to the exporter can vary accordingly.

## PRICE FORMATION AND MARGINS

The key price in the marketing system is that at which the retailer buys from the wholesaler or importer. A major determinant of this is the quantity of fruit coming on to the market. Retail prices are determined by the addition of the retailer's margin to the retail buying price. This margin appears to average 25-30% in the case of the supermarket chains and 50-60% in the case of the independent greengrocers. Wholesale and import prices and hence the return to the exporter have traditionally been determined by deduction of commissions and various marketing costs from the retail buying price. These marketing costs will vary according to the marketing channel used. Most exotic fruit continues to be traded on a commission basis, although there is a limited amount of fixed price trading. The wholesale commission rate averages 7%, and the importer commission rate averages 5-10%.

## MARKET INFORMATION

The trade complained in general of a lack of short-term market information which can make planning of deliveries throughout the marketing chain problematic. Retailers seem to communicate their requirements effectively to wholesalers and importers. The transmission of information back to exporters and producers seems to be weak.

## TRADE REGULATIONS

At present (1987) exotic fruit are in general not covered by the fruit and vegetables regime of the European Community. Imports are, however, covered by the European Community's Common Customs Tariff, although many exporters will be exempt from this under ACP or Least Developing Developing Countries (LDDC) arrangements.

## IMPLICATIONS FOR DEVELOPING COUNTRY EXPORTERS

Where trade is on a commission basis exporters have no scope for increasing their earnings by raising selling prices. Higher returns can only be achieved by selling a greater quantity and/or by more effective marketing. Identification of the most profitable feasible market opportunities and their full exploitation through a tailoring of quantity and quality of

supply to the specific requirements of the particular market segment are essential. Failure to meet the market's requirements may lead to the rejection of a consignment or at best its diversion into marketing channels offering lower returns. Several areas for improvement were identified by the trade. Packaging by developing country exporters was singled out for particular criticism. Exporters or export organizations can make an important contribution to market expansion through investment in sales promotion and consumer education. Export organizations can improve export performance generally through the co-ordination and management of export activity.

## RÉSUMÉ

### Le marché britannique pour les fruits frais exotiques

Ce bulletin examine la nature et la structure du marché britannique pour les fruits frais exotiques. Les résultats de cette étude concernent principalement six fruits exotiques – avocats, ananas, mangues, papayes, litchis et fruits de la passion – lesquels constituent en général un échantillon représentatif des fruits exotiques. Les principaux facteurs déterminants du niveau de consommation de fruits exotiques y sont analysés. L'influence du niveau des prix et des revenus a fait l'objet d'une attention particulière et l'on s'est efforcé d'obtenir des estimations sur l'élasticité de la demande en fonction des prix et des revenus. On trouvera également une description des réseaux commerciaux par lesquels passent les fruits entre leur importation et leur vente au détail; pour chaque étape de la commercialisation, une étude de la nature et de la fonction des firmes concernées a été faite. On y traite de l'établissement des prix et de la transmission des informations dans la chaîne commerciale entre détaillants, grossistes, importateurs et exportateurs. L'objectif global de cette étude est de fournir des informations permettant d'aider les exportateurs des pays en voie de développement à identifier les créneaux commerciaux rentables au sein du marché, et de les guider dans le choix de leurs productions et de leurs stratégies commerciales afin de maximiser les gains en devises étrangères.

#### STRUCTURE DU BULLETIN

Le Chapitre 1 passe brièvement en revue la nature du marché, définit la portée, le but, et la méthodologie de l'étude, et résume les principales caractéristiques du fruit exotique. Le Chapitre 2 présente un profil des six fruits exotiques sur lesquels se base cette étude. Pour chacun de ces fruits sont décrites les tendances d'importation et de consommation, les principales sources d'offre, ainsi que la moyenne des cours du marché. Le Chapitre 3 analyse les principaux facteurs influençant le niveau et la structure de la demande pour les fruits exotiques. Le Chapitre 4 décrit les réseaux commerciaux pour les fruits exotiques, l'établissement des prix et les marges commerciales, et fournit des informations sur le marché ainsi que sur la réglementation du marché. Le Chapitre 5 est une synthèse de ce qui précède et en esquisse les implications pour les exportateurs des pays en voie de développement. La conclusion se présente sous la forme de quatre appendices. L'Appendice 1 contient des statistiques sur la quantité et la valeur des importations des fruits exotiques sélectionnés pour le Royaume-Uni. L'Appendice 2 contient un guide sommaire des données et sources d'informations. L'Appendice 3 décrit l'analyse économétrique de l'influence des prix et des revenus sur la demande en fruits exotiques. Finalement, on trouvera en Appendice 4 le nom et l'adresse de quelques importateurs britanniques de fruits exotiques.

#### LE MARCHÉ DU ROYAUME-UNI

Le Royaume-Uni est l'un des deux plus gros marchés de l'Europe de l'Ouest pour les fruits exotiques. Ces derniers constituent l'élément le plus dynamique dans un marché de fruits et légumes relativement statique par ailleurs. Les fruits exotiques semblent avoir beaucoup de succès auprès des consommateurs, non seulement au sein des communautés ethniques mais aussi dans les populations autochtones. Les meilleures chances de succès semblent d'ailleurs dépendre de ces derniers. La croissance de consommation des fruits exotiques est sans précédent: depuis 1979, les importations de mangues ont plus que triplé et celles de papayes ont décuplé. Toutefois, la consommation totale est encore faible. En 1986, la quantité et la valeur des importations pour les fruits exotiques les plus importants se chiffraient comme suit: avocats, 14 900 tonnes, 13,5 millions de livres sterling – ananas, 19 100 tonnes, 10,1 millions de livres sterling – mangues, 8 800 tonnes, 9,3 millions de livres sterling – papayes, 700 tonnes, 0,8 million de livres sterling. A l'exception notable des mangues, les marchés de la plupart des fruits exotiques sélectionnés sont actuellement dominés par certains pays tels que Israël pour les avocats, la Côte d'Ivoire pour les ananas, le Brésil pour les papayes, l'Afrique du Sud pour les litchis, et le Kenya pour les fruits de la passion.

## LA DEMANDE EN FRUITS EXOTIQUES

Au Royaume-Uni, la consommation de fruits frais par habitant est en général statique et l'une des plus faibles en Europe. Mais apparemment, la tendance de consommation de fruits exotiques est fortement à la hausse. De l'avis des experts, l'on s'attend à ce que cette tendance se maintienne, particulièrement pour les avocats, les ananas et les mangues, car une plus grande proportion d'autochtones commence à acheter ces fruits. Le marché ethnique, quant à lui, devrait être relativement statique. A présent, le marché autochtone semble se limiter largement aux groupes socio-économiques plus aisés. Les niveaux de salaire semblent grandement influencer sur le niveau de consommation. Par ailleurs, les prix relativement élevés des fruits exotiques semblent agir de manière contraignante sur la croissance du marché. Une réduction des prix entraîne des augmentations plus que proportionnelles dans la demande. Selon l'avis des experts, c'est la qualité qui constitue le facteur le plus important dans la vente de fruits exotiques. La nouveauté des fruits exotiques auprès des consommateurs fait que la stimulation de la vente et l'éducation du consommateur constituent un élément essentiel de leur commercialisation. Les exportateurs ou firmes exportatrices doivent assumer la plupart des responsabilités liées à l'organisation ou au financement des promotions de ventes.

## RÉSEAUX DE COMMERCIALISATION POUR LES FRUITS EXOTIQUES

D'une façon générale, les réseaux de commercialisation sont les mêmes pour les fruits exotiques que pour les autres fruits importés. Certains importateurs et grossistes se sont spécialisés dans les fruits exotiques, mais pour la plupart, ces derniers ne représentent relativement qu'une faible part de leurs transactions. Les principales fonctions du système commercial sont l'importation, la vente en gros, la vente au détail, le transport et le stockage. Des services supplémentaires tels que le mûrissement, le contrôle de qualité, l'emballage, le réemballage et l'étiquetage sont également de plus en plus demandés par les chaînes de supermarchés et les grands magasins, lesquels dominent une part croissante du marché au détail du fruit. Ces derniers participent d'ailleurs activement à la promotion des fruits exotiques, exigeant avant tout des livraisons fiables de produits de première qualité dans les quantités voulues, le plus souvent très importantes. Aujourd'hui, il existe quelques firmes intégrées d'importations-ventes en gros qui traitent en particulier avec ces grandes structures de vente au détail. Cette forme de commerce court-circuite les marchés de gros, lesquels voient ainsi leur part de marché décliner. Principaux clients des marchés de gros, les petits commerçants ont, eux aussi, perdu une part du marché au profit des chaînes de supermarchés. D'une manière générale, les petits commerçants en fruits et légumes ont un intérêt quelque peu limité pour les fruits exotiques. Différents réseaux peuvent varier quant à la variété des fruits manipulés, le niveau de qualité exigé, et les services qu'ils demandent. La nature et l'importance des recettes pour l'exportateur varieront en conséquence.

## ETABLISSEMENT DES PRIX ET MARGES

Dans le système de commercialisation, le prix-clé est celui auquel le détaillant achète au grossiste ou à l'importateur. Le principal élément déterminant ce prix est la quantité de fruits qui arrive sur le marché. Les prix de détail sont déterminés en ajoutant la marge du détaillant au prix d'achat de détail. Cette marge semble être en moyenne de 25 à 30% dans le cas des chaînes de supermarchés et de 50 à 60% dans le cas des commerçants indépendants. Les prix de gros et à l'importation, et par là-même les recettes de l'exportateur sont généralement déterminés en déduisant commissions et divers coûts de commercialisation du prix d'achat de détail. Ces coûts de commercialisation varient en fonction des réseaux commerciaux utilisés. Bien qu'il existe une quantité limitée de fruits dont les prix sont fixés, la plupart des fruits exotiques sont encore commercialisés sur la base d'une commission. Le taux de la commission de gros est de l'ordre de 7%, et le taux de la commission de l'importateur est de 5 à 10%.

## INFORMATIONS RELATIVES AU MARCHÉ

En général, le milieu commerçant se plaint d'un manque d'informations sur le marché à court terme, ce qui rend quelquefois difficile l'établissement du planning des livraisons dans la filière des commerçants. Il semble que les détaillants communiquent efficacement leurs besoins aux grossistes et importateurs. Il en va autrement en ce qui concerne la transmission des informations aux exportateurs et aux producteurs.

## RÉGLEMENTATION DU MARCHÉ

A l'heure actuelle, et dans l'ensemble, les fruits exotiques ne dépendent pas du régime de la Communauté économique européenne pour les fruits et légumes. Toutefois, les importations sont couvertes par le tarif douanier commun de la CEE même si de nombreux

exportateurs en sont exemptés en vertu des accords de l'ACP et des PMA (Pays les moins avancés).

## CONSÉQUENCES POUR LES EXPORTATEURS DES PAYS EN VOIE DE DEVELOPPEMENT

Lorsque le négoce se fait sur la base d'une commission, les exportateurs n'ont pratiquement aucune possibilité d'augmenter leurs gains en augmentant les prix de vente. Seules des ventes en plus grosses quantités et (ou) un commerce plus efficace procureront des recettes plus importantes. Il est indispensable d'identifier les créneaux les plus rentables et de les exploiter à fond en adaptant la quantité et la qualité des approvisionnements aux besoins spécifiques de la part de marché en question. Si l'on ne répond pas aux besoins du marché, on risque de voir l'envoi refusé ou alors dévié vers des créneaux offrant des recettes plus basses. Plusieurs secteurs pouvant être améliorés ont été identifiés par le milieu commerçant. Le conditionnement des marchandises effectué par les exportateurs des pays en voie de développement a été particulièrement critiqué. Les exportateurs ou les firmes exportatrices peuvent contribuer grandement à l'expansion du marché en investissant dans la stimulation des ventes et l'éducation du consommateur. D'une façon générale, les firmes exportatrices sont en mesure d'améliorer le volume des exportations en coordonnant et en gérant efficacement l'activité d'exportation.

## RESUMEN

### Mercado británico para frutas exóticas frescas

Este boletín examina la naturaleza y estructura del mercado británico para frutas exóticas frescas, hallándose fundamentalmente relacionados sus resultados con seis frutas exóticas – aguacate, piña, mango, papaya, Persea lingue y parchita – consideradas como muestra representativa de las frutas exóticas, en general. El boletín analiza los principales factores determinantes del nivel de consumo de las frutas exóticas, prestando particular atención a la influencia de los precios y salarios, junto con cierto intento de obtener cálculos de la elasticidad de los precios y salarios de la demanda. También se describen los canales de comercialización por los que pasa la fruta importada, entre la importación y su venta al detalle, así como la naturaleza y funciones de las compañías que toman parte en cada etapa de dicha comercialización. El boletín estudia la formación de precios y la transmisión de información a lo largo de la cadena de comercialización, entre vendedores al detalle, mayoristas, importadores y exportadores. El estudio tiene como objetivo fundamental suministrar información que asista a los exportadores de países en desarrollo en la identificación de oportunidades comerciales beneficiosas dentro del mercado, a la vez que proporciona cierta orientación sobre la preparación de su producción y estrategias de comercialización, de forma que sea posible obtener la mayor cantidad de divisas posible.

### ESTRUCTURA DEL BOLETÍN

En el Capítulo 1, se indica, en líneas generales, la naturaleza del mercado y se define el alcance, fin y metodología del estudio, resumiéndose las características esenciales de las frutas exóticas. El Capítulo 2 presenta una panorámica de las seis frutas exóticas, que constituyen la parte primordial del estudio, describiéndose, en cada caso, las tendencias de importación y consumo, principales fuentes de suministro y precios medios del mercado. En el Capítulo 3, se analizan los factores clave que influyen en el nivel y estructura de la demanda de frutas exóticas, mientras que en el Capítulo 4 se describen los canales mercadotécnicos de estas frutas, constitución de precios y márgenes de comercialización, información sobre el mercado y normas comerciales. Aprovechando la información precedente, el Capítulo 5 examina sus repercusiones para los exportadores de los países en desarrollo. El boletín concluye con cuatro Apéndices. El Apéndice 1 contiene estadísticas sobre la cantidad y valor de las importaciones británicas de las frutas exóticas seleccionadas. En el Apéndice 2, se presenta una breve guía sobre los datos y fuentes de información, mientras que, en el Apéndice 3, se describe el análisis econométrico de la influencia de precios y salarios sobre la demanda de frutas exóticas. Finalmente, en el Apéndice 4 se presenta una lista de los nombres y direcciones de algunos de los importadores británicos de frutas exóticas.

### MERCADO BRITÁNICO

El Reino Unido es uno de los dos principales mercados de frutas exóticas en la Europa Occidental. Para el sector de las frutas, los productos exóticos constituyen el elemento individual más dinámico, dentro de un mercado, por otra parte, estático. Las frutas exóticas parecen poseer un fuerte atractivo para el consumidor, no solamente dentro de las

comunidades étnicas, sino también en la población indígena, sector en el que parecen encontrarse las mejores posibilidades de comercialización. El índice de crecimiento en el consumo de frutas exóticas carece de precedente. Desde 1979, las importaciones de mango se han más que triplicado y las de papaya han llegado a decuplicarse. Esto no obstante, su consumo sigue siendo bajo. En 1986, la cantidad y valor de las importaciones de las frutas exóticas más importantes fueron los siguientes: Aguacate - 14,9 millones de toneladas, £13,5 millones; piña - 19,1 miles de toneladas, £10,1 millones; mango - 8,8 miles de toneladas, £9,3 millones; papaya - 0,7 miles de toneladas, 0,8 millones. Con la notable excepción del mango, los mercados para muchas de las frutas exóticas seleccionadas se hallan, en la actualidad, dominados por países específicos: aguacate, Israel; piña, Costa de Marfil; papaya, Brasil; Persea lingue, Suráfrica; y parchita, Kenia.

## DEMANDA DE FRUTAS EXÓTICAS

En términos generales, el consumo per cápita de fruta fresca en el Reino Unido es estático y se encuentra entre los más bajos de Europa, mientras que la tendencia experimentada por el consumo de frutas exóticas es fuertemente alcista. El comercio espera una continuación de esta tendencia, particularmente, por cuanto respecta a los aguacates, piñas y mangos, a medida que va aumentando el porcentaje de la población nativa que los adquiere. Por otra parte, se prevé que el mercado étnico se mantendrá relativamente estático. En la actualidad, el mercado nativo parece hallarse confinado, en gran parte, a los grupos socioeconómicos más ricos, pareciendo ejercer una importante influencia sobre el nivel del consumo el nivel de los ingresos. Los precios relativamente elevados de las frutas exóticas parecen constituir, asimismo, un importante freno en el crecimiento del mercado. Las reducciones de los precios resultan en incrementos más que proporcionales de la demanda. El comercio considera la calidad como el factor más significativo para la venta de estas frutas. La novedad de dichas frutas para la mayor parte de los consumidores hace que la promoción de ventas y educación del consumidor constituyan aspectos esenciales en la comercialización de estas frutas, debiendo recaer sobre los exportadores u organizaciones de exportación gran parte de la responsabilidad por la organización y costeamiento de dicha promoción de ventas.

## CANALES DE COMERCIALIZACIÓN PARA LAS FRUTAS EXÓTICAS

La gama de canales de comercialización para las frutas exóticas son, en líneas generales, los mismos que para otras frutas de importación. Si bien existen algunos importadores y mayoristas especializados en frutas exóticas, para la mayor parte de ellos, constituyen solamente un aspecto relativamente pequeño de su entero negocio. Las funciones básicas del sistema de comercialización son la importación, venta al por mayor, venta al detalle, transporte y almacenamiento, existiendo también servicios adicionales, tales como la maduración, control de la calidad, envasado, reenvasado y etiquetado, que son exigidos cada vez más por las cadenas de supermercados y grandes almacenes, cuyo porcentaje del mercado detallista de frutas es cada vez mayor. Estos sectores toman parte activa en la promoción de las frutas exóticas. Sus requisitos se hallan estrictamente especificados, exigiendo entregas confiables de productos de alta calidad, en las cantidades, a menudo considerables, requeridas. Existen hoy día algunas compañías integradas de importación-venta al por mayor de gran envergadura, que tratan de manera particular con estas grandes organizaciones detallistas. Este tipo de comercio deja a un lado los mercados mayoristas, cuyo porcentaje del mercado continúa en declive. Los principales clientes de los mercados mayoristas - los verduleros tradicionales - han perdido parte de su porcentaje del mercado a favor de las cadenas de supermercados. En general, el verdulero tradicional posee un interés relativamente limitado por las frutas exóticas, existiendo diferencias por cuanto a la gama de frutas por ellos manejadas, nivel de calidad esperado y servicios exigidos, todo lo cual hará que varíe la naturaleza y envergadura de los beneficios para el exportador.

## CONSTITUCIÓN DE PRECIO Y MÁRGENES

El precio clave del sistema de comercialización es el pagado por el detallista al mayorista o importador. Un importante factor determinante es la cantidad de la fruta disponible en el mercado. Los precios al detalle se hallan determinados por la adición del margen del minorista al precio de compra al detalle. Dicho precio parece ser, por término medio, del 25-30%, en el caso de las cadenas de supermercados, y del 50-60% en el caso de los verduleros independientes. Los precios de importación y al por mayor y, en consecuencia, los beneficios para el exportador, se han visto tradicionalmente determinados por la deducción de comisiones y diversos costes de comercialización del precio de compra al detalle. Estos costes variarán de acuerdo con el canal de comercialización utilizado. El comercio de la mayor parte de las frutas exóticas sigue realizándose sobre una base de comisión, si bien existe una cantidad limitada del comercio a precios fijos. Por término medio, la comisión del mayorista es del 7% y la del importador del 5-10%.

## INFORMACIÓN DEL MERCADO

Una queja general del comercio es la falta de información a corto plazo sobre el mercado, lo cual puede resultar en problemas a lo largo de la entera cadena de comercialización en la planificación del suministro. El mercado detallista parece comunicar eficazmente sus requisitos a mayoristas e importadores, mientras que la transmisión de información a exportadores y productores parece ser floja.

## NORMAS COMERCIALES

En la actualidad (1987), las frutas exóticas no se hallan cubiertas, en general, por el régimen de frutas y verduras de la Comunidad Europea. Sin embargo, las importaciones sí que se hallan cubiertas por la tarifa arancelaria común de la Comunidad, si bien muchos exportadores estarán exentos, en conformidad con los acuerdos para los países ACP o LDDC (países menos desarrollados de los países en desarrollo).

## CONSECUENCIAS PARA LOS EXPORTADORES DE LOS PAÍSES EN DESARROLLO

En aquellos casos en que el comercio se lleva a cabo sobre una base de comisión, los exportadores carecen de margen para incrementar sus ingresos, mediante el incremento de los precios de venta. Solamente podrán obtener mayores ingresos, mediante la venta de una mayor cantidad de productos y/o una comercialización más eficaz. Resulta, pues, esencial, la identificación de las oportunidades más beneficiosas y viables y su explotación al máximo, mediante la adaptación de la cantidad y calidad del suministro a las exigencias específicas del sector del mercado en cuestión. La falta de cumplimiento de las exigencias del mercado podrá resultar en el rechazo de una remesa o, en el mejor de los casos, en su desvío a canales de comercialización que ofrecen beneficios más bajos. El comercio identificó diversos sectores, en los que es posible conseguir mejoras. Un aspecto particularmente criticado fue el envasado proporcionado por los exportadores de los países en desarrollo. Los exportadores u organizaciones de exportación podrán realizar una importante contribución a la expansión del mercado, mediante inversiones en la promoción de ventas y educación del consumidor. Las organizaciones de exportación podrán mejorar el rendimiento de las exportaciones, en general, mediante la coordinación y gestión de las actividades de exportación.

# Introduction

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## THE UNITED KINGDOM MARKET FOR EXOTIC FRUIT

The last few years have seen rapid growth in the United Kingdom market for exotic fruit. A keen common interest in its further expansion is shared by exporters of these products in the developing countries, and by many of the importers, wholesalers, and retailers who make up the United Kingdom's fruit trade.

For the developing countries, diversification of exports into horticultural products can yield a number of economic benefits. These include increased and more stable export earnings, increased employment, and greater use of agricultural resources and infrastructure. Meeting the stringent quality and volume requirements of the United Kingdom market may, however, be possible only for the larger-scale producers or at least may necessitate the creation of export organizations to manage the marketing of smallholder production. Some developing countries have made a great success of horticultural exports. After very rapid growth, these are now Kenya's fourth highest export earner, for example, and a further 10% growth is planned by the year 2000. Kenya earned KSh 50 million from mango exports and KSh 17 million from avocado exports in 1986.<sup>1</sup>

The United Kingdom is one of the two biggest markets in Western Europe. For the United Kingdom fruit trade, exotics are the single most dynamic element in a generally static or even declining fruit and vegetable market. Exotics also seem to have a strong appeal for consumers, not only for the ethnic communities, for whom exotics may in fact be a part of their everyday diet, but also for the indigenous population. Indeed, it is with the latter that the best marketing prospects appear to lie. Some traders expect sales to double by the end of the decade, and the market appears to be receptive to the wide range of new fruit constantly being offered.

The rates of growth in consumption of some exotic fruit are unprecedented: mango imports into the United Kingdom have more than trebled in the last eight years; pawpaw imports have increased almost tenfold. However these growth rates must be viewed against the background of the still very limited consumption of exotics. Consumption of fresh pineapples, for example, which are perhaps the most widely recognized and accepted 'exotic', is currently at the rate of only around one-quarter of a fruit per person per year. Partly because of the relatively high prices of exotics, consumption is in many cases limited to the wealthier sections of the community, and the size of the exotic fruit market remains small at about 5% by value of the overall fruit market. Broad estimates of the retail values of markets for some exotic and conventional fruit are given in Table 1.



**Table 1****Estimated retail values of United Kingdom fruit markets, 1986 (£million)**

<b>Established</b>	
Oranges	171.2
Bananas	243.4
Apples	397.1
<b>Exotic</b>	
Avocados	21.7
Mangoes	19.8
Pawpaws	1.8
Pineapples	21.7

Source: Fresh Fruit and Vegetable Information Bureau

Supplies of exotic fruit arrive in the United Kingdom from all over the world. Some countries, notably Israel, South Africa, and perhaps Brazil, have already taken a strong lead in the market, however, supplying a wide range of high-quality produce. Newcomers must send produce of at least comparable quality if they are to compete.

### **THE SCOPE AND PURPOSE OF THIS STUDY**

This study examines the nature and structure of the United Kingdom market for exotic fruit. It analyses the major determinants of the level of exotic fruit consumption. Particular attention is focused upon the influence of prices and incomes, and an attempt is made to obtain broad estimates of price and income elasticities of demand. The marketing channels through which imported fruit passes between importation and retailing are described, and the nature and functions of firms involved at each marketing stage are examined. Price formation and the transmission of information through the marketing chain between retailers, wholesalers, importers and exporters are discussed. The overall objective of the study is to provide information which will assist developing country exporters, actual or potential, in identifying profitable trading opportunities within the market, and give some guidance for the design of their production and marketing strategies such that foreign exchange earnings are maximized.

Any study of the United Kingdom market for exotic fruit is hampered by a dearth of published information. The volumes of the various fruit traded are in general too small to warrant separate recognition in official trade and food consumption statistics. Consequently it was necessary to rely heavily on information obtained directly from individuals actually involved in the market. Information was collected over a three-to-four month period in early 1987. This was primarily by interviews with importers, wholesalers and retailers. Virtually all of the large companies involved were included in this exercise. Importer/wholesaler and retailer questionnaires were designed to guide these interviews. Some thirty independent greengrocers, as opposed to the large multiple grocery chains, were sent the questionnaire by post. As the response rate was only about 50% and it appeared that those who did respond were perhaps atypical, personal interviews with independent greengrocers were also held. Much of the information collected in this way was by its nature not amenable to formal analysis. Consequently many of the conclusions of this study are of necessity based upon subjective evaluation of the opinions expressed in interviews. There was, however, a great deal of consensus in these opinions on the major topics of interest.

The study focused upon six fruit in particular: avocado, pineapple, mango, pawpaw (papaya), lychee, and passion fruit. These were selected as a broadly representative cross-section of the range of exotic fruit on

offer in the United Kingdom. In general they are also fruit for which the prospects of increasing market size are good. They differ significantly in their physical properties, and in their novelty and availability. It appears, however, that marketing channels, market requirements and marketing problems are broadly similar for these and many other types of exotic fruit. The chapters which follow, therefore, deal with general issues, but with reference to the specific selected fruit and others as appropriate.

## CHARACTERISTICS OF EXOTIC FRUIT

One difficulty in studying the market for exotic fruit lies in defining exactly what is meant by an 'exotic'. Different definitions would lead to different marketing channels or segments of the market being emphasized. An extremely wide range of fruit is considered exotic: one recent book on exotics discusses over 120 different fruit and vegetables.<sup>2</sup> Different traders in the market adopt different categorizations. Some would regard, say, avocados as 'exotic', for example, while others would see avocados as an established mainstream item and reserve 'exotic' only for the more unusual fruit such as carambola, or rambutan. Rather confusingly, some traders refer to imported out-of-season home-grown fruit as 'exotics'. For the purposes of this study 'exotic' fruit are assumed to have one or more of the following characteristics.

- (i) They should have an 'exotic', usually tropical or subtropical, origin, although increasingly some exotics, avocados and kiwi fruit, for example, are being produced in more temperate regions, including Europe.
- (ii) They should have an 'exotic' nature: intense flavour or scent; unusual appearance in terms of shape, colour or texture; sometimes fragile and highly perishable.
- (iii) They should be unfamiliar to the majority of the indigenous population, although they may be part of the everyday diet of ethnic minority groups, and perhaps not part of a fruit retailer's traditional stock. Exotic is, of course, a dynamic quality, and successful exotics may eventually become commonplace, at least in terms of familiarity and availability.

These three broad characteristics give rise to the basic marketing problems associated with exotics. Their distant origins and physical properties mean that careful packaging and transportation are essential. For many fruit, because of their perishable nature, air transport is the only means by which they can reach United Kingdom markets in acceptable condition. High transportation costs in turn usually imply high prices to the consumer which may limit purchases to the wealthier sections of the community. Because of their unfamiliarity to most of the population, building a market for these fruit will often involve substantial effort and expense in sales promotion and consumer and retailer education.

## NOTES

- 1 *Financial Times* 1987, 15th May.
- 2 HEAL, C. and ALLSOP, M. (1986) *Queer Gear*. London: Century Hutchinson, ('Queer gear' is a trade term for exotic fruit and vegetables).

## Profiles of selected exotic fruit

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A number of imported fruit available in the United Kingdom display the characteristics described in Chapter 1 and hence might be classified as exotics. This study of the market for exotic fruit is largely based upon a consideration of the markets for six fruit in particular: avocados; pineapples; mangoes; pawpaws; lychees and passion fruit. Some comments on each of the selected fruit and their marketing are given below as a background to the discussion in later chapters.

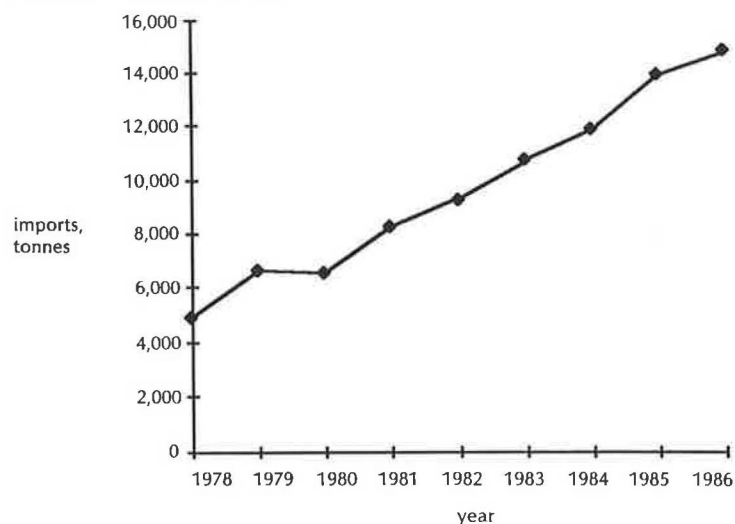
### AVOCADOS

Avocados are perhaps the most successful exotic to be established in the United Kingdom market, with steadily increasing sales for nearly twenty years. The United Kingdom is the second biggest importer of avocados after France in Europe, importing 14.9 thousand tonnes with a value of £13.5 million in 1986. Given this relatively long history and large volumes, avocados are in some respects no longer really exotic. Much of the trade now class them as a volume item.

The success of the avocado is in no small part due to the sales promotion effort of the Israeli export marketing board AGREXCO\* and its Carmel brand. The avocado also has the advantage of being a relatively versatile fruit, with many alternative ways of being served. Nevertheless, consumption per person is very low, estimated at less than one per person per year.<sup>1</sup> Prospects for further market growth in the United Kingdom are considered to be good.

**Figure 1**

United Kingdom imports of avocados, 1978-86



Source: United Kingdom trade returns

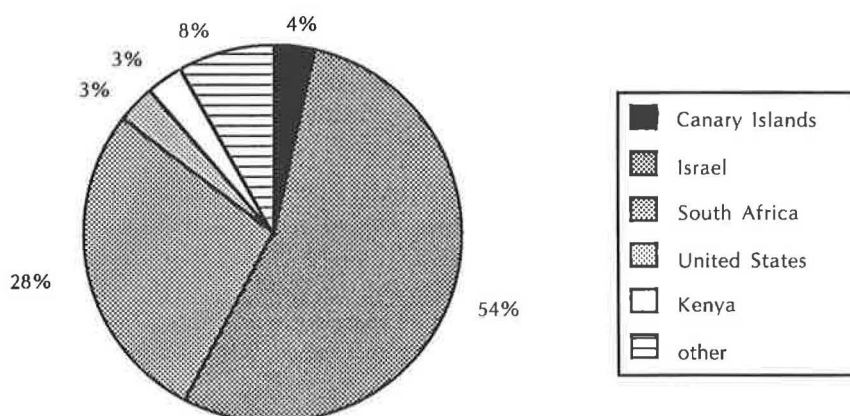
\*Agricultural Export Co. Ltd., Israel

The main demand in the United Kingdom is for the subtropical varieties, although tropical varieties are consumed, mainly by the West Indian community. This group also prefers larger-than-average-sized fruit. The ethnic market is relatively limited, however, and unlikely to expand. Fuerte, Hass, Ettinger and Nabal are the most commonly seen varieties, but United Kingdom consumers appear to be receptive to new varieties. Hass has the advantage for the trade of a longer shelf life. Small quantities of cocktail avocados from Israel are also available.

The main exporter to the United Kingdom is Israel, with half the market. Supplies also arrive from South Africa, the United States (California), and Kenya. Avocados can also be produced in southern Europe, and Spain is already exporting to the United Kingdom and other European countries. Development of production within the European Community may have important implications for the trade prospects facing third-country exporters: avocados produced in Europe will have significantly lower transport costs since road haulage can be used, and will face no border tariffs. In the longer term it is possible that there will be pressure to extend European support mechanisms to include avocado and other 'exotics' into which the new members are diversifying.

**Figure 2**

United Kingdom imports of avocados, market shares of suppliers, 1986



Source: United Kingdom Trade Returns

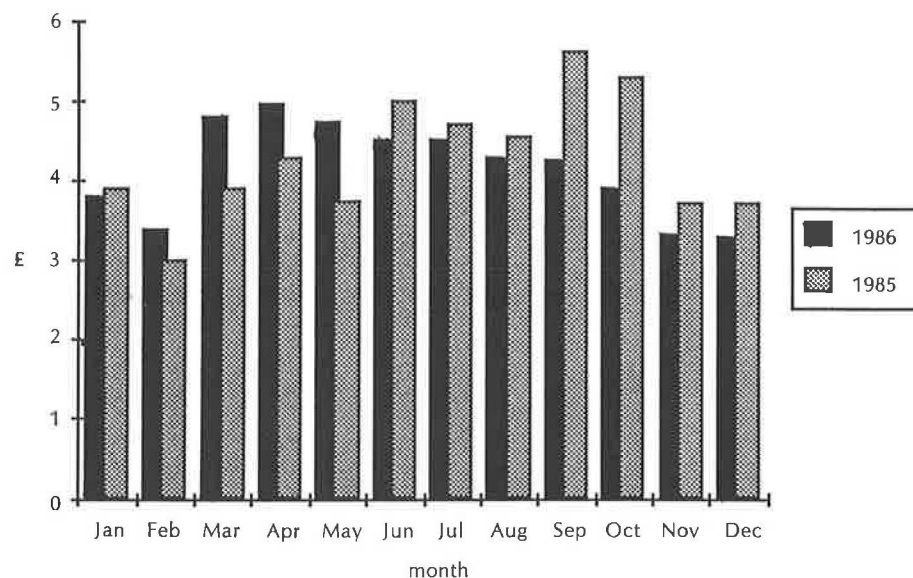
Avocados are now available all year round from different sources so there are no serious seasonal gaps in the market which might be exploited: the Israeli season is from October to May, with its peak from November to April; the South African season runs from March to December, with its peak from May to September; the United States season is from November to July; and the Spanish season is from October to April.

Avocados are transported by both sea and air: from Israel, some early season fruit is sent by air, the rest comes by sea; similarly, from South Africa air freight is used for the first Fuerte consignments in March, while the rest are sent by sea, taking about eight days to Southampton; the United States and Kenya use air freight. Packaging of supplies from all destinations except the United States tends to be 4 kg fibreboard cartons containing 10-22 fruits depending on size. For sea transport, cartons and ship loading need to allow for fresh air ventilation.

Average monthly prices of avocados on New Covent Garden Market are shown in Figure 3 below. These prices are for Israeli avocados from October through to April and for South African avocados from May through to October.

**Figure 3**

Average price of avocados on New Covent Garden Market, 1985-86, £ per 4kg carton



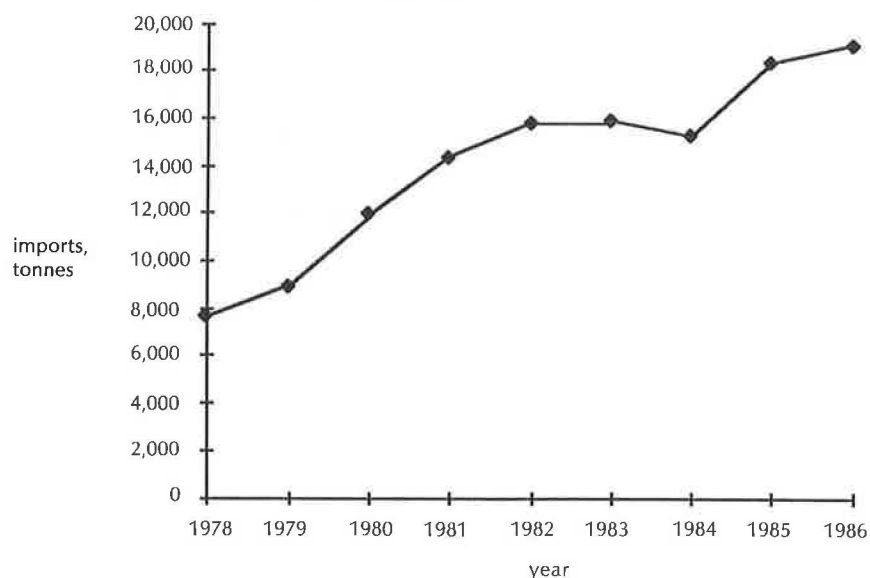
Source: *Fruit Trades Journal*

## PINEAPPLES

The pineapple in many ways epitomizes the exotic tropical fruit for the United Kingdom consumer. It is perhaps the most familiar and widely known of exotics, at least in terms of appearance. Consumption of the fresh article is still limited, although tinned pineapple has been popular on the United Kingdom market for many years. The fresh fruit can be relatively expensive. The trend in imports and consumption has been steadily upwards, however, and imports reached 19,200 tonnes in 1986 (see Figure 4). The trade sees this trend continuing provided that good quality supplies of the medium-size fruit in particular can be obtained.

**Figure 4**

United Kingdom imports of pineapples, 1978-86



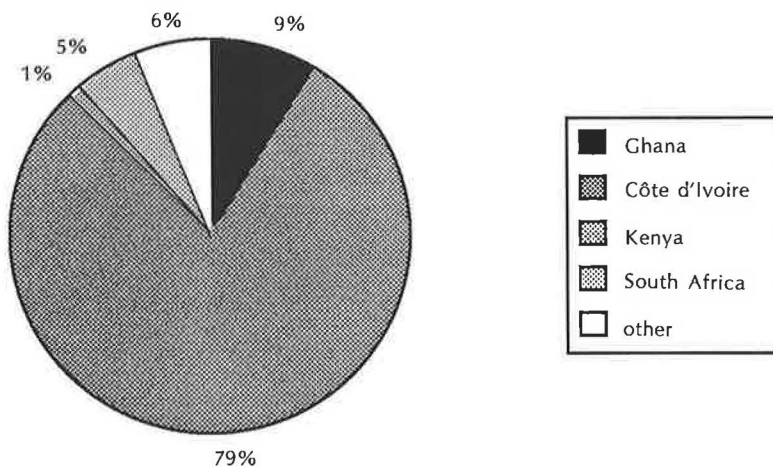
Source: United Kingdom trade returns

The main variety is Cayenne. The preference appears to be for fruit which are yellow when mature and fit for consumption. Those from Ghana, Uganda and Brazil which stay green tend to be less popular. Consumers seem to regard green fruit of any sort as possibly 'unripe'.

United Kingdom imports are dominated by supplies from Côte d'Ivoire which has nearly 80% of the market. Côte d'Ivoire pineapples are handled by the major importers. There are also imports from Ghana, and South Africa, and some premium quality, that is larger fruits, from Kenya (see Figure 5). Supplies are available throughout the year: Côte d'Ivoire, the dominant supplier, peaks in production between October and January.

**Figure 5**

United Kingdom imports of pineapples, market shares of suppliers, 1986

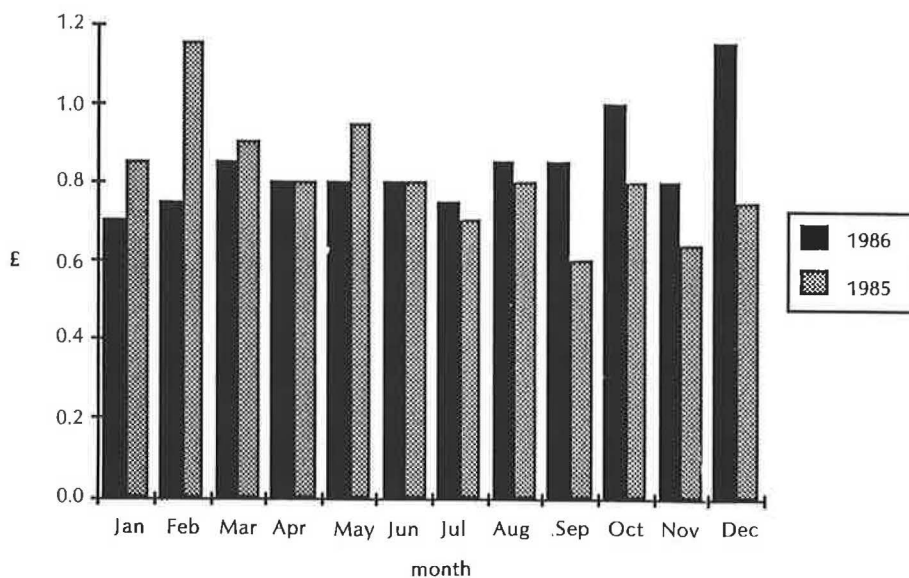


Source: United Kingdom trade returns

The fruit is usually harvested and exported when half yellow in colour. From Côte d'Ivoire and South Africa transport is by sea except for early season fruit which comes by air. Ghanaian fruit is almost all transported by air. Kenya also uses air freight. Air freight is justified for premium articles of larger sizes and superior appearance. Sea freight is significantly cheaper and this is reflected in retail prices.

**Figure 6**

Average price of pineapples on New Covent Garden Market, 1985-86, £ per fruit



Source: *Fruit Trades Journal*

Packaging is typically in 12-15 kg cartons with air ventilation if sea freighted. The fruit is packed either flat or upright. Excessive crowns take up expensive freight space for no additional returns. The number of fruit per pack varies from 8 to 20 depending on their grade. Grading is by weight: Grade A is above 1.5 kg; Grade B is 1.1-1.5 kg; Grade C is 0.9-1.1 kg; Grade D is below 0.9 kg. Grades B and C are the most in demand, at least by the supermarket trade. Further significant growth in demand for these grades is expected. There is a premium market for larger fruit, but there are plenty of these available to satisfy the limited demand.

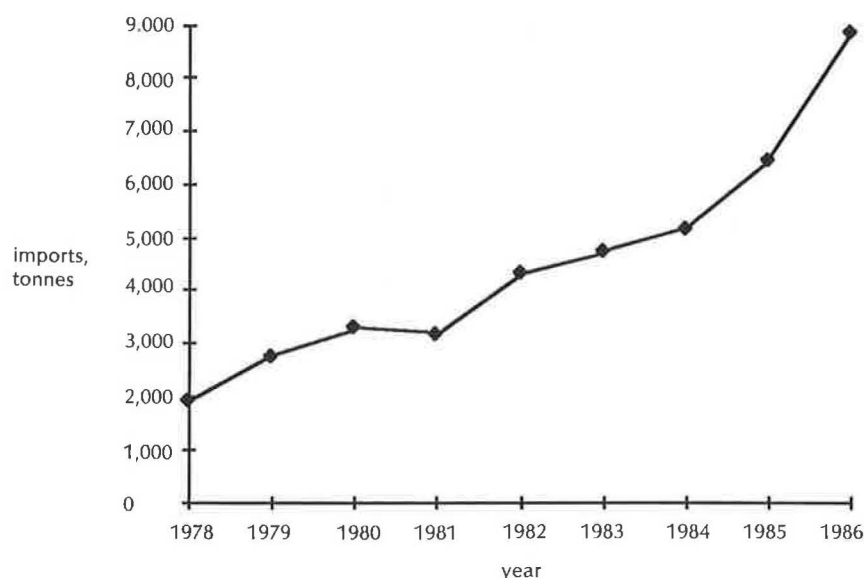
Average monthly prices of pineapples on New Covent Garden Market are shown in Figure 6 below. These prices are for supplies from Côte d'Ivoire. Prices for South African supplies would be similar. Prices for the typically larger fruits from Ghana would be rather higher.

## MANGOES

The United Kingdom is the largest importer of mangoes in Europe. In 1986, 8,800 tonnes of mangoes, guavas and mangosteens were imported, almost all of this total being mangoes. The origins of the market are in the ethnic communities, but an enthusiastic market amongst the indigenous population has been developing over the last few years and substantial further growth is expected. The mango is the fruit about whose prospects all the trade is most enthusiastic. Growth has been rapid, but the market is still small at the moment (see Figure 7). Prices are high where air freight is used. Sea freight is an increasingly realistic possibility from some countries, particularly those in Latin America. The adoption of sea freight could result in large falls in retail prices of up to 30p (£0.30) per piece.

**Figure 7**

United Kingdom imports of mangoes, 1978-86



Source: United Kingdom trade returns

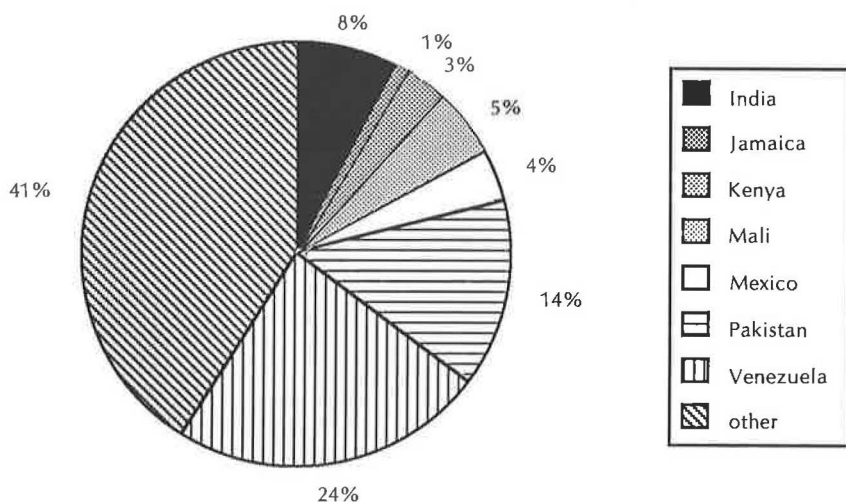
For the consumer, the mango has a unique flavour, although it is far from being a convenience product. Education is important if consumers are to sort out the flesh from the skin and stone effectively. The fibrous varieties are not popular for this reason. Any growth in the market will have to be of low-fibre varieties. South Africa and Brazil switched production to these for export in the late 1970s. The varieties most in demand in the United Kingdom, particularly in the supermarket trade, are the Florida types such as Hayden, Tommy Atkins, and Kent. These appear to have the

required characteristics in terms of size, colour, flavour, texture, and ease of handling. The indigenous population seem to prefer mangoes which are yellow and yellow/red, or green and red when ripe, have a good flavour with no undertaste of turpentine, and which are relatively fibre-free. The ethnic communities have some preference for the Asian varieties. In fact, many different varieties are available throughout the year from many different sources. This may be one factor restraining the growth of the market: consumers sometimes find it difficult to obtain the same variety of mango more than once, and this makes trade promotion of the product more difficult. Small green mangoes from India and Pakistan for making chutneys and pickles are also available in some shops supplying ethnic minority group communities. This is a static market, however, estimated to account for 5-7% of total imports<sup>2</sup>.

Mangoes are obtained from many different sources with no one country being dominant (see Figure 8). Several Latin American countries, notably Mexico, Venezuela, Brazil and Peru are established exporters of the fibreless varieties favoured by the United Kingdom market. Some African countries, such as Mali and Côte d'Ivoire, are also involved in this trade. Varieties such as Ngowe and Boribo, as well as Florida-type mangoes are imported from African countries, and Asian varieties such as Alphonso, Dashehari and Langra are imported from India and Pakistan. India and Pakistan are the main suppliers of green mangoes.

**Figure 8**

United Kingdom imports of mangoes, market shares of suppliers, 1986



Source: United Kingdom trade returns

The peak in supplies to the United Kingdom market is from April through to August, although South Africa and Brazil supply in the winter months. There is a low point in supplies in October and November, a gap which Israel seems interested in filling. For particular countries the seasons are: Mexico – February to September with a peak from May to August; Brazil – all year round, but with a peak from October to December; Venezuela – February to August, with a peak from April to June; India – February to December with a peak from April to June; Pakistan – October to August with a peak in June and July.

While air transport has been the norm for mangoes in the past, if the expected growth in mango exports is to be realized, sea freight must assume a primary role. The significantly greater cost of air-freight results in prohibitive retail prices, and in any case air-freight capacity might not be adequate to sustain a substantial increase in the volume of trade. Shipments by sea from South Africa, the West Indies, Mexico, Peru and Brazil have

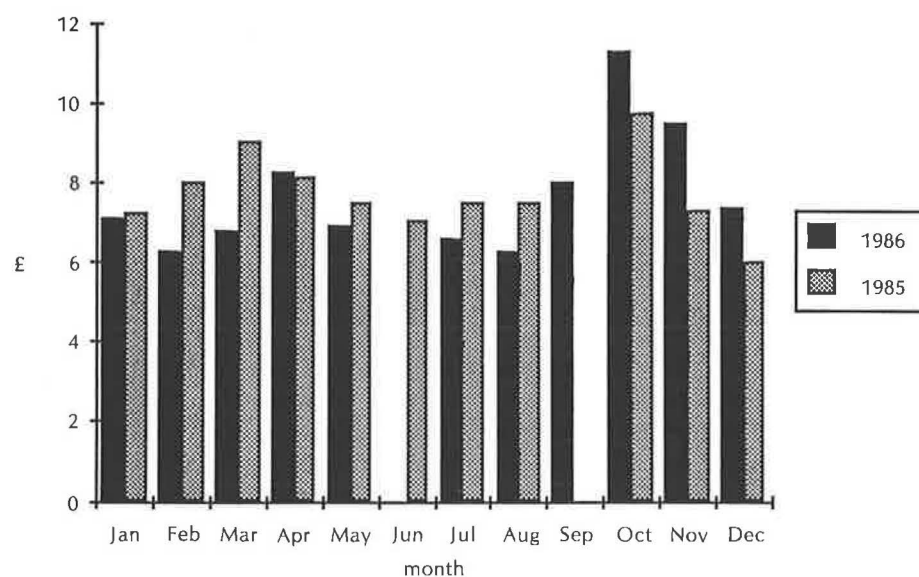


been successful. Controlled-environment container ships have been used on South American routes. From the West Indies, mangoes have been transported successfully on conventional reefer vessels. Packaging is most commonly in 4 or 5 kg fibreboard single-layer cartons with between 10 and 16 fruit per carton. The most popular counts are of 12, where fruit have an average weight of around 400 g. This gives a good-sized fruit yet allows a reasonable unit price at retail. Polystyrene nets are being used by some suppliers to protect individual fruit, rather than the traditional paper or paper straw.

Average monthly prices of mangoes on New Covent Garden Market are shown in Figure 9 below. These prices are for Brazilian, Venezuelan and Mexican produce.

**Figure 9**

Average price of mangoes on New Covent Garden Market, 1985-86, £ per carton



Source: *Fruit Trades Journal*

Prospects for the mango are widely regarded as being excellent at least in the indigenous market. The ethnic markets are considered to be static. This means growth in demand will be primarily for the Florida varieties or varieties with similar characteristics. Retail prices must be lower, however, if market potential is to be realized and that must imply sea freight. For these reasons, future growth in imports are expected to be primarily from Israel, Brazil, Peru and other Latin American countries who are producing the fibreless varieties preferred by the United Kingdom market, are using sea freight to keep prices low, and have been successful in achieving consistently the quality standards demanded. Some African, Asian and Caribbean countries may be able to satisfy these criteria eventually, but currently are at a disadvantage.

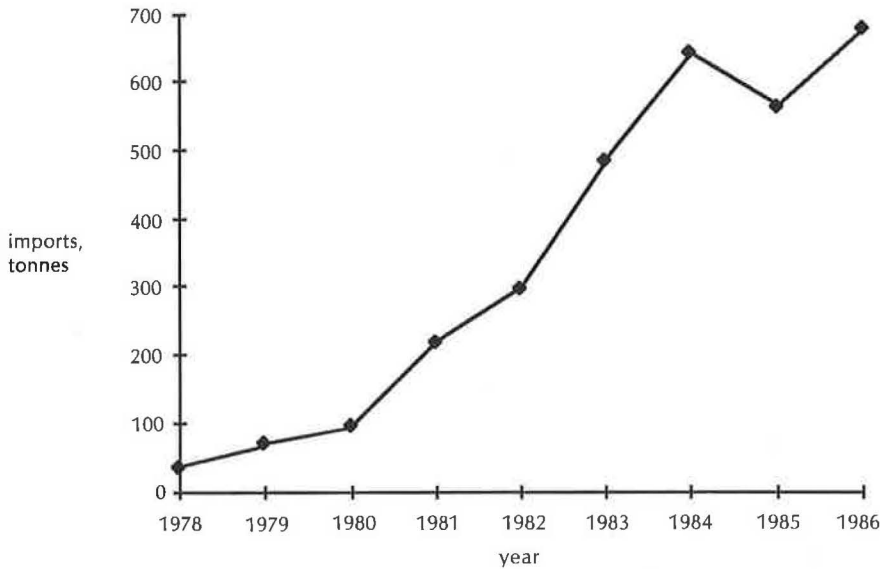
## PAWPAWS

As with the mango, the United Kingdom is Europe's largest importer of pawpaws. The market is small, however, with only 681 tonnes imported in 1986 (see Figure 10). Most importers, wholesalers and retailers interviewed regarded the pawpaw as a disappointment. There were early set-backs when consignments of fruit picked too early and hence never properly ripened were exported to the United Kingdom. Importers have found it

difficult to achieve a reliable and consistent quality supply on which to build a market. The main variety available in the United Kingdom is Solo. Amazon Red are also available but to a lesser extent.

**Figure 10**

United Kingdom Imports of pawpaws, 1978-86

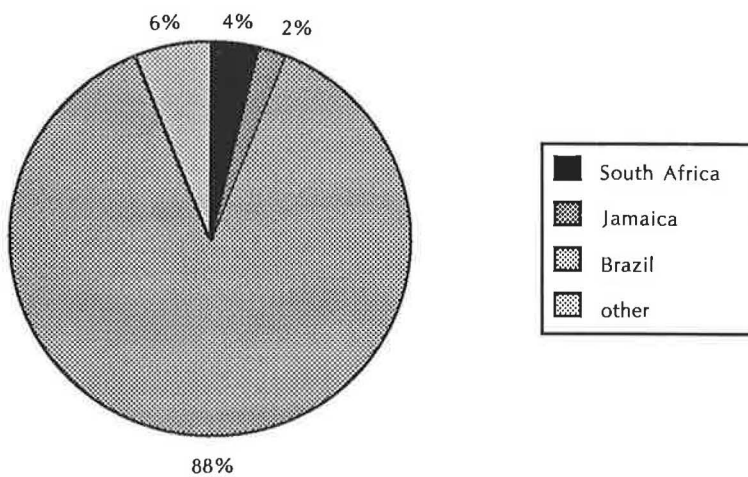


Source: United Kingdom trade returns

Brazil is by far the most important supplier all year round of pawpaws to the United Kingdom market with a share of between 80% and 90%. Some supplies also come from Israel, the Caribbean, and East Africa (see Figure 11).

**Figure 11**

United Kingdom pawpaw imports: market shares of suppliers, 1986



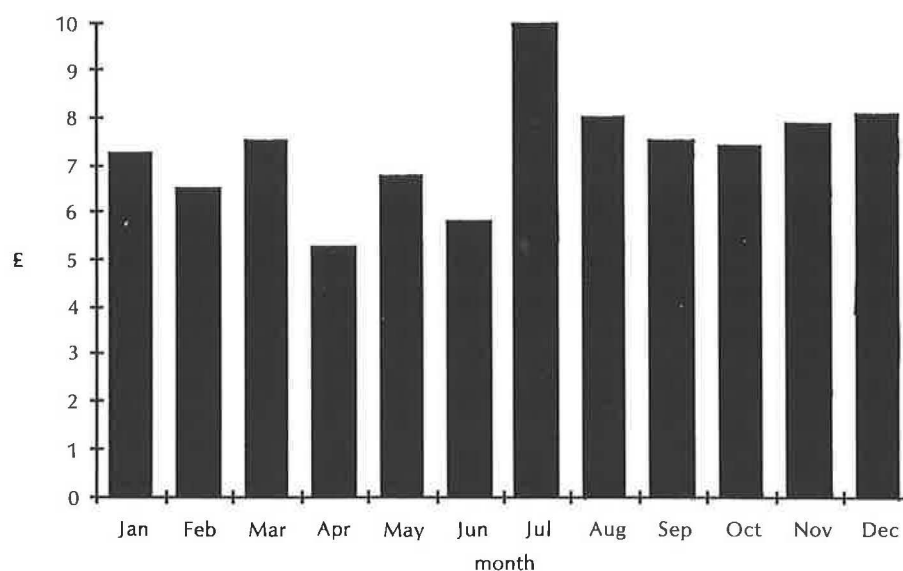
Source: United Kingdom trade returns

Pawpaws are transported by air. Packing is typically in 3 kg cartons with counts of 8-12 individually wrapped fruit.

Average monthly prices of Brazilian pawpaws on New Covent Garden Market are shown in Figure 12 below.

**Figure 12**

Average price of pawpaws on New Covent Garden Market, 1986, £ per 3 kg carton



Source: *Fruit Trades Journal*

Because of the uneven results to date it is difficult to ascertain the future market prospects for pawpaws. All retailers interviewed expressed disappointment with their experiences so far, but felt that there was nothing intrinsically wrong with the fruit to prevent it from selling well. One problem may be that the best way of presenting it to the consumer has not yet been found.

## LYCHEES

The introduction of lychees to the indigenous population was perhaps through Chinese restaurants. Canned lychees have been widely available for some time. The fresh fruit has become widely available relatively recently and is now stocked by a wide range of retail outlets. The main use is as a dessert, but lychees are also included in savoury dishes.

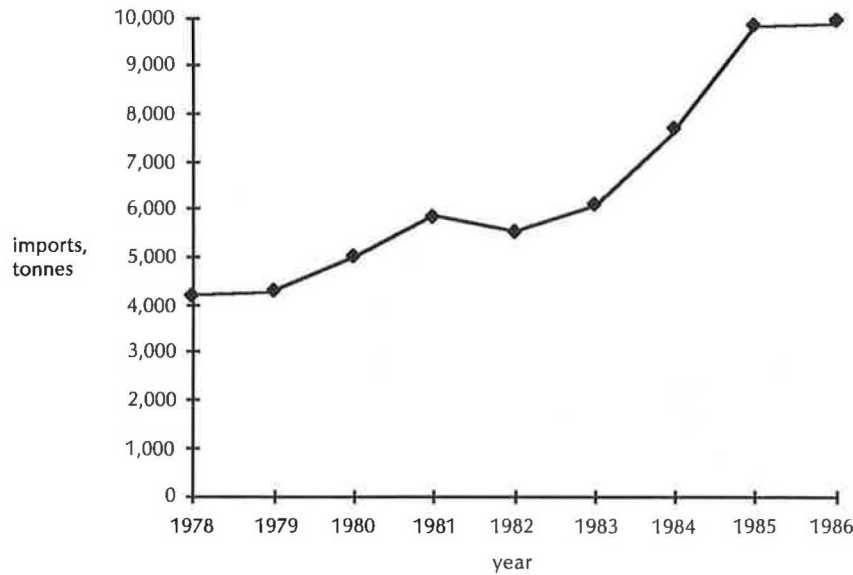
There are no specific data concerning the lychee market. Imports of lychees are not recorded separately, but are included in the category 'Other fresh fruit - other', together with imports of a wide range of other exotics. To some extent imports shown under this category as arriving from South Africa can be identified with imports of lychees, since South Africa is the major supplier. On this basis, trends in recent years have been variable.<sup>3</sup> Broad indications of trends are indicated by movements in the overall category, and these are shown in Figure 13.

The suggestion that imports of lychees have increased is confirmed by trade sources, who in general reported increasing volumes. One trader expressed the view that demand currently outstrips available supplies, in which case future market prospects might be good. On the other hand, two major supermarket chains felt that sales were fairly stable.

The main supplier of lychees to the United Kingdom market is South Africa which it is estimated has more than a 90% share. Small quantities also arrive from Madagascar, Israel, Taiwan, Thailand, and Australia. The South African season normally runs from November through to February, with a peak in December and January. The shortness of this season presents difficulties for the supermarket trade which prefers to maintain year-round availability.

**Figure 13**

United Kingdom imports of other 'Other fresh fruit - other', 1978-86



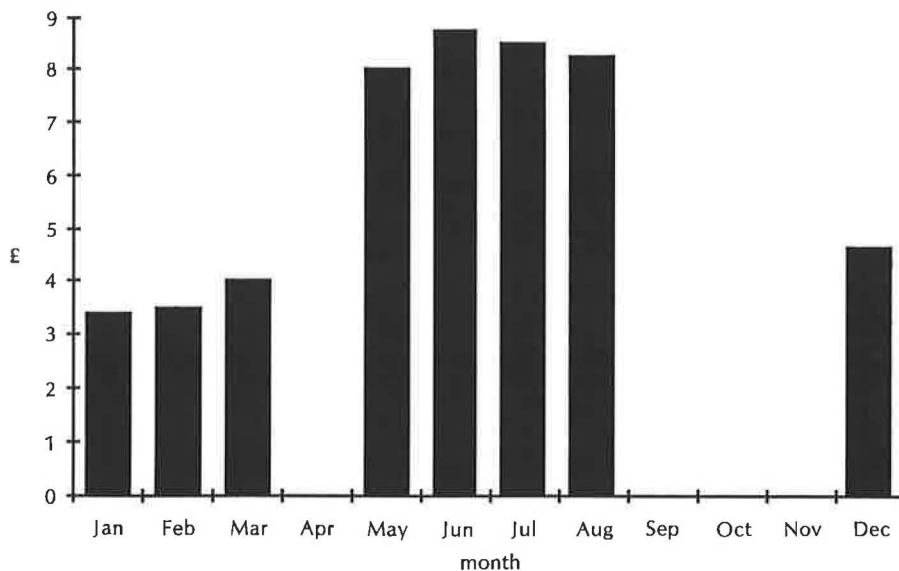
Source: United Kingdom trade returns

Transport is by both sea and air. Packaging of supplies from South Africa is typically in 2 kg cartons containing 150-200 lychees packed loose. At retail they are sometimes sold in pre-packs in the supermarkets. It is important that the fruit should not dry out and lose its red colour.

Average monthly prices of lychees on New Covent Garden Market are shown in Figure 14. These prices are for South African supplies from January to March and in December, and for supplies from Israel, Taiwan and Thailand from May to August.

**Figure 14**

Average price of lychees on New Covent Garden Market, 1986, £ per 2 kg carton



Source: *Fruit Trades Journal*

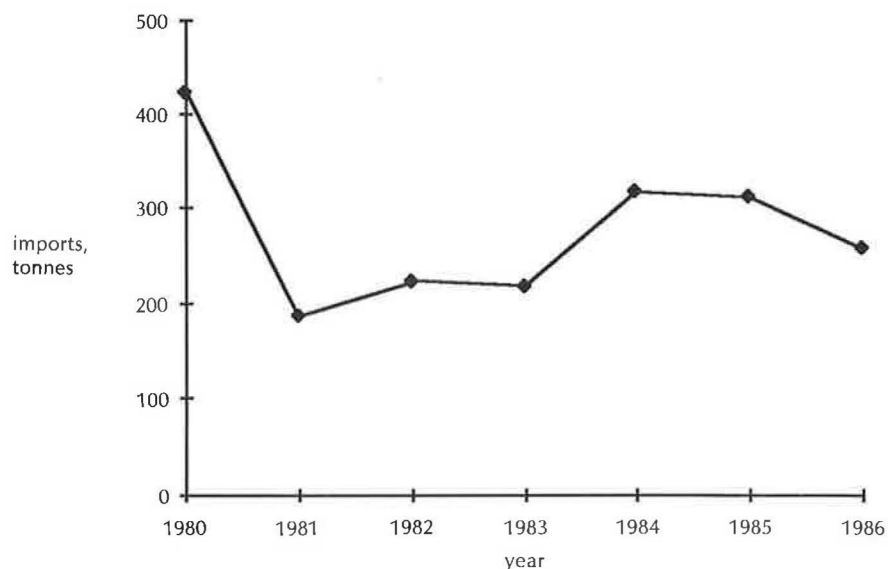
## PASSION FRUIT

The most common and preferred passion fruit in the United Kingdom is the purple variety. Although it can be and is eaten by itself, passion fruit is perhaps most commonly used as an exotic and aromatic flavouring for ice-cream, sorbets, fruit salads, drinks and so on. Passion fruit are very popular with the ethnic communities, particularly the Asian.

As with lychee, there are no specific import data available for passion fruit. They are included under the heading 'Other fresh berries' along with cherimoya and *physalis*. It is not possible to break down this aggregated category identifying particular fruit with imports from particular countries, since several countries export two or even all three. Movements in imports under the overall category are shown in Figure 15. It is difficult to discern any particular trend from this. Most retailers interviewed reported an upward trend in their sales, however. The main source of any market growth may lie in a widening of consumption rather than increased individual per capita consumption.

**Figure 15**

United Kingdom imports of 'Other fresh berries', 1980-86



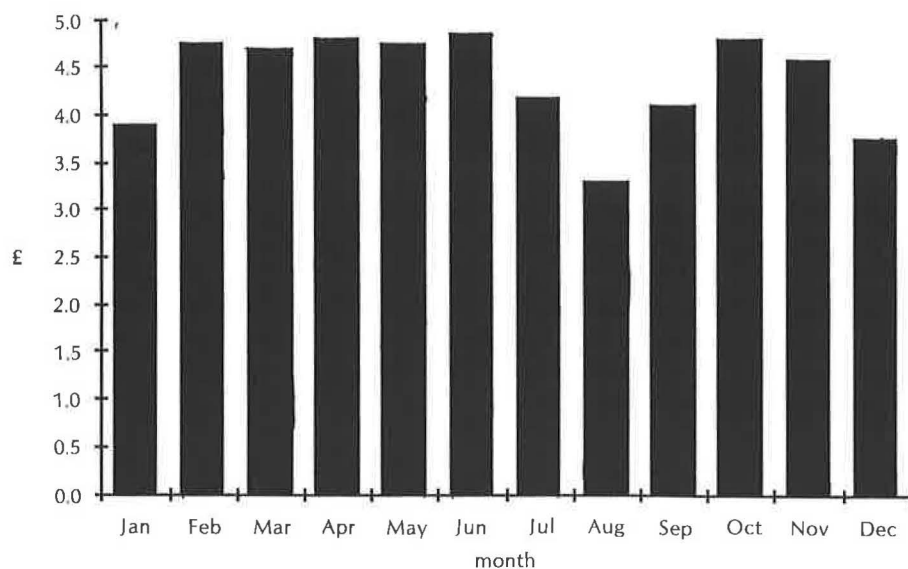
**Source:** United Kingdom trade returns

Passion fruit are available throughout the year. Kenya is the main supplier. Supplies are also obtained from South Africa, Australia, New Zealand, Brazil, Peru, and the Philippines. Packaging of supplies from Kenya is in 2 kg cartons containing about 40 fruit, Brazil uses 4 kg cartons, and other suppliers may use cartons of up to 7 kg. There is some preference in the ethnic market for the larger pack sizes.

Average monthly prices of Kenyan passion fruit on New Covent Garden Market are shown in Figure 16 below.

**Figure 16**

Average price of passion fruit on New Covent Garden Market, 1986, £ per 2kg carton



Source: *Fruit Trades Journal*

## NOTES

- 1 Fresh Fruit and Vegetable Information Bureau.
- 2 JOY, C. (1987) The market for non-traditional tropical and speciality fruit and vegetables in selected European countries. *Report of the Tropical Development and Research Institute G201* (In press).
- 3 *ibid.*

# The demand for exotic fruit in the United Kingdom

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## INTRODUCTION

All the indications are that the United Kingdom market for exotic fruit is expanding rapidly and will continue to do so. The nature of this increasing demand, the reasons for it, and the factors influencing its rate obviously have important implications for the efficiency of the production and marketing strategies of developing country suppliers. This chapter examines these topics.

## TRENDS IN FRUIT CONSUMPTION

Almost three-quarters of all households across all social groups purchase fresh fruit regularly, but per capita consumption of fresh fruit in the United Kingdom is among the lowest in Europe. An increase in fruit consumption has been confidently predicted for some time, but after some growth up to 1980, overall fruit consumption has remained relatively static, or even declined. Total fresh fruit consumption per head per week was estimated at 20.81 ounces in 1980 and 18.52 ounces in 1985. Average weekly expenditure in current prices on fresh fruit per head increased significantly over the same period, however, from £0.28 in 1980 to £0.39 in 1985.<sup>1</sup> Various explanations for the low level of fruit consumption have been put forward. These include: relatively high prices and low incomes in the United Kingdom compared to the rest of Europe; poor quality of fruit on offer; poor marketing; inadequate sales promotion and consumer education; and even the British climate.<sup>2</sup>

Although the overall demand for fresh fruit appears to be static, there appear to have been important changes in its structure. While the demand for apples, pears, soft fruit, oranges, and bananas has been static or declining, the demand for stone fruit, grapes, easy-peel citrus and, in particular, exotics has been increasing. The most significant of these, as far as this study is concerned, is the apparent rapid growth in the demand for exotics.

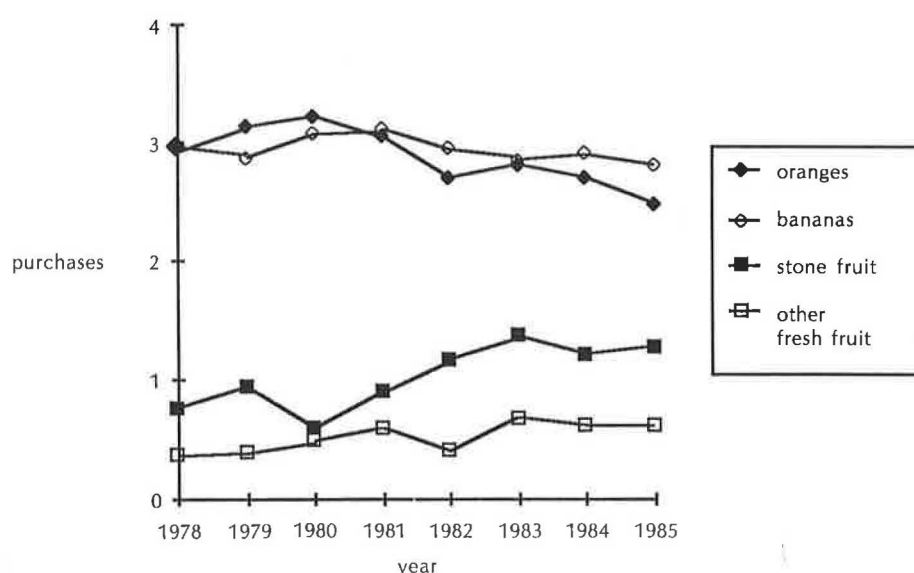
Because of their novelty and the relatively small quantities involved, there are unfortunately no published official statistics available concerning the actual consumption of any individual exotic fruit. In the National Food Survey, avocados, mangoes and lychees are included under 'Stone fruit', and all other exotics, including pineapple, are grouped together under the heading 'Other fresh fruit'. While movements in these categories may be indicative of trends in consumption of exotics it is not possible to isolate trends for individual fruit. The consumption of several of those fruit included under 'Stone fruit' besides avocados, mangoes and lychees, for example, appears to have increased appreciably in the last ten years. Any increases under the 'Stone fruit' category might reflect increasing consumption of the quantitatively more significant peaches and nectarines as much as greater consumption of the exotics. Movements in the 'Other

fresh fruit' category may be more closely indicative of trends in the consumption of exotics, although this category also includes melons.

Recent trends in the National Food Survey categories of 'Stone fruit' and 'Other fresh fruit' are shown in Figure 17 along with estimates of the consumption of oranges and bananas for comparison. The static per capita consumption of oranges and bananas but significant growth in consumption of 'Stone fruit' and 'Other fresh fruit' can be seen clearly. Growth in consumption of exotic fruit included in these categories is an important element in their overall growth but, as noted above, the trends will mostly reflect consumption of the higher volume fruits - peaches and nectarines in 'Stone fruit', melons in 'Other fresh fruit'. As a result, growth in consumption of exotics, which appears from import data to be far higher, is likely to be understated.

**Figure 17**

Fruit purchases, ounces per person per week



Source: NATIONAL FOOD SURVEY *Household Food Consumption and Expenditure*, HMSO, London, various

The absence of any adequate measured consumption data means that it is necessary to turn to international trade statistics as indicators of the quantities of exotic fruit consumed in the United Kingdom. Fortunately, the import data are relatively detailed, giving separate figures for monthly imports of avocados, pineapples, and pawpaws, and reasonably close estimates of monthly imports of mangoes. Other exotics are problematic since, as noted in Chapter 1, they are grouped together under aggregated categories: passion fruit with *physalis* and cherimoya under 'Other fresh berries'; lychees with a wide range of fruit from babaco to tamarillo under 'Other fresh fruit'. Recent trends in imports of avocados, pineapples, mangoes, pawpaws, and in those categories including lychees and passion fruit, were shown in Figures 1, 4, 7, 10, 13, and 15 in Chapter 2.

It is clear from those figures that the general trend in imports and hence consumption of the selected exotics has been strongly upwards over the last eight years. The only one with any question mark against it is passion fruit, although here it is difficult to ascertain the trend because of the aggregated nature of the data. The rates of increase in imports are striking: between 1978 and 1986 pineapple imports increased by 151%, mango imports by 367%, avocado imports by 202%, and pawpaw imports by 1740%. Obviously these rates of growth reflect the stage of development of the market for these products. They are all to varying degrees new fruit



with very low starting values for imports. Rapid rates of uptake by innovative consumers would, in any case, be expected in these early days. Rates of growth inevitably decline as they begin to depend upon uptake of the fruit by the less innovative general population. In the meantime the fact that the markets for these fruit are still dominated by the atypical 'innovators' makes the identification and analysis of demand patterns extremely problematic.

An alternative perspective on consumption trends is provided by the responses to a questionnaire distributed to fruit retailers and by opinions they expressed in interviews. A wide variety of retail outlets gave their views in one or other or both of these ways. Obviously different retailers have had different experiences in selling exotics but amongst those who sell exotics - and many traditional independent greengrocers do not - certain broad trends seem fairly uniform. Amongst exotic fruit, those most in demand were reported to be avocados, pineapples and kiwi fruit, followed at much lower levels by mangoes and pawpaws. Sales of all of these more common exotics were increasing, though at different rates. Fastest growth was generally in sales of pineapples and mangoes, and these fruit were the ones most commonly regarded as having the best prospects for further rapid growth. Avocado sales, although expanding, appear to be lagging behind the rest. Mixed views were expressed regarding the less common exotics. While generally growth in sales was reported, the quantities sold were typically very small. Some multiple grocers felt that the small sales volumes of fruits such as mangosteens or sapodilla did not justify stocking them.

A revival in the demand for all fruit has been expected for some time as one anticipated effect of the widely publicized shift towards more healthy eating in the United Kingdom. Thus far, any such shift has been of limited extent. Expansion in the demand for exotics seems certain to outstrip that for fruit in general. This expansion will be along two fronts: more of the existing range of exotics available will be consumed; and new exotics will be added to the range available. The former is seen by the trade as being the most promising. The market for the existing range, particularly pineapples, mangoes and avocados, will grow wider as more of the population begin to buy, and deeper as current buyers buy more. Great scope for expansion is seen in both of these directions.

## **'INDIGENOUS' AND 'ETHNIC' MARKETS**

In discussions of the market for exotic fruit and vegetables, a distinction is often made between the 'indigenous' market and the 'ethnic' market. This is more relevant for exotic vegetables than for exotic fruit, and for the particular fruit of interest here the distinction is arguably minor. It is difficult to provide a basis for the distinction which yields meaningful implications for an exporter's choice of production and marketing strategies. Any differences between the two markets are superficially most obvious in the nature of retail outlets or in consumers. The traditional concept of an 'ethnic' market is of an immigrant community wishing to maintain its traditional diet, the means for which are supplied by shops owned by members of the same community, and which are supplied in turn by wholesalers and importers again from the same community. In practice the boundaries are far from as clear-cut as this sketch implies. While first-generation immigrants try to defend their existing diet and turn to their own community to supply their needs, this is less so for their children and grandchildren who adopt, at least partially, the consumption and shopping patterns of the indigenous population. A movement away from traditional foods is indicated most clearly by the decline in imports of starchy roots. As increasingly all supermarkets stock exotic fruit and vegetables the ethnic community is just as likely to use these retail outlets as the indigenous population. In locations where there is a significant ethnic community,

some supermarkets make a special attempt to cater for its needs by stocking particular fruits or varieties. For these reasons the 'ethnic' market *defined as above* is likely to be static or declining as far as exotic fruit are concerned. This view was confirmed in interviews with wholesalers and importers specializing in supplying the 'ethnic' trade. The 'ethnic' market cannot easily be defined in terms of that part of the retail trade controlled by shopkeepers from the ethnic community. Such 'ethnic' shops are now an established part of local retail trade. A very significant proportion of those outlets classed as 'independent grocers' are owned by Asians, for example. Moreover, not all customers of 'ethnic' shops are members of the 'ethnic' communities. Rather they are members of the *local* community, whatever their ethnic origins.

One distinguishing characteristic of the 'ethnic' market, however defined, is that its quality requirements, in terms of packaging, or sizing, for example, do not appear to be as stringent as those in other parts of the retail trade. This is true of comparisons with the supermarket sector, but the quality of produce on offer in 'ethnic' shops is frequently not dissimilar to that of many independent greengrocers, and has improved as distribution has become more efficient and as such shops' clientele has become less restricted to particular ethnic groups.

The demands of the traditional 'ethnic' market for particular fruit or varieties of fruit may differ from those of the 'indigenous' market. Variations in these respects for the selected exotic fruit were noted in Chapter 2. For the reasons outlined above, however, this demand is at best static and will probably decline. The 'ethnic' market may provide an outlet for lower-quality produce, but returns are correspondingly low. In any case, there is no real shortage of lower-quality produce on the United Kingdom market. The traditional 'ethnic' market and its particular needs would not seem to offer significant trading opportunities for new exporters. The relative scope for increased trade is perhaps *the* major difference between 'ethnic' and 'indigenous' markets.

## **CONSUMER ATTITUDES TOWARDS EXOTIC FRUIT**

The perceived properties and hence the attraction to the consumer of exotic fruit are in some ways different from those of the more familiar fruit available on the United Kingdom market. These differences have important implications for the market prospects and choice of marketing strategy for exotics. It may not be sensible to think of many exotics as ever progressing to the same order of everyday volume sales as, say, bananas or oranges. Relatively few exotics conform to the stereotyped views of fruit held by many United Kingdom consumers: that one fruit should be one complete serving in itself, for example; or that fruit should be cheap (even though paradoxically fruit is simultaneously regarded as a luxury). Some exotic fruits, such as passion fruit, have flavours or textures which might make them more suitable as an *ingredient* in a dessert rather than as a dessert in themselves. Others, such as carambola or even kumquats, are perhaps seen primarily as a garnish. Exotics are at present expensive, and this alone may be sufficient to restrict the size of their market. Unless prices can be reduced, most importantly through cheaper transportation, exotics may remain the preserve of the ethnic minorities or higher-income groups, served, because of their high cost and their luxury nature, on a relatively small number of special occasions. Of the selected fruits, it is probably only avocado and pineapple which currently have good prospects for high-volume sales, although for pineapple more consistent quality must be achieved. Kiwi fruit are another exotic with an

established market and scope for further expansion. Growth prospects for mango are seen by the trade as perhaps the best of all, but to realize this lower prices, and again, consistent quality, must be achieved. As noted above, it may be that the supermarkets at least will restrict their principal interest to those exotics for which regular high-volume sales are a realistic possibility.

All of the retailers interviewed for this study stressed that consumers in the United Kingdom are highly sensitive to the quality of fresh fruit generally, perhaps more so than they are to price. With exotic fruit, quality is of the utmost importance, although the ethnic market may apparently be more tolerant than the indigenous one. Where consumers are already to some extent uncertain as to the nature and use of some exotic fruit, they are even less likely to risk purchase if they have doubts about its quality. This will be particularly so where the price is high. While poor-quality produce may put off consumers from buying at all, it will certainly not encourage repeat purchases. Consistently high quality must be made available over extended periods. Discontinuities in supply and variable quality will not provide a basis for market growth. A key element in the success of the avocado and kiwi fruit is year-round availability of consistent quality fruit. Where a fruit is novel, its visual appearance – its colour, shape, size – is especially important since the consumer will find it difficult to judge its quality on any other basis. Certain varieties of particular fruit may therefore prove more satisfactory than others: yellow and yellow/red mangoes tend to be preferred to green, for example. In the ethnic market, of course, consumers already familiar with the fruit may be able to judge quality on a more objective and less superficial basis.

Quality must be maintained by careful handling and management throughout the marketing chain from producer to retailer. For the major importers and retailers, cool chain distribution is increasingly common. The final presentation to the consumer at the retail level, however, is sometimes poor. When exotics first began to appear on the United Kingdom market, the complaint that fruit was unripe and far from ready to eat was common. Avocados, for example, were normally presented in such a state. Nowadays this appears to be less of a problem, and all the multiple retailers interviewed for this study recognized the need to present fruit which is ready to eat or very nearly so. Retailing of ripe fruit demands more careful management if in-store damage is to be kept to an acceptable level. Not only must marketing and distribution be carried out efficiently, but harvesting of fruit must be timed correctly if retail quality is to be high. As noted in Chapter 2, the failure of pawpaws to achieve significant market growth is felt to be partially due to earlier quality problems arising from deficiencies in both these areas.

Consumer attitudes towards exotics are, however, generally favourable. The wider interest in healthier eating is expected to lead to increased consumption of all fresh fruit, but it seems likely that an increasing proportion of this will be accounted for by exotics. Most consumers would probably regard the characteristics of exotics described in Chapter 1 as relatively attractive. United Kingdom consumers show a surprising willingness to try new fruit or new varieties of those they already know. This may be motivated by having encountered exotic fruit abroad or in restaurants, or having read about them in books and magazines, or simply by their very novelty. While novelty may stimulate purchases, once a fruit is no longer novel, interest in it may fade if it does not have enduring appeal. Not many of those fruits introduced to the market as 'the next avocado' achieve anything like that status. Some, like feijoas, appear in a blaze of publicity only to disappear from the market to be replaced by the next candidate. Exotic fruit are a prime object of impulse buying. Visual appearance, packaging and presentation are all, therefore, very important in catching the consumer's attention. The producer and exporter have a responsibility to ensure that the first two at least are attractive.

## SOCIAL CLASS AND THE DEMAND FOR EXOTIC FRUIT

As far as the indigenous population is concerned, exotic fruit consumption per head is highest among the relatively wealthy – the A, B, and C1 social classes<sup>3</sup>, and within these classes, particularly those under the age of 35. This social group, by dint of its higher income, is best able to afford the relatively high prices of exotics, and also most strongly exhibits those attitudes, characteristics and behaviour patterns outlined above which are favourable to exotics. A, B and C1 households eat more fresh fruit generally, are typically better educated, read more magazines, travel abroad more, eat out in restaurants more, have a greater awareness of healthy eating requirements, and a greater interest in food generally. The predominance of this social group in taking up consumption of exotics is confirmed by a recent study of the relationship between consumption of exotic fruit and vegetables and various indicators of innovativeness.<sup>4</sup> The converse is true for the lower-income groups, and their consumption of exotics is correspondingly low. Unfortunately, detailed information concerning the consumption of particular exotics according to social class is not available. Some indications are provided by market research data, however. AGB/Attwood panel data estimates the percentage of purchases of exotic *vegetables* made by different social classes. For *all* vegetables the percentage of purchases by each social class is roughly proportional to each class' share of the total population. For exotics the percentage of purchases accounted for by the A, B and C1 classes is significantly greater than their share in the total population. Classes A and B make up 15% of the population but account for 30% of exotic vegetable purchases; class C1 makes up 20% of the population but accounts for 28% of exotic vegetable purchases; in contrast, classes D and E make up 38% of the population but account for only 22% of exotic vegetable purchases.<sup>5</sup> For exotic *fruit* the distribution of purchases between social classes will be even more skewed towards classes A, B, and C1. The percentage of households in different social classes purchasing particular fruit is estimated by BMRB/Mintel. Unfortunately no real exotics are included, but some indications are given by the figures for melons: 51% of classes A and B and 39% of class C1 purchased melons compared to 19% of class D and 21% of class E.<sup>6</sup> For truly exotic fruit the percentages of each class making purchases would presumably be lower, but the differences between classes would be wider.

## THE EFFECT OF PRICE ON THE DEMAND FOR EXOTIC FRUIT

The relatively high prices of exotics are widely considered to be a major constraint on the development of the market. In fact, the real prices of all the selected fruit have decreased over the last eight years. This may be one contributory factor in the increasing demand for exotics, but analysing the relationship between price and demand in a formal way is problematic. The major practical problem is the dearth of statistical information for individual exotics concerning the quantities consumed and prices paid. Because of the quantities involved, exotics tend to be absorbed into aggregated categories of fruit in official statistics. The relatively recent increase in the importance of exotics means that in any case it is often difficult to assemble an adequate time series of relevant data for econometric analysis. As noted above, the fruit discussed here are all new, and their consumers atypical 'innovators'. Realized demand obviously cannot exceed available supplies. Given that these are limited, there may be effective rationing of exotic fruit in which case the influence of price on demand levels may be underestimated.

Estimates of the price elasticity of demand – the percentage change in quantity demanded resulting from a one per cent change in price – are made by the National Food Survey for a number of fruit. Unfortunately, these do not include any individual exotics, although some inferences might be drawn from estimates made for the aggregated categories in which they are included. For 'Stone fruit' which includes avocados, mangoes and lychees, the price elasticity of demand is estimated at  $-2.10$ . For 'Other fruit' which includes pineapple and all other exotics, the price elasticity of demand is estimated to be  $-1.09$ . These compare with estimates of the price elasticity of demand for oranges and bananas of  $-1.26$  and  $-0.62$  respectively.<sup>7</sup> As might be expected the demand for 'Stone fruit' and 'Other fruit' appears to be elastic, suggesting that decreases in prices will lead to greater proportionate increases in demand. Within the 'Stone fruit' category the exotics might be expected to have elasticities higher than the average for the category as a whole. The 'Other fruit' elasticity is surprisingly low given the wide range of exotics included in this category.

In the absence of actual consumption data for individual exotics, inferences concerning the relationships between prices and quantities must be drawn from analysis of the more detailed trade data. Such an analysis is made in a recent study by Blanco-Redio<sup>8</sup>. This study derived estimates of price elasticity of demand for pineapples, avocados, mangoes and pawpaws for the European Community as a whole from regressions of the quantity imported of each fruit on its c.i.f. price and income. For pineapples, these estimates ranged from  $-0.09$  to  $-0.10$ ; for avocados from  $-1.40$  to  $-2.00$ ; for mangoes from  $+2.19$  to  $+3.60$ ; and for pawpaws from  $-0.36$  to  $-0.53$ . These results do not appear particularly convincing. For mangoes they suggest that demand increases as price increases. There are, however, a number of practical and conceptual problems with this analysis. The equations estimated are not *consumer* demand equations, although they are portrayed as such, since the measured variables involved are *import* quantities and prices. Rather, they are *import* demand equations. As import equations they are mis-specified. The direction of the causal relationship they describe between quantities imported and c.i.f. prices is in fact the reverse of that which appears to hold in practice.

There is little alternative but to use the import data to analyse price-quantity relationships in the market for exotic fruit. The results of a further analysis are discussed here. The methodology is described in Appendix 3. Briefly, the approach was to examine how prices adjust to quantities coming into the United Kingdom market, rather than vice versa, by specifying and estimating price-dependent import demand functions for each of the selected fruit. From these equations, 'price flexibilities' measuring the percentage change in price resulting from a one per cent change in quantity imported were estimated. This approach is a rather closer approximation to the actual workings of the market at this stage. Price formation at each stage in the marketing chain is discussed further in Chapter 4.

Reasonable but cautious estimates of price flexibilities for avocados, pineapples, and mangoes were obtained. These were respectively  $-0.49$ ,  $-0.93$ , and  $-0.43$ . The estimates suggest, therefore, that increases in the quantity supplied to the United Kingdom market have a less than proportionate effect on import prices. These flexibility estimates imply elasticity values of  $-2.0$  for avocados,  $-1.1$  for pineapples, and  $-2.3$  for mangoes, which are broadly in accord with the aggregated estimates of the National Food Survey.

Because of the limitations of the data available for formal analysis, retailers were asked for their subjective opinions on the influence of price on demand for exotic fruit. The consensus of opinion seemed to be that price was a significant influence, but opinion was divided as to whether this influence was stronger for exotics than for the more familiar fruit. One difficulty is that for most exotics the consumer has little idea of what is

the 'right' price. As a result they may not recognize and hence may not respond to price reductions. In fact, one recent study found that 50% of supermarket customers were unaware of the prices they had paid for any fresh fruit.<sup>9</sup> As exotics become a more regular purchase, however, some idea of the 'right' price may develop, particularly since exotics are relatively expensive. This is probably already so for avocado, kiwi fruit, and perhaps pineapple. The development of a popular view as to the 'right' price may impose a ceiling on the prices which can be charged for these fruit. After all, exotics are by definition not essentials.

Regional differences in consumption of exotic fruit may also be in part attributable to price variations. Market research data indicate higher-than-average levels of consumption but lower-than-average prices in the South-East of England and London. It is difficult, however, to separate out the effects of price from the effects of income, social class and availability.

The prices of other fruit, whether exotic or familiar, do not appear to have any significant influence upon the demand for particular exotics. No significant cross-price effects were revealed by the econometric analysis, but it is perhaps likely that any such effects would be less obvious at the import level than they might be at retail level. Even here, however, the retailers interviewed did not feel that there was much relationship between their sales of exotics and the prices of other fruit. The characteristics of most exotics are so individually distinctive that they may not be regarded as substitutes either for each other or for more familiar fruit. Differing seasonal availabilities also limit the possibility for competition with other fruit. In any case, as noted above, consumers' awareness of prices and relative prices may be limited. If anything, exotics may be complementary rather than competitive in demand to each other and to other fruit.

## **THE EFFECT OF INCOME ON THE DEMAND FOR EXOTIC FRUIT**

The high prices of exotic fruit relative to those of more common fruit means that a consumer's income level will be an important determinant of whether or not exotics are purchased. It is also clear from the discussion of consumer attitudes and the influence of social class on demand that consumption of exotics, at the moment at least, is very much concentrated in the higher-income groups. It is, however, difficult to judge how much of any apparent relationship between consumption levels and income is a pure income effect rather than a reflection of social factors. The importance of income is also indicated by regional differences in exotics consumption: consumption being higher in the higher-income regions of London and the South-East.

The National Food Survey estimates of income elasticities of demand – the percentage change in demand consequent on a one per cent change in income – for fruit, provide some indications of the extent to which changes in income are likely to affect demand for exotics. Income elasticities of expenditure on 'Other fruit', which includes most exotics, and 'Stone fruit', which includes avocados, mangoes and lychees, are estimated at 1.16 and 0.51. These compare with income elasticities of expenditure on oranges and bananas of 0.38 and 0.40 respectively. Income elasticities of quantity are estimated at 1.07 for 'Other fruit' and 0.57 for 'Stone fruit', compared to 0.37 for oranges and 0.34 for bananas.<sup>10</sup> The influence of income on consumption of the exotics included in 'Other fruit' is clearly appreciably greater than it is on consumption of the more conventional oranges and bananas. The estimates of income elasticity of demand for 'Stone fruit', however, are surprisingly low.

Estimates of income elasticities for the European Community as a whole are made in the Blanco-Redio study. These are substantially higher than the National Food Survey estimates would suggest: 2.57 – 2.91 for pine-

apples; 3.43 – 4.39 for avocados; 9.21 – 10.35 for mangoes; and 9.76 – 11.69 for pawpaws. For the reasons discussed earlier in relation to the corresponding price elasticity estimates, these values are likely to be unreliable.

Indirect evidence on the influence of income on the demand for exotics is provided by the econometric analysis of import data discussed earlier and described in Appendix 3. This analysis suggests income elasticities of demand of more than one for avocados, pineapples, and mangoes.

The available income elasticity estimates cited above do not yield specific or entirely convincing information on the responsiveness of the demand for exotic fruit to changes in income. Nevertheless, they do indicate that the relevant income elasticities exceed one, with the implication that increases in income levels will lead to more than proportionate increases in sales of exotic fruit.

## **SALES PROMOTION, CONSUMER EDUCATION AND THE DEMAND FOR EXOTIC FRUIT**

The apparent importance of consumer attitudes and other social and behavioural factors in determining the demand for exotics, coupled with the limited knowledge of exotics on the part of consumers, means that sales promotion and consumer education can have a significant impact. The biggest selling exotics, avocados and kiwi fruit, are heavily promoted and their success is perhaps to a large measure attributable to this. In 1985, for example £113,000 was spent on advertising Israeli avocados in the United Kingdom. Kiwi fruit had been known in the United Kingdom for many years, under the name of Chinese gooseberry, without ever making a significant impact until New Zealand appropriated, re-named and promoted it. In 1985 New Zealand spent \$NZ 11.8 million on promotion of kiwi fruit. All retailers interviewed emphasized the importance of sales promotion and consumer education to the exotics market. All attempted to stimulate consumer awareness and encourage the buying of exotic fruit and all felt that promotions had a lasting positive effect on sales. Promotion of exotics is, however, a relatively expensive exercise since the task is to *create* rather than simply to maintain a market.

Sales promotion and consumer education in relation to exotic fruit take a variety of overlapping forms. These include media advertising, posters, leaflets, point-of-sale information, informative labelling, special offers, in-shop tastings, books and brochures, magazine and newspaper articles, television and radio features, and personal advice from retailers.

The focal point of most promotion is the retailer. Heaviest retailer promotion is generally for the existing high-volume lines like avocados, pineapples, kiwi fruit and to a lesser extent mangoes, rather than for the lesser exotics where the anticipated increase in volume of sales would not justify the cost. They do, however, promote exotics more generally. Independent retailers have a potential advantage in being able to offer personal advice to consumers, although relatively few traditional greengrocers take an interest in exotics. Almost all of the major supermarket chains produce their own exotics booklets and leaflets describing the various fruit and vegetables and offering serving suggestions. Any promotion obviously costs money and retailers normally expect some sharing of the costs by marketing boards or other export organizations, or importers. This is frequently forthcoming since such bodies share a common interest in market-building, but it is generally confined to co-operation with the large supermarket chains. Independent retailers generally have to finance special offers, tastings and so on from their own resources.

Retailers were asked to give their opinions on the relative effectiveness of a variety of promotional measures. All the retailers questioned, whatever their type, were in agreement that posters and advertising were of generally little value in promoting exotic fruit, although these were commonly provided by export organizations. Point-of-sale information, personal or written, and including in-shop tastings, was thought to be particularly important. Labelling on individual fruit or pre-packs guarantees that the consumer receives and does not lose or forget information provided.

Much promotion and consumer education is effectively provided free to the trade in the form of press coverage of exotic fruit. Exotics make an attractive and popular topic for magazine and newspaper articles. Substantial encouragement in this area is provided by the Fresh Fruit and Vegetable Information Bureau which provides regular press notices on 'What's New' and the exotics trade in general. The Bureau also produced an 'Exotic Fruits Book' and an 'Exotic Vegetable Book' with financial assistance from COLEACP, both of which were widely disseminated.<sup>11</sup>

Sales of exotic fruit may also benefit from any promotion of fruit and vegetables generally, since greater overall consumption of fruit seems likely to be associated with a desire for greater variety. The various Government reports on diet and associated nutritional guidelines, notably recommendations of increased intake of fresh fruit and vegetables, should have stimulated an increasing interest in fruit, and again exotics in particular may benefit. Both of these effects may be small, however.

It is clear that sales promotion and consumer education are essential if consumers are to be persuaded to try exotic fruit and to pay the relatively high prices asked. It is also clear that export organizations must bear at least some of the responsibility and cost involved. The successes of avocados and kiwi fruit are illustrative of what might be achieved, but also of some prerequisites for success. Both of these products could rely on a highly efficient, high-quality consistent supply of produce to meet any increased demand. In both cases, the export organizations involved could rely on a major share of the United Kingdom market which would ensure that those incurring the costs of promotion would also gain the benefits. With the possible exception of pineapples from Côte d'Ivoire, none of the other exotics on the United Kingdom has either of these prerequisites. Co-operation between exporting countries, perhaps through organizations such as COLEACP, might be a basis for generic promotion of fruit such as mangoes which are imported from many countries. Alternatively, individual exporting countries might mount national promotions covering all their fruit exports with the aim of establishing a brand identity based on a national reputation for quality whatever the fruit. Brazil, for example, already has an on-going promotion programme.

## NOTES

- 1 NATIONAL FOOD SURVEY *Household Food Consumption and Expenditure*, HMSO, London, various issues.
- 2 See, for example, *Eurofruit*, December 1982.
- 3 These socio-economic classes are defined according to social status and occupation of the head of household as follows:  
A - upper middle class - higher managerial, administrative or professional;  
B - middle class - intermediate managerial, administrative or professional;  
C1 - lower middle class - supervisory or clerical and junior managerial, administrative or professional;



C2 – skilled working class – skilled manual workers;  
D – working class – semi and unskilled manual workers;  
E – those at lowest level of subsistence – state pensioners or widows,  
casual or lowest grade workers.

- 4 ROBINSON, T.M. and AMACK, R. (1986) 'Exotic fruit and vegetables: a consumer profile'. *Food Marketing*, 2, (2), pp 14-27.
- 5 GENTLES, P. (1986) 'Developments in housewife purchasing in the vegetables and exotics market', paper presented at the PPMA Annual Conference, 2nd-5th April, 1986.
- 6 MINTEL (1986) *Market Report - Fresh Fruit*, December 1986.
- 7 NATIONAL FOOD SURVEY (1986) *Household Food Consumption and Expenditure: 1984*, London, HMSO.
- 8 BLANCO-REDIO, E. (1984) *An analysis of the future markets for tropical fruits in the European Community*, unpublished M.Phil. dissertation, University of Cambridge.
- 9 Reported in *The Grocer*, 30th November, 1985, p50.
- 10 NATIONAL FOOD SURVEY (1986) *Household Food Consumption and Expenditure: 1984*, London, HMSO.
- 11 FRESH FRUIT AND VEGETABLE INFORMATION BUREAU, (1956) *The Exotic Fruits Book* and *The Exotic Vegetables Book*, London: Fresh Fruit and Vegetable information Bureau.

# Marketing of exotic fruit in the United Kingdom

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## INTRODUCTION

It is clear from Chapters 2 and 3 that there is much scope for increasing exports of exotic fruit to the United Kingdom. It is equally clear, however, that some segments of the United Kingdom market may present more opportunity than others. Different segments of the market can differ in terms of the range and varieties of fruit they handle, the quality standards they expect, and the services they demand. The nature and size of returns to the exporter can vary accordingly, so it is important that the most beneficial trading opportunities are identified and exploited fully. Exporters to the United Kingdom market should, therefore, have some knowledge of the structure of the market, the various marketing channels through which exotic fruit passes, and the key market participants. This chapter considers these topics.

## MARKETING CHANNELS FOR EXOTIC FRUIT

A fundamental problem in examining marketing channels for most exotic fruit is the lack of any firm data on quantities involved at any point in the marketing chain. It is effectively only import data which are available in anything like the necessary degree of detail, but even here there are some difficulties arising from the use of aggregated categories. Beyond the point of entry into the United Kingdom, there are no measurements of flows through the various marketing channels. The discussion here of the nature and relative importance of marketing channels is largely based upon interviews with market participants. It relates to the six selected exotic fruit described in Chapter 2. It seems, however, that most other exotic fruit follow one or other of the patterns for those selected.

Marketing channels and key market participants for exotics are shown in Figure 18.

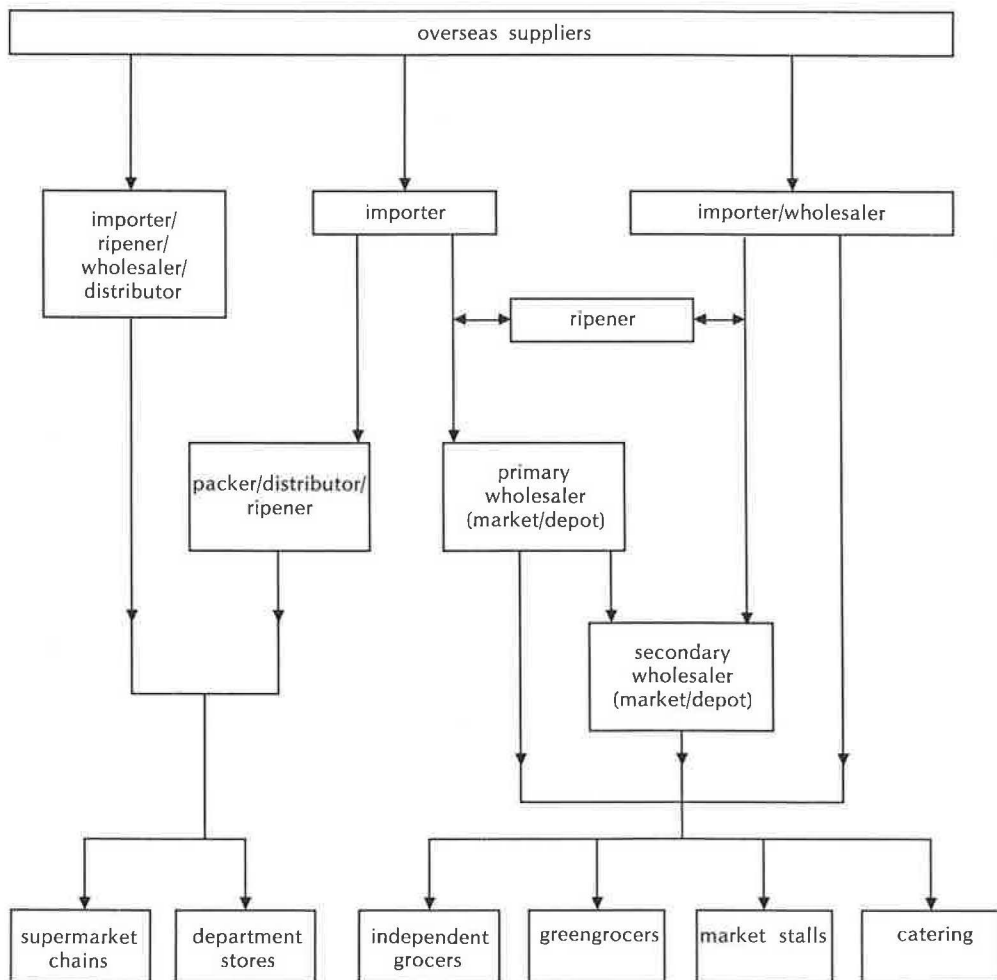
In practice, the range of marketing channels for exotic fruit is broadly the same as that for other imported fruit. It must be remembered that about two-thirds of all fruit, including apples, pears and other 'home-grown' fruit consumed in the United Kingdom, is imported. The relative importance of the various channels differs according to whether the fruit concerned is an exotic or not, however, and even within the exotics category there are some slight differences of emphasis. Marketing channels and trade practices relating to exotics are diverse. Some importers and wholesalers specialize in exotics, but for most market participants exotics are just one, relatively small, component of their business. All of those interviewed, however, said that their trade in exotics was growing.

The basic functions of the marketing system are importing, wholesaling, retailing, and transportation between and storage at these various stages. The extent to which these functions are carried out by separate firms has in general been decreasing. Consequently, the length of the marketing

chain has in many cases shortened. Some improvement in marketing efficiency and reduction in marketing costs has resulted. Importing and wholesaling are probably the most integrated stages. There are now some very large, sometimes public, importing-wholesaling companies which deal, in particular, with the large multiple grocery chains and department stores. There are in fact some indications that the importer and wholesaler may eventually themselves be by-passed by the large retail organizations who will deal directly with export organizations or even with producers themselves in exporting countries. For some exotics the marketing system provides additional services such as ripening, quality control, packing, repacking, prepacking and labelling. These additional services are demanded increasingly by retailers, at least the larger retail organizations, and in general it is only the larger importing and wholesaling companies which can provide them. There are also some companies which specialize in the provision of services such as controlled environment storage and distribution using advanced technology.

**Figure 18**

Marketing channels for exotic fruit



Source: Trade sources

### Importing and wholesaling of exotic fruit

The exporter's first point of contact with the United Kingdom market is normally an importer. Importers typically deal in a variety of produce, exotic and otherwise, although some do specialize in exotics. For the non-specialists, exotics might account for around 10% of their business. Some

have special interest and expertise in dealing with particular countries or regions, or in particular individual products. Most are generalists, however, accepting almost any fruit from any country. The size and nature of importing companies vary widely. Some are effectively one-man operations, often specializing in particular countries or fruit, sourcing produce, and making arrangements for its shipping and delivery to wholesalers or packers, or even retailers. Most importers also undertake the wholesaling function, and many, including the very biggest, have premises on one or more of the primary wholesale markets. The larger companies offer a wide range of additional services, such as ripening, repacking and pre-packing, and labelling. They also provide transport and distribution, often in temperature controlled lorries both from port of entry to central depots, and then on to their customers. Some try to have produce with their clients within a day of its arrival in the United Kingdom. Their main clients are the supermarket chains and department stores who demand high-quality produce and service. The emphasis in this sector of the market therefore is very much on quality, although the prices are correspondingly higher. Repacking is the rule rather than the exception. The smaller importers and importer-wholesalers appear less concerned with quality control, passing produce on to wholesalers, retailers and caterers as it arrives, with no repacking.

While some importers may have preferred sources of supply for exotic fruit, the range of countries of origin is in practice wide. Sources of supply can be deliberately sought out by importers, or they can rely on unsolicited offers of supply from potential exporters. Sourcing visits to exporting countries are made by larger importers, sometimes with representatives of their major customers, and to some extent by the one-man operations discussed above. Such visits can be used to advise exporters and producers on varieties, production technology, harvesting, quality control, packing and shipping. In this way the importer can communicate his requirements personally and select those suppliers most likely to provide them. Such exercises are expensive, however, and are beyond the means of most small importers. Typically, these companies must wait for and respond to offers of supply from potential exporters. Since their trade is almost exclusively on a commission basis there is little risk for the importer in this strategy and there appears to be no shortage of potential exporters. There is, however, always a shortage of high-quality produce. The trade's requirements of a supplier were stressed by all importers interviewed, whatever their size, as being above all reliability of supplies of well-packed consistently high-quality produce. All importers advised exporters on what was required, although such advice was not always heeded. Most importers ranked Israel and South Africa first in these terms. Some South American exporters, notably Brazil, were felt to be providing an acceptable service, while some African countries were criticized as failing to meet the trade's requirements. For the latter, packaging was identified as a particular problem. Some of the larger companies also regarded presentation and grading as important to limit the extent of remedial work necessary in the United Kingdom. Most in fact laid down packaging specifications and insisted upon efficient grading.

Most of the major exotics handled by importers, including all of those selected for study here, are imported by them directly. There is, however, also a certain amount of trade between importers and between importers and wholesalers in order to build up a range of produce to offer their customers which they themselves do not import. This applies particularly to the more limited lines, such as carambola or *physalis*, and also to early or late season fruit, for which it is felt that the small volumes involved do not justify the administrative costs. Purchases are also made from other importers and wholesalers for topping up stocks and for trying new lines. The small specialist exotics importers play a central role in this kind of trade.

As noted above, the key clients of the large import-wholesale companies are the multiple grocers and department stores. For some of these companies, up to 85% of their trade is with these large retail organizations. The remainder, usually involving produce which does not meet the specific requirements of their major clients, is sold through the wholesale markets either from their own premises or to wholesalers. Most expected their trade with supermarkets and department stores to expand, but wholesale market sales to remain static. The smaller import-wholesale companies sell to independent greengrocers and grocers, caterers, and other importers and wholesalers. Perhaps 60-70% of their trade is with retailers, about 10% with caterers, and the rest with other importers and wholesalers. All of the trade of the specialist importers is obviously with wholesalers and other importers.

Some supplies of exotics into the United Kingdom are handled by export organizations and marketing boards either directly, or through selected importers and wholesalers known as panellists. Distribution and marketing are often managed from a United Kingdom office. Almost all Israeli and South African produce is distributed in this way. Some presence in the importing country can give exporters a significant competitive advantage. The great success of Israeli-produced avocados and other exotics is in no small part due to the presence of AGREXCO in the United Kingdom. AGREXCO brings produce into the United Kingdom. About 60% of this produce goes to their central depot, where there are cold storage facilities for around 2,000 pallets, at Hayes close to Western International Market and Heathrow Airport. Fruit is distributed from there, using AGREXCO's own lorry fleet, to wholesale markets and direct to the supermarket chains and department stores. About 40% of the produce goes through wholesale markets. This centralized system allows close management of distribution and highly efficient quality control, ensuring that produce is of the highest quality. AGREXCO has established a reputation for this. The presence of a local office in itself can promote confidence in that it can provide information on supplies, qualities, prices, or timing of deliveries, and can answer queries or discuss grievances with customers. Provided with this kind of service customers are better able to plan their deliveries and stocks. Marketing boards and export organizations also play an important role in co-ordinating and financing promotional exercises and consumer or retailer education, often in close collaboration with their panellists or retailers.

The importance of presenting fruit at the retail level which is ready to eat was discussed in Chapter 3. Most retailers nowadays demand fruit which is ripe or very nearly so, whereas in the past the risks they perceived in the stocking of exotics made them favour under-ripe fruit. For two of the selected fruit, avocados and mangoes, ripening is an important function of the marketing and distribution system. Responsibility for organizing this usually rests with the importer. Most importers have ripening rooms of their own or use specialist fruit ripeners. Ripening is also one of the services offered by fruit packers and distributors.

Specialist wholesalers may be market wholesalers, either in central primary markets such as New Covent Garden, London or secondary regional markets, or 'depot' wholesalers who operate outside the markets. In practice many of the latter also have market premises. New Covent Garden is the biggest of the primary wholesale markets with just less than 10% of all wholesale produce sales. As noted above, many of the larger import-wholesale companies have premises there as do a number of the export marketing boards. Between 60% and 70% of the produce on sale is imported, and of all the markets New Covent Garden has perhaps the widest selection of exotics. Exotics are stocked probably by 70% of companies, and all of those stock the selected fruit. Some are in fact exotics specialists. All those interviewed saw exotics as being an increasing element of their trade and were always looking for new lines, although not all had specialist skills in handling and marketing of exotics. A significant

component of New Covent Garden trade is with catering establishments. Spitalfields is London's second biggest fruit and vegetable market. About 40% of its produce is imported. Exotics are an important element in Spitalfields trade, which also has some emphasis on root vegetables and serving the ethnic communities. Ethnic communities in London and the South are also served by a number of wholesalers, often Asians or West Indians, at Western International Market near Heathrow. There are primary wholesale markets in the regions. Birmingham Wholesale Market is particularly important for exotics, partly because of the large local ethnic community. All the major marketing boards have panellists there. In other regional markets, however, there is less interest in exotics, and in some of the regional secondary wholesale markets the range available is very limited indeed. Since local greengrocers can only sell what they can buy this can be an important limitation on the spread of exotics sales.

One of the major structural developments in fruit and vegetable marketing in recent years has been the general decline in the importance of wholesale markets. This has been in line with the decline in the importance of traditional greengrocers, for whom wholesale markets are the major source of supply, and the increasing share of the retail fruit and vegetable market taken by the supermarket chains and department stores. The markets are hardly ever used by these large retail organizations, at least not for buying, although their buyers do often visit the markets looking for new lines. The future for many of the large wholesale markets is uncertain. Market throughput is falling as depot wholesalers increase their market share, and it seems to be widely acknowledged that, although standards are improving, it is lower-quality produce which is sold through the markets. With high overheads and competitive pressure on margins, profits are low.<sup>1</sup> Views expressed in interviews with the trade on the future of wholesale markets varied. Some were pessimistic, drawing attention to pressure on margins and high overheads. Specialist wholesalers, particularly those dealing in exotics, were generally more optimistic. Often they were also importers, dealing in an ever-widening range of exotics, selling in small quantities to perhaps a limited number of clients. Their future seems relatively secure since at the moment there is some reluctance on the part of the large import-wholesale companies to handle smaller lines. Still others argued that the wholesale markets would remain simply as an outlet for the produce not acceptable to the supermarket chains and department stores. It also seems likely that the wholesale markets will remain important to the catering trade. Prospects for the secondary wholesalers may be even bleaker, as distribution systems become more efficient and allow national distribution from primary markets or depot wholesalers. At the moment perhaps 20% of wholesalers' sales are to other wholesalers.<sup>2</sup>

The increasing market share of the larger wholesalers and importer-wholesalers is associated with the increasing buying power of the multiples – supermarket chains and department stores – and their increasing share of the retail market for fresh fruit and vegetables. It is only the larger importing and wholesaling companies who have the capacity to service the requirements of the large retail organizations for high-volume daily deliveries. Increasingly the large retailers demand additional services such as prepacking, labelling, bar coding, and cool chain distribution, and again it is only the larger wholesalers and importers who have made the investments that can offer these services. There appears to be a certain amount of loyalty to particular suppliers on the part of the multiples, although they will look elsewhere if quality is not acceptable. Quality was ranked number one by all supermarket and department store buyers amongst factors determining their choice of sources of supply. Availability of large volumes and reliability were also considered important. Typically price was accorded relatively low priority. Sometimes the supermarkets use specialist packers and distributors. A supermarket might make an import deal with a small importer who arranges delivery to the super-

market's chosen packer who then carries out the services as required. It is the supply chain to the multiple retailers which has contracted most in recent years as as many intermediaries as possible have been by-passed. This has partly been an exercise in cost reduction, but also because of a desire to ensure that the buyers find exactly the quality of produce they require and are able to get it to their stores quickly. Some multiples already deal directly with producers in Europe, and it seems that in relation to exotics some would like to take a more central role in sourcing and even importing produce. Buying is too strict and comprehensive, sometimes written, specifications laid down by head office. Such specifications lay down standards for such attributes as uniformity, shape, colour, ripeness, and flavour. Different companies rank these surprisingly differently, however, even for the same fruit. Meeting the stringent quality and quantity requirements of the multiples can be difficult for many suppliers but success in doing so can provide the benefit of regular high-volume sales, and at relatively high prices. The multiples for their part know that their buying power will secure the supplies and quality they require.

### **Retailing of exotic fruit**

Beyond the wholesale stage, the market becomes much more fragmented. Perhaps the most important retail outlets as far as exotic fruit are concerned are the supermarket chains and the department stores. These outlets have been increasing their share of the retail fruit and vegetable market for some years, largely at the expense of the traditional independent greengrocer. Their market share is estimated at about 35% by AGB/Attwood, and a market share of 50% by 1990 is predicted by some.<sup>3</sup> While this may be a little optimistic, further growth is almost inevitable since all the big supermarket chains are adding to their capacity and are planning significant further expansion. Fruit and vegetables are an attractive area for the supermarket chains because their contribution to profits is more than proportionate to their share of sales. If fruit retailing alone is considered then their share would be rather higher, and if only exotic fruit is considered it would be higher still. These outlets have at least 50 - 60% of the retail market for exotic fruit. AGB/Attwood claim that 49% of kiwi fruit sales are through supermarket chains compared to 24% through greengrocers. Estimates made by the trade in interviews suggested a market share of as much as 70-80% for established exotics such as avocados although this seems rather exaggerated.

Quite simply, for a retail outlet, the first step to establishing a share of the exotic fruit market is to stock exotic fruit. The supermarket chains and department stores do so enthusiastically. Many independent greengrocers do not stock them at all. But the large retail organizations do far more for exotic fruit than simply stock them. They aim for and are able to obtain the best quality, and, as noted in Chapter 3, for many consumers that is arguably more important than price. Again as noted in Chapter 3, the multiples are very active in promoting exotic fruit - mounting in-store tastings, providing informative labelling, leaflets and booklets, all of which stand in for the personal advice offered by the traditional greengrocer. One multiple distributed 300,000 booklets on speciality lines, mainly exotics, in 18 months. For export marketing boards and similar organizations it is far easier and presumably more profitable to collaborate with the supermarket chains and department stores in mounting promotions of exotic fruit than with small and scattered independent greengrocers and grocers. Past attempts at encouraging the independents have apparently met with limited success. The supermarkets and department stores may also be the outlet types which are naturally favoured by the typical exotic fruit buyer. The multiples have tried to create an atmosphere in their stores more akin to the traditional greengrocers, with the increasing use of free-flow self-selection merchandising. Both prepacks and free-flow are used for exotic fruit, but where space allows, free-flow is increasingly popular. It appears

to increase sales since it allows the purchase of very small experimental quantities of new and unusual fruit. It is, however, very important that store staff should be well trained in the handling, management and presentation of exotic fruit if the carefully controlled and maintained quality advantage is not to be lost at the very last stage of the marketing chain.

The relative decline of the traditional greengrocer is a major feature of the retail fruit and vegetable market. According to AGB/Attwood, greengrocers now account for about 30% of the market.<sup>4</sup> Their share in the exotic fruit market is probably appreciably less than this – perhaps 15-20% for the most established lines.

With the exception of a relatively small number of dynamic and enthusiastic individuals, usually with central urban locations for their shops, traditional greengrocers do not appear to be particularly interested in exotics. Many of those interviewed were not confident about storing and handling exotic fruit, and, because of their high prices and novelty, had doubts about how quickly they would be able to sell them. Exotics are regarded as a risky line, so independent greengrocers tend to buy fruit which is less ripe than that bought by the multiples, so that the fruit has a longer shelf life. Again because of concern that fruit will remain unsold and be wasted, the small independent greengrocer finds the sizes of packs used for most exotics too large. Sometimes several retailers may share a pack, but recognizing the problem, some importers, notably AGREXCO, have introduced smaller pack sizes. AGREXCO have been particularly keen to promote exotics sales through independent greengrocers, but the response has been disappointing so far.

The quality of exotic fruit is not as high perhaps in greengrocers as in the multiples, although it is still often good. As with all their other stock, greengrocers tend to buy their exotic fruit from primary or secondary wholesale markets, and as noted above, these markets may receive produce of variable quality. Many greengrocers do, however, seek out the best quality available within these markets. As with the multiples' buyers, all those greengrocers interviewed stressed quality as the number one determinant of their choice of supplier rather than price. Unlike the multiples, the greengrocers are not necessarily willing or able to pay the price for the highest quality.

It is unfortunate that so many independent greengrocers have such apparently limited interest in exotic fruit since the greengrocers have some potential advantages over multiples in selling them. Above all they can provide personal advice where consumers are uncertain about exotics and their uses. By purchasing on wholesale markets greengrocers can also have a price advantage over the multiples. They are potentially more flexible in their buying and selling and in better meeting local needs. They might be able to stock a wider range of exotics than would be economic for the multiples. To capitalize on these potential advantages the independent greengrocer must improve the quality and presentation of produce and be more willing to experiment. The possibilities depend crucially on shop location: urban being preferable to suburban or rural, London and the South being preferable to the North. Greengrocers interviewed held differing views on exotics. Some felt exotic fruit were too risky and preferred to leave them to the multiples and ethnic shops. Others felt that independent greengrocers did indeed have advantages in selling exotic fruit and saw the stocking of such specialist items as being the key to their survival. The latter group were significantly outnumbered.

Other retail outlets, notably independent grocers and market stalls, have some involvement in selling exotic fruit. Independent grocers are estimated by AGB/Attwood to have around 9% of the retail fruit and vegetable market. A large proportion of these outlets are in fact owned by Asian shopkeepers and sell a wide range of groceries, fruit and vegetables, including exotics. In the past, these Asian-owned shops were almost the



only source of exotics. The emphasis is often on vegetables rather than fruit. Of the selected exotic fruit, mangoes are the line most commonly sold. Quality is variable: produce bought in is sometimes of low standard, albeit correspondingly cheap, and its handling and presentation can be poor. Nevertheless, selling prices can be relatively high.

Market stalls and street traders account for 15% of retail sales of all fruit and vegetables according to AGB/Attwood. In London, their share may be rather higher. They have the advantage of relatively low prices because of their low overheads, and reasonably good quality because of their rapid turnover of stock. Of the selected exotics, avocados, pineapples, and to a lesser extent mangoes, are those commonly sold.

### **Catering usage of exotic fruit**

Catering establishments have played an important role in the introduction of exotic fruit to the United Kingdom consumer. Unfortunately, data concerning the catering use of any fresh foods are limited. For exotic fruit the important catering users are restaurants and hotels rather than canteens and institutions. The main source of supply of exotic fruit is wholesalers, some of whom specialize in servicing the catering trade. About 8% of wholesalers' trade is with catering establishments, although a large proportion of that would be in potatoes and other vegetables rather than fruit.<sup>5</sup> For exotic fruit, catering demand is strong for avocados, mangoes and lychees, although in many cases, though not avocados, canned versions are used. For the country as a whole, catering demand for exotic fruit probably accounts for around 5% of supplies, though the figure may be slightly higher in London. Significant growth in the level of demand seems unlikely. The only dynamic element in the catering industry appears to be the 'fast-food' sector which does not use exotic fruit.

### **Technical change in the marketing and distribution of exotic fruit**

Changes in the structure of the fruit marketing and distribution system have been accompanied, or in some cases permitted, by changes in technology. These have particular importance for exotics in that they improve the chances of presenting fragile and perishable tropical products at the retail level with the minimum delay and in optimum condition. Developments have taken place throughout the marketing and distribution system. The possibilities of sea freight have increased with improved ship designs, and controlled-environment management. After importation, transport and storage are also widely expected to be under controlled temperature conditions. The use of computer systems to plan and control stock handling and distribution is common, at least in the large integrated importer-wholesalers and the supermarket and department store chains. Without this, the demands for regular daily deliveries of produce throughout the marketing chain would be difficult to meet. The driving force behind the introduction of new technology is the exacting and rising quality standards the trade must achieve to satisfy the supermarkets and department stores. Traditionally, transport and distribution through the marketing chain used to be handled by the parties to a sale at each particular point. Now a number of specialist fruit transport and distribution companies are in operation, some dealing particularly with exotics. These companies provide a range of services to importers, wholesalers, and multiple retailers, including clearing and forwarding, distribution using the latest technology, and even advice to their clients on shipping, and packing. The technical efficiency of the distribution system after import is of limited consequence, however, if the product harvesting and handling in the producing country is poor. Increasingly, therefore, importers and multiple retailers involve themselves in all stages of the production process to ensure that produce of the optimum quality reaches retail outlets.

## PRICE FORMATION AND MARGINS

The key prices in the marketing system for exotic fruit are the prices at which the retailer buys: the price negotiated between the greengrocer, the multiple, or the department store and the wholesaler or importer. All other prices in the marketing chain are dependent upon this, most directly by the addition or subtraction of marketing costs, margins, and commissions, some indirectly through the competitive process.

The price at which retailers are willing to buy and wholesalers or importers willing to sell depends upon the quantities of the fruit coming on to the market, its quality, the point in the season, and the price at which the retailer expects to sell. The quantity of fruit available is obviously predetermined by the level of imports, and the greater the quantity the lower price must be if available supplies are to be absorbed. Lower-quality produce should generally command a lower price. In practice, lower-quality produce may command no price at all since it may fail to find a buyer. Failure to meet the buying specifications of the supermarket chains or department stores can lead to outright rejection. Out-of-season and early- or late-season supplies tend to command a premium. There appears to be surprisingly little serious argument about retail buying prices. Competition among wholesalers and importers is such that there is little chance of excess profits being earned and little scope for further price reductions. In the case of dealings between the larger importer-wholesalers and the multiples and department stores, both sides realize that they are dependent upon each other's survival and recognize their mutual interest. Some large retail organizations are adamant on the maximum prices they are willing to pay, basing them upon the retail price they wish to charge, less their target margin. Any additional services provided by wholesalers and importers, such as packing, labelling, or ripening, require additional payments at agreed rates.

Retail prices are determined by the addition of the retailer's margin to the retailer's buying price. Retail margins differ according to the type of outlet, and indeed vary within the same outlet types. For the independent greengrocers, the margins taken on exotic fruit average 50-60%, but there there appears to be a great deal of variation about these figures. Some greengrocers take different margins for different fruit. Where this is so, exotics are frequently marked up by a greater percentage than conventional fruit. Within the exotics range, the more unusual exotics are sometimes marked up by a greater percentage, perhaps 65%, than the more common items. The justification usually given for higher margins on exotics is that exotic fruit involve greater risks for the retailer. Margin practices of the multiple grocers and department stores vary similarly, although very few take higher margins on exotics than on other fruit, and some take lower margins. Margins taken by the large retail organizations can vary from one exotic to another, and from time to time, but appear to average 25-30%. Margins can be reduced, sometimes down to zero, for special promotions.

Wholesale and import prices, and hence the return to the exporter are traditionally determined by deduction of commissions and various marketing costs from the retail buying price. Pricing of most exotic fruit continues to follow this pattern, although there is a certain, perhaps increasing, amount of fixed-price trading.

Under the commission system of trading, the exporter eventually receives the retail buying price less any wholesaler and importer commission charges, the costs of certain additional marketing services such as ripening, and any customs duties and taxes payable. The wholesaler commission rate averages 7%. The importer commission rate varies between 5% and 10%. Different importers charge different commission rates, but the same importer may also charge different rates depending upon the product and the exporter with whom he is dealing. Broadly speaking, the more risky the deal the

higher the commission rate the importers expect. Given the uncertainties inherent in the trade and the perishability of the products, most importers prefer to work on a commission basis. This obviously reduces their exposure to risk. Many exporters would prefer to have a firm price for the same reason. Under commission sales, exporters incur the high cost of transportation for an unknown eventual reward. If the fruit arrives in poor condition, possibly due to delays in transit, that reward may be zero. Some importers are willing to give guidance as to prices likely to be realized in the United Kingdom, but this is obviously not binding in any way. In defence of the system, it is sometimes argued that returns to exporters, although uncertain, might turn out to be higher on commission sales since importers have a vested interest in striving for the highest possible prices.

Fixed-price trading does occur, and may be becoming more common. Importers tend to reserve this form of trading for exporters with whom they have built up a trusting working relationship. The actual nature of the prices set, whether c.i.f. or f.o.b., for example, are subject to negotiation. Importers obviously prefer cif prices. Where fixed-price trading is used, the percentage margins aimed for by wholesalers and importers are claimed to be the same as their commission rates in spite of the greater risk involved.

## **MARKET INFORMATION**

The marketing chain links consumers in the importing country with producers in the exporting country. In theory, the chain should conduct information concerning consumer requirements back to producers, and information concerning supply conditions forward to consumers. In practice, information transmission is neither automatic nor efficient.

Many of the traders interviewed during the course of this study complained about the lack of reliable advance information about supplies, quality and prices. At the retail end of the market, these came particularly from the supermarket chains and department stores. Because of the highly programmed nature of their business, ignorance and uncertainty of future market developments cause particular problems. In fact, most traders are very well-informed about normal levels of supply from particular countries and their seasonal development. What is lacking is reliable and accurate short-term market information, perhaps of the progress of individual shipments. Importers are similarly well-informed about seasonal supplies from different exporting countries, and on shipping movements and arrivals. In general, however, all the information to hand has been accumulated through experience over many years. The amount of market intelligence of value to day-to-day decision-making is relatively limited. Although the marketing boards provide a useful service, this is obviously restricted to the particular products and countries for which they are responsible. This service also seems more geared to the needs of the larger importers and retailers. Thus, information for avocados is generally good, while that for mangoes is generally poor. Most of the traders interviewed felt that exporters had a responsibility to provide more detailed information about availabilities and quality and to give warnings as far in advance as possible where shipments are delayed or cancelled.

The prices realized through the marketing chain supposedly convey the requirements of the market back to exporters and producers. The fact that importers and retailers complain regularly about the quality of exotic fruit sent suggests that exporters and producers are not always receiving this information. Whilst the message may be understood, the means of implementation may not always be available. Consumer preferences about exotic fruit are known fairly clearly. There is a limited amount of market research data available, and retailers of all types obtain feedback from their customers. In the large multiples, computerized information systems

right through to individual checkouts in stores means there is a large amount of detailed and accurate information available on exactly what consumers are buying. Retailers seem effective at communicating their wishes to wholesalers and importers and as the marketing chain shortens, that process becomes increasingly efficient. The weak link in the chain appears to be in the transmission of information to exporters and producers.

Price signals alone are difficult for exporters to interpret into requirements for particular fruit, varieties or qualities. With the commission system the exporter is in any case several stages removed from the point at which prices are determined. Supplies are sent and eventually, it is hoped, that some money comes back, but the exporter needs to know *why* prices received were as they were, and if they were relatively high or relatively low. Future shipments can then be adjusted accordingly. Price data available from ITC and from COLEACP can give exporters some idea on general price trends, but to be operationally useful prices should relate to particular varieties, grades and qualities. Where it is possible, personal contact appears to be the most effective means for the communication of market requirements to exporters. As noted above, some large importing companies do try to negotiate personally with producers and exporters. Information and advice from importers regarding market requirements on grading, quality and packaging can be highly specific. In the best cases there is close collaboration between importers, exporters and producers in ensuring that products sent meet the trade's specifications. Some of the large retail organizations, however, are not convinced that importers *are* communicating market requirements effectively enough. Direct contacts between multiples and exporters or even producers are likely to increase.

## TRADE REGULATIONS

At present (1987), exotic fruit are not covered by the fruit and vegetables regime of the European Community. There are, therefore, no arrangements for reference prices, export refunds, withdrawals or common quality standards. It is possible, however, that with the accession of Spain, Portugal and Greece to the European Community, the regime might eventually be extended to include certain exotics, notably avocados, in the reference price system. Prospects for further growth in the Community markets for established fruit and vegetables appear to be relatively limited. Consequently, increasing diversification into exotics production seems likely. Spain, for example, is already a significant producer of avocados. As Community production of exotics increases, it is likely that pressure from the producing countries for protection will increase correspondingly. Exporters from outside the European Community may eventually face tariff barriers. If exotics were to be covered by the reference price system, then with possibilities for price competition removed, non-price factors such as consistency of quality and reliability of supplies would assume even greater importance in securing a market for imported exotics.

Imports of exotic fruit are covered by the European Community's Common Customs Tariff. The actual tariff payable varies according to the country of origin. In fact, the European Community has recently offered to remove or reduce significantly all customs duties on fresh or semi-processed tropical fruit from developing countries. The current rates payable for the selected exotic fruit are summarized below.

**Table 2**

**European Community import tariffs on selected exotic fruit**

	Full	GSP	ACP
Avocado	8%	6%	0%
Pineapple	9%	9%	0%
Mango	6%	4%	0%
Pawpaw	3%	0%	0%
Lychee	11%		
Passion fruit	12%	5%	0%

**Sources:** Council Regulation (EEC, No. 3618/86); *Official Journal of the European Communities* L345 29, 8.12.86; Council Regulation (EEC, No. 3926/86); *Official Journal of the European Communities* L373 29, 31.12.86; *Official Journal of the European Communities* C30 28, 31.1.85.

- Notes:**
- 1 For a list of those countries qualifying for generalized system of preferences (GSP) tariff rates see Annex III of Council Regulation (EC) No. 3926/86, and for a list of least developed developing countries exempt from customs tariffs see Annex V of the same regulation.
  - 2 Mediterranean Associates qualify for certain tariff preferences as follows: avocado - Algeria 1.6%, Morocco 1.6%, Turkey 0%, Israel 1.6%; pineapple - Turkey 0%; mango - Egypt 3.6%, Jordan 3.6%, Lebanon 3.6%, Turkey 0%, Israel 3.6%; pawpaw - Turkey 0%; passion fruit - Turkey 2.4%, Malta 5%.

**NOTES**

- 1 See DAVIES, P.N. (1985) *A study of trends in the wholesale fruit and vegetable markets since 1950*, The National Federation of Fruit and Potato Trades, January 1985.
- 2 STURGESS, I.M. (1986) *Wholesaling of fresh fruit and vegetables*. London: Covent Garden Market Authority.
- 3 *The Grocer*, 31st May 1986.
- 4 GENTLES, P. (1987) 'Developments in housewife purchasing in the vegetable and exotics market', paper presented at the PPMA Annual Conference, 2nd - 5th April, 1987.
- 5 STURGESS, I. M. *op. cit.*

## Conclusions and implications for developing country exporters

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### INTRODUCTION

The United Kingdom market offers opportunities for significant expansion of imports of exotic fruit from their currently low levels. This applies to all of the selected fruit discussed in this study, but particularly to the larger-volume fruit – avocados, pineapples and mangoes. As noted earlier, there is much interest among developing country exporters in supplying this market. High returns from the United Kingdom market are far from guaranteed, however, and the competitive position of many developing countries is weak. Exporters often lack information on the high marketing standards in terms of consistency of quality, regularity and reliability of shipments which must be met. There is little information available on the structure of the United Kingdom market: which segments are likely to yield the best returns; the channels through which imported produce passes; and consumer demand. As a result, exporting countries may fail to maximize the returns from their involvement in the United Kingdom market. At worst, their shipments, having failed to reach the required quality, may achieve no price at all.

Where, as is usual, importing is on a commission basis, exporters to the United Kingdom market have no scope for increasing their earnings by increasing their selling prices. Higher returns can only be achieved by selling a greater quantity, and/or by more effective marketing. The market itself is diverse, offering a range of differing opportunities for trade. Identification of the most profitable market opportunities, and their full exploitation through a tailoring of the quantity and quality of supply to the specific requirements of the particular market segments concerned, are crucial.

### THE RELATIONSHIPS BETWEEN EXPORTER AND IMPORTER

In most cases the exporter of exotic fruit to the United Kingdom is dependent upon the importer for selling on to the next stage in the marketing chain. As explained in Chapter 4, different import companies operate in different marketing channels: the needs of the supermarket chains and department stores, for example, are serviced by the large import-wholesale companies. The demands on exporters made by these companies in turn reflect those of their customers. Meeting these demands, both in terms of quality, quantity, and schedule reliability places heavy demands on the exporter and/or exporting country. Here, export organizations can play an important role in facilitating trade development. Small consignments, except for those of particularly unusual or high-value produce, may only be of interest to the smaller importers. Contact with importers can be established in a variety of ways. Some of the largest importers pay regular 'sourcing' visits to producing countries, seeking out new sources of produce. The high cost of such exercises is prohibitive for most smaller

importers. These importers rely primarily on approaches either in person or by mail, telex or telephone from exporters. Lists of names and addresses of importers can be found in trade directories such as the annual *Fresh Produce Desk Book*.<sup>1</sup> Some are also listed in Appendix 4 of this study. Personal visits to importers, although expensive, can be helpful in providing an opportunity to discuss market requirements in detail, to obtain a clearer idea of how the United Kingdom market works, and to promote the trust between importer and exporter on which the trade is based. Such visits do not, however, appear to be essential.

## **RETAIL SALES AND QUALITY CONSIDERATIONS**

Within the market it appears that the major growth will be in the volume of sales of exotics to the wider population, rather than specifically to the ethnic minority groups. The pattern of market demand in terms of species and varieties will reflect this. It appears that a significant and increasing proportion of purchases of exotic fruit will be through the large supermarket chains and department stores. These retail organizations have identified exotic fruit as having particularly good prospects within their overall fruit and vegetable business, and are encouraging the market accordingly. The supermarket and department store trade is characterized by a requirement for regular and predictable large volumes of the very highest quality produce. Dimensions of quality emphasized are: sizing – consignments should have fruit of even sizes; uniformity – of shape and degree of ripeness; and appearance – good colour and an absence of bruises, blemishes and other skin imperfections. The ranking of these various dimensions varies from one company to another so no general guidance for each fruit can be given. What is common to all companies, however, is the *stringency* of their quality requirements. Failure to meet them will in all probability lead to the rejection of a consignment, or at best its diversion into marketing channels offering lower returns.

Although quality standards may vary from one marketing channel to another, the general standard is high. Consumers stress quality above price as a determinant of their purchases of any fresh fruit. As shown in Chapter 3, it appears to be a particularly significant factor for exotics. Anything less than high-quality fruit will not command a price high enough to justify the costs of transportation to the United Kingdom market. Transport costs remain the same no matter what the quality of the produce. Under the normal commission system of trading it may not command any price at all. All importers, whatever their size and whatever the ultimate market segment they serve, will specify their quality and packaging requirements, and try to advise exporters on how best to meet them. High importation quality begins with the care taken in production, harvesting, packaging and shipping. Exporters and even producers can expect increasing concern and even direct involvement in all these stages from importers.

## **PACKAGING**

Packaging is of central importance in ensuring the safe arrival of fragile exotic fruit. The packaging methods of many developing country exporters were singled out for particular criticism by members of the trade. Packaging used by the exporter must serve several purposes. It should be functional: the same packaging can be used right through the marketing chain from exporter to retailer so it should be strong enough to withstand a substantial amount of, possibly mechanized, handling and stacking; packaging materials should be resistant to damage from moisture; and the pack sizes should be large enough to facilitate efficient handling, but not too large in relation to the typical quantity required at a time by small retailers. It should be informative: clear labelling describing the fruit, the variety, the country of origin and grading facilitates accurate distribution through the marketing chain, ensuring that the right produce is in the right place at

the right time. It should be attractive: attractive appearance of packs may give an exporter a competitive edge; perhaps more importantly, fruit are often displayed at retail in the original packaging, at least by the smaller retailers, so attractive packaging can enhance the image of exotic fruit to the consumer.

## **PRICE CONSIDERATIONS**

The price of exotic fruit appears less important in the market's eyes than does its quality. It is, however, obviously a significant consideration. Good quality produce at lower prices will always be preferred to good quality produce at higher prices, even if low quality cannot be entirely compensated by low prices. The high prices of exotic fruit are nevertheless undoubtedly a constraint upon the extent of their consumption. The demand analysis described in Chapter 3 and Appendix 3 suggests that prices respond less than proportionally to increases in the level of imports. A maintenance of the balance between the rate of increase of demand and the rate of increase of imports is crucial, however, if prices on the United Kingdom market are not to be depressed. In spite of the destruction of 23,000 tonnes, the bumper 1986-87 Israeli avocado crop depressed prices in Europe by an average of 20%. It is estimated by the Israel Fruit Production Board that the European market cannot absorb more than a 10-15% increase in imports per year.<sup>2</sup> Few exporters of exotic fruit would anticipate a market share as large as Israel's share of the avocado market, but this example does illustrate the need to be aware of the overall supply situation when considering the choice of export market. The corollary of the apparently weak relationship between import quantities and prices is that demand may be highly responsive to price variations – much more so than is the demand for more familiar fruit. If so, price reductions will result in more than proportionate increases in demand and hence higher sales revenues. Sea freight will give those exporters with access to it an obvious advantage, particularly since it appears that for the major exotics at least quality can be just as good as with air freight.

## **SALES PROMOTION**

Most exotic fruit are still in the early stages of their product life-cycle. Currently, outside the ethnic minorities, consumption appears to be largely confined to 'innovative' groups. Significant growth in the market must involve a wider constituency. Consumer education and sales promotion can play a major role in market expansion. Exporters or export organizations can make an important contribution through the provision of promotional materials to the trade, or through joint financing with importers or retail organizations of promotions in the importing country. For individual exotics such exercises can be prohibitively expensive, unless the exporter's market share and hence the anticipated reward are large. Where this is not so, more general promotions of a range of fruit from a particular country, perhaps sharing a brand name, might be considered. Alternatively, for individual fruit, exporting countries might co-operate in promotion. Bodies such as COLEACP might provide an administrative mechanism for this.

## **THE ROLE OF EXPORT ORGANIZATIONS**

Export performance can be improved by the establishment of a framework to facilitate exports. In producing countries there exist a variety of organizational forms including privately-owned export companies, horticultural development authorities, co-operatives and state trading monopolies all involved in horticultural export activities. Export organizations in producing countries can provide a range of services to facilitate and co-ordinate exports. These include the provision of technical advice, training and support to producers; a legislative and administrative framework to cover such aspects as quality control and packing; the representation of



producers' and exporters' interests in policy making; the provision of storage facilities at airports and ports; the gathering and dissemination of information on export market requirements, prices and trends, and provision of advice on export markets and the most profitable segments within them. Some organizations engage directly in exports, even to the extent of administering sales through panellists or direct to retail organizations in importing countries. Occasionally, where the volume of trade and earnings is sufficient, they may undertake promotion and may even maintain branch offices in the major importing countries; these can be very expensive activities. Some functions, such as information gathering or the organization of certain promotional events, can be undertaken locally by trade attachés. Market and price information, as well as technical information, is also available from various institutions such as COLEACP, ITC, FAO and ODNRI. The first of these two organizations also undertake promotional activities. Neither organizations of this kind nor trade attachés can generally become directly involved in arranging and administering sales.

## COMPETITION FOR THE UNITED KINGDOM MARKET

While there is scope for expansion of exports of exotic fruit to the United Kingdom market, exporting countries are nonetheless in actual or potential competition with one another. Given the high cost and long gestation periods involved for some exotic fruit production, it is important to consider the production and marketing plans of competitors, before embarking on investment programmes sighted on the European markets. Israel, for example, is said to be doubling its mango production by the early 1990s. Within the European Community, the new Mediterranean members, particularly Spain, are already diversifying their horticultural industries into the production of certain exotics. Avocados from Spain, for example, have the advantage of being transportable by truck to the United Kingdom market, and do not incur import tariffs. It is not impossible that the European Community border protection mechanisms might be extended to cover certain exotics if this were warranted by increasing production within the Community.<sup>3</sup> Exotic fruit export opportunities in Europe for developing countries may in some cases eventually be limited to out-of-season supply.

Whilst in the short term, importers might be willing to give exporters the benefit of the doubt and be willing to work together towards satisfying market requirements, in the longer term, if importers cannot rely on a particular exporter for regular and punctual deliveries of fruit of the required quality, they will look elsewhere for their supplies. Currently, the best competitive devices for an exporting country are probably quality control, reliability and quantity management.

## NOTES

- 1 COYLE, B. (ed.) *Fresh Produce Desk Book*, annual, Lockwood Press Ltd, London.
- 2 *Financial Times*, 14th October, 1987.
- 3 SWINBANK, A. and RITSON, C. (1987) 'The CAP, Customs Unions and the Mediterranean Basin', paper presented at the 5th European Congress of Agricultural Economists, Balatonszeplak, Hungary, 31st August - 4th September, 1987.

# Appendices

## APPENDIX 1: UNITED KINGDOM IMPORTS OF SELECTED EXOTIC FRUIT

Table A1.1

### United Kingdom imports of selected exotic fruit, 1978-86

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	Avocados	Pineapples	Mangoes*	Pawpaws	'Other fresh fruit – other'†	'Other fresh berries'‡
1978	4,924	7,640	1,893	37	4,197	–
1979	6,655	8,952	2,769	69	4,300	–
1980	6,563	11,906	3,293	95	5,013	423
1981	8,280	14,409	3,169	220	5,883	187
1982	9,310	15,809	4,292	299	5,554	224
1983	10,709	15,863	4,724	485	6,094	217
1984	11,895	15,197	5,178	642	7,670	317
1985	13,947	18,327	6,468	565	9,817	311
1986	14,869	19,150	8,831	681	9,916	257

Source: HMSO *Overseas Trade Statistics*

Notes: \* Includes guavas and mangosteens  
 † Includes breadfruit, babacos, carambolas, durian, feijoas, longans, jackfruit, lychees, persimmons, pomegranates, prickly pears, rambutans, sapodillas, and tamarillos  
 ‡ Includes cherimoyas, passion fruit, and *physalis*

Table A1.2

### United Kingdom imports of selected exotic fruit, 1978-86

£'000

	Avocados	Pineapples	Mangoes*	Pawpaws	'Other fresh fruit – other'†	'Other fresh berries'‡
1978	4,013	3,402	1,401	35	1,557	–
1979	5,339	4,321	2,251	66	1,941	–
1980	5,670	5,233	2,992	89	2,415	552
1981	5,905	6,044	3,132	211	3,696	195
1982	8,022	6,939	4,492	356	3,984	214
1983	9,443	7,807	5,486	617	5,656	229
1984	10,730	8,194	5,822	753	7,858	397
1985	11,945	9,237	7,950	735	10,252	395
1986	13,459	10,127	9,255	839	11,710	359

Source: HMSO *Overseas Trade Statistics*

Notes: \* Includes guavas and mangosteens  
 † Includes breadfruit, babacos, carambolas, durian, feijoas, longans, jackfruit, lychees, persimmons, pomegranates, prickly pears, rambutans, sapodillas, and tamarillos  
 ‡ Includes cherimoyas, passion fruit, and *physalis*

## APPENDIX 2: DATA AND INFORMATION SOURCES

The sparsity of information, particularly quantitative information, about the United Kingdom market for exotic fruit was noted at many points in this study. The problem is perhaps more serious for quantity data than for price data. The small volumes involved have not been considered to justify separate treatment in official trade and food consumption statistics.

Total quantities of produce available on the United Kingdom market are measured in the trade returns. Import figures are published in *Overseas Trade Statistics*. Unfortunately, many exotics are grouped under aggregated categories. Imports of avocados, pineapples, and pawpaws are shown separately under codes 0801 6000, 0801 5000, and 0808 5000 respectively. Mangoes are grouped with mangosteens and guavas under code 0801 9900. Passion fruit are included under code 0808 8000 - 'other berries - other' - along with cherimoyas and *physalis*. All other exotics, including lychees, are grouped together under code 0809 9000 - 'other fresh fruit - other'. These statistics are available on a monthly basis. The same data are also available from NIMEXE which also shows imports to individual European Community member countries.

Actual consumption data for specific exotics are not available: all exotics are included in aggregated National Food Survey categories: 'stone fruit' in the case of, for example, mangoes and avocados, or 'other fresh fruit' in the case of, for example, pineapples and pawpaws. Some exotics are given separate consideration in market research panel surveys such as that conducted by AGB/Attwoods. AGB/Attwoods also collect information on purchases through different retail outlet types, and purchases by different socio-economic groups.

There appears to be no shortage of short-term market price data. Weekly market prices for most exotics are published in *Fruit Trades Journal* (Lockwood Press, Ltd, London) and *Eurofruit* (Market Intelligence Ltd, London). They are also available from the Fruit Importers Association, London, the International Trade Centre UNCTAD/GATT (ITC) Market News Service, and the COLEACP *European Market News Bulletin*. In the case of COLEACP and ITC, price data are disseminated to exporting countries by telex. All of these data relate only to central wholesale market prices which may not be entirely representative of the United Kingdom market as a whole.

While detailed quantitative information may not be plentiful, there is a significant and increasing amount of general information concerning exotic fruit. COLEACP information bulletins deal with trade in exotic and out-of-season fruit and vegetables. The trade press, notably *Fruit Trades Journal* and *Eurofruit* carry factual market reports and occasional features on exotics. The annual *Fresh Produce Desk Book* (Lockwood Press, London) contains a great deal of practical information concerning the United Kingdom fruit and vegetable market: names and addresses of importers, wholesalers and retail organizations; profiles of individual fruit; profiles of exporting countries; packaging information. The 'Dossier on Exotic Tropical Fruits' published in *The Courier* No. 92, July - August 1985 provides general information concerning European Community markets for exotic fruit from the ACP countries. Reports dealing with the markets for exotic fruit have also been published from time to time by The Overseas Development Natural Resources Institute.

## APPENDIX 3: ESTIMATION OF DEMAND PARAMETERS

The absence of any actual consumption data means that demand analyses for exotic fruit must be based upon import data. The import data are, as noted above, relatively detailed in their treatment of exotics although useable series do not extend beyond 1978 in most cases. Of the selected fruit, adequate data exist for the estimation of import demand functions for avocados, pineapples, mangoes and pawpaws. Passion fruit and lychees are included in aggregated categories. With such aggregated data estimates of demand parameters will depend not only upon the total quantity of fruit but also upon its composition. Passion fruit and cherimoyas, for example, are included in the same category as the highly priced *physalis*. An increasing share of *physalis* in the overall quantity would raise the average price even if the overall quantity remained unchanged.

Given the apparent price formation process for exotic fruit discussed in Chapter 4, demand equations at import level are most appropriately specified as price- rather than quantity-dependent. Rather than price elasticities, price flexibilities can be estimated. Under restrictive conditions of zero cross-price effects these will be formally the inverse of the corresponding elasticity. More generally, the inverse of the flexibility will be the lower limit on the elasticity. It must be remembered, however, that the specification of a price-dependent demand equation represents a completely different causal relationship from that represented by a quantity-dependent demand equation. It may therefore not be particularly meaningful to estimate price elasticities in this way. Demand parameters estimated at the import level will be indicative of similar parameters at retail level.

The difficulties of analysing demand for 'new' commodities were mentioned in Chapter 3. The small volumes of produce involved, the domination of the retail market by atypical 'innovative' consumers, and the effective rationing of quantities in some periods may all lead to instability in price-quantity relationships.

The basic specification of the price-dependent import equations linked variations in the real price of the various fruit to variations in quantities imported and total consumer expenditures. Rightward shifts in the demand curve as consumer tastes move in favour of exotics were represented by a simple time trend. Strong upward trends within the quantity series meant that the inclusion of time as a separate variable led to multi-co-linearity problems. Omitting time as a separate variable would mean that any trend effects would be absorbed by the quantity variables and the estimated coefficients correspondingly biased. All price series and the expenditure series were deflated by the general retail price index. All variables were expressed in natural logarithms. Estimated equations for the four selected fruit are given below. The avocado and pineapple equations were estimated by ordinary least squares. The mango and pawpaw equations were estimated using the maximum likelihood method proposed by Beach and Mackinnon<sup>1</sup>. The parentheses show the t statistics.

### Avocados

$$\text{PAV} = 3.52 - 0.49 \text{QAV} + 1.95 \text{CEX} - 0.14 \text{TIME}$$

$$\begin{array}{cccc} (1.02) & (-1.06) & (1.48) & (-0.78) \end{array}$$

$$R^2 = 0.92 \qquad \text{DW} = 2.23$$

### Pineapples

$$\text{PPIN} = 7.51 - 0.93 \text{QPIN} + 0.94 \text{CEX} + 0.09 \text{TIME}$$

$$\begin{array}{cccc} (12.07) & (-13.87) & (6.99) & (2.89) \end{array}$$

$$R^2 = 0.99 \qquad \text{DW} = 1.82$$

### Mangoes

$$\text{PMAN} = 2.91 - 0.43 \text{ QMAN} + 1.07 \text{ CEX} + 0.10 \text{ TIME}$$

(1.81)      (-1.51)      (0.93)      (0.94)

$R^2 = 0.89$        $DW = 2.33$

### Pawpaws

$$\text{PPP} = -0.57 + 0.20 \text{ QPP} + 0.62 \text{ CEX} - 0.49 \text{ TIME}$$

(-1.32)      (1.96)      (1.05)      (-3.02)

$R^2 = 0.84$        $DW = 2.63$

where PAV is import price of avocados, £/kg  
PPIN is import price of pineapples, £/kg  
PMAN is import price of mangoes, £/kg  
PPP is import price of pawpaws, £/kg  
QAV is quantity of avocados, tonnes  
QPIN is quantity of pineapples, tonnes  
QMAN is quantity of mangoes, tonnes  
QPP is quantity of pawpaws, tonnes  
CEX is consumers' expenditure

These results must be interpreted with great caution in view of the difficulties outlined above and the limited degrees of freedom available. There is also the problem of multi-co-linearity between the time trend and the quantity variables. This shows up in the large variances on the estimated coefficients, and in the case of pawpaws, wrong signs. These problems are particularly obvious in the pawpaw equation but are also present in the others. It would be imagined that if data were available the results for the lesser exotics would resemble those for pawpaws or be even worse. The best results were obtained for pineapples, which are perhaps the least unusual exotic in terms of consumer familiarity, and may have the most stable demand curve. The estimates are at best indicative, therefore, rather than definitive.

The quantity coefficient in each equation is in fact the estimated price flexibility, the inverse of which in turn is an approximation to the price elasticity of demand. The estimated price flexibilities are: for avocados, -0.49; for pineapples, -0.93; for mangoes, -0.43; and for pawpaws, +0.2. With the exception of the pawpaw estimate which is the wrong sign, these absolute and relative magnitudes are believable, although only the pineapple coefficient is significantly different from zero at the 95% level. The implied price elasticities for avocados, pineapples and mangoes are -2.0, -1.1 and -2.3 respectively. The income effect shown by the coefficient on consumers' expenditure is positive throughout, though again with the exception of the pineapple equation, the estimated coefficients are not significant. Taken at their estimated face values, however, they do suggest income elasticities of demand in excess of unity which might be expected for such high-value luxury products.

### Notes

- 1 BEACH, C.M. and MACKINNON, J. G. (1978) 'A maximum likelihood procedure for regression with autocorrelated errors', *Econometrica*, 46(1978), 51-58.

## APPENDIX 4: UNITED KINGDOM IMPORTERS OF EXOTIC FRUIT

The following list gives the names and addresses of companies trading in exotic fruit. The list is not exhaustive. Inclusion of the name of a company does not imply that the author or ODNRI have any knowledge of the financial standing of the company or that they have any responsibility for trade relations between exporters and the company.

Compagnie Fruitière (UK) Ltd.  
Paddock Wood Distribution Centre  
Paddock Wood  
Tonbridge  
Kent TN12 6UU  
Tel. 089 283 6111 Telex: 957573/4C FRUIT G  
089 283 4433

Cedarlink Ltd. (previously Faruqui Exotic Foods Ltd.)  
55B London Fruit Exchange  
Brushfield Street  
London E1 6EP  
Tel. 01 377 9757 Telex: 849162

Fyffes Group Ltd.  
15 Stratton Street  
London W1A A2LL  
Tel. 01 499 3411 Telex: 25392

Geest PLC  
White House Chambers  
Albion Road  
Spalding  
Lincs PE11 2AL  
Tel. 0775 61111 Telex: 32481

Glass Glove Group PLC  
22 Long Acre  
London WC2 9LY  
Tel. 01 836 8167 Telex: 21309

Hoche International Ltd.  
503/507 Market Towers  
New Covent Garden Market, London SW8 5NQ.  
Tel. 01 720 2526 Telex: 8814893

Hunter Saphir PLC  
16 London Fruit Exchange  
Brushfield Street  
London E1 6HE  
Tel. 01 247 7688 Telex: 886769

J P Fruit Distributors Ltd.  
120 Main Road  
Sidcup  
Kent DA14 6NH  
Tel. 01 309 0056 Telex: 896087

K & M (Western) Ltd.  
82-83 Western International Market  
Hayes Road  
Southall, Middlesex  
Tel. 01 561 8041

Kilgate Ltd.  
E202 Fruit and Vegetable Market  
New Covent Garden Market, London SW8 5EE.  
Tel. 01 720 0502 Telex: 913002

Klein & Simms Ltd.  
276/280 Flower Market  
New Covent Garden Market  
London SW8  
Tel: 01 720 5406 Telex: 915241

Kruidenier H (London) Ltd  
201/203 Flower Market  
New Covent Garden Market  
London SW8 5NA  
Tel. 01 720 9486 Telex: 917217

Lambert & Ellice Ltd.  
111/117 Commercial Street  
Spitalfields, London E1  
Tel. 01 247 2343 Telex: 817662

S. M. Machado & Co. Ltd.  
A124-126 Fruit and Vegetable Market  
New Covent Garden Market, London SW8 5EE.  
Tel. 01 720 7491 Telex: 946240 C W EASY

Mack & Edwards Ltd.  
C134-143 Fruit and Vegetable Market  
New Covent Garden Market, London SW8 5JP  
Tel. 01 720 2255 Telex: 917538

Max Levin & Partners Ltd.  
215 Market Towers  
1 Nine Elms Lane  
New Covent Garden Market  
London SW8 5NL  
Tel. 01 622 6255 Telex: 919277

Minor Weir & Willis  
Unit 48 Smithfield Market  
Wholesale Market Precinct  
Pershore Street, Birmingham 5.  
Tel. 021 622 3984

F. Nicholls  
London Fruit Exchange  
Spitalfields, London E1 6HG.  
Tel. 01 377 0066

Nirman Tropical Foods Ltd.  
19/20 Spitalfields Flower Market  
Commercial Street, London E1 6ED  
Tel. 01 247 1455/01 377 8806

F. J. Poupart Ltd.  
D153-162 Fruit and Vegetable Market  
New Covent Garden Market, London SW8 5LX  
Tel. 01 720 2288 Telex: 916571

Sharif and Co.  
Smithfield Market  
Wholesale Market Precinct, Pershore Street  
Birmingham 5  
Tel. 021 622 3124

J.O. Sims Ltd.  
Winchester Square, Borough Market  
London SE1 9AQ  
Tel. 01 407 0756 Telex: 885586

Roger Thomas Ltd.  
276-280 Flower Market  
New Covent Garden Market  
London SW8  
Tel. 01 720 8025 Telex: 915241

Tropifresh  
103 Commercial Street  
Spitalfields, London E1  
Tel. 01 247 0884/01 871 0104 Telex: 92367 TROPI G

Wealmoor Ltd.  
15, Westfield Lane  
Kenton, Harrow, Middlesex HA3 9EA.  
Tel. 01 907 0312 Telex: 888725

P. Wieser (Produce) Ltd.,  
Unit B, Western Trading Estate, Trading Estate Road,  
Park Royal, London NW10 7LU  
Tel. 01 961 3192 Telex: 916402

Trade associations may also provide information to potential exporters.  
The association representing United Kingdom fruit importers is

The Fruit Importers Association  
Room 408/9, Market Towers,  
New Covent Garden Market, London SW8 5NQ.  
Tel. 01 720 1387 Telex: 919219.



