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## Study on the constraints to expansion of world markets for desiccated coconut. Final report

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STUDY ON THE CONSTRAINTS TO  
EXPANSION OF WORLD MARKETS  
FOR DESICCATED COCONUT

FINAL REPORT

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## Introduction

In early 1988 the Asian and Pacific Coconut Community (APCC) requested participation by NRI (known at that time as ODNRI), in an International Trade Centre project concerning new product development in the desiccated coconut industry. In response the Institute advocated a phased appraisal, with an initial market review to provide guidelines for subsequent research and development work. The Institute prepared draft terms of reference for the market study, which, with minor amendments, were accepted by the APCC in March 1989 and approved in principle by SEADD in May 1989.

With SEADD approval the study was commenced in September 1989, however unforeseen staffing difficulties led the Institute to propose a revised programme of work. This revised programme, discussed and agreed with Mr P G Punchihewa, Executive Director of the APCC and approved by SEADD, required the completion of market studies in Europe and North America by the end of March 1990. This target has been achieved and an Interim Report was published. Visits to producing countries and to Australia are now also complete and this final report incorporates findings from both producing and consuming countries.

The report first provides a summary of findings from the producing countries, concentrating on aspects of production that affect subsequent marketing activity. A series of Chapters then provide coverage both of the first phase of market studies in North America and Europe, plus the Australian market which was completed in phase two. Separate sections analyze each of the major country markets, grouping countries together where this assists in clarity of presentation. Detailed analysis is provided for major countries and for completeness an attempt has been made to cover minor associated markets as far as possible. Conclusions and recommendations relating to marketing initiatives that could be taken are provided in the final Chapter, drawing upon information and views expressed by both producers and consumers of DC.

Information of a confidential nature has been excluded from the report. It has been agreed with the APCC that where producers wish to obtain more information relating to their own activities they should contact the authors at NRI.

**Summary:**

1. The Philippines and Sri Lanka represent the major producers and exporters of desiccated coconut (DC), although in the past decade Malaysia has also emerged as a supplier of some importance. APCC member countries account for over 90% of global trade, and only the Ivory Coast is of any significance amongst non-member exporters.
2. Total export volumes have expanded at a modest 1.5% per annum over the past decade in response to patchy growth in major markets and some expansion in demand by minor importing countries.
3. The differing factor endowments amongst the main producing countries, in particular the availability of coconuts and the cost of labour, help to explain differing industrial structures with associated differences in the organization of export marketing. The most complex are probably those from suppliers in Sri Lanka to, for example, Western Europe, which entail several groups of brokers, independent shippers as well as the actual producing and consuming companies themselves. In contrast shipment from Filipino sources to the United States is very much more straight forward.
4. Lengthy market chains impair communication of users needs and quality requirements to suppliers, especially in the case of smaller DC manufacturers. These difficulties have not yet been addressed by institutions set up to represent the interests of the coconut sector.
5. Both constraints on coconut availability and labour costs have also constrained profits, sometimes severely, amongst manufacturers in recent years. Profits have also been cut as a consequence of recent low international price levels which have arisen as a result of expanding DC availability but only limited growth in demand. There are fears amongst some trade sources that destabilising supply side factors could become even more acute as preventative maintenance and essential capital replacement investment may be neglected.
6. Despite limits to profitability there are substantial increases in capacity coming on stream, or planned for the immediate future in most of the major producing countries. It is estimated that these investments could amount to around 25,000 tonnes capacity in total which if fully utilized, and in the absence of cuts in capacity elsewhere, would have a severely depressing effect on international prices.

7. The majority of the major markets covered by this study do not hold out prospects for significant expansion in requirements for DC in the short and medium term. Within markets the segments that are most quality conscious appear to be steadily increasing their share of total demand at the expense of those with less rigorous requirements.

8. The largest global market, the USA is likely to remain stagnant with an annual requirement of around 41,000 tonnes of DC. The much smaller associated market in Canada will probably continue to expand at a modest rate (around 1.5% per annum) as at present. In North America there is some danger that supply factors - the risk of excess supply destabilising producers, and quality aspects risking adverse consumer reaction - could lead to a reduction in marketed volumes, particularly if further adverse publicity is received on the material's high saturated fat content.

9. In Europe the UK, easily the largest market, is unlikely to expand significantly beyond its current requirement of 17,000 tonnes, although the confectionary sector is buoyant and new products have been launched in this segment that may increase offtake in both the UK and elsewhere through exports (or production under license).

10. Most other European markets face the prospect of static demand even where growth has occurred in the recent past, eg in France. The confectionary sector may again provide the exception, overwhelmingly through the activities of the Mars plant at Veghel, which should further expand offtake as a consequence of the opening up of the East German market. There is also the possibility of selective growth in segments of the bakery and biscuit sector which is generally of overriding importance in continental European countries.

11. The outstanding exception to the static picture above is the near certainty that the East German demand for DC will expand substantially as a consequence of unification, particularly the decision within this process to provide a one to one exchange rate between the Ost mark and the Deutsche mark. Expansion in overall DC demand should be both via the increase in domestic utilization and via increased imports of "Bounty" as part of the aggressive expansion in marketing effort that is already underway by major West German supermarket chains.

12. Internal requirements in East Germany are forecast to increase by 2,000 to 2,500 tonnes by 1992, including Mars sales in DC equivalents, or approximately 2 percent of global DC demand. Longer term growth may also be expected

to be significant as the East German economy recovers, with consumption in 1995 forecast a further 1,000 tonnes above the 1992 level. It must be emphasized however that these forecasts are heavily dependent on successful implementation of exchange proposals together with associated measures relating to personal savings. There are also concerns that weaknesses in the East German economy could lead to rising unemployment and a curb on consumer spending in the short term.

13. Prospects in other East European countries are not as bright as those in East Germany because of weaknesses in their economies and above all in their foreign exchange positions. Modest growth could occur in selected countries (Czechoslovakia, Hungary and Yugoslavia), as a consequence of barter deals and to the extent that their foreign exchange positions improve. Expansion in offtake by all East European countries other than East Germany is forecast to total 1,500 to 2,000 tonnes by 1992, although expansion by a further 2,000 to 2,500 tonnes could arise by the end of 1995.

14. The Australian market has registered significant growth during the past decade partly as a consequence of the establishment of Bounty production capacity by Mars, but also because of more general growth in confectionary usage and more modest expansion in the bakery sector. However, trade sources do not expect future growth to be at historical rates with the expectation of a generally static trend.

15. There are clear differences in the participation of supplying origins with respect to North American, European and the Australian markets. In North America origins are very largely limited to the Philippines for historical reasons, whilst Europe exhibits a far greater diversity. Australia largely takes Filipino material but also DC from other APCC exporters in the region. There is little reason to suppose that these patterns will change to a significant degree in the short and medium term.

16. Trade sources indicate that there are suppliers in all major origins providing good quality DC on a consistent basis. But it is also undoubtedly true to say that some origins have a poor reputation for quality overall and that this has caused them to lose a significant portion of market share and/or to fail to capitalize on such expansion in market demand as has occurred. The latter comment is especially relevant to the slowly expanding quality conscious component in major markets.

17. The Ivory Coast and the Philippines are generally regarded by trade sources as suppliers of good quality material on a consistent basis. In a number of countries in Europe the Ivory Coast could undoubtedly sell more if it were not constrained by limited productive capacity and by an adverse foreign exchange rate, (the CFA franc rate is tied to the EMS currencies at a fixed rate of CFA 50:1 French Franc, while domestic inflation has exceeded 10 percent per annum over the last four years). The Philippines has expanded its market share in most European countries, particularly in 1988, and has sustained its predominant position in the growing Australian market.

18. In recent years the reputation of Sri Lanka amongst both importers and users of DC has suffered a number of setbacks although good quality mills are operating and in some applications the qualities of Sri Lankan DC are preferred, particularly on grounds of taste. There is strong evidence that Sri Lanka has lost significant market share in many countries as a consequence of perceived weaknesses in quality control. To sustain sales Sri Lankan DC is often priced at a substantial discount to material from the Ivory Coast and the Philippines. However, constrained sales in recent years have also been partly a function of availability, and the very low market share observed in 1988 has been recouped to a degree in 1989 with the recovery in production to levels equivalent to those achieved in the early 1980's.

19. Malaysian DC together with material from Indonesia (to the extent that this small volume origin is familiar to trade sources), both have the weakest reputation in terms of quality. Again good individual suppliers are known to exist but most importers and end users are unwilling to accept material from these sources, and prices are generally at a discount to Sri Lankan DC. There is a tendency for these origins to supply smaller markets that are less quality conscious.

20. Quality problems commonly expressed related to bacteriological and physico-chemical aspects of quality, taints and off-flavours, multiple mills material within a single container shipment, poor colour, lumpy and hard material, old product with associated musty odour and many others.

21. There are clear differences between the markets studied in terms of the range of DC grades that are accepted and the diversity of end products sold (plus associated new product development and promotion). The North American market uses a wide range of grades and produces a diversity of end products, although the latter are often relatively



unimaginative in comparison to items developed in continental West Europe.

22. West Europe accepts a narrower range of cuts but has expanded the range of DC containing products to a significant degree. A partial exception is the UK where new product development has been restrained with the exception of the confectionary sector. The UK also acts as an import market for new products developed on the Continent which may help to further stimulate such diversification.

23. Australia has recently widened the range of DC grades it requires to include a small but growing volume of fancy cuts, but there has been little in the way of new product development.

24. On the whole the prospects for expanding the market for DC via a variety of initiatives do not look strong. Options considered include research and development, promotion, differing market strategies and new product development.

25. Research and development offers some possibilities with regard to process design and packing. Regarding the former, there would appear to be tangible benefits arising from development, aimed at improving the bacteriological quality of the product, whilst export packs may be better designed to increase product tonnage carried by container. In the marketing field there is scope for an examination of consumers perceptions of DC flavour and texture, even if the outcome is negative in terms of expansion.

26. Promotion offers a variety of strategies but in general generic promotion appears likely to have limited potential as a consequence of its cost, the need for repeat promotions and the uncertainty of outcome. The image that DC can present is also flawed in the view of many consumers as a consequence of its high fat content overall, the level of saturated fats, its association with sweet items and its poor reputation for bacteriological integrity.

27. Marketing strategies also offer a variety of avenues that could be pursued. By far the most immediately productive are visits and market contacts to promote sales to East Germany via the major brokers operating in Hamburg. There is also some limited potential for increasing sales to the slowly growing high quality segments in major markets, thereby achieving premium prices. Opportunities also exist in minor markets that are less quality conscious and could warrant a study in advance of market development. National coconut authorities could also play a more effective role

towards small scale exporting companies in providing effective market assistance.

24. The extension of usage of differing grades and new product development appear to offer only modest contributions to potential growth in DC demand. In the longer term it is possible to envisage the use of a wider range of cuts in Europe along the lines currently exhibited by the USA and such expansion is already occurring in the Australian market. However, an offsetting factor may be that many of these grades are sweetened products which may not find favour in an increasingly health conscious European market. It is likely that new products will continue to be a significant feature in Europe, but their impact on DC demand may be offset by falling offtake in more traditional sectors, particularly baked goods and biscuits and the present low prices for chocolate and almonds do not encourage increased usage of DC in recipes. Segments that may warrant study include upmarket bakery and confectionary items, yoghurts, ice cream and frozen items. It is probable in many instances that new product development will have to be funded and/or undertaken largely by DC producers given the unwillingness to pursue such development in consuming countries.

## CHAPTER 1

### The Major APCC Producing Countries

#### 1. Introduction

This study is principally concerned with the potential for expanding the markets for DC. This first Chapter is devoted to issues relating to production of DC and to issues raised by suppliers during visits to major producing countries within the APCC. Differing production features are important since they have implications for marketing of DC and the relative performance of major supplying countries

During the study it was possible to obtain access to significant data relating to the two largest producers, the Philippines and Sri Lanka, and some material is also presented for Malaysia and Indonesia. Information regarded as commercially sensitive has naturally been excluded. Because of confidentiality the presentation of material under some headings is necessarily brief.

The Chapter begins with a brief description of export performance before moving on to features of production and trade relating to specific suppliers. Subsequent Chapters (two to seven) deal with major markets for DC in North America, Europe and Australia. A concluding Chapter draws together production and marketing issues and examines options for improving the prospects for marketing DC.

#### 2. Trade performance of the major APCC producing countries

Export performance of DC producing countries is a useful proxy guide to DC production since by far the greater part of output is exported rather than consumed in domestic markets. APCC member countries supply well over 90% of the global trade in DC and almost all of this material originates from four countries: the Philippines, Sri Lanka, Malaysia and Indonesia. Export performance over the past two decades for these countries is shown in Table 1 below.

Table 1 Exports of DC by the major APCC producing countries  
(annual averages over 3 year periods)

	1966/68	1976/78	1986/88
The Philippines	67,800	89,900	83,700
Sri Lanka	54,800	38,800	45,200
Malaysia	-	100	14,100
Indonesia	-	600	2,200
Other suppliers	7,900	3,300	9,700
World Total	130,500	132,700	154,900

Source: National trade statistics

Note: All data to the nearest 100 tonnes

The Philippines and Sri Lanka have long been the two principal supplying nations and in terms of market share have tended to move in opposition to each other, eg the fall in Sri Lankan exports between the 60's and 70's being offset by an expansion in Filipino exports (Table 1). Over the period as a whole the Philippines has fared better with current exports well up on the level of the 60's. In contrast Sri Lankan performance has not been as strong although there has been a recovery since the low point of the late 1970's. Both countries have experienced substantial fluctuations in output and even the use of three year average data does not wholly solve the difficulty of isolating erratic changes from longer term trends.

Malaysia and Indonesia are both relatively recent entrants to international trade but Malaysia has expanded sales particularly strongly during the past few years. Indonesia has significant DC capacity but has yet to achieve a sustained presence on the world market. Other producing countries have recently expanded their share of total trade, but the only individual supplier of significance is the Ivory Coast. The origin is relatively modest in global terms but represents a significant supplier to the European market.

Global data indicate a static trend in the decade ending in the late 1970's but with some growth more recently at around 1.5% per annum. The latter reflects modest growth in a few of the major markets covered in later chapters together with some expansion in other, minor consuming countries.

### 3. Production issues relating to major APCC suppliers

DC production costs are dominated by those of raw materials and labour with the latter heavily represented during the preliminary processing operations of hatching, paring and inspection. Raw material availability varies considerably between the four producing countries covered by the study. From the outset a distinction needs to be drawn between overall availability and effective availability, the latter taking into account the many competing usages other than production of DC that can arise. Table 2 provides summary data for major areas of coconut usage together with DC.

**Table 2 Production and utilization of coconuts in the major APCC DC producing countries**

	Coconuts (million)	% of total nut utilization for:		
		Fresh nuts	Copra	DC
Philippines	11,420	7.7	87.8	4.5
Sri Lanka	2,763	51.7	34.5	13.7
Malaysia	977	31.7	61.7	6.6
Indonesia	9,850	42.9	57.6	*

Source: Derived from APCC data

Notes: \* indicates negligible  
 "Fresh nuts" indicates all edible applications including direct production of oil from fresh nuts (eg klentik oil). This data is often of limited reliability.

Sri Lankan effective availability appears the most constrained in many respects with a relatively limited total production confronted by competing demands from direct consumption and coconut oil production for consumption or export. Domestic fresh nut usage is of particular significance since it represents a priority that must be met over and above other uses. Instability in output is thus likely to reflect adversely on other sectors including DC. In general, crop maturity and supply is determined by the respective seasonal rainfall patterns, which under normal conditions impose a seasonal cycle on the production of DC. Adverse climatic conditions however, such as the occurrence of periods of drought, or hurricanes, are also significant disruptive factors affecting the total availability of raw material.

Constrained coconut availability in any given part of the major growing areas in Sri Lanka helps to explain the

pattern of DC processing capacity with a relatively large number of small scale plants (see section 5). Constraints overall and seasonality also appear to have played a role in the development of forward purchasing and speculative activity (section 5).

The Malaysian DC industry is less well documented and less well known than that in Sri Lanka but appears to be confronted by at least some of the supply constraints mentioned above. Overall production is quite small but pressures from meeting domestic needs may be much less than in the case of Sri Lanka. Even with recent expansion in production and exports the percentage of coconut going to DC is small.

Both the Philippines and Indonesia have much larger coconut outputs. Although substantial domestic usage arises in Indonesia the scale of output is sufficiently large in comparison to current needs for DC that limits to availability for the latter are negligible, particularly since processing capacity is generally located in major coconut producing areas. Despite its size the Filipino DC industry only accounts for a small proportion of total nut availability and domestic usage is similarly small. In general supply availability would not be expected to raise difficulties, however some processing capacity located on Luzon where local nut availability is confined and there is some pressure from alternative uses, shortages are reported to arise at times and are reflected in nut prices.

Overall the ease of raw material availability coupled with the absence of pressing domestic consumption needs has assisted in the establishment of relatively large scale facilities in the Philippines, (eg annual plant capacities around 10,000 tonnes). The latter may enjoy advantages in terms of marketing eg through capacity to afford promotional activity and to engage in contracts to supply the largest DC consuming companies in major markets. The Indonesian sector has to face greater competition from domestic consumer needs but has been able to establish intermediate scale facilities which could, when fully operational, enjoy some of the marketing advantages of Philippine plants, eg the ability to promote supplies to large scale end users.

Relative pricing between differing producing countries is difficult to assess in the context of variable levels of production and demand from competing sectors, seasonality and differences between different regions. Pressures exerted from competing uses may vary, for example, whilst nut prices for copra use may often be relatively low the material may afford the producer the option of holding stocks for speculative purposes. Prices offered for nuts

to be used in competing uses such as DC therefore have to take account of such factors.

Labour availability and cost are a second major component in DC production since many operations are labour intensive (cf the wet process stage). Again it is difficult to draw comparisons between the different producing countries however it is generally recognized that the Philippines faces higher labour costs than the other three producers. On the other hand availability may also be a factor in a relatively low wage economy such as Sri Lanka given competing requirements in rural areas from agricultural production. Further complications are introduced via government wage legislation including minimum rates for differing categories of skilled labour in both Sri Lanka and the Philippines. Union and other political interventions have also played a part in posing difficulties to the manufacturer.

Difficulties in both raw material and labour availability (and cost) have disrupted DC production in a number of countries in recent years and are a topic of concern to major consumers of DC. Unstable availability, even for preferred major origins, may lead such consumers to cover the perceived risk by accepting DC from a wider range of suppliers.

#### 4. Profitability and the expansion of capacity

Variable circumstances and cost profiles for raw materials and labour have clearly impinged on profitability of DC production in a number of instances in recent years. The cost of capital has generally been of lesser significance since much capacity is long established and written off in terms of depreciation. However, the obverse of this situation can be the need for relatively high outlays on maintenance and repairs.

Pressures on profit margins have also undoubtedly arisen as a consequence of periods of excess supply described below. These pressures have applied across the spectrum of differing quality segments of the major markets studied. It is arguable that these sorts of pressure are likely to become the most crucial component of any squeeze on profits in the future short to medium term.

It is perhaps a paradox that despite apparent constraints on profitability arising from cost factors, major investment in new capacity has recently been or is about to become a feature in most of the larger producing

countries. It appears that an additional capacity in the region of 25,000 tonnes is likely to come on stream as a result of current and short term investment plans. Even at 50% capacity utilization this represents a potential expansion in supply approaching 10% of the global DC market.

Part of the reason for this paradox may be due to an over-sanguine view of market potential which this study may help to redress. A number of new investments are being planned which would aim particularly at the quality segment of markets in the major importing countries. The expectation appears to be that price premia will offset the heavy initial investment costs involved. Such expectations appear distinctly over optimistic in the light of probable market trends. (Chapters 2 to 8).

However, there are also other specific characteristics which help to explain sustained over capacity. Much existing capacity is written off and often represents only one component of business activities of owners. The owners appear content to contemplate periodic shutdowns when margins are squeezed too far. In terms of new capacity many enterprises appear quite substantial with individual capacities of 5,000 tonnes per annum or above. Expectations by investors appear to include the gains to be derived from economies of scale. Whilst scale offers attractions in terms of shipment and marketing, the gains from production itself would appear constrained given the importance of operating costs. Some of the expansion in capacity has also been in conjunction with overseas investors whose motivations are not entirely clear.

Whilst the entry of major new entrants in production is likely to have an adverse effect on profitability generally it is likely that existing smaller scale manufacturers will be the most affected. This observation may be particularly true in circumstances where the availability of coconuts is heavily constrained since large scale producers may have the resources to bid away supplies from small companies. An additional outcome from the establishment of large scale plants could be a reduction in productivity or outturn, ie the DC yield per nut. This observation stems from the view that very large scale purchasing limits the monitoring of quality of nut with consequent lowering of outturn.

## 5. Structure of DC production and marketing sectors

The composition of the DC producing sectors differs significantly between the four countries under review. In the Philippines the industry is dominated by a small



number of companies each of which operates large scale plant, defining large scale as around 10,000 tonnes annual capacity. Former smaller scale processors were closed down by presidential decree during the early 1980's and factories mothballed. In contrast the second largest DC producer, Sri Lanka has an industry comprising a large number of operators extending from small to medium scale. (ie in the range 500 to 2,500 tonnes per annum). The Malaysian industry is more similar to that of Sri Lanka whilst Indonesia has a relatively small number of factories most of which are medium scale.

The reasons for the differing composition of the sector are partly a consequence of factors discussed above, notably raw material availability and distribution. Other factors have also played a part including the substantial role of foreign interests in earlier years in the Philippine industry and political interventions. Also in the Philippines the proposed deregulation of the DC sector has reopened the possibility of increasing the number of plants operating and it is understood that two have recently commenced operation.

In Sri Lanka there appears to be a move in the opposite direction with a slow but steady erosion in the number of operators with attrition applying particularly to smaller scale plant. Recent new investment in the sector has also concentrated on a few large scale plants.

Differences in the structure of the production sector are also mirrored by differences in the organization of marketing and indeed the structure of production has been a strong influence on the development of marketing channels. In the Philippines the handling of DC trade is relatively straight forward as a consequence of the strong historical role of US manufacturing interests. The largest producer is still a subsidiary of a US company, (Samuel Baker/ Kraft General Foods) and other manufacturers although now independent, retain close links with distribution systems in the USA. (see also Chapter 2). Large scale production has lent itself to easy bulk handling via containerisation.

In contrast to the simple marketing chain in the Philippines that in Sri Lanka probably represents the most complex of the countries studied. Brokers operate at the raw material purchasing stage and also in the handling of DC sales. Independent shippers also handle DC from most producers. In a few cases functions have been drawn together within a single enterprise (particularly the larger and newer production facilities which often also act as shippers). The relative complexity of the Sri Lankan industry appears to be largely a function of scale of enterprise and seasonality

of coconut output. The small scale of many producers means that they may lack liquidity to cover raw material purchase and loans are obtained from brokers. Small parcels of output provide a bulking up requirement that is performed by brokers and shippers prior to export. Finally, the limitations to coconut availability coupled with seasonality provide scope for forward purchasing and speculation.

The Malaysian industry appears to be organized in an intermediate position to Sri Lanka and the Philippines with some companies handling their own exports whilst others ship through traders and brokers many of whom operate out of Singapore. The Indonesian sector has substantial unused or underutilized capacity and both production and export shipments have fluctuated often around quite low levels. Marketing arrangements appear to be relatively straight forward with, for example, close contacts with some of the major importers/consumers in Australia.

The complexity of the marketing chain addressed also varies between the major import markets. The simplest chain, that between the Philippines and the United States does not generally involve traders or brokers at the point of import, but in Europe and Australia both operate.

The longest market chain therefore tends to confront producers in Sri Lanka supplying for example, the European market. A consequence of this situation is that supplies may find it difficult to easily identify end user needs, especially in the case of small scale manufacturers of DC. There is perception amongst producers that at least some of the brokers and traders at destination take advantage from communication difficulties and the lack of representation in the market to extract unreasonably low prices. There is also a sentiment that because only a small number of brokers handle the greater part of trade in Europe that they are able to extract a degree of monopoly power and dictate terms to suppliers.

Communication and representational functions coupled with the generation of market information on behalf particularly of smaller manufacturers may be seen as part of the function of any national bodies covering the coconut sector (see Chapter 9).

Both the Philippines and Sri Lanka have formal bodies covering the sector which act partly as an interface between government and the private sector. Neither

Indonesia nor Malaysia have national coconut agencies of this kind.

In the Philippines the Philippine Coconut Authority covers the sector as a whole and has operated or advised upon a variety of regulatory functions. Currently the PCA is participating in the deregulation process being undertaken within the coconut sector and including DC sub-sector. It is also involved in the guide price mechanism operating in the Philippines where DC prices are set each week on the basis of prices ruling at major destinations. There is a separate industrial body, the Association of Philippine Desiccators, specifically representing DC producers interests.

In Sri Lanka the Coconut Development Authority is also concerned with deregulation with regard to guide pricing. Unlike the Philippines there have been no limitations on establishment of new processing capacity. Both the PCA and the CDA undertake product testing, the CDA on a mandatory basis and the PCA on request. There are also specific bodies representing the various interest groups within the DC sector, covering millers, shippers and brokers.

## CHAPTER 2

### North American Markets: the USA and Canada:

#### 1. Imports and origins

The US market alone represents the largest single importer of DC world wide whilst Canada is much smaller, representing a market in the intermediate range (similar to many European countries). Both markets incorporate features that are quite distinct from those applying in Europe.

In recent years total imports into the USA have averaged around 41,000 tonnes, well over twice the level of the UK, the second largest importer. Over the past decade gross imports have followed a modest declining trend in the context of year on year fluctuations. Data are summarized in the Table below together with figures for Canada.

Table 3 Imports into the USA and Canada (tonnes)  
(annual averages over 3 year periods)

	1966/68	1976/78	1986/88
USA	56,250	44,250	41,100
Canada	5,620	5,550	7,150 *

Source: National Trade statistics

Note: \* The average for 1986/88 for Canada is inflated by unusually large imports in 1988, typical imports for the period would otherwise be around 6,400 tonnes.

The poor performance of the US in the decade to 1988 followed a period of sharp decline in the 1960's and early 70's. Since re-exports are not significant there has been both some decline in the total domestic market and a more marked contraction in per capita terms, (given population growth in the region of a little over one percent per annum). The market is however one of the most diverse in terms of the range of cuts taken, in particular the range of so called fancy cuts and sweetened and toasted DC. This range is a long established market feature.

Canada represents a market of intermediate size totaling around 6,000 to 6,500 tonnes per annum. The market has been expanding at a moderate rate over the past decade at around 1.7% per annum although this represents a much more modest change in per capita consumption terms. The market takes a

diverse range of DC grades in a similar fashion to the United States.

The US market is dominated by supplies of DC from the Philippines (Table 4) as a consequence of the market structure described below in section 2. For the past two decades the share of the Philippines has been in excess of 90% of the total although most recently the share of other suppliers has grown to a limited degree. On average during the period 1986-88 Sri Lanka supplied 4% of total supplies and Malaysia 1%. The longstanding nature of links with the Philippines and trade views, particularly on quality aspects (section 3), imply that the predominance of Filipino supplies will continue.

Table 4 DC imports by origin : USA and Canada 1986/88

	USA		Canada	
	%	tonnes	%	tonnes
Philippines	90	37,100	60	4,430
Sri Lanka	4	1,500	4	240
Malaysia	1	500	8	530
Others	5	2,000	19	1,200

Source: National trade statistics

Note: All data to nearest 100 tonnes for USA and 10 tonnes for Canada

Historically the Canadian market has also been dominated by supplies from the Philippines. The latter origin has generally supplied around 70% of total requirements (plus some Filipino material entering the market via the USA). With the exception of 1968 Sri Lanka has been a small scale supplier and there are clear signs of a drop in share from around 20% in the 1960s to 10% in the 70s and below 5% currently. This feature has arisen as a result of concern over product quality and marketing. Malaysia has established a market niche, currently below 10% of the Canadian total whilst both Sri Lankan and Malaysian supplies may be complemented by imports channeled via Singapore.

The range of grades supplied to the market in the USA is diverse and includes "ordinary" cuts (eg medium, fine, extra fine), fancy cuts (eg flake and shred), toasted DC of various cuts, sweetened and coloured DC, again of various grades. Because a number of market contacts in the USA are unwilling to reveal even relatively basic information it is not possible to assess with confidence the breakdown of grades for the market as a whole, but these are indicated in Table 4 below.

The range of cuts taken by the Canadian market is somewhat similar to that in the US including standard, fancy and toasted DC but with more emphasis on fine grades. There appear also to be a significant proportion of sweetened DC with one trade estimate suggesting that 40% of the total would be sweetened products.

**Table 5 Breakdown by grade of DC of the US and Canadian markets**

	Percent share	
	USA	Canada
Medium	40	30
Fine	25	35
Extra fine	5	15
Fancy cuts	30	20

Since the market is dominated by Filipino material there is very little in the way of a spread in pricing based upon origins. To the extent that Sri Lankan and Malaysian material does enter the market however it is priced at a significant discount to that from the Philippines. Overall current prices are reported above those ruling in European markets. There is a modest spread in pricing between differing grades, trade sources reporting the current differential between "ordinary" cuts and fancy grades at between US c3 to 5 per pound. Price features in Canada are similar to those in the USA given the predominance of the same origin and participation of some of the same companies.

## 2. Trade channels and end uses

A small number of long established importing companies dominate the US market. In some cases these represent firms with a specific interest principally in DC whilst others have a broader range of activities within the food sector. Historically these companies had direct links with DC manufacturers in the Philippines and dealt exclusively with these suppliers. Such links have now been loosened, although some remain, for example the largest company in the market, Kraft General Foods, retains a wholly owned subsidiary producing DC under the Franklin Baker brand. Kraft General Foods sells DC in the retail sector but the major portion of business is represented by other food product usage and sales to other food industry users particularly in bakery and biscuit sectors.

Other companies continue to deal with specific Filipino supplying companies, eg Hershey (Peter Paul US) deals with

Peter Paul (Philippines), Phildesco deals with Blue Bar and Sunripe deals with the Philippine supplier of the same name. Peter Paul is a major end user, claiming to be the largest in the USA, whilst other companies are more heavily engaged in selling on to major end using companies.

There are also a number of smaller companies acting as importers, some of which also have interests in end use markets, eg the retail sector. These companies tend to accept DC from a range of origins rather than the Philippines alone, but the volumes involved are generally small.

There are a number of links between the Canadian DC sector and that in the US although the Canadian market retains a degree of individuality. At least two of the major US importing companies, Kraft General Foods and Red V retain local importing agents in Canada, remaining imports being handled by a relatively small group of specialist companies. Importers may act as distributors and some also have associated processing interests, eg for toasted coconut. Importers may sell on to the retail and wholesale sectors, to the bakery, cereals and confectionary sectors.

The marketing structure in the US differs significantly from that for example in Europe, where importing companies are generally quite distinct from end users/distributors and usually handle DC from a range of origins; where brokers also function and where purchasing forward is the norm including paper transactions.

As in the case of identification of market share for differing cuts, reticence by trade sources in the USA and conflicting views amongst the trade in Canada has prevented a precise breakdown of share by end use sectors. Estimated distributions are shown below.

Table 6 Major end uses in the US and Canadian markets

	USA		Canada	
	percent	tonnes	percent	tonnes*
Bakery	34	14,000	50	3,200
Confectionary	32	13,000	10	650
Retail	24	10,000	30	1,900
Food Service	10	4,000	10	650

Notes: - Bakery includes DC usage in cereals  
 - Canadian volumes based on a total market of 6,400 tonnes

These figures indicate little change in the USA from those derived from a study completed by the ODNRI at the end of the 1970's. Since that time the share of confectionary has risen slightly whilst the retail sector has contracted to a modest degree. Since the US market has contracted in absolute terms the decline in the retail sector is quite significant whilst the bakery and confectionary sectors remain relatively subdued. Data for the Canadian market are particularly uncertain because of disagreements between trade sources. A major feature is the more limited DC usage in confectionery although Neilson (a Cadbury subsidiary), produce a bar similar to both Bounty and Mounds.

Given the scale and diversity of the US food industry there are a wide range of end products incorporating DC. Diversity is most evident in the bakery and cereals sectors and some examples are indicated below. Despite such diversity most major products appear relatively bland and unimaginative when compared to the range of items available for example in continental West Europe. In Canada there is again considerable diversity and in some cases products are a little closer to those available in Western Europe.

In the bakery sector of the US and Canada DC is incorporated in a range of biscuits including coconut creams and macaroons, (the latter being hard biscuits in the USA and not a soft cake as in Europe). DC is used as a coating on a wide range of products, eg toasted cuts on mallows and also fancy cuts/angel flake on large cakes. Doughnuts usually incorporate DC (ordinary and toasted) in both the dough and as a coating material. Frozen items include prepared desserts for both retail and food service sectors.

In cereals DC is used in various "Crunch" cereals (coconut chip), in muesli mixes (eg medium cuts) and in fruit and fibre mixes, although the level of incorporation in some products is quite small. Granola type bars also typically contain DC. It is possible that usage in cereals is of greater significance in Canada.

In confectionary significant incorporation of DC is confined to a relatively small range of products. Most notable in the USA are the Mounds and Almond Joy bars produced by Hershey (Peter Paul). Chocolate cream eggs may also use a filling incorporating DC and small levels of incorporation arise for a variety of other sweets. In Canada the Mounds bar is not promoted but a locally produced coconut bar by Neilson is closely similar.

In both the USA and Canada the retail sector is dominated by sweetened shred/flake DC and is used very largely on a



seasonal basis (ie at Thanksgiving and Christmas) in home baking, eg as a coating on cakes.

Other uses include DC as topping on ice creams and as coating on ice lollies. Ice cream milk shakes which often incorporate DC have been a recent growth item in the food service sector. Use of coconut chips in fruit and nut mixes is a small but growing segment of the market.

End product markets are little affected by international trade. In the USA there are some imports of biscuits, particularly at the quality end of the market, typically mixed selections some of which incorporate DC. In the confectionary market there is the possibility of a larger role for imports with the recent launch of the Bounty bar, but the outcome of the latter on market penetration has yet to become clear. In Canada Bounty has also been marketed on a significant scale for some time.

### 3. Quality Issues

Overall there were few expressions of concern over quality issues from trade sources in the USA, which may partly reflect the relatively close contact between suppliers and major importers. Greater concern was noted instead with regard to marketing and product image (section 4 below). In Canada, although DC origins are a little more diverse a similar absence of concerns with product quality was apparent.

The most commonly raised quality issue related to the use of sulphur dioxide (SO<sub>2</sub>) with associated implications for product quality generally and colour characteristics in particular. Concern tended to be voiced by some consumers and users of DC rather than the immediate importers. Nonetheless use of SO<sub>2</sub> was often cited as essential to sustain quality, ie to provide protection against bacteriological problems and to enhance storage life. With regard to qualities desired in end products, colour was often cited as fundamental with the quality imparted by SO<sub>2</sub> as an essential factor providing whiteness, eg in toppings.

In some cases however there appears to be a degree of sensitivity over use of SO<sub>2</sub> stemming in part from adverse reactions in usage in other product areas. As a consequence trade sources were sensitive over discussion on the issue and tended to stress first the limits to initial incorporation of SO<sub>2</sub> and second the greatly diminished levels of concentration in DC entering final products. In Canada there appeared to be rather greater agreement that certain end users did not wish to use DC treated with SO<sub>2</sub>, although colour remained a key quality characteristic.

Bacteriological issues did not represent a problem with existing suppliers although trade sources recognized their importance. The issue was however raised at a more general level and with respect to the operation of new, smaller scale importers (section 4 below). In a few instances taste was mentioned as a significant factor, but in comparison to other markets a fairly robust view was taken towards what was acceptable. In general less favourable comments on quality related to Sri Lanka, Indonesia and Malaysia as origins.

Some traders and users noted the adverse publicity in the USA currently relating to the saturated fat and tropical oils issue. However most felt that this was unlikely to have an adverse effect on DC consumption.

#### 4. Marketing issues, the scope for promotion and new product development

Marketing issues generally represented greater cause for concern than issues of quality alone. In the USA a common issue was concern over the limited profitability of DC production in the Philippines stemming from what was regarded as global over supply. Fears were expressed that limits to profitability might have an adverse effect on product quality and could ultimately threaten production capacity.

A second feature applicable to both the USA and Canada was the concern over the performance of smaller importing companies some of whom were new entrants to the market. Some contacts expressed doubts about quality standards sustained by some of these operators, arising in part from their willingness to accept DC from origins other than the Philippines. The fear was that poor performance by a minor trader could reflect adversely on the sector more generally.

The image of DC and the extent of promotion were both raised as areas of concern to many trade sources in both countries. Whilst there is satisfaction with the Philippines as a supplier there is also a perceived risk in a commodity such as DC. Any breakdown in quality control could jeopardize the market as a consequence of substantial and still growing consumer concern over food product quality and associated health aspects.

Several trade sources felt that both the image and perhaps the scale of DC sales could benefit from greater generic promotion. A common view was that promotion of DC associated with representation of producers could enhance image and promote the environment within which new products could be

launched. However there was equal concern over the likely cost of such efforts, the likely source of funding and the potential impact, especially on sales over the longer term.

## 5. Market trends and growth prospects

Trade sources in the USA generally indicate a fairly static picture for DC markets with few areas of growth and some segments where there is a trend towards long term contraction. In the bakery (cakes and biscuits) sector there are some hints of growth but competition in the biscuit sector is rated as intense and no significant expansion in DC usage is expected. In Canada usage in bakery generally is felt likely to remain static, whilst uptake in cereals may be set to decline as a consequence of consumer sensitivity to the saturated fat issue.

In the USA the confectionary sector has recently expanded usage of DC but the outcome of the "Bounty" bar launch has yet to become clear. Trade views are divided on possible impact and the extent to which Bounty will expand the market base for confectionary using DC, as opposed to encroaching on the market share of Peter Paul products.

The retail sector is reported by most trade sources in both countries to be in a state of long term decline. In the USA this is said to be arising from the gradual erosion of home baking activity whilst in Canada contraction may also be associated with "health" concerns, relating for example to saturated fat and sugar. Promotion in the USA has generally been restrained, a factor which may partly occur as a consequence over concern on product image and reliability. In the smaller food service sector declining usage through distributing final products rather than DC has been offset by expansion elsewhere, notably ice cream milk shakes.

Overall the US market would appear to offer relatively limited opportunities for expansion and diversification of grades. The total market appears to be contracting to a degree, perhaps as a consequence of the decline in the retail sector. Social trends do not appear to favour a recovery in the latter area whilst other market sectors appear to be stagnating on the whole.

The US market already comprises a wide range of end products utilizing an extensive array of cuts and grades of DC. Whilst new products are still emerging, for example ice cream milk shakes incorporating DC, the impact of such items is relatively small. In future there could be further opportunity for new products at the quality end of the biscuit and cake markets, incorporating for example some of the

relatively sophisticated items currently on sale in European countries. The scale of DC required by such initiatives would however be relatively small.

In general the Canadian market represents a slightly more optimistic picture. Most trade sources do not expect any significant change from historical trends which imply that DC imports will continue to grow at around 1.5 percent per annum.

## CHAPTER 3

### The United Kingdom Market

#### 1. Imports and Origins

The UK market for DC is the largest in Europe and second only to that of the USA in global terms. The market shares certain common features with Europe eg the relatively constrained range of DC cuts that are required, compared for example to the situation in the USA. However imports (in net terms) into the UK show a slowly declining trend within the context of erratic year on year changes, unlike several major European importers where growth has occurred.

Import performance and shares of differing origins may be summarized as follows:

	1966/68	1976/78	1986/88	
Net total	17,500	17,600	16,700	
of which from:		Per cent	tonnes	
Sri Lanka	99	70	39	6,500
Philippines	0	24	30	5,000
Ivory coast	0	0	16	2,700
Malaysia	0	0	4	700
Others	1	6	11	1,800

Source: National trade statistics

Note: All figures to the nearest 100 tonnes

These figures show a modest downturn over the past decade after an earlier period of stagnation, in the context of significant year on year fluctuations. Re-exports amount to less than 1,000 tonnes per annum and are not a significant factor. There are however substantial year on year fluctuations in imports. There is also a significant trade, both import and export, in products containing DC, particularly confectionary and bakery products. It is not possible to identify the net effect of such transactions on total UK DC consumption, however the UK almost certainly consumes significantly more on a per capita basis than other European countries. On balance the UK appears to be a significant importer of bakery items and a net exporter of confectionary containing DC.

DC origins supplying the UK market were formerly dominated by Sri Lanka, however this pre-eminent position has been steadily eroded over the past 15 years. Thus whilst in the mid 1960's Sri Lanka supplied almost all the UK requirement, this has fallen to around 40 % in recent years. (Table 7) The Philippines now accounts for around a third of the total whilst Ivory Coast, Malaysia and minor supplying countries have all expanded their share in the last decade.

The trend towards a major widening in the number of origins supplying the UK market is partly a reflection of trade and end user views on quality factors discussed in detail in section 3 below. Such factors may either be offset or exacerbated by relative pricing between origins and by availability. A further issue is the simple fact of new origins entering the market, notably the Ivory Coast, and most recently Malaysia.

Industry requirements in quality terms vary between end use sectors but on balance Ivory Coast material is regarded as the most consistently superior followed by the Philippines. Sri Lankan DC, despite a number of negative factors remains a preferred option for certain quality characteristics especially taste and on price grounds. Malaysian material is regarded as relatively untried and of unreliable quality.

Cuts required by the UK market are very largely confined to fine and medium grades, the requirement for "fancy" cuts amounting only to a few hundred tonnes. The current breakdown appears to be 60% medium and 40% fine. Medium grades are required in most confectionary uses (although some medium grade is processed to fine by end users, who claim that imported fine clogs machinery). In contrast the greater part of needs in the bakery sector (cakes and biscuits) are for fine grades. An exception to the latter is where DC is used as a coating eg on a mallow base or on larger cakes where medium grade is used. Retail trade use covers both fine and medium with a greater proportion of the former.

Pricing of DC overall is not generally regarded by end users as a major issue, partly because in many areas the commodity is not a major component of final product still less the cost of the latter. In practice buyers may be as much or more concerned by currency fluctuations rather than price alone. The commodity is also one where there are few, if any, close substitutes or complements so that although the item is not regarded as being cheap its price nonetheless is of limited concern.

Although DC overall is inelastic in terms of response in demand to changes in price, differential pricing between

origins is significant. Filipino material currently attracts a significant premium of Sri Lankan DC which in turn is normally priced above levels for DC from Malaysia. These differentials are largely a reflection of trade perceptions of differences in quality between these origins, (see section 3 below).

## 2. Trade channels and end uses

The greater part of usage of DC in the UK is concentrated amongst a small number of companies, just three (Burtons Gold Medal Biscuits-Associated British Foods, Mars and Bassetts-Cadbury) account for 55% of the total whilst a dozen smaller users take up a further 35%. Major users tend to sustain greater direct contact with origins, an area where Mars is often regarded as the leader. The company sustains special relationships with selected mills in Sri Lanka and other companies often attempt to benefit from dealing with those mills known to be favoured by Mars. It is also understood that Mars deals closely with the industry in Ivory Coast.

However, all companies use importers and/or brokers and often place a heavy reliance on the expertise of these companies and some users retain specific brokers and importers to act for them. Purchasing is generally forward at origin and in the past such traders have also participated to a significant degree in paper transactions. The scale of such trading appears to have diminished in recent years as have the number of companies operating in the market. Some trade sources cite negative experiences with forward trading as the reason for falling numbers. The provision of forward cover for large users is also strongly established in Europe based in Hamburg. Occasionally UK buyers will make spot purchases on the Hamburg market especially when supplies are short.

The requirements for DC by most end users is relatively small, particularly so in the context of their other raw material purchases. Consequently it is not worth their while to develop and sustain close ties with producers of DC. Traders are reported to be operating on very tight margins and hence it should be cost effective to operate through them.

The breakdown of usage by major sectors is indicated below,

Table 8 : UK DC usage by major end use sectors (1989)

	Percent	Tonnes
Cakes and biscuits	45	7,500
Confectionery	40	6,700
Retail and other	15	2,500

The figures indicate the importance of both the confectionary and bakery products sectors and whilst confectionary has generally been an area of expansion bakery has been more static. The total for retail and other usage (cereals, fruit and fibre mixes, creamed coconut etc), has remained constant.

DC has traditionally been incorporated in small cakes and biscuits to exploit its functional characteristics (flavour, texture, and fat for lubrication or moisture retention), and in a number of traditional products, eg Macaroons, as a cheap substitute for almond; and Snowballs, as a coating on a mallow/biscuit base. Other products include teacakes, Nice biscuits, coconut creams and specific coconut biscuits.

Major uses of DC in confectionery are in traditional products. The Bounty bar uses sweetened tenderized DC with a chocolate coating and Liquorice Allsorts use DC as part of the two forms of cream component. Companies serving the retail sector essentially repack DC for sale for home baking.

A number of products incorporating DC are sold both in domestic and export markets. The confectionery sector appears to have developed substantial export markets for the Bounty bar and for Liquorice Allsorts, the former being more or less worldwide. Mars has also established manufacturing capacity in Europe that serves both European demand and exports elsewhere. Where export growth is particularly strong Mars policy tends towards the establishment of production capacity.

Exports of cakes and biscuits are much more confined in scale although markets are diverse, including Europe, the Middle East and Canada. Export trade to Europe is inhibited by strong competition for a number of items. The UK market has also witnessed a significant level of imports of macaroons from European producers. Some of the companies operating in the sector are multinationals with production interests elsewhere, especially Europe and North America.

### 3. Quality issues

Bacteriological quality probably represents the most important issue as far as most traders and users of DC are concerned. The significance of the issue has been heightened by growing consumer awareness of health issues and sensitivity to contamination by pathogenic organisms in foods in general. Manufacturers have responded by increasing the level of monitoring for bacteriological contamination and a common view is that the increase in testing has yielded more evidence for contamination that has always been present in DC rather than the identification of a new problem.



However it does appear that certain origins have in the recent past been more prone to problems than others. On the basis of the past few years Malaysian DC is most often quoted as giving problems together with material from Indonesia, although the latter is relatively untried. Of the two main origins, Sri Lankan material has attracted adverse comment from trade sources to a greater extent than that from the Philippines. Problems are seldom quoted for Filipino material and would appear absent in the case of products from the Ivory Coast. Problems with Sri Lanka are often said to be associated with mixed shipments, ie containers containing DC from several mills. The latter presents a particular problem with sampling regimes by end users. Sampling regimes in any event are seen as a growing difficulty and expense.

Taste is significant for only a proportion of end users, but where it is a factor it may be of primary importance alongside or even exceeding that of bacteriological quality. In terms of flavour, Sri Lankan material is rated highest by trade sources, but problems with off flavours and taints have sometimes been cited from the same origin. Usage where taste is most important is in confectionary, in contrast most bakery and retail users do not rate taste as a major issue. Some users appear to downplay the significance of taste in order to obtain greater leverage in terms of apparent flexibility of purchasing options between differing origins.

Integrity of product grades within shipments is rated as an important issue by many end users. The need to re-sieve because of mixed particle size represents an added cost. The need to sieve may also arise due to compacting of material during shipment. Problems with cut consistency appeared to arise most often in connection with DC from Malaysia, but were also mentioned in the case of Sri Lanka.

Less widely quoted problems include the use of SO<sub>2</sub> in DC. Concerns here related to the need to comply with official regulations. SO<sub>2</sub> associated issues are reported by trade sources solely with Filipino DC. The same origin is usually quoted favourably with respect to colour properties in association with the use of SO<sub>2</sub>. In some cases Ivory Coast is the more favoured origin but colour may not be a strong issue in many applications. Unfavourable comment most frequently applied to material from Malaysia Indonesia and Sri Lanka.

Contamination by foreign bodies, most frequently items of packaging material, is another problem of secondary importance. The issue was quoted most frequently with respect to Malaysian and Sri Lankan material.

Relatively minor causes of complaint include problems with rancidity, mould, over-dry DC and infestation. The latter

appear to be problems for Malaysian and Indonesian material in particular.

#### 4. Marketing issues

With regard to market chain factors applying to supplying countries, the most common problems raised by trade sources included mixed mill consignments per container and over long stock-holding at origin with consequent deterioration in quality. These features were attributed almost exclusively to material from Sri Lanka. A point in favour of the latter origin however was the substantial scope for purchasing forward.

With regard to diversification of DC grades and hence the scope for a wider product range the authors have included items that are either types of DC, products derived from DC or closely similar items to DC (ie coconut meat in a dried particulate form.) Given this definition the products and cuts considered are as follows:

- Fancy cuts;
- Sweetened DC (with or without colouring);
- Toasted DC;
- De-fatted DC (ie with reduced oil content);
- Creamed Coconut (DC ground to produce a paste);
- Dried Coconut Chips;
- Cubed Coconut.

Current requirements for fancy cuts in the UK are very small indeed and none of the trade and end users contacted expressed any great enthusiasm for the material. They are regarded as too large for use in the small cake and biscuit sectors but may find a niche in large /specialist cakes and also in cereals. In the long term the opportunities for greater usage might be developed, perhaps through promotional effort, but there are no current prospects of movement towards for example the pattern of usage in the USA.

Sweetened DC, often with additional colouring, has been marketed as a retail own label item in UK supermarkets. It appears that marketed volumes are small and scepticism has been expressed over the likely life span of the product. Prospects again are not encouraging.

Toasted DC has been used by a number of manufacturers and continues to be utilized both in selected bakery items usually as a coating material, in confectionary, usually in chocolate bars and in cereals/mixes. Although there is some interest in the item amongst manufacturers the material is not particularly easy to handle and enthusiasm is not particularly strong. Expansion of usage might be encouraged through

promotion but at least in some applications the toasted item simply replaces ordinary DC and the net effect on trade is therefore neutral.

Defatted DC, in practice DC with only a portion of the oil content removed, has been tried by a few manufacturers seeking to utilize the textural properties of DC rather than functionalities imparted either by fat content or for flavour purposes. The item, when available, has originated as a byproduct of coconut milk manufacture by Nestle. In technical terms it appears to have some merits in the eyes of end users, however, when offered in the past the material is said to have been over priced and hence no sustained usage of the material has developed. The item would appear to warrant further investigation, possible promotion and careful pricing. It is also possible in future that the health debate on saturated fats may enhance the attraction of material with a lower oil content.

Creamed coconut has been sampled as a possible ingredient by many end users of DC in the bakery and biscuit sectors. It is also sold as a retail item for cooking ethnic dishes where it commands a small but stable market niche amongst the West Indian, Malay and Indonesian communities. Manufacturers reactions to creamed coconut as an ingredient have generally been unfavourable for reasons that are not always clear, but may relate to handling problems experienced in processing plants; eg in some cases difficulty stemmed from equipment becoming jammed as a consequence of the viscosity of the material. A further complaint again concerned the relatively high cost of the item. Overall the potential for creamed coconut appears limited to retail sales where it is likely to remain a relatively insignificant item.

In a few instances manufacturers have sampled coconut cream (an oil in water emulsion), as an ingredient. Whilst technical problems with equipment along the line experienced with creamed coconut were absent the item was found to be too bland in flavour to be of much value.

Chipped coconut is used in trail mixes and breakfast products but is not regarded as an especially attractive item in these contexts, there being a number of alternative fruit based items especially dried pineapple and banana chips. One difficulty quoted was the limited flavour characteristics of the product.

A further item about which little is known is cubed coconut, apparently originating from Taiwan. The product could find usage in trail mixes.

Overall the experience with extending the range of DC cuts and associated products has not been at all encouraging both at retail level and in manufacturing. In part this appears to a function of uncompetitive pricing, in other instances to limited innovative drive amongst manufacturers. There also appears to be a lack of consumer response in a number of cases to items that have been tried.

## 5. Market trends and growth prospects

The UK market represents at best a static picture in terms of its past performance overall, and present trends confirm that this picture is unlikely to alter radically at least in the short and medium term, (two to five years). The pattern appears to be one where each major end use sector and its constituent components go through a cycle of upward and downward demand for DC depending upon their product mix and promotional activity. There are few clear examples of long term consistent movement in either an upward or downward direction. The net effect of differing sectorial performance roughly cancel out to generate an overall picture of stagnation.

The lacklustre performance in the past may be partly a reflection of a conservative approach to new product development and to product promotion more generally by a significant number of DC using companies. Perhaps because DC is often only a modest component in products and product mixes there has apparently been little research into consumer conceptions of the commodity. The general trade view is that consumers either like or dislike DC/the coconut flavour, with little grey area between that could be exploited for example by promotion. In some cases the trade view is that the number on consumers with a positive preference for coconut is actually declining. Negative consumer reactions are reported to stem from taste, from particle size and fibrous quality.

A number of companies in the food industry still tend to regard the British consumer as relatively conservative, (despite the evidence to the contrary), and large scale use of DC is confined to a small number of "traditional" products; (Macaroons, "Snowballs", "Bounty" bars and Liquorice Allsorts). This situation may however begin to change as an increasing number of companies take a more proactive approach to marketing. The latter trend appears to be affecting a number of DC using companies partly through recent takeover activity in the industry and also in response to competitive pressures from European firms. In future one may therefore expect to see greater activity with regard to investigation of the functional properties of DC and perhaps in the longer term, to a widening of the range of DC cuts and product forms utilized. In combination these factors may produce some expansion in market demand for DC.

Some major end use sectors and constituent sub sectors tend to follow differing cyclical patterns in terms of the volume of DC required, the following paragraphs summarize trends by major sector and also refer to preferences in terms of origins.

Trade sources in the bakery sector, encompassing both cake and biscuit manufacture, indicate variable expectations with respect to future growth prospects. On balance these expectations point to more or less static demand for the sector as a whole in the short and medium term. Exploration of scope for extending DC usage in functional terms has proved disappointing with market resistance on grounds of taste and texture to a number of new products. Some growth is expected by users of DC in traditional products but it may be that growth for specific companies will be at the expense of competitors market share, with little net effect on overall demand for DC. Limited growth may also arise from new product launches eg "white" Snowballs and wafer biscuits containing toasted DC. There appears to be only a modest export trade in products incorporating DC on a significant scale, and indeed there is evidence that imported macaroons are a growing competitive force.

Most users in the bakery sector now use and prefer Filipino origin material and there is much evidence of a move in the fairly recent past away from Sri Lanka as a supplier. A number of companies also expressed an interest in Ivory Coast material, but the common view was that supplies from this origin were too restricted, partly because of the close contact between Mars and the producing companies in the country. Most companies noted quality factors as the reason for switching to the Philippines as a supplier. In a relatively small number of cases Sri Lankan material remained the preference of end users, this feature applied to producers of "Snowballs" where taste was held to be of importance, and, to a degree, relative price between origins, (since Sri Lankan material currently trades at a significant discount to DC from the Philippines).

The confectionary sector currently appears to offer a more positive picture with selective expansion amongst major companies based upon export of traditional products and new product launches. Traditional items are represented by the Bounty bar (Mars) and by Liquorice Allsorts (Bassetts). New products include a Bounty ice cream and Boost chocolate bar. Whilst not all companies share the same view of growth prospects an overall expansion at around 5% per annum could occur up to 1992. Past experience does however suggest that such gains may be offset in the longer term, in this instance perhaps through a reemergence of health consciousness and a consequent movement away from consumption of confectionery.

Manufacturers in the confectionary sector tend to take DC from a wider range of origins than is the case for bakery products. The main origins are the Ivory Coast, the Philippines and Sri Lanka. Whilst the share of Sri Lankan DC has fallen in recent years there is strong evidence of preference for DC from the origin on grounds of taste, and to a limited degree on price also. A commonly expressed desire was to obtain more DC from the Ivory Coast on grounds of its superior quality in most respects. (However supplies are constrained in part by currency factors, see Chapter 7, France below).

The retail sector is relatively small in comparison to bakery and confectionary usage of DC. The sector has recently experienced a number of changes in company performance with new entrants and own labelling by supermarket chains leading to changing market shares. Some sources expect the trend towards own labeling to be reversed and promotion plans may also affect market share. The sector as a whole is probably declining, perhaps at around 3% per annum at present. Promotional activity may arrest this trend but home baking in general is not regarded as a dynamic sector. In most cases DC is too minor a commodity in companies commodity mix to warrant other than occasional promotion. A cyclical pattern of demand may therefore be expected.

The retail sector also takes DC from a range of origins, but there appears to a tendency towards favouring Filipino material. Ivory Coast DC is also rated highly whilst the volume from Sri Lanka appears relatively small.

Specialist usage of DC include sweetened and coloured DC for retail sale, and also chipped coconut in trail mixes, muesli, and fruit and fibre breakfast mixes. Usage in cereals generally is estimated at only a few hundred tonnes. Trade views on prospective growth for such items are mixed, but on balance some growth may arise. Creamed coconut is a significant component of usage taking a higher volume than that for cereals, serving ethnic (West Indian, Malay and Indonesian) markets where significant growth is not expected. The sub sector however is so small that it will in any event have little impact on total demand for DC.

Over all the prospects for UK DC demand appear finely balanced as a consequence of the differing prospects in end use sectors. In the leading bakery sector little if any growth is forecast and competition from imported products could lead to some fall in demand. The confectionery sector is only a little smaller than bakery in terms of DC use, and definite growth prospects exist. However the picture from the retail end other usage sector is probably negative on balance and hence total market demand may only grow slowly.

The picture with respect to origins is fairly clear cut. If Ivory Coast were able to expand its supply there appears to be little doubt that it could increase its market share unless concerted action was taken by APCC producers to upgrade quality and general market performance. Sri Lanka has clearly lost a substantial part of its former market share and whilst in part this has arisen due to exceptional events in that country in past few years there is unmistakable evidence that failure to improve quality aspects is continuing to damage sales. Whilst taste remains a positive characteristic for Sri Lankan DC it is not important to a number of end using sectors and price discounts against material from the Philippines and Ivory Coast have not prevented a continuing loss of market share. Filipino DC is generally fairly well regarded although rated second in quality after produce from the Ivory Coast.

There seems to be little sympathy amongst the trade for DC from Malaysia and Indonesia, although both origins are much less well known than the three already mentioned. If anything these two origins are rated as the least satisfactory in terms of product quality. There is very little trade knowledge or views on DC from other more minor origins.

## CHAPTER 4

### The market in West Germany and associated countries in East and Central Europe

#### 1. Imports and Importers

West German imports over the six years 1984 to 1989 average between 10,500 to 11,000 tonnes (see Table 9 below). Domestic use is in the large bakery and much smaller confectionary trades, estimated to total some 8,500 to 9,500 tonnes per annum, the remainder being re-exported.

Table 9 Imports of DC by West Germany

1984	9,980
1985	10,660
1986	10,780
1987	14,120
1988	9,200
1989	10,700

Source: National Trade Statistics, 1989 figures are trade estimates based on January to November imports of 9,950 tonnes

Note: Data to the nearest 10 tonnes

Re-exports have therefore averaged between 2,000 and 2,500 tonnes per annum but it is important to note that transit imports through the Free Port at Hamburg are not included in national statistics and it is likely that the bulk of export shipments to East Germany and other, minor, COMECON buyers are routed through the Free Port. Imports in 1987 are exceptionally high due to the failure of a major broker in 1986 which led to deliveries in excess of final demand in 1987.

At present Toepfer and Wuensche, the leading Hamburg transit traders estimate that East Germany buys some 1,300 to 1,500 tonnes of DC via Hamburg traders. (East Germany formerly bought up to 5,000 to 6,000 tonnes per year in the mid 1970's.) Trade estimates for shipments to other East European countries are : Hungary 500 tonnes, Czechoslovakia 300 to 600 tonnes and Yugoslavia over 500 tonnes.

Austria probably imports between 600 to 1,000 tonnes of DC per annum, but a portion of this material may be traded on to Hungary. Both the confectionary and bakery trades in Austria follow German tastes with a preference for almonds and



hazelnuts over DC. A similar situation prevails in Switzerland where imports are even lower than Austria at 500 to 750 tonnes per annum.

The major trends in sourcing over the past four years are shown in Table 10 below:

**Table 10 Countries supplying DC**

	1986	1987	1988	1989
Sri Lanka	7,070	7,400	3,000	4,600 to 4,800
Philippines	2,330	4,700	3,430	4,300 to 4,400
Malaysia	290	1,220	2,190	1,000
Ivory Coast	840	710	350	550

Source: National trade Statistics, 1989 figures based on trade estimates and January to November actual import data

Notes: Excludes minor suppliers  
Data to nearest 10 tonnes

The major trends in sourcing are very clear. Sri Lanka has suffered a loss of market share from the 50 to 60% level to 43% to 45%. West German bakery requirements for quality and strict microbiological and bacteriological control at the mill have been increasingly difficult for Sri Lanka to meet, although in 1989 imports show a considerable recovery in market share over 1988 with the increase in availability of Sri Lankan DC.

Although DC demand is price inelastic overall there is clear differentiation between origins based largely on perceptions of product quality. The Philippines is now the preferred source and Filipino material sells at premia of US\$ 120 to 150 per tonne. A faster growing supplier Malaysia has suffered in 1989 and 1990 from severe operating and quality problems. Malaysian DC currently sells at a US\$ 50 to 60 per tonne discount to Sri Lankan material and the shipment in 1988 of 2,190 tonnes is likely to represent a medium term peak with 1989 imports at only 1,000 tonnes.

## 2. Trade channels and end uses

The leading brokers, importers, transit traders and some packers are all based in Hamburg. There is still a very extensive "paper" market in Hamburg and the Netherlands, which allows the large biscuit and bakery groups, the bakery

wholesale suppliers and cooperatives to cover their requirements up to 18 months forward at guaranteed prices.

The brokers and importers in Hamburg are reputed to work competitively and efficiently. They match deliveries and qualities; deal with quality claims and with other problems. They sell to a large and complex inland bakery market either in container loads or 50kg or 10kg sacks for bakery supply companies or small bakers. They attempt (subject to availability of foreign exchange) to develop the transit trade with Eastern Europe. They also provide the lower quality (lower priced) DC required by the retail chains for packing into 200 gram plastic packs for the home baking business.

An estimated breakdown by sectorial usage is contained in Table 11 below

Table 11 West German market for DC by major sectorial consumers

	Tonnes
Large Biscuit and Bakery units	4,500
Bakery wholesale and small bakers	3,200
Confectionary *	300 to 500
Consumer packs for supermarket distrib.	600 to 800
Cereals, muesli, nut mixtures etc	300 to 400
Total	8,900 to 9,400

Note: \* excludes Mars shipments from Holland

Coconut bakery products are widely accepted in Germany, but are minor items compared to spiced biscuits, sweet biscuits and the very large use of almonds (42,000 tonnes) and hazelnuts (52,000 tonnes) by the bakery trades. The major end users for DC will remain in the baked goods sector:

- Biskuits (biscuits)
- Kokosgebaeck (baked small cakes)
- Makronen (macaroons)
- Nussplaetzchen (flat nut biscuits)

Germany has no Mars manufacturing unit and any attempt to evaluate Germany's per capita consumption would have to allow for 1,500 tonnes or more annually absorbed through "Bounty" shipments from the Mars manufacturing plant in the Netherlands. Otherwise only a very small amount of DC is used domestically in confectionary with Ferrero and Sugro Deutschland producing coconut balls, eggs and coconut chocolate.

Usage of coconut flakes or strips is limited to some topping for chocolate bars and perhaps 200 to 300 tonnes taken for dried fruit and nut mixtures, cereals and muesli. Wilhelm Liebelt GMBH a subsidiary of H Bahlsen the largest biscuit and nut manufacturer in Germany uses only 100 to 125 tonnes of coconut strips in its leading papaya/ banana/ raisin and coconut brand of dried mixed fruits, and DC use in muesli is low.

The home baking trade for consumer packed material is largest in Central and South Germany, but DC use as an accompaniment to Indian and Indonesian food is greater in North Germany and Berlin because of their larger immigrant communities. Overall usage is less than 1,000 tonnes in this sector which tends to take or be given Malaysian and lower grades of Sri Lankan product.

### 3. Quality and marketing issues, the scope for promotion and new product development

Quality requirements in the German market have become increasingly rigorous throughout the 1980's as the German government tightened microbiological and bacteriological control on foodstuffs and food ingredients. The large German bakery and biscuit manufacturers and the bakery supply and wholesale companies have switched from Sri Lankan to Filipino material whilst the supermarket consumer packers for the home baking trade and the smaller bakers have used extra quantities of low priced Malaysian DC. Both sectors switched back in 1989 with better Sri Lankan availability and the big price differential.

85 to 90 per cent of the material required is fine grade. The small volume of Ivory Coast DC shipped is a consequence of the French market having first preference on the origin, (1,500 tonnes of fine). Mars in Slough and Veghel take virtually all the Ivory Coast medium grade. Indonesian quality is regarded as a high risk commodity not acceptable to German end users. Sri Lanka was traditionally the preferred sources with the best taste, but now "Filipino quality" sells even at US\$ 130 to 150 per tonne premium, whilst Malaysian DC is used when "cheap" material is required. Sri Lankan material is usually thought to suffer from among other things:

- Excessively lengthy storage in Colombo
- Delays in containers on the Dockside
- Unfavourable odours
- Oil staining of sacks
- Hardened and lumpy material (not free flowing)
- Ink staining in Bakeries caused by the relabelling of medium sacks to fine and vice versa

Buyers at the large bakeries consider Malaysian DC of even poorer quality than material from Sri Lank and it currently sells at a US\$50 to 60 per tonne discount over Sri Lankan DC. Only some 500 to 600 tonnes of Malaysian DC were taken by the large users in 1988 and the typical Hamburg contract for standard fine cut remains Sri Lankan /Philippines at sellers option. Within this quality framework there are buyers preferences for individual brands such as Peter Paul or Franklin Baker for up to 20 percent of the market, and a remaining 10 to 15 percent in Makronen (macaroons) who want the soft fatty texture and special taste of Sri Lankan material. Despite the problems associated with Sri Lankan DC the origin is likely to be the largest DC supplier in 1989.

Malaysia is reported by trade sources to face continuing severe quality problems and to have shipped material that was for example, overdried and fine cuts too fine for many purposes. The origins market share fell from over 20% in 1988 to under 10% in 1989.

The price levels (fob and spot) of fine cut DC for spot material reflected these patterns in early March 1990:

	US\$ per tonne	
	fob	spot
Philippines fine	760/770	880
Sri Lanka fine	620/630	750
Malaysian fine	560	690

Indonesian material is not wanted by traders whilst because of its poor reputation. Uptake of DC from the Ivory Coast is constrained by both the price premium demanded by suppliers and constrained availability.

There have been several new product initiatives in recent years but the only current development of significance is Ferrero's new Kokos Konfekt which could become a major new user of DC if its European wide launch is successful.

#### 4. Market trends and growth prospects

The market trend in the West German market is considered by all informants to be on a plateau at between 9,000 to 10,000 tonnes per annum. Over the shorter term the hot summer of 1989 has certainly reduced offtake in the baked cake and biscuit sector. Important end use manufacturers have been seeking to delay delivery or roll forward their shipments into the autumn of 1990 and early 1991. It is also thought that coconut products (labelled as high fat) will not benefit from trends towards healthy eating which are being widely promoted in Germany through Women's magazines and television. The

launch of a major new confectionary product by Ferrero "Confetteria Raffaello" traded in Germany as "Kokos Konfekt" using over 20 per cent DC by weight is not likely to alter offtake in an overall stagnant or slowly declining market.

The lack of growth in the West German market may be counterbalanced by the large potential in the DDR (East Germany). The March 1990 election has established that unification has strong popular support and financial union is planned on the basis of 1 Ost Mark : 1 Deutsche Mark in July 1990, subject to regulations concerning personal and Corporate savings. This favourable exchange rate should lead to a pronounced rise in East German spending on a wide range of consumer goods and the largest German supermarket groups Aldi, Tengelmann and Rewa are geared up to operate in the East.

Whilst there is buoyant demand for confectionary and bakery products in the East, initially East Germans are unlikely to consume large volumes of the higher priced almond and hazelnut products and could therefore be expected to increase the offtake of DC. Trade sources estimate that demand could increase from the present level of 1,500 tonnes to the 3,000 to 4,000 tonne level, over the period 1990 to 1992. This increase of 1,500 to 2,000 tonnes per annum is likely to be further enhanced by the extensive sales of "Bounty" planned by the German supermarket groups, making an additional 500 tonnes required by Mars International B.V. in the Netherlands. It is therefore possible that the unification of West and East Germany will lead to a total demand of some 3,500 to 4,000 tonnes by the end of 1992, and additional offtake in the East of 1,500 to 2,000 tonnes per annum. It must however be emphasized that such projections are sensitive to the successful implementation of exchange rate and associated proposals that may arise in the run up to unification. It must also be noted that not all aspects of reunification point towards positive trends, for example, there are fears that the limited productivity of East German industry may lead to rising unemployment with a consequent limitation to consumer spending.

The remainder of East Europe does not offer such an encouraging outlook. Hamburg and Dutch traders do not doubt the existence of demand in Poland, Hungary, Czechoslovakia and Yugoslavia but believe that this group plus Romania and Bulgaria probably took only 1,000 to 1,500 tonnes in total in 1989. The main buyers were Hungary, Yugoslavia and Czechoslovakia, who are all interested in importing additional DC but are unable to generate the required foreign exchange. Poland is potentially a large buyer but faces very difficult economic circumstances that are unlikely to be resolved for some considerable time. East Europe other than East Germany could buy an additional 1,500 to 2,000 tonnes per annum by the end of 1992, rising to a total demand of perhaps 4,000 to 6,000 tonnes per annum by the end of 1995. This expansion may be achieved if barter trade deals can be organized through the

Hamburg transit traders and additional foreign exchange is made available for food ingredients purchases as their economies recover. Table 12 gathers these trends together below:

Table 12 Estimated imports of DC in Germany, East Europe, Austria and Switzerland (tonnes)

	1989	1992	1995
West Germany	9,500	} 13,500	} 14,500
East Germany	1,500		
Other East Europe	1,000	2,000	4,000
to	1,500	to 2,500	to 6,000
Austria & Switz	1,500	1,500	1,500
Total	13,500	17,000	20,000
	to 14,000	to 17,500	to 21,000

Overall, there are good short to medium term prospects of expanding sales in the Eastern part of a unified German republic, barring unforeseen changes to proposed exchange rates and associated measures. In the medium to longer term barter deals and additional foreign exchange earnings should raise imports by other East European countries.

## CHAPTER 5

## The Scandinavian Market

## 1. Imports and origins

The three Scandinavian countries have extremely high levels of per capita consumption of DC whilst Finland has a much lower level of offtake. Figures for gross imports are shown in the table below, but it should be stressed that 1989 data and the Danish figures for 1988 are based upon trade estimates.

Table 13 Imports of DC into Denmark Sweden Norway and Finland

	1985	1986	1987	1988	1989
Denmark	2,090	2,340	2,460	2,500	2,600
Sweden	1,770	1,790	2,090	1,750	1,900
Norway	710	770	860	750	800
Finland	200	250	250	240	250
Total	4,770	5,150	5,660	5,240	5,550

Source: National trade statistics and trade sources

Note: All data to the nearest 10 tonnes

There are signs of steady growth of consumption of DC in both Denmark and Sweden, but both countries have much higher specific duties on both almonds and hazelnuts than West Germany which makes DC more attractive. The details of the Danish fiscal regime are shown in the table below:

Table 14 Duty rates and specific taxes on nut products imported into Denmark

	Duty Rates(%)	Specific Taxes (DKr per Kg)
Hazelnuts	4	12.50
Almonds	7	18.75
Walnuts	8	12.50
DC	0	3.75

Source: Danish Customs Code 1989, (Exchange rate D Kr : US\$ 6.5, March 1990)

These very high specific duties (equivalent to US\$ 2.00 per Kg on hazelnuts and US\$ 3.00 on almonds) makes the bakery industry in Denmark extremely keen to utilize DC in large quantities, whilst there is a similar if less pronounced incentive in Sweden. Danish per capita consumption is the highest in the world ie 2,500 to 2,600 tonnes direct use plus a further 400 to 500 tonnes through "Bounty" imports, being consumed by a population of around 5 million. this is equivalent to a UK consumption of 33,000 tonnes or a West German figure of 36,000 tonnes.

The Scandinavian market has followed the pattern of West Germany in switching from predominantly Sri Lankan material to Filipino DC as the preferred and generally dominant supplying origin from 1985 to 1988. Sri Lanka had 60 to 70 percent of the business ten years ago, but took less than 30 percent in 1988 although there was some recovery in 1989. Several of the biggest bakeries even specify the Filipino brand required, (eg Red V or Franklin Baker).

## 2. Trade channels and end uses

Denmark has close relations with Hamburg whilst Sweden, through either the ports of Malmo or Gothenburg can readily be supplied from the German spot market. Both countries now buy 60 to 70 per cent of their requirements from origin in the Philippines or Filipino material from the Hamburg spot market, which is often the cheaper solution.

The breakdown between sectors in Denmark and Sweden shows a heavy bias to the bakery sector, as shown in the table below.

Table 15 Breakdown of DC by major end use sector

	Denmark	Sweden
Large bakeries	50	60
Small bakeries	25	20
Home baking	15	10
Confectionery	5	10
Others	5	-

Source: Trade estimates

Over the last 10 years the major growth sector has been the large biscuit and cake companies, particularly in Denmark.



Companies such as:

Danish Fancy Food Group  
 Dansk Biscuit Company  
 Karen Volf A/S  
 Dan Cake Give A/S  
 Bakkegaardens Bageri  
 Elvirasminde A/S

have expanded their market share and also developed export markets , although largely in butter cookies and not baked coconut cakes and biscuits.

One of the leading importers stated that Filipino fine grade is preferred by the big bakeries and biscuit companies making:

Kokostaenger (flat biscuits)

or

Kokoskranskeger/ Kokostoppe (coconut rockcakes)

Sri Lankan material is regarded as an important blending product to reduce overall ingredients costs in biscuits or cakes and is largely imported for bakery wholesalers or cooperatives. The latter repack in 10 kg bags from 50 kg sacks to supply small bakeries.

Home baking can take a medium cut from the Philippines or from other sources but the total offtake in this sector is limited to between 300-400 tonnes in Denmark, 300 tonnes in Sweden and only 100-150 tonnes in Norway.

The confectionary sector is limited. Some small companies manufacture coconut bars coated in chocolate , there are bars with coconut topping and chocolate cakes with coconut topping, but the dominant bar is "Bounty" in either milk or plain chocolate. The latter sell some 300 to 500 tonnes in DC equivalent in both the Danish and Swedish markets.

### 3. Quality and marketing issues, the scope for promotion and new product development

Quality is not regarded as a serious problem with current suppliers. However trade sources do have reservations relating to a number of origins. Sri Lankan DC is perceived as having bacteriological and other problems as well as quality difficulties caused by storage and shipping delays. However it is generally preferred on taste grounds. Ivory Coast material is not available or not known to bakery users. Quality problems with Malaysian and Indonesian DC make buyers most unwilling to switch from Filipino material even if offered large discounts.

Most home baking packers (200 gram size packs) ,take the lowest quality, although even here Nordisk Audelsforbund buys Filipino material. The small bakeries supplied by bakery wholesale companies buy Sri Lankan or Filipino fine cuts while the largest bakery and biscuit groups often specify their brand requirements and buy from origin or through Hamburg.

Trade contacts did not regard marketing issues as being significant since the existing channels eg through proved adequate to meet their needs.

#### **4. Market trends and growth prospects**

The market trend in Denmark and Sweden has been for steady growth of 10 percent over 5 years to reach 5,500 tonnes for all Scandinavian markets in 1989. However this feature is undoubtably caused by the very high specific duties which restrict bakery and biscuit manufacturers access to hazelnuts and almonds.

The introduction of EC markets in 1992 could bring about a phasing out of these high specific duties causing a cessation in growth for DC. Both Denmark and Sweden have a taste for coconut , but Swedes eat only half as much DC as Danes in per capita terms , Norwegians only consume at 15 to 20 percent of the Danish level and Finns at 5 percent. The outlook for growth in Scandinavia is therefore poor and it is likely that consumption levels will fall from the 1988/89 peak of 5,300 to 5,500 tonnes.

## CHAPTER 6

### The market in the Benelux countries (Netherlands, Belgium and Luxembourg)

#### 1. Imports and origins

An analysis of the Benelux market is complicated by the location of Mars International's European factory in the Netherlands at Veghel and by the high level of trade in food ingredients and manufactured baked goods between the Netherlands, Belgium and Northern France.

The Table below shows Netherlands exports and re-exports and estimates the apparent consumption in the Netherlands. A subsequent Table will show the figures broken down into Mars and non-Mars offtake.

**Table 16 Netherlands imports, re-exports and apparent consumption of DC**

	1985	1986	1987	1988	1989
Imports	10,150	11,280	12,490	12,250	12,000
Re-exports	2,250	2,810	2,690	2,680	2,800
Consumption	7,900	8,500	9,800	9,600	9,200

Source: National trade statistics, 1989 data are provisional

Dutch usage is generally considered static after 1987, although there is little doubt that Mars offtake has been growing steadily over the last 5 years. An attempt is made in the Table below to estimate Mars and non-Mars offtake in the Netherlands:

**Table 17 Apparent consumption and estimate of Mars and non-Mars offtake in the Netherlands DC usage**

	1985	1986	1987	1988	1989
Apparent total Consumption	7,900	8,500	9,800	9,600	9,200
Mars	4,000	4,400	5,500	5,500	5,000
Non-Mars	3,900	4,100	4,300	4,100	4,200

It is suggested that the Mars offtake in 1989 was significantly reduced by the very hot summer. Consumption in the bakery and biscuit sector has been sustained by a big expansion of exports of "own brand" macaroons (plain and with chocolate, ginger, raisins etc), to the UK supermarket groups such as Sainsburys and Tesco. (It is thought that this could account for 300 to 400 tonnes of Dutch usage in 1989 and has continued to grow in 1990. Dutch consumption in 1990 is likely to recover to the 9,500 to 10,000 tonne level of 1987 and 1988 if normal weather conditions prevail.

The Belgian market is small, but an apparent consumption figure is more difficult to work out and Table 18 below only shows the erratic trend in imports.

Table 18 Belgian imports of DC

	1985	1986	1987	1988	1989
Belgium	1,810	1,860	2,050	1,410	1,500

Source: National trade statistics, 1989 data are provisional

It is not possible to be sure that the Belgian statistics are representative of usage and the rest of this section will refer to the Benelux countries on the basis of Dutch trade research, although the Belgian manufactured products are important.

The most significant changes in sourcing are shown in Table 19 below. 1984 and 1988 imports are shown, but it is impossible to handle re-exports which are not shown in published sources by source, only by destination.

Table 19 Dutch imports by country of origin

	1984	1988
Germany	430	610
Ivory Coast	1,270	1,750
Sri Lanka	2,570	2,570
Malaysia	470	560
Philippines	3,340	6,030

Source: National trade statistics (excluding minor suppliers)

Sri Lanka's market share has fallen from 30 percent in 1984 to 20 percent in 1988. The Philippines has taken almost 70 percent of the growth in the market, both to Mars and the large bakery groups. The Ivory Coast has suffered a very small loss in market share from 16 to 14 percent and supplies almost entirely medium cut to Mars. Malaysian DC is offered

as a grade for repacking and Indonesia fine quality is available, but supplied only 100 to 200 tonnes in 1989. The Price structure is broadly the same as in Germany :

Philippines fine US\$ 750/760  
 Sri Lankan fine US\$ 600/620  
 Malaysia fine US\$ 540/545

(all prices are for spot material)

Usage of medium cut is very limited outside Mars International and is only required as a topping for chocolate bars, cakes and biscuits. Overall the non-Mars market is 85 to 95 percent fine grades.

## 2. Trade channels and end uses

Marketing arrangements are standard in Holland with large brokers and importers interacting with the bakery wholesale trade to deliver the required product to leading industrial consumers.

Brokers act for individual mills in the Philippines and individual mills and shippers in Sri Lanka and Malaysia. They cover the Netherlands, Benelux and a number of other European markets. Importers secure the required qualities and sell within Benelux and to Northern France and parts of Germany. Importers buy direct from origin and can offer quality premia for good quality as well as forward cover for 18 to 24 months ahead to big end users.

The dominant end use sector in Holland is the large scale bakery sector producing Rochers (without chocolate), Congolais (with chocolate) and macaroons (plain or with ginger, raisins or chocolate). Biscuits are also of major importance but as in France such items use only 12 to 20 percent by weight compared to 20 to 30 percent for the Rochers and other cakes sector.

The small scale bakery sector takes 10 kg bags, but virtually all the rest of the bulk trade is in 100 lb (45.5 kg) paper sacks, although Sri Lanka ships some 50 kg sacks. Usually the bakery wholesale trade (and the small bakers ) are less demanding on quality than the larger industrial manufacturers of branded or own label products, (for Albert Heijn in Holland and Sainsbury etc in UK). An estimation of usage by sector is shown below in Table 20.

**Table 20 Estimated end use by major sector (non-Mars) in 1989**

	tonnes
Large bakery and Biscuit Cos.	2,800
Small bakery and wholesale suppliers	600 to 800
Home baking/consumer pack	200 to 300
Confectionary	200
Chinese and Indonesian food usage	200
<b>Total</b>	<b>4,000 to 4,300</b>

Source: trade estimates

### 3. Quality and marketing issues, the scope for promotion and new product development

Quality considerations are easily summarized. The Ivory Coast material is hardly ever seen, but is known by the trade to be of excellent quality.

Indonesian material is regarded as very poor indeed and is rarely accepted other than for use in Indonesian/Chinese market for coconut cream or for use with curries. (1988 imports were only 60 tonnes). Malaysian mills are regarded as very unsatisfactory and the material is mainly repacked for the small bakery and home baking consumer packs. Mills are reputed to lack the proper machinery and manufacturing knowledge. Quality control is reported to be very limited and there have been instances of mixing defatted coconut in with consignments of ordinary DC. Product quality is generally perceived as being poor and inconsistent with the supply of material that may be yellow and soapy. However some shippers do deliver reasonable quality product usually through Singapore traders.

The Philippines standards are reported to be excellent with Sunripe and Franklin Baker as leaders, followed closely by Fiesta, Red V and Peter Paul.

Sri Lanka suffers from too many mills according to trade sources, together with too many brokers and exporters. There are said to be bacteriological problems, multi-mill per container shipment problems, and storage problems which cause fat-stained bags and lumpy product. The largest users prefer not to take risks with such material, but others do take Sri Lankan DC to reduce the costs of recipes by blending with branded Filipino material.

Many brokers and some importers would like to deal with Sri Lankan mills directly and some are prepared to pay premia of

US\$ 40 to 70 per tonne in order to secure Filipino quality from the best Sri Lankan mills. Mill rationalization and modernisation are mentioned as desirable developments as is the possibility of reducing the number of middlemen in the business in Sri Lanka. Both Sri Lanka and Malaysia are very unlikely to improve their market share in Benelux countries until they can deliver a higher and more consistent quality product on a regular month to month basis.

Marketing and promotion activity and new product development has been limited in Holland, but the expanding export of macaroons over the past 2 to 3 years by marketing groups of bakeries has become an important source of growth in offtake.

#### 4. Marketing trends and growth prospects

The Dutch market other than the Mars sector is static at some 4,000 to 4,300 tonnes which is almost wholly taken by the bakery sector. Competition from French and Belgian companies is extremely fierce and the level of imports of DC is only sustained by increasing exports of biscuits to Belgium and France and macaroons to the UK. It is said that the current level of prices to Sainsbury's and Tesco are too low to enable UK bakery and biscuit groups to compete, but Dutch Kokoskransen (coconut macaroons) do not at D Fl 1.49 (45p for 8), Alfred Heijn, compare unfavourably with D Fl 1.86 (62 p for 6) at Tesco. Growth prospects in the Dutch market are poor because of competing products and low cocoa and almond prices at present. The trend to healthy eating is also a negative factor reducing demand for cakes and biscuits.

Individual cake or bakery companies in the Netherlands, France or Belgium may grow with keener marketing (improved branding, packaging and distribution), and gain extra market share or expand exports to the UK or Germany. However, the overall market usage (4,000 to 4,300 tonnes in the Netherlands, 1,500 tonnes in Belgium and 4,500 tonnes in France) has remained stable over the last three years (1987 to 1989).

## CHAPTER 7

### The French market

#### 1. Imports and origins

French imports have undoubtedly risen steadily from the levels of the early 1980's. The three years 1980-1982 saw average imports of 4,750 tonnes whilst in the latest three years to 1989 the total was 6,100 tonnes. Imports are shown in the Table below.

Table 21 French imports of DC

	1985	1986	1987	1988	1989
France	5,130	5,390	6,210	6,180	6,140

Source: National trade statistics

Note: All figures to the nearest 10 tonnes

The growing interpenetration of the bakery and biscuit sectors in Belgium, the Netherlands and France increasingly make the national import figures less significant as a guide to DC consumption. DC imported into Rotterdam may be sent to bakeries in northern France and then exported to Belgium or back to the Netherlands. Bahlsen of France sells to Bahlsen West Germany and Dutch bakers sell macaroons to France and the UK.

The French import trade has expanded as a result of expansion in offtake from the bakery and biscuit sector, producing coconut cakes (see below) of various sizes and biscuits with up to 25 percent DC content. This growth has been supplemented by white coconut chocolate from Suchard (Strasbourg) and a gourmet coconut milk and DC ice cream from Gervais - Findus (a Nestle subsidiary).

The pattern of supplying countries is different in France. Very little medium cut is required by the bakery trade, but some is used for homebaking consumer packs of noix de coco rapee. France is the major user of Ivory Coast fine grades, which are available in limited quantities, (2,500 to 3,000 tonnes per annum), with the bulk of medium cuts (some 4,500 to 5,000 tonnes per annum) taken by Mars (UK and the Netherlands). The confectionary trade takes a limited amount of medium grade for chocolate bar topping, but fine cuts take 85 to 90 per cent of imports.



The breakdown of imports by origin is shown in Table 22 below.

**Table 22 France : DC imports by origin, 1989**

	Tonnes
Ivory Coast	1,500
Sri Lanka	2,500
Philippines	1,600
Malaysia	400
Others	130
<b>Total</b>	<b>6,130</b>

Source: French customs statistics, (provisional), supplied by Navimpex SA

Sri Lanka has held its share in the French market better than in other EC countries. The trade attributes this to three factors:

1. Supply of Ivory Coast fine grade is constrained by production capacity
2. Philippine and Ivory Coast prices are much higher than those for Sri Lankan material
3. The traditional bakery trade and bakery wholesale supply plus homebaking and the North African immigrant community demand less strict quality, and find Sri Lankan taste both familiar and acceptable.

Malaysian DC is regarded by trade sources as of very limited acceptability and suited for use by less quality conscious consumers.

## 2. Trade channels and end uses

The French import trade is dominated by one or two large importers, who handle Ivory Coast and Filipino material, but substantial sales are also made by Dutch importers into northern France. Only the south of France and the homebaking sector supplied through Marseilles is handled by the traditional importer/packers.

It is possible to provide a better breakdown of end uses in France than in other markets since better information was available and there has been a flow of new products using DC,

fresh coconut, coconut milk and flavour over the past 3 to 4 years. The breakdown of end uses is shown in the Table below.

Table 23 Estimated end use of DC by major end use sectors

	Tonnes
Large bakeries and biscuit groups	4,300 to 4,500
Medium and small bakeries	400 to 500
Chocolate and confectionary	400 to 500
Home baking (consumer pack)	500 to 600
Immigrant market	200 to 300
Ice cream	200 to 300 *
Total	6,000 to 6,500

Source: Trade estimates

Note \* includes 100 tonnes of coconut milk

The major users are bakery groups preparing large or small mounds of coconut known as Congolais, Rochers or Noumeas. The percentage of DC used in these products ranges from 27 to 35 percent of final weight. These products are also prepared by the small bakeries and recipes for them are printed on the back of consumer packs. The immigrant groups from North africa make these products and other highly coloured baked goods using DC. The biscuit companies tend to use lower percentages of DC, eg 15 to 24 percent by weight. There are 10 major baking companies operating in France including:

- Bahlsen (France)
- General Biscuit
- Biscuiterie St. Michel
- Societe Loridan
- Societe Vander
- Belin Nabisco

These companies are in many cases linked internationally and by achieving supermarket distribution have continued to evade the small bakery and home baking sector's share of the DC market.

Both the home baking and immigrant market use are relatively small but the latter has continued to rise and may be underestimated.

### 3. Quality and marketing issues, the scope for promotion and new product development

Quality was not considered a major problem in France by trade sources. Chocolate and ice cream only utilize the best grades of material. Filipino and Ivory Coast material was considered excellent by all importers and users contacted during the study. Sri Lankan DC was fully accepted by a part of the large biscuit and bakery sector, the small bakery and consumer packers, partly on grounds of preferred taste. Malaysian material was not highly regarded and felt to be suitable only for supermarket discount packs and the lower level of industrial user.

Contacts made during the study did not rate marketing chain issues as being of any significance. Promotion of DC within France is however quite extensive through a wide array of new products. Traditional coconut cakes have been developed by the large bakery groups and biscuit companies. The range of new biscuits using DC distributed through supermarkets is most impressive. Suchard's white coconut chocolate and Gervais coconut ice cream both show the extent of innovation and market development. There are also plans for launch of "Coconut Confectionary" by Ferrero in France in 1990.

### 4. Market trends and growth prospects

Despite recent expansion and increasing diversity of products using DC the French market is not expected to increase significantly from the 6,000 to 6,500 tonnes level during the next 3 to 5 years. Per capita consumption might however be raised by expansion of "Bounty" sales or the introduction of a Mars ice cream (following the highly successful launch of the product in the UK in 1989).

Constraints on future growth arise from several factors. New products may continue to be developed but these now tend to replace existing items, for example a product promoted by supermarkets may displace items marketed by the small bakery sector. With the growing integration of the Benelux market there is also growing competition from manufacturers of bakery products in the Netherlands and Belgium.

## CHAPTER 8

### The Australian Market

#### 1. Imports and origins

The Australian market is the largest single country market outside North America and Western Europe and in recent years has shown a significant growth in requirements. Its size is now similar to if not above those of the leading continental European markets of West Germany and the Netherlands. The market exhibits some similarities to those of both North America and Europe whilst retaining other distinctive features.

Total imports in recent years have grown to over 9,000 tonnes following a sharply upward trend of between 4 to 5% increase per annum during the decade to 1988. (see Table 24) This trend has been fairly consistent over the period although occasional year on year fluctuations are apparent.

**Table 24**                      **Imports into Australia**  
(annual averages over 3 year periods)

	Tonnes
1966/68	5,568
1976/78	6,203
1986/88	9,124

Source: National trade statistics

The strong performance of this market in the 1980s' is partly attributable to the establishment in the early '80s of a production facility by Mars manufacturing "Bounty" bars. Growth is also attributable to expansion in the confectionary sector more generally, and to a more limited extent by growth in requirements for bakery items. In the past few years there has been expansion in demand for fancy cuts although trade sources are divided as to whether this has substituted for demand for other grades or has led to market expansion. A final factor reported by trade sources is growth in exports of final products containing DC to other countries in the region, notably New Zealand and Malaysia.

The composition of imports by supplying countries is shown in Table 25. The table shows the predominant position of the Philippines as a supplier, with modest

volumes from Sri Lanka and only small quantities from other exporters in the region (Malaysia, Indonesia and Tonga). Composition of imports has fluctuated over the years and during the 1960s' major suppliers included both Sri Lanka, Tonga and Papua New Guinea (PNG). Closure of the plant in PNG and difficulties over supplies from Tonga subsequently led to an expansion in Filipino market share. Sri Lanka has lost share although its volume of trade has varied significantly over the past two decades.

Table 25 Australia : DC imports by origin 1986/87

	Tonnes	Percent
The Philippines	6,730	76
Sri Lanka	1,290	15
Malaysia	220	2
Others	640	7

Note: All data to nearest 10 tonnes

Current trade views are that Filipino material will predominate, but interest in DC from other sources has been expressed where quality can be assured. The Ivory Coast plays no part in supplying the market owing to its unfavourable location and constrained availability.

The Australian market is primarily supplied with fine grade DC which is used extensively in the retail pack and bakery sectors, and accounts for 65% of total import volume. Medium cuts account for a quarter of the market and are used very largely in the confectionary sector. In the last few years fancy cuts have grown to around 10 % of the total for use in a variety of minor end use sectors.

Trade sources indicate that there is relatively little price sensitivity in absolute terms by major users of DC, ie quite substantial changes in international prices have little effect on total demand. Users are however sensitive to relative prices for a given quality between origins.

## 2. Trade channels and end uses

There have been significant changes in the companies participating in the importation of DC in recent years

and most recently changes in manner in which trade is handled. A number of trading companies have left the sector and up to a few years ago a single company accounted for around 75% of imports, with two smaller trading firms covering most of the remainder. Most recently there has been a move by a number of major users to deal through brokers and trade sources estimate that around 40% of imports are now handled in this fashion. This move has been prompted by what are reported to be low margins charged by brokers for their services which importers have found difficult to match.

Major importers have developed close links with suppliers in the Philippines but may consider other origins especially where quality is assured. It is understood that the Mars plant purchases DC via its European operations.

Major importers and also some users visit supplying origins to ensure that full quality requirements are being met. Most major participants in trade undertake testing of material although in some cases this is only done if there is felt to be a problem.

The major end using sectors and current share of total DC usage is shown in Table 26

Table 26 Major end uses in the Australian market

	percent	tonnes
Confectionary	38	3,000
Retail	30	2,400
Bakery	23	1,800
Other	10	800

Note: Retail includes small volumes supplied to institutions

Confectionary and retail packs are the most important sectors in the market with bakery of lesser significance. The large share of retail packs is similar to North American patterns of usage, whilst the strength of confectionary points to similarities with the UK.

In the large confectionary sector both Mars and Cadbury are major players marketing "Bounty" and "Cherry Ripe" bars respectively. There are quite a wide variety of further products including nougats, fruit puree/DC bars and "Coconut Roughs". Liquorice allsorts, similar to

those marketed in the UK are available. Medium cut DC is principally used together with some fine, with certain products also incorporating toasted DC.

Retail pack DC is principally used in home baking including a local specialty ie Lamington cakes (types of sponge coated with jam/DC). Less significant uses include incorporation into salads and fruit salads and in savoury dishes including specialist or ethnic cooking.

The bakery sector utilizes DC for the production of Lamingtons and also as a topping on other cakes. Small cakes include snowballs (similar to the product produced in the UK but with a biscuit base) and macaroons. A wide variety of biscuits are produced, eg oatmeal, chocolate, creams and macaroon biscuits that incorporate varying proportions of DC.

A small but apparently rapidly growing sector covers a range of products incorporating fancy cuts. These items include health foods, breakfast cereals, muesli, nut bars and nut mixes. Part of such demand has developed from Sanatorium shops (associated with the seventh day adventist church), which traditionally promote vegetarian and generic health foods. These have most recently been absorbed by the supermarket sector which is reported to have assisted in market expansion and promotion.

International trade plays only a modest role affecting production and marketing of final products incorporating DC. Only a few items appear to be imported whilst Australia is reported to be increasing its role as an exporter to countries in the region such as New Zealand and Malaysia. The net effect of these movements is difficult to quantify but have probably enhanced imports of DC itself in recent years.

### 3. Quality issues

Quality problems most frequently noted by trade sources including end users were salmonella contamination, "poor quality", and oily DC. Paradoxically the Philippines which is regarded as the supplier of superior quality DC was also quoted most frequently with respect to quality problems.

Salmonella represents the most serious problem with regard to consumer welfare and potential reputation of the material. Recent cases of contamination were reported by trade sources from a number of origins leading to rejection of consignments.

Somewhat ill defined problems broadly expressed as poor quality encompassed aspects such as contamination and high bacteriological late counts. Again these problems were associated by trade sources with all major origins supplying the market.

Oily material was a frequently quoted if less serious quality issue relating to more to usage in particular sectors, eg a major retail packer required free flowing material. This issue was raised most often in the context of DC from Sri Lanka, but also applied to Filipino material.

Relatively less significant issues quoted by trade sources were colour (quoted in the case of Sri Lankan DC), uneven moisture content and mixed shipments (both quoted for Filipino material).

Qualities most sought after by users after bacteriological integrity were colour and to a lesser degree, taste. Both the latter characteristics were of particular importance to the confectionery sector.

Although the most negative comments applied to Filipino material the latter was nonetheless regarded as the best quality source for DC. Most importers and users however were also quite prepared to deal with other origins so long as quality was assured. In the latter context trade sources reported that very few Malaysian and Indonesian producers reached such standards.

#### **4. Marketing issues, the scope for new product development**

In a number of instances marketing difficulties were of as much concern to importers and end users as issues of quality. Reliability of supply represented a major concern to a number of trade sources with difficulties reported with respect both to the Philippines and Tonga. Consistency in meeting contractual obligations was also raised as an issue in the context of supplies from Sri Lanka and Tonga. The Philippines is understood to enjoy advantages in shipping costs over Sri Lanka and Indonesia because of transshipment costs through Singapore and Surabaya respectively. However trade sources pointed out that more competitive pricing at origin by Sri Lankan suppliers acted as an offsetting factor.



The potential for promotion of DC on a generic basis did not appear very strong on the basis of views of trade contacts. Most products incorporating DC in the Australian market are well established items and their appearance to be little inclination to make major initiatives in the field of new product development. An exception is provided in the area of fancy cuts where a number of items have recently gained wider acceptance on the market. On the basis of experience elsewhere however it is not clear that sustained growth is likely since, for example, incorporation into breakfast cereals has soon reached a plateau in other countries covered by this study.

## 5. Market trends and growth prospects

Given the strength of expansion in requirements for DC over the past decade it was a little surprising that trade contacts consistently regarded current and prospective market trends as flat. To the extent that growth might arise it was expected that this would simply mirror population increase.

Past growth was attributed to the establishment of the Mars processing facility, to expansion in confectionary more generally, to more modest growth in bakery and to the expansion of usage in fancy cuts; although there was some disagreement amongst trade sources as to whether the latter simply occurred at the expense of other DC use. The development of exports of DC containing products was also seen as a vehicle promoting expansion of DC requirements. Of all these historical factors only the last named, expansion of trade, was seen as likely to continue with the same strength in coming years.

On the evidence of trade views future growth in Australian DC requirements is likely to become quite restrained. It is also true to say that DC is regarded as a rather risky commodity given the dangers of contamination and poor bacteriological integrity. Some sources pointed to the dangers of highly adverse consumer reactions if future problems arose in products containing DC.

## CHAPTER 9

### Conclusions and recommendations

#### 1. Introduction

Although there are a few areas where modest growth in requirements for DC are forecast, notably in Eastern Europe, the overriding picture which emerges for the major markets studied is one of a static level of demand. Even where significant growth has arisen in the recent past as in the case of France and Australia, trade sources do not expect such trends to continue in future. Outside of the major markets there are few obvious areas of expansion and in any case most individual country markets are quite small. Markets in major consuming countries are also increasingly sensitive to quality issues and there are real dangers that, for example, problems arising from bacteriological contamination in a few shipments could prejudice the market as a whole. (Because of the importance attached to quality, Appendix 3 of this study provides a specific guide to the issues involved).

The relative stability of demand for DC is in contrast to the pattern of recent supply, where a number of major changes have arisen which now point towards a significant expansion in capacity. During the past decade Malaysia has emerged as a major supplier of DC with around 10% of global net exports and Indonesia has an industry of similar size but with substantial unused capacity. In both Sri Lanka and the Philippines net expansion in capacity is occurring as a result of new investment. Whilst trends in availability have also been affected by erratic fluctuations it appears that the market has generally faced excess supply in the past few years which has had a strongly downward effect on DC pricing. If existing and currently planned DC capacity are brought into full use without closures elsewhere then such downward pressure on pricing is likely to become much more acute.

It could be argued that a variety of possibilities exist for the promotion of DC marketing which could expand demand, but in practice the possibilities are confined. The opportunities for development through research and development, promotion, alternative marketing strategies and new product development are all constrained, as will be shown in the sections below.

## 2. Research and development

Research and development options extend from the production process, including raw material qualities, through the output of different cuts and grades and the scope for development of packaging and shipment. Development of new products incorporating DC is treated as a special case and dealt with in a separate section, 5, below.

With regard to the production process, whilst the respective production technology employed differs between the major producers, it does appear to be relatively well established and proven. Smaller processors however, may benefit from:

- improvements to the sterilizing and drying regimes employed
- reducing the amount of manual handling inherent in their batch-type procedures

Technical developments concerning these aspects are likely to raise overall product quality standards, which are seen as an increasingly necessary requirement for the future.

A further area that might warrant some investigation relates to coconuts themselves where little if any research appears to have been done to examine the implications of differing varieties on DC quality and characteristics. Research on the manufacture of DC from nuts of varying maturity may also prove worthwhile in view of likely textural, taste, compositional, and functional differences in the products arising. A successful outcome to this research would result in an alternative "DC product" which could help to expand current market levels. However, use of immature nuts would significantly reduce outturn and hence require higher unit pricing of end product.

There are a wide variety of cuts or grades that can be produced and it would appear that the scope for further development in terms of particle size and shape, fat content, colour, addition of sweetening, tenderizing, toasting and so on is largely exhausted. There may still be a little that can be done at the outer margins of products that can reasonably be called DC eg with regard to defatted DC with added fruit flavouring, which could be assessed in the context of options such as colouring, sweetening and toasting or tenderizing. Such options are really within the field of new product development.

Packaging and shipment practices appear to provide some scope for research and development, although industrial best practice appears to have accounted for most of the improvements that can realistically be expected. There may be scope for developing optimal export pack shapes and sizes, specifically designed to maximize product quantities carried by containers.

As a precursor to options that can be examined for new product development (section 5 below), it may be suggested that research is undertaken into consumers basic perception of DC in a selection of the major importing countries. During market surveys it was widely reported that consumers either strongly liked or disliked the coconut taste, and whilst some companies had investigated the margin of this observation no serious investigation has been carried out. Study of the polarization of consumer taste might reveal factors that could be addressed by marketing strategies to extend the market for DC. Even a negative outcome would at least provide a guide to the appropriate scale of promotional effort.

It is suggested that an investigation be funded by producers via the APCC and should encompass consumer perceptions of both taste and texture of DC. Taste perceptions could be assessed in the context of flavours known to be highly popular such as chocolate and vanilla. Trials could be undertaken in two or three of the major importing countries in Europe. The methodology adopted should be via taste panels (covering say 100 consumers in each country covered), coupled with investigation of any secondary data that is available.

### 3. Promotion

A variety of options are available for the promotion of DC. Generic promotion may be felt to be worthwhile on a national or regional basis. Promotion may be targeted at specific sectors or market segments, and a variety of bodies or agencies could be involved in funding and implementation. Alternatively, promotion may be geared towards specific functional properties of DC known to be of interest to specific end use sectors.

Trade sources in most instances did not rate generic promotion as a particularly attractive option. Although promotion itself is a recognized requirement to sustain the material in the market place most contacts stressed the cost, uncertain outcome and need for repeated promotions to sustain any impact.

The consumer image that DC can present and sustain may be less than wholly positive. On the positive side the product can be promoted as natural, free from additives (depending upon use of SO<sub>2</sub> and associated labeling regulations), and with a tropical image. For the health conscious its high fibre content may be a plus factor, however health aspects are also an area where, rightly or wrongly, DC may score badly. A major issue relates to its saturated fat content and high fat content generally, and the product is also frequently associated with a sweet image. Finally DC has often been associated with a poor sanitary image, which represents a particularly sensitive area for consumers in the markets studied, and one of growing importance.

Promotion of specific qualities of DC to sectors known to require such functionality does not appear to be a viable option that could enhance the marketing of DC. The main reason for this conclusion is the relatively marginal role, particularly in cost terms, that DC plays in the majority of product formulations. Confectionary may represent a partial exception since DC is a major component in a small number of major products, but in these cases DC is so well known that generic promotional activity is unnecessary.

A final factor is that generic promotion may also benefit non-APCC suppliers of DC to the extent that promotion is effective.

#### 4. Marketing strategies

An array of strategies are available for enhancing the marketing of DC which take into account differing objectives, eg :

- expanding the relative market share of APCC against non-APCC members in supplying specific markets
- development of specific geographical markets
- concentration on particular quality segments, and grade or product ranges
- combinations of these options.

The scope for expanding the market share of APCC countries is constrained by the fact that they already supply the greater part of the market, with over 90% of the global net total in 1986/88. The most significant non-APCC member is the Ivory Coast which has a very high reputation for quality and reliability and whose market share is therefore quite secure. The origin also

maintains close relationships with certain major users who are unlikely to be persuaded to switch to other suppliers. A number of small scale central American producers would also be difficult to dislodge since they provide a minor but useful strategic option for buyers in North America.

The options are limited for expanding markets on a geographical basis (rather than simply exchanging share between APCC members). Only Eastern Europe really offers a significant opportunity. Within East Europe East Germany, soon to be reunited with the Federal Republic, offers the most immediate opportunity. Producers of DC planning to develop or expand sales in East Europe are advised to work principally through the large trading companies in Hamburg such as Toepfer and Wuensche, who can arrange financing and transport in a very complex market area. Sales opportunities through countertrade should not be overlooked, and Austrian trading companies can be contacted to exploit opportunities in Hungary. The most immediate opportunities are likely to come from sales in East Germany through Aldi, Rewa and other supermarkets and bakery and confectionary factories.

In major "Western" markets there may be some potential in exploiting the slowly moving trend towards higher quality. This market segment holds out the attraction of price premia, although there is also considerable danger that over rapid expansion in supplies will lead to a rapid erosion in price advantage. A desirable component in any move towards supplying quality conscious markets is the development of much closer knowledge of end user needs on the part of individual suppliers. The latter need places a premium on personal contact and trust and an ability by the supplier to respond reliably in meeting customers demands. Even relatively simple matters such as the development of standardization on cuts/grades between both producing and consuming countries may assist, (Appendix 3). Standardization between producers could be an area where the APCC takes the initiative amongst its members in proposing a concrete series of steps that can be taken towards achievement of this objective.

Smaller producing companies may find it difficult to develop and sustain the cost of contacts with buyers and under these circumstances national coconut bodies could play a role. The possibilities for this option are considered later in conjunction with other marketing initiatives national bodies might undertake.

An alternative or additional option is for suppliers to focus upon markets with less rigorous quality needs and which are currently exhibiting a degree of market

expansion. The most clear examples of such markets appear at present to be drawn from selected higher income countries in the East Asia and Latin America. One difficulty with this approach, aside from the possibility of lower margins, is that competitors may undercut by cutting corners on sanitary aspects of production which may ultimately jeopardize the market more generally. It may be worthwhile for the APCC to commission studies of these markets together with those in Middle Eastern countries. In the latter region a significant period of growth up to the early 1980's has been curtailed following the less favourable circumstances in international oil markets. An investigation of the market could identify the scope for a revival in growth.

There may be thought to be some scope for extending the range of grades or cuts taken by specific markets, this approach being a possible component of extending geographical markets noted above. The scope for extending the acceptability of, for example, fancy cuts has already been noted as constrained, partly because it is simply not usually sensible to extend the unmodified experience in one market to another. In a number of instances grades are produced in the consuming countries (eg toasted DC). In these cases the scope for expanding returns for APCC suppliers is limited to the difference in net margins between "basic" DC grades and more heavily processed items.

The marketing chain between DC producers and final users varies considerably between differing supplying countries and also with respect to some of the major importing nations. Relatively simple marketing chains which minimize the number of intermediaries clearly offer an opportunity to reduce the differential between ex-factory and end user prices. However, there is a danger that apparently over complex chains will be regarded as ripe for simplification because of poor appreciation of the real functions and services provided by differing types of intermediary. Nonetheless it does appear that in some cases there is scope for rationalization, especially on behalf of smaller producing companies. This option is considered below in the context of initiatives which national coconut agencies could undertake.

The operations of importers/brokers in importing countries have been criticized by a number of suppliers. These individuals have expressed the view that the limited number of firms operating in, for example the major European markets, leads to a degree of collusion. As a consequence these suppliers allege they are obliged to accept lower prices and/or provide a greater range of forward price spreads than they would prefer. Such views however, need to be balanced against those of the importers and brokers in the major markets who have noted

difficulties with suppliers in terms of meeting contractual requirements. These same sources refer also to problems of product quality as fundamental in determining relative pricing between origins.

Specific national coconut agencies are only established in some of the major APCC DC producing countries. There would appear to be a case for establishing such bodies where they presently do not exist for reasons that extend well beyond the remit of this study, however they can undoubtedly assist in marketing initiatives related to DC, particularly with respect to smaller producing companies.

Effective participation of national coconut agencies in marketing of DC does not appear to have been developed in all cases as a serious option to date. Suggested activities which could or should be developed include assistance to existing small firms in developing a better understanding of end users needs, standards and requirements, together with assistance in the provision of information against which to judge the performance of market intermediaries. Such bodies could also usefully participate in the development of quality standards for application to DC, and the structure under which such standards can best be promoted for international recognition. APCC may have a useful role in overseeing the development of this initiative.

## 5. New product development

A variety of issues arise in the context of new product development: for example the range of product sectors that can realistically be investigated and the markets where such products are most likely to succeed. The extent to which producers of DC must themselves become involved also requires investigation, ie whether there is the need for their participation not just in the generation of ideas but even to the extent of developing final formulations and product recipes, together with associated consumer research. As in the case of DC grades the danger must be recognized in attempting to simply transfer products which are unique to one market to another.

The need for basic research into consumer perceptions of DC as precursor to new product development has already been suggested (section 2). Similarly the extent to which DC grades themselves (as opposed to products incorporating DC) can be further diversified has also been discussed in section 2. A general aspect of product development is that to date in the major importing



countries uses are largely confined to sweet products. This aspect contrasts with coconut usage more generally in producing countries which is characterized by both sweet and also a very wide range of savoury applications. Whilst DC may not lend itself to a very large number of the latter type of savoury uses they could form the basis for investigation, especially given growing consumer awareness and potential resistance to sweet products in western markets.

More specific options include :

- investigation of products combining both DC and coconut cream/milk, especially in ice cream and bakery products
- investigation of niche markets for relatively upmarket items in bakery and confectionary
- study of possibilities for extending the range of products in the form of yoghurts, ice cream and other frozen items for both retail and catering

There is a definite current trend towards transferring established confectionary items to similar ice cream products which may offer further scope for expanding DC usage.

A final issue is the extent to which it is necessary for DC producers to also become involved in the generation of new products. In many cases DC is a relatively minor component in final products or product options and manufacturers in importing countries have little inclination or incentive to exhaustively pursue the possibilities that are available. Greater action on the part of DC producers may therefore be implied although new product development is time consuming, demanding of market knowledge and expertise, costly and of uncertain outcome. National coconut agencies may again have some role to play, if only in the provision of market information and, perhaps, in assistance in funding of market research.

## APPENDIX 1

### Terms of reference and work plan

1. An initial UK based desk study will be undertaken to review current and historic consumption, and trends in global supply, demand and pricing.
2. Based on the findings of this review, visits will be made to selected importers and users in the two major existing markets, Western Europe and North America, and prospective markets in East Europe.
3. This will be followed by visits to major producing countries (Sri Lanka, and the Philippines) and to APCC HQ in Indonesia, to discuss conclusions and preliminary recommendations. This itinerary will also provide the opportunity at marginal extra cost, to visit Australia for further trade interviews in another major market for the commodity.
4. Trade interviews and discussions with major users will be undertaken to review:
  - (a) marketing and distribution channels for DC;
  - (b) pricing factors which influence DC consumption
  - (c) current and historic usage of DC in major end use sectors;
 and (d) relative proportions of different grades and cuts consumed, with trends
5. The Report of the Project will, on the basis of the discussions:
  - (a) Identify specific constraints and shortcomings which have retarded growth of consumption; these could be in such areas as:
    - (i) product quality (eg colour, flavour, microbiological purity, grading reliability)
    - (ii) consistency of supply and shipments
    - (iii) contractual obligations
  - (b) Estimate prospective demand in current and prospective end use sectors
  - (c) Review the potential for new product development
  - (d) Make recommendations for measures aimed at increasing usage, such as:
    - (i) research and development activities
    - (ii) promotional activity
    - (iii) new or modified marketing strategies

## Appendix 2

### List of companies and organisations contacted during the study

#### DC consuming countries:

##### North America:

Culinar Inc.  
 Durkee Foods (Van den Bergh)  
 Far Eastern Coconut Co.  
 General Mills Inc.  
 H and T Griffen  
 Goya Foods  
 Hershey Import Co.  
 Jirstrek Ltd  
 Khazzam Ltd  
 Kirkland and Rose  
 Kraft General Foods  
 Lawton and Co.  
 Marx Bros. Inc  
 Nabisco Inc.  
 Peter Paul (Hershey Foods)  
 Phildesco  
 Philippine Trade Commission  
 Philippine Embassy  
 Preisco Foods Ltd  
 PR International Ingredients  
 Red V Coconut Products (USA) Inc  
 Setton International  
 Spring Tree Corp.  
 Sunripe Corp.  
 Trophy Foods  
 Watt and Scott Inc.  
 USDA

##### United Kingdom

ABC Plc  
 Bassett Foods Plc (Cadbury)  
 Bunten and Lancaster  
 Burton Gold Medal Biscuits (Associated British Foods)  
 Cadbury Ltd  
 CWS Ltd  
 Duche and Sons  
 Elkes Biscuits  
 Jacobs Biscuits  
 KTC Ltd  
 Lees Ltd  
 E D and F Mann Ltd

Mars Ltd  
 Mr Kipling Cakes (RHM Ltd)  
 Red V Ltd  
 Scotia Barry  
 Tunnocchs  
 United Biscuits  
 Whitworths

**West Germany (and associated countries)**

August Toepfer  
 Behr's Verlag  
 Daarnhouwer & Co.  
 H.A. Gustav Kuechler  
 International Aussenhandels Emporium  
 Kaehler Gebrueder  
 Oscar Schultz  
 Pisani und Rickertsen  
 Waren-Verein die Hamburger Boerse  
 Wachsmuth und Krogmann  
 E.H. Worlee  
 Wilhelm Liebelt G.M.B.H.  
 Wuensche Handelsgesellschaft

**Scandinavia**

Bakkegaredens Bagor  
 Dagrofa A/S  
 Danish Cake and Biscuit Alliance  
 Nestle Danmark A/S  
 Niels Buchholst A/S  
 Nordisk Audelsforbund

**Benelux**

Albert Heijn  
 G Buttner & Co.  
 Catz International B.V.  
 Centre for Promotion of Imports from Developing Countries  
 ConAgra International Netherlands Inc.  
 Stolp International B.V.  
 Willem van der Schalk

**France:**

Ducros  
 Felix Potin  
 Fraoprix Super Discont  
 Navimpex  
 Sarman Group

Sobel  
Societe de Berichonne  
Societe Trombetta  
Union Intersyndicale des Industries Biscuiteries

**Australia:**

Abel Lemon Food Services  
Arnotts  
Cadbury Schweppes Pty Ltd  
Craig Mostyn & Co. Ltd  
Europe Health Foods  
Jorgenson Waring Pty Ltd  
Robert Bryce & Co Ltd  
Ward Mackenzie  
Waters Trading Co  
Westons

DC producing and trading countries:

**The Philippines:**

Association of Philippine Desiccators members  
Philippine Coconut Authority personnel

**Sri Lanka:**

Association of DC Brokers members  
Association of DC Millers members  
Association of DC Shippers members  
Coconut Development Authority personnel

**Singapore:**

Bisley Trading Pte Ltd  
INC Enterprises Pte Ltd  
Meena Arjan Pte Ltd  
Poon Guan Ltd  
Societa Cofica

## APPENDIX 3

### DC quality standards

In recognition of the need for internationally uniform standards, the APCC during the early 1970s' published a series of draft specifications covering a wide range of coconut products including DC. Following circulation to member countries and various international bodies for comment, the series reached the second draft stage but was not finalized. As noted earlier in this report there are wide differences in the quality of DC manufactured by APCC member countries; and these quality differences have resulted in the operation of a multi-tier pricing system in importing countries. The variation in price between the top and bottom end of the DC quality spectrum is substantial and may amount to a difference of up to 30 percent. The problem largely stems from the lack of uniform standards for DC on a world-wide basis. However, contributing factors include:

- (a) varying and inadequate technology
- (b) lack of awareness amongst the smaller DC producers of market requirements

Producers of the best quality DC receive the highest prices by manufacturing their products in accordance with user specifications. Smaller producers are largely unaware of the rigorous quality requirements for DC and in consequence receive less revenue for their products.

The APCC initiatives on uniform DC standards remains a valid objective and the specification, if finalized, would present a worthwhile development aim to be realized by smaller producers of DC.

A typical buying specification is given below as an illustration of the product requirements for DC:

**1. Physical appearance:** DC should be the clean wholesome product derived from mature coconuts. It should be of a natural white colour, completely free from insect and other infestation and foreign matter (such shell, fibre and testa fragments, and metallic fragments).

**2. Taste and smell:** The product should be sweet and pleasant in taste and free of off-flavours attributable either to rancidity or any extraneous contamination.

### 3. Analytical:

(a) For standard grades, product moisture content should lie between 2.0 and 3.0% (w.b.), and between 2.5 and 3.5% (w.b.), for fancy cuts.

(b) Oil content should be between 65.0 and 69.0% (d.b.).

(c) The acidity (F.F.A.) of the oil extracted by the solvent process should not exceed 0.3% calculated on lauric acid.

**4. Bacteriological:** Standards vary considerably according to end-use and market; however there is a noticeable trend towards an increasingly rigorous specification. The illustrative standard noted below takes account of this trend, and is intended as a guide for current and future requirements in this important area of DC quality.

Total viable bacterial count	5000 colonies/g max.
Coliform group count	10 colonies/g max.
Mold	50 colonies/g max.
Yeast	100 colonies/g max.
Salmonella spp.	Absent (in 50g sample)

NB: In some cases the end-user may have a stipulation concerning "staphylococcus aureus"; this should be taken into account as required.

**5. Product grades:** Various DC products are traded on the world market, with the broad distinction being between the **standard** and **fancy-cut** products. The former relates to terms such as coarse, medium, fine (macaroon), and extra or superfine grades of DC; and the latter covers a wide variety of special DC cuts described as flake, thread (standard, fancy and special-long), and chip (mill-run or large run slice).

In addition to their respective bacteriological, analytical and organoleptic requirements, fancy cuts are also specified in terms of size (viz. average length, width, and thickness). Standard DC grades on the other hand are categorized according to the respective product proportions retained (or passing) specific British Standard (B.S.) or American Society for Testing of Materials (A.S.T.M.) test screens.

The distinction between B.S. and A.S.T.M. test screens for assessing grade integrity is important, since DC producers often rely only on the generic term (viz. fine or medium grade DC) to define their products. This approach in turn often results in their products being rejected for the reason of incorrect or poor "sizing". In general product grades intended for the European market sector will be defined by the B.S. test-screens, whereas the A.S.T.M. terminology applies to product grades destined for the North American markets.

The relationship between the B.S. and A.S.T.M. systems is shown in the following Table.

RELATIONSHIP BETWEEN BRITISH (BS) AND AMERICAN (ASTM) TEST-SIEVING WIRE MESHES

Mesh No		Nominal Aperture (Size mm)		Nominal Wire Diameter (mm)		Percent Open Screen Area	
BS	ASTM	BS	ASTM	BS	ASTM	BS	ASTM
5	6	3.35	3.36	1.25	1.23	56.4	53.6
6	7	2.80	2.83	1.12	1.10	51.0	51.9
7	8	2.36	2.38	1.0	1.0	49.3	49.6
8	10	2.0	2.0	0.9	0.9	47.6	47.6
10	12	1.7	1.68	0.8	0.81	46.2	45.5
12	14	1.4	1.41	0.71	0.725	44.0	43.6
14	16	1.18	1.19	0.63	0.65	42.5	41.8
16	18	1.0	1.0	0.56	0.58	41.1	40.1
18	20	0.85	0.841	0.5	0.51	39.6	38.8
22	25	0.71	0.707	0.45	0.45	37.5	37.3
25	30	0.60	0.595	0.4	0.39	36.0	36.5
30	35	0.50	0.50	0.315	0.34	37.6	35.4
36	40	0.425	0.42	0.28	0.29	36.3	35.0