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INTERNATIONAL WHEAT COUNCIL
CONSEIL INTERNATIONAL DU BLÉ CONSEJO INTERNACIONAL DEL TRIGO
МЕЖДУНАРОДНЫЙ СОВЕТ ПО ПШЕНИЦЕ

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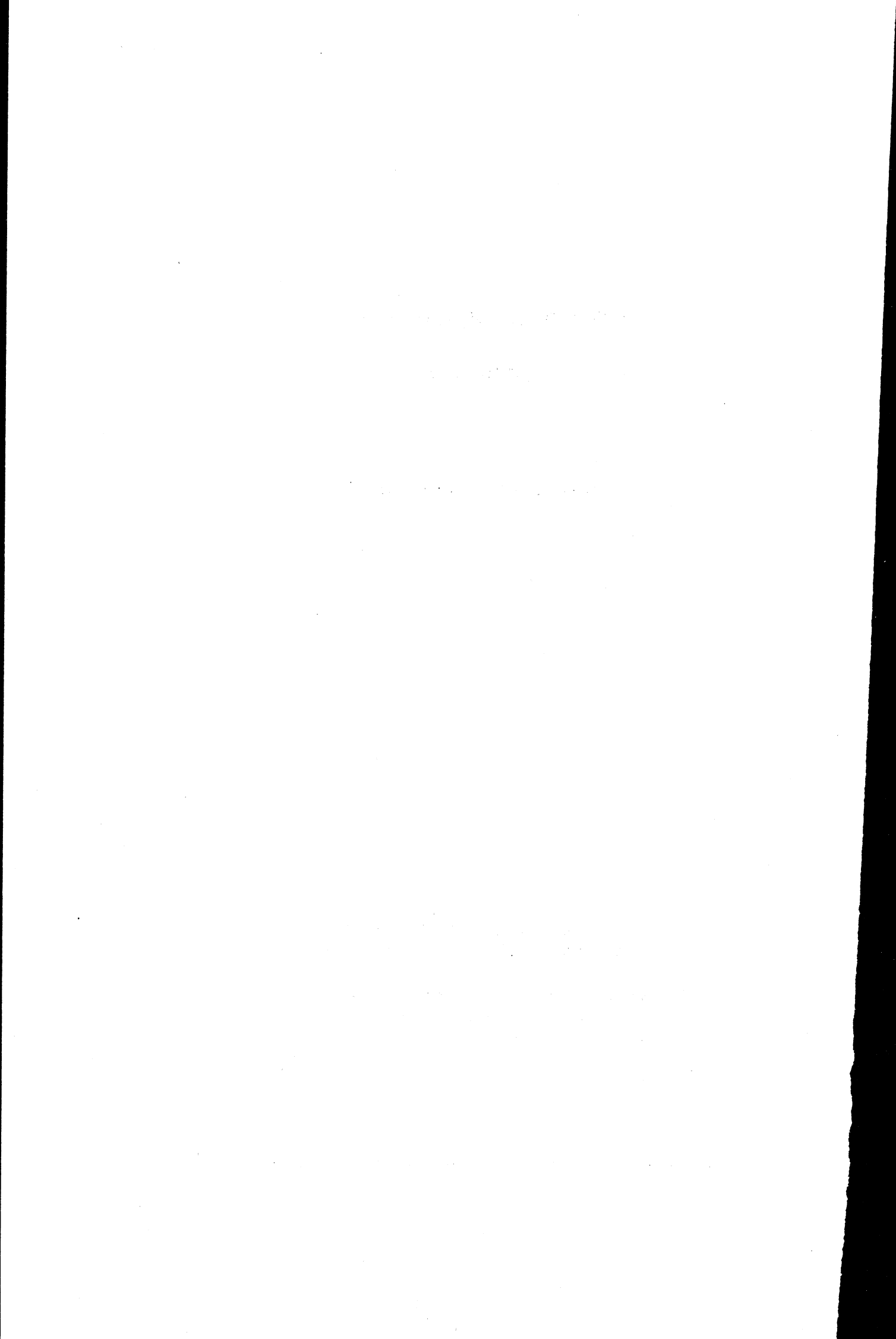
**THE WORLD DURUM WHEAT
SITUATION**

Secretariat Paper No.12

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NOTES

This publication takes into account information available to the Secretariat up to the end of July 1982.

Abbreviations: "e.c.u." = European Currency Unit
"ha." = hectare(s)
"m." = million
"qph" = quintals per hectare

All figures in tons refer to metric tons, unless otherwise stated.

For convenience, all wheats other than durum are generally referred to in this publication as "bread wheats". It should be noted, however, that some durum is used to produce a form of bread, and also that pasta products may (with some loss of quality) be manufactured from mixtures of durum and non-durum varieties.

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The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the International Wheat Council concerning the legal status of any country or territory, or its authorities, or concerning the delimitation of its frontiers.

The views expressed in this paper are those of the Secretariat and do not necessarily reflect those of members of the International Wheat Council.

THE WORLD DURUM WHEAT SITUATION

SUMMARY

Introduction

S.1 A notable characteristic of the durum wheat economy is its vulnerability to crises both of shortage and surplus. Shortages of supplies occur more often and with greater severity than in the case of bread wheats. On the other hand, producers of durum are apt to find surpluses particularly burdensome. Consequently, they rapidly cut down production and, inevitably, this leads to shortages. Supply and demand in the international market are not often in balance. When they are, it is only for brief periods. Above all, durum export prices are notorious for their wide fluctuations. These difficulties are intractable because they stem from the geographical pattern of durum production, and the nature of its uses.

S.2 In contrast to bread wheat, durum is grown only in limited areas in a small number of countries. There are not many established varieties of durum, and even fewer which meet the criteria required for the manufacture of quality pasta products. The narrow varietal base makes it difficult to develop improved types by cross-breeding. It also means that the crop is particularly susceptible to pests or diseases.

S.3 The manufacture of pasta is the best known use of durum. But pasta made from a mixture of durum and non-durum wheat can be acceptable to some consumers. In North Africa and parts of Near East Asia durum is used to make couscous, a traditional food usually eaten with meat and vegetables. It can also be made from bread wheat, although with some loss of quality. In most countries durum would not be considered suitable for bread making, but this has been traditionally practiced in some places where bread wheats are not locally grown. Finally, durum is used in some countries to make bulgur (parboiled wheat). Since durum wheat is not necessarily an essential component of most of these products, its price relationship with hard wheats can be of critical importance for the amount used.

S.4 Because both the production base and market for durum are relatively small, adjustments of supply and demand do not always converge towards equilibrium. Instead, they very often overcompensate, causing the durum market to oscillate from surplus to shortage and back. This has been the pattern of recent decades and seems likely to recur.

Production

S.5 On present estimates, world durum production was 25.2 m. tons in 1981, 1.0 m. tons more than in 1980 but still slightly below the record of 25.6 m. tons reached in 1976 (Table 1). Preliminary estimates for 1982 suggest that output may fall by 2.2 m. tons to 23.0 m. tons. Production has been on an upward trend since the early 1970s, partly because of higher yields in Europe and Near East Asia (Table 2). World durum areas increased between the mid-1960s and 1976, from 16.0 m. to 18.3 m. ha., but have since fluctuated around the 17.5 m. mark. A notable recent development has been the major increase in the durum area in North America. In 1981, Canada and the United States together accounted for one third of the world crop.

S.6 In Canada, durum competes for land with other spring wheats and certain other crops, such as sunflowers and oilseed rape. The area sown each year has been extremely responsive to price and market conditions, but despite large variations, it is possible to perceive an underlying upward trend in both durum areas and production (Table 3). In the 1950s production averaged 520,000 tons. In the 1960s it was almost twice as much, while the average for the 1970s was double that again, at 2.0 m. tons.

S.7 Since 1975, the United States durum crop has only once been less than 2.9 m. tons. In 1981, following a large increase in areas and exceptionally good weather, production reached 5.1 m. tons. Depressed prices and compliance with the voluntary acreage reduction programme are expected to result in a drop in output to less than 4 m. tons in 1982. High-yielding winter varieties with good quality characteristics are now grown on irrigated land in parts of the South West.

S.8 North Africa is one of the traditional durum producing regions. But areas have declined, yields are low, and output is now lagging considerably behind consumption requirements. From being on balance a net durum exporting region in the 1950s, North Africa has now become the main source of import demand. It was probably in Near East Asia that the wild species of durum wheat originated. Durum is still widely cultivated, especially in Turkey, Syria and Iraq. Production in the region appears to be increasing.

S.9 Durum is also of considerable importance in southern Europe, particularly in Italy, where production now averages over 3 m. tons following a substantial switch in areas away from bread wheats, mainly as a consequence of the durum policy of the European Economic Community. The 1960s saw a considerable expansion in production

in France. It declined sharply following the termination of certain EEC regional subsidies in 1977. Durum is also grown on a large scale in Greece. The increased intervention prices and aid to producers consequent upon the accession of Greece to the European Economic Community have greatly stimulated production there. Portugal and Spain also produce significant quantities.

S.10 The only important producer in the southern hemisphere - Argentina - now harvests, on average, barely about 100,000 tons a year. Areas have been progressively reduced, probably because farmers get higher yields and better returns from feed grains and oilseeds. It is known that large quantities of durum wheat are grown in the USSR, but no official information is available as to the precise amount. It may be inferred that production is usually about 3 m. tons at present. This only covers part of Soviet domestic requirements.

Consumption

S.11 During the 1970s, world durum consumption appears to have increased on average by about 2.2% per annum, whereas total wheat use went up at an annual rate of nearly 3%. Usage is heavily concentrated in a small number of countries, particularly developing countries which account for about half of the world total. Another 25% is consumed in the European Economic Community, mostly in Italy.

S.12 In North Africa, where the main durum products are couscous and unleavened bread, durum consumption expanded rapidly in the 1960s and early 1970s (Table 4), but the rate of growth has recently fallen. This may be due to increased incomes, urbanization, the consequent change in food habits, and the cost of imports. It would appear that consumption in Near East Asia is continuing to increase. Very little durum is consumed in Asia (except the Near East). Consumption is also very low in Africa south of the Sahara and in Latin America, except Argentina.

S.13 Some durum is consumed in most countries in Europe and North America, mainly in the form of pasta. Only in Italy, however, is it a significant part of the diet. Per capita pasta use in Italy has, however, declined from 30 kgs in 1960 to 25 kgs. Pasta for domestic consumption is now made exclusively from durum wheat, and Italy also exports durum products. Total durum use has therefore risen over the last 20 years from about 1.7 m. to over 3 m. tons. Per capita consumption of pasta is still increasing in many other European countries, but because of low population growth rates, total usage is rising only slowly.

S.14 Domestic use of durum in Canada has increased, from about 250,000 tons in the early 1960s to about 450,000 tons at present. Consumption in the United States has risen from about 700,000 tons in the early 1960s to about 1.3 m. tons in recent years.

Imports (Table 5)

S.15 World trade in durum wheat* exceeded 4 m. tons for the first time in 1979/80, and rose to 5.3 m. tons in 1981/82. This compares with an average of 3.4 m. tons in the 1970s. The main cause of the increase has been the growing requirements of North Africa which has overtaken Western Europe as the main durum importing region. Algeria is now the leading importer. In 1981/82 its purchases rose to 1.5 m. tons. Tunisia has imported durum in each season since 1976/77, taking over 200,000 tons in most recent years. The imports of Morocco and the Libyan Arab Jamahiriya are smaller and less regular. There has been an increasing tendency, particularly by Algeria, to import durum in the form of semolina rather than grain. Semolina is available from nearby sources such as Italy, Greece and Turkey, whereas durum wheat as such has to be imported from Canada and the United States with correspondingly higher freight charges.

S.16 Imports of durum into Western Europe fluctuate considerably from year to year without any marked tendency to expand. The region's share in world durum trade has fallen from over 60% in the late 1960s to little more than 30%. The main cause of the variations is the size (and quality) of the crop in Italy, which usually accounts for at least half of the region's imports. Significant amounts are purchased by other members of the European Economic Community - particularly the Federal Republic of Germany and France. In recent years, there were also substantial imports by Spain.

S.17 Asia, Africa south of the Sahara and Latin America usually account for no more than 500,000-600,000 tons in total, or about 15% of world trade. This contrasts with the important share of these regions in imports of other types of wheat.

Exports (Table 6)

S.18 Two countries - Canada and the United States - account between them for nearly all durum wheat exports. Moreover, their dominance of the market has tended to increase. In most years the two countries have exported roughly equal amounts. The

* Excluding EEC intra-trade. The figures are for trade in durum grain and flour (in wheat equivalent). They exclude trade in semolina and pasta products which is now quite considerable.

pattern of Canada's exports has changed considerably over the years. The growth of the Italian market has had a particular influence on the grading of Canadian durum. Canada has also supplied most of the durum imported by the USSR since it became a regular importer in the mid-1960s. It usually provides all the durum imported by Poland, and has gained an important share in the rapidly growing markets of North Africa. American durum is exported to a wide variety of markets, but the largest shipments usually go to Western Europe, including the Fed. Rep. of Germany and Italy, especially in the last few years, and to South America, Algeria and Tunisia.

S.19 The relative importance of Argentina as a durum exporter has decreased considerably in recent years, in line with the fall in domestic production.

S.20 The European Economic Community exports little durum wheat. But it regularly exports considerable quantities of semolina and pasta products, some made from North American durum imported under the onward processing regime. Italy alone exports nearly 1 m. tons of semolina and products in most years.

Durum stocks and policies

S.21 Only the two principal exporting countries - Canada and the United States - regularly maintain large carryover stocks of durum (Tables 7 and 8). In most years carryover stocks in the European Economic Community are 0.5 m. tons or less, although they reached 0.8 m. tons in 1982. In Argentina they are minimal. Such evidence as is available suggests that durum carryovers in importing countries are usually very small. The combined carryovers of Argentina, Canada, the United States and the Community have varied during the past two decades from a minimum of 0.6 m. tons in 1962 to a peak of 5.8 m. tons in 1977. The ratio of stocks to trade tends to be higher for durum than for wheat in general.

S.22 Because of the remoteness of producing areas in Canada from open-water ports, and the policy of the Canadian Wheat Board to maintain exportable supplies of a number of different types and grades, larger carryover stocks have been tolerated than might otherwise have been deemed desirable. The Canadian Wheat Board's quota system has not prevented sharp variations in production although it may have helped to control stock fluctuations. Stocks of durum have been more variable in the United States. The burden of stocks is reflected in price movements on the Minneapolis Exchange, the terminal market for durum. These movements in turn are echoed in US and international export prices.

S.23 Within the general context of the Common Agricultural Policy, the arrangements for durum in the European Economic Community have an economic and social bias reflecting the particular situation of producers. Recognizing the special position of producers, the intervention price for durum (itself higher than for bread wheat) is further supplemented by direct Community aid to producers. Many producers in Greece qualify for this aid, and the country's durum output has expanded considerably since its accession to the Community in 1981. The Community of ten member States is now self-sufficient in durum, with a tendency towards surplus. Under present Community policies, this trend might well be considerably accelerated by the accession of Spain.

Prices (Table 9 and Chart)

S.24 Wide price fluctuations are one of the well-known characteristics of the world durum economy. Rises and falls tend to be more precipitous than for other wheats. The most violent wheat price movements of the 1970s came early in the decade when a surge in import demand coincided with short supplies of a number of other grains and feedstuffs. Prices steadily declined during the mid-1970s following record crops in exporting countries. The middle of 1977 marked a cyclical low point and from the late summer durum prices moved steadily upwards as trade increased and stocks declined. The prospects of much bigger crops in Canada and the United States caused a collapse of prices in the first half of 1981. They remained low in the first half of 1982.

S.25 In the longer term, durum production may be affected by the financial solvency of producers. Most US farmers would appear to have had to face total costs (including land) of over \$8 per bushel (about \$300 per ton) in 1980. Since cash prices at Minneapolis for No. 1 Hard Amber Durum averaged \$6.81 per bushel (\$250 per ton) in 1980/81, but fell to as little as \$4.75 (\$175) in August 1981, many durum farmers are currently experiencing financial difficulties. While the position will probably improve when durum prices stage their next cyclical recovery, the degree of distress to producers in the early 1980s is probably the worst for several decades.

Outlook for durum

S.26 At the time of writing (August 1982) durum is in abundant supply on world markets. Following the large crops in 1981, stocks in the major exporting countries have accumulated to burdensome levels, despite record import demand. Prices are low, both absolutely and in relation to other spring wheats. Producers in some countries, particularly in the United States, find that their returns are far from covering their costs. There is evidence in the reduced plantings in the United States and Canada for the 1982 harvest that the next phase of dwindling supplies of the durum cycle may already have begun. The main uncertainties relate to the particular levels which prices will reach at the next peak, and when this will occur.

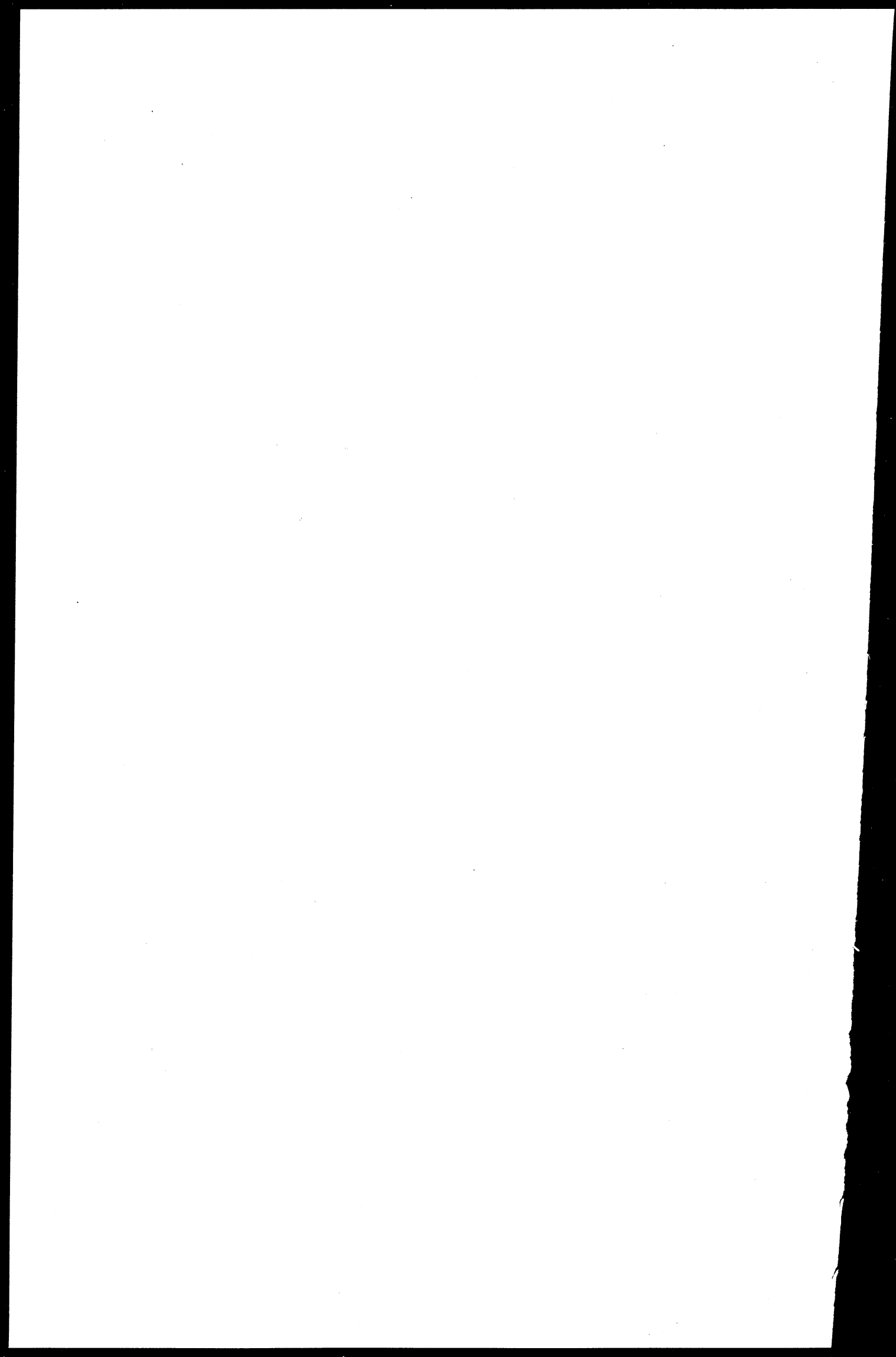
S.27 The world durum situation is not the same in all respects as a decade ago. A much greater proportion of import demand is now accounted for by developing countries. The financial constraints on those countries, and the fact that bread wheat is, apparently, to some extent substitutable in their durum products, suggests that demand might be more elastic with respect to price than hitherto.

S.28 While the short-term outlook for durum - say, over the next two years - points to an eventual price recovery, the longer term prospects do not appear to be all that favourable to producers in exporting countries such as Canada and the United States. A consideration of the main import markets indicates that demand may show little growth. Unless there is a considerable change in its present policies, the European Economic Community seems likely to become increasingly a net exporter of durum, including products. Its imports may not cease entirely, however. It seems doubtful whether the North African market for durum will continue to expand at the same rate as of late. Rising incomes and urbanization may tend to reduce per capita consumption. The financial burden on these countries of wheat imports in general, and durum in particular, has increased greatly during the 1970s and is likely to accelerate their efforts to expand domestic production.

S.29 There seems little prospect of increased durum purchases in the long term by other countries. In the USSR, which has been an important market for durum in the past, efforts are increasing to raise output. Durum-based foods have yet to establish a hold in such areas of rapid wheat consumption growth as Far East Asia or Africa south of the Sahara.

S.30 While the durum problem is of the same nature as that of wheat in general, it does differ from it in certain respects. Very few importing countries are so dependent on durum that they cannot switch to bread wheats in times of emergency. Producers, at least in the main exporting countries, can usually turn to alternative crops. But sudden and severe price movements do indeed cause real hardship to producers and consumers alike. It is to be hoped that when present endeavours succeed in establishing an international agreement for market stability and food security in wheat in general, it will include some arrangements beneficial to those whose livelihoods and well-being depend on durum.

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THE WORLD DURUM WHEAT SITUATION

I. INTRODUCTION

I.1 More than six years have passed since the International Wheat Council last published a comprehensive survey of durum wheat*. During that time, the world durum economy, like the world wheat market in general, has undergone significant changes. Some information on current developments in durum production, trade and prices is given in the monthly Market Reports prepared by the Council's Advisory Sub-Committee on Market Conditions. But limitations of space prevent the Market Reports from entering into detailed analyses. Nor have many studies of the subject been undertaken by other organizations. The world durum situation remains a comparatively ill-documented sector. It is therefore none too soon for an up-to-date review of the principal features of the world durum economy, of its developments and prospects.

I.2 Previous Secretariat Papers** have described the vulnerability of the durum wheat economy to crises both of shortage and surplus. Shortages of supplies occur more often and with greater severity - in statistical terms at any rate - than in the case of bread wheats***. On the other hand, producers of durum are apt to find surpluses particularly burdensome. Consequently, they rapidly cut down production and, inevitably, this leads to shortages. Supply and demand in the international market are not often in balance. When they are, it is only for brief periods. Above all, durum export prices are notorious for their wide fluctuations.

I.3 These difficulties are intractable because they stem from the geographical pattern of the production of durum, and the nature of its uses. In contrast to bread wheat, durum is grown only in a small number of countries and in limited areas within those countries. These locations are determined principally by climate and, to some extent, by the nature of the soil.

* "Durum wheat: 1972/73 to 1974/75" included in the Review of the World Wheat Situation 1974/75.

** No. 3 (November 1963), No. 8 (April 1967) and No. 10 (April 1973).

*** See the note on page (ii).

I.4 Durum is better suited than other wheats to low average rainfall, but it will not tolerate prolonged drought. Good yields can be obtained under irrigation. It is difficult to grow high-quality durum in humid areas. Wet weather towards harvest time can cause serious losses in quality. High summer temperatures (unless accompanied by wind) do not usually cause problems, but durum is particularly susceptible to damage from severe frosts. While these conditions would appear to point to semi-desert locations, reasonable yields cannot be obtained from poor soils without heavy fertilizer use.

I.5 It may be noted that while durum cannot be grown satisfactorily in many areas where bread wheat or other cereals are cultivated, the reverse does not usually hold true. Unfavourable prices compared with alternative crops may therefore lead to major reductions in durum plantings.

I.6 There are two main centres of production - the Great Plains of North America and the Mediterranean basin (North Africa, parts of Near East Asia and southern Europe). This concentration of cultivation in such relatively limited zones increases the variability of world output. About one half of the world's durum exports originate from an area, about 200 miles (320 km) in radius, centred on the US-Canadian border somewhere south-east of Regina, in the Canadian province of Saskatchewan. Heavy rain at harvest time or severe frost in this particular region can make all the difference between ample supplies and shortage on the world market.

I.7 There are not many established varieties of durum, and even fewer which meet the criteria required for the manufacture of quality pasta products. While there has been some success in cultivating high-yielding types, especially in Europe, the quality of the pasta tends to be inferior to that made from traditional types and is not therefore readily accepted by consumers. The narrow varietal base makes it difficult to develop improved types by cross-breeding. It also means that, since considerable tracts of land will often be sown to a single variety, the crop is particularly susceptible to pests or diseases. For example, durum production in the United States in the mid-1950s was reduced by a virulent form of rust to only one tenth of its previous level.

I.8 The narrowly based market for durum products (as compared, for example, with the market for bread wheat flour) also causes problems. The manufacture of pasta is the best known use of durum. Products, such as spaghetti, which are widely consumed in parts of southern Europe and on a smaller scale in other developed countries, are of the highest quality when only durum semolina* is used. But pasta made from a mixture of durum and non-durum wheat can be acceptable to some consumers. The manufacture of such pasta for home consumption is not, however, now permitted in certain countries, notably in Italy.

I.9 In North Africa and parts of Near East Asia, durum is used to make couscous, a granular substance produced by drying a paste consisting of semolina and water. The product is usually eaten with meat and vegetables, and constitutes a traditional food. It can also be made from bread wheat, although with some loss of quality. In most countries durum would not be considered suitable for bread making, but this has been traditionally practiced in some of them (e.g. Greece, southern Italy and Morocco) where bread wheats are not locally grown. Finally, durum is used in some countries to make bulgur (parboiled wheat), a product which can be stored for long periods without loss of quality, even in tropical countries.

I.10 Since durum wheat is not necessarily an essential component (though a desirable one) of most of the products mentioned, its price relationship with other hard wheats can be of critical importance for the amount used. When durum prices are at a large premium over other spring wheats, demand drops substantially in many countries. On the other hand, as already pointed out, durum producers, particularly in Canada and the United States, may often be able to grow other wheats (or other crops) if the need arises. Too low a price, and areas may be sharply cut back. Because both the production base and market are relatively small, adjustments of supply and demand do not always converge towards equilibrium. Instead, they very often overcompensate, causing the market to oscillate from surplus to shortage and back. This has been the pattern of recent decades and seems likely to recur.

I.11 This paper gives a brief survey of the current situation and recent developments in durum wheat production, consumption, trade and prices. Particular attention is paid to North America, which has been responsible in recent years for 90% of world exports. A concluding section draws some inferences about possible future developments. The text is accompanied by a series of detailed statistical tables and a chart showing export prices since 1971.

* Semolina consists of coarse particles produced from the partial milling of durum wheat. Finer particles, which are inevitably also produced in the milling process, are known as durum flour. The aim of durum milling is to minimize the production of flour, which is of lesser economic value.

II. PRODUCTION

World picture

II.1 It is difficult to estimate world durum production. A substantial amount - possibly a quarter of the total - is grown in the USSR, which does not show durum separately in its production statistics. The size of the Soviet crop has to be assessed in the light of trends for all wheat and local weather conditions in the known durum producing regions. In some countries, particularly in Near East Asia, the local designations of "durum" and "bread" wheats may not necessarily correspond with the varietal classifications adopted in North America and Europe. So all "world durum production" data need to be interpreted with great caution.

II.2 On present estimates, world production was 25.2 m. tons in 1981, 1.0 m. tons more than in 1980 but still slightly below the record of 25.6 m. tons reached in 1976 (Table 1 on page 5). Preliminary estimates for 1982 suggest that output may fall by 2.2 m. tons to 23.0 m. tons. Production has been on an upward trend since the early 1970s, although there were considerable year-to-year fluctuations. The average for 1979-1981 was 23.8 m. tons, compared with 20.0 m. tons for 1969-1971. But this increase (19%) was far outpaced by the growth in total wheat production, which rose by 35% (from 330 m. to 444 m. tons) in the same period. There has thus been a distinct reduction in the relative importance of durum. It now accounts for only about 5.3% of world wheat production, compared with 6.1% in 1970. In the mid-1950s the proportion was as high as 8%.

Yields

II.3 Much of the recent growth in output was due to higher yields in a number of countries, especially in Europe and Near East Asia. The overall average in 1979-81 was 13.7 qph, compared with 11.8 qph in 1969-71. But, even so, durum yields continued to lag behind yields of wheat in general. In 1979-81 the world durum yield was 73% of that for all wheat, whereas the proportion in 1969-71 had been 78% and in the mid-1960s over 80%. Trends in yields are shown in Table 2 (page 7).

II.4 One reason why durum yields have grown less rapidly than the world average for all wheat is the increasing share in the latter of softer, high yielding types. The yields of hard, non-durum spring wheats in North America are close to those of durum, as the comparative figures for Saskatchewan (Canada) and North Dakota (USA) in Table 3 on page 9 illustrate.

TABLE 1

DURUM WHEAT PRODUCTION

(Averages 1959-61, 1964-66, 1969-71, 1974-76 and 1979-81; single years 1978 to 1982)

Million tons

	1959-61 Average	1964-66 Average	1969-71 Average	1974-76 Average	1979-81 Average	1978	1979	1980	1981	1982 estimated
EUROPE	2.3	2.4	4.0	4.3	4.6	4.5	4.3	5.0	4.3	4.4
of which: France	0.1	0.1	0.4	0.6	0.4	0.3	0.3	0.4	0.4	0.4
Greece	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.6	0.6	0.8
Italy	1.4	1.7	2.9	3.1	3.4	3.5	3.4	3.7	3.2	3.0
(Total EEC) ^{1/}	(2.0)	(2.2)	(3.7)	(4.1)	(4.3)	(4.3)	(4.1)	(4.7)	(4.2)	(4.2)
Spain	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2
Others	0.2	0.1	0.1	0.1	0.1	0.1	T	T	T	T
NORTH AMERICA	1.1	2.5	4.3	5.4	5.8	6.5	4.7	4.9	7.9	6.1
of which: Canada	0.4	0.7	2.0	2.3	2.2	2.9	1.8	1.9	2.8	2.5
United States	0.7	1.8	2.3	3.1	3.6	3.6	2.9	3.0	5.1	3.6
SOUTH AMERICA	0.5	0.5	0.6	0.5	0.2	0.4	0.2	0.2	0.2	0.2
of which: Argentina	0.5	0.5	0.6	0.5	0.2	0.4	0.2	0.2	0.2	0.2
NEAR EAST ASIA	3.8	3.4	4.7	6.6	7.3	6.7	6.6	7.7	7.6	7.3
of which: Syrian Arab Rep.	0.6	1.0	0.8	1.7	1.8	1.7	1.3	2.2	2.0	1.5
Turkey	2.7	2.4	3.3	4.3	4.7	4.6	4.5	4.8	4.9	4.8
NORTH AFRICA	1.8	2.1	2.6	2.9	2.6	2.7	2.6	2.9	2.2	2.5
of which: Algeria	0.8	0.8	0.9	0.7	0.7	0.7	0.6	0.8	0.8	0.6
Morocco	0.6	0.8	1.4	1.4	1.1	1.4	1.3	1.3	0.6	1.0
Tunisia	0.3	0.4	0.3	0.7	0.7	0.5	0.6	0.7	0.8	0.9
OTHERS (includes estimates for Centrally-planned countries)	4.3	4.0	3.8	3.0	3.3	3.5	3.5	3.5	3.0	2.5
WORLD TOTAL	13.8	14.9	20.0	22.6	23.8	24.2	21.9	24.2	25.2	23.0

T Less than 50,000 tons.

^{1/} Ten member States.

II.5 There has also been a comparative lack of development of durum varieties. Higher-yielding types have often been deficient in quality, and their development has accordingly not usually been encouraged. Apart from the special case of durum grown under irrigation in the South West of the United States, the highest yields are to be found in Europe, where they average over 30 qph in France. The lowest are to be found in North Africa, where they are usually about 7-8 qph. In bad years, yields in such countries as Libya or Tunisia may fall below 5 qph. In Canada and the United States, they are now normally in the range 15-20 qph, not much higher than a decade ago.

Areas

II.6 World durum areas increased between the mid-1960s and 1976, from 16.0 m. to 18.3 m. ha., but have since fluctuated around the 17.5 m. mark (Table 2). They represent about 7-8% of all wheat areas, a proportion which has not changed much over the years. A notable development during the last fifteen years has been the major increase in the area in North America. It grew from about 1.5 m. ha. (10% of the world total) in the mid-1960s to 4.0 m. ha. (22%) in 1981. There was a corresponding fall in the share of North Africa during this period, from over 25% to below 20%. Areas did not change much in Western Europe in total (a significant increase in Italy being offset by declines in Spain and Portugal), or in the other durum producing regions.

North America

II.7 North America is one of the main centres of durum wheat production and the principal source of exports. In 1981 Canada and the United States, together, produced nearly 8 m. tons, or 31% of the world crop. Production in the region is particularly variable, both because of fluctuations in areas and yields. From 1976 to 1979, for example, combined production in the two countries was respectively 6.5 m., 3.5 m., 6.5 m. and 4.7 m. tons.

(i) Canada

II.8 Large-scale cultivation of durum wheat in Canada did not begin until after 1916 when it was planted in south Manitoba to replace bread wheat varieties which had been severely attacked by rust. The crop proved successful and spread rapidly westwards. The appearance in the mid-1950s of a new strain of rust, to which durum itself was susceptible, virtually eliminated production in Manitoba. Saskatchewan is now the main producing province, usually accounting for over 80% of the total. Some durum is also grown in Alberta. The hot summer weather and low humidity, which are typical of the southern part of the Prairies, favour durum although the quality may suffer in drought years. Durum competes for land with hard wheats and also with certain other crops, such as sunflowers and oilseed rape. Price expectations therefore play a significant role in producers' planting decisions.

TABLE 2

DURUM AREAS AND YIELDS
(Selected 3-Year Averages)

Period (Average)	1959-61	1964-66	1969-71	1974-76	1979-81	1959-61	1964-66	1969-71	1974-76	1979-81
	Areas (m. hectares)					Yields (quintals per hectare)				
EUROPE ^{1/}	2.0	2.0	2.2	2.2	2.1	10	12	18	20	21
of which: France	T	T	0.2	0.2	0.1	15	21	28	29	35
Greece	0.3	0.3	0.2	0.2	0.2	15	15	17	21	24
Italy	1.4	1.3	1.6	1.6	1.7	10	13	18	19	20
(Total EEC ^{2/})	(1.7)	(1.7)	(2.0)	(2.0)	(2.0)	(11)	(13)	(19)	(20)	(22)
Spain	0.1	0.2	0.2	0.1	0.1	10	8	11	13	17
NORTH AMERICA	1.1	1.5	2.3	3.1	3.4	11	18	19	17	17
of which: Canada	0.5	0.5	1.1	1.3	1.4	9	15	17	17	16
United States	0.6	1.0	1.1	1.8	2.0	12	19	20	17	18
SOUTH AMERICA	0.4	0.3	0.3	0.3	0.1	12	15	18	17	20
of which: Argentina	0.4	0.3	0.3	0.3	0.1	12	15	18	17	20
NEAR EAST ASIA ^{1/}	5.0	4.0	4.7	5.1	5.0	7	10	10	13	15
of which: Syrian Arab Rep.	1.4	1.3	1.3	1.6	1.4	5	7	6	10	13
Turkey	2.6	1.9	2.7	2.7	2.8	10	12	12	16	17
NORTH AFRICA ^{1/}	3.8	3.7	3.6	3.8	3.4	5	5	7	8	8
of which: Algeria	1.4	1.5	1.5	n.a.	n.a.	7	5	6	n.a.	n.a.
Morocco	1.2	1.2	1.4	1.4	1.2	5	7	10	10	9
Tunisia	1.0	0.9	0.7	0.9	0.8	3	4	3	7	9
WORLD TOTAL (inc. others)	16.4	15.5	16.6	17.9	17.4	9	11	12	13	14

n.a. Not available.

^{1/} Including other countries not listed separately.

^{2/} Ten member States.

II.9 The area sown in Canada each year has been extremely responsive to price and market conditions. In the mid-1960s, for example, when farmers were getting higher prices for bread wheats, areas fell to only 400,000 ha. The subsequent reappearance of a premium for durum, coupled with the virtual disappearance of carryover stocks, encouraged producers to sow more, and the area reached 1.28 m. ha. in 1972. After a further increase in premiums, a record 1.47 m. ha. was harvested in 1975, producing a crop of 2.5 m. tons. Surpluses quickly reappeared and prices fell, so that by 1977 areas were down to 728,000 ha. and production to 1.3 m. tons. Fluctuations continued and in 1981 a crop of 2.8 m. tons was produced on an area of 1.70 m. ha. Production is expected to decline to 2.5 m. tons in 1982, as the area was reduced by 8% to 1.56 m. ha., because of less favourable prices. Recent variations of durum and other spring wheat areas, yields and production in Saskatchewan are shown in Table 3 on page 9, and durum area and production figures for all Canada are given in Table 7 (page 24).

II.10 Despite these large variations, it is possible to perceive an underlying upward trend in both durum areas and production in Canada. In the 1950s production averaged 520,000 tons from 0.4 m. ha. In the 1960s it was almost twice as much - 1.0 m. tons from 0.7 m. ha. - while the average for the 1970s was double that again, at 2.0 m. tons from 1.2 m. ha.

(ii) United States

II.11 Durum wheat was introduced in the United States early this century. The centre of production is North Dakota which is also the main hard red spring wheat producing state. Spring durum is also grown in the neighbouring states of Minnesota, Montana and South Dakota. In 1980, North Dakota accounted for 1.6 m. out of the 2.0 m. ha. harvested in the United States, and for 68% of the country's production. In 1981 its crop reached a record 3.6 m. tons (70% of the total for the United States).

II.12 Large areas were sown in the 1920s, but production subsequently declined. In 1954 a virulent form of rust attacked the crop, and production dropped to less than 150,000 tons. Exports ceased, and domestic use was reduced to one third of normal. Recovery of output, based on rust-resistant varieties, was rapid. In the 1960s production averaged 1.8 m. tons, and in the 1970s, 2.6 m. tons. Since 1975, the durum crop has only once been less than 2.9 m. tons. In 1981, following a large increase in areas and exceptionally good weather, production reached 5.1 m. tons. Depressed prices and compliance with the voluntary acreage reduction programme are expected to result in a drop in output to less than 4 m. tons in 1982. It is estimated that sowings were reduced by 26%.

TABLE 3

DURUM AND OTHER SPRING WHEATS IN SELECTED AREAS OF CANADA AND UNITED STATES

YEAR OF HARVEST	SASKATCHEWAN (CANADA)						NORTH DAKOTA (USA)					
	DURUM			OTHER SPRING WHEATS			DURUM			OTHER SPRING WHEATS		
	AREA '000 ha.	YIELD qph.	PROD. '000 tons	AREA '000 ha.	YIELD qph.	PROD. '000 tons	AREA '000 ha.	YIELD qph.	PROD. '000 tons	AREA '000 ha.	YIELD qph.	PROD. '000 tons
1973	809	14.8	1,197	5,585	16.1	9,008	1,024	18.5	1,892	2,497	18.5	4,618
1974	971	13.5	1,306	4,897	14.2	6,967	1,392	13.5	1,872	2,622	13.8	3,615
1975	1,255	16.7	2,096	4,897	17.2	8,437	1,554	18.2	2,822	2,392	18.2	4,343
1976	1,173	20.4	2,395	5,989	21.0	12,601	1,465	16.8	2,463	3,197	16.5	5,268
1977	607	17.9	1,089	5,949	19.8	11,757	996	16.5	1,647	2,703	16.8	4,545
1978	1,214	19.1	2,313	5,706	19.8	11,294	1,311	21.2	2,778	2,513	19.5	4,901
1979	931	15.8	1,470	5,949	14.7	8,709	1,315	17.5	2,300	2,521	17.8	4,493
1980	1,052	15.0	1,579	5,989	15.5	9,253	1,558	12.8	1,991	2,307	12.4	2,870
1981	1,396	15.8	2,204	6,435	18.5	11,893	1,825	19.5	3,560	2,853	18.8	5,370
1982 (estimated)	1,295	16.7 ^{a/}	2,160	6,718	17.7 ^{a/}	11,890	1,400	17.5 ^{a/}	2,450	2,800	17.1 ^{a/}	4,800

^{a/} 5 Year average; 1977-1981.

II.13 A recent development of some importance is the production of high-yielding winter durum varieties on irrigated land in Arizona and California and other parts of the South West in the United States. These varieties can produce pasta of the same colour and quality as the best spring types. One advantage of growing durum in the South West is that there is little risk of unseasonable rainfall at harvest time resulting in quality loss. In 1981 the southwestern states accounted for 16% of all American production.

II.14 Production in the United States, as in Canada, is subject to wide fluctuations, as farmers switch between durum and other wheats in response to price changes and prospects. Yields fluctuate more widely than those of other wheats. For example, in 1981 they were 50% higher than in 1980 but the increase for other spring wheats was only 26%. In the early 1960s, yields in North Dakota had overtaken those of spring wheats, thanks to the development of hybrid, disease resistant varieties. The gap has now been closed again, and yields of the two qualities are usually on a par (Table 3). In 1981, durum in North Dakota yielded 19.5 qph and other spring wheats 18.8 qph. In the same year, yields of winter durum on irrigated land in Arizona and California reached no less than 54 and 60 qph respectively.

North Africa

II.15 North Africa is one of the traditional durum producing regions. But, although extensive areas are sown, yields are low, and output is now lagging considerably behind consumption requirements. From being on balance a net exporting region in the 1950s, North Africa has now become the main source of import demand (see Chapter III).

II.16 The main producing country is Morocco, whose crop averages about 1.3 m. tons. Algeria normally produces between 0.5 m. and 1.0 m. tons, and Tunisia about 0.7 m. tons. Some durum is also grown in the Libyan Arab Jamahiriya. The success of each year's harvest in these countries is critically dependent on rainfall, especially in the early spring, when it frequently fails. The consequent variability of production makes trends difficult to discern. But it looks as though output in North Africa, which increased during the 1960s, may now have levelled off or even started to decline. The average for the five years 1976-1980 was 2.45 m. tons, compared with 2.69 m. tons in 1971-75 (Table 4 on page 11).

II.17 This reversal of the trend is due to a reduction in sowings. In 1981, combined areas in Algeria, Morocco and Tunisia were about 20% less than in 1972. Bread wheat areas also appear to be declining, though less rapidly. The reduction in areas in North Africa appears somewhat surprising, in view of the rapid increase in local requirements and the resulting expensive durum imports which have had to be made. One possibility is that land previously planted with

TABLE 4

NORTH AFRICA: RECENT TRENDS IN WHEAT PRODUCTION, IMPORTS AND CONSUMPTION

(Figures include Algeria, Morocco and Tunisia only)

PRODUCTION

		<u>DURUM</u>		<u>OTHER WHEATS</u>		<u>ALL WHEAT</u>	
		<u>Area</u>	<u>Prod.</u>	<u>Area</u>	<u>Prod.</u>	<u>Area</u>	<u>Prod.</u>
		m. ha.	m. tons	m. ha.	m. tons	m. ha.	m. tons
I	Average 1961-65	3.66	2.21	0.92	0.59	4.58	2.80
II	Average 1966-70	3.59	2.30	1.29	1.07	4.88	3.37
III	Average 1971-75	3.62	2.69	1.51	1.25	5.13	3.94
IV	Average 1976-80	3.34	2.45	1.47	1.23	4.85	3.69
	change I-II %	-2	+4	+40	+81	+7	+20
	change II-III %	+1	+17	+17	+17	+5	+17
	change III-IV %	-8	-9	-3	-2	-5	-6

TRADE (m. tons)^{1/}

		<u>DURUM</u> ^{2/}	<u>OTHER WHEATS</u>	<u>ALL WHEAT</u>
		net imports	net imports	net imports
I	Average 1961-65	-0.45 ^{4/}	1.36	0.91
II	Average 1966-70	0.36	1.16	1.52
III	Average 1971-75	0.89	1.59	2.48
IV	Average 1976-80	1.26	2.32	3.58
	change I-II %	...	-15	+67
	change II-III %	+147	+37	+63
	change III-IV %	+42	+46	+44

APPARENT CONSUMPTION

		<u>OVERALL (m. tons)</u>			<u>PER CAPITA (kgs.)</u> ^{3/}		
		Durum	Other Wheat	Total	Durum	Other Wheat	Total
I	Average 1961-65	1.76	1.95	3.71	62.3	69.1	131.5
II	Average 1966-70	2.62	2.25	4.87	81.1	69.6	150.7
III	Average 1971-75	3.58	2.84	6.42	95.5	75.6	171.1
IV	Average 1976-80	3.71	3.75	7.46	85.3	86.2	171.4
	change I-II %	+49	+15	+31	+30	+1	+15
	change II-III %	+37	+26	+32	+18	+9	+14
	change III-IV %	+3	+32	+16	-11	+14	-

1/ Crop years starting in the year shown. Including durum flour in wheat equivalent but excluding semolina and products of secondary processing.

2/ Excluding trade in semolina.

3/ In the form of grain.

4/ Net exports.

- Nil

cereals has been changed over to more profitable crops. Land use data suggest considerable increases in permanent crops (including, for example, fruit and nut trees) in the countries concerned, and also extensive afforestation in Algeria. These increases almost exactly balance the decrease in arable areas since the mid-1970s. The amount of land available for cereals production is in any case limited by climatic and soil conditions. Furthermore, cereal areas are subject to both erosion and desertification. Another factor which should be taken into account is the relative price received by farmers for different crops. Until recently, support prices have not been very favourable to durum.

Near East Asia

II.18 It was probably in Near East Asia that the wild species of durum wheat originated. Durum is still widely cultivated, especially in Turkey*, where production averages over 4 m. tons. About 1.5 m. tons are grown in Syria, and 0.5 m. tons in Iraq. Small quantities are also harvested in some other countries in the region, including Iran and Lebanon. Production in the region appears to be increasing, but this may be because of good weather in recent seasons favouring high yields, especially in Turkey.

Europe

II.19 Durum is also of considerable importance on the European side of the Mediterranean, particularly in Italy, where production averages over 3 m. tons. There has been a substantial switch in areas away from bread wheat to durum. In the mid-1960s, it occupied one third of the country's wheat area. Now the proportion is nearer one half. This is mainly a consequence of the price regime applied under the Common Agricultural Policy of the European Economic Community (see Chapter V).

II.20 The 1960s saw a considerable expansion in durum production in France, including winter varieties, cultivated in the centre of the country. But this additional output, much of which was the variety "Durtal", proved unsuitable for making pasta. Production declined sharply following the termination of certain EEC regional subsidies in 1977.

II.21 Durum is also grown on a substantial scale in Greece. In the 1970s it averaged 370,000 tons (22% of the country's total wheat production). The increased intervention prices and aid to producers consequent upon the accession of Greece to the European Economic Community has greatly stimulated production, which exceeded 550,000 tons in 1981. Portugal and Spain produce significant amounts,

* Wheat counted as "durum" in production figures for Turkey and other countries in Near East Asia may in fact include hard non-durum varieties, which are not always easily distinguished from durum.

and relatively small quantities are grown in Austria and Yugoslavia. It has also recently been tried on an experimental basis in the United Kingdom. But even if this should prove successful, which is very doubtful, the extension of cultivation into the northerly parts of Europe seems unlikely because of the lack of an important market for durum products there.

Other regions

II.22 There is one important durum producer in the southern hemisphere - Argentina - which, on average, now harvests only about 100,000 tons a year. Output used to be much higher, sometimes amounting to over 700,000 tons, but areas have been progressively reduced. This is probably because farmers now get higher yields and better returns from feed grains and oilseeds. Very little durum is grown in Australia despite the apparent suitability of the climate. Problems with the colour of the semolina, and the lack of any appreciable domestic or nearby overseas market are probably factors deterring its expansion.

II.23 It is known that large quantities of durum wheat are grown in the USSR, but no official information is available as to the precise amount. The crop is cultivated widely. The area most favourable to durum is east of the Urals (including Kazakhstan). It was officially reported in 1978 that the total area was about 3 m. ha. (half as much as in the 1930s) and that average yields were consistently 2.6 quintals per ha. less than those of bread wheat. It may be inferred from this that production is now usually about 3 m. tons. This does not cover domestic requirements, and durum is regularly imported by the USSR. Efforts are being made to increase output by the development of higher-yielding varieties. Some durum wheat is also grown in Hungary.

III. CONSUMPTION

III.1 It is difficult to measure world trends in durum consumption because statistics for many countries are incomplete or unavailable. Rough indications may be had from production, trade and stock data. These suggest that consumption may be rising, although at a slower rate than for other wheats. During the 1970s, world durum consumption appears to have increased on average by about 2.2% per annum, whereas total wheat use went up at an annual rate of nearly 3%.

III.2 As with production, usage is heavily concentrated in a small number of countries, particularly developing countries. The latter account for about half of world durum use, compared with about a quarter of all wheat consumption. Turkey, Syria and Algeria are major consuming countries, accounting between them for about one third of the world total. Another 25% is consumed in the European Economic Community, mostly in Italy. Apart from seed requirements, nearly all durum is used for human food in one form or another. Very little is used for animal feed.

III.3 In North Africa, where the main durum products are couscous and unleavened bread, durum consumption expanded rapidly in the 1960s and early 1970s (Table 4 on page 11). Populations were growing fast and per capita consumption was also rising. Because domestic production was not increasing at the same rate, the region's exports all but ceased and imports rose. But the figures for recent years suggest that there may have been a sharp decline in the rate of consumption growth or, indeed, even a standstill. The statistics in Table 4 may exaggerate this change, as they do not take account of semolina imports which are known to have been increasing in recent seasons. Nevertheless, it does seem that an important change of trend has occurred. It is interesting to look into the reasons for this, since it has been the rising net import demand in North Africa which, above all, has sustained the expansion of the durum economy in North America in recent seasons.

III.4 First, it may be noted that Algeria, Morocco and Tunisia, the three countries concerned*, have all experienced reasonably rapid rates of economic growth over the last two decades. Incomes of a large part of their populations have now reached the point where diets begin to show a transition from cereals to other foods, particularly meat. Second, urbanization in all three countries has entailed changes in food habits. Bread products and convenience foods are preferred, whereas those requiring long preparation tend to fall out of favour. Possibly, also, acquaintance with bread produced from non-durum wheats may establish a preference over bread made from durum,

* Durum is also produced in the Libyan Arab Jamahiriya, but statistics for the country have not been available for several years.

which is still consumed extensively in countries such as Morocco. Third, the cost of wheat imports, and of durum in particular, has become an important factor in the balance of payments of these countries. Since 1972, the export price of durum has at times been \$100 per ton higher than other wheats. In general, the latter have also been more readily available on credit or non-commercial terms. Little durum has been provided as food aid, or on concessional terms, in recent years, although the Food Aid Convention, 1980 now permits contributions in the form of grain products of secondary processing, including, specifically, macaroni and spaghetti.

III.5 From the very limited amount of information available, it would appear that consumption in Near East Asia is continuing to increase, perhaps even in per capita terms. It is striking, however, that countries such as Turkey and Syria show no tendency to import durum even after poor domestic crops. This suggests that either because of the characteristics of the local types of durum, or because of the nature of its use, there is little difficulty in substituting bread wheats for it.

III.6 Some durum is consumed in most countries in Europe and North America, mainly in the form of pasta. Only in Italy, however, is it a significant part of the diet. Pasta consumption there amounts to about 1.4 m. tons annually, or 70% of the Community total (excluding Greece). Per capita pasta use has, however, declined to 25 kgs from 30 kgs in 1960. But pasta for domestic consumption is now made exclusively from durum wheat, whereas 20 years ago durum and soft wheat were incorporated in equal amounts. In addition, Italy also produces some 200,000 tons of pasta for export, about half of it to third countries, not necessarily made entirely from durum. The total use of durum in Italy has therefore risen over the last 20 years from about 1.7 m. to over 3 m. tons.

III.7 Per capita consumption of pasta is still increasing in many other European countries, in contrast to the declining trend for bread. But because of low population growth rates, total usage is rising only slowly. In some places, particularly Greece and the southern part of Italy, durum is still extensively used for making bread, although non-durum wheats are gradually replacing it for this purpose.

III.8 Very little durum wheat is consumed in Asia (except the Near East). Noodles, a favourite food in Far East Asia, are made almost exclusively from soft wheat flour. Consumption is also very low in Africa south of the Sahara and in Latin America, except in Argentina where a substantial proportion of the population is of Italian descent.

III.9 Domestic use of durum in Canada has increased, from about 250,000 tons in the early 1960s to about 450,000 tons at present, representing about 8% of all wheat use. Consumption in the United States has risen from about 700,000 tons (4% of all wheat) in the early 1960s to about 1.3 m. tons (6%) in recent years. Pasta is being promoted there as a "gourmet" food, and per head consumption is increasing. But its relatively high cost compared with other wheat products limits its growth, except among the better-off. The American macaroni and spaghetti industries use hard wheat as well as durum to make pasta: market price relationships determine the share of durum in the mix. The latest available figures show that pasta manufacturers used some 500,000 tons of semolina and durum flour and 70,000 tons of other wheat flour in 1972.

IV. TRADE

IV.1 World trade in durum wheat* has set new records in recent years. It exceeded 4 m. tons for the first time in 1979/80, and rose to 5.25 m. tons in 1981/82. This compares with an average of 2 m. tons in the 1960s and 3.4 m. tons in the 1970s. The main cause of the increase has been the growing requirements of North Africa. Despite this expansion, durum trade has not risen any more quickly than total wheat trade. Its share of the latter, after tending to increase in the 1960s, now appears to have stabilized at around 5%.

Imports (Table 5)

IV.2 North Africa has now overtaken Western Europe as the main durum importing region. In 1981/82 its imports amounted to 2.3 m. tons, more than 40% of the world total. A decade ago they barely reached 500,000 tons per year, or 20% of all durum imports. A few years prior to that, the region was a regular net exporter of durum. Algeria is now the leading importer. It regularly imports more than 1 m. tons each year. In 1981/82 its purchases rose to 1.5 m. tons. Tunisia has imported durum in each season since 1976/77, taking over 200,000 tons in most recent years. The imports of Morocco and the Libyan Arab Jamahiriya are smaller and less regular.

IV.3 The reasons for the change in the trade pattern of North Africa are the standstill in local durum production, already noted, and, at least until the last few years, the rapid increase in consumption consequent on a high population growth rate and improved living standards. During the 1960s and early 1970s the share of durum in total wheat imports into North Africa rose quickly. Latterly, bread wheat imports have also been growing very fast, and the share of durum has accordingly stabilized at about one third of total imports. This may be the result of relatively high prices for durum in some years, but it might also be a sign of an underlying change in consumption patterns towards bread products (see Chapter III).

IV.4 Another reason for the slackening of the rate of expansion of durum imports by North Africa may be the increasing tendency, particularly by Algeria, to import durum in the form of semolina rather than grain. This has been attributed to the reluctance of local mills to work with other than bread wheat. It may also be a question of price. Semolina is available from nearby sources such as Italy, Greece and Turkey, whereas durum wheat as such has to be imported from Canada and the United States with correspondingly higher

* The figures are for trade in durum grain and flour (in wheat equivalent). They exclude trade in semolina and pasta products which is now quite considerable (see paragraphs IV.4 and IV.15 of this Report). Unless otherwise stated, trade figures exclude EEC intra-trade.

TABLE 5

DURUM WHEAT EXPORTS BY PRIMARY DESTINATION^{a/b/} (JULY/JUNE YEARS)

'000 tons

Destination	1971/72-1975/76 Average	1976/77-1980/81 Average	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82 (forecast)
WESTERN EUROPE	1,414	1,441	1,276	935	1,812	1,323	1,578	1,550	1,600
of which: EEC ^{c/}	(1,237)	(1,232)	(1,158)	(799)	(1,674)	(1,017)	(1,282)	(1,386)	(1,300)
EASTERN EUROPE	82	124	121	36	100	107	172	204	300
USSR	482	372	713	541	308	275	245	492	500
NORTH & CENTRAL AMERICA	36	129	69	116	82	122	196	133	200
SOUTH AMERICA	82	195	57	137	186	210	242	199	200
ASIA	290	72	115	54	61	51	70	125	100
AFRICA	939	1,246	1,073	945	1,296	965	1,607	1,418	2,300
of which: Algeria	863	958	998	751	1,022	774	1,190	1,054	1,500
UNSPECIFIED	5	82	-	27	37	224	111	19	50
TOTAL	3,330	3,662	3,425	2,791	3,882	3,277	4,221	4,138	5,250
AS PERCENTAGE OF TOTAL WHEAT TRADE	5.3%	4.7%	5.1%	4.5%	5.4%	4.6%	4.9%	4.4%	5.2%

^{a/} Excluding EEC intra-trade.^{b/} Durum wheat and flour (in wheat equivalent) only. Semolina and pasta products are excluded.^{c/} Ten member States.

BECAUSE OF ROUNDING, TOTALS MAY NOT ADD.

freight charges. For example, the current* freight rate from US Gulf ports to Tunisia, for the usual size of vessels on the route (10,000-18,000 long tons), is US\$16 per long ton, making the cif cost of US No. 3 Hard Amber Durum about \$167 per ton.

IV.5 Statistics of semolina trade are hard to obtain, but it appears that EEC exports to Algeria in recent years have amounted to at least a quarter of a million tons.

IV.6 Imports of durum into Western Europe fluctuate considerably from year to year without any marked tendency to expand. They currently average about 1.6 m. tons, the same as in the late 1960s. The region's share in world trade has since fallen from over 60% to little more than 30%. The main cause of the variations is the size (and quality) of the crop in Italy, which usually accounts for at least half of the region's imports. After its poor 1977 crop, for example, imports by Italy more than doubled, from 0.5 m. tons in 1976/77 to 1.2 m. tons in 1977/78. However, they were down again to 0.5 m. tons in 1978/79.

IV.7 Now that pasta produced in Italy for domestic consumption is made entirely from durum wheat (see paragraph III.6), it might be expected that its imports would tend to decline, given the continuing increase in domestic production. But account must also be taken of the growing quantities of pasta and semolina exported by Italy which incorporate durum imported under the Community's onward processing arrangements (see paragraph IV.18).

IV.8 Significant amounts are purchased by other members of the European Economic Community - particularly the Federal Republic of Germany and France. In recent years, there were also substantial imports by Spain, where domestic production was declining. Norway, Portugal and Switzerland regularly import small quantities.

IV.9 The USSR is now a regular importer, usually purchasing at least 250,000 tons and sometimes much more (e.g. over 700,000 tons in 1973/74). The variations may be connected with the size of the domestic harvest, which, as already noted, is not precisely known. In Eastern Europe, Poland and the German Democratic Republic also import some durum, normally less than 250,000 tons in total, each year.

* Mid-July 1982.

TABLE 6

DURUM EXPORTS BY SOURCE^{a/b/} (JULY/JUNE YEARS)

									'000 tons
Source	1971/72-1975/76 Average	1976/77-1980/81 Average	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82 estimated
ARGENTINA	304	165	165	355	248	-	83	140	200
CANADA	1,544	1,681	1,529	1,332	1,943	1,370	1,590	2,170	2,200
EEC ^{c/}	26	67	30	49	31	56	91	121	150
UNITED STATES	1,424	1,650	1,683	1,055	1,647	1,709	2,228	1,610	2,300
OTHERS	32	103	18	-	13	142	229	97	400
TOTAL	3,330	3,662	3,425	2,791	3,882	3,277	4,221	4,138	5,250

^{a/} Excluding EEC intra-trade.

^{b/} Durum wheat and flour (in wheat equivalent) only. Semolina and pasta products are excluded.

^{c/} Ten member States.

BECAUSE OF ROUNDING, TOTALS MAY NOT ADD.

IV.10 There are few markets for durum in the rest of the world. Asia, Africa south of the Sahara and Latin America usually account for no more than 500,000-600,000 tons in total, or about 15% of world trade. This contrasts with the important share of these regions in imports of other types of wheat. In 1981/82, for example, these totalled 64 m. tons, 65% of all world trade. in Asia, Japan is the only regular importer, with an average of about 50,000 tons. China was a major importer in the early 1970s, buying 800,000 tons between 1970/71 and 1972/73 when durum prices were especially low relative to other wheats. It has not purchased any durum since then, even though its total wheat imports have been increasing rapidly. In Latin America, imports by Chile and Venezuela have been growing, although they still barely total 200,000 tons.

Exports (Table 6)

IV.11 Two countries - Canada and the United States - account between them for nearly all durum wheat exports. Moreover, their dominance of the market has tended to increase over the years. Their combined share of all exports averaged 70% in the 1960s. It increased to 89% during the 1970s. Only in one year during the whole of that decade was it less than 80%. In most years the two countries have exported roughly equal amounts.

IV.12 Canada has a long tradition as a durum exporter. Since the 1950s, its market share has regularly been 30% or more. Sometimes, when crops in the other exporting countries were poor, it increased to over 50%. In 1960/61, for example, Canada exported 1.1 m. tons out of a world total of less than 1.7 m. tons. There has been a strong upward trend in the volume of its exports, particularly since the late 1960s when they averaged only 500,000 tons. By the mid-1970s, they exceeded 1.5 m. tons in most years, and reached a record of 2 m. tons in 1981/82.

IV.13 The pattern of Canada's exports has changed considerably over the years. Its main markets used to be France and Germany (Fed. Rep.). Requirements of France fell as its own domestic production of durum increased. Imports of durum as such by Germany have been largely replaced by semolina and pasta imported from Italy.

IV.14 Exports to Italy rose. They now average 0.5 m. tons, about two thirds of that country's import requirements. The growth of the Italian market has had a particular influence on the grading of Canadian durum. In the general grain regulations of the European Economic Community, only the species T. durum qualifies as "durum wheat". It must also contain at least 50% vitreous kernels. In 1971 the grading regulations of the Canadian Grain Commission were amended to increase the vitreous kernel content in each grade. In Italy and some other countries there is a strong consumer preference for pasta of a uniform bright yellow appearance and of a cooking quality that is obtained only from high protein durums. This, too, has affected the licensing of varieties in Canada.

IV.15 Canada has also supplied most of the durum imported by the USSR since it became a regular importer in the mid-1960s. Some 95% of all Soviet imports (0.5 m. tons) in 1980/81 came from Canada. It usually provides all the durum imported by Poland (about 100,000 tons), and also holds an important share in the rapidly growing markets of North Africa. In 1980/81, for example, Canada exported 771,000 tons to North Africa, 54% of the region's imports. Canada has had a series of long-term durum supply agreements with Algeria. The latest one, announced in April 1982, calls for the shipment of 500,000 tons or more annually for three years from 1982/83.

IV.16 Exports of durum by the United States were unimportant during the 1950s. They then increased rapidly to average 700,000 tons in the 1960s and 1.5 m. tons in the 1970s. In 1979/80 exports exceeded 2.2 m. tons, and after falling to 1.6 m. tons in 1980/81 reached a new record of 2.3 m. tons in 1981/82. American durum is exported to a wide variety of markets, but the largest shipments usually go to Western Europe, including the Fed. Rep. of Germany and, especially in the last few years, Italy; to South America, where Venezuela has become an important market; and to Algeria and Tunisia. The requirements of Japan are largely supplied by the United States.

IV.17 Argentina is the only other regular durum wheat exporting country. Its relative importance has decreased considerably in recent years. In the 1960s and early 1970s exports averaged around 400,000 tons. They have since been declining, in line with the fall in domestic production. In recent years they barely exceeded 100,000 tons, 2-3% of the world total. Argentina used to supply most of the Italian market but, as already noted, the adoption of new grading standards by Canada increased the competitiveness of the latter.

IV.18 The European Economic Community exports little durum wheat in the form of grain to third countries. The average for the 1970s was only 25,000 tons. But it regularly exports considerable quantities of semolina and pasta products, some made from North American durum wheat imported under the onward processing regime*. Between 1978 and 1980 exports of groats, meals and pellets (i.e. including semolina) to third countries averaged over 300,000 tons. A large proportion went to Algeria, although Libya and Angola were also important markets. There were also exports of pasta to a wide variety of destinations (including even Canada and the United States), amounting to over 70,000 tons in 1979 and 1980. Italy alone exports

* Under the Community's onward processing regime, grain imports from third countries which are used to manufacture products exported from the Community are exempt from import levies. Consequently, those products are not eligible for export restitutions.

nearly 1 m. tons of semolina and products in most years. The principal destinations are France and Germany (Fed. Rep.), but some 200,000 tons go to third countries. France, although a net importer of high quality durum for mixing with local varieties, sometimes exports durum products, particularly to North Africa, where it has a price advantage over durum from North America. Greece, the latest of Community's member States, also exports durum and semolina after good crops.

TABLE 7

PRODUCTION, DISAPPEARANCE AND STOCKS IN CANADA AND THE UNITED STATES

Crop year	Area	Yield	Production	Domestic disappearance a/	Exports	End of year carryover
	'000 ha.	qph.		'000 tons		
CANADA: (1st Aug.-31st July)						
1970/71	1,240	17.8	2,200	526	1,354	2,255
1971/72	919	16.6	1,524	392	1,734	1,653
1972/73	1,279	15.6	1,999	548	1,634	1,470
1973/74	951	14.8	1,409	345	1,302	1,232
1974/75	1,153	13.5	1,562	412	1,423	959
1975/76	1,473	17.2	2,536	293	1,665	1,537
1976/77	1,413	20.2	2,858	371	1,696	2,328
1977/78	728	17.5	1,276	466	1,968	1,170
1978/79	1,477	19.3	2,852	412	1,350	2,260
1979/80	1,133	15.9	1,799	421	1,948	1,690
1980/81	1,255	15.5	1,943	<u>431</u>	2,075	<u>1,127</u>
1981/82 (estimated)	1,699	16.4	2,792	<u>500</u>	2,200	<u>1,219</u>
USA: (1st July-30th June to 1974/75, then 1st June-31st May)						
1970/71	852	16.9	1,436	961	1,061	1,591
1971/72	1,159	21.6	2,499	1,013	1,198	1,879
1972/73	1,032	19.2	1,983	1,088	1,768	1,006
1973/74	1,167	18.3	2,163	1,279	1,142	762
1974/75	1,659	13.3	2,208	1,115	1,279	708
1975/76	1,894	17.7	3,374	1,225	1,415	1,442
1976/77	1,855	19.8	3,729	1,551	1,116	2,504
1977/78	1,224	17.8	2,177	1,197	1,688	1,823
1978/79	1,628	22.3	3,620	1,170	1,960	2,341
1979/80	1,591	18.2	2,885	1,334	2,259	1,660
1980/81	1,958	15.1	2,939	1,388	1,606	1,633
1981/82 (estimated)	2,329	21.7	5,062	1,606	2,232	2,912

a/ Total supply less exports and carryover.

[] Unofficial estimates.

V. DURUM STOCKS AND POLICIES

V.1 Only the two principal exporting countries - Canada and the United States - regularly maintain large carryover stocks of durum*. In most years carryover stocks in the European Economic Community are 0.5 m. tons or less, although they reached 0.8 m. tons in 1982. In Argentina they are minimal. Such evidence as is available suggests that durum carryovers in importing countries are usually very small.

V.2 The combined carryovers of Argentina, Canada, the United States and the Community have varied during the past two decades from a minimum of 0.6 m. tons in 1962 to a peak of 5.8 m. tons in 1977. The average over the period was about 3.3 m. tons, but this statistic is misleading as carryover stocks were usually either much higher or much lower than this. It is interesting to note that the ratio of stocks to trade tends to be higher for durum than for wheat in general. Through most of the last decade combined carryover stocks of durum in Canada and the United States have been larger than world durum trade. Carryover stocks of all wheat in the five major exporting countries have latterly been equivalent to only half of world wheat trade. Table 7 (on page 24) shows supply, disappearance and stock details for Canada and the United States. Table 8 (on page 26) gives similar statistics for Argentina and the European Economic Community.

Canada

V.3 Because of the remoteness of producing areas in Canada from open-water ports, and the policy of the Canadian Wheat Board to maintain exportable supplies of a number of different types and grades, larger carryover stocks have been tolerated than might otherwise have been deemed desirable. During the last decade, durum carryovers have only once been less than 1 m. tons (in 1974/75). In some other seasons they were uncomfortably large. In 1979, for example, they reached 2.3 m. tons, more than a year's average production. After two smaller crops, stocks were reduced to about 1.1 m. tons in 1981, but then rose to 1.2 m. in 1982 following the bumper harvest of 1981.

V.4 The Canadian Wheat Board is the sole marketing agency for Prairie-grown wheat, oats and barley in export and domestic food grain markets. This includes all durum wheat produced in Canada for human consumption. The Wheat Board uses a quota system to give farmers and equal opportunity to sell their grain. Quotas, based on producers' acreages, are increased or decreased according to market requirements.

* Carryover stock figures are given on the basis of the respective crop years in each country. These begin on the following dates: Argentina - 1st December; Canada - 1st August; European Economic Community - 1st July to 1967 and 1st August subsequently; United States - 1st July to 1974 and 1st June subsequently.

TABLE 8

SUPPLY AND DISAPPEARANCE IN ARGENTINA AND THE EUROPEAN ECONOMIC COMMUNITY

'000 metric tons

CROP YEAR	SUPPLY				DISAPPEARANCE			END OF YEAR CARRYOVER
	Stock at beginning ^{b/} of crop year	Production	Imports	Total Supply	Domestic disappearance ^{a/}	Exports	Total disappearance	
ARGENTINA: (1st December-30th November)								
1970/71	100	652	-	752	92	522	614	138
1971/72	138	410	-	548	104	333	437	111
1972/73	111	596	-	707	233	461	694	13
1973/74	13	610	-	623	313	281	594	29
1974/75	29	410	-	439	178	204	382	57
1975/76	57	555	-	612	359	169	528	84
1976/77	84	426	-	510	83	377	460	50
1977/78	50	300	-	350	142	184	326	24
1978/79	24	359	-	383	187	146	333	50
1979/80	50	203	-	253	117	106	223	30
1980/81	30	201	-	231	91	100	191	40
1981/82 (estimated)	40	200	-	240	100	100	200	40
EEC: (1st August-31st July)								
1970/71 ^{a/}	391	3,131	1,513	5,035	4,246	281	4,527	508
1971/72 ^{a/}	508	3,791	1,000	5,299	4,368	303	4,671	628
1972/73 ^{a/}	628	3,432	1,193	5,253	4,786	157	4,943	310
1973/74	310	3,054	1,358	4,722	4,464	108	4,572	150
1974/75	150	3,388	1,364	4,902	3,850	186	4,036	866
1975/76	866	4,214	1,210	6,290	4,453	513	4,966	1,324
1976/77	1,324	3,534	665	5,523	4,218	383	4,601	922
1977/78	922	2,243	1,477	4,642	3,809	400	4,209	433
1978/79	433	3,779	891	5,103	3,986	614	4,600	503
1979/80	503	3,724	800	5,027	4,414	300	4,714	313
1980/81	313	4,037	867	5,217	4,190	679	4,869	348
1981/82 ^{d/}	400	4,200	1,300	5,900	n.a.	n.a.	n.a.	n.a.

^{a/} Total supply less exports and carryover.

^{b/} Excluding new crop.

^{c/} Six original member States.

^{d/} Ten member States (including Greece).

Quotas may be general, or confined to specified grades of particular grains. This system has not prevented sharp variations in production although it may have helped to control stock fluctuations. The Canadian Government has, since 1978, guaranteed minimum prices to producers for durum used domestically. In that case, users are subsidized when export prices rise above a specified level.

United States

V.5 Stocks of wheat in general, and of durum in particular, have been more variable in the United States than in Canada. In recent years durum carryovers have ranged between 700,000 tons in 1975 and 2.9 m. tons in 1982. The burden, or otherwise, of stocks is reflected in price movements on the Minneapolis Exchange, the terminal market for durum. These movements in turn are echoed in US and international export prices. The variability in production in relation to demand resulting from the large fluctuations in yields may lead to wide price movements. These influence producers' planting intentions and thus complete the cycle of instability.

V.6 It is worth noting that economic decisions taken by the United States Government relating to domestic grain supplies, in particular the successive Farm Acts, do not normally distinguish between different grades and classes of wheat. So, if an overall decision is taken, say, to discourage production, the measures (e.g. to introduce a set-aside) apply across the board, regardless of the particular supply and demand situation of durum or any other type of wheat. But an individual farmer's participation in such programmes may well vary according to the market prospects for the kind of wheat he grows. Thus, in 1982 large supplies and relatively low market prices encouraged durum farmers to reduce their sowings by an estimated 26%, whereas producers of spring wheat other than durum only participated to a limited extent in the voluntary 15% set-aside programme, reducing their areas by 3%.

European Economic Community

V.7 Within the general context of the Common Agricultural Policy, the arrangements for durum in the European Economic Community have an economic and social bias reflecting the particular situation of producers. Prior to the accession of Greece to the Community in 1981 Italy was responsible for over 80% of the Community's durum output and about three quarters of its consumption. Production is, moreover, concentrated in the poorer, southern parts of Italy, where farms are much smaller than the Community average. Half of the producers in Sicily, for example, harvest less than 10 ha. each. Recognizing the special position of producers, the intervention price for durum (itself higher than for bread wheat) is further supplemented by direct Community aid to producers.

V.8 In 1981/82 Community aid amounted to just over 85 e.c.u. per ha., equal to US\$101 at the currency exchange rates prevailing at the start of the crop year. For 1982/83 it (in terms of e.c.u.) is to be increased by 9%. The aid is somewhat lower for Greece, which acceded to the Community in 1981, but will be raised to the EEC level at the end of the transitional period.

V.9 The relatively favourable treatment received by producers of durum vis-a-vis soft wheats tended to encourage production in other parts of the Community, including the spread of high-yielding varieties in France. These proved unsuitable for the production of high-quality pasta. As a result, the Community system of support to durum producers was re-examined and the aid is now limited to small farms, and paid on the basis of areas sown rather than production. Many producers in Greece qualify for this aid (but see paragraph V.8). Durum output has already expanded considerably since the country's accession to the Community in 1981.

V.10 Prior to 1981, the Community was not self-sufficient in durum, although the gap was narrowing, as production increased. The Community of ten member States, including Greece, is now self-sufficient, with a tendency towards surplus. It should be noted, however, that the Community remains a net importer of durum grain, but is now a considerable exporter of durum products.

V.11 The possible development of structural surpluses of durum in the Community might well be accelerated by the accession of Spain, since under present Community durum policies a large expansion of cultivation there would seem likely.

VI. PRICES

VI.1 As already indicated, wide price fluctuations are one of the well-known characteristics of the world durum economy. Rises and falls tend to be more precipitous than for other wheats. Although the broad tendency is for export prices to reach major cyclical peaks and troughs at the same time as other wheats, supply and demand conditions peculiar to durum often cause its prices to move independently. Export prices of certain durum and hard wheats over the last decade are shown in Table 9 (page 30) and are also illustrated in the chart on page 32.

VI.2 The most violent wheat price movements of the 1970s came early in the decade when a surge in import demand coincided with short supplies of a number of other grains and feedstuffs. The export price of US No. 3 Hard Amber Durum fob Gulf (hereinafter referred to as "US durum") rose from \$65 per ton in July 1972 to \$291 in August 1973, and reached a peak of \$316 the following January. By then, it had gone up by almost 390% in eighteen months. The increase in other spring wheat prices, though also very large, was not quite as great. For example, US No. 2 Dark Northern Spring 14% fob Gulf rose by about 250%, from \$65 in July 1972 to an all-time high of \$230 in February 1974. On the basis of these two grades, the premium of durum over spring wheats opened up from zero to about \$100 per ton.

VI.3 Durum prices steadily declined during the mid-1970s following record crops in exporting countries. By mid-1977 US durum was down as low as \$111. The differential was also rapidly eroded. During much of the crop year 1976/77, when carryover stocks in exporting countries were rising to record levels, durum prices were at a discount, of up to \$10, compared with the best spring wheat varieties. The middle of 1977 marked a cyclical low point for wheat prices in general. Production of durum in Canada and the United States was reduced by 50% in 1977, and from late summer durum prices moved steadily upwards as trade increased and stocks reduced. US durum reached \$200 in July 1979 and then, after a brief reverse, climbed swiftly in the summer of 1980 to a peak of \$300 in September. This far outpaced the increase in other wheat prices and, once again, the differential exceeded \$100. The major influence on prices at this time was a shortage of high-quality durum in North America.

VI.4 Although the previous paragraphs have concentrated on the price movements of United States wheats, very much the same picture would emerge from an analysis of Canadian durum and other spring wheat prices. The main difference is that, at their peak, Canadian prices were even higher than in the United States: No. 1 Canada Western Amber Durum (CWAD) fob Thunder Bay, for example, reached an all-time high of US\$335 per ton in September 1973.

TABLE 9

EXPORT PRICES (FOB) OF DURUM AND OTHER WHEATS

US \$/TON

CROP YEAR (Average)	ARGENTINA		CANADA fob Thunder Bay		UNITED STATES fob Gulf	
	Candeal Taganrog Durum	No. 1 Hard (Trigo Pan)	No. 1 Canada Western Amber Durum	No. 1 Canada Red Spring 13.5%	No. 3 Hard Amber Durum	No. 2 Dark Northern Spring 14%
1970/71	60	57	65	67	66	67
1971/72	61	62	62	65	63	66
1972/73	90	86	97	99	94	91
1973/74	-	-	302	202	258	184
1974/75	-	163	268	198	253	192
1975/76	179	144	203	174	197	176
1976/77	111	107	129	130	128	133
1977/78	129	116	136	124	143	128
1978/79	145	132	148	149	160	148
1979/80	225	192	213	187	224	183
1980/81	245	204	251	210	288	200
3-Month Averages						
1979 January/March	146	129	145	151	161	152
April/June	140	142	158	161	171	158
July/September	212	180	209	191	233	185
October/December	238	176	220	197	237	190
1980 January/March	232	209	209	189	216	187
April/June	214	201	215	173	213	172
July/September	265	199	285	198	291	195
October/December	262	215	265	226	285	209
1981 January/March	235	212	241	218	-	210
April/June	204	190	211	201	191*	187
July/September	-	180	188	189	160*	175
October/December	-	181	189	191	161*	186
1982 January/March	-	177	178	180	-	195
April/June	-	176	169	167	152*	167

* Not representative. Based on guide prices only.

- Not quoted.

VI.5 The prospects of much bigger crops in Canada and the United States caused what can only be described as a collapse of durum prices in the first half of 1981. US durum prices fob Gulf have not recently been quoted, but Canadian durum prices illustrate the extent of the decline. No. 1 CWAD fob Thunder Bay, for example, which reached a peak of US\$289 in September 1980, was still over \$250 in December, but went down to \$182 at the beginning of July 1981. After some months of little change it fell again in mid-1982, to \$165 in July. In recent months, durum has once again been at a discount to spring wheats.

VI.6 This brief review of the price behaviour during the last decade only confirms that the world durum economy remains extremely volatile. High prices compared with other wheats in certain seasons led to short-term increases in durum production in exporting countries, but supplies quickly exceeded import demand and stocks rapidly built up. Prices then fell, producers switched to more profitable crops, and relative shortages ensued a season or two later. The world durum economy completed two such cycles during the 1970s.

VI.7 While farmers' decisions to plant durum are influenced by the prices they may expect to receive compared with alternative crops, in the longer term production may be affected by the financial solvency of producers. Recent estimates by the United States Department of Agriculture (issued in 1981) suggest that the average overall cost of production for wheat, per hectare planted, rose by 22% between 1978 and 1979, by a further 20% in 1980, and is estimated to have been 10% higher still in 1981. Much of this increase is attributable to energy costs, which doubled between 1978 and 1980, and to increased interest charges. Production costs per bushel vary, of course, according to yields, but the same upward trend is discernable. For durum wheat, they were \$5.61 per bushel (\$206 per metric ton) in 1980, excluding land costs. The latter depend on whether the farmer is an owner or a tenant, and whether the land is valued at its current or acquisition value. Most farmers would appear to have had to face total costs (including land) of over \$8 per bushel (about \$300 per ton) in 1980. The figure excluding land costs for 1979, when durum yields were much higher, was only \$3.35 per bushel (\$123 per ton). No estimate is available for 1981 but it seems likely that, because of the much higher yields, the average production cost per bushel was lower than in 1980, but still substantially more than in 1979.

VI.8 Since cash prices at Minneapolis for No. 1 Hard Amber Durum averaged \$6.81 per bushel (\$250 per ton) in 1980/81, but fell to as little as \$4.75 (\$175) in August 1981, it is not surprising that many durum farmers should currently be experiencing financial difficulties. While the position will probably improve when durum prices stage their next cyclical recovery, the degree of distress to producers in the early 1980s is probably the worst for several decades.

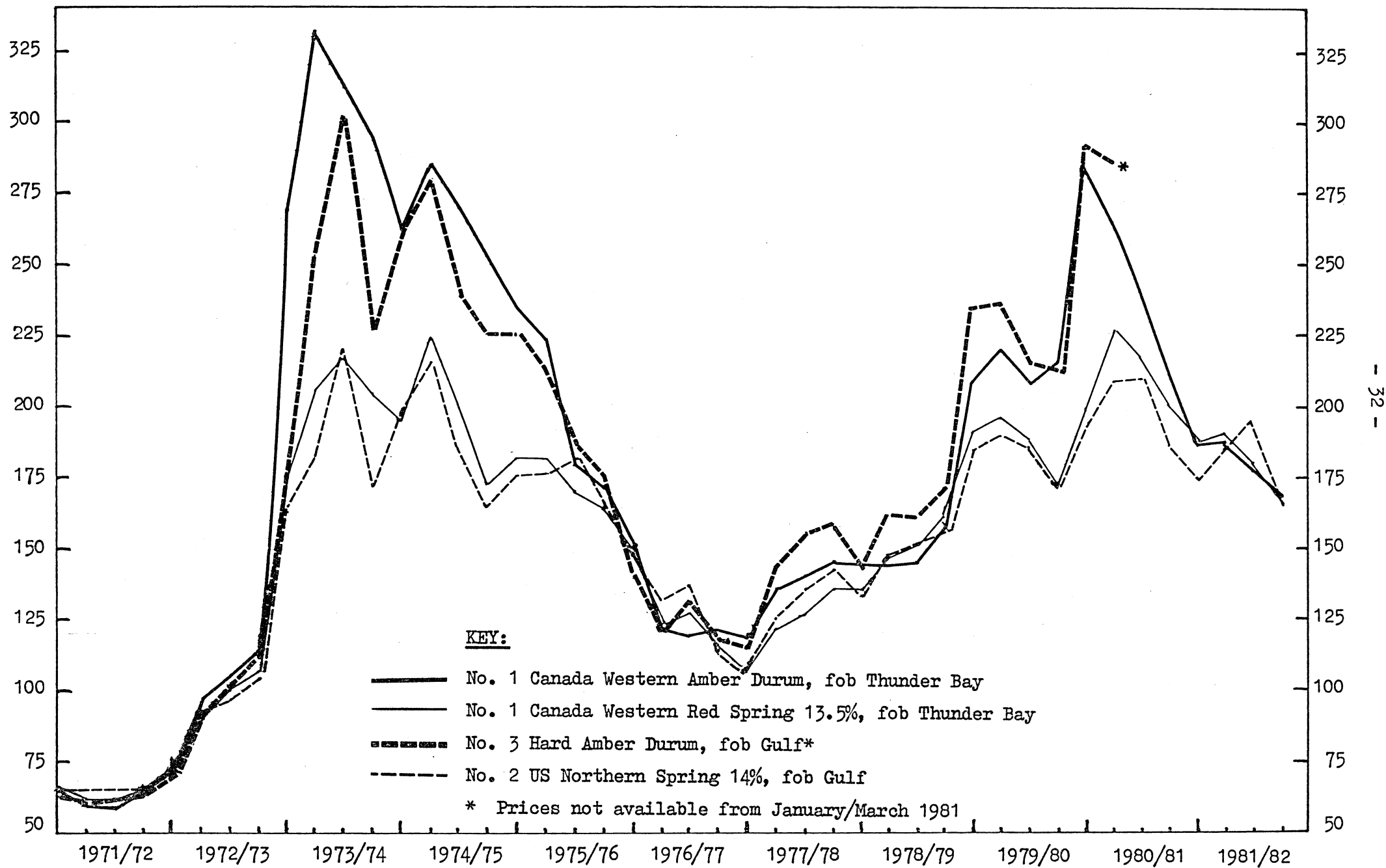
CHART

EXPORT PRICES OF SELECTED CANADIAN AND UNITED STATES DURUM AND SPRING WHEATS

QUARTERLY AVERAGES JULY/SEPTEMBER 1971 TO APRIL/JUNE 1982

US \$ per metric ton

US \$ per metric ton



VII. OUTLOOK FOR DURUM

VII.1 This paper, like previous ones, has laid stress on the cyclical nature of the world durum economy. The volatility of the market has again been confirmed by the experience of the last few years during which, in spite of significant changes in the structure of world demand, rapid swings from relative scarcity to surplus and back have continued to take place.

VII.2 At the time of writing (August 1982) durum is in abundant supply on world markets. Following the large crops in 1981, stocks in the major exporting countries have accumulated to burdensome levels, despite record import demand. Prices are low, both absolutely and in relation to other spring wheats. Producers in some countries, particularly in the United States, find that their returns no longer cover their production costs.

VII.3 The general situation, in other words, is typical of one extreme of the durum cycle - the trough. As past history is repeating itself, producers in the exporting countries are already cutting back plantings, and stocks will fall. Durum will become relatively scarce on world markets. Prices will stage a strong recovery to re-establish their traditional premium over other wheats. Then the pendulum will swing back again, leading once more to excess supplies after a while.

VII.4 The analysis of recent developments set out in the preceding chapters does not suggest that anything has occurred to break or modify that sequence of events. Indeed, there is evidence already, in the reduced plantings in the United States and Canada for the 1982 crop, that the next phase of dwindling supplies may already have begun. The main uncertainties relate to the levels which prices will reach at the next peak, and when that will be.

VII.5 The world durum situation is not the same in all respects as a decade ago. The behaviour of the durum economy at each successive stage of the cycle may not, accordingly, repeat itself in every detail as in the past. A much greater proportion of import demand is now accounted for by developing countries. The financial constraints resulting from those imports, and the fact that bread wheat is, apparently, to some extent substitutable in their durum products, suggests that demand might be more elastic with respect to price than hitherto. This could have, in general, a dampening effect on the intensity of the cyclical movements. It could perhaps be argued that this may mean that the price movements are likely to be less extreme than in the past. But this is a speculative conclusion which still needs substantiation.

VII.6 While the short-term outlook for durum - say, over the next two years - points to an eventual price recovery, the longer term prospects do not appear to be all that favourable to producers in exporting countries such as Canada and the United States. It has been noted that the pace of import demand has shown signs of slackening in recent years. A consideration of the main import markets indicates that demand may show little further growth.

VII.7 Unless there is a considerable change in the present policies of the European Economic Community, it seems likely to become increasingly a net exporter of durum, including products. Producer support policies have been adopted, within the context of the Common Agricultural Policy, to meet structural, social and economic difficulties affecting the poorer regions in some member States. They will accordingly be hard to change. Now that pasta products in the principal consuming countries (Italy, France and Greece) are, by law, made only from durum wheat, the scope for further expansion of durum utilization seems limited. Indeed, it may fall, as incomes rise and diets diversify in the main durum consuming areas. Imports may not cease entirely, however, as internal transportation costs in Italy are now so high as to make it more economical for pasta manufacturers in the north of the country to import rather than use durum produced in the southern provinces. There is also a growing market, particularly in North Africa, for quality semolina from Community countries. As in the past, this may lead to imports of North American durum under the onward processing regime.

VII.8 It seems doubtful whether the North African market will continue to expand at the same rate as of late. It is true that populations are still growing fast. In Algeria, for example, the rate of growth in the 1970s was above 3%. The effects of rising incomes and urbanization may, however, tend to reduce per capita consumption. This will not necessarily apply to couscous, however, as it is usually eaten together with meat. The financial burden on these countries of wheat imports in general, and durum in particular, has increased greatly during the 1970s. It is likely to accelerate their efforts to expand domestic production. For example, irrigation - though an expensive proposition - improved varieties and cultural techniques could have a dramatic effect on average yields. While further increases of durum imports, especially in years of poor crops, cannot be ruled out, the outlook for this region seems therefore to point to a levelling off, rather than another substantial expansion, of requirements.

VII.9 There seems little prospect of increased durum purchases in the long term by other countries. In the USSR, which has been an important market in the past, efforts are increasing to raise output. Durum-based foods have yet to establish a hold in such areas of rapid wheat consumption growth as Far East Asia or Africa south of the Sahara.

VII.10 Much thought has been applied in international forums to finding effective ways of countering the instability of cereals markets, especially wheat, and of maintaining food security in developing countries which have become increasingly dependent on imports. So far, the intensive efforts to develop a new international agreement satisfactory to both importing and exporting countries have not borne fruit. But it is generally accepted that a key to any arrangement that would help even out the fluctuations in supply and demand lies with the maintenance of adequate and appropriately located stocks, as well as the encouragement of greater agricultural output in food deficit low income countries.

VII.11 It must be recognized that while the durum problem is of the same nature as that of wheat in general, it does differ from it in certain respects. Very few importing countries are so dependent on durum that they cannot switch to other wheats in times of emergency. Producers, at least in the main exporting countries, can usually turn to alternative crops. The swings in durum supplies are rarely a matter of life or death. But the sudden and severe price movements do indeed cause real hardship to producers and consumers alike. It is to be hoped that when a solution to the world wheat problem is eventually found, it will provide for some arrangements beneficial to those whose livelihoods and well-being depend on durum.

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