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**GUIDELINES ON INFORMATION SOURCES
FOR AGRICULTURAL IMPORT
AND EXPORT ANALYSIS**

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by

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I. INTRODUCTION

This report presents and describes information sources on agricultural trade that will help USAID personnel analyze import and export issues. This information can serve as a starting point for such work in conjunction with the preparation of agricultural sector strategies and projects or in the conduct of policy dialogues with host countries.

The commodities covered are wheat, rice, coarse grains, oilseeds, oilseed products, and fruits and vegetables. The public and private information sources reported for these commodities are generally recognized as the most authoritative and reliable available for world, regional, and country situations. Most information sources presented in this report are in English. But some important material published in other languages is also included. Each information source is described and where it can be obtained is indicated.

The report contains eight chapters. It is organized to present general information on agricultural trade first. Then there is a section on data and information services that cover many commodities. Finally, three chapters are presented that deal specifically with grains, oilseeds and products, and fruits and vegetables. The content of each of these chapters is described briefly below.

Chapter II covers USAID policies for supporting agricultural export development. U.S. legislation prohibits the development of exports from other countries that would be competitive with and cause substantial injury to U.S. exports. This legislation is interpreted in terms of what it means for USAID. In general, most efforts to expand exports from developing countries will not cause substantial injury to U.S. exports. But the case for this position has to be made carefully and convincingly. There may be a few instances where proposed projects to increase agricultural exports might injure U.S. exports. In these cases extensive analysis is required in light of current law to determine if the impact on U.S. trade is substantial.

Chapter III discusses the relationship of GATT to developing countries. This topic will be of interest because a new round of GATT negotiations is underway and will continue for the next four or five years. The primary agricultural thrust of these negotiations will be on reducing government support to agriculture in developed countries. Developing countries have for the most part been exempted from GATT rules. They have benefited from trade liberalization but have not had to contribute to the liberalization process by making trade concessions. These conditions will again prevail in the current round of negotiations, and developing countries will not be required to reduce support for agriculture the way developed countries will have to do if progress is made on this issue. Nonetheless, it will be important for developing countries to closely follow the negotiations since significant progress on reducing government support for agriculture in developed countries could either benefit or harm developing countries depending on how this support is reduced and for which commodities.

Chapter IV deals with practical aspects of trading agricultural products. It discusses such topics as (1) assessing world market price prospects (2) identifying market opportunities, (3) import restraints, (4) who does the importing and exporting, (5) international trading rules, (6) financing trade, (7) transportation, and (8) price risk management. It also discusses public and private information sources relevant to these aspects of trade.

Chapter V presents and discusses publications that provide information on world production, consumption, trade, and prices for grains, oilseeds and products, and fruits and vegetables. In general, these publications contain information on several types of commodities.

Chapter VI deals with grains. The chapter begins with a review of key market and policy developments in the world grain sector over the past 15 years and discusses the likely evolution of grain prices into the early 1990's. It then presents key sources of information on grain trade not already covered in Chapter V.

Chapter VII covers oilseeds and oilseed products. The oilseed material is organized in a similar way to that for grains. The evolution of markets and policies and their implications for prices into the early 1990's are discussed first. Specific information sources are then described.

Finally, Chapter VIII concerns fruits and vegetables. It provides an overview on key trends in world fruit and vegetable trade, followed by a discussion of information sources. Information on trade in fruits and vegetables is not as compact as that for grains, oilseeds, and oilseed products because of the large number of commodities involved. Thus, one finds fewer comprehensive information sources for these products than exist for the bulk agricultural commodities.

In addition to regularly published information, there are occasional ad hoc studies that deal with the trade outlook for agricultural products. These studies are usually geared to anticipating the trade impact of policy changes such as the enlargement of the European Community (EC). We have not described the few such studies that are publicly available for the following reasons:

- Most of these studies are already out of date.
- Some deal with specific markets (e.g., the EC) and do not look at total world trade.

The best approach for USAID personnel to follow with respect to special studies is to search the literature and draw upon specialists for current and relevant studies at the time that USAID is analyzing a specific trade topic. In that way, the most current analysis can be brought to bear on the question at hand.

The potential amount of information available for all the products covered is so voluminous that it does not make sense for each mission or even AID/Washington to subscribe to every publication mentioned here. This is

especially the case for individual missions that will be interested in only a few commodities at any point in time. Therefore, one is faced with how to stay abreast of relevant developments without drowning in a sea of unnecessary information. One possible approach to this issue is suggested below.

There are some basic publications that provide both historical data and an overview of current and prospective commodity developments that probably should be standard references in missions and in AID/Washington. The most likely candidates are:

- The World Bank's Price Prospects for Major Primary Commodities, published every two years, and Commodity Trade and Price Trends, published annually.
- IMF's annual publication, Primary Commodities: Market Developments and Outlook.
- USDA's monthly World Agricultural Supply and Demand Estimates.
- USDA's World and Regional Agricultural Situation Reports, published annually.
- USDA's monthly World Grain Situation and Outlook.
- USDA's monthly World Oilseed Situation
- USDA's monthly Horticultural Products Review.

These publications are readily available and would provide AID staff with sufficient overviews on agricultural commodities to keep abreast of the current world commodity situation as well as to discern emerging trends. Some of these publications also cover policy developments in major countries and what they may mean for world commodity trade and prices.

At times, individual missions and AID/Washington will want to examine the outlook for specific commodities in more detail, particularly as these commodities relate to a mission's programs. In such situations, the pertinent information sources can be found in this report. As a general approach, we would suggest the following steps be employed in addressing individual commodity trade situations.

- Identify the commodities in which one is interested and their close substitutes either within a particular developing country market or in world trade.
- Specify whether a particular country is looking at opportunities to increase exports or is interested in a commodity from the standpoint of imports.

- Using readily available statistical information, identify the major suppliers of imported commodities or the major markets for export commodities.
- Having determined potential sources of supply or potential export markets, evaluate whether or not quality and grade standards, product form, and health and sanitary regulations match a particular country's import needs or export possibilities.
- Evaluate future trends in world production, consumption, and trade including past or likely future policy changes that will affect the size of import markets or the availability of exportable supplies from supplying countries.
- Finally, evaluate a particular country's competitive position in world trade to determine whether or not its own production will be competitive with either imports or with other exporters in the case of exportable commodities.

In following these or similar steps, AID staff will be able to conduct some of the analysis themselves. But beyond a certain point, the complexity of the world trade situation will require missions or AID/Washington to seek outside assistance. At such a point, one has to address the question of where to get such help.

As a starting point, one should contact one's technical backstop officer or write directly to the USDA Technical Inquiries Group. USDA has extensive capabilities for analyzing world trade in agricultural commodities. The Foreign Agricultural Service with its attaches, world information base, and analytical capability offers a formidable set of resources for assessing trends in world commodity trade. The Economic Research Service also works extensively on analyzing world commodity trade and policies influencing this trade.

Both the IMF and World Bank have excellent skills and basic information for analyzing the world commodity situation and outlook. It is important for AID to tap into these resources where possible and also to ascertain whether or not AID projects or policy reform proposals are consistent with the plans of these organizations.

Finally, the private sector offers considerable analytical capacity for evaluating agricultural trade prospects. This includes private firms that specialize in analyzing world commodity markets and trade and policy issues, national commodity or trade groups familiar with either individual country or global market situations, and firms or associations that have expertise on trade related issues such as trading rules, finance, transportation, and price risk management. There is no routine way to identify possible private firms and organizations, either for profit or non-profit, that could fit USAID's needs. One can certainly draw upon the experience of people in USDA, for example, who over the years have had extensive contact with a large number of private firms

and organizations. Another possibility is to use selected private firms to help USAID identify other private firms and organizations that would be best suited to particular evaluation tasks that arise within missions or AID/Washington.

AID/PPC's Center for Development Information and Evaluation has made arrangements with USDA's office of International Cooperation to provide information to Mission personnel. A description of this service and a copy of the form to be used in requesting an agricultural literature search appear on the following pages.

AGRICULTURAL LITERATURE RESEARCH SERVICE FOR AID

Are you seeking literature on the economics of irrigation, agricultural policy analysis or international markets for tropical, fresh fruits and vegetables? AID/PPC's Center for Development Information and Evaluation provides Mission personnel access to literature on these topics and many others under a long-standing agreement with the U.S. Department of Agriculture. The Technical Inquiries Group, part of USDA's Office of International Cooperation and Development, researches technical agricultural literature that is needed in the identification, design and implementation of Mission projects. Primary users of the information service are Agricultural Development Officers, Mission contractors, PASA employees and host-government counterparts. The goal of the service is two-fold: to apprise Agricultural Officers of the state of the art so that duplication of research can be avoided and to promote effective decisionmaking based on accurate information.

How can AID personnel request literature from the Technical Inquiries Group? The preferred way is to send in a completed "Request for Agricultural Literature Search" form (attached). However, communicating information needs by memo, letter, cable or phone will also result in priority service. Being specific in describing subject area needs and explaining how the information will be used are important. This will insure that client requirements are clearly understood. Once the request is received, a Technical Information Specialist will systematically research the worldwide literature; evaluate books, journal articles and other documents; and select those that are most pertinent to the request. Primary sources for researching the literature are the USDA, National Agricultural Library, the World Bank, land-grant universities, appropriate-technology centers and the Library of Congress. Worldwide experts in the subject fields are also identified and called on for technical input and updates to the literature and research in progress. When the search is completed, the information specialist provides the requester with the literature selected and a covering letter that explains the scope and results of the search and major experts consulted.

Some of the major subject areas for which Missions have requested information are crop production, soil science, irrigation and water management, livestock production, plant and animal pests, agricultural policy analysis, marketing of agricultural commodities, aquaculture, forestry, agricultural extension, and food processing and preservation.

The Technical Inquiries Group welcomes requests for literature research from AID project managers and implementers and will be glad to furnish assistance in whatever subject areas information is needed. Consultative services are also provided to AID Missions in the analysis of agricultural literature requirements and improvement of agricultural library collections in host-government institutions. Requests for assistance should be sent to:

Supervisory Technical Information Specialist
USDA/OICD Technical Inquiries Group
Room 3059 South Building
Washington, D.C. 20250

Telephone: 202-447-5101

USDA/USAID Technical Inquiry Service
Office of International Cooperation
and Development
U.S. Department of Agriculture
Room 3059 South Building
Washington, D.C. 20250

REQUEST FOR AGRICULTURAL LITERATURE SEARCH

1. REQUESTED BY (Name, title, USAID and office):

2. YOUR SIGNATURE: _____

3. DATE SUBMITTED: _____ DATE NEEDED: _____

4. DETAILED SUBJECT AREA REQUIREMENTS (Please provide a complete statement of your specific information requirements that defines and limits the kind of literature needed and how it will be used, e.g. in project identification, design, or implementation. Keywords, synonyms and taxonomic terms, where relevant, should be included.)

5. KIND OF INFORMATION REQUIRED (Please specify what kind of information you are seeking, e.g. USDA or U.S. Government publications, books, and journal articles from worldwide sources):

6. GEOGRAPHIC AND CLIMATIC RESTRICTIONS:

7. LANGUAGES (Circle or specify those languages to which literature should be limited):

(a) English (b) Spanish (c) French (d) other

8. TECHNICAL LEVEL OF INFORMATION REQUIRED (Circle or specify):
(a) basic (b) intermediate (c) advanced

9. KIND OF TECHNOLOGY NEEDED (Circle or Specify):
(a) appropriate (b) advanced (c) other

10. END-USER OF INFORMATION (Circle or Specify):
(a) USAID (b) AID/W (c) Host-government (d) other

11. REFERENCE WORKS KNOWN (Please list only major articles, publications and/or books that you already have or know about. Do not list publications you would like to receive; the "request for document" form should be used for this purpose.)

12. PUBLICATION DATES TO WHICH LITERATURE SHOULD BE LIMITED (Circle or specify):

(a) 1980 to present (b) 1970 to present (c) 1960 to present

(d) If prior to 1960, please specify time period. (e) other

13. OTHER INFORMATION SOURCES CONTACTED (To prevent duplication of effort, please list any other information centers, libraries, institutions, and resource persons you have contacted in regard to this request.)

14. SEND REQUEST TO: Mrs. Patricia Wetmore
Supervisory Technical Information Specialist
USDA/OICD
Room 3059 South Building
Washington, D.C. 20250

Phone: (202) 447-2893

II. USAID POLICIES ON SUPPORTING AGRICULTURAL EXPORT DEVELOPMENT

A. Legislative History

As large surpluses of price-supported crops, measured in terms of both stocks and the amount of idled land, emerged in the U.S. in the 1980's, political pressure built to discourage the U.S. from promoting production in developing countries that would compete with U.S. exports. This pressure has been directed at both U.S. bilateral aid programs and assistance provided by multilateral lending agencies such as the World Bank.

Section 209 of the supplemental appropriations bill passed by Congress in 1986 specifically discourages the use of U.S. foreign assistance funds in a way that stimulates competitive production in developing countries. The language of that section is as follows:

"Sec. 209. None of the funds appropriated by this or any other Act to carry out chapter I of part I of the Foreign Assistance Act of 1961 shall be available for any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training in connection with the growth or production in a foreign country of an agricultural commodity for export which would compete with a similar commodity grown or produced in the United States: Provided, That this section shall not prohibit (1) activities designed to increase food security in developing countries where such activities will not have a significant impact on the export of agricultural commodities of the United States; or (2) research activities intended primarily to benefit American producers.

The conference report on the supplemental appropriations bill gave further interpretation to the meaning of Section 209.

"The conferees have agreed to include Section 209 recommended by the Senate concerning commodity exports by developing countries. However the conferees agree that this language is only intended to apply to: (1) projects or activities that are specially and principally designed to increase agricultural exports in developing countries that can reasonably be expected to cause substantial injury to the United States exporters; (2) the production of such agricultural commodities for export that are deemed^{1/} to be in direct competition with U.S. agricultural exports."^{1/}

^{1/} Congressional Record, H4029, June 19, 1986.

The conference report tempered the language of Section 209 by requiring that aid efforts had to result in exports that caused substantial injury to and had to be in direct competition with U.S. exports. For basic commodities such as grains and oilseeds, the U.S. accounts for a large percentage of world trade. Projects would have to result in a fairly large increase in exports of these commodities before such exports caused substantial injury to U.S. trade. It is unlikely that the vast majority of countries receiving U.S. foreign assistance would be in a position individually to expand exports of grains, oilseeds, and products enough to affect U.S. exports materially.

The conference report language deals with exports. It does not say anything about foreign assistance designed to help a developing country reduce its dependence on imports of agricultural products. Therefore, one can assume that such efforts are not covered by Section 209.

The other aspect of this legislation is that it does not specify which commodities are covered by Section 209. The U.S. exports a wide range of raw and processed agricultural commodities. One might assume that all agricultural commodities exported are covered by this legislation.

Experience has shown, however, that the export commodities where political sensitivity in the U.S. is the greatest are those that have domestic price support programs or their close substitutes. These include wheat, rice, coarse grains, cotton, and soybeans, meal, and oil.

Section 209 does not appear to impose severe restrictions on USAID's agricultural programs. Nonetheless, it is important for USAID to be sensitive to existing legislation and to the political mood in U.S. agriculture that gave rise to this legislation. If a particular project could increase a developing country's exports sufficiently to affect U.S. exports, consultation with appropriate members of Congress might be prudent.

B. USAID Policies

USAID has issued a policy determination in response to the legislation discussed above.^{2/} This policy determination emphasizes AID's objectives of fostering food security (as opposed to food self-sufficiency), and trade in a manner consistent with existing legislation.

In addition, USAID has had a policy determination in effect since 1978 concerning financing of projects to increase production and export of palm oil, citrus, and sugar.^{3/} While the policy does not prohibit financing of production and export of these commodities, it does urge caution in view of the domestic sensitivities to these activities. The policy determination specifically states:

2/ AID Policy Determination: Assistance to Support Agricultural Export Development, PD-15, September 13, 1986.

3/ Policy Determination: AID Financing of Palm Oil, Citrus and Sugar Projects and Related Products, PD-71, May 12, 1978.

"Missions are not prohibited from developing project ideas in which these commodities are involved. Rather, they should be aware that their potential impact on U.S. producers is a matter of concern which has resulted in restrictive legislation in the OPIC authorization bill and in the replenishment authorization for the International Financial Institutions. AID should, therefore, only finance such projects when their development rationale is strong and their likely impact on U.S. producers is low."

AID missions can keep abreast of world trade in agricultural commodities of most interest to the U.S. through many of the regular publications discussed earlier in this report. These publications provide useful information to judge what magnitude of increase in exports from a developing country would result in significant competition for U.S. exports. In addition, the U.S. is not a major supplier to all importing countries. Thus, there may be markets that developing countries can export to that would not represent direct competition with the U.S.

III. DEVELOPING COUNTRIES AND GATT

A. GATT Provisions

Many developing countries are signatories to the General Agreement on Tariffs and Trade (GATT). GATT signatories recognized that developing countries have special problems and that they need to receive special consideration. As a consequence, developing countries have benefited from trade liberalization achieved under various rounds of GATT negotiation, but have not had to contribute on a quid pro quo basis to this liberalization in the same way that industrialized countries have had to do.

There are several provisions of GATT rules that have enabled developing countries to behave differently from industrial nations. These are discussed below.

While GATT rules generally prohibit the use of quantitative restrictions on imports and exports, Article XII specifies that this type of non-tariff trade barrier can be used to protect a country's balance of payments and foreign exchange reserves. For industrialized countries, use of quantitative restrictions is viewed as a temporary measure to help correct external financial problems. Countries are obligated to correct these problems and remove quantitative trade restrictions as soon as possible. However, the GATT has left vague the precise time period over which quantitative restrictions can stay in place.

But GATT has also recognized that balance of payments and foreign exchange problems are chronic for most developing countries. As a consequence, use of quantitative restrictions by developing countries has become a "permanent" feature of their trade policies. The persistent use of quantitative restrictions by developing countries is recognized in Section 3(d) of Article XII, which says:

" The contracting parties recognize that, as a result of domestic policies directed towards the achievement and maintenance of full and productive employment or towards the development of economic resources, a contracting party may experience a high level of demand for imports involving a threat to its monetary reserves of the sort referred to in paragraph 2(a) of this article. Accordingly, a contracting party otherwise complying with the provisions of this article shall not be required to withdraw or modify restrictions on the ground that a change in those policies would render unnecessary restrictions which it is applying under this Article."

Article XVII allows the existence of state trading enterprises, which are common in developing countries. The GATT urges countries to operate state trading enterprises "in a manner consistent with the general principles of non-

discriminatory treatment" of trade. It permits state enterprises to sell products at different prices in different markets based on "commercial reasons". This provision has allowed countries to sell at higher prices in export markets than at home, or to subsidize the price of imports in the domestic market.

Article XVIII is aimed directly at development in poor countries and provides exceptions to GATT rules that go well beyond those of Article XII dealing with balance of payments. Essentially, Article XVIII says developing countries can do about anything they want to promote industrial development and exports and it legitimizes the infant industry argument. Section (2) of Article XVIII captures the GATT view on development. It states:

" The contracting parties recognize further that it may be necessary for those contracting parties, in order to implement programmes and policies of economic development designed to raise the general standard of living of their people, to take protective or other measures affecting imports, and that such measures are justified in so far as they facilitate the attainment of the objectives of this Agreement. They agree, therefore, that those contracting parties should enjoy additional facilities to enable them (a) to maintain sufficient flexibility in their tariff structure to be able to grant the tariff protection required for the establishment of a particular industry and (b) to apply quantitative restrictions for balance of payments purposes in a manner which takes full account of the continued high level of demand for imports likely to be generated by their programmes of economic development."

Developed countries have rarely challenged in the GATT a wide variety of protective measures, including export subsidies, used by developing countries in the name of economic development. They have, however, challenged the use of export subsidies for industries in developing countries that are well developed and can no longer rely on the infant industry argument or ones whose growth is no longer essential for a country's development; e.g., the U.S. criticism of subsidized steel exports from Brazil.

Article XXXVI summarizes the GATT principles and objectives with respect to trade and development. It lays out the view that developing countries need special treatment in international trade. It also makes clear that developed countries do not expect reciprocity from developing countries for concessions made in GATT negotiation.

This latter provision is extremely important in viewing the relationship of developing countries to GATT negotiations. These countries are not bound by the quid pro quo principles used in GATT negotiations; i.e., developing countries do not have to make trade concessions in return for concessions made by other countries. On the other hand, developing countries benefit from liberalization of world trade achieved through GATT negotiations. The language of Article XXXVI is reproduced below.

Article XXXVI

Principles and Objectives

1. The contracting parties,
 - (a) recalling that the basic objectives of this Agreement include the raising of standards of living and the progressive development of the economies of all contracting parties, and considering that the attainment of these objectives is particularly urgent for less-developed contracting parties;
 - (b) considering that export earnings of the less-developed contracting parties can play a vital part in their economic development and that the extent of this contribution depends on the prices paid by the less-developed contracting parties for essential imports, the volume of their exports, and the prices received for these exports;
 - (c) noting, that there is a wide gap between standards of living in less-developed countries and in other countries;
 - (d) recognizing that individual and joint action is essential to further the development of the economies of less-developed contracting parties and to bring about a rapid advance in the standards of living in these countries;
 - (e) recognizing that international trade as a means of achieving economic and social advancement should be governed by such rules and procedures--and measures in conformity with such rules and procedures--as are consistent with the objectives set forth in this Article;
 - (f) noting that the CONTRACTING PARTIES may enable less-developed contracting parties to use special measures to promote their trade and development;

agree as follows.

2. There is need for a rapid and sustained expansion of the export earnings of the less-developed contracting parties.
3. There is need for positive efforts designed to ensure that less-developed contracting parties secure a share in the growth in international trade commensurate with the needs of their economic development.

4. Given the continued dependence of many less-developed contracting parties on the exportation of a limited range of primary products, there is need to provide in the largest possible measure more favourable and acceptable conditions of access to world markets for these products, and wherever appropriate to devise measures designed to stabilize and improve conditions of world markets in these products, including in particular measures designed to attain stable, equitable and remunerative prices, thus permitting an expansion of world trade and demand and a dynamic and steady growth of the real export earnings of these countries so as to provide them with expanding resources for their economic development.
5. The rapid expansion of the economies of the less-developed contracting parties will be facilitated by a diversification of the structure of their economies and the avoidance of an excessive dependence on the export of primary products. There is, therefore, need for increased access in the largest possible measure to markets under favourable conditions for processed and manufactured products currently or potentially of particular export interest to less-developed contracting parties.
6. Because of the chronic deficiency in the export proceeds and other foreign exchange earnings of less-developed contracting parties, there are important inter-relationships between trade and financial assistance to development. There is, therefore, need for close and continuing collaboration between the CONTRACTING PARTIES and the international lending agencies so that they can contribute most effectively to alleviating the burdens these less-developed contracting parties assume in the interest of their economic development.
7. There is need for appropriate collaboration between the CONTRACTING PARTIES, other intergovernmental bodies and the organs and agencies of the United Nations system, whose activities relate to the trade and economic development of less-developed countries.
8. The developed contracting parties do not expect reciprocity for commitments made by them in trade negotiations to reduce or remove tariffs and other barriers to the trade of less-developed contracting parties.
9. The adoption of measures to give effect to these principles and objectives shall be a matter of conscious and purposeful effort on the part of the contracting parties both individually and jointly.

B. Agriculture, GATT Negotiations, and Developing Countries

The main focus for agriculture in the next round of trade negotiations will be on reducing support given to agriculture by governments of developed countries. The U.S. pushed for this focus and it was generally agreed to by other major agricultural producers and exporters, but with considerable reservation on the part of the EC. Agreement on principles, however, does not mean it will be easy to get agreement on specifics.

If the next round of trade negotiations follows the pattern of previous ones, it will not be completed for about four or five years. Agriculture is not the only difficult issue. Others include liberalization of trade in services and rules governing intellectual property rights (technology), both of which are finding resistance in a number of developed and developing countries.

As indicated above, reducing protection given to agriculture is a developed country issue. Developing countries will not be required to make concessions in the GATT although they may be under pressure from other sources such as the World Bank, IMF, and USAID to reform agricultural policies. But individual developing countries could either benefit or be harmed by reducing government support to agriculture in developed countries. The exact impact on them will depend on the extent to which support is reduced, which commodities are affected, and what the impact of these actions will be on world commodity trade and price levels.

It is too early to even venture a guess as to how the agricultural negotiations will go and, therefore, to speculate about what the negotiations will mean for developing countries. But if history is any guide, these negotiations will proceed slowly and probably result in minor changes if there are any changes at all. The main reasons for this cautious assessment is that agricultural policies are essentially domestic issues that have never been amenable to international negotiation. No country, including the U.S., wants to give up sovereignty over domestic policies. It has been impossible in the past to negotiate domestic policy reforms within the GATT. While it may not be impossible to accomplish this in the future, one must realistically conclude that it will be extremely difficult to do and that one should probably expect modest results at best.

But even if the parties to GATT are successful in reducing levels of government support to agriculture, it is not clear what the results will be. OECD has an ongoing project to analyze these issues, and USDA is studying them as well. Some of this work indicates that reducing government support could reduce world prices of some commodities under certain circumstances. To understand how this might happen one has only to realize that in the U.S. support for grains and cotton is provided in return for farmers idling land and controlling supplies. A reduction in government support to producers that also reduced the amount of land idled would result in an increase in production and lower grain and cotton prices, even after taking account of other countries reducing their support levels.

The outcome of the new round of GATT negotiations on agriculture will be important for developing countries as it affects world market commodity prices. It may be important for USAID to follow these negotiations. The USTR and the Foreign Agricultural Service of USDA will be deeply involved in the negotiations and are important sources of information for USAID. Also, the Economic Research Service of USDA will be analyzing the production, consumption, trade, and price impacts of alternative proposals for reducing government support to agriculture in developed countries and it, too, will be an important source of information.

IV. PRACTICAL ASPECTS OF TRADING AGRICULTURAL PRODUCTS

A. Introduction

There are many practical aspects of world agricultural trade that relate to a country's export or import performance. Those discussed in this section include:

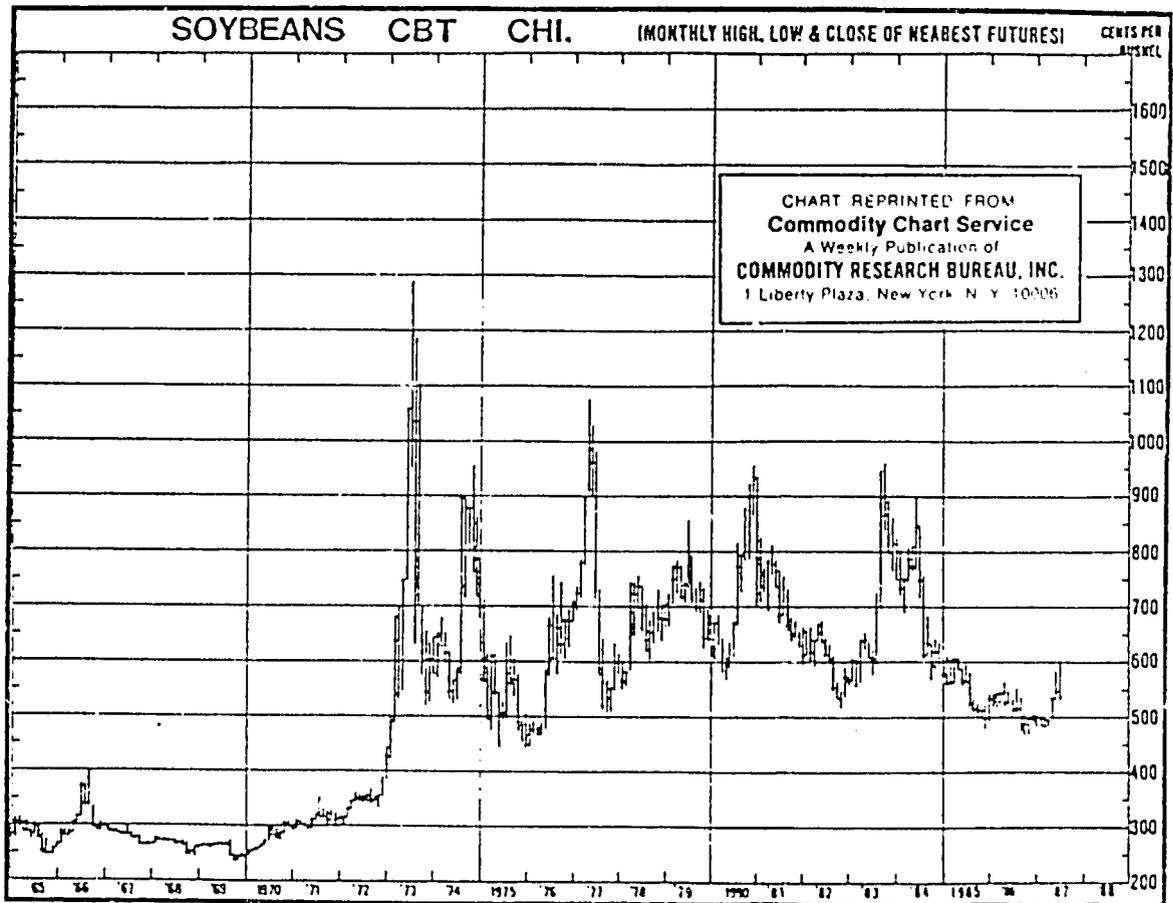
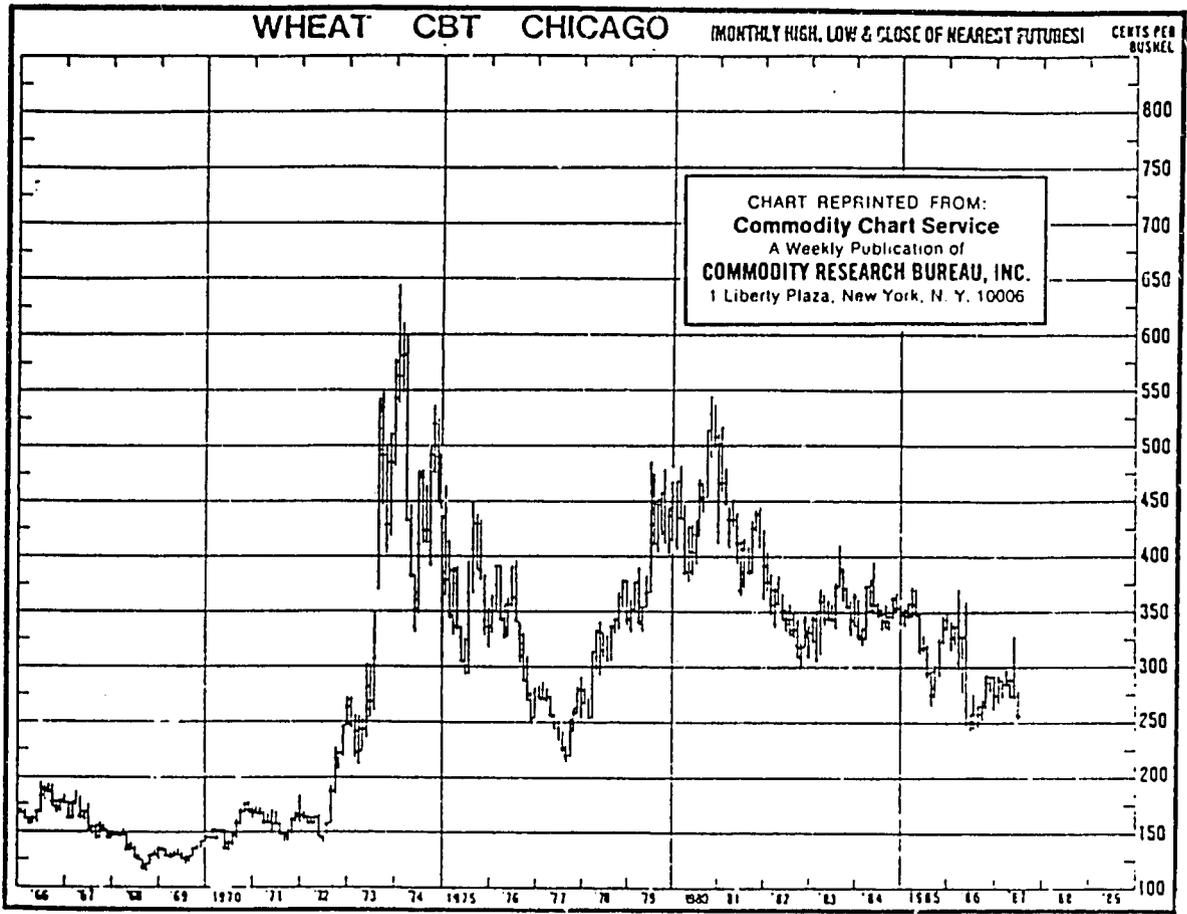
- Assessing world supply, demand, and market price prospects.
- Information on location and size of markets.
- Import restraints such as tariffs, quotas, and health and sanitary regulations.
- Who buys and sells.
- International trading rules, contract provisions, and arbitration procedures.
- Financing trade.
- Transportation.
- Futures and cash markets.

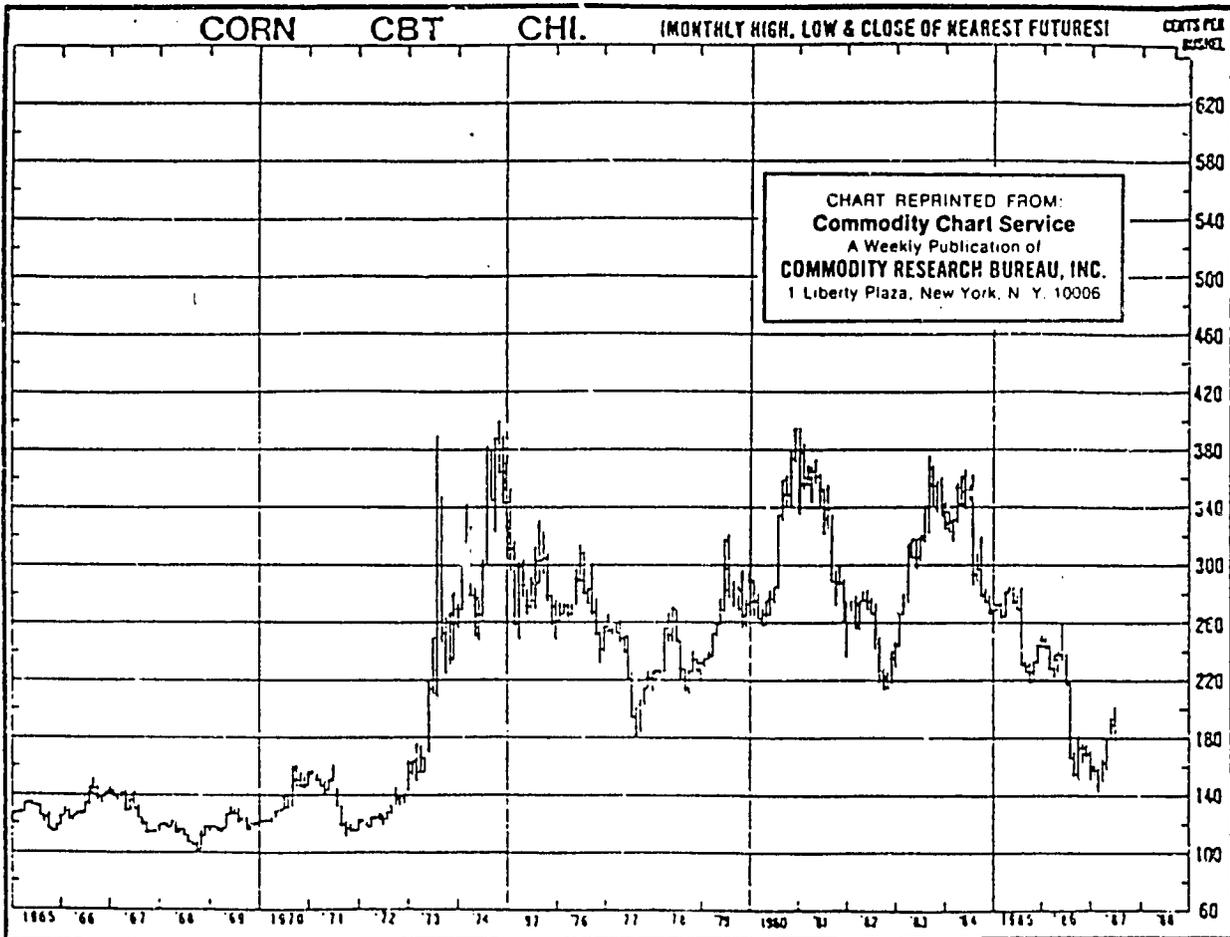
All of these factors have to be dealt with when exporting or importing commodities. At the end of this section we have provided some guidance on information sources that might be helpful in the course of analyzing export or import issues in connection with sector strategies, specific projects or ongoing policy discussions with host countries.

B. World Market Price Prospects

Commodity markets are noted for having considerable price volatility within and between crop years. This volatility results from changes in global supply-demand conditions, especially those in major exporting or importing countries; national policies, such as those in the U.S., which can have a major influence on market prices; economic factors such as currency rates; and political developments that can include embargoes, threats of war, etc.

The nature and magnitude of price volatility is illustrated below for wheat, corn, and soybeans in terms of fluctuations in the prices of nearby futures in Chicago on a monthly basis from the mid-1960's through 1986. Cash prices are closely related to nearby futures prices.





For storable commodities such as grains and oilseeds, countries have the opportunity to either buy or sell forward. It is not uncommon for sales or purchases to be made for up to a full year into the future. There is less opportunity for advanced purchases or sales of fresh fruits and vegetables because of the perishable nature of these products. But nuts and processed fruits and vegetables can be stored for a long period of time and advance sales or purchases are possible.

An important determinant of how far forward one buys or sells is whether or not prices are expected with confidence to rise or decline significantly. Developing a valid view of future price prospects requires both complex analysis of the factors determining prices and continuous updating of these analyses to capture changes in the world supply-demand outlook. USDA does this kind of work on an ongoing basis through its World Agricultural Outlook Board, and it is published monthly in World Agricultural Supply and Demand Estimates. Some other countries do similar work. In addition, many firms involved in trading,

commodity processing, or food manufacturing do their own analysis, and there are private research and consulting firms that provide ongoing market analysis to clients on a commercial basis.

Another factor influencing purchasing or sales decisions is the availability of storage. Some countries do not have adequate storage to keep crops for an extended period of time and may have to sell a large portion of their production at harvest. Importers may also have limited storage which may dictate the pace of their imports. They can, however, buy forward and pay the exporter to store until the commodity is needed.

Finally currency values and interest rates influence purchase or sales decisions of both governments and the private trade. If an exporting country has very high real rates of interest it does not pay to store export crops for long period of time or to buy forward in the case of an importing country. Conversely, if real interest rates are low or negative, there are strong incentives to store crops whether domestically produced or supplied from abroad. In a similar vein, trends or fluctuations in currency values will influence import or export decisions as they relate to maximizing export earnings or minimizing import costs in terms of domestic currency.

C. Identifying Market Opportunities

Market opportunities for exports or sources of imports can be identified in several ways. One is to look at longer-term trade trends for individual countries and average levels of imports and exports over some recent time period. This analysis will help assess the relative size of various import markets and exportable supplies and to determine whether imports and exports are growing or declining.

One also needs to look at the reasons behind these currents. National economic, trade, and agricultural policies play an important role in determining trade trends. It is important to know what they are, if they are likely to change, and what the implications of such changes might be for trade (e.g., the enlargement of the EC has acted to reduce imports of grains, oilseeds, fruits, and vegetables).

In addition to longer-term market trends, one has to look at annual or seasonal fluctuations in trade levels. Changes in weather and crop conditions influence import needs or exportable supplies and generate short-term market opportunities. It is important for exporting countries to have current information on world crop and market conditions to identify shorter-term market opportunities and to try to take advantage of them.

Finally, one has to look at export markets or sources of purchases in terms of grades, quality, and type of product. Many countries have strict standards for imports. This is especially true for fruits and vegetables in terms of grades, quality considerations, and sanitary regulations. But it can also be true for grains and oilseeds.

- There are five classes of U.S. wheat (hard red winter, soft red winter, hard red spring, white, and durum) and many grades within each class. Some importers prefer one type of wheat over others especially since the type of wheat is related to its use or the products produced from it.
- Some countries have a strong preference for certain product forms; for example, the Soviet Union has preferred soybean meal in pellet rather than flake form for logistical reasons, although that situation appears to be changing.

In summary, it is not only important to identify importing and exporting countries and their trends in imports or exports, but also to know about the type, quality, and product form that exporters supply or that importers want.

D. Import Restraints

Most countries of the world have limits of one kind or another on imports of agricultural commodities. These restraints may determine the total level of imports, which commodities are favored, or the type and quality of products imported. Several of the common restraints are discussed below.

1. Foreign Exchange

Many developing and centrally planned countries have serious foreign exchange constraints. These may be more severe in some years than in others. The lack of hard currency reserves influences a country's total agricultural imports as well as which commodities are allowed to be imported.

Sometimes importers will attempt to ease foreign exchange constraints through special trade arrangements. One type of arrangement is to buy from those suppliers who are willing to offer the most generous credit or food aid terms, thereby reducing the need for immediate cash outlays. Some countries will also try to use barter or countertrade to husband foreign exchange. This approach enables them to export things they have to sell in return for things they want to buy without using hard currencies.

Still another form of trade popular among countries that do not have convertible currencies is to conduct bilateral trade on the basis of two nonconvertible currencies. For example, India and the USSR have traded for many years using rupee-ruble exchange rates.

2. Quotas and Tariffs

Quotas and tariffs on agricultural imports are commonplace. These may apply on an annual or a seasonal basis. Seasonal barriers are quite common for fresh fruits and vegetables. It is important to understand the magnitude of quotas and tariffs and how they are implemented in assessing a country's import

potential. Changes in these trade barriers usually reflect changes in domestic policies and one has to be able to anticipate them and evaluate their impact on trade. For example, the recent enlargement of the EC extended Community trade barriers to Spain and Portugal and this has had a marked impact on trade levels among the EC-12 as well as on trade with third countries.

3. Grades and Standards

Some countries apply strict grades and standards to imports. In the U.S., for example, imports of fruits that are also produced domestically and marketed under marketing orders must meet the same grades and standards used by these marketing orders. Processed products are subject to domestic packaging and labelling requirements in many importing countries.

4. Health and Sanitary Regulations

Health and sanitary regulations are legion and restrict imports of certain types of products or products from certain sources. A few examples from the U.S. illustrate how widespread these can be:

- The U.S. does not allow fresh and frozen meat imports from countries that have hoof and mouth disease. Similar restrictions apply to fresh and frozen pork imports from countries that have African Swine Fever.
- Exporters of fresh and frozen meat to the U.S. must meet U.S. inspection standards in their processing plants used to produce the exported product.
- Fruit cannot be imported from countries that have the Mediterranean fruit fly or certain other pests or diseases.
- Imported processed foods must comply with U.S. food labelling requirements.
- The U.S. has not been able to sell China white wheat because a smut is present in this type of wheat.
- U.S. plants that produce meat and meat products for export to EC countries must meet the inspection and health standards of the importing country.

E. Who Imports and Exports?

It is important to know who does the importing and exporting of agricultural products in each country and how they operate. And whether trading with private firms, parastatals, or government agencies, it is important to determine the other party's general reputation with respect to performance and financial integrity.

In Centrally Planned Economies virtually all of the trading is done by government agencies. There are usually separate agencies for different types of products. In a few cases, private transactions are allowed, but these are typically limited in scope.

Other countries have mixed systems. In Japan, the government Food Agency controls all wheat imports while the private trade imports coarse grains and oilseeds. Canada, Australia, and Argentina have grain marketing boards which handle all or most of the export of certain types of wheat. At the same time the private trade can export other commodities and sometimes they also handle products for marketing boards.

In the U.S. and Western Europe, importing and exporting of agricultural products are done by the private trade, although government policies and programs play an important role by either subsidizing exports or restricting imports.

Finally many developing countries rely on state agencies or parastatals to handle agricultural trade. Here, too, one finds mixed systems. There appears to be a general trend away from relying on government agencies.

F. International Trading Rules

International trade in agricultural products is usually governed by established trading rules. These rules cover the timing and form of pricing, grades and quality, shipping and arrival dates, who has responsibility for booking freight, liabilities for late arrivals or delays in loading and unloading, payment terms and arbitration procedures to settle disputes. Trading rules are well established for bulk agricultural products. There are also rules governing trade transactions for fresh and processed products.

To illustrate the nature of trading terms, two contract forms developed by the North American Export Grain Association, Inc. are contained in the annex to this chapter. These contracts cover export terms and loading rate guarantees. They are used widely for exports of grains and oilseeds from the U.S. and Canada.

G. Financing Trade

International agricultural trade has to be financed in some way since there are lags between when a commodity is purchased, and when it is delivered and paid for.

A common method of financing of commercial transactions is the use of letters of credit through commercial banks. The buyer usually arranges for this credit which guarantees payment but also involves interest charges on the borrowed money.

Many developing countries are eligible for and receive special financing for their agricultural imports, particularly for basic foods such as grains and fats and oils. Credit terms are usually negotiated between the importing and exporting countries. Credit may be provided by private exporters, marketing boards, or by the governments of exporting countries either as direct government loans or guarantees on loans made by private banks.

In the case of the U.S., the range in the period for which financing is given includes:

- Commercial financing for a few weeks or months.
- Short-term government financing of up to three years with the government guaranteeing private loans.
- Intermediate-term government financing with the government guaranteeing private loans for up to 10 years.
- Government financed PL480 sales with loans extended for up to 40 years in some cases on very favorable terms.

H. Transportation

It is no use producing a commodity for export if you cannot get it to the buyer in a timely and economical fashion. The quality of transportation services is therefore of great importance.

The first question to ask is whether the commodity can be moved efficiently within the country, either from the production site to an export point, or from an import point to the consumer. The second question is whether international transport arrangements are satisfactory to move commodities from one country to another quickly enough to preserve product quality.

Internally the adequacy of the road and rail system must be assessed. Externally one must consider whether there are obstacles to efficient movement of goods through ports and in either ocean or air freight.

Most internationally traded commodities move by ship. While some commodity concerns rely on their own ships, most processed and bulk agricultural commodities are moved using liner services, charter parties, or quantity contracts.

Liner services are provided by ships that operate scheduled services on a regular route. These can be container, general cargo, roll-on, or other types of vessels. For fresh fruits and vegetables or other high value, low volume products, this is often the best type of ocean transport. Charter parties usually involve full shiploads of cargo. Quantity contracts leave a shipowner some flexibility with respect to which ship to use and when to load the cargo.

In any case, the types of service available must be assessed with respect to whether they will support the proposed export or import activity.

I. Price Risk: Cash and Futures Markets

Both buyers and sellers are at risk for fluctuation in commodity prices. Commodity price risks can be substantial and it is prudent for exporters and importers to have sound strategies for dealing with these risks. There is a commonly held view that using futures markets amounts to speculation. That view is true if one is in fact speculating in futures markets. But the use of futures as part of a prudent hedging strategy helps manage price risk. It is important for buyers and sellers to understand hedging and how it works since without hedging one is speculating in the cash market.

In purely cash transactions, the seller benefits if the price rises between the time a sale is made and the price is fixed; the seller has lost an opportunity to benefit if prices rise subsequent to the time when the sale price is determined. The reverse is true for buyers, and an opposite situation results when prices decline. There is even more risk if the seller fixes a price but does not yet own the commodity at the time of sale. In this situation, the seller loses money if he has to pay more for the commodity than he sold it for and makes money if he buys the commodity at a lower price than the one at which he sold. Price risks in cash transactions can be substantial given the volatility of commodity prices and exchange rates.

Futures markets exist for many bulk agricultural commodities and for foreign currencies. Since cash and futures prices tend to move together, futures offer buyers and sellers an opportunity to minimize price risks by taking offsetting positions in both cash and futures markets.

Futures markets for grains, soybeans, and soybean products exist in the U.S. and Europe; for grains and rapeseed in Canada; and for palm oil in Malaysia. There are commodity futures markets in other places as well. Foreign currency markets also operate in the U.S., Europe, and Asia.

For commodities where there are no futures markets (e.g., fresh and processed fruits and vegetables), trade has to take place exclusively in cash markets. However, futures markets for currencies can still be used to minimize exchange rate risk.

There are strategies for minimizing transaction risks in cash markets. These include:

- Covering cash requirements as soon as possible after a sale is made.
- Minimizing the shipping time and the time between when a sale is made and when the sale is priced.

- Investing in market research and intelligence to improve one's ability for forecast future price developments including events that will cause price trends to reverse themselves.

J. Information Sources

Information on these practical aspects of trading agricultural products can be obtained from a wide range of sources. Which are most appropriate will depend on the issue involved and on whether the context is a long-term or a short-term one. The information needed and the best sources of that information will be different for a current policy question than for a project investment analysis. But the following list encompasses most of the avenues of investigation one could pursue.

- Publications and organizations described in this report.
- Host country officials.
- Host country businesses already involved in trade activities.
- International merchants and brokers.
- University researchers.
- Private commercial researchers or market analysts.
- Trade associations in the host country, the U.S., or other trading partners.
- Bankers involved in financing the particular type of trade.
- International shipping firms and freight brokers.
- Staff resources of commodity futures markets around the world.

K. Annex

NORTH AMERICAN EXPORT GRAIN ASSOCIATION, INC.

FREE ON BOARD EXPORT CONTRACT U.S.A./CANADA

NO. 2

Revised as of January 1, 1985

Contract No. _____

New York, N.Y. _____ 19_____

1. Sold by _____

2. Purchased by _____

3. Broker/Agent _____

4. Quantity _____

in bulk, including dockage, 5% more or less at buyer's option, and at market price (per Clause 10) as follows: If the first delivery under this contract is for a quantity between contract minimum and contract maximum (both inclusive), no further deliveries shall be made. If this contract is to be executed by more than one vessel, the loading tolerance of 5% more or less shall apply on the difference between the mean contract quantity and the quantity that has been delivered on all prior vessels. Any delivery which falls within this difference, plus or minus 5%, shall complete the contract.

5. Weight Quantity to be final at port of loading in accordance with customary weight certificates. 1,016 kilos shall be equal to 2,240 lbs.

6. Commodity _____

_____ in accordance with the official grain standards of the United States or Canada, whichever applicable, in effect on the date of this _____.

7. Quality Quality and condition to be final at port of loading in accordance with official inspection certificates.

In case of delivery at St. Lawrence ports, quality and condition to be final in accordance with Lake and/or loading ports official inspection certificates; Lake inspection certificates to be properly identified at ports of shipment.

Each party hereby authorizes the other party to request in both parties' names an appeal inspection under the U.S. Grain Standards Act at any time prior to or during the loading of the vessel, and whether or not such request was filed before commencement of loading. The cost of such appeal inspection, unless otherwise stipulated in this contract, shall be borne by the party requesting it.

Delivery of higher grades of grain of the same type and description is permissible. The commodity is not warranted free from defect, rendering same unmerchantable, which would not be apparent on reasonable examination, any statute or rule of law to the contrary notwithstanding.

8. Delivery Delivery shall be made between _____ and _____, both inclusive (the "delivery period"), at discharge end of loading spout, to buyer's tonnage in readiness to load, in accordance with custom of the port and subject to the elevator tariff to the extent that it does not conflict with the terms of this contract.

Buyer shall give vessel nominations ("preadvise") in accordance with Clause 15, in time for seller to receive minimum _____ days notice of probable readiness of tonnage and quantities required (the "preadvise period"). Buyer to keep seller informed of changes in expected date of vessel readiness.

Time for the preadvise shall be deemed to commence to count at 1200 noon, local time at place of receipt, on the business day of receipt by seller and shall be counted in consecutive periods of 24 hours.

Seller shall, if applicable, declare port and berth of loading within a reasonable time (but not later than _____ days) after receipt by seller of the preadvise, except that seller shall not be obligated to make such declaration earlier than (a) the 8th day prior to commencement of the delivery period for port declaration and (b) the 5th day prior to commencement of the delivery period for berth declaration.

The vessel shall not be prevented from filing and from taking its place in the vessel line-up at the designated port/berth during the preadvise period or before commencement of the delivery period, notwithstanding which, seller shall not be obliged to effect delivery to the vessel before the expiration of the preadvise period or before commencement of the delivery period. For the purposes of this contract a vessel shall be considered filed when it (a) has tendered valid notice of readiness to load to the charterer or his agent, at the port of loading, (b) has given written advice of such tender to the loading elevator, complete with all customarily required documents, such advice having been presented between the hours

of 0900 and 1600 local time on a business day or between the hours of 0900 and 1200 noon on Saturday (provided not a holiday) and (c) is ready to receive grain in the compartments required for loading under this contract.

Buyer shall be allowed to make one substitution of a vessel, provided the substituting vessel is of the same type and approximately the same size and position. If the original or the substituting vessel is unable to lift the commodity by reason of the vessel having sunk or having suffered incapacitating physical damage, an additional substitution shall be made of a vessel of the same type and approximately the same size, and with a position agreeable to buyer and seller. Such agreement shall not be unreasonably withheld. The nomination of the substituting vessel shall be subject to the preadvice requirements of this clause, regardless of any preadvice previously given, unless the estimated time of arrival of the substituting vessel is the same as the estimated time of arrival of the original vessel when nominated. No substitution of vessels other than as provided in this clause shall be made. If this is a "named vessel" contract, no substitution other than after a casualty as described above shall be permitted.

Bills of lading and/or mate's receipts to be considered proof of date of delivery in the absence of evidence to the contrary. Any delivery in part fulfillment of this contract shall be considered as if made under a separate contract.

9. Days In any month containing an odd number of days, the middle day shall be reckoned as belonging to both halves of the month.

10. Price _____ per _____

free on board buyer's tonnage at _____

If this contract is for a flat price, any variance in quantity from the mean contract quantity shall be settled basis the FOB market value (as defined in paragraph (a) and (b) below).

If the contract price is to be established on an exchange of futures, futures shall be exchanged prior to delivery of the commodity or at least 5 calendar days prior to the last trading day of the applicable futures month, whichever is earlier, to the nearest 5,000 bushels of the mean contract quantity. If deliveries under this contract result in a variance from the mean contract quantity, there shall be another exchange of futures as soon as possible after the last date of loading to bring the resulting amount of futures exchanged to the nearest 5,000 bushels of the quantity delivered. All exchanges of futures shall be made within the range of prices prevailing on the futures market on the date of the exchange. The variance from the mean contract quantity shall be settled basis the market value of the premium (as defined in paragraph (a) and (b) below).

(a) The FOB (flat price) market value, or the market value of the premium, as the case may be, shall be that prevailing on the close of the appropriate market in the country of origin of the commodity on the last date of loading, if such be a business day, otherwise on the close of such market on the previous business day.

(b) In the event the parties do not agree on the market value by the time the shipping documents are ready to be transmitted to buyer, seller shall invoice the entire shipment provisionally at contract price. Thereafter, final invoice for the difference between contract price and market value shall be presented as soon as possible and payment shall be made immediately.

11. Payment *(a) Net cash by irrevocable divisible letters of credit issued or confirmed by a prime U.S. bank in New York (or _____ by mutual agreement), available by sight drafts accompanied by shipping documents per Clause 12 (or warehouse receipts if option (c) of Clause 18 is exercised). Such letters of credit, in a form acceptable to seller, shall be established not later than 5 days prior to the beginning of the delivery period, and shall be valid at least until the 30th day after expiration of the delivery period. Should delivery be delayed beyond the delivery period, buyer, if requested by seller, shall amend letters of credit accordingly and buyer shall increase the amount of the letters of credit to provide for carrying charges, if applicable. All bank charges shall be for buyer's account.

— or —

*(b) Net cash in U.S. Dollars, by telegraphic transfer to the bank designated by seller, against presentation of and in exchange for shipping documents per Clause 12 (or warehouse receipts if option (c) of Clause 18 is exercised). Such presentation shall be made in the city of _____

_____ All bank charges in connection with payment shall be for buyer's account

— or —

*(c) _____

*Delete paragraphs which are not applicable.

12. Shipping Documents Payment to be made against bills of lading or mate's receipts (at seller's option), and weight and inspection certificates. However, if practicable, seller shall follow instructions of buyer in establishing bills of lading containing such clauses as buyer's/vessel's agents or owners usually endorse or attach. Buyer shall accept such bills of lading but seller assumes no responsibility for their correctness.

13. Notice of Delivery Notice of delivery stating vessel's name, dates of bills of lading (or mate's receipts), quantities and qualities loaded (including percentage of dockage if applicable) shall be given or passed on by seller to buyer without undue delay. Notices of delivery shall be subject to correction of any errors.

14. Insurance Marine and war risk (plus strikes, riots, civil commotions and mine risk) insurance, covering seller's/buyer's interests as they may appear, is to be covered by buyer with first-class approved companies and/or underwriters and to be confirmed by such companies and/or underwriters to seller at least 5 days prior to the expected readiness of the vessel. If this confirmation is not received by seller by such time, seller may place such insurance for buyer's account and at buyer's risk and expense.

15. Communications All notices under this contract shall be given by letter, if delivered by hand on the day of writing, or by cable, telex or other method of rapid written communication. Any notice received after 1600 hours (local time at place of receipt) on a business day shall be deemed to have been

received on the following business day, except that for preadvice given and received by parties which are both located in the Continental United States and/or Canada, the reference herein to 1600 hours shall signify 1600 hours New York City time (E.S.T. or E.D.T., as in effect on date of receipt of the notice).

16. Circles

- (a) For the purposes of this clause, a circle shall consist of a series of contracts in which each seller is also a buyer of a commodity of the same description and quality, for delivery at the same ports and with compatible delivery periods.
- (b) If this contract forms part of a circle, each party may agree with the other parties in the circle to forego actual delivery and to participate in a clearing agreement for the settlement of contract price differences. Monies due and owed to parties in the circle shall be payable on the middle day of the contract delivery period.
- (c) If a circle can be shown to exist but no clearing agreement has been reached by the 10th calendar day following the last day of the delivery period, actual delivery shall not be made and payment shall be made by each buyer to his seller of the excess of seller's invoice amount over the lowest invoice amount in the circle. Such payments shall be made promptly after the 10th calendar day following the last day of the delivery period.
- (d) Should any party in a circle fail to make payment on the due date as required under paragraph (b) or (c) above for reasons cited in Clause 23 or for any other reason, payment shall be made between each buyer and his seller of the difference between the seller's invoice amount at contract price and the market value of the commodity on date of insolvency or default, as the case may be. Such payment shall be made latest on the 2nd business day after the due date under paragraph (b) or (c) above.
Payments already made under paragraph (b) or (c) above shall be refunded.
- (e) All circle settlements shall be based on the mean contract quantity.
If a circle under paragraph (b), (c) or (d) above exists, Clause 21 shall not apply and Clauses 18 and 20 shall not be invoked.
Payments due on a non-business day shall be made not later than the following business day.
All payments made after the delivery period shall include carrying charges from the day following the last day of the delivery period, to the date of payment, at the rates stipulated in this contract. These carrying charges shall be settled individually between each buyer and his seller.
- (f) The parties agree that any dispute arising out of the voluntary clearing agreement entered into in accordance with paragraph (b) above shall be subject to arbitration as to any party thereto. Such arbitration shall be conducted in accordance with the provisions of Clause 27.

17. U.S./Canadian Government Rules and Regulations

Buyer and seller agree to comply with the U.S. and Canadian regulatory prerequisites applicable to this contract, including, but not limited to, those governing any export subsidy, destination controls, government financing of agricultural commodities and the monitoring of export purchases and sales. Any losses, fines, penalties, expenses, costs or damages incurred as a result of failure to perform in accordance with this provision shall be borne by the party responsible for such failure.

18. Failure to Take Delivery

If vessel fails to file before the end of the delivery period, buyer shall be in breach of contract and seller shall carry the grain for buyer's account and risk as provided in Clause 19. In the event that buyer has not given vessel nominations conforming to the applicable provisions of Clause 8 by the 15th calendar day following the last day of the delivery period, or if the vessels having been nominated within such time, fail to file by the 35th calendar day following the last day of the delivery period, seller may, in his discretion: (a) continue to carry the commodity for buyer's account and risk, (b) declare buyer in default, or (c) tender to buyer proper warehouse receipts in a quantity equal to the mean quantity open under this contract, in exchange for which buyer shall pay at contract price plus accrued carrying charges, but less out-elevation and outbound weighing and inspection charges. Such tender of warehouse receipts shall be deemed due performance of the contract by seller.

SPECIAL PROVISIONS FOR CONTRACTS PROVIDING FOR DELIVERY AT ST. LAWRENCE, GREAT LAKES OR HUDSON BAY PORTS:

- (1) Seller shall be barred from declaring option (b) above while the navigation in the designated delivery area is officially closed for the ice season, and for 20 days thereafter.
- (2) However, if options (a), (b) and (c) above become available to seller only while the navigation is officially closed, the seller may declare option (b) during the first 10 days it becomes available to him; thereafter, he shall be barred from declaring it, until the 21st day after the official opening of navigation.
- (3) If seller carries the grain into the new season for buyer's account, buyer shall have the right to nominate vessels per Clause 8, regardless of whether vessels were already nominated during the delivery period.

19. Carrying Charges

If the commodity is being carried for buyer's account and risk as provided in Clause 18, it is mutually agreed that carrying charges, consisting of storage, insurance and interest, shall accrue as follows:

- (a) Storage and insurance from the day following the last date of the delivery period up to and including the dates of delivery (or if seller exercises option (b) or (c) of Clause 18, the date applicable thereto), both dates inclusive, at the following rates:

_____ U.S. cents per bushel per day _____

_____ U.S. cents per bushel per day _____

- (b) Interest from the day following the last day of the delivery period up to and including the last day of delivery (or if seller exercises option (b) or (c) of Clause 18, the date applicable thereto), both dates inclusive, at the following rates:

Carrying charges for the delivery completing this contract shall be computed on the mean contract quantity less the amounts previously delivered (if any), irrespective of whether or not buyer has availed himself of the loading tolerance option under Clause 4. It is further expressly agreed that carrying charges as provided herein are to be construed in the nature of liquidated damages and, as such, that no further proof of damages shall be required in substantiation thereof.

20. **Strikes or Other Causes of Delay in Delivery**
- (a) This clause shall apply if delivery by seller of the commodity, or any part thereof, is prevented or delayed at the port(s) of delivery and/or elevator(s) of delivery or elsewhere, or if the forwarding of the commodity to such port(s) and/or elevator(s) is prevented, by reason of the causes enumerated in paragraph (b) below; PROVIDED that seller shall have sent notice to buyer not later than 2 business days after the date of commencement of the causes, or not later than 2 business days after the 1st day of the delivery period, whichever occurs later (except that subsequent sellers shall not be bound by these deadlines, provided they pass along the notice to their buyer, without delay); and PROVIDED further that seller shall, at buyer's request, furnish a certificate of the North American Export Grain Association, Inc., certifying the existence and the duration of the causes. Such certificate shall be final.
- (b) The causes of delay and/or prevention ("causes") referred to in paragraph (a) above shall be:
- (1) Riots, strikes, lockouts, interruptions in or stoppages of the normal course of labor,
 - (2) Embargoes or exceptional impediments to transportation,
 - (3) Action by Federal, State or local government or authority.
- (c) The obligation of seller to make delivery shall be suspended while the causes are in effect, until the termination of the causes and/or the resumption of work after the termination of the causes, whichever is later. Seller shall not be responsible for further delays after resumption of work (whether such termination or resumption of work occurs prior to, during or after the delivery period) except that, if a vessel nominated under this contract is not loaded in the proper rotation but is bypassed by vessels (other than liners) which had filed after the vessel nominated under this contract, seller shall pay to buyer damages equal to the actual working time lost (weather working days, Saturdays, Sundays and holidays excluded) to buyer's vessel during the loading of the bypassing vessels, at the demurrage rate in the Charter Party for the vessel nominated under this contract.
- If the Charter Party of the vessel under this contract does not indicate a demurrage rate, the damages are to be calculated at a reasonable demurrage rate predicated on the then current market, to be agreed upon amicably or to be determined by arbitration.
- (d) (1) If the causes commence before or during the delivery period and terminate during or after delivery period, then the delivery period shall be deemed to be extended by a number of days equivalent to the period starting with the commencement of the causes or the commencement of the delivery period, whichever is later, and ending with the termination of the causes, and/or the resumption of work after the termination of the causes, whichever is later.
- (2) If the causes commence during the additional time afforded to buyer under Clause 18 with respect to vessel nominations and filings, then the right of seller to exercise option (b) or (c) under Clause 18 shall be deemed to be delayed by a number of days equivalent to the period starting with the commencement of the causes and ending with the termination of the causes and/or the resumption of work after the termination of the causes, whichever is later.
- (e) Carrying charges, if due under Clauses 18/19, shall begin to accrue on the day following the last day of the delivery period, as extended by paragraph (d) (1) above; however, if this clause becomes operative while carrying charges are already accruing, then such charges shall continue to accrue as they would in the absence of the causes.
21. **Prohibition** In case of prohibition of export, blockade or hostilities or in case of any executive or legislative act done by or on behalf of the government of the country of origin or of the territory where the ports of shipment named herein are situate, restricting export, whether partially or otherwise, any such restriction shall be deemed by both parties to apply to this contract and to the extent of such total or partial restriction to prevent fulfillment and to that extent this contract or any unfulfilled portion thereof shall be cancelled without prejudice to seller's entitlement to carrying charges. Seller shall advise buyer without delay of the reasons therefor, and if required by buyer, seller shall provide certification of the North American Export Grain Association, Inc., as sufficient evidence for cancellation under this clause.
22. **Default** In case of default by either party, the other party shall be at liberty, after giving notice, to resell or repurchase, as the case may be, without undue delay and the defaulting party shall make good the loss, if any, to the other party but the defaulting party shall not be entitled to any profit. If the non-defaulting party has not repurchased or resold the commodity by the 10th calendar day after the giving of notice of default, the market value on the said 10th day shall be used for settlement purposes. If such 10th day falls on a non-business day, the market value on the previous business day shall govern. In the event of a default by buyer, the sale price under this contract shall automatically be increased by the value of carrying charges calculated up to the date of resale, or the 10th calendar day after the giving of notice of default, whichever is applicable.
23. **Insolvency** Either party shall, at any time after sending notice, have the right to terminate this contract and to recover the loss (if any) in the event that:
- (a) the other party suspends payment or commits an act of bankruptcy;
- or —
- (b) reasonable grounds for insecurity having arisen with respect to the financial capacity of the other party to perform under this contract, and a written demand for adequate assurance of due performance having been made, such assurance is not received within a period of time not exceeding 5 days.
24. **Construction** For the purposes of this contract, except as otherwise expressly provided or unless the context otherwise requires, plural terms include the singular.
25. **Passage of Title** Anything in this contract to the contrary notwithstanding, seller shall retain title to the commodity until seller has been paid in full (per Clause 11), it being understood that risk of loss shall pass to buyer on delivery at discharge end of loading space (per Clause 8).
26. **Other Conditions**
27. **Arbitration** Buyer and seller expressly agree that any controversy or claim arising out of, in connection with or relating to this contract, or the interpretation, performance or breach thereof, shall be settled by arbitration in the City of New York before the American Arbitration Association, or its successors, pursuant to the Grain Arbitration Rules of the American Arbitration Association, as those Rules may be in effect at the time of such arbitration proceeding, which Rules are hereby deemed incorporated herein and made a part hereof, and under the laws of the State of New York. The arbitration award shall be final and binding on both parties and judgment upon such arbitration award may be entered in the Supreme Court of the State of New York or any other court having jurisdiction thereof. Buyer and seller hereby recognize and expressly consent to the jurisdiction over each of them of the American Arbitration Association or its successors, and of all the courts in the State of New York. Buyer and seller agree that this contract shall be deemed to have been made in New York State and be deemed to be performed there, any reference herein or elsewhere to the contrary notwithstanding.

 BUYER

 SELLER

NORTH AMERICAN EXPORT GRAIN ASSOCIATION, INC.

ADDENDUM NO. 1
TO NORTH AMERICAN EXPORT GRAIN ASSOCIATION, INC., F.O.B. CONTRACT NO. 2
(REVISED AS OF JANUARY 1, 1985)

LOADING RATE GUARANTY

This Addendum shall apply if the parties have agreed to be bound by a loading rate guaranty, and provided the buyer nominates one self-trimming bulk carrier which lifts the total quantity of this contract.

1. Seller guarantees to deliver at an average rate of _____ long tons per weather working day of 24 consecutive hours, Sundays and holidays excepted, Saturdays per Baltimore Form "C" Saturday Clause, provided vessel can receive at such rate. Holidays shall be those listed as such in the BIMCO Holiday Calendar and/or in the elevator tariff.
For this purpose, laytime shall commence to count:
 - (a) at 0700 hours on the business day following filing of the vessel in accordance with Clause 8 of North American Export Grain Association, Inc., FOB Contract No. 2 ("NAEGA 2"),
— or —
 - (b) at 0700 hours on the business day following expiration of the preadvice period stipulated in Clause 8 of NAEGA 2, unless an earlier date is agreed to by both parties,
— or —
 - (c) at 0000 hours on the first business day of the contract delivery period, unless an earlier date is agreed to by both parties,
whichever is the latest, whether vessel is in berth or not.
2. Should seller deliver at less than the stipulated rate, seller to pay buyer demurrage at \$_____ for each additional day (or pro-rata for part of day) used. Should seller deliver faster than at the stipulated rate, buyer to pay seller despatch money at half the demurrage rate, i.e. \$_____ per day, for each day (or pro-rata for part of day) of laytime saved.
3. Any overtime work performed by the elevator and/or grain inspection and weighing services and/or stevedores shall be for seller's account if ordered by the elevator or the Port Authority; otherwise, for account of the party ordering the overtime.
4. If Clause 20 of NAEGA 2 has been duly invoked, time shall not count for demurrage purposes while the causes are in effect, until the termination of the causes and/or the resumption of work after the termination of the causes, whichever is later, and for an additional period ("additional period") of equal duration, but such additional period not to exceed 30 days. However, for purposes of settling despatch accounts only, any time lost in delivering through any of the causes, and the additional period, shall be counted as time used in loading.
If during the additional period the vessel nominated under this contract is not loaded in proper rotation but is bypassed by vessels (other than liners) which had filed after the vessel nominated under this contract, seller shall pay to buyer damages equal to the actual working time lost (i.e. weather working days, but Saturdays, Sundays and holidays excluded) to buyer's vessel during the loading of the bypassing vessels, at the demurrage rate stipulated in Clause 2 above. The provisions regarding payment of damages under paragraph (c) of Clause 20 of NAEGA 2 shall not apply to this Addendum.
Notwithstanding the above, if time has started to count under Clause 1 above within the delivery period, and demurrage is already accruing under this Addendum when the causes of prevention or delay commence under Clause 20 of NAEGA 2, demurrage shall continue to accrue as if these causes did not exist. In such case, the preceding paragraph shall be deemed to be deleted.
5. Buyer's or seller's claim under this Addendum shall be accompanied by the statement of facts at loading, signed on behalf of the owner and the charterer or on behalf of the owner and by the supplier, and such other papers as may be necessary to process the claim. If payment is not made within 40 days from date of mailing of properly documented claim, interest shall accrue, starting on the 41st day after such mailing, and shall be computed on the final amount due, at the rate of interest stipulated elsewhere in this contract, up to the date of payment of the claim.
6. If vessel nominated under this contract also lifts additional commodities (grain and/or oilseeds), regardless of whether or not such commodities are covered by loading rate guaranties, the following shall apply:
 - (a) For commodities delivered to vessel at the same berth:
The "time allowed" shall be arrived at by dividing the tonnage loaded under this contract by the daily rate stipulated in Clause 1 above. A calculation of "total time used" for all the commodities loaded at the berth shall be made, in which any such time in excess of the "time allowed" shall be computed as time on demurrage. The "total time used" shall then be pro-rated to the tonnage loaded under this contract. The "time allowed" shall be deducted from this pro-rated figure to arrive at the time on demurrage or time saved under this contract.
 - (b) If the commodities other than those under this contract are delivered at (an)other berth(s) in the same port:
The waiting time ("waiting time") at the first berth shall be pro-rated among all the contracts for the commodities to be delivered to the vessel.
The time spent getting to and used at the first berth ("berth time") shall be pro-rated among the contracts loaded at the first berth.
The waiting time at the second berth shall be pro-rated among all remaining contracts for the commodities yet to be delivered to the vessel.
The berth time at the second berth shall be pro-rated among the contracts loaded at the second berth.
Waiting time and berth time for berths subsequent to the second berth shall be treated in a similar manner as for the second berth.

Waiting time shall cease and berth time begin when pilot is on board and vessel lifts anchor in order to proceed to the loading berth. Berth time shall cease when loading is completed at that berth and waiting time shall begin when vessel drops anchor in waiting area after having sailed from berth.

If no waiting time is involved between berths, berth time at the next berth shall begin when vessel sails from the previous berth.

If, between the time that the vessel is ordered into a berth and the time of completion of loading at that berth, the vessel is ordered into one or more other berths, subsequently incurred waiting time at this (these) other berth(s) shall not count.

(c) If the commodities other than those under this contract are delivered at (an)other port(s):

The laytime statement shall be prepared as if the vessel had not called at another port. If the commodities under this contract are loaded at the second or a subsequent port, the words "filing of the vessel in accordance with Clause 8 of the North American Export Grain Association, Inc., FOB Contract No. 2 ("NAEGA 2")" in Clause 1(a) above shall be deemed to read "presentation of the vessel's passes." If, however, the first and second or subsequent ports have been nominated by the seller of the grain under this contract, laytime for the second and/or subsequent port(s) shall commence upon vessel's arrival at that or the subsequent port(s); except that, if vessel fails inspection at such port(s), laytime shall cease to count until vessel passes.

7. If vessel fails reinspection at the loading berth, laytime shall cease to count until vessel passes.

8. Any trimming costs as well as overtime costs for performing trimming shall be for buyer's account. Any time used for trimming shall not count as laytime and/or shall be exempt from demurrage, unless loading operations are being carried on simultaneously in other holds.

9. Other Conditions:

10. Buyer and seller agree that any controversy or claim arising out of, in connection with or relating to this Addendum, or the interpretation, performance or breach thereof, shall be settled by arbitration in the City of New York before the American Arbitration Association, or its successors, pursuant to the Grain Arbitration Rules of the American Arbitration Association, as those Rules may be in effect at the time of such arbitration proceeding, which Rules are hereby deemed incorporated herein and made a part hereof, and under the laws of the State of New York. The arbitration award shall be final and binding on both parties and judgment upon such arbitration award may be entered in the Supreme Court of the State of New York or any other court having jurisdiction thereof. Buyer and seller hereby recognize and expressly consent to the jurisdiction over each of them of the American Arbitration Association or its successors, and of all the courts in the State of New York. Buyer and seller agree that this contract shall be deemed to have been made in New York State and be deemed to be performed there, any reference herein or elsewhere to the contrary notwithstanding.

BUYER

SELLER

V. GENERAL COMMODITY AND POLICY PUBLICATIONS

A. World Bank

1. Price Prospects for Major Primary Commodities

Every two years the World Bank publishes a five-volume report entitled Price Prospects for Major Primary Commodities. It contains historical data on production, consumption and trade by economic region, and projections on an annual basis for the next five years and projections 10 and 15 years into the future. Historical world market prices are also presented as well as price projections for the same time periods as those used for production, consumption, and trade.

The report is organized into five volumes. Volume I describes the macroeconomic assumptions used in the analysis, discusses the current commodity situation, and provides an overview of commodity projections. Volume II provides commodity-specific discussions on the outlook for production, consumption, trade and prices for food products and fertilizers. Volume III presents the outlook for agricultural raw materials. Volume IV covers metals and minerals, and Volume V deals with energy.

For purposes of this report, Volumes I and II are the most relevant since they cover grains, oilseeds and products, citrus, and bananas. Other commodities that are analyzed are coffee, cocoa, tea, sugar, beef and fertilizers.

These reports present very good discussions of both economic and policy forces affecting world commodity markets and the outlook for the next 15 years. Specific country, regional and global developments are discussed for various commodities.

In addition, the World Bank prepares semi-annual updates of world market conditions and price forecasts. By this means, users of these reports can keep current on commodity developments.

2. Special Studies

The Commodity Studies and Projections Division of the World Bank publishes Staff Commodity Working Papers, Division Working Papers and Reprints on some aspects of commodity markets. Some of these papers are highly technical discussions of theoretical issues involved in commodity market analysis. Others deal with specific commodities in individual countries.

The Bank occasionally publishes papers that cover important aspects of world market conditions and prices for commodities dealt with in this report. Recent papers that fall into the latter category are:

- Import Demand for Grains: Implications for U.S. Agricultural Policy, D. Mitchell, 1985.
- Market Behavior of Grains Exporters, D. Mitchell, May 1986.

The Price Prospects reports and the special studies are available from:

Commodity Studies and Projections Division
Economic Analysis and Projections Department
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

3. Commodity Trade and Price Trends

This is an annual publication that provides a useful summary of information on world commodity trade and prices. It includes commodity data on individual country shares of world imports and exports for a recent three year period. This information enables one to quickly determine which countries are the major importers or exporters. It also provides historical data on exports and imports of principal commodities by country groupings (developing countries and industrial market economies). The historical data covers all the major grains, oilseeds and products, and fruits and vegetables including bananas, citrus, dates, raisins, onions, pulses, peppers and tomatoes. Finally, long historical price series are presented for major commodities in world trade.

The report can be obtained from:

Publication Office
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

B. International Monetary Fund

1. Primary Commodities: Market Developments And Outlook

In May of each year the International Monetary Fund (IMF) publishes an annual assessment of markets for primary commodities entitled Primary Commodities: Market Developments and Outlook. The commodities covered that are relevant to this study are cereals and major oilseeds and their products.

This publication is an excellent source of historical data and includes evaluations of world commodity markets in general as well as markets for specific commodities. The price outlook for the next three years is discussed less specifically and only for commodities as a whole. Price projections for individual commodities are not included in the report.

The report can be obtained from:

External Relations Department
Attention: Publications Unit
International Monetary Fund
Washington, D.C. 20431

C. U.N. Trade Data

The United Nations Statistical Office in Geneva annually compiles detailed world trade data. This is an excellent source of information for grains, oilseeds and products, and fruits and vegetables.

These data are available in published form through the U.N. Statistical Yearbook and on computer tapes.

The Foreign Agricultural Service receives the U.N. computer tapes and will process this data at a nominal cost. Basically, they charge data users only the computer costs of processing this data. The FAS contact is:

Michael Dwyer
Trade and Economic Information Division
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

D. Official EC Data

The Statistical Office of the European Communities is generally known as Eurostat. Its agricultural statistics directorate issues a number of relevant publications, two of which are described below. But increasingly Eurostat is relying on microfiche and on electronic dissemination via its CRONOS and COMEXT data banks. The former contains price and supply-demand data, while the latter contains trade data. The Directorate-General for Agriculture (DG VI) of the Commission of the European Communities also publishes some materials. Eurostat publications are available from:

European Community Information Service
Suite 757
2100 M Street, N.W.
Washington, D.C. 20037

1. Crop Production

This is a quarterly publication containing statistics excerpted from the Eurostat CRONOS data bank. Longer time series are available and can be obtained on request in the form of printouts or magnetic tapes. Data are provided for the most recent three or four years on area, yield, production, trade, utilization and stocks for the following commodities: cereals, rice, dried pulses, potatoes, sugar beet, sugar, molasses, fruits, vegetables, wine, honey, and cocoa.

2. Agricultural Prices

This is a quarterly publication on prices received by producers for crops and livestock products, and on prices paid for various inputs. Only the most important price series are included, but the others can be obtained on request from the Statistical Office of the European Communities.

3. The Agricultural Situation in the Community

An annual review of the main events of the preceding year, market developments, the economic situation for farmers and consumers, policy, external relations, and financing of the CAP, this report also contains an elaborate statistical annex.

4. External Trade

This annual publication provides country-by-country detail on the volume and value of member countries' imports and exports. Data are only provided for the most recent calendar year.

5. NIMEXE Trade Data

This publication contains annual trade figures for the Community at a 6 digit level of product classification. These data provide detailed information on imports by source and exports by destination for each country in the EC showing both intra-EC trade and trade with third countries.

The NIMEXE annual data are available in both published form and on computer tapes. Several books or tapes are required to put together an historical data series. One can access the NIMEXE data through Wharton Econometrics, Washington, D.C.

E. Other European Sources

1. Euromonitor

Euromonitor publishes Consumer Europe 1985, a business information service providing five year growth trends and market sizes for a wide range of consumer products. Generally the volume and value of national consumption or retail sales are provided, along with per capita data. The information may eventually be available online. Countries currently included are Austria, Belgium, Denmark, Finland, France, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and West Germany. The current edition of Consumer Europe can be obtained from:

Euromonitor
87-88 Turnmill Street
London EC1M 5QU
England

2. Agra Europe Publications

Agra Europe (London) Ltd is a U.K.-based publisher which specializes in reporting on European Community agriculture. It produces several print and electronic publications which collectively cover the full range of crop and livestock market and policy developments within the EC. The various publications described below can be obtained from:

Agra Europe (London) Ltd.
25 Frant Road
Tunbridge Wells
Kent TN2 5JT
England

Telephone (0892) 33813
Telex 95114 AGRATW G

Agra Europe is the group's original publication and it has been issued weekly since 1963. It focuses primarily on food and agricultural markets in the E.C., and the various factors affecting them. It is divided into four sections. The first covers actions by the Management Committee with respect to the various commodity regimes, and overview stories from a Brussels perspective on policy developments primarily in the EC and the U.S. The second section covers market developments including livestock and crop prices, supply-demand data, and brief analytical pieces. The third section describes official EC policy actions directly or indirectly affecting agriculture. The final section includes stories on individual countries around the world dealing with a variety of issues.

Green Europe is a monthly digest of Agra Europe written for a U.K. audience.

East Europe Agriculture is a monthly publication providing data and analysis on agriculture in the USSR and Eastern Europe.

Express Monitor is published weekly and contains detailed reports, summaries and commentary on legislation, regulations, and Management Committee reports. Each month there is a consolidated summary by commodity.

CAP Monitor is a continuously updated loose-leaf guide to the Common Agricultural Policy. It contains sections on the history and objectives of the CAP, its monetary and legal aspects, relations with non-EC countries, and administrative organization and personnel. It then has a statistical section with long time series on inputs, production, trade, livestock numbers, and finance. The major part of the document is comprised of individual commodity sections which describe all relevant policies, regulations, and program management practices. A history of official prices is also provided.

Potato Markets is a weekly report on price and supply-demand developments in major potato-producing countries.

Preserved Milk is a monthly publication on the market for preserved whole, skim, and condensed milk, whey, and casein.

Milk Products is a monthly report on EC butter, cheese, and milk markets, with some coverage of the rest of the world.

Agrafile is a monthly compilation of excerpts from the various Agra Europe publications organized by commodity. The four versions available are Dairy Products, Fruit and Vegetables, Grain and Oilseed, and Livestock and Meat.

The full text of Agra Europe is available electronically. There is also an on-line service on EC agricultural policy information. A variety of ad hoc studies of food and agricultural issues are also available.

F. FAO Statistical Publications

1. FAO Production Yearbooks

These yearbooks provide historical data on acreage, yield, and production for grain, oilseeds, fruits, nuts and vegetables as well as production data for livestock and poultry, agricultural input use, and world market prices for a large number of agricultural commodities. These data are presented for each country of the world.

The detailed country and commodity coverage provided is a useful source of reliable information. There is usually a lag of several years between the last year for which data are available and when FAO publishes these data.

2. FAO Trade Yearbooks

The annual agricultural trade yearbooks provide historical series on imports and exports for the same countries and at about the same level of commodity detail as contained in the production yearbooks. World market price data are also reported for a large number of commodities.

As with the FAO production data, there is a lag of several years between the last year for which data are available and when they are published.

3. FAO Monthly Bulletin of Statistics

These monthly bulletins provide the same coverage on production, trade, and prices as contained in the yearbooks, but on a more current basis. Each issue usually has one or more special features which focus on either selected market areas or selected groups of commodities. Data contained in the monthly bulletins tend to be more current than those in the yearbooks.

G. CMEA: Statistical Annual, Council For Mutual Economic Assistance, Moscow, USSR, (In Russian).

This is a valuable source of information on agricultural commodities and food products for Communist countries. Historical data on production, disappearance, imports, and exports are presented for a large number of commodities on an individual country basis. The trade data are broken down by country of origin and destination. The countries covered include those in Eastern Europe, the USSR, Mongolia, Viet Nam and Cuba. It is one of the few sources of information on Cuba and Viet Nam.

Analysts who have worked with these data over the years find it reliable and useful. It is original information compiled for use by CMEA members and this contributes to its reliability. Also, the publication contains information on minor commodities that is not readily available from other sources; e.g., citrus trade of Cuba.

H. USDA

1. World Agricultural Supply and Demand Estimates

World Agricultural Supply and Demand Estimates (WASDE) is published monthly. For the crop season ahead, it summarizes stocks, production, trade and disappearance data for the world as a whole and by major exporting and importing countries for grains, soybeans and products, cotton, livestock and animal products. Detailed commodity supply-demand data are provided for the U.S. WASDE generally provides one year of final historical data, estimates for the current season, and projections for the coming marketing year.

The first early season projections are available in the May issue. For instance, the May 11, 1987 WASDE gives the first forecast of 1987/88 crop-year supply and demand for grains, soybeans and products, and cotton. These projections are tentative and are revised in each subsequent month as information becomes available on weather, economic, and political developments.

People participating in U.S. and world grain, oilseed, and cotton markets rely heavily on USDA's WASDE since it is the best comprehensive source of objective current information.

World Agricultural Supply and Demand Estimates can be obtained from:

World Agricultural Outlook Board
U.S. Department of Agriculture
Washington, D.C. 20250

2. World and Regional Agricultural Situation Reports

The Economic Research Service of USDA annually publishes situation and outlook reports for the world and for each major geographic region. The World Agriculture report summarizes world economic, policy, and market developments for the past year for major agricultural commodities. Historical data are also provided on production, consumption, trade and prices. Each issue usually contains a few feature articles. For example, the March, 1987 issue contained the following articles: "World Food Output Rose Slightly", "World Food AID Needs Declining", and "The Green Revolution Lags Rising Wheat Consumption in the Developing World".

The Regional Situation and Outlook reports provide more detailed historical and current information on each region of the world and the key countries within each region. Information covers economic and policy developments, and production, consumption, trade and prices for major commodities and countries within each region. Each regional issue also contains one or more special articles on topics of timely interest. The regional reports cover the following geographic areas:

- Western Hemisphere
- Western Europe
- USSR
- Middle East and North Africa
- Sub-Saharan Africa
- South Asia
- East Asia and Oceania
- China

These reports are published by:

Economic Research Service
U.S. Department of Agriculture
Washington, D.C. 20250

3. Foreign Agricultural Trade
of the United States (FATUS)

The Foreign Agricultural Service of USDA annually publishes detailed data on U.S. agricultural exports by destination and imports by source. These data cover both quantities and values for a large number of food and agricultural commodities at the seven-digit level of trade classification. Data are published on both calendar and fiscal year bases.

These data are useful in determining major markets for U.S. food and agricultural products as well as major sources of U.S. imports.

This publication can be obtained from:

Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

I. Other U.S. Publications

1. U.S. Exports and Imports

The U.S. Department of Commerce publishes annual trade data for the U.S. at the four-digit level of trade classification showing quantities and values for both exports and imports. These data cover exports by destination and imports by source.

U.S. Exports and U.S. Imports can be obtained from:

Bureau of the Census
U.S. Department of Commerce
Washington, D.C.

or

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

VI. GRAINS

A. The World Grain Market: Outlook and Implications for Developing Countries^{1/}

1. Overview

World grain markets underwent dramatic changes during the past 15 years. The 1970's began with ample grain supplies (surpluses) and low and stable prices. Starting in 1972, weather conditions and economic and monetary factors resulted in wide swings in world grain prices and rapid growth in world grain trade. Grain markets were more unsettled during the balance of the decade than at any time since the late 1940's.

The 1980's started with the general perception that the basic trends of the 1970's would continue:

- The world economy would continue to grow in real terms at respectable rates.
- Inflation would continue and be reflected in commodity prices.
- World grain demand would press against production capacity and grain prices would remain high.
- World grain trade would continue to expand rapidly.

The actual experience during the first half of the 1980's turned out to be just the opposite of what was expected at the start of the decade. Economic growth was disappointing, inflation rates declined sharply, world grain trade declined, substantial surplus capacity in grain production emerged, and world grain prices have declined sharply in both nominal and real terms.

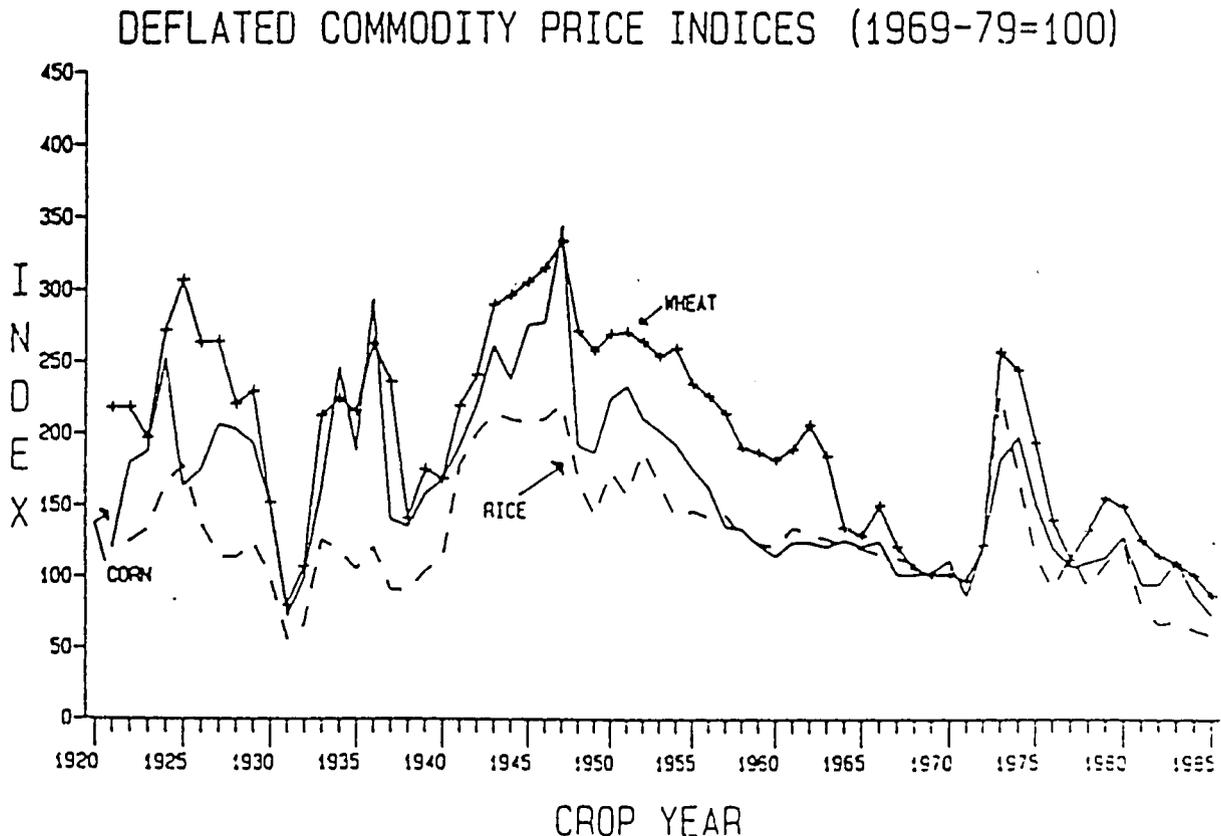
It is now generally recognized that the 1970's were "...an aberration. Those were unusual times triggered by unusual circumstances, the combination of which is not likely to be repeated."^{2/} The nature of this aberration is shown in the following chart that depicts the behavior of deflated (real) commodity prices for the 1925-85 period for grains and cotton. Real prices for these

^{1/} This section is adapted from The World Grain Market: Outlook and Implications for Developing Countries, prepared by Abel, Daft & Earley for Abt Associates under Agricultural Policy Analysis Project, USAID Contract No. DAN-4084-C-00-3087-00, May 29, 1986.

^{2/} The Imperative of Successful Competition, Remarks by Daniel G. Amstutz, Under Secretary for International Affairs and Commodity Programs, U.S. Department of Agriculture, before the Kansas City Federal Reserve Bank Seminar, Kansas City, Kansas, October 31, 1985, p. 5.

commodities have trended downward since 1925, and especially since the late 1940's. Nominal grain prices were quite stable in the 1950-70 period and real prices declined steadily. Annual variations in prices were small during this 20-year period. Prices increased sharply in the early 1970's and were unusually volatile during most of that decade. However, real commodity prices have been falling in recent years and it appears that we are now back on the long-term downtrend.

Figure VI-1



The contrast between the 1970's and 1980's can also be seen in world grain production, consumption, stocks and trade (Tables VI-1 and VI-2). World grain production stagnated in the 1971/72-1975/76 period, and fluctuated markedly from one year to the next. Meanwhile demand continued to increase as a result of income and population growth. In this period, world grain stocks were reduced from 183 to 135 mmt, or by 26 percent. Many people considered the 135 mmt stock level in 1974/75 to be the absolute minimum (pipeline) level required for national and international grain markets to function. Grain stocks as a percent of consumption declined from about 15 percent at the beginning of the decade to about 11 percent in the middle of the decade. We also saw a major expansion in world grain trade in the 1971/72-1975/76 period -- an increase of 37 percent -- as countries with serious grain shortages turned to world markets to meet their needs.

The world grain situation improved in the latter half of the 1970's, but that improvement merely permitted the world grain economy to return to a more normal state. Production, consumption, and trade all grew and prices declined from the extremely high levels experienced earlier in the decade. Thus, recovery permitted an increase in world grain stocks, both in absolute size and relative to consumption.

In many ways the first half of the 1980's stands in sharp contrast to the previous decade. Production, consumption and stocks all increased. World grain production declined sharply in 1983/84 with most of the decline in the U.S. due to government programs and poor weather. But grain stocks were large enough to permit growth in world consumption. By 1986/87 world grain stocks were at a record 360 mmt or 22 percent of consumption.

Table VI-1

World Grain Situation^{1/}

<u>Year</u>	<u>Production</u>	<u>Consumption</u>	<u>Stocks</u>		<u>Ending Stocks as % of Consumption</u>
			<u>World</u>	<u>U.S.</u>	
			----- mmt -----		
1970/71	1,102.5	1,143.8	165.2	55.1	14.4
1971/72	1,196.5	1,178.5	183.3	74.0	15.6
1972/73	1,160.9	1,201.2	142.8	48.4	11.9
1973/74	1,272.6	1,266.3	148.5	31.3	11.7
1974/75	1,217.7	1,229.2	135.4	27.6	11.0
1975/76	1,246.7	1,237.8	142.1	35.7	11.5
1976/77	1,363.1	1,309.7	195.8	61.5	15.0
1977/78	1,337.2	1,338.9	193.7	74.8	14.4
1978/79	1,465.7	1,438.2	220.9	72.5	15.5
1979/80	1,426.6	1,450.2	197.2	78.2	13.6
1980/81	1,446.8	1,461.1	133.2	62.4	12.6
1981/82	1,498.9	1,462.8	219.2	100.3	15.0
1982/83	1,544.1	1,511.0	252.2	140.3	16.7
1983/84	1,484.3	1,551.6	185.0	72.1	12.0
1984/85	1,645.0	1,593.0	230.0	90.7	14.4
1985/86	1,662.0	1,571.0	320.0	181.2	20.4
1986/87	1,680.0	1,640.0	360.0	204.0	22.0

Source: Grains, Foreign Agriculture Circular, FAS, USDA, various issues.

^{1/} Wheat, coarse grains, and rice on milled basis.

Another change in the world grain situation is the decline in world trade during the 1980's, reflecting abundant supplies relative to demand and less pressure for many countries to meet their requirements through imports. World grain trade increased 96 percent or by 7 percent a year in the 1970/71-1980/81 period. In the 1980/81-1985/86 period, however, world grain trade declined 16 percent. Trade began to increase in 1986/87.

Table VI-2

World Grain Trade

<u>Year</u>	<u>Wheat</u>	<u>Coarse Grain</u>	<u>Rice</u>	<u>Total</u>
	----- mmt -----			
1970/71	55.0	46.0	8.6	109.6
1971/72	52.0	49.3	8.7	110.0
1972/73	67.0	59.2	8.4	134.6
1973/74	63.0	71.0	7.7	141.6
1974/75	64.3	65.0	7.3	136.6
1975/76	66.7	75.2	8.4	150.3
1976/77	63.3	83.9	10.6	157.7
1977/78	72.8	88.8	9.6	171.2
1978/79	72.0	92.7	12.0	176.7
1979/80	86.0	99.2	12.7	197.9
1980/81	94.1	108.0	13.1	215.2
1981/82	101.3	96.6	11.8	209.8
1982/83	98.6	89.9	11.9	200.5
1983/84	102.0	93.1	12.6	207.7
1984/85	107.0	100.7	11.5	219.2
1985/86	84.6	83.4	12.7	180.7
1986/87	89.8	86.1	12.2	188.1

Source: See Table VI-1.

Grain surpluses have once again emerged as a persistent feature of the world grain economy. In strict economic terms, a surplus is defined as the excess of production over consumption at a price. In some countries, stocks are a proxy for the size of the surplus, especially where governments intervene to support market prices. This is certainly true in the European Community (EC) and the U.S. In addition, the U.S. is about the only country in the world that pays farmers to idle acreage in order to control production. In this situation, the amount of land idled is also part of the surplus problem.

Table VI-3 shows harvested grain area in the U.S. and the EC and the magnitude of the grain surplus problem in terms of stocks of wheat and coarse grains (corn, sorghum, barley, oats, and rye). We focus on these two producing areas because they are major areas where grain stocks are directly tied to agricultural price and income support policies and represent a good proxy for surplus capacity. Some other countries also increase or decrease stocks as part of price support operations (e.g., India) but they are not large in relation to the world situation. Other countries carry stocks primarily for national security or food security reasons, but it is difficult to classify these stocks as mainly representing surpluses even though they may be larger in some years than countries desire.

Table VI-3Harvested Area and Stocks of Wheat
and Coarse Grains, U.S. and EC, 1980/81-1986/87

	<u>EC-12</u>		<u>U.S.</u>	
	<u>Harvested Area</u> mil. ha.	<u>Stocks</u> mmt	<u>Harvested Area</u> mil. ha.	<u>Stocks</u> mmt
1980/81	37.1	20.9	70.1	62.4
1981/82	36.6	18.0	76.1	100.3
1982/83	36.6	21.7	74.8	140.3
1983/84	35.9	14.0	57.7	72.1
1984/85	36.2	27.1	70.6	90.7
1985/86	35.5	26.1	71.7	181.2
1986/87 Est.	35.5	27.2	66.1	204.0

2. Detailed Information on World
Grain Production and Trade

Wheat

During the past five years, world wheat production rose by more than 51 mmt as shown in Table VI-4. Production in many individual countries has been erratic due to fluctuations in weather and yields, or changes in area due to price forces (Australia) or policies (U.S.).

The major wheat exporters are the U.S., the EC, Canada, Australia and Argentina. During the past five years U.S. exports declined, mainly as a result of domestic policies and a strong dollar that made U.S. wheat less competitive in world markets. That trend began to be reversed in 1986/87 as a result of more competitive pricing due to a combination of a lower domestic support level, expanded use of export subsidy programs, and a weaker dollar.

The major wheat importers are the USSR, China, Eastern Europe, Japan, and the EC. EC policies including the enlargement to include Spain and Portugal have resulted in declining wheat imports over time. The "other" category of countries consisting primarily of developing countries collectively accounts for about 55-60 percent of total world imports. These countries have on average been increasing wheat and flour imports and that trend is likely to continue.

World wheat trade has been variable over the past five years with the USSR and China accounting for most of the variability. That is why so much attention is focused on these countries on an annual basis and in terms of longer-run trends in production and imports.

Another source of variability in world wheat trade relates to how much feed-quality wheat is available in any one year from major exporting countries, particularly the EC, Canada, and Australia. These availabilities depend upon

weather conditions as they influence the quality of crops. The data on production and trade presented in Table VI-4 do not distinguish between milling-quality wheat and feed wheat. With respect to consumption, feed wheat shows up in the wheat consumption statistics even though it is used for animal feed.

Table VI-4

World Wheat and Flour Production and Trade

	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u>
	-----mmt-----				
<u>Production</u>					
Canada	26.7	26.5	21.2	24.3	31.4
Australia	8.9	22.0	18.7	16.1	16.1
Argentina	15.0	12.8	13.2	8.5	9.0
EC-12	64.7	63.8	82.9	71.6	71.7
USSR	84.3	77.5	68.6	78.1	92.3
E. Europe	34.7	35.4	42.1	37.1	39.6
China	68.4	81.4	87.8	85.8	90.3
India	37.5	42.8	45.5	44.1	46.9
U.S.	75.3	65.9	70.6	66.0	56.8
Others	62.1	61.3	60.9	67.6	74.6
Total	<u>477.5</u>	<u>489.4</u>	<u>511.5</u>	<u>499.2</u>	<u>528.9</u>
<u>Exports</u>					
Canada	21.4	21.8	19.4	16.8	20.8
Australia	8.1	10.6	15.8	16.0	15.5
Argentina	7.5	9.7	8.0	6.1	4.4
EC-12	16.3	15.5	18.5	15.6	15.0
U.S.	39.9	38.9	38.1	25.0	27.3
Other	5.5	5.6	7.1	5.1	7.3
Total	<u>98.7</u>	<u>102.0</u>	<u>107.0</u>	<u>84.6</u>	<u>89.8</u>
<u>Imports</u>					
EC-12	4.6	4.0	3.4	2.9	2.4
USSR	20.8	20.5	28.1	15.7	16.0
Japan	5.8	5.9	5.6	5.5	5.8
E. Europe	4.5	3.8	2.6	3.5	4.2
China	13.0	9.6	7.4	6.6	8.5
Others	50.0	58.2	59.8	50.5	52.9
Total	<u>98.7</u>	<u>102.0</u>	<u>107.0</u>	<u>84.6</u>	<u>89.8</u>

Source: World Grain Situation and Outlook, FAS, USDA, various issues.

Coarse Grains

Coarse grains are used primarily for feed in developed countries, but are an important food source in many developing nations.

As with wheat, world coarse grain production increased over the past five years, but it has been variable as a result of weather conditions and policy factors (Table VI-5). Note that the combination of a severe drought and a sharp reduction in acreage under government programs resulted in a decline in U.S. coarse grain production of 114 mmt in 1983/84. The U.S. is clearly the world's largest coarse grain producer. Other major producers include the USSR, West and East Europe, China, Canada and Argentina.

The "other" category of countries is made up primarily of developing nations. These countries as a group have been reasonably successful in increasing coarse grain output.

The U.S. dominates world exports. As with wheat, U.S. coarse grain exports suffered from being less competitive in the early part of the 1980's, but exports are now expanding as U.S. competitiveness has improved as a result of domestic policy changes and a weaker dollar. The other major exporters are Argentina, Western Europe, Canada, Australia, and Thailand. China emerged as a major exporter for a few years, but exports are now declining as domestic demand growth outpaces production.

On average, Japan is the single largest importer of coarse grains. The USSR is also a large importer, but its imports fluctuate considerably from one year to the next in line with domestic grain output.

EC imports have been declining as the EC has raised production and as Spain and Portugal are increasingly supplied from EC sources rather than from third countries.

The "other" category of countries has shown no trend in imports over the past five years. But this lack of trend masks two offsetting developments within this group of countries. The rapidly growing developing countries such as South Korea and Taiwan have been increasing their imports. Other poorer developing countries have reduced imports either as a result of good domestic production or poor economic performance and the lack of foreign exchange that has prevented them from expanding livestock, poultry, and dairy production and, therefore, feed use and feed imports.

On balance, world coarse grain trade was variable but exhibited no clear trend in the first half of the 1980's. If world economic conditions improve, world coarse grain trade will likely begin to expand again.

Table VI-5

World Coarse Grain Production and Trade

	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u>
	----- mmt -----				
<u>Production</u>					
Canada	26.5	20.9	22.0	25.0	25.7
Australia	3.9	9.4	8.6	7.8	6.6
Argentina	17.8	17.1	18.9	17.1	12.8
So. Africa	4.5	5.1	9.0	8.9	8.6
Thailand	3.7	4.3	4.7	5.7	4.4
W. Europe	93.6	86.1	103.6	101.4	93.7
USSR	91.8	101.9	90.5	100.0	105.9
E. Europe	72.0	66.9	72.8	65.8	73.2
China	81.6	91.6	96.2	82.3	86.6
U.S.	250.7	137.1	237.7	274.9	252.9
Others	<u>138.2</u>	<u>146.6</u>	<u>150.1</u>	<u>154.1</u>	<u>164.3</u>
Total	<u>784.4</u>	<u>687.0</u>	<u>814.0</u>	<u>842.9</u>	<u>834.7</u>
<u>Exports</u>					
Canada	7.1	5.5	3.3	5.7	6.6
Australia	1.0	5.4	6.4	5.0	3.4
Argentina	11.6	10.9	10.6	9.7	5.1
So. Africa	2.3	0.1	0.2	1.5	2.6
Thailand	2.3	3.4	3.5	4.0	2.8
W. Europe	5.2	5.4	10.2	10.0	8.2
China	0.1	0.3	6.0	7.1	4.1
U.S.	54.0	55.7	55.4	36.4	46.8
Others	<u>6.2</u>	<u>6.6</u>	<u>5.0</u>	<u>3.9</u>	<u>6.5</u>
Total	<u>89.9</u>	<u>93.1</u>	<u>100.7</u>	<u>83.4</u>	<u>86.1</u>
<u>Imports</u>					
W. Europe	15.6	13.5	10.9	6.4	4.9
USSR	11.0	11.9	27.3	13.5	13.5
Japan	18.7	20.7	20.7	11.5	21.8
E. Europe	4.9	3.9	3.3	5.9	3.3
China	2.5	0.2	0.1	0.7	2.4
Other	<u>37.1</u>	<u>42.8</u>	<u>38.3</u>	<u>35.3</u>	<u>40.2</u>
Total	<u>89.9</u>	<u>93.1</u>	<u>100.7</u>	<u>83.4</u>	<u>86.1</u>

Source: See Table VI-4

Rice

The world rice economy is different from that for wheat and coarse grains in that world trade is a very small part of world production (Table VI-6). Most rice is consumed where it is produced.

World rice production grew slowly in the 1980's. But note that most of this growth was accounted for by China. Other countries made modest progress in

increasing output such as India and Indonesia. However, progress in increasing output in most other countries was lackluster during the first half of the 1980's.

While many countries export rice, Thailand and the U.S. are the major exporters. U.S. exports and its share of world trade suffered during the first half of the 1980's from being uncompetitive. But this changed starting in 1986/87 as a result of a weaker dollar and more price competitive domestic policies. U.S. rice exports are in the process of rebounding.

As can be seen in Table VI-6, many countries import rice, and no one nation dominates world imports. World rice trade does not fluctuate very much and has averaged about 12 mmt a year during the past five years.

Table IV-6

World Rice Production and Trade

	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u>
	----- mmt -----				
<u>Production (rough)</u>					
Argentina	0.3	0.5	0.4	0.4	0.4
Australia	0.5	0.6	0.9	0.7	0.6
Bangladesh	21.3	21.8	21.9	22.6	23.1
Brazil	7.8	9.0	9.0	10.3	10.5
Burma	14.4	14.3	14.3	14.9	14.8
China	161.2	168.9	178.3	168.5	171.1
EC-12	1.6	1.5	1.7	2.0	1.9
India	70.7	90.2	87.5	96.2	90.0
Indonesia	33.6	35.3	38.1	39.0	38.4
Japan	12.8	13.0	14.8	14.6	14.6
So. Korea	7.3	7.6	8.0	7.9	7.9
Pakistan	5.2	5.0	5.0	4.4	5.2
Thailand	16.9	19.5	19.9	19.7	18.0
U.S.	7.0	4.5	6.3	6.1	6.1
Others	<u>58.9</u>	<u>62.2</u>	<u>62.4</u>	<u>63.7</u>	<u>63.1</u>
Total	<u>419.5</u>	<u>453.8</u>	<u>468.4</u>	<u>470.9</u>	<u>465.8</u>
<u>Exports^{1/}</u>					
Burma	0.8	0.7	0.5	0.6	0.5
China	0.6	1.2	1.0	1.0	1.0
Taiwan	0.3	0.1	0.0	0.0	0.0
Pakistan	1.3	1.1	1.0	1.1	1.4
Thailand	3.7	4.5	4.0	4.3	3.9
U.S.	2.3	2.1	1.9	2.4	2.3
Others	<u>2.9</u>	<u>2.9</u>	<u>3.2</u>	<u>3.3</u>	<u>3.1</u>
Total	<u>11.9</u>	<u>12.6</u>	<u>11.5</u>	<u>12.7</u>	<u>12.2</u>
<u>Imports^{1/}</u>					
EC-12	1.0	1.2	1.3	1.3	1.1
Indonesia	1.2	0.4	0.0	0.0	0.2
Iran	0.7	0.7	0.6	0.5	0.9
Iraq	0.5	0.5	0.5	0.5	0.6
Nigeria	0.7	0.4	0.4	0.3	0.3
Saudi Arabia	0.5	0.5	0.5	0.5	0.5
Others	<u>7.3</u>	<u>8.8</u>	<u>8.2</u>	<u>9.6</u>	<u>8.7</u>
Total	<u>11.9</u>	<u>12.6</u>	<u>11.5</u>	<u>12.7</u>	<u>12.2</u>

^{1/} On calendar year basis corresponding to last part of crop year.

Source: See Table VI-4.

3. Price Outlook for Grains to The Early 1990's

The U.S. plays a major role in determining the world price of grains through its policies and because it accounts for major shares of world wheat, coarse grain, and rice trade. While these shares declined in recent years, it is the intent of U.S. policy to restore them to a more normal level, and that means the U.S. will compete aggressively in world markets. U.S. support and market prices and export subsidies determine world market prices for grains over the next three to five years.

Grain prices are supported in the U.S. through nonrecourse commodity loans. By pledging commodities as collateral, a farmer may obtain a 9 month loan from the Commodity Credit Corporation (CCC). The loan rate--expressed as dollars per unit of commodity--is announced by the Secretary of Agriculture before each planting season. The interest rate charged for the loan has in recent years been set at the cost of money to the Treasury.

In making the loan, the CCC agrees to accept the commodity as full repayment if the farmer chooses not to repay the loan with interest by the date of maturity. For those farmers with a commodity under loan, this has the effect of setting a floor price. Nonrecourse loans are made for all grains. Under the Food Security Act of 1985, farmers have been able to repay loans at below the loan rate through the use of generic certificates issued by USDA or under the market loan programs operated for rice and cotton.

Since the U.S. grain economy is open to the world market and because the U.S. is a major producer and exporter, U.S. policies that support domestic grain prices also support world market prices.

The actual mechanisms by which U.S. and world grain prices are supported over time by U.S. policy is through a combination of the accumulation of grain stocks or requiring farmers to idle grain acreage in order to be eligible for price and income benefits of government programs.

The U.S. also contributes to stability in world grain prices through stock policies. Some stocks are owned by the government. But most are typically in the form of a farmer-owned reserve. First authorized in 1977, the farmer-owned grain reserve has become a major component of farm policy. Under this program, eligible farmers may place wheat and feed grains under a nonrecourse loan for a period of 3 years. This grain may enter the reserve either directly after harvest (as in 1982) or after maturity of the 9 month nonrecourse loan. In return for agreeing to hold grain off the market over this period, the farmer receives a loan (sometimes set higher than the regular nonrecourse loan rate), annual storage payments (now 26.5¢ per bushel), and a waiver on interest charges for the second and third years of the loan.

This grain can be marketed only on maturity of the loan or if the market price reaches a release price level. Under the latter condition, storage payments are discontinued and interest is charged on the commodity loans as an incentive for farmers to remove their grain from the reserve and sell it. However, farmers are not forced to sell reserve grain once the reserve is in release status.

In the 1981/82-1985/86 period, U.S. policies ended up supporting world grain prices through a combination of high domestic price support levels and a strong dollar. As a result, U.S. agriculture suffered from a sharp decline in exports of grains and some other commodities.

The recent decline in the dollar and lower market support levels have helped improve the competitive position of the U.S. in world markets, and a recovery in market share is underway.

The U.S. decided in 1985, however, that it could not count on currency adjustments alone to stimulate agricultural exports. It also recognized that increasing exports was essential to reduce surplus agricultural capacity, measured in terms of both stocks and idle acreage. The Food Security Act of 1985 provides the basis for a sharp reduction in U.S. market support levels during the 1986/87-1990/91 period and these reductions began for the 1986/87 crop season. Farmers will be compensated for lower market prices by increased government payments.^{3/}

The changes in U.S. price support policies both permit a decline in nominal grain prices and provide a basis for changes in relative prices as well.

One can see in Table VI-7 the sharp decline in U.S. price support levels for grains starting with the 1986/87 crop season as a result of the Food Security Act of 1985, and support prices are likely to go lower in subsequent years.

Unlike historic price support programs, those under the Food Security Act of 1985 allow market prices to average well below support levels. The marketing loan program for rice is one way this occurs. Another is through provisions that enable government owned stocks to enter the market at below support levels. For example, the announced 1986/87 season loan rate for corn was \$1.92/bushel or \$75.59/mt. However, the season average price received by farmers was only \$1.50/bushel or \$59.05/mt.

Market prices for grains are likely to be at or below recent levels. Large stocks in the U.S. and a large amount of land held idle under supply control programs will keep prices low. Grain stocks will be reduced by design but actual supplies or potential supplies will continue to be large relative to demand for several years.

Grain prices could be volatile over the next few years due to crop problems in the U.S. or in other major producing area of the world. But this volatility will be tempered by large stocks and the ability to return land to production when it is needed.

^{3/} For a discussion of the U.S. agricultural policy debate and its outcome see, U.S. Agricultural Policy Process and the Role of Policy Analysis, prepared by Abel, Daft & Earley for Abt Associates, Inc. under the Agricultural Policy Analysis Project, USAID, Contract No. DAN-4084-C-00-3087-00, April 4, 1986.

Table VI-7

U.S. Loan-Market Support Rates

<u>Year</u>	<u>Wheat</u>	<u>Corn</u> \$/mt	<u>Rice</u>	<u>Ratio of:</u>	
				<u>Wheat/Corn</u>	<u>Rice/Wheat</u>
1960/61	65.40	41.73	97.44	1.57	1.49
1961/62	65.77	47.24	103.84	1.39	1.58
1962/63	73.49	47.24	103.84	1.56	1.41
1963/64	66.87	42.12	103.84	1.58	1.55
1964/65	47.77	43.30	103.84	1.10	2.17
1965/66	45.93	41.34	99.21	1.11	2.16
1966/67	45.93	39.37	99.21	1.17	2.16
1967/68	45.93	41.34	100.31	1.11	2.18
1968/69	45.93	41.34	101.41	1.11	2.21
1969/70	45.93	41.34	104.06	1.11	2.27
1970/71	45.93	41.34	107.14	1.11	2.33
1971/72	45.93	41.34	111.77	1.11	2.43
1972/73	45.93	41.34	116.18	1.11	2.53
1973/74	45.93	41.34	133.82	1.11	2.91
1974/75	50.34	43.30	166.23	1.16	3.30
1975/76	50.34	43.30	187.83	1.16	3.73
1976/77	82.67	59.05	136.46	1.40	1.65
1977/78	82.67	78.74	136.46	1.05	1.65
1978/79	86.35	78.74	141.09	1.10	1.63
1979/80	86.35	82.67	149.69	1.05	1.73
1980/81	110.23	88.58	156.97	1.24	1.42
1981/82	117.58	94.48	176.59	1.24	1.50
1982/83	130.44	100.39	179.45	1.30	1.38
1983/84	134.11	104.32	179.85	1.29	1.34
1984/85	121.25	100.39	176.37	1.21	1.45
1985/86	121.25	100.39	176.37	1.21	1.45
1986/87 ^{1/}	88.18	75.59	79.37-158.73	1.17	0.90-1.80
1987/88 ^{1/}	83.78	72.44	75.40-150.79	1.16	0.90-1.80

^{1/} The announced rice loan rate for 1986/87 is \$158.73/mt, but producers will be paid the difference between this level and market prices as low as 50 percent of the loan rate (market-payback loan). Similar results obtain for 1987/88.

Source: Agricultural Statistics, USDA, various issues and 1986 farm program announcements.

B. Sources of Information

In addition to the general commodity and policy publications described in the previous section, there are a few sources that focus specifically on grain.

1. USDA

World Grain Situation and Outlook

This is a monthly publication put out by the Foreign Agricultural Service of USDA. It provides detailed data on production, utilization, trade, and stocks for wheat and flour, coarse grains, and rice for the past four years and provides estimates for the current crop year which are revised monthly. This publication provides comprehensive information on the world grain situation, the evolution of the grain situation in major exporting and importing countries, and the relative importance of countries in production, consumption, and trade.

World Grain Situation and Outlook can be obtained from:

Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

World Grain Situation and Outlook Reference Tables

Each year the Foreign Agricultural Service of USDA publishes reference tables for wheat, corn, total coarse grains, and rice. These documents present historical supply-demand data going back to the mid-1960's for each country of the world. The information includes harvested area, yield, beginning stocks, production, imports and exports, domestic feed use, total domestic use, and ending stocks of each of the grains.

The Grain Reference Tables can be obtained from:

Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

2. International Wheat Council

The International Wheat Council (IWC) is a London-based organization made up of major grain exporting and importing countries operating under the auspices of the International Wheat Agreement. This organization provides historical data and current season information on a monthly basis on production, consumption, and trade for wheat and coarse grains. This information is very similar to that published monthly by the Foreign Agricultural Service of USDA in its monthly World Grain Situation and Outlook.

The IWC also does special studies on some aspects of world grain trade. One of the latest studies provided an assessment of grain handling capacity for many ports in the world. The study organized this information on a regional basis.

IWC's regular and special reports can be obtained from:

International Wheat Council
28, Haymarket
London SW1Y 4SS
England

VII. OILSEEDS

A. The World Oilseed Market: Outlook And Implications For Developing Countries^{1/}

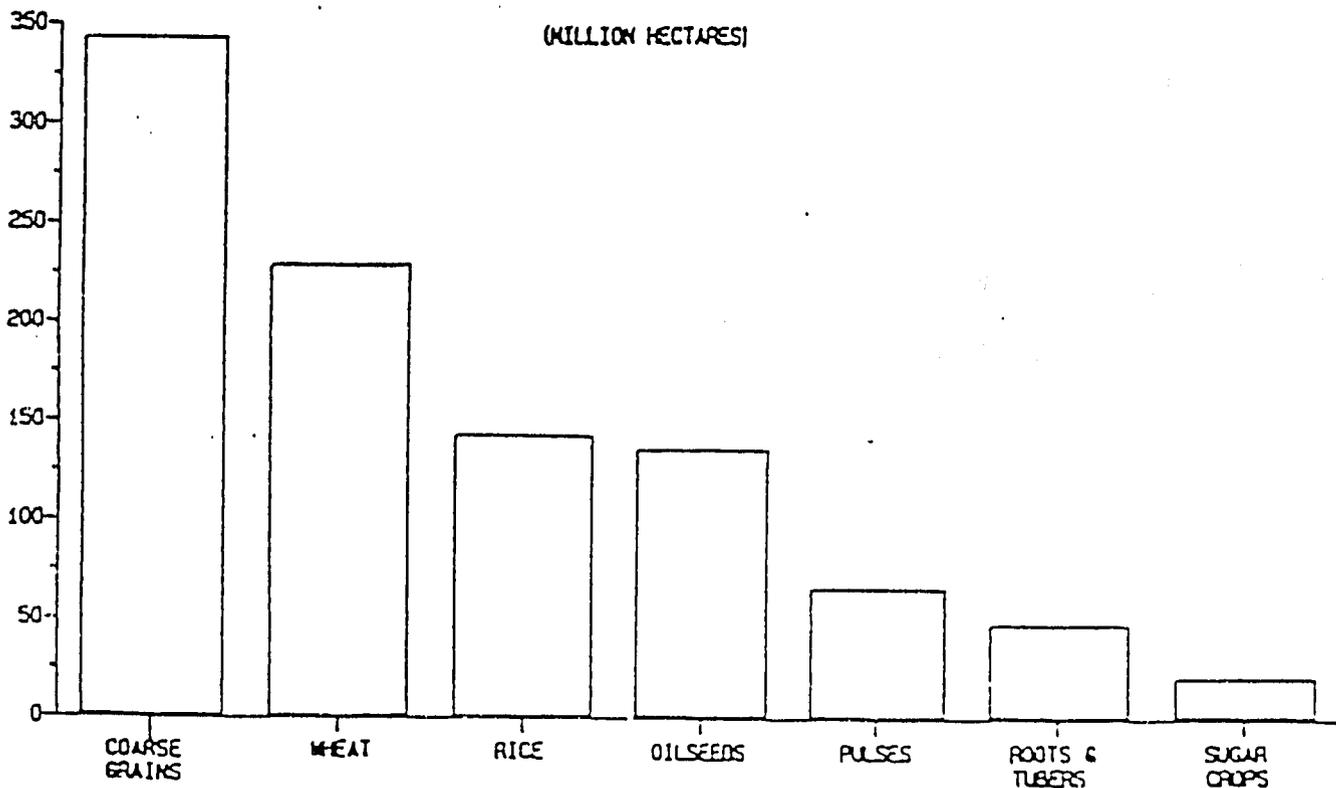
1. Introduction

While world cereal production is the basic measure of the adequacy of the world food supply, oilseeds are the next most important crop category in terms of land use, production volume, and crop value. In 1985/86, for example, oilseeds were harvested from 136 million hectares, i.e., as much land as was used for roots and tubers, pulses, sugar beets, and sugarcane combined (see chart below).

Oilseeds are important to developing countries because the vegetable oil extracted from them is the major component of the world supply of fats and oils. In addition to serving as a food, fats and oils are used in the manufacture of soap, lubricants, and other products.

Figure VII-1

WORLD HARVESTED AREA : 1985



^{1/} This section is adapted from The World Oilseed Market: Outlook and Implication for Developing Countries, prepared by Abel, Daft & Earley for Abt Associates under Agricultural Policy Analysis Project, USAID Contract No. DAN-4084-C-00-3087-00, September 12, 1986.

Oilseed crushing, vegetable oil refining, and the processing of oil into secondary products are also important industrial activities. The technologies involved are not overly complex and may, therefore, be an important step in ongoing industrialization efforts in developing countries.

The main issues that developing countries face over the next few years are whether oilseeds and products should get more or less attention than other crops and the extent to which one should import oil rather than import oilseeds and crush them. The answers to these questions are in part determined by how policies in the major producing and consuming countries interact to shape market conditions. Developing country analysts must remain aware of how this policy environment is changing as they make recommendations on agricultural and trade policies for a specific country.

2. Historical Oilseed and Product Situation

Oilseeds

The world oilseed sector was quite dynamic over the past 15 years. Output of seven major oilseeds grew at an average annual rate of 4.4 percent (Table VII-1). Oilseeds are produced for both their meal and oil, with the content of these products varying among oilseeds. For example, soybeans have a relatively low oil content while sunflowerseeds and rapeseed have a high content. The vegetable oil is used as food or in making soap, paint, or other products, while the meal is valued as an animal feed since it has a high protein content. Cottonseed is a by-product of cotton lint output. Also, palm kernel is a by-product of palm fruit and palm oil production.

Table VII-1

World Production of Major Oilseeds

<u>Year</u>	<u>Soybeans</u>	<u>Cottonseed</u>	<u>Peanuts</u> ^{1/}	<u>Sunflowerseed</u>	<u>Rapeseed</u>	<u>Copra</u>	<u>Palm Kernel</u>	<u>Total</u>
	----- mmt -----							
1970/71	42.8	21.0	11.3	9.8	6.9	3.9	1.0	96.7
1971/72	45.9	23.5	11.8	10.0	7.3	4.5	1.0	104.0
1972/73	49.9	24.5	10.2	9.7	6.8	4.1	1.0	106.2
1973/74	61.3	24.8	10.9	12.2	6.8	3.5	1.0	120.5
1974/75	54.6	25.3	11.5	10.8	7.4	4.3	1.1	115.0
1975/76	66.0	21.2	12.5	10.0	7.9	5.2	1.2	124.0
1976/77	59.5	22.1	11.1	10.0	6.9	4.5	1.2	115.3
1977/78	72.8	24.5	11.2	12.9	7.9	4.9	1.1	135.3
1978/79	77.5	23.2	12.0	13.0	10.7	4.4	1.3	142.1
1979/80	93.8	25.3	11.4	15.5	10.1	4.7	1.4	162.2
1980/81	80.9	25.4	10.6	13.1	11.1	4.8	1.4	147.3
1981/82	86.1	27.5	13.3	14.8	12.4	4.8	1.8	160.7
1982/83	93.5	26.6	11.7	16.6	14.8	4.6	1.8	169.6
1983/84	82.9	26.1	12.4	15.5	14.3	4.0	2.0	157.2
1984/85	92.5	33.7	13.3	17.9	16.8	4.8	2.3	181.3
1985/86	95.8	29.9	13.6	18.8	18.8	5.2	2.6	184.7
% change 1970/71 to 1985/86	124	42	20	92	172	33	160	91

^{1/} Shelled basis

Source: Oil World: The Past 25 Years and Prospects for the Next 25 Years, 1983 and Oilseeds and Products, FAS, USDA, various issues.

Growth rates varied widely among oilseeds. Production of peanuts (also known as groundnuts) grew most slowly, at only 1.2 percent a year. Soybeans, the dominant oilseed in the world, experienced a 5.5 percent annual rate of growth during the past 15 years, and sunflowerseed, rapeseed, and palm kernel output grew at annual rates of 4.5, 6.9 and 6.6 percent, respectively.

The oil and meal content of each of the major oilseeds is shown in Table VII-2. Product yields will vary among countries, within countries, and over time due to different extraction technologies, the amount of hulls added to meal, and weather conditions which affect oil and meal yields.

Table VII-2
Oil and Meal Content of Major Oilseeds ^{1/}

	<u>Crude Oil</u>	<u>Meal</u>
	----- percent -----	
Soybeans	18.3	80.0
Cottonseed	16.0	45.4
Peanuts	42.2	55.9
Sunflowerseed	40.0	55.0
Rapeseed	35.0	60.0
Copra	64.0	35.0
Palm kernel	47.0	51.0

^{1/} Oil and meal do not add to 100 percent because of losses in crushing due to unused hulls, etc.

Soybeans are produced primarily for their meal, and their demand and price is driven largely by the demand for soybean meal in animal feeds. The one major exception is in countries that process whole beans directly into food products, primarily Asian nations.

Peanuts, sunflowerseed, and rapeseed have high oil contents and their production is driven by both meal and oil prices in nearly equal proportions.

As mentioned above, cottonseed is a by-product of cotton lint production. Palm kernel output is a by-product of palm oil production and its production is determined by the economics of palm oil output.

The major oilseed producers in the world are shown in Table VII-3. The U.S. is the largest soybean producer accounting for about 57 percent of total world output. The U.S., Brazil, China, and Argentina together account for nearly 93 percent of world output.

Cottonseed production takes place in many countries, yet the leading six producers account for about 76 percent of total world output.

India and China are the major peanut producers accounting for 58 percent of world output. The remaining production is widely spread among many other countries in the world. A large proportion of peanut output is consumed directly for food and not crushed for oil and meal.

The USSR is the largest sunflowerseed producer, representing 27 percent of world output. Sunflowerseeds and cottonseed are the dominant oilseeds in the USSR. Argentina ranks second in the world and sunflowerseeds are the second most important oilseed crop in that country next to soybeans. Other important producers are Eastern Europe, China, the U.S., and Spain and France in Western Europe.

Rapeseed production is concentrated in a few geographic areas with China, the EC-10, Canada, India, and Eastern Europe accounting for 94 percent of world output.

Table VII-3

Major Oilseed Producing Countries

	Production 1984/85-1985/86 <u>Average</u> --- mmt ---	<u>Percent</u>		Production 1984/85-1985/86 <u>Average</u> --- mmt ---	<u>Percent</u>
<u>Soybeans</u>			<u>Sunflowerseeds</u>		
U.S.	53.9	57.2	USSR	4.9	26.8
Brazil	15.6	16.6	Argentina	3.4	18.6
China	10.1	10.7	E. Europe	2.1	11.5
Argentina	6.9	7.3	U.S.	1.6	8.7
Paraguay	0.8	0.1	China	1.8	9.8
Other	6.9	7.3	EC-10	1.4	7.6
Total	<u>94.2</u>	<u>100.0</u>	Spain	1.0	5.5
			Other	2.1	11.5
			Total	<u>18.3</u>	<u>100.0</u>
<u>Cottonseed</u>			<u>Rapeseed</u>		
China	8.9	28.0	China	4.9	27.5
U.S.	4.7	14.8	EC-10	3.6	20.2
USSR	4.8	15.1	Canada	3.4	19.1
India	3.6	11.3	India	3.0	16.9
Pakistan	2.2	6.3	E. Europe	1.3	10.1
Brazil	1.4	4.4	Other	1.1	6.2
Other	6.3	19.8	Total	<u>17.8</u>	<u>100.0</u>
Total	<u>31.8</u>	<u>100.0</u>			
<u>Peanuts</u> ^{1/}					
India	4.0	29.6			
China	3.8	28.1			
U.S.	1.3	9.6			
Senegal	0.4	3.0			
Sudan	0.3	2.2			
Brazil	0.2	1.5			
Argentina	0.2	1.5			
So. Africa	0.1	0.1			
Other	3.2	23.7			
Total	<u>13.5</u>	<u>100.0</u>			

^{1/} Shelled basis.

Source: See Table VII-1.

Vegetable Oils

World vegetable oil production differs from oilseed production in that three major oils -- olive, palm, and coconut -- are not associated with oilseeds. While olive oil production has been relatively small and stable, palm oil output grew by 361 percent or 10 percent a year over the past 16 years (Table VII-4). Furthermore, palm and palm kernel oil production is expected to grow rapidly in the future since the trees to sustain this growth have already been planted. Coconut oil output grew at a modest 3 percent annual rate.

Malaysia is the dominant producer of palm oil, accounting for about 55 percent of world output in recent years. Indonesia has also expanded production rapidly and is the second largest producer.

During the 1983/84-1985/86 period, soybean oil accounted for 30 percent of the total world vegetable oil production listed in Table VII-4. The relative importance of other oils is as follows: palm and palm kernel, 19 percent; sunflowerseed, 14 percent; rapeseed, 13 percent; cottonseed, 8 percent; peanuts, 7 percent; coconut, 6 percent; and olive oil, 4 percent. In addition to what is shown in Table 4, small quantities of vegetable oil are produced from sesameseed, castorseed, linseed, tung nuts, corn germ, and a few other minor sources.

Table VII-4

World Vegetable Oil Production

<u>Year</u>	<u>Soybeans</u>	<u>Cottonseed</u>	<u>Peanut</u>	<u>Sunflowerseed</u>	<u>Rapeseed</u>	<u>Olive</u>	<u>Coconut</u>	<u>Palm Kernel</u>	<u>Palm</u>	<u>Total</u>
1970	6.4	2.5	2.7	3.5	1.5	1.4	2.0	0.4	1.5	22.5
1971	6.5	2.6	2.8	3.5	2.3	1.6	2.3	0.5	2.1	24.2
1972	6.8	2.9	2.9	3.5	2.2	1.7	2.5	0.5	2.2	25.3
1973	7.0	3.0	2.5	3.5	2.5	1.6	2.3	0.4	2.2	25.0
1974	8.3	3.0	2.5	4.2	2.3	1.6	2.0	0.5	2.6	27.0
1975	8.0	2.9	2.7	3.9	2.4	1.6	2.4	0.5	2.9	27.5
1976	9.6	2.6	3.1	3.3	2.6	1.8	3.1	0.5	3.1	29.7
1977	9.6	2.8	2.7	3.7	2.7	1.5	2.7	0.5	3.3	29.5
1978	11.2	3.0	2.5	4.4	2.9	1.5	2.9	0.5	3.5	32.4
1979	12.0	2.9	2.8	4.7	3.4	1.7	2.5	0.6	4.0	34.6
1980	13.3	3.0	2.6	5.0	3.5	1.6	2.8	0.6	4.6	37.0
1981	13.1	3.1	2.3	5.0	4.3	2.0	2.8	0.6	4.8	35.0
1982	13.3	3.3	2.9	5.4	4.5	1.6	2.9	0.7	5.7	40.6
1982/83	13.6	3.1	2.9	5.7	5.0	1.9	2.8	0.8	5.9	41.7
1983/84	12.8	3.1	2.9	5.4	4.9	1.6	2.4	0.8	6.3	40.2
1984/85	13.3	3.9	3.1	6.1	5.6	1.6	2.7	1.0	7.0	44.3
1985/86	13.6	3.4	3.2	6.4	6.2	1.5	3.3	1.1	8.3	47.0

% change

1970/71 to

1985/86	112	36	18	82	244	7	65	175	361	100
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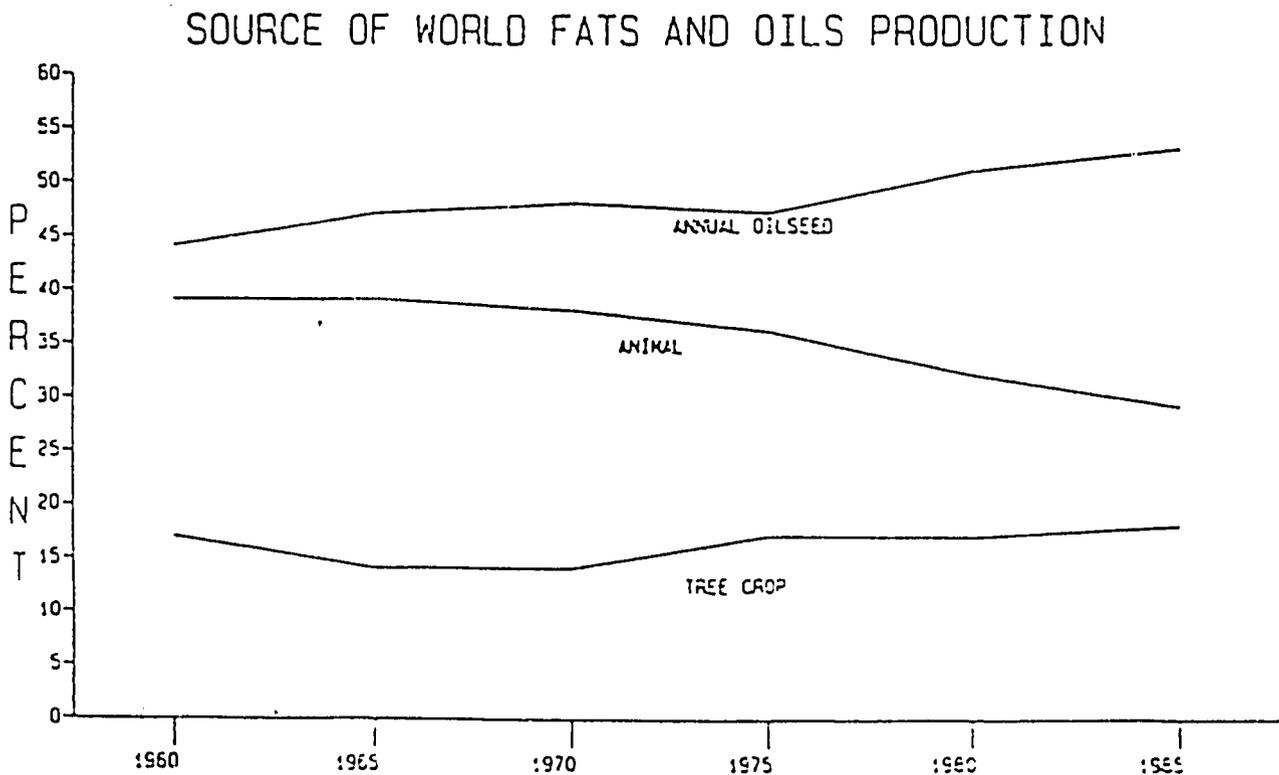
Source: See Table VII-1.

It is also important to note that vegetable oils are in direct competition with fats and oils from animal sources, i.e. lard, tallow, butter, and fish oil. In fact, one can divide world fats and oils production into three categories:

- Tree crops that are grown primarily for the oil and that have a long lifespan.
- Animal sources that are relatively stable because the fat or oil is only a by-product, or at best a co-product.
- Annual oilseed crops for which planted area is driven jointly by meal and oil prices.

As indicated in Figure VII-2, the share coming from animal sources has dropped from 39 percent in the 1960's to only 29 percent in 1985. Tree crops have captured a rising share, as have annual oilseed crops.

Figure VII-2



Oilseed Meals

World oilseed meal production over the past 15 years grew slightly more rapidly than total oilseed production but more slowly than vegetable oil output. This is explained by the fact that soybean meal dominates world meal output, and accounted for 63 percent of total world meal production in the 1983/84-1985/86 period (Table VII-5).

Table VII-5
World Oilseed Meal Production

<u>Year</u>	<u>Soybeans</u>	<u>Cottonseed</u>	<u>Peanut</u>	<u>Sunflowerseed</u>	<u>Rapeseed</u>	<u>Copra</u>	<u>Palm Kernel</u>	<u>Total</u>
	----- mmt -----							
1970	28.5	8.4	3.8	3.7	2.8	1.2	0.5	48.9
1971	28.8	8.6	3.9	3.7	3.6	1.4	0.5	50.5
1972	29.8	9.4	4.0	3.9	3.5	1.5	0.5	52.6
1973	30.8	9.8	3.4	3.8	3.9	1.4	0.5	53.6
1974	36.3	9.9	3.4	4.3	3.7	1.2	0.5	59.3
1975	35.3	9.6	3.7	4.0	3.8	1.5	0.5	58.4
1976	41.7	8.7	4.2	3.7	4.0	1.8	0.6	64.7
1977	41.6	9.2	3.7	4.1	4.2	1.6	0.6	65.0
1978	48.9	9.8	3.5	5.1	4.5	1.7	0.6	74.1
1979	52.4	9.6	4.0	5.3	5.3	1.5	0.7	78.8
1980	58.4	10.3	3.7	5.9	5.5	1.6	0.8	86.2
1981	56.9	10.4	3.3	6.0	6.7	1.6	0.8	85.7
1982	59.1	11.2	4.0	6.3	7.6	1.7	0.9	90.8
1982/83	60.5	9.8	3.9	6.7	7.4	1.5	0.9	91.7
1983/84	55.4	9.7	4.1	6.4	8.1	1.3	0.9	85.9
1984/85	58.1	12.6	4.4	7.1	9.4	1.4	1.1	94.1
1985/86	59.7	10.9	4.5	7.4	10.4	1.8	1.3	96.0
% change 1970/71 to 1985/86	109	30	18	100	271	50	160	96

Source: See Table VII-1.

Trade Patterns

While current trade patterns in the oilseed complex are broadly similar to those that prevailed 15 years ago, there have also been some notable changes. In the case of oilseed trade the major change has been the decline in the share accounted for by U.S. soybeans, from 66 percent in 1970 to 49 percent in 1985. This is mostly due to the growth in the soybean industry in Brazil, Argentina, and Paraguay.

The only other oilseeds traded in significant volume are rapeseed and sunflowerseed. Exports of these and the other oilseeds have grown but not as fast as soybean exports. Soybeans have therefore increased their share of world oilseed trade from 70 percent to 74 percent.

Table VII-6Oilseed Exports

	<u>1970</u>		<u>1985</u>	
	<u>mmt</u>	<u>%</u>	<u>mmt</u>	<u>%</u>
U.S. Soybeans	12.0	65.9	16.9	49.1
Other Soybeans	.8	4.4	8.5	24.7
Other Oilseeds	5.4	29.7	9.0	26.2
Total	18.2	100.0	34.4	100.0

The story is similar for world trade in oilseed meals: exports of soybean meal from the Southern Hemisphere and Western Europe have captured virtually all the growth in world protein meal trade. Since exports of other meals have stagnated, soybean meal now accounts for 70 percent of total trade compared to only 40 percent in 1970.

Table VII-7Oilseed Meal Exports

	<u>1970</u>		<u>1985</u>	
	<u>mmt</u>	<u>%</u>	<u>mmt</u>	<u>%</u>
U.S. Soybean Meal	3.7	26.4	4.7	14.2
Other Soybean Meal	1.9	13.6	18.4	55.6
Other Oilseed Meal	8.4	60.0	10.0	30.2
Total	14.0	100.0	33.1	100.0

Trends in seed and meal trade do not, in themselves, hold profound significance for developing countries. The one thing of note is that geographic sources of supply for these commodities are now somewhat more diversified. Thus adverse weather impacts on U.S. soybean production do not have the effects they once did.

Of greater interest is the vegetable oil dimension of these shifts. Oil trade flows have always been more complicated because of the existence of many interchangeable products. In contrast to the soybean's dominance of seed and meal trade, it is of lesser importance when it comes to oil. As Table VII-8 indicates, soybean oil accounted for 16.6 percent of total exports of fats and oils in 1985, up from 12.5 percent in 1970. All of the 2.5 mmt increase in shipments over the period took place in countries other than the U.S., notably Brazil, Argentina, and the European Community.

Table VII-8Fat and Oil Exports

	1970		1985	
	<u>mmt</u>	<u>%</u>	<u>mmt</u>	<u>%</u>
Soybean	1.1	12.5	3.6	16.6
Palm	.9	10.2	5.7	26.3
Sunflower	.7	8.0	1.9	8.8
Rapeseed	.2	2.3	1.3	6.0
Coconut	.6	6.8	1.2	5.5
Other Vegetable	1.7	19.3	2.7	12.4
Animal and Marine	3.6	40.9	5.3	24.4
Total	8.8	100.0	21.7	100.0

But it is palm oil that has really taken off in recent years. Exports of palm oil in 1985 reached 5.7 mmt and accounted for more than 26 percent of world trade in fats and oils, compared to only 10 percent 15 years earlier. When one factors in exports of palm kernel oil, the trade share attributable to palm trees approaches 30 percent. The growth in palm kernel oil exports accounted for half of the increase shown in Table VII-8 for "other vegetable" oil.

Recent trends are expected to continue through the end of the century, with palm, palm kernel, and soybean oils achieving a rising market share. Since the palm tree is the most economically efficient source of vegetable oil, and soybeans are the most efficient source of protein meal, the two plants complement each other well. However, soybean oil exports will increasingly be viewed as just a by-product of meal output. Palm and palm kernel oil are projected to account for 40-45 percent of world trade in fats and oils by 2000, and about 60 percent of vegetable oil trade. There can be little doubt that they will be the price leaders.

Table VII-9 provides a more detailed picture of trade flows for eight vegetable oils during 1970, 1975, and the most recent six years. Data for the European Community are for 10 members and therefore do not include Spain and Portugal. These two countries account for most of the exports in the "Other West Europe" category. Figures for the EC include intra-Community trade.

Table VII-9
World Oil Trade
Soybean Oil

	EC-10	Other W. Eur.	USSR	Canada	USA	Arg.	Brazil	PRC	India	Japan	Other	Total
	----- 1,000 mt -----											
<u>Imports</u>												
1970	241	68		23			5		118	5	652	1,112
1975	361	103		21			5	11	4	14	935	1,451
1980	477	123	83	12			50	120	668		1,816	3,349
1981	455	112	101	4				54	635	29	2,123	3,518
1982	509	113	201	4			22	43	438	38	2,270	3,638
1983	489	106	181	5			32	12	511	7	2,262	3,605
1984	520	96	120	13			123	5	752	9	2,453	4,091
1985	514	102	301	10	12		114	31	422	2	2,087	3,595

<u>Exports</u>												
1970	302	90		21	681		3	3		14	26	1,140
1975	695	48		2	356	21	265				8	1,395
1980	876	407		14	1,096	92	744			17	54	3,300
1981	855	481		11	819	70	1,281			1	56	3,574
1982	930	543		31	938	174	890			3	85	3,595
1983	927	536		12	786	293	960	11		4	107	3,636
1984	900	569		16	1,011	484	905	8		4	125	4,022
1985	924	474		7	587	550	963	7		2	129	3,603

Palm Oil

	EC-10	Other W. Eur.	USSR	Canada	USA	Indonesia	W. Malaysia	E. Malaysia	India	Japan	Other	Total
	----- 1,000 mt -----											
<u>Imports</u>												
1970	486	36		12	64		2			40	285	925
1975	744	53		41	442		1		51	108	620	2,060
1980	756	74	101	20	117		11		534	148	1,958	3,719
1981	659	60	181	15	122	33	16		475	141	1,881	3,583
1982	679	55	363	16	113		102		417	148	2,268	4,161
1983	808	51	316	19	149		107		647	162	2,064	4,323
1984	696	40	280	13	148	58	176		571	157	2,476	4,615
1985	803	50	244	26	213	37	276		637	161	3,203	5,650
<u>Exports</u>												
1970	54	1			5	223	373	29			237	922
1975	86	1			15	386	1,032	128			396	2,044
1980	121	2			9	511	2,108	169			871	3,791
1981	112	1			4	206	2,345	162			655	3,485
1982	93	1			5	302	2,693	249			837	4,180
1983	123					407	2,803	254			665	4,252
1984	130					247	2,858	290			1,146	4,671
1985	139					600	3,237	316			1,454	5,746

Table VII-9 (cont'd)

World Oil Trade

Sunflower Oil

	<u>EC-10</u>	<u>Other W. Eur.</u>	<u>USSR</u>	<u>Canada</u>	<u>USA</u>	<u>Arg.</u>	<u>Brazil</u>	<u>PRC</u>	<u>India</u>	<u>Japan</u>	<u>Other</u>	<u>Total</u>	
	----- 1,000 mt -----												
<u>Imports</u>													
1970	324	74		5					4	1	363	771	
1975	250	132									327	709	
1980	243	88	52				3			6	677	1,069	
1981	259	69	240				7				577	1,164	
1982	434	87	277	2							13	427	1,240
1983	349	71	231	6							18	894	1,569
1984	462	65	311	6					49	17	798	1,708	
1985	480	67	320	6					1	18	1,015	1,907	
<u>Exports</u>													
1970	83	14	351										
1975	70	2	389		10	101					189	738	
1980	280	20	123	1	158	338	2				201	671	
1981	259	15	112	10	257	212	6	2			205	1,127	
1982	286	23	109	6	89	394	4				241	1,114	
1983	298	18	103	1	281	615		23			335	1,269	
1984	370	54	100	1	152	595		25			288	1,629	
1985	451	5	100	2	133	860		30			320	1,622	
								39			284	1,874	

Rapeseed Oil

	<u>EC-10</u>	<u>Other W. Eur.</u>	<u>USSR</u>	<u>Canada</u>	<u>USA</u>	<u>Arg.</u>	<u>Brazil</u>	<u>PRC</u>	<u>India</u>	<u>Japan</u>	<u>Other</u>	<u>Total</u>
	----- 1,000 mt -----											
<u>Imports</u>												
1970	67	12			4		2				87	172
1975	62	11			5				10	15	276	379
1980	178	24	17		6				145	8	315	693
1981	243	29	8		6			7	115	24	422	854
1982	294	24	11		7			4	60	19	425	844
1983	360	34	12		5			6	133	13	352	915
1984	326	25	17		5			3	201	23	399	999
1985	440	29	23		15			4	186	13	612	1,322
<u>Exports</u>												
1970	83	20						6		12	49	180
1975	215	41		20				13		2	61	355
1980	415	41		173		3	16	13		1	34	699
1981	554	34		191				9		1	43	862
1982	558	60		145				25		3	44	835
1983	615	67		94				34			36	846
1984	727	50		201				22		3	29	1,082
1985	967	50		245			1				62	1,325

Source: Oil World

Table VII-9 (cont'd)

World Oil Trade

Palm Kernel Oil

	<u>EC-10</u>	<u>Other W. Eur.</u>	<u>USSR</u>	<u>Canada</u>	<u>USA</u>	<u>Indonesia</u>	<u>W. Malaysia</u>	<u>E. Malaysia</u>	<u>India</u>	<u>Japan</u>	<u>Other</u>	<u>Total</u>
	----- 1,000 mt -----											
<u>Imports</u>												
1970	105	4		5	37						15	166
1975	160	6		5	72					4	39	286
1980	215	18	12	9	83				1	8	54	400
1981	184	21	13	9	69				18	9	56	379
1982	250	15	13	11	96			3	1	11	53	453
1983	304	16	10	10	107				4	12	81	544
1984	285	15		11	92					13	88	504
1985	320	16	4	11	141					14	118	624
<u>Exports</u>												
1970	37	1					2			5	115	160
1975	40	1				25	110				99	275
1980	30	2				6	219	4			126	387
1981	28					5	242				113	388
1982	28	1				3	334				96	462
1983	37	5				3	370				81	496
1984	46	9				15	377	14			70	531
1985	35					98	419	15			73	640

Coconut Oil

	<u>EC-10</u>	<u>Other W. Eur.</u>	<u>USSR</u>	<u>Canada</u>	<u>USA</u>	<u>Indonesia</u>	<u>Philippines</u>	<u>PRC</u>	<u>India</u>	<u>Japan</u>	<u>Other</u>	<u>Total</u>
	----- 1,000 mt -----											
<u>Imports</u>												
1970	148	14	23	22	270			17	1	2	102	599
1975	251	28	20	26	409			40		21	213	1,008
1980	377	35	79	20	399			26	5	35	136	1,112
1981	518	39	66	23	470	1		24	64	36	170	1,411
1982	496	38	89	20	404	1		27	14	32	182	1,303
1983	475	34	70	22	449			20	9	43	162	1,291
1984	344	24	64	20	378			28	2	21	153	1,048
1985	358	28	58	24	450			27	2	19	193	1,189
<u>Exports</u>												
1970	50	2			5	6	334			1	210	608
1975	192	10			8	27	592			3	190	1,022
1980	40	3			19	41	914				201	1,218
1981	55	3			14	4	1,047				264	1,387
1982	81	6			13		949				245	1,294
1983	57	3			11	8	1,020				248	1,347
1984	48	6			22	35	586				292	989
1985	44	6			19	192	652	2			319	1,234

Source: Oil World

Table VII-9 (cont'd)

World Oil Trade

Cottonseed Oil

	<u>EC-10</u>	<u>Other W. Eur.</u>	<u>USSR</u>	<u>Canada</u>	<u>USA</u>	<u>Arg.</u>	<u>Brazil</u>	<u>PRC</u>	<u>India</u>	<u>Japan</u>	<u>Other</u>	<u>Total</u>
	----- 1,000 mt -----											
<u>Imports</u>												
1970	78	6		14						4	175	277
1975	23	11		11						10	333	391
1980	17	6		5						32	383	443
1981	9	8	2	3					28	43	368	461
1982	13	7	4	5						40	459	528
1983	13	7		4	9					34	277	344
1984	12	5		3						12	283	315
1985	10	7		3						26	334	380
<u>Exports</u>												
1970	2		21		170	1	1	8			40	243
1975	1		29		298		9	5			41	383
1980	3				356	19	50	1			19	448
1981	2				319	10	104	1			28	464
1982	4	1			388	14	84	23			28	542
1983	1		1		195	17	78	34			17	343
1984	7				171	14	98	23			23	336
1985	5				191	28	105	25			14	368

Groundnut Oil

	<u>EC-10</u>	<u>Other W. Eur.</u>	<u>Senegal</u>	<u>Canada</u>	<u>USA</u>	<u>Arg.</u>	<u>Brazil</u>	<u>PRC</u>	<u>India</u>	<u>Japan</u>	<u>Other</u>	<u>Total</u>
	----- 1,000 mt -----											
<u>Imports</u>												
1970	333	21		9							51	414
1975	305	33		7					1		86	432
1980	421	25		5							63	514
1981	276	21		4							53	354
1982	333	19		4					1		73	430
1983	381	15		4	2			8			98	508
1984	235	13		4	1			1			83	337
1985	245	13		4							72	334
<u>Exports</u>												
1970	33	2	146		15	63	32	10			155	436
1975	72	1	209		12		38	20			88	440
1980	79	1	74		18	85	122	20			98	497
1981	67	1	19		20	35	46	64			95	347
1982	68	3	152		10	35	78	55			50	451
1983	82	9	175		2	47	57	84			43	502
1984	49	1	107		7	30	26	65			42	327
1985	44	1	67		17	29	79	58			44	339

Source: Oil World

With the exception of the United States, the major exporters are usually developing countries -- Argentina and Brazil in the Western Hemisphere, and Malaysia, Indonesia, and the Philippines in the Far East. These two large pools of exportable vegetable oil will be in sharp competition for markets worldwide, and especially in Africa and South Asia.

Table VII-10 summarizes trends in net trade in fats and oils since 1970. In Europe, the decline in net imports by the EC has been largely offset by the Soviet Union's shift from being a small exporter to a big importer. But the subsidized character of EC exports and the lack of growth in total European import requirements have a continuing negative influence on world oil values.

Table VII-10

Net Trade in Fats and Oils*

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>
	----- million metric tons -----			
W. Europe	-2.3	-1.8	-1.2	-.9
USSR	.4	.4	-.6	-1.2
India	-.2	0	-1.4	-1.2
Japan	-.3	-.3	-.2	-.1
United States	1.7	.8	2.7	1.6
Argentina	.5	.1	.9	1.7
Brazil	.1	.4	.9	1.2
Indonesia	.2	.4	.6	.9
Malaysia	.4	1.2	2.3	3.3
Other	-.5	-1.2	-4.0	-5.3

* Plus for net exports; minus for net imports.

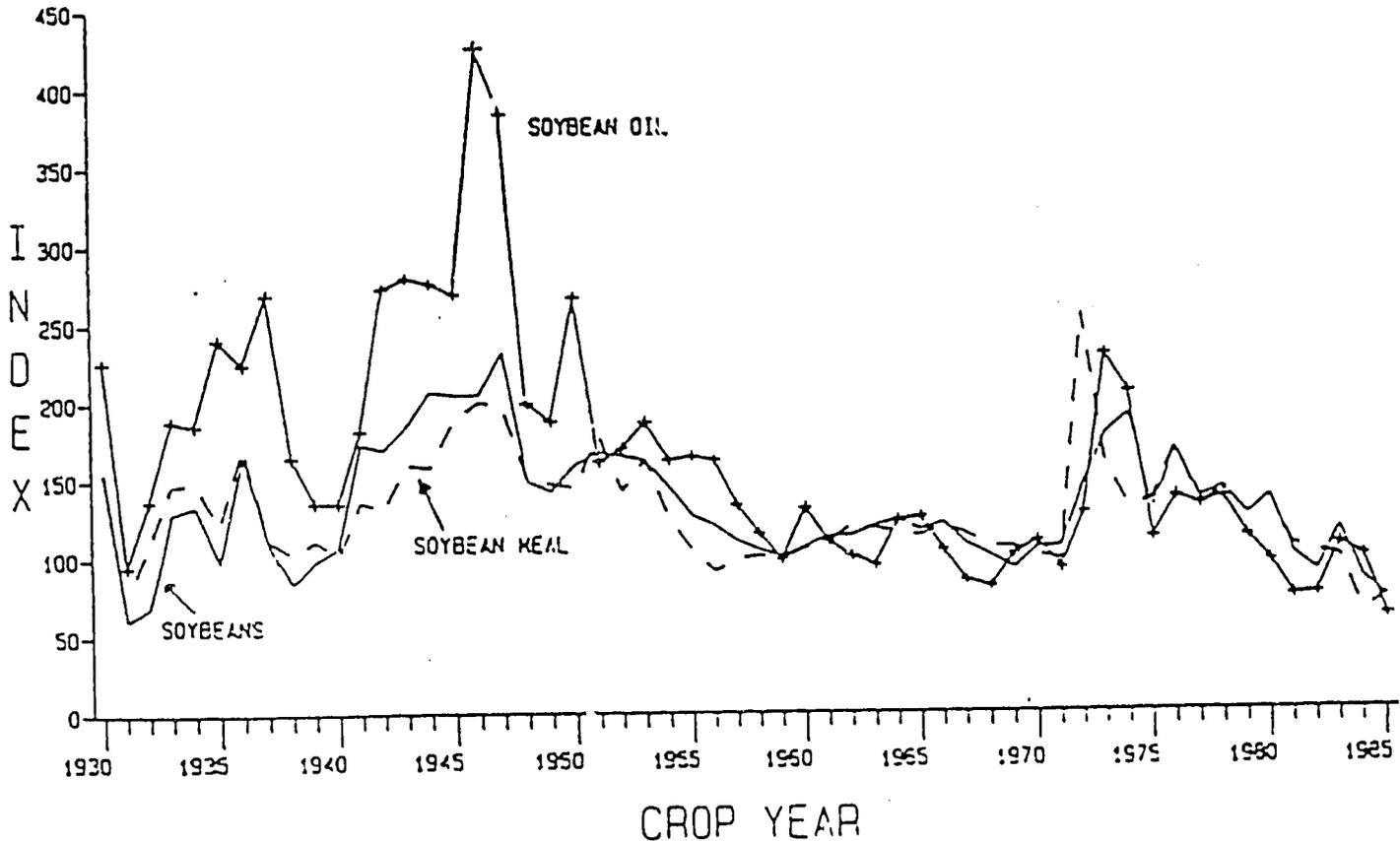
Real Price Trends

Price trends in the oilseed complex have been similar to those for grains and other major agricultural commodities, i.e., prices have declined in real terms. Strong growth in productivity in agriculture since World War II has generally held increases in nominal prices for oilseeds, protein meal, and vegetable oil to less than the rate of inflation. The commodity shortages of the 1970's seemed to mark a reversal of the historic trend but can now best be characterized as an aberration.

As suggested in Figure VII-3, oil prices have declined more than meal prices since the first half of this century. Given the anticipated increase in palm oil output in the years ahead, vegetable oil should remain modestly priced in most years.

Figure VII-3

DEFLATED COMMODITY PRICE INDICES (1969-71 = 100)



3. Outlook Into The 1990's

Setting

For the balance of the 1980's and the early 1990's developments in the oilseed sector will be largely shaped by worldwide efforts to grapple with the general problem of excess agricultural production capacity. As with the grains, supplies of oilseeds, protein meals, and fats and oils are expected to be ample, and prices relatively modest.

The projected persistence of the long-term decline in major crop prices means that the terms of trade will continue to shift against agriculture and in favor of industry. It is important to remember that this is a good thing, not a bad thing. It occurs because of the high rate of world agricultural productivity growth which is allowing the world population to meet its most basic need, i.e., food, with fewer and fewer resources. The human, physical, and financial resources that are freed up naturally move into other activities.

The important task for developing countries is to insure that, where possible, they keep pace with this agricultural productivity growth. This includes

adoption or development of new varieties, appropriate input use, improved farm management, and efficient marketing. Productivity in the oilseed and tree oil sector has been rising quite rapidly. Countries like Malaysia, Indonesia, and Brazil have demonstrated the capability to foster and maintain that growth, and other developing countries will need to keep pace.

Developing country policymakers are typically more concerned with oil than with meal. Vegetable oil is a natural complement to a cereal-based diet, either as a salad and cooking oil or as a baking and frying shortening. As incomes rise in developing countries, one of the first additions to the diet is a greater quantity of fats and oils. Since per capita consumption in developing countries is only 5-10 kg. annually compared to the 25-35 kg. typical in wealthier economies, there is considerable scope for increased disappearance.

Protein meals play a less important role in low-income countries because they are fed to animals rather than people. Some of the rapidly growing Asian countries are exceptions to this rule because income levels are now high enough to stimulate strong demand for meat and other livestock products. But, in general, policymakers in developing countries do not have to worry a great deal about protein meal supplies.

Development and Trade Issues

Oilseeds and related products seldom raise major food security issues for developing countries. There may at times be a great deal of sensitivity to the foreign exchange or consumer food price implications of a world vegetable oil shortage, but a population does not starve due to a lack of vegetable oil. There are, however, a number of important development and trade issues related to the oilseed sector.

Each country's need for fats and oils varies and each meets that need in a different manner. The demand in non-edible applications such as soap, fatty acids, paint, varnish, lubricants, etc., will depend on the country's stage of development. The demand for edible fats and oils will depend mostly on dietary habits and on incomes. Some national cuisines do not rely heavily on incorporation of fats and oils. In Japan, for example, per capita consumption is only 17 kg./year despite high incomes.

On the supply side, the role of internal production of lard, tallow, butter, and marine oils will vary in accordance with the relative size of the country's meat processing and fishery sectors. Internal production of vegetable oil will be determined by the climatic and agronomic potential for alternative oilseed and tree crops. And for many countries oil imports will constitute an important part of the total supply.

Given the great variety in national circumstances, about the only generalization one can currently make is that the prospect of several years of moderate world vegetable oil prices should be taken into account in sectoral investment decisions. But this raises an important question: is this conclusion any different than what one would say about every other agricultural crop?

After all, world prices of virtually every major agricultural commodity are quite depressed. There are three interrelated factors that should weigh somewhat more heavily in considerations of future oilseed sector development: long lead times, the future potential for international price volatility, and the role of processing facilities.

In planning future vegetable oil and protein meal policy, one must remember that long time periods may be required to create a new industry, or even to expand an existing one. In the case of tree crops like palm or coconut, it takes three or more years before new plantings produce commercial yields. One reason for the current world surplus of vegetable oils is the coming of age of palm trees planted in response to the most recent bout of high oil prices. In the case of oilseeds, one must decide whether future needs for protein meal will rise fast enough to absorb an expansion in output. And whether one is dealing with a tree crop or an oilseed, processing facilities must be built or expanded.

The potential for future oil price volatility in world markets is linked to palm oil's rising share of world trade. If Malaysian and Indonesian production and exports in a particular year are reduced by adverse weather, the shortfall cannot be made up by planting more trees. The burden of short term adjustment will be mostly on soybeans, which have a relatively low oil content. The same will be true when palm oil production is unusually large. Thus, the 1990's could again bring some wide swings in world vegetable oil prices.

There is also the question of processing facilities. The world currently has excess oilseed crushing capacity due to overbuilding in the late 1970's and early 1980's. Except in protected markets oilseed crushing has not been very profitable. Crude vegetable oil must also be further refined for edible use. Developing country planners must therefore carefully weigh the future economics of domestic oilseed crushing (or palm fruit processing) and oil refining against greater or lesser reliance on oil imports. It is important to note that the world price of refined palm oil has typically been less than the price of imported crude soybean, rape, or sunflowerseed oil which must be further processed at considerable cost. For some countries it may well make more sense to rely on cheap imported palm oil rather than to increase availability from domestic sources. For others, latent efficiency and the spillover effects of such agro-industrial development may dictate an expansion in internal production and processing.

Finally, national policies are important in influencing world trade in and prices of oilseeds and products. And, these are changing all the time. Policy developments in the U.S. and EC are probably the most important to watch.

In the U.S., commodity price relationships have been altered in a basic way under the Food Security Act of 1985 which was implemented starting with the 1986 crops. Support levels for grains and cotton were reduced sharply as were market prices for these commodities. These same commodities have received government (deficiency) payments to cushion the impact of lower support levels on producer incomes. Their output has also been constrained by requiring farmers to idle acreage in return for price support benefits.

For the major oilseeds (excluding peanuts), soybeans have a price support program but sunflowerseeds and cottonseed do not. None of the oilseeds receive government payments. And, support prices for soybeans have declined less than those for grains and cotton. As a consequence of these policies, production of soybeans and sunflowerseeds have declined as government payments have made production of grains and cotton more profitable and as idle acreage restricts plantings of all major field crops.

One cannot rule out that further changes in policies might occur and affect production and prices of U.S. oilseeds since the Food Security Act runs through the 1990/91 crop season.

In the EC, pressures to reduce the cost of their Common Agricultural Policy (CAP) have resulted in a shift of land away from grains to oilseeds. Production of rapeseed and sunflowerseed has increased very rapidly. But these are commodities that also receive substantial support under the CAP and, as a consequence, cost savings have not really occurred. In the meantime, production and exports of vegetable oils from the EC have grown rapidly.

The EC will continue to be under pressure to reduce the cost of its CAP. These pressures are likely to result in policies and programs that slow the growth in oilseed production. But the EC is still likely to be a formidable exporter of vegetable oils over the next five years or so.

Price Outlook

World prices of oilseeds and products are now low by historic standards and are likely to remain at about recent levels during the next five years, especially in the case of vegetable oils. This means continued declines in real prices.

There are likely to be some years when weather and crop problems in major oilseed producing regions result in price increases, but these price rises are likely to be temporary and not last for more than a year.

As the world economy grows, so too will the demand for meals and oils. Thus, there will be a need to increase production of these products. The demand for meal will drive the evolution of oilseed production, with oils continuing to be considered by-products. But the world vegetable oil market will also have to absorb increased output of tree oils (palm and coconut). And, production of these oils is likely to continue to expand at a fairly rapid rate over the next five years. Thus, vegetable oil prices are likely to remain low and may even decline further relative to the price of oilseed meals.

B. Sources of Information

In addition to the information sources described earlier, there are a number of publications that focus specifically on the oilseed sector.

1. USDA

World Oilseed Situation and Market Highlights

World Oilseed Situation and Market Highlights, published monthly by the Foreign Agriculture Service of USDA, provides detailed commodity and country data on oilseeds which are generally only summarized in other USDA publications such as the World Agricultural Supply and Demand Estimates. This information covers oilseeds, oilseed meals, vegetable oils and animal fats. It provides necessary detail for assessing trends in world trade in oilseeds and products.

Monthly reports typically contain a summary of the world oilseed situation, oilseed market highlights, prices and economic indicators, and country and commodity features sections in a predominantly textual format.

Regular data tables and graphs display historic, present, and future supply-demand data for major oilseeds, protein meals, and vegetable and marine oils. Regional supply-demand information for the U.S., Brazil, Argentina, the EC-12 and Malaysia is also highlighted. The sources of data are attache reports, official statistics, and USDA estimates. The time series generally include final data for the previous 3 years, preliminary data for the current year and USDA forecasts for the upcoming year.

Country tables for supply and distribution tend to present longer historical series, sometimes as much as 10 years.

In addition to the monthly Foreign Agriculture Circular, FAS sporadically releases Oilseed Reference Tables. FAS currently maintains data bases for all major oilseeds dating back to 1964/65. These data bases are continually updated and occasionally published as part of the Oilseeds Reference Table Series.

Reference tables are currently available for all the major oil crops and their products including, soybeans, sunflower, rape, copra, palm kernel, palm, flax and cottonseed. The standard reference guide format separates data by each country's supply and demand balance for the various oilseeds and their products, with historical data going back to 1964/65. Data available under the format for most oilseeds and products include supply factors such as harvested area, yield, production, beginning stocks and imports. Demand factors include exports, crush, food use, feed, seed, and waste.

These publications are available from:

Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

2. Oil World

Weekly Information

Oil World has been a respected private source of data and analysis pertaining to oilseeds, oils, fats and meals since 1958.

Oil World is published weekly and is comprised of two main sections: a textual analysis section and a statistical update section. In addition to the weekly newsletter, Oil World publishes an annual summary each year and infrequently publishes special studies with more detailed analysis and longer term forecasts and historical data. The annual summary is typically available in March of each year. Special publications are not published on a predetermined schedule. The most recent special report was Oil World: The Past 25 Years and the Prospects for the Next 25, published in 1983. It is now badly outdated.

In the weekly newsletter, the textual analysis section highlights and analyzes the latest available data, as well as features longer-term forecasts not included in the statistical update section. Both sections of the weekly report as well as the annual summary and special reports are organized by type of commodity and by country/regional supply-demand situations. The text portion of Oil World is divided into three main sections--forecasts, facts and figures, and opinions on prices.

In the forecast section, the supply-demand situation for different commodities and/or geographical regions is projected. Forecasts in this section are typically short run, usually confined to less than 2 years in the future. Longer-term forecasts are occasionally given in this section, sometimes forecasting for 10 or more years. Typical forecasts include oilseed production, disappearance and stock projections for specific crops and their products.

The facts and figures section discusses the most recently released official data and estimates available. Data tables are dispersed throughout the text providing enough relevant historical data to help visualize current trends. The text not only presents data directly related to oil crops and their products but also provides data related to demand factors such as livestock inventories, economic indicators such as GNP growth in specific countries, and the latest population growth estimates. Additionally, information ranging from worldwide changes in policy to changes in the weather allow the reader to make judgments on present and future trends in supply. The final section of the text is the opinion-prices section. In this section, Oil World's editorial staff analyzes the impact that recently released data and Oil World forecasts may have on the prices and markets for oilseeds, fats, oils and meals in the near future.

The statistical update section of the report features the most recently released official supply-demand statistics and forecasts categorized by commodity and geographical region.

The commodity section highlights data on 14 major oilcrops and their products. Featured commodities include soybeans, cottonseed, peanuts,

sunflower, rape, corn, copra, palm/palmkernel, butter, lard, fish, linseed, castor and tallow. Minor oil crops and products as well as other commodity data affecting the supply-demand situation are captured in the final "other commodities" subcategory.

The geographic breakdown includes 16 country/regional breakdowns: Western Europe, France, Italy, Netherlands, Spain, U.K., West Germany, Other Western Europe, East Europe/USSR, Africa, U.S.A./Canada, Brazil/Argentina, Other America, Japan, Malaysia/Singapore and other Asia/Oceania. The World section aggregates the supply-demand data for all oil crop commodities and all the countries of the world to give an overview of the world supply-demand situation for individual oil crop commodities and their products.

Oil World Annual

Oil World publishes the Oil World Annual each March. This annual report is organized like the weekly material, with the text separate from the statistics. As in the weekly report, the statistics section is divided into a world summary, a commodity section, and a country section.

The textual analysis portion of the Oil World Annual concentrates on forecasting the supply-demand situation for oilseeds, fats, oils and meals and the demand and price relationships between oilseeds and their products for the crop year at hand.

The statistical update section of the annual report is broken down by commodity groups rather than by individual oilseeds, fats and their products. The commodity statistics are broken down into four main sections: oilseeds, oilmeals, red meats, and oils and fats.

The statistical section of the Oil World Annual begins with the World Summary section. This section features aggregated world total supply-demand data for 17 major oils and fats, 12 major oilmeals and 10 major oilseeds. A five year series of historical data is provided on both a calendar year and marketing year (October-September) basis. In addition to the basic supply-demand data including production, imports, exports, disappearance and stocks, this section also summarizes per capita disappearance of the 17 major oils and fats for more than 40 individual countries plus the EC and Eastern Europe. Population data are listed for most countries. Monthly price series for oilseeds, crude oils, fats, meals and grains at various markets are also featured in the world summary section.

The commodity statistics portion contains four distinct sections: oilseeds, oilmeals, red meats, and oils and fats. Supply-demand balances for individual commodities are given by country in the oilseeds, oilmeals and oils and fats section. The red meat section gives only production data for selected meats by country.

The final statistical section gives oilseed area/production, seed balances, crushings, oils/fats balances, oilmeal balances and/or trade for specific

countries. The country section in the annual report offers a much more complete breakdown by country than the weekly reports do. While the weekly reports offer only 16 major geographic regions and sporadic inclusion of minor countries, the annual report provides in-depth statistics for more than 90 countries around the world.

These publications may be obtained from:

Oil World
 ISTA Mielke GmbH
 2100 Hamburg 90
 P.O. Box 900803
 West Germany

3. Informativo ABIOVE

Informativo ABIOVE is the monthly publication of the Brazilian Vegetable Oil Industry Association. It is published in Portuguese and provides industry data for oilseeds, vegetable oils and related products as well as analysis of the Brazilian vegetable oil industry. ABIOVE is the primary source for data on Brazilian oilseed crushings and on stocks of oilseeds and products. The publication is available from:

Informativo ABIOVE
 Redacao E Circulacao
 Avenida Paulista n 460^o-4^o Andar
 CEP 01310
 Sao Paulo, S.P.
 Brasil

4. Safras & Mercado

Safras & Mercado is a private weekly analytical newsletter that follows the trends in Brazilian agricultural markets. Specific markets covered by Safras & Mercado are markets for meat, grains, and oilseeds with primary emphasis on soybean supply and demand factors.

Safras & Mercado analysis provides particularly strong information and insight pertaining to the effects of Brazilian government programs that set prices for import and export commodities such as soybeans and their products. Additionally, the effects of inflation and other Brazilian economic indicators on planting and marketing decisions can be more easily identified through this newsletter than through other sources. In addition to ongoing analysis, Safras & Mercado publishes ample price data for world, U.S., and Brazilian markets for grain, oilseed and meat commodities. Brazilian supply-demand data for soybeans and soybean products is often featured. The publication is available from:

Safras & Mercado
 Praca Mal. Deodoro, 130/602
 P.O. Box 10.338
 90.010 Porto Alegre, RS
 Brasil

VIII. FRUITS AND VEGETABLES

A. Outlook for Fruits and Vegetables

World trade in fruits, nuts, and vegetables has experienced a number of important changes over the past decade and some of these emerging trends are likely to continue over the next several years. Some of these key developments are discussed below.

I. European Community Enlargement

The enlargement of the European Community (EC) to include Spain and Portugal is having a pronounced impact on the EC's imports of fruits, nuts and vegetables.

From its beginning, the EC has favored domestic production at the expense of third country supplies for a wide range of agricultural products. As the EC expanded from its original six members to the current 12, with the latest enlargement involving accession of Spain and Portugal on January 1, 1986, the agricultural production base covered by the Common Agricultural Policy (CAP) of the EC has expanded greatly. Generally, domestic prices of most agricultural commodities in the EC are supported above world market levels through a variety of border protection devices, and these higher prices have resulted in increased area and yields of many crops.

Entry of Spain and Portugal into the EC provides it with a much greater production base for fresh and processed fruits and vegetables. Production of these products is being stimulated to satisfy EC-wide demand at the expense of third country suppliers, particularly Middle East and North African exporters. These new trends are likely to continue to operate for several years. This is of great importance to world trade in fresh and processed fruits and vegetables since the EC has been the world's largest importer of these products.

A recent AID study examined the export potential for horticultural crops from Egypt, Jordan, and Morocco.^{1/} It points out that EC preference for domestically produced horticultural products has either significantly slowed the growth of imports from third countries or resulted in declining imports. These trends are being reinforced as a result of Spanish and Portuguese membership. Not only will the size of the EC market for horticultural products from third countries continue to shrink, but the EC may itself become a more important exporter of many commodities, creating increased competition in international trade.

^{1/} Maury Bredahl, Ludwig Eisgruber, Peter Hamer, Edward Hogan, Alfred Krezdorn and Michael Martin, Supply and Demand for Southern Mediterranean Horticultural Products, ANE/TR/ARD, USAID, September, 1985.

2. Growing Pacific Basin Market

Many countries in East and Southeast Asia have experienced rapid economic growth which has resulted in a rapid increase in imports of horticultural products not produced in the region. Commodities that have benefited the most are citrus, fresh and dried deciduous fruit, and nuts.

This region is likely to continue to experience good economic growth and, consequently, imports of these products will continue to increase in the coming years.

Table VIII-1

Pacific Rim Imports of Selected Horticultural Products^{1/}

	<u>1977-79</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
	<u>Average</u>				
	----- metric tons -----				
Fresh Citrus Fruit ^{2/}	516,082	588,656	680,089	621,958	657,154
Fresh Deciduous Fruits ^{3/}	201,595	280,705	303,486	285,281	273,563
Dried Fruit ^{4/}	63,691	89,686	90,359	87,129	90,750
Wine	<u>33,408</u>	<u>50,889</u>	<u>61,870</u>	<u>63,924</u>	<u>59,407</u>
Total	814,776	1,009,936	1,135,804	1,058,292	1,080,874

^{1/} Pacific Rim includes: Japan, China, Malaysia, Thailand, Singapore, Hong Kong and South Korea.

^{2/} Oranges, clementines, tangerines, lemon and other citrus.

^{3/} Pears, peaches, apples and table grapes.

^{4/} Raisins and dates.

Source: FAO Trade Yearbook, various years.

3. Southern Hemisphere Production and Exports

Several southern hemisphere countries, notably Chile, Argentina, Australia, New Zealand, and South Africa have expanded production and exports of deciduous fruits, fruit juices, grapes, and wine. These countries have favorable climates for the production of these commodities. Furthermore, they are able to provide fresh products to northern hemisphere countries during the winter months and capitalize on a strong seasonal demand.

Table VIII-2

Production and Exports of Deciduous Fruits
by Major Southern Hemisphere Producers^{1/}

	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u>
	----- thousand metric tons -----				
<u>Production</u>					
Apples	2,135	2,309	2,518	2,240	2,766
Pears	457	487	522	473	582
Peaches & Nectarines	612	600	654	593	602
Table Grapes	379	393	474	464	536
Total	<u>3,583</u>	<u>3,789</u>	<u>4,168</u>	<u>3,770</u>	<u>4,486</u>
	----- thousand metric tons -----				
<u>Exports</u>					
Apples	781	762	795	847	1,014
Pears	160	151	192	189	216
Peaches & Nectarines	14	25	41	44	47
Table Grapes	145	222	282	267	314
Total	<u>1,100</u>	<u>1,160</u>	<u>1,310</u>	<u>1,347</u>	<u>1,591</u>

^{1/} Includes: Chile, Argentina, Australia, New Zealand & South Africa.

Source: Foreign Agricultural Circular, FAS, USDA.

4. Brazil Now Dominates
World Citrus Juice Trade

Brazil has emerged as the leading producer and exporter of citrus juices, particularly frozen concentrated orange juice (FCOJ). Brazil's major export markets are the U.S. and Western Europe, but exports to other areas are growing as well.

The Brazilian FCOJ industry is efficient and can compete effectively in world trade. Exports are in bulk form and are reprocessed and packaged in importing countries.

FCOJ exports from Brazil and the U.S. for recent years are shown in table VIII-3. Clearly, Brazil is the dominant exporter; its exports have increased substantially, and further growth is likely.

Table VIII-3

U.S. and Brazilian Exports of Frozen Concentrated Orange Juice (FCOJ)

	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
	----- thousand metric tons 65° brix equivalent -----					
Brazil	588	452	584	715	600	725
U.S.	54	20	51	45	32	28

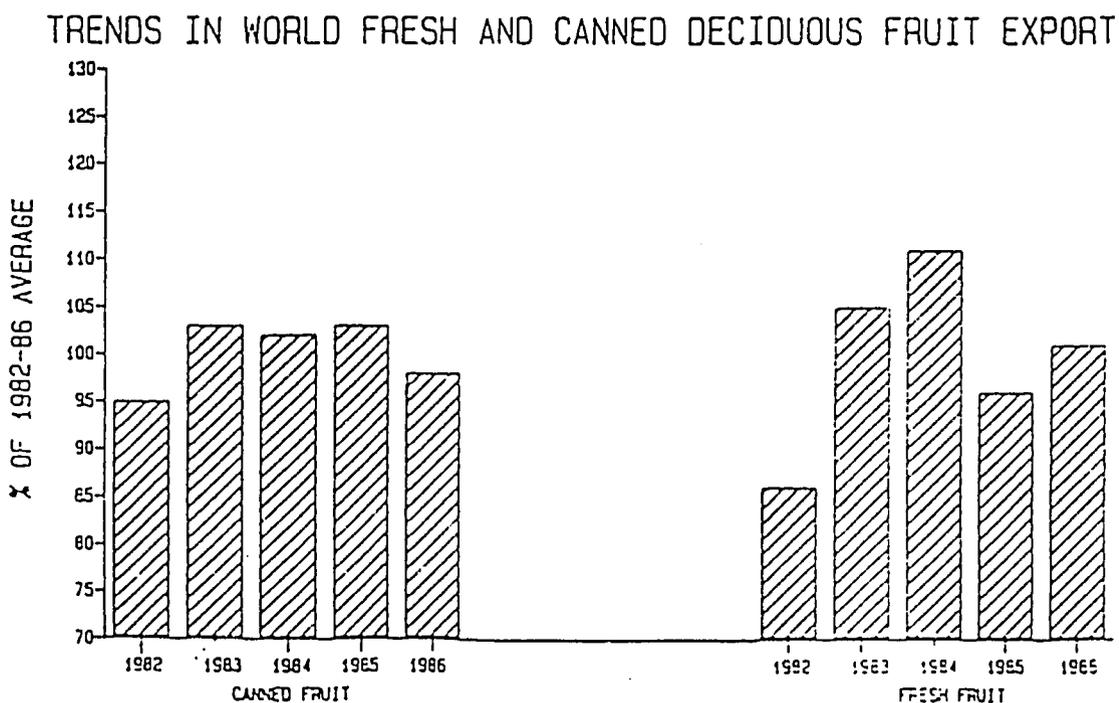
Source: Foreign Agriculture Circular, FAS, USDA, July 1987.

5. Shift From Canned to Fresh and Frozen Fruits and Vegetables

World trade in fruits and vegetables has been and will continue to be characterized by a shift away from canned products to frozen and fresh products. Underlying this trend is growth in consumer incomes, particularly in developed countries.

Figure VIII-1 illustrates trends in recent years for canned and fresh fruit. Canned fruit trade has been essentially flat while fresh fruit trade has been growing. A similar pattern exists for vegetables.

Figure VIII-1



6. Eastern Europe and the USSR

Eastern Europe and the USSR are significant importers of some fruits and vegetables. This trade has exhibited no major trends in recent years.

There are two characteristics of these markets that are worth considering from the standpoint of developing country exporters. One is that these markets will take products of lower quality than is demanded by industrialized countries. Thus, they afford an opportunity to exporters who cannot meet quality standards of more affluent markets.

Second, imports by Eastern Europe and the USSR are limited by scarcity of foreign exchange. The foreign exchange situation of these countries may improve, but the extent and timing of such improvements is highly uncertain. Meanwhile, East Bloc countries engage in a considerable amount of barter trade. This raises the prospect for developing country exporters of fruits and vegetables to increase exports to the East Bloc countries under expanded barter-like arrangements.

7. Being More Specific About Trade

It is not possible, under the terms of reference for this study, to be as specific and quantitative about the world trade outlook for fruits and vegetables as for grains and oilseeds. There are several reasons for this.

In the case of grains and oilseeds, we are dealing with relatively few products in each category. In the case of fruits and vegetables, however, there are about 100 fresh and processed products that enter world trade in significant quantities, and many more minor products. Reviewing the situation for each of these products requires time and resources, yet individual missions and AID in general may be interested in only a limited number of products and a few markets for them. The appropriate course is to first specify the fruit and vegetable products of primary interest before project-specific work on describing trends in world trade is undertaken.

Another factor that needs to be considered and also argues for careful specification of product interest is the availability of data and the form it is in. In grains and oilseeds, historical data series are readily available in published form that accurately characterize world production, consumption, trade, and prices of these products. That is not the case for fruits and vegetables, particularly at a fine level of product detail. To obtain the needed data, one must turn to annual sources such as the FAO production and trade yearbooks, annual UN trade data, and individual country sources of information such as trade associations. The effort and cost of compiling all this information for a large number of fruit and vegetable products can be large. Therefore, the most cost-effective approach is to carefully specify the products that one is interested in before starting to analyze the history and outlook for production, consumption, trade, and prices. A general approach for such analyses was outlined in Chapter I.

B. USDA Publications

1. Foreign Agricultural Service

The Foreign Agricultural Service (FAS) of the U.S. Department of Agriculture compiles information regularly on fresh and processed fruits and vegetables. It includes supply, distribution, and price information for a large number of horticultural commodities on an individual country and world market basis.

Horticultural Products Review

Horticultural Products Review is issued monthly by FAS. The format of the report is fairly standard, but the commodity coverage varies from one issue to another. Each report usually has three major sections -- Update, Features, and Statistics. The type of material contained in each section is illustrated using the June, 1987 issue.

The Update section covers trade policy changes in Canada and Mexico, information on the U.S. Middle East Food and Equipment Exhibition, and a variety of statistical information on individual country situations, e.g., Chilean lemon exports, U.S. apple exports, and duty reductions in Taiwan.

The Features section contains three articles dealing with (1) the historical evolution of production, export prices, and policies in Brazil for oranges and orange juice; (2) the world canned pineapple situation; and (3) the Southern Hemisphere raisin and prune situation.

The Statistics section provides detailed information on supply, consumption, and trade for raisins, prunes, and canned deciduous fruit for a number of countries.

This publication is available on a subscription basis from:

Foreign Agricultural Division
Room 4644-S
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

Annual Attache Agricultural Reports

U.S. agricultural attaches prepare and send to FAS in Washington annual reports on the agriculture situation in most countries of the world. These reports cover for each country the general economic situation, agricultural and trade policy developments, and the annual commodity situation including fruits and vegetables where applicable. These documents provide a useful overview of the agricultural situation in individual countries and key commodity data.

Annual attache agricultural reports are available from:

Reports and Records Division
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

Agricultural Attache Commodity Reports.

Agricultural attaches also prepare commodity reports on a regular basis for major commodities and major producing countries. These reports provide considerably more commodity detail on agricultural and trade policies, and supply, disappearance, and trade data than is contained in the annual agricultural situation reports.

Reports dealing with fruits and vegetables include information on citrus, fresh and canned deciduous fruit, dried fruit, tree nuts, fresh and processed pineapple, tomatoes and tomato products, strawberries, canned mushrooms, canned fruit and vegetable pack, and market promotion/competition.

Attache commodity reports are available from:

Reports Records Division
Foreign Agricultural Service
U.S. Department of Agriculture
Washington, D.C. 20250

2. Economic Research Service

Fruit Situation and Outlook Report

The Economic Research Service (ERS) of USDA publishes a Fruit Situation and Outlook Report about four times a year covering citrus, deciduous fruits, and nuts. This report presents historic data on U.S. supply-demand balances and prices for major fruits and nuts, with a strong emphasis on the current season situation.

Trade in fruits and nuts, both imports and exports, is also covered in considerable detail providing information on important export markets for the U.S. or important sources of imports.

Each issue usually contains an analytical piece on some aspect of the fruit and nut situation. For example, the March 1987 issue contains an econometric analysis of U.S. wine imports.

Vegetable Situation and Outlook Report

The primary focus of this report is on the U.S. vegetable situation covering fresh and processed vegetables and pulses. The report is issued by ERS about four times a year. It contains historical data on supply, disappearance, trade and prices for a large number of products.

Each issue contains one or more special features which analyze specific topics in considerable detail. For example, the February 1987 issue contains articles on irradiating fresh vegetables and trends in the U.S. processing vegetable industry.

These publications are available from:

Economic Research Service
U.S. Department of Agriculture
Washington, D.C. 20250

3. National Agricultural Statistical Service

Citrus Fruits: Annual Summary

The National Agricultural Statistical Service (NASS) of USDA publishes annual reports covering U.S. production, utilization and prices of various citrus fruits. Data are presented by commodity and by producing state for the previous three marketing seasons.

Noncitrus Fruits and Nuts: Annual Summary

NASS also publishes annual reports covering U.S. production, utilization, and prices of major noncitrus fruits and nuts. Data are presented for each major fruit and nut for each producing state.

Vegetables: Annual Summary

NASS publishes an annual summary of production, fresh and processed use, and prices for vegetables in the U.S. Data generally cover the previous three marketing seasons. Information is provided for major producing states for each vegetable.

NASS reports are available from:

National Agricultural Statistical Service
U.S. Department of Agriculture
Washington, D.C. 20250

4. Agricultural Marketing Service

Fresh Fruit and Vegetables and Ornamental Crops:
Summary of Shipments and Arrivals

The Agricultural Marketing Service (AMS) of USDA publishes weekly data and annual summaries of shipments of fresh fruits, vegetables, and ornamental crops. This information covers the quantity of shipments from domestic origin, the quantity of domestic arrivals from domestic origins, and shipments of imported commodities by country of origin.

This publication provides considerable detail on the origin of both domestically produced and imported fresh fruits, vegetables and ornamentals. It also shows the relative importance of different modes of transportation.

It can be obtained from:

Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

**C. U.S. Import Regulations for Fruits, Vegetables,
and Tree Nuts Enforced by USDA, FDA, and Customs Service**

1. Agricultural Marketing Agreement Act of 1937

Section 8e-1 of the Agricultural Marketing Agreement Act of 1937 requires that whenever the Secretary of Agriculture issues grade, size, quality or maturity regulations under a domestic marketing order for a particular commodity, he must issue the same or comparable regulations on imports of that commodity. Imported commodities affected by the Act are: avocados, cucumbers, dates (other than dates for processing), eggplants, filberts, grapes, grapefruit, green peppers, limes, mangoes, olives (other than Spanish-style green olives), onions, oranges, Irish potatoes, prunes, raisins, tomatoes and walnuts. Import regulations apply only during those periods when domestic marketing order regulations are in effect. Import regulations are amended from time to time to conform with changes in domestic marketing order regulations. Additional information regarding requirements for any of the above specified commodities may be obtained from:

Fruit and Vegetable Division
Agricultural Marketing Service
U.S. Department of Agriculture
Washington, D.C. 20250

2. Plant Quarantine Act

Plant quarantines and regulations of the U.S. Department of Agriculture are divided into two classes--prohibitory and restrictive. Prohibitory orders forbid entirely the entry of designated plants and plant products which are subject to attack by plant pests for which there is no available treatment that would insure complete freedom from such pests. Restrictive orders allow the entry of plants or plant products either under a treatment requirement or

inspection requirement. Import permits are required. These permits are issued to resident importers in the United States who are responsible for carrying out the conditions of entry specified in the permit. Questions on entry requirements for plants and plant products should be addressed to:

Director, National Program Planning Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782

3. Food, Drug and Cosmetic Act

All imported food products must comply with standards of quality established under the Food, Drug and Cosmetic Act (FDCA). The FDCA prohibits movement in interstate commerce of adulterated and misbranded foods, drugs, and cosmetics. Food additives and colors must be approved by the Food and Drug Administration. Information on the FDCA may be obtained from:

Department of Health and Human Services
Food and Drug Administration
Division of Field Regulatory Guidance
Field Compliance Branch-Imports
200 C Street, S.W.
Washington, D.C. 20204

4. Tariff Act of 1930

Rates of duty on imported commodities are published periodically by the United States International Trade Commission in the Tariff Schedules of the United States Annotated. Duties on most fresh fruits, vegetables and nuts are included in Schedule I, Parts 8 and 9. Specific information on import duties may be obtained from:

United States Customs Service
Classifications and Value Division
Entry Branch
1301 Constitution Avenue N.W.
Washington, D.C. 20229

D. Private U.S. and Foreign Publications
Dealing with Fruits and
Vegetables

I. U.S. Publications

The Almanac of the Canning,
Freezing, and Preserving Industries

This annual publication contains a wealth of information about the U.S. market for processed fruits and vegetables as well as world trade data. The sections of the report listed below indicate the scope of information provided. Much of this information is provided for specific products.

- Food law and regulations.
- Labeling and packaging.
- Manufacturing practice regulation.
- Food & Drug standards of identity, quality, and fill.
- USDA quality grade standards for canned, glass & frozen foods.
- Raw product statistics including U.S. production and utilization data for individual products.
- U.S. pack statistics showing the volume packed for each product.
- International trade and world pack data.
- Canned food prices.
- Other information relevant to the canning, freezing and preserving industries.

This publication may be purchased from:

Edward E. Judge & Sons, Inc.
P.O. Box 866
Westminster, Maryland 21157

2. European Publications

There are a number of private publications in Western Europe that deal with the fruit and vegetable situation on a current basis, and some provide historical data on trade as well.

Reuters Fruit News

This daily publication deals with the current fruit market situation in Western Europe. It provides commentaries on the current supply situation, policy issues, and daily price quotations for a large number of fruits in key European markets such as London and Paris. It is available from:

Reuters Limited
85 Fleet Street
London EC4P 4AJ
England

Foodnews

This is a weekly publication that discusses the Western European situation for a large number of food commodities including processed fruits and vegetables. It provides current commentary on Western European supply and price conditions including market price quotations for key locations, export market developments for European countries, supply and export conditions in other countries that are suppliers to or competitors with Western European countries, and policy developments in the EC and other Western Europe nations. This publication can be obtained from:

Roy Ellard, Editor
The Foodnews Company
22a Sidcup High Street
Sidcup, Kent DA14 6EH
England

Euro-Fruit

Euro-Fruit is a monthly magazine published in English, French and German dealing with the European fruit situation. The magazine provides market commentaries and special stories for various fruits. It does not provide historical data on a regular basis. This publication can be obtained from:

Ms. Heather Slough, Editor
Euro-Fruit
Market Intelligence Ltd.
4th Floor Market Towers
New Covent Gardens
London SW8 5NQ
England

Fruit Trades Journal

This is a weekly publication that covers fruit and vegetable market developments in Western Europe and in key countries exporting to that region. The publication also contains feature articles on some aspects of the fruit and vegetable situation in Europe or in major exporting countries. Weekly prices for a large number of fruits and vegetables are published for key markets in the United Kingdom.

This publication can be obtained from:

David Shapley, Editor
Fruit Trades Journal
Lockwood Press Ltd.
430-438 Market Towers
New Covent Gardens
London SW8 5NN
England

Fruit and Tropical Products

Twice a year the Commonwealth Secretariat publishes Fruit and Tropical Products. This publication contains discussions of world market conditions for a variety of fresh and processed fruits as well as for coffee, cocoa, oilseeds and products, and spices. Extensive data covering production, trade, disappearance, and prices are also presented for many countries including those in Western Europe, the USSR, and a number of other exporting or importing countries.

This publication can be obtained from:

Fruit and Tropical Products
Commonwealth Secretariat
Marlborough House
London SW1Y 5HX
England

The Fruit Importers Association

This is a daily price sheet for the London market covering a wide range of fresh fruits and vegetables. It can be obtained from:

The Fruit Importers Association
408/409 Market Towers
1 Nine Elms Lane
New Covent Gardens
London SW8 5NQ
England

The Fresh Produce Desk Book

This is an annual publication that provides considerable information on fresh fruit and vegetable trade. It contains international information and statistics on EC and world produce trade as well as a listing of fresh produce distributors. The publication can be obtained from:

The Fresh Produce Desk Book
Lockwood Press
430 Market Towers
New Covent Garden Market
London SW8 5NN
England

Fel Actualites

Fel Actualites is a monthly publication, in French, devoted primarily to covering the fruit situation in France and other EC countries. It reports on production, consumption, trade, prices, and market developments for a range of fruits and fruit products. It also provides some historical data. Each issue usually features the market situation for a few fruits. For example, the July/August, 1987 issue dealt extensively with the market situation for apples and pears.

This publication can be obtained from:

SIDFEL
115, rue de Fg-Poissonniere
75009 Paris
France

International Fruit World

International Fruit World is published three times a year in English and provides extensive information on various aspects of world fruit and vegetable trade. Key developments in individual countries are covered including commodity and industry issues. For example, the first issue for 1987 had articles on individual commodities, marketing practices and institutions, or policies for Brazil, Chile, France, Germany, Great Britain, Ireland, Morocco, Netherlands, Somalia, South Africa, Spain and the United States.

This publication also covers changes in trade laws and regulations, technology developments important to fruits and vegetables, transportation developments, and important trade fairs and meetings.

International Fruit World can be obtained from:

Agropress Ltd.
Aeschengraben 16
CH-4051 Basel
Switzerland

Fruchthandel

Fruchthandel is a weekly publication, in German, that covers a variety of fruits, fruit products, potatoes, and flowers. It focuses primarily on trade and market conditions for these products in Germany and other EC countries.

This publication can be obtained from:

Dr. Rolf M. Wolf Verlag GmbH
Lindemannstr. 12
Postfach (PB) 8806
D-4000 Dusseldorf 1
Federal Republic of Germany

Waren-Verein

Waren-Verein is published in German, with some English translations of commodity names to help use the statistical tables. It is published by the German Import Trade Association and covers imports by origin for canned and frozen commodities, dried fruits, edible nuts, dehydrated vegetables, spices and honey. Data series provide five years of historical data for imports by commodity and origin.

Waren-Verein can be obtained from:

Waren Verein
Geschäfts Stelle
Plan 5
5200 Hamburg
Federal Republic of Germany

ZMP

ZMP is a food marketing organization in Germany which publishes market summaries and bi-annual statistical series on a variety of foods. It publishes separate fruit and vegetable data series which contain five year's of information on fruit and vegetable production, trade, and prices. ZMP is published in German.

ZMP Bi Lanz
Herausgeber and Verlag
Zentrale Macht und Preisbeobachtungsstelle für Erzeugnisse
der Land - Forst und Ernährungswirtschaft GmbH
Godesberger Allee 142-148
5300 Bonn 2
Federal Republic of Germany

3. Japan

The Cannery Journal

The Cannery Journal is an annual publication featuring Japanese canned food pack and trade statistics. Pack and export statistics are provided in ten year series while import data is provided for the current year. Exports by destination and imports by origin are also provided in five year series. Special English translations are available although translations are limited for some sections of the report.

The report can be obtained from:

The Cannery Journal
Canned Food Packer and Trade Statistics
Japan Cannery Association
2-4-1 Marunouchi
Marunouchi Building
Chiyoda - Ku, Tokyo
Japan

4. Taiwan

Taiwan Exports of Canned Food

The Taiwan Cannery Association publishes an annual yearbook Taiwan Exports of Canned Food in English. The yearbook concentrates primarily on Taiwan's canned food exports and providing up to ten years of historical data. Some historical data series are as long as 15 years. In addition to Taiwanese export data, the yearbook also provides data on foreign countries' trade in specific canned commodities ranging from Japan's Mandarin orange exports to United Kingdom imports of canned asparagus.

This publication can be obtained from:

Taiwan Exports of Canned Food
Taiwan Cannery Association
340 Min Sheu East Road
7th Floor
Taipai, Taiwan
Republic of China