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A COMPARATIVE STUDY OF FAO AND USDA DATA ON PRODUCTION, AREA AND TRADE OF MAJOR FOOD STAPLES

by

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SUMMARY

1. Users of international data generally rely on the U.N. Food and Agriculture Organization (FAO) and the United States Department of Agriculture (USDA) as major sources of agricultural statistics of world countries. These two organizations have developed their data systems over the years and both of them now operate computerized systems which make available country data on production and area of crops, and on imports and exports of agricultural commodities. Data users have, however, noted differences in the country statistics that are provided by the FAO and USDA; some of the observed differences are considerably wide and pose questions as to the extent of divergence which exists between the estimates from the two systems.

2. This comparative study examines the differences between the FAO and USDA statistics on the production and area of the major staple food crops and those on cereal trade. The findings presented in this report can hopefully help guide the users of agricultural data from the two agencies, especially those involved in the food and related problems of the developing countries. The study identifies the commodities and major countries for which wide data differences exist and, using a simple approach, attempts to measure in both absolute and relative terms the data divergence among countries, geographical regions and economic groups, and of world totals.

3. The FAO agricultural data system, which had its beginnings even before the creation of the organization itself, provides mostly historical data on the characteristics of the commodities examined in this report. It also circulates, on a limited basis, information gathered through the recently developed "early warning system" on serious food shortages in the developing countries.

The USDA system, on the other hand, generates international agricultural data as part of the agency's main function to service U.S. agriculture and agriculturally-related interests. Besides the assembly of historical statistics on agriculture, the USDA data system provides major support to the agency's outlook activities on agricultural crops in line with its objectives. Both the FAO and USDA data systems depend largely on national official statistics as primary sources of information and both avail of unofficial sources to fill data gaps.

4. As an established network that collects agricultural statistics from member governments, the FAO data system has a more comprehensive coverage of countries and commodities, compared to the USDA data system. USDA international data have been developed primarily for trade promotion and, accordingly, the coverage of countries and commodities is largely guided by trade prospects for U.S. agricultural products. However, although the country coverage of USDA statistics on cereal production and area is not as large as that of the FAO, the common countries reported in the data systems account for nearly all of the world totals on cereal output and area, on the basis of FAO figures. Many of the FAO reporting countries that are not included in the USDA reports are small territories and do not contribute significant amounts to the world totals of these characteristics. The USDA estimates on the noncereal staple crops, on the other hand, are limited to those on production and the country coverage on these commodities is not as wide as that on cereal data.

5. The comparisons in this study match corresponding estimates for common reporting countries in the two systesm and are generally limited by the number of USDA reporting countries. As of 1975, the number of countries reporting data on the major staple food crops is given below.

Nature of Data	Number of Reporting Countries*		
	FAO	USDA	Common
Crop Production/area:			
Cereals	161	124	114
Noncereals	180	92	91
Trade in Cereals:			
Imports	188	126	119
Exports	145	110	93

* Including territories.

6. An important cause of differences between FAO and USDA data on the major staple food crops is the definition of the reference period for the annual figures published by the two agencies, a factor which appears to affect trade data more than production and area statistics. Production and area data from the FAO refer to the production year which is the calendar year in which a crop or the bulk of it is harvested. On the other hand, crop statistics from the USDA are presented on a split-year basis, i.e. harvests from July of one year (which the system terms as the world production year) to June of the following year. For countries where the bulk of crop harvests occur during the commonly referred production year in the two systems, there is generally close correspondence of the statistics on production and area of the major staples. Data problems arise for countries where the bulk of crop harvests, as reported to FAO, occurs during the second year of the harvesting period which spans portions of two successive years;

production and area statistics on these crops become assigned to different production years of the two data systems. While the one-year lag in production and area data is clearly shown by FAO and USDA reports for a number of Southern Hemisphere countries, data divergence caused by the difference in the reference period is not as evident for others where this appears to be caused also by other factors.

7. A significant share of the differences between FAO and USDA data on the production and area of major staples also appear to be contributed by the pre-final estimates from the two systems. As reflected by the increases in the number of identical country estimates after several years, comparisons in this study suggest the tendency of FAO and USDA data on crop output and area to agree over time. However, these increases do not necessarily result in the convergence of the aggregated estimates on cereal production and area of the two data systems because of wide differences between FAO and USDA estimates for a number of major contributing countries.

8. In the case of cereal trade data, the difference in the definition of the reference year appears to be a major factor for the considerably wide divergence between the country reports of the FAO and USDA data systems. A common reference year for FAO and USDA statistics on the imports and exports of cereals, except rice, represents different time periods. Like production and area estimates, the FAO data on cereal trade refer to the calendar year period from January to December while those of the USDA generally refer to "marketing year" period, which is usually from July of the reference year to June of the following year. The USDA data on rice trade use a marketing year that spans the months from January to December of the reference year and thus coincides with FAO's reference period.

Despite the apparent common reference period for rice trade data, however, wide differences are still reflected by FAO and USDA country reports on imports and exports of this commodity.

9. Another possible cause of divergence between FAO and USDA data on cereal trade can be attributed to differences in the recording methods employed for trade statistics, for which FAO classifies reporting countries into "general trade" and "special trade" categories. Although FAO's definition of general trade appears to apply to the USDA reports on cereal imports and exports, an attempt to compare trade statistics of the two data systems on the basis of FAO's grouping of countries failed to yield consistent results at the aggregate levels.

10. Comparisons between FAO and USDA country data for the reference years 1965, 1970 and 1975 show that about 50 percent to 90 percent of the common reporting countries in the two systems have identical estimates on both production and area of all cereal items for 1965 and 1970. For the reference year 1975, however, less than half of the common reporting countries show identical estimates on the production of rice, maize, millet and sorghum; the same is true on the area harvested of these crops except rice. Relative to the FAO output totals for the common reporting countries, the aggregate production represented by these identical estimates accounts for 75 percent or more for wheat, barley, oats and rye in 1965 and 1970. Countries with identical FAO and USDA estimates on rice production in these two years account for only 10-12 percent of the FAO aggregate for all commonly reported countries in the two systems. The corresponding 1975 percentages are considerably smaller because of the still low number of countries with identical estimates as reported for that year, except in the case of rye (95 percent).

11. At the regional level, differences of less than 10 percent between the aggregates of cereal production and area data of the FAO and USDA common reporting countries appear to be limited to North/Central America and the USSR (also classed as an FAO region). For the USSR, in particular, the corresponding FAO and USDA estimates on the production and area of all reported cereal items are identical. The wide differences between FAO and USDA aggregates in other regions can be largely attributed to the divergent estimates of but a few countries in each region. Among the countries with large differences in cereal output data are Algeria, Ethiopia, Rhodesia and Tanzania in Africa, Argentina and Brazil in South America, the People's Republic of China in Asia and Australia in Oceania.

12. Except for the output data on millet and sorghum in 1970, there is closer agreement between the FAO and USDA aggregates of cereal estimates for common reporting countries in the developed market economy group than those in the developing market economy or centrally planned economy groups. The centrally planned economies show the widest divergence in the economic group aggregates on the different cereal items except wheat and rye; large differences are also generally reflected in 1965, 1970, and 1975 between the FAO and USDA aggregates of production and area in this group for barley, millet, and sorghum.

13. World aggregates of FAO and USDA estimates on cereal production and area for the common reporting countries indicate agreement on wheat, rice, maize, oats, and rye but wide differences are shown for barley, millet, and sorghum. The closest agreement of FAO and USDA totals for these countries appears to be for rye whose paired aggregates on production and area differ by less than half a percent in 1965, 1970 and 1975. The production and area aggregates on barley differ by about 10 percent while those on millet

and sorghum diverge by 20-40 percent. These results are not significantly altered if comparisons are made of the aggregates for all reporting countries in the two systems.

14. A comparison of the estimates of the average annual growth rates of cereal production in the developing market economy (DME) countries that were calculated from the 1961-75 FAO and USDA data show close agreement in many DMEs but also wide differences in several countries. The calculated growth rates show relatively close correspondence for wheat, rice and maize in Pakistan, for wheat and rice in Afghanistan, Egypt and India, and for rice and maize in the Republic of Korea, Panama and Thailand; wide differences are indicated for most of these major crops in several countries such as Cuba, Guatemala, Morocco, Mozambique, Saudi Arabia and Tanzania.

15. For the reported noncereal staple food crops whose regional data are compared, only slight differences are reflected by the FAO and USDA production estimates for the USSR but wide divergences are shown by the aggregates of output data for the commonly reported countries in Africa. There appears to be close agreement between the FAO and USDA aggregates of noncereal production for Asia and, except for pulses, North/Central America. Varying magnitudes of differences between FAO and USDA regional totals of noncereal output are reflected for South America, Europe and Oceania.

16. The world aggregates of FAO and USDA estimates of noncereal production in the common reporting countries during the three comparison years show maximum relative differences (based on FAO figures) among noncereal items of 1 percent for potato, 3 percent for both sweet potato and cassava, 5 percent for pulses, 6 percent for groundnuts and 19 percent for yams. A comparison of the world aggregates of the FAO and USDA estimates on the production of noncereals, except yams, for all reporting countries in the two systems reflects the significant undercoverage of the USDA system on these commodities. In the

case of yams, the USDA figures exceed those of the FAO.

17. Comparisons of data on cereal imports and exports reflect the very wide divergence between the FAO and USDA reports on cereal trade. A high percentage of the common reporting countries in the two systems have paired reports on both imports and exports of cereals which differ by more than 20 percent of the FAO figures for these countries for 1965, 1970 and 1975. The relative number of paired FAO and USDA country reports on imports which diverge by this magnitude are 60-70 percent for wheat and maize, 45-60 percent for rice and 50-80 percent for barley, oats and rye. The percentages of commonly reported countries with more than 20 percent divergence in the case of cereal export data are about 70 percent for wheat and maize and 60 percent for the other items based on the 1965 figures; the differences are even larger on the basis of the 1970 and 1975 reports.

18. On the whole, only about 1/4 of the paired FAO and USDA regional aggregates on the imports of the different cereal items by the common reporting countries during 1965, 1970 and 1975 show differences of less than 10 percent of the FAO figures; around 1/2 of these pairs differ by 10 to 50 percent and the remaining 1/4 reflect differences of over 50 percent. The least divergences are shown by the FAO and USDA totals of cereal imports for Europe (except in the case of rye) while the wide differences are indicated by those reported for Oceania and the USSR. Differences between FAO and USDA regional aggregates of cereal exports appear to follow a similar pattern among regions as those of cereal imports but the differences are considerably wider.

19. Aggregations by economic group of FAO and USDA data on cereal trade in the common reporting countries indicate relatively smaller differences between the paired totals for the developed market economies compared to those of the developing market economy and centrally planned economy countries. All of the

paired totals on cereal imports in the developed market economies for wheat, rice and maize and half of those for barley, oats and rye differ by less than 10 percent. The differences between the matched FAO and USDA aggregates of cereal exports from the developed market economy countries are somewhat larger than those reflected by the corresponding totals of cereal imports but are still relatively smaller compared to the differences between the paired aggregates for the two other economic groups.

20. The calculated ratios of the world aggregates of FAO and USDA data on cereal imports and exports of the common reporting countries continue to reflect the wide divergence of trade statistics from the two systems. Only 1/2 of the paired totals on imports and 1/3 of those on exports for the three comparison years differ by less than 10 percent. The inclusion of trade data for countries that are not commonly reported by FAO and USDA gives ratios of world totals of cereal imports and exports that are generally close to those shown for just the common reporting countries.

21. The USDA reports on wheat trade, which were adjusted to approximate 1970 calendar year data for comparisons with 1970 FAO reports, result in country-level ratios which suggest the tendency towards reduced differences between FAO and USDA data on wheat imports; however, such tendency is not clearly indicated by the country data on wheat exports. Regional FAO and USDA totals on wheat imports by common reporting countries show reduced divergence, except those for Europe and Africa. The corresponding economic group aggregates indicate a reduced difference for the developed market economies, about unchanged ratio for the developing market economies and a slightly increased divergence for the centrally planned countries. With the adjusted USDA data, the relative difference between the FAO and USDA world totals on wheat imports in common reporting countries is reduced

from the original 14 percent to about 10 percent. In the case of wheat exports, the use of the adjusted USDA figures result in reduced percentage differences with FAO data for five of the seven geographical regions, for all economic groups and, although but slightly, for world totals.

22. Comparisons using annual averages for several years of FAO and USDA reports on wheat imports and wheat exports of the common reporting countries also appear to indicate that the wide divergence between the trade data of the two systems is due more to causes other than the difference in reference periods. The paired annual averages of FAO and USDA wheat trade figures for both the 1965-70 and 1970-75 periods show that 50-60 percent of the matched country-level averages in wheat imports and about 70 percent of those in wheat exports differ by more than 20 percent; less than 20 percent and less than 5 percent of the paired averages on imports and exports, respectively, fall within a 5-percent divergence. At the aggregate levels, the regional averages on wheat imports in both periods differ by 40 percent or more for Africa and North/Central America, and by 11 percent or less for Asia, Europe and the USSR. In the case of wheat exports, the observed differences between the matched FAO and USDA averages for the major exporting regions are significantly large; the wheat export averages during 1970-75 for North/Central America diverge by 42 percent while those during both 1965-70 and 1970-75 for Europe differ by about 35 percent. Differences shown by the six-year annual averages of FAO and USDA import aggregates at the economic group and world levels are about the same orders of magnitude as those observed between the 1970 data of the two systems. The watched averages of the 1965-70 FAO and USDA figures on wheat exports by the developed market economies, which represent more than 80 percent of total world exports, diverge by 17 percent; this difference largely accounts for the 16-percent divergence of the corresponding world averages for the period.

Recommendations

23. Based on the specific findings of the study, two suggestions seem to stand out: (a) that some efforts be made toward closer agreement of the widely divergent FAO and USDA country data on cereal trade, and (b) the possible development of more defined reference periods for crop production statistics by both data systems. A considerable part of the large differences between FAO and USDA country figures on imports and exports of cereals appears to be due to causes other than differences in the trade reporting systems among countries and in the reference periods used by the two data systems. The comparisons of cereal trade statistics based on FAO's grouping of countries according to the method of reporting these data fail to give consistent results at the aggregate levels. The attempts that were made to remedy the problem of differences in the reference periods of FAO and USDA data on wheat trade show comparative results where the differences of import and export statistics from the two systems are about the same order of magnitude as those obtained from FAO and USDA data for the 1970 reference year. While some trade data aggregates for the common reporting countries tend towards reduced divergence, others reflected wider differences. With regard to the reference period for data on crop output and area, it would be desirable for definitions to apply uniformly to all commodities, if possible, and for the estimates to be more specifically oriented to the calendar year period from January to December, in the case of FAO data, or to the cropyear period from July of one year to June of the succeeding year, in the case of USDA data.

24. As major sources of statistics on international agriculture, the FAO and USDA can be further encouraged to undertake joint efforts that would lead to a more consistent set of data on world food and agriculture. This

would help greatly the users of international agricultural statistics for purposes of research and policy making. On the one hand, while FAO is specifically charged by its mandate with the establishment of the data system on world food and agriculture, it can benefit much from the support that the USDA data system can contribute to the performance of its functions for member governments. And, on the other hand, although the USDA as a national organization understandably operates its international data system primarily to serve the interests of U.S. agriculture, joint efforts with FAO in developing a consistent set of statistics on world food and agriculture would appear likely to assist the agency in meeting its own objectives. It can be expected that a common aim of the two data systems is the collection and publication of reliable international agricultural statistics. The recent move of FAO and USDA to reconcile data on agricultural production indices is an encouraging start.

25. Major responsibility for more reliable country data on food and agriculture still rests with national governments of developing countries themselves inasmuch as the FAO and USDA international data systems only assemble the agricultural statistics from sources in these countries. National governments of developing countries would have to give increased attention to and provide needed budgetary support for the improvement of statistics on food and agriculture if these data are to help effectively in development planning and policy making for this important sector of their economies. Since good quality data are not cheaply obtained, such activities would require adequate resources. Moreover, attention should be equally given to the development of orderly national data systems that would help avoid the assembly of conflicting statistics by international data systems.

26. Considerably increased assistance from the international donor community would be needed for the development and/or improvement of the food and agriculture data systems in developing countries, especially in those which have little or no resources for such undertakings. Both the FAO and the USDA have been involved in assistance projects for the improvement of agricultural statistics in developing countries, with the latter organization through programs of the U.S. Agency for International Development (AID). Thus, along with the needed expansion of international assistance programs to improve agricultural data systems in these countries, it may also be desirable for these major assistance agencies and others which may be similarly involved, to coordinate their project activities for a more systematic approach towards helping solve the data problems in poor countries.

2. INTRODUCTION

Research and policy making on world problems of food and agriculture have generally relied on the United Nation's Food and Agriculture Organization (FAO) and the United States Department of Agriculture (USDA) for international data on agriculture. Both the FAO and USDA now have computerized data systems which provide information on world agricultural production and trade, and the two agencies pursue continuing programs to develop and expand these systems for a wider range of data on agriculture. Users of agricultural statistics made available by FAO and USDA have, however, long observed differences of the data sets from the two systems.

The differences which exist between the agricultural statistics from the FAO and USDA data systems have often raised questions among analysts and other data users, especially those involved in food policy problems of the developing countries, as to the extent and reasons of these differences. In the early meetings of the IFPRI Board of Trustees, for example, a recommendation was made for undertaking a study along this line in order to help guide the use of data from the two principal sources in the research activities of IFPRI. The statistical staffs of FAO and USDA have also expressed interests in reviewing the differences in their data as a basis for possible reconciliations that are consistent with their respective objectives. Towards this end, work has been initiated by the two agencies on the data to be used in calculating the indices of agricultural production.

This comparative study attempts to identify the commodities and countries or groups of countries for which major differences in FAO and USDA data on production and trade exist and to indicate the absolute and relative magnitudes of such differences. It also attempts to suggest the possible causes of data divergence between the two systems by examining the methods used in data collection, the reference periods followed and some of the definitions employed by FAO and USDA in the presentation of their assembled statistics. The comparisons in this report are limited to the data on staple food crops, especially cereals, which have been the focus of analytical studies and projections on the food situation in develop-

ing countries. Moreover, these comparisons have also been limited by the USDA coverage which has been largely on the major export crops that are of interest to the United States.

The study does not determine which data system is better than the other. It uses a simple means of data comparison in providing measures of divergence and in identifying commodities and countries where considerable differences exist. Based on the results shown by these comparisons, agricultural data users will be in a better position to judge which data series would be useful for their particular purpose. No attempt is made to make judgments on the quality of the statistics published by the two agencies; this would require investigations beyond the scope of this analysis and which the respective agencies themselves can better assess. It should also be emphasized that, in the performance their statistical tasks, the FAO and USDA are assemblers of secondary data from national sources; the collection and release of primary data are responsibilities of national data gathering agencies.

3. DATA AND METHODS USED IN COMPARISONS

Commodity Coverage

The comparisons of FAO and USDA data in this report have been limited to the cereal and noncereal crops that were used in IFPRI's last set of projections of food production and consumption for developing countries.[1/] These include wheat, rice, maize, barley, millet, sorghum, oats and rye for the cereal group and rootcrops (potato, sweet potato, cassava, yams), pulses and groundnuts for the noncereal items.

Data comparisons on these major staple food crops are made on the production and area harvested of cereals and, in the absence of USDA estimates for the area of noncereals, on the production only of noncereals. Those on trade statistics are limited to the data on imports and exports of cereals.

Country Coverage

The numbers of reported countries in the FAO and USDA data systems on production, area and trade of the major staple food crops are presented by geographical region and by economic group in Table 1. These classifications follow those used by the FAO in its production and trade yearbooks. As indicated in the table, the FAO reporting countries also include small territories and hence their generally larger numbers compared to those for the USDA.

Data Sources

Statistics on production and area and or imports and exports of the major food staples were obtained from the FAO production and trade tapes for 1975 and 1976 and from the USDA production, supply and distribution tape for 1977. In the case of FAO data, figures for 1965 (one of the reference years selected for comparing estimates) were taken from the 1975 FAO tapes since the 1976 tapes provide only averages for the 1961-65 period.

Methods of Comparison

Statistics on the characteristics for the different staple food items

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1/ IFPRI. Food Needs of Developing Countries: Projections of Production and Consumption to 1990. Research Report No. 3, December 1977.

Table 1 -- Number of countries reporting production and trade of major food staples, FAO, and USDA, 1975[1]

Geographical Region and Economic Group[2]	Production				Cereal Trade			
	Cereals[3]		Noncereals		Imports		Exports	
	FAO	USDA	FAO	USDA	FAO	USDA	FAO	USDA
World Total	161	124	180	92	188	126	145	110
Geographical Region								
Africa	50	36	52	32	54	36	43	25
North/Central America	24	14	27	8	32	14	18	14
South America	13	12	13	10	13	11	13	12
Asia	38	32	14	16	43	33	37	31
Europe	25	26	28	23	27	26	24	25
Oceania	10	3	18	2	18	4	9	2
USSR	1	1	1	1	1	1	1	1
Economic Group								
Developed Market Economy	25	26	28	24	27	26	24	25
Developing Market Economy	123	86	139	60	148	87	108	73
Centrally Planned Economy	13	12	13	8	13	13	13	12

1/ FAO numbers include territories.

2/ Following the FAO classification.

3/ Includes data on area harvested.

are compared at four levels, namely (1) country estimates, (2) regional aggregates, (3) economic group aggregates, and (4) the world total. Except that for the world total, data comparisons cover only the common countries with reports on each major staple item both the FAO and USDA data systems. The three years 1965, 1970 and 1975 were selected for purposes of comparing estimates for each major staple and for each country of level of aggregation. The FAO figures serve as the basis in calculating either absolute or relative difference between the estimates reported by the two data systems.

For the country-level comparisons, the percentage differences between FAO and USDA reports are distributed among the following categories for each of the three years used in the comparisons:

a. no difference (identical estimates)
b. 0 - 5% larger (or smaller)
c. 5 - 10% larger (or smaller)
d. 10 - 20% larger (or smaller)
e. over 20% larger (or smaller)

Using 1970 data, distributions are also presented of the countries with identical estimates in the two systems and of those whose estimates differ by less than 5 percent for the world total and among economic groups and geographical regions.

At the aggregate levels of comparison between the estimates for economic groups and regions, the totals for the common reporting countries in the FAO and USDA systems are examined. For the estimates on world totals, comparisons are made of the aggregations for both the common reporting countries and for all reporting countries of the two data systems.

In addition to the comparisions of the actual estimates on cereal production and area harvested, differences in the calculated growth rates of production for wheat, rice, maize, and cereals as a group, based on the FAO and USDA time series data for the period 1961-76, are also compared. An illustration is given on the resulting change in the production growth rate that is calculated from the lagged data for one country.

The FAO and USDA statistics on cereal trade pose more problems in data comparison than those on cereal output due to the greater differences in the reference time period among crops and among countries and in trade definitions. Despite these known differences, however, direct comparisons like those on

production data have been made for 1965, 1970 and 1975, as reference years used by FAO and USDA, in order to determine the degree of divergence of the available trade data from the two systems. Some attempt is made to show the effects of grouping countries according to trade definitions and of modifying reference periods on the observed data differences that are shown by previous comparisons; comparisons of annual average of trade figures over a number of of years are also made with the expectation that the averaging process would indicate whether the major cause of data divergence between the two systems is due to the difference in reference periods.

4. THE FAO AND USDA DATA SYSTEMS

This section discusses the international data systems of the FAO and the USDA on crop production and foreign trade of the major staples. Both of these organizations undertake the collection and publication of data on these characteristics as part of their mandated functions. An understanding of how the FAO and USDA operate these data systems -- their method of collection, the extent of coverage of countries and commodities of the two systems, the reference periods used and the definitions employed -- can help explain the observed differences in the data generated by the two organizations.

THE FAO DATA SYSTEM

The development of an international data system on food and agriculture was among the initial activities of the FAO after its establishment in 1945 when member governments assumed the task of tackling the basic problems of food after World War II. Since its early years of operation, a major responsibility of the organization has been to collect and disseminate agricultural information for member governments. Both of the FAO yearbooks on production and trade were developed from the 1947 Yearbook of Food and Agricultural Statistics which continued the international statistical series formerly compiled and published by the International Institute of Agriculture in Geneva and, later, Rome.[1/]

As FAO's activities expanded over time, the statistical function has continued to remain a distinct and important aspect of the organization's work program. In the late 1960s, the FAO started the development of the Interlinked Computer Storage and Processing System of Food and Agricultural Data (ICS, for short) which consolidates the different series of food and agriculture statistics being gathered from member countries into a consistent body of information. After the 1974 World Food Conference, the FAO

1/ FAO. Yearbook of Food and Agricultural Statistics, 1947 and 1948. Food and Agriculture Organization of the United Nations, Rome.

also started the early warning system on serious food situations around the world as part of its data collection and dissemination activities.

Method of Data Collection

For most of the information in its international data system, the FAO relies on the cooperation of member governments which supply the official data through replies to the FAO annual questionnaires. Information drawn from these questionnaires are supplemented by data from government publications, other reports of member countries to the United Nations and the FAO and, in the case of import and export data, estimates from other international and national agencies which compile information on international trade.[1/]

The FAO normally publishes the official statistics related to crop production of its member countries. However, when official data are either absent or unavailable in time for publication in the Yearbook, the organization makes use of statistics from unofficial sources or of provisional estimates of its own, both of which are duly noted in the data series. The wider use of FAO's own estimates started in 1966. With the development of the ICS, official statistics which do not satisfy the consistency checks of the system are also frequently replaced by FAO estimates until agreement is reached with the member countries concerned. As the national data systems developed over time, member countries themselves undertook partial and/or total revisions of their data series; these revisions entered the FAO international data system as part of the updating process.

Coverage

Over the years, the number of reporting countries and the number of reported commodities in the FAO data system have expanded. The 1947 Yearbook on Food and Agricultural Statistics, for example, carried tables on the production of some 45 crops for around 100 member countries; by 1975 the coverage had increased to more than 100 crops for about 180 countries and territories. Starting in 1976, the presentation of data on minor crops was stopped and the number of reported crops decreased to around 87; data on unreported crops, however, still from part of grand totals.

1/ Presented in the different issues of the FAO Yearbooks on Production and on Trade, usually in the explanatory notes section.

Data on imports and exports for 42 countries covering about 69 traded agricultural commodities were reported in the 1947 Yearbook. The 1975 FAO trade data covered around 188 countries and territories and nearly twice the number of initially-reported agricultural commodity items.

The FAO country data on imports and exports are reported under either "special trade" or "general trade" depending on the system of recording trade that is used by each country. Special trade data include imports of goods used for domestic consumption, and exports of goods wholly or partly produced in the country, together with exports of "nationalized" goods; data do not include imports and exports of goods held in bonded warehouses or free zones. On the other hand, general trade data cover total imports and total exports, including re-exports.1/ Trade data for 1975 present special imports and special exports for around 75 countries; those for the rest of the countries are presented on the basis of general trade. Of the latter group, six countries include trade data on goods purchased abroad for their account and shipped directly to third countries.

Time Reference

Up to 1959, crop production and area statistics were presented on a calendar year annotation. Annual data for countries in the upper regions of the Northern Hemisphere pertained generally to harvests during the spring, summer and autumn of the specified year while those for countries in the lower regions include harvests up to the early part of the following year. For countries in the Southern Hemisphere, however, the data covered crop harvests from the second half of the specified year to the first half of the following year. For the major staple food crops, data aggregations of harvests across all countries generally spanned 12-15 months for wheat, barley, rye, oats, millet and sorghum, and 14-18 months for rice, maize, roots and tubers, pulses and groundnuts. The same procedure of aggregations was followed for the years 1960-65 but the calendar year annotation was replaced by the split year in order to reflect both of the years spanned by global crop harvests. Thus, crop data contained in issues of the FAO Yearbook up to 1965 were considered reports for split years.2/

1/ These definitions are given in various issues of the FAO Trade Yearbooks.

2/ 1965 FAO Production Yearbook, Vol. 19 (see introduction) Food and Agriculture Organization of the United Nations, Rome 1966.

During the preparation of the 1966 Production Yearbook, the FAO data system initiated a major change in crop reporting by actually shifting the reference period to a calendar year basis.[1/] The data for a particular crop was made to refer to the calendar year in which the entire harvest or the bulk of it takes place. Data contained in the 1966 Yearbook included revisions of earlier statistical series to conform to the new reference period. Some crops previously reported by countries under a particular split year became assigned to different calendar years in the new series. The calendar year reference period for crop production continued to be in use by the FAO data system.

The FAO data on imports and exports generally refer to the stated calendar year except for a few countries. Trade data on Australia, Bangladesh, Gambia, New Zealand, Pakistan and Papua New Guinea are on a July to June basis; those for Afghanistan and Iran are for years beginning March while data for Ethiopia and Haiti are for years ending September. In addition, Kuwait and Saudi Arabia are for the slightly shorter Islamic lunar year.[2/]

USDA DATA SYSTEM

In servicing U.S. agriculture, the USDA maintains an international agricultural data system to support its activities of promoting the exports of farm products and conducting researches that are designed to provide economic intelligence on world agriculture. Two USDA agencies are involved in the assembly and development of the international agricultural data system--the Foreign Agricultural Service (FAS) and the Economic Research Service (ERS); through these offices, the USDA operates a global reporting network and a research machinery which cover world agricultural production, trade, competition and policy situations affecting U.S. agriculture. Current information dealing with the principal farm commodities moving in world trade and findings of economic researches are made available to users through the various USDA reports on major agricultural commodities and on the national and international economies.

1/ 1966 FAO Production Yearbook, Vol. 21. (See explanatory notes.) Food and Agriculture Organization of the United Nations, Rome, 1967.

2/ 1976 FAO Trade Yearbook, Vol. 30. (See general notes on the tables.) Food and Agriculture Organization of the United Nations, Rome, 1977.

A major outlet of international data on agriculture is the Foreign Agricultural Circular which is issued about 20 times a year and contains updated estimates and outlook information on the major crops. Information on world agriculture also form an important part of Agricultural Statistics, an annual USDA publication which presents the longer historical series of data on U.S. agriculture and the latest three-year estimates on the production, area, yield and trade of major crops at the international level.

The USDA operates a production, supply and distribution (PSD) data bank through which the organization has made available international data on agricultural commodities in computer tapes and printouts on a semi-annual basis. In addition, the agency has a world agricultural trade system (WATS) that deals specifically with information on international commodity flows.

Method of Data Collection

The U.S. agricultural attache and foreign service offices in various countries or regions constitute the primary gathering units of the USDA data system for international information on agricultural and crop situations and on national policies on agriculture and trade in farm products. As of 1977, there were 67 such units around the world that were responsible for 108 countries. International data on agriculture are, for the most part, based on official statistics released by the national governments; other sources include nongovernment entities and reports of international organizations involved in agriculture. Data are transmitted to the USDA central office in Washington, D.C. where these are analyzed prior to publication. As justified by the analyses made on the reliability, objectivity and consistency of the collected information, especially the data

on outlook work, the country figures are replaced by USDA's own estimates which are later revised as new data are received by the information system.

Coverage

The USDA's objectives in maintaining its international agricultural data system is export promotion in particular, and the provision of market services to U.S. agriculture and agriculturally related interests in general. Consequently, the commodity and country coverage of the data system is mainly trade oriented. Major attention is given to grains which include wheat, rice, maize, oats, barley, millet, sorghum, and rye; grain data are available for 124 countries. Statistics on other important trade commodities such as oilseeds, sugar, cotton and tobacco also have good country coverage. However, the number of reported countries for noncereal staple food crops such as roots and tubers, pulses and groundnuts is much smaller. In 1977, data on production, supply and distribution in the agency's data bank covered a total of about 76 agricultural items. During the same year, information on international commodity trade flows covered 26 commodities and 127 countries.

Time reference

The crop production data assembled by USDA generally have a split-year reference period which conforms with the reference period on agricultural trade. Statistics on crop output for the production year 1975, for example, refer to the 1975-76 harvests whose accounting period starts July 1975 and ends June 1976. For a number of Northern Hemisphere countries, the harvests of small grains as early as May of the initial year are also included in the accounting period which begins two months later.[1/]

1/ From the notes and explanations on the data base that are given in various issues of USDA's Foreign Agriculture Circular.

Generally, the USDA estimates on crop production for a given production year, say 1975, would represent harvests which commence during 1975 and completed within the same year or in 1976; crop harvests of countries in the Southern Hemisphere which begin in 1975 but end in the following year belong to the 1975 production year. (The harvests periods in the two hemispheres covered by a production year for the major staple food crops are shown in Annex Table 1.)

In presenting statistics on cereal trade, the USDA data system uses two reference periods for each of the grain items, the marketing year and either the fiscal year or calendar year. The marketing year generally refers to the 12-month period immediately following the crop harvests.[1/] On the other hand, the fiscal year covers the specific period from July of one year to June of the succeeding year, and the calendar year spans the period from January to December of the reference year. Fiscal year trade statistics are reported for all cereal items except rice whose trade figures are on a calendar-year basis.

1/ Foreign Agricultural Circular: Grains. Foreign Agricultural Service, FG-20-78.

5. DATA ON PRODUCTION AND AREA OF STAPLE FOOD CROPS

CEREALS

Country-Level Comparisons

The frequency distribution of common countries that are reported in the FAO and USDA data systems, based on the compared estimates of production and area of cereals for the years 1965, 1970 and 1975, are shown by Tables 2a and 2b. Country distributions for these three years are presented according to the percentage difference between the FAO and USDA estimates for the different cereal items, using the FAO figures as basis.

Data indicate the much larger number of FAO reporting countries compared to those of the USDA, the difference in the number of reporting countries ranging from around 56 for maize to only 7 in the case of rye.1/ The three most reported cereal items in the two data systems are maize, rice, and wheat. FAO reports show an equal number of countries growing barley and sorghum as next in importance, followed by millet and then oats. The USDA data system reports barley as closely following the three major cereal items in importance and shows about equal numbers of reporting countries for oats, millet and sorghum. Both data systems indicate rye as the least reported major cereal item among countries.

The comparison of estimates is made for the common reporting countries whose numbers generally equal those in USDA list except for some cereal items where the USDA data system appears to have one or two more reporting countries that are not reported by FAO. The number of common reporting countries for 1975 in the case of millet and sorghum also fell short of the USDA list.

1/ As mentioned in the previous section, the FAO reporting countries also include territories; differences in the estimates that could possibley arise because of this difference in the number of reporting countries will be discussed in the section which compares world totals.

Table 2a -- Distribution of common reporting countries based on differences in the estimates of cereal production, 1965, 1970 and 1975

Percentage Difference[a]	Wheat			Rice			Maize			Barley			Oats			Millet			Sorghum			Rye		
	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975
Over 20% larger	7	2	7	4	5	5	9	4	14	2	2	5	2	1	5	2	3	6	0	3	7	0	1	1
10-20% larger	3	6	5	4	8	8	5	4	5	2	1	4	3	0	2	0	2	5	2	3	0	0	0	3
5-10% larger	1	3	2	3	4	1	2	3	2	0	0	0	2	1	1	1	1	1	0	0	0	1	1	0
0-5% larger	5	5	7	11	6	12	2	9	5	2	1	7	1	4	7	1	0	2	0	2	5	2	2	2
Identical[b]	49 (69)	49 (67)	43 (68)	45 (57)	39 (49)	32 (41)	47 (57)	42 (52)	32 (37)	48 (79)	52 (85)	38 (62)	30 (73)	31 (76)	25 (61)	28 (68)	20 (49)	14 (35)	24 (69)	21 (58)	11 (31)	27 (84)	26 (81)	26 (79)
0-5% smaller	2	4	2	4	9	6	3	6	6	0	1	2	1	3	1	0	4	2	1	3	4	0	0	0
5-10% smaller	1	0	0	0	1	2	2	1	6	3	0	1	0	0	0	0	2	0	2	1	1	0	1	0
10-20% smaller	1	1	4	5	2	3	7	2	4	2	2	1	0	1	0	1	1	4	1	2	1	0	0	1
Over 20% smaller	2	3	4	3	5	10	5	11	12	2	2	3	2	0	0	8	8	6	5	1	6	2	1	0
Total number of countries compared	71	73	74	79	79	79	82	83	86	61	61	61	41	41	41	41	41	40	35	36	35	32	32	33
No. of reporting countries:																								
FAO	94	97	97	106	108	108	135	141	143	76	78	78	54	54	54	65	67	57	77	77	78	39	40	40
USDA	71	73	75	80	80	80	82	83	87	61	61	61	41	41	41	42	42	42	36	33	39	32	32	33

a/ $\frac{\text{FAO estimate} - \text{USDA estimate}}{\text{FAO estimate}} \times 100$

b/ Based on data rounded to thousand metric tons. Figures in parenthesis indicate percentages of the total number of countries compared.

Table 2b -- Distribution of common reporting countries based on differences in the estimates of cereal area, 1965, 1970 and 1975

Percentage Difference a/	Wheat			Rice			Maize			Barley			Oats			Millet			Sorghum			Rye		
	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975
Over 20% larger	3	1	4	4	5	4	5	6	6	3	3	4	2	2	3	2	2	5	0	3	5	0	0	2
10-20% larger	0	4	4	2	1	1	1	3	4	1	1	2	1	0	1	0	4	2	1	0	3	0	0	1
5-10% larger	3	4	4	3	6	1	4	1	3	0	1	2	1	1	0	0	0	1	0	1	1	0	0	0
0-5% larger	8	5	6	4	7	7	6	6	6	6	4	2	1	3	1	0	2	3	0	0	5	2	2	1
Identical b/	49 (69)	50 (68)	38 (51)	53 (67)	48 (61)	41 (52)	51 (62)	41 (49)	34 (40)	45 (74)	42 (69)	38 (62)	31 (76)	28 (68)	30 (73)	31 (76)	23 (56)	12 (30)	25 (71)	21 (58)	12 (34)	29 (91)	26 (81)	25 (76)
0-5% smaller	3	2	7	2	3	6	5	7	8	2	2	4	2	2	1	1	2	4	2	3	0	0	2	0
5-10% smaller	4	2	1	0	3	4	3	6	4	0	1	1	0	1	0	0	0	2	1	4	4	0	1	0
10-20% smaller	1	2	4	5	1	9	1	3	7	0	4	1	0	3	2	1	1	4	1	2	1	1	1	2
Over 20% smaller	0	3	6	6	5	6	6	10	14	4	3	7	2	1	3	6	7	7	5	2	4	0	0	2
Total number of countries compared	71	73	74	79	79	79	82	83	86	61	61	61	41	41	41	41	41	40	35	36	35	32	32	33
No. of reporting countries:																								
FAO	94	97	97	106	108	108	135	141	143	76	78	78	54	54	54	66	67	67	77	77	78	39	40	40
USDA	71	73	75	80	80	80	82	83	87	61	61	61	41	41	42	42	42	42	36	38	39	32	32	33

a/ $\frac{\text{FAO estimate - USDA estimate}}{\text{FAO estimate}} \times 100$

b/ Based on data rounded to thousand hectares. Figures in parenthesis indicate percentages of the total number of coun compared.

Table 2a shows that for the three years of comparison, the ranges of the number of identical FAO and USDA country estimates on cereal production, relative to the total number of common reporting countries, are 57 percent (rice and maize) to 84 percent (rye) in 1965, 49 percent (rice and millet) to 85 percent (barley) in 1970, and 31 percent (sorghum) to 79 percent (rye) in 1975. Those for similar estimates on cereal area are 62 percent (maize) to 91 percent (rye) in 1965, 49 percent (maize) to 81 percent (rye) in 1970, and 30 percent (millet) to 76 percent (rye) in 1975, as indicated in Table 2b. Based on the number of identical country estimates, there appears to be more agreement between the two data systems on the production and area of rye, which has the smallest number of reporting countries, than those of rice, maize and millet. On the same basis, barley also reflects a high level of agreement for both production and area data from FAO and USDA. In the case of wheat, around two-thirds of the common reporting countries have identical estimates on production for all three years of comparison, and on area for the years 1965 and 1970.

It can be observed that the number of countries with identical FAO and USDA estimates on cereal production and area in 1975 is generally much lower compared to those for the 1965 and 1970 levels, which is indicative of the still pre-final character of the 1975 estimates in either or both data systems. The low percentages of identical estimates on the production and area of sorghum, millet and maize for 1975 appear pronounced. In the case of sorghum production, 13 countries representing 37 percent of the total number compared had FAO and USDA estimates which differed by more than 20 percent in 1975. The same degree of variation occurred for the 1975 production estimates of millet and maize for about 30 percent of the common reporting countries. Area estimates for the same year on these three

crops indicate a similar level of differences in 30 percent of the common countries reporting on millet, 26 percent of those on sorghum and 23 percent of those on maize. The much larger number of identical FAO and USDA estimates of cereal production and area in 1965 and 1970 compared to those in 1975, the estimates for which have relatively wide differences especially on sorghum, millet and maize, reflects a tendency of country-level data of the two systems toward agreement over time.

The aggregate production of each cereal item that is accounted for by countries with identical FAO and USDA estimates and the relative share of such aggregate to the FAO total production of the cereal for the common reporting countries of both systems are shown for 1965, 1970 and 1975 in Table 3. The close agreement of FAO and USDA data on rye production is indicated by the high percentages of countries with identical rye output data in both systems (about 80 percent) and of their corresponding production aggregates relative to the FAO totals for all common countries reporting the cereal (about 95 percent) during all three comparison years. The other cereal items, especially maize, millet and sorghum, show considerable decreases in the number of identical FAO and USDA production estimates in 1975 and, correspondingly, in their shares of the respective FAO output totals for the common reporting countries. These declines appear to reflect the prefinal character of the 1975 estimates for most of the cereal items in either or both data systems. Millet and sorghum also show significant decreases from 1965 to 1970 in the number of identical FAO and USDA country-level output figures and in relative shares.

Among cereal items, rice has the least relative share of total production accounted for by identical FAO and USDA country estimates for the three comparison years. Although rice and maize have near equal percentages of countries with identical output data in 1965 and 1970, the relative shares of these countries in the production totals of the two cereal items in those years are far apart--about 10 percent for rice and more than 60 percent for maize. (It is also of interest to note that rice is the only cereal item whose USDA reference period is generally January to December and hence similar to that of the FAO system.) Most of the countries which have identical FAO and USDA estimates on rice output are small; the larger share of total rice production comes from the large producing countries for which data differences between the two systems occur.

Table 3 also shows that 75 percent or more of the total production of wheat, barley and oats in the FAO and USDA common countries which reported these cereal items in 1965 and 1970 are accounted for by aggregates of identical country output data. In the case of oats, the relative shares of countries with identical production estimates (more than 90 percent) in 1965 and 1970 closely followed those of rye during those two years.

Table 3 -- Relative portion of cereal production accounted for by common reporting countries with identical FAO and USDA estimates, 1965, 1970 and 1975.

	Number of Common Reporting Countries with Identical Estimates			Total Production of Countries with Identical Estimates		
Cereal	1965	1970	1975	1965	1970	1975
Wheat	49 (0.69)	49 (0.67)	43 (0.58)	172,667 (0.76)	277,215 (0.87)	213,256 (0.60)
Rice	45 (0.57)	39 (0.49)	32 (0.41)	29,400 (0.12)	30.887 (0.10)	19,420 (0.06)
Maize	47 (0.57)	42 (0.51)	32 (0.37)	144,927 (0.65)	159,917 (0.62)	50,229 (0.16)
Barley	48 (0.79)	52 (0.85)	38 (0.62)	79,178 (0.75)	105,340 (0.76)	95,484 (0.61)
Oats	30 (0.73)	31 (0.76)	25 (0.61)	43,225 (0.93)	50,437 (0.91)	34,025 (0.70)
Millet	28 (0.68)	20 (0.49)	14 (0.34)	16,298 (0.45)	15,709 (0.34)	3,179 (0.07)
Sorghum	24 (0.69)	21 (0.58)	11 (0.31)	20.713 (0.59)	10,973 (0.26)	4,454 (0.09)
Rye	27 (0.84)	26 (0.81)	26 (0.79)	33,176 (0.94)	26,570 (0.96)	22,586 (0.95)

Note: The figures in parenthesis denote ratios to the total number of common reporting countries in the two systems and to the FAO production totals for these countries.

Sources: FAO Production Tapes, 1975 and 1976.
USDA Production, Supply and Distribution Tape, 1977.

Table 4a -- Ratios of aggregate FAO and USDA estimates on cereal production in common [illegible] by geographical region, 1965, 1970 and 1975

Region	Year	Cereal Items							
		Wheat	Rice	Maize	Barley	Oats	Millet	Sorghum	Rye
Africa	1965	0.930	1.003	1.109	0.938	0.917	1.553	1.084	---
	1970	0.992	1.016	1.210	0.891	0.943	1.147	1.031	---
	1975	0.861	1.043	0.930	1.038	0.774	0.932	0.959	*
N/C America	1965	1.008	1.003	0.991	1.000	0.997	---	1.000	*
	1970	0.989	1.023	0.999	1.000	0.999	---	0.979	*
	1975	0.997	1.040	1.011	0.987	0.984	---	1.016	0.949
South America	1965	0.978	0.801	1.049	0.933	1.083	1.355	1.929	1.011
	1970	0.989	0.771	1.003	0.919	1.002	1.536	1.140	1.005
	1975	0.963	1.062	0.975	0.919	1.863	1.557	1.024	0.980
Asia	1965	0.921	0.942	0.923	0.616	0.723	0.669	2.345	0.903
	1970	0.968	1.032	0.997	0.617	0.624	0.743	2.792	1.079
	1975	0.963	1.032	1.054	0.540	0.576	0.661	2.450	*
Europe	1965	0.998	1.001	0.997	1.000	0.999	0.243	1.048	1.000
	1970	0.997	0.995	0.996	1.000	1.000	2.575	1.005	1.001
	1975	0.999	0.987	0.998	0.999	1.000	2.750	1.004	0.999
Oceania	1965	1.006	1.190	0.724	1.008	0.999	*	*	*
	1970	1.005	1.241	1.247	1.034	1.001	0.853	2.373	*
	1975	1.019	1.075	1.077	1.003	0.982	1.046	1.248	*
USSR	1965	*	*	*	*	*	*	---	*
	1970	*	*	*	*	*	*	---	*
	1975	*	*	*	*	*	*	---	*

* Identical estimates.

Note: See also Annex Tables 3a to 3h.

Regional-Level Comparisons

The FAO and USDA estimates on cereal production and area for common reporting countries in the two data systems were aggregated by geographical region (following the FAO country groupings) for comparisons. In the process of aggregation, the positive and negative differences between country estimates offset each other which generally reduced the relative differences between the regional totals. With the FAO total as basis of comparison, the resulting ratios of the regional FAO and USDA aggregates are shown in Tables 4a and 4b. The number of common reporting countries and the absolute levels of the totals in each geographical region for the different cereal items are also presented in Annex A, Tables 3a to 3h.

Among regions, differences of less than 10 percent between FAO and USDA estimates of production of all cereal items appear to be limited to North/Central America, the USSR, and, except for millet, Europe. In the case of the USSR, the FAO and USDA data on cereal production and area are identical. Millet in Europe is reported only for four or five common countries in the two systems. Output data on wheat, rice, maize, and rye in Asia are also in close agreement but those on barley, oats, millet, and, ally, sorghum diverge considerably. Turkey is the only country in Europe which commonly reports rye in the two data systems. In Africa, significant differences are observed between the FAO and USDA production totals of maize and millet for 1965 and 1970, of wheat and oats in 1975, and of barley in 1970. In South America, output estimates differ by about 20

Table 4b -- Ratios of aggregate FAO and USDA estimates on cereal area in common reporting countries, by geographical region, 1965, 1970 and 1975

Region	Year	Cereal Items							
		Wheat	Rice	Maize	Barley	Oats	Millet	Sorghum	Rye
Africa	1965	1.012	1.015	1.019	1.000	1.572	1.097	1.035	---
	1970	1.071	0.009	0.970	1.936	0.919	0.968	0.987	---
	1975	1.006	0.068	0.913	0.977	2.028	1.043	0.937	5.000
N/C America	1965	1.002	1.037	0.995	1.000	0.995	---	1.004	*
	1970	0.994	1.025	1.016	0.999	0.998	---	0.995	*
	1975	0.998	1.028	1.047	0.987	0.987	---	1.005	0.929
South America	1965	0.939	0.689	0.997	0.915	1.032	1.200	1.027	*
	1970	0.998	0.959	1.037	0.945	1.006	1.464	1.056	*
	1975	1.017	1.108	1.021	0.999	0.959	1.515	0.950	0.985
Asia	1965	0.967	0.987	1.116	0.711	0.687	0.635	1.498	*
	1970	0.954	0.979	1.114	0.658	0.611	0.635	1.492	*
	1975	0.963	1.002	1.210	0.651	0.565	0.599	1.442	*
Europe	1965	0.998	1.009	0.999	1.001	*	2.605	1.054	0.998
	1970	1.000	0.980	0.970	0.993	1.040	3.590	1.009	0.993
	1975	1.000	0.995	1.000	0.990	1.005	*	*	1.000
Oceania	1965	1.001	1.040	0.999	0.999	*	*	1.250	*
	1970	0.998	0.950	1.114	1.012	1.001	*	2.140	*
	1975	1.005	0.987	1.053	0.987	0.991	0.955	0.986	*
USSR	1965	*	*	*	*	*	*	---	*
	1970	*	*	*	*	*	*	---	*
	1975	*	*	*	*	*	*	---	*

* Identical estimates.

Note: See also Annex Tables 3a to 3h.

percent or more for wheat in 1965, and rice in 1965 and 1970; the major differences are in the estimates on millet for all three comparison years, and in sorghum for 1965. In Oceania, which has one or two common reporting countries (Australia and New Zealand), cereal output data from FAO and USDA closely agree on wheat, barley, oats, and rye but diverge widely on rice and maize in 1965 and 1970, and sorghum in 1970 and 1975.

FAO and USDA data on the regional aggregates of area for wheat, rice and maize appear to be more in close agreement than the corresponding output figures on these items. Except for the estimates on rice in South America for 1965 and on maize in Asia for 1975, FAO and USDA regional aggregates on area for these cereal items differ by less than 10 percent. The pattern of divergence of the area estimates on barley, oats, millet, and sorghum in Asia, on millet in South America and Europe, on oats in Africa and on sorghum in Oceania appear to follow that exhibited by the regional aggregates on cereal production. However, there appears to be more agreement on the estimates of area than of output for sorghum in South America. Rye area estimates for Africa, although relatively small and reported only for one common country (South Africa) in the two systems, show a considerable percentage difference. As in the case of production data on cereals, the FAO and USDA figures of cereal area for the USSR are similar.

It was shown in the preceding section that on the basis of the number of countries with identical FAO and USDA estimates of cereal production and area for the comparison years 1965, 1970 and 1975, the two data systems tend to agree over time. However, such tendency is not shown by the observed differences between the regional totals of FAO and USDA production and area

estimates of common reporting countries for these three years. As indicated by the ratios of the regional totals, the differences do not tend to narrow toward 1965; in several cases, the differences between the 1975 regional aggregates is even smaller than in previous comparison years. These results suggest that the increases in the number of countries with identical FAO and USDA estimates for earlier years do not necessarily lead to the convergence of the estimates themselves over time; such increases are made up of countries whose contributions to the regional aggregates are relatively small compared to those for which FAO and USDA estimates vary widely.

A closer examination of the wide differences in the regional aggregates of cereal data for common reporting countries in the FAO and USDA data systems indicates that such differences can be attributed to the estimates for just one or two large countries in the group. The following examples for wheat and rice will serve to illustrate the effects of the differences in the data of these countries, especially the large ones, on the regional aggregates. For the rest of the cereal items, indications will be made only of the countries which account for the large differences between regional aggregates.

Wheat

The aggregated regional data on wheat from both data systems are fairly close, except production for 1975 in Africa. In the case of Africa, the USDA estimate is only 86 percent of the FAO level. The wide divergence in the regional aggregate is due to the country estimates of the two systems for Algeria and Ethiopia In 1975, Algerian wheat production was estimated at 1,848 thousand metric tons by FAO; at 900 thousand metric tons by USDA; for Ethiopia the estimates are 734

thousand metric tons and 480 thousand metric tons, respectively. The FAO figures for the two countries exceed those of the USDA estimates by a total of 1,202 thousand metric tons, which represents 12.5 percent of the FAO aggregate for Africa. If the USDA figures for Algeria and Ethiopia were made equal to the FAO levels, the resulting ratio would be 0.986.

Rice

Two regions, South America and Oceania, show differences between FAO and USDA data of more than 10 percent. Brazil accounts for the major difference in the totals for South America. The 1965, 1970 and 1975 production and area data for Brazil are shown below:

	Production (000 MT)		Area (000 Ha)	
Year	FAO	USDA	FAO	USDA
1965	7,580	5,802	4,619	4,005
1970	7,553	5,394	4,979	4,764
1975	7,538	8,500	5,279	6,000

If USDA data were equal to FAO levels, the USDA/FAO ratios for South America would be:

Year	Production	Area
1965	0.980	1.004
1970	0.980	0.994
1975	0.980	0.996

In Oceania, Australia is the only country which reports rice. The FAO and USDA time series data given in Table 5 on rice production and area harvested for Australia from 1961 through 1975 show the lagged correspondence between these two series. One easily notes that the FAO and USDA data are basically identical, except for the years that the figures are assigned.

Maize. The three regions of Africa, Asia and Oceania show that the differences between the aggregated data from the two sources are greater than 10 percent. In Africa, the differences of aggregated maize production data are largely accounted for by the estimates for Rhodesia and South Africa. In Asia, figures for the People's Republic of China explain the difference in the area data while in Oceania, the divergence in production and area estimates is due to the time lag in reporting (as earlier illustrated for rice in Australia).

Barley. The Morocco production data mainly account for the difference between the 1970 FAO and USDA production data for Africa while the divergence of the regional estimates from these two data sources for Asia can again be attributed to the data for China.

Oats. For Africa, the data on area for South Africa and those on output for Algeria would explain the differences of the regional estimates on area and production, respectively. In Asia, the differences of production and area data from the two sources are also attributed to China data.

Millet. FAO and USDA millet data for Tanzania differ widely and this has greatly reflected on the percentage differences between the regional level estimates for Africa. In South America, the differences can be attributed to the figures for Argentina which show a one-year lag in correspondence between FAO and USDA data. The differences of Asia data are again

Table 5--FAO and USDA data on rice production and area harvested in Australia, 1961-75

Year	Production		Area	
	FAO	USDA	FAO	USDA
	(000 MT)		(000 HA)	
1961	114	134	19	20
1962	134	136	20	22
1963	136	142	22	24
1964	142	153	24	25
1965	153	182	25	26
1966	182	214	26	30
1967	214	221	30	31
1968	221	256	31	34
1969	255	247	34	40
1970	247	299	40	38
1971	299	248	38	41
1972	242	309	40	45
1973	309	410	45	68
1974	409	387	68	76
1975	387	417	76	75

traceable to the estimates for China while those of the regional estimates for Europe can be attributed to the data for Poland.

Sorghum. The regional figures for South America, Asia and Oceania show differences between FAO and USDA data that are greater than 10 percent. The differences in South America are again due to Argentina data while those in Asia can be explained by the figures for China. Data differences in Oceania are attributed to Australia figures which, as in the case of Argentina, are reported by FAO and USDA for different reference years.

The countries where differences in FAO and USDA estimates for the different cereal items can largely explain the divergence of regional aggregates for the production and/or area data of common reporting countries are summarized below.

Country	Wheat	Rice	Maize	Barley	Oats	Millet	Sorghum
Algeria	X				X		
Argentina						X	X
Australia		X	X				X
Brazil		X					
China			X	X	X	X	X
Ethiopia	X						
Morocco				X			
Rhodesia			X				
S. Africa			X		X		
Tanzania						X	

Economic Group-Level Comparisons

Table 6 shows the ratios of the economic group totals of FAO and USDA estimates on cereal production and area for the common reporting countries in the two data systems. With aggregations for only three classifications, the percentage differences between totals by economic groups are generally smaller than those shown by geographical regions.

There is close agreement in the aggregates of cereal estimates from the two data systems for the developed market economy countries, except for the 1970 data on millet and sorghum production which respectively differed by 10 percent and 5 percent. The rest of the data aggregates on cereal output for this group show a maximum divergence of 3.4 percent for millet in 1975 and near total correspondence for wheat, barley, oats, and rye in 1965 and 1970. In the case of data on cereal area, the aggregates of millet estimates from FAO and USDA show both the closest agreement (1970) and the largest difference of more than 7 percent (1965) among the different cereal items. Other aggregates of FAO and USDA area estimates on cereals for the three years of data comparison reflect only small differences, particularly those on rice. The maximum divergence of 2.6 percent is reflected by the totals for maize.

Less agreement between the FAO and USDA totals on cereal estimates is reflected for the developing market economy countries for which output data diverge by as much as 10.6 percent for sorghum in 1965. The production totals for wheat, millet, and rye also show wide differences for 1965. The closest agreement of FAO and USDA aggregates on cereal production for all three comparison years is on rice although identical totals occurred in the case of oats for 1970. Data aggregates on cereal area in

Table 6 -- Ratios of aggregate FAO and USDA estimates on cereal production and area in common reporting countries, by economic group, 1965, 1970 and 1975

Economic Group	Year	Cereal Items							
		Wheat	Rice	Maize	Barley	Oats	Millet	Sorghum	Rye
					Production				
Developed Market Economy	1965	1.000	0.972	1.004	1.000	1.000	0.984	0.994	1.000
	1970	0.999	0.974	1.018	1.001	0.999	0.900	1.049	1.000
	1975	0.998	0.976	0.995	0.996	0.991	1.034	0.996	0.987
Developing Market Economy	1965	0.920	1.007	1.017	0.953	0.975	1.082	1.106	0.931
	1970	0.952	0.987	1.018	0.980	*	1.061	1.011	1.061
	1975	0.935	0.998	1.017	0.985	0.929	0.987	1.018	0.994
Centrally Planned Economy	1965	0.989	1.005	0.937	0.760	0.948	0.589	1.538	1.000
	1970	1.000	1.058	0.985	0.810	0.948	0.633	1.925	1.001
	1975	1.000	1.102	1.037	0.785	0.922	0.500	0.765	1.000
					Area				
Developed Market Economy	1965	1.001	1.000	0.996	1.002	1.020	0.981	1.023	1.000
	1970	1.012	0.999	0.968	0.997	1.016	*	1.003	0.984
	1975	1.004	1.001	0.974	0.989	1.012	0.926	0.984	1.013
Developing Market Economy	1965	0.983	0.994	1.007	0.991	0.969	1.039	1.011	*
	1970	0.987	0.999	1.032	0.983	0.978	0.987	1.009	1.018
	1975	0.991	1.005	1.037	0.971	0.987	1.023	0.979	0.994
Centrally Planned Economy	1965	0.985	0.961	1.141	0.812	0.925	0.440	2.353	1.000
	1970	0.975	0.937	1.146	0.791	0.920	0.425	2.215	1.000
	1975	0.977	1.080	1.271	0.838	0.921	0.390	1.045	1.000

* Identical estimates. Note: Ratios for world total are similar to those in Tables 4a and 4b.

this economic group show a relatively closer agreement than those on production, with the largest difference between FAO and USDA totals being 2.9 percent in 1965 for millet. Divergence in area totals of more than 3 percent is also shown for maize in 1970 and 1975, and for oats in 1965. Identical aggregates of FAO and USDA figures on area for the common developing market economy countries that were reported by the two systems occurred for rye in 1965.

Among the three economic groups, the centrally planned economy countries show the widest divergence in the aggregates of FAO and USDA cereal estimates. Considerable differences in the totals for the reporting countries are indicated by the production and area data on barley, millet and sorghum, and the area estimates on maize for all three comparison years. The USDA aggregates on both the production and area of barley are about 20 percent below those of FAO totals. In the case of millet, USDA output estimates are 40-50 percent lower than FAO figures while aggregate area data are less than half of the FAO totals. USDA totals on sorghum output also differ widely from those of FAO but much less than the divergence of the estimate on sorghum area in 1965 and 1970, for which years the USDA aggregates are more than twice those of the FAO totals. The USDA totals on maize area exceeded FAO aggregates by about 15 percent for 1965 and 1970 by as much as 27 percent for 1975. The group's totals for the cereal estimates from the two systems also diverge by about 5-10 percent in wheat area and maize production for 1965, in rice production and area for 1970 and 1975 and in oats production and area for all three comparison years. However, close agreement of the FAO and USDA aggregates for the centrally planned economy countries is indicated for wheat output in 1970 and 1975

and for both the output and area of rye for the three years whose data are being compared.

Comparisons of World Totals

World aggregates of the FAO and USDA estimates on cereal output and area for the commonly reported countries during the three comparison years suggest general agreement on wheat, rice, maize, oats and rye but wide differences on barley and, especially, millet and sorghum. The wide divergence between FAO and USDA data on millet and sorghum may be partly traceable to national reporting systems; many countries, especially in Africa, make no distinction between the two grains in their reports to FAO.[1/]

The paired totals of the common country estimates on the production and area of rye differ by less than half of one percent and those on wheat, by less than 2 percent (Table 7). Differences between the corresponding FAO and USDA aggregates for rice and oats for 1965 and 1970 are also small; however, those for 1975 diverge by around 4 percent. Output totals for maize differ by only 1 percent during the three comparison years but the area aggregates show differences of 3 percent in 1965 and 1970 and as much as 6 percent in 1975.

Of the three cereal items which have wide differences between the world totals of FAO and USDA country estimates, barley show figures which have relatively less divergence than those of millet and sorghum. Both production and area aggregates for barley reflect differences of around 11 percent in the years for which data are compared. FAO and USDA millet aggregates diverge by 17-28 percent on production and 26-29 percent on area; those on sorghum differ by 31-39 percent on output and 16-26 percent

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1/ See notes on crop statistics in FAO production yearbooks.

Table 7 -- Ratios of world aggregates of FAO and USDA estimates of the production and area of cereals for common and for all reporting countries; 1965, 1970 and 1975

		Common Reporting Countries			All Reporting Countries			
			Ratio of Aggregates		Number		Ratio of Aggregates	
Cereal	Year	Number	Production	Area	FAO	USDA	Production	Area
Wheat	1965	71	0.981	0.989	94	71	0.978	0.985
	1970	73	0.990	0.987	97	73	0.988	0.984
	1975	74	0.985	0.989	97	75	0.982	0.985
Rice (Paddy)	1965	79	1.003	0.984	106	80	0.991	0.969
	1970	79	1.014	0.980	108	80	1.003	0.971
	1975	79	1.036	1.029	108	80	1.024	1.020
Maize	1965	82	0.994	1.029	135	82	0.979	0.999
	1970	83	1.011	1.029	141	83	0.997	1.005
	1975	86	1.008	1.056	143	87	0.994	1.026
Barley	1965	61	0.894	0.903	76	61	0.890	0.899
	1970	61	0.908	0.893	78	61	0.905	0.890
	1975	61	0.899	0.902	78	61	0.895	0.900
Oats	1965	41	0.984	0.983	54	41	0.982	0.977
	1970	41	0.979	0.972	54	41	0.977	0.967
	1975	41	0.961	0.963	54	42	0.960	0.958
Millet	1965	41	0.792	0.743	66	42	0.745	0.718
	1970	41	0.834	0.722	67	42	0.794	0.702
	1975	41	0.720	0.712	67	42	0.710	0.692
Sorghum	1965	35	1.353	1.263	77	36	1.272	1.176
	1970	36	1.386	1.234	77	38	1.347	1.157
	1975	35	1.307	1.162	78	39	1.237	1.072
Rye	1965	32	0.998	1.000	39	32	0.996	0.997
	1970	32	1.002	0.998	40	32	1.001	0.997
	1975	33	0.997	1.002	40	33	0.996	1.004
All Cereals								
	1965	114	0.987	0.976	152	125	0.975	0.962
	1970	114	0.999	0.969	156	124	0.990	0.957
	1975	114	0.996	0.979	161	124	0.985	0.964

Note: See also Annex Table 4.

on area. The FAO totals on both production and area are consistently larger for millet but lower for sorghum than the corresponding USDA aggregates for the three comparison years.

The world totals of the estimates of production and area for all cereals in the 114 common countries reported by FAO and USDA data systems appear relatively in close agreement. Production aggregates for all cereals differ by a maximum of 3.1 percent in 1965; in 1970 and 1975, the paired totals of all cereal output diverge by only less than half a percent. Aggregates on all cereal area show differences of 2-3 percent for the three years of data comparison.

FAO and USDA country estimates on cereals have also been aggregated to world levels for all the reporting countries in the respective data systems in order to obtain indications of the differences in the actual global estimates for these commodities. The paired totals of production and area estimates of the different cereal items for all countries also reflect the pattern shown by the corresponding aggregates for common reporting countries; except those on barley, millet and sorghum, the production and area aggregates for cereals indicate close correspondence between FAO and USDA data. Despite the larger number of FAO reporting countries, the results shown earlier for the different cereal items are not significantly altered because of the relatively small contribution of the FAO reporting countries that are not reported by the USDA.

Excluding the aggregates for barley, millet and sorghum, the maximum percentage differences between FAO and USDA totals for all reporting countries for the rest of the cereal items are about 1/2 percent in rye (output, 1965 and 1975), 2 percent in wheat (output, 1965), 2 1/2 percent in maize (area,

1975), 3 percent in rice (area, 1965 and 1970), and 4 percent in oats (output and area, 1975). The FAO and USDA aggregates on barley diverge by around 10 percent while those on millet and sorghum differ by as much as 30-35 percent.

Based on the actual world aggregates of the cereal estimates from the two data systems, the USDA figures are lower than the FAO data on the production and area of wheat, barley, oats and millet but exceed the corresponding FAO estimates on sorghum. The pattern for rice, maize and rye aggregates is not as distinct as the other cereals except in the case of maize production for which USDA totals for the three comparison years are all slightly less than the FAO totals.

The percentage differences between the FAO and USDA aggregates on area and production of cereals in all the reporting countries of the two data systems are slightly larger than those reflected earlier for the the common reporting countries only. World cereal totals for the three comparison years of the 150-160 FAO reporting countries exceed those of around 124 USDA reporting countries by a maximum of 2 1/2 percent in production (1965) and slightly over 4 percent in area (1970).

Growth Rates of Cereal Production

Some comparisons are also made of the average annual production growth rates that were calculated from the available FAO and USDA data series for wheat, rice, maize, and cereals as a group for the period 1961-76 in the developing market economy (DME) countries. These comparisons are, however, limited only to the actual estimates of the production growth rates and do not involve the statistics related to them or to the equations from which

they were drawn.[1/]

While the cereal production growth rates that were estimated from FAO and USDA data show close agreement for many DMEs, wide differences are also reflected in several of these countries. Table 8 shows the lists of countries whose production growth rate estimates based on data from the two sources indicate close and poor correspondence for the major cereal items. These lists are based on data only for DMEs with available matching estimates of growth rates for two of the major cereals consisting of wheat, rice, and maize. Estimates from the two data systems for Pakistan show relatively close correspondence for the three major cereals; calculated growth rates also closely agree for wheat and rice in Afghanistan, Egypt, and India, and for rice and maize in the Republic of Korea, Panama, and Thailand.

Wide divergence of the estimates of production growth rates computed from FAO and USDA is shown for wheat and rice in Guatemala, Mozambique, Saudi Arabia, and Tanzania and for rice and maize in Cuba and Morocco. Where poor correspondence occurs between the growth rate estimates, even the directions of change in output appear in conflict in a number of cases; opposite signs of the estimates are noted, for example, for wheat in Ethiopia, for rice in Morocco, Mozambique and Saudi Arabia and for maize in Algeria.

In countries where data differences between the FAO and USDA systems are due essentially to a lag in production data, such as those of the Southern Hemisphere countries, a difference in the estimated output growth rates will arise from the effects of the observations at the start of the FAO series and the end of the USDA series. While the growth rate estimates calculated from

1/ Production growth rates were calculated using the logarithmic trend equation $\ln Y = a + bt$, where Y = production, b = growth rate, and t = period (15). The production growth rate estimates are given in Annex Table 6.

Table 8 -- Developing market economy countries with close and poor correspondence in cereal production growth rates calculated from FAO and USDA data, production years 1961-76

Correspondence of Estimates[a]	Cereal Item	Countries
Close	Wheat	Afghanistan, Argentina, Bolivia, Egypt, India, Pakistan, Uruguay
	Rice	Afghanistan, Algeria, Bangladesh, Burma, Colombia, Egypt, India, Ivory Coast, Republic of Korea, Nepal, Nicaragua, Pakistan, Panama, Senegal, Thailand, Turkey
	Maize	Brazil, Costa Rice, Guatemala, Republic of Korea, Pakistan, Panama, Philippines, Thailand
	All Cereals[b]	Brazil, Burma, Egypt, Guatemala, India, Republic of Korea, Mali, Nepal, Nicaragua, Pakistan, Philippines, Senegal
Poor	Wheat	Angola, Brazil, Burma, Colombia, Ethiopia, Guatemala, Mozambique, Paraguay, Saudi Arabia, Tanzania, Venezuela
	Rice	Cuba, Guatemala, Honduras, Jamaica, Morocco, Mozambique, Saudi Arabia, Tanzania
	Maize	Algeria, Angola, Cuba, Ecuador, Iran, Ivory Coast, Lebanon, Morocco, Uruguay
	All Cereals[b]	Algeria, Angola, Cuba, Ethiopia, Haiti, Iran, Jamaica, Lebanon, Saudi Arabia

a/ Based on differences between the estimates of average annual production growth rates calculated from FAO and USDA data, which are shown in Annex A, Table 6; "Close" correspondence denotes a difference of less than 0.25 percent and "Poor" correspondence denotes a difference of more than 1.75 percent.

b/ Also include sorghum, millet, rye, and oats in countries for which production data are reported by the two systems.

the two series are not expected to vary widely, cases may occur when the difference can be significant since the regression line is sensitive to extreme values at both ends of the observation period. The simultaneous occurrence of extremely low (or extremely high) values at the cited ends of the FAO and USDA series would tend to widen the difference between the calculated growth rates from data of the two systems.

An illustration is presented here to show the differences in the statistics of the regression equations which can result from the use of lagged production figures from the FAO and USDA data systems. Table 9 shows the FAO and USDA estimates of maize production in South Africa for the reference period from 1961 to 1976, together with the statistics derived from the regression equations fitted to these data. It can easily be noted that the FAO output data are a year behind the USDA estimates and that the two sets of figures mainly differ because of the FAO and USDA figures for 1961 and 1976 respectively; other minor differences can also be observed for some years. Values of a from the respective regression equations differ only by about 0.005 and those of b by 0.004. The t-value of b from the equation fitted to the USDA series is slightly higher and, correspondingly, yields a slightly higher percentage of the variations explained by the trend variable, t, of 31 percent compared to about 28 percent for the regression equation fitted to the FAO series.

NONCEREALS

Country-Level Comparisons

As in the case of cereals, the percentage differences between corresponding FAO and USDA estimates of production for rootcrops (potato, sweet potato, cassava and yams), pulses and groundnuts for the years 1965, 1970 and 1975 were calculated for the common countries with reported data on these noncereal items. comparisons on noncereals are limited to the esti-

Table 9 -- Statistics of the regression equations fitted to the FAO and USDA data on the 1961-76 maize production in South Africa

Year	Maize Production in South Africa		Statistics of Regression Equation[1/]	
	FAO	USDA	FAO	USDA
	(000 MT)			
1961	5,275	6,002		
1962	6,002	6,100	a = 8.4744	a = 8.4790
1963	6,100	4,279		
1964	4,279	4,583	b = 0.034626	b = 0.038510
1965	4,490	5,118	t = 2.3237	t = 2.5196
1966	5,135	9,762		
1967	9,762	5,316	R^2 = 0.278333	R^2 = 0.311984
1968	5,316	5,340		
1969	5,340	6,132		
1970	6,132	8,600		
1971	8,600	9,483		
1972	9,438	4,160		
1973	4,360	11,105		
1974	11,105	9,140		
1975	9,140	7,314		
1976	7,312	9,914		

1/ From the regression equation $\ln Y = a + bT$, where Y is production and T is time.

mates on production in view of the absence of USDA data with respect to the area under noncereals. The frequency distribution of the common reporting countries according the percentage difference between FAO and USDA estimates is shown by Table 10, together with the numbers of compared countries and of all reporting countries for each noncereal item in the two data systems.

The FAO country coverage on noncereals is considerably much wider than that of the USDA, the difference in the number of reporting countries ranging from 27 in the case of yams to 126 for pulses. Data on pulses are reported by FAO for 147 countries compared to 21 countries by the USDA. In the case of yams, there are only 7 USDA reporting countries which represent about one-fifth of the number of countries reporting estimates on the commodity in the FAO data system. The largest number of USDA reporting countries for the noncereals under comparison is around 70 for potatoes, data for which are available from FAO for around 125 countries. USDA has 46 reporting countries on groundnuts which coverage is only half the number reported by FAO. Understandably, the USDA data system does not place as much interest on the coverage of data on these commodities as it does on cereals because of their lesser importance in U.S. trade.

The much lower number of USDA reporting countries for the noncereal items necessarily limits the comparison of common country estimates between the two data systems. As shown in Table 10, the number of compared countries range from as few as 7 for yams to a maximum of 69 for potatoes. It can also be observed that although these data were drawn from the USDA production tape for 1977, the number of identical estimates on the output of noncereal foodcrops for 1975 is still significantly less than those for 1965

Table 10-Distribution of common reporting countries based in differences in the FAO and USDA estimates of the production of rootcrops, pulses and groundnuts in 1965, 1970 and 1975

Percentage Difference[a]	Potatoes			Sweet Potato			Cassava			Yams			Pulses			Groundnuts		
	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1960	1970	1975
Over 20% larger	5	6	4	2	3	4	5	4	6	1	2	2	5	4	4	3	3	11
10-20% larger	3	1	1	2	1	1	1	2	2	0	0	1	3	2	2	4	7	3
5-10% larger	1	3	5	0	0	1	2	0	2	0	0	0	1	3	2	4	1	3
0-5% larger	4	8	9	2	4	2	0	1	1	1	0	0	1	0	1	1	4	5
Identical[b]	44 (64)	39 (57)	34 (49)	19 (63)	11 (37)	9 (30)	18 (49)	16 (43)	10 (27)	1 (14)	2 (29)	0 (0)	4 (19)	5 (24)	3 (14)	24 (52)	25 (54)	18 (39)
0- 5% smaller	7	4	6	1	3	2	3	1	1	2	0	0	1	2	3	4	1	0
5-10% smaller	1	5	4	0	0	2	1	2	3	0	0	0	0	0	0	0	1	2
10-20% smaller	2	1	0	0	2	1	0	3	2	1	2	2	1	0	2	0	2	4
Over 20% smaller	2	2	6.	4	6	8	7	8	10	1	1	2	5	5	4	6	2	0
Total number of countries compared	69	69	69	30	30	30	37	37	37	7	7	7	21	21	21	46	46	46
Number of reporting countries: FAO	119	124	125	101	105	104	79	90	90	34	34	34	139	146	147	91	91	91
USDA	70	70	70	31	31	31	38	38	38	7	7	7	21	21	21	46	46	46

a/ $\frac{\text{FAO estimate - USDA estimate}}{\text{FAO estimate}} \times 100$ based on data rounded to thousand metric tons

b/ Figures in parenthesis indicate corresponding percentages based on the total number of countries compared.

and 1970, suggesting that revisions of data on these items are possibly much more delayed than those for cereals.

Based on noncereal output reports for 1965 and/or 1970, identical estimates represent about 60 percent of the common reporting countries for potato and sweet potato and around 50 percent for cassava and groundnuts. The percentages of similar USDA and FAO estimates for pulses and yams are considerably smaller. Agreement of noncereal production estimates from FAO and USDA within a difference of less than 5 percent would cover 75-80 percent of the common reporting countries for potato, 60-70 percent for sweet potato and groundnuts, and 50-60 percent for cassava.

REGIONAL LEVEL COMPARISONS

Among geographical regions, the poorest correspondence is shown for Africa where the divergence of the aggregates of all the noncereal items is wide for most years. Agreement in regional aggregates appears close in Asia and, except for the figures for sweet potato and cassava in 1975, in South America. Near total correspondence is reflected by the FAO and USDA estimates on the reported noncereal items in the USSR for all three years that data are compared; this was also observed with regard to the data on cereals. Except for the data on pulses, agreement of the regional FAO and USDA totals for the common reporting countries in North/Central America appears satisfactory. In the case of Europe, the percentage differences between FAO and USDA data on potato are small but those for pulses for 1965 and 1975 are wide. The 1970 estimates on pulses for Oceania in the two data systems are similar but the data for 1965 and 1975 diverge considerably.

Among noncereal items, the regional totals for potato and, except for those of Africa, sweet potato and cassava show small percentage differences.

Table 11 -- Ratios of aggregates FAO and USDA estimates on the production of rootcrops, pulses and groundnuts for common reporting countries, by geographical region and economic group, 1965, 1970 and 1975

Country Group	Year	Rootcrops				Pulses	Groundnuts
		Potato	Sweet Potato	Cassava	Yams		
Geographical Region							
Africa	1965	0.990	1.109	0.916	1.054	0.912	0.964
	1970	0.970	1.085	1.033	1.152	0.816	0.806
	1975	1.033	1.017	1.005	1.192	0.867	0.865
North/Central America	1965	1.007	0.996	1.031	-	2.500	0.995
	1970	0.993	*	0.978	-	*	-
	1975	0.966	0.994	0.995	-	0.833	0.991
South America	1965	1.006	*	1.017	-	-	0.983
	1970	0.971	1.012	1.002	-	1.006	1.003
	1975	0.980	1.192	0.989	-	-	0.877
Asia	1965	0.998	1.008	1.002	-	1.019	0.994
	1970	*	0.995	1.003	-	1.042	0.993
	1975	1.007	0.995	1.017	-	0.951	0.978
Europe	1965	1.003	-	-	-	0.932	-
	1970	0.994	-	-	-	0.983	-
	1975	0.989	-	-	-	0.863	-
Oceania	1965	0.915	-	-	-	2.708	*
	1970	1.003	-	-	-	*	*
	1975	1.017	-	-	-	0.536	*
USSR	1965	*	-	-	-	*	*
	1970	*	-	-	-	1.001	-
	1975	*	-	-	-	1.000	-
Economic Group							
Developed market economies	1965	1.000	0.984	-	-	0.867	0.999
	1970	0.999	0.968	-	-	0.878	0.993
	1975	0.989	0.998	-	-	0.817	0.992
Developing market economies	1965	1.008	1.036	0.997	1.054	0.951	0.980
	1970	0.979	1.028	1.014	1.152	0.880	0.927
	1975	0.999	1.036	1.033	1.192	0.884	0.932
Centrally Planned economies	1965	1.002	-	-	-	1.003	-
	1970	*	-	-	-	1.008	-
	1975	0.998	-	-	-	0.987	-

*Identical estimates

Note: See also Annex Tables 6a to 6f.

The FAO and USDA regional aggregates on pulses for the common reporting countries indicate the most divergence. Like the comparisons shown for cereal data, the large percentage difference reflected by the regional totals of the two data systems can be largely accounted for by only a few countries. A brief discussion of data differences by crop is given below.

Potato. The indicated difference between FAO and USDA totals on potato for Oceania of more than 8 percent is on account of the estimates for New Zealand which mainly caused the absolute regional aggregates to differ by 72 thousand metric tons.

Sweet potato. Two regions, Africa and South America, indicate differences between the aggregates of more than 10 percent. The wide divergence of African data for 1965 and 1970 is traceable to the data for Uganda while that of South America is largely due to the FAO and USDA figures for Brazil.

Cassava. FAO and USDA regional totals of the estimates on the common reporting countries differ by more than 8 percent for Africa in 1965; this divergence is accounted for by the estimates for Tanzania. In the case of the other reporting regions, there are only small percentage differences between the FAO and USDA regional aggregates.

Yams. Among geographical regions, only Africa has comparative data on yams for common reporting countries in the two systems. The FAO and USDA regional aggregates differ by around 15 percent in 1970 and 19 percent in 1975, the divergence is estimates being mainly attributable to the data for Nigeria. USDA figures on yam production in Nigeria of about 14.7 million tons in 1970 and 17.6 million tons in 1975 exceed those of the FAO by around 2.5 million tons for both those years. Based on the data of both systems, Nigeria accounts for about 4/5 of the aggregate output of yams in Africa.

Pulses. The three regions of Africa, Europe and Oceania show divergence in regional totals of more than 10 percent. Like the data on yams, estimates of the production of pulses in Nigeria by FAO and USDA account for the difference in African data. The FAO and USDA figures on the output of pulses for Czechoslovakia and New Zealand explain the divergence of the regional aggregates for Europe and Oceania, respectively. The large percentage difference indicated for North/Central America is due to the wide divergence in the estimates for Jamaica, the only commonly reported country for the commodity in the two systems.

Groundnuts. Output estimates for Nigeria and Sudan account for the difference in the FAO and USDA regional totals for Africa while those for Brazil explain the difference in the aggregate groundnuts production in South America.

Economic Group-Level Comparisons.

Like the comparisons of cereal data, the aggregate estimates on non-cereal output in the common reporting countries classified by economic group would indicate closer agreement in FAO and USDA data than those grouped by region because of the higher level of aggregation of the former. The ratios shown in Table 11 show percentage differences between economic group totals of less than 4 percent for potato, sweet potato and cassava for the three years of data comparison.

The divergence of FAO and USDA data for pulses and yams is again indicated, with the data differences on pulses clearly shown to be relatively wider for the developed market economies than for the developing market economies. Ratios of the aggregates on the output of pulses in the centrally planned economy countries, reflect close agreement. In the case of yams, the ratios presented earlier for Africa, the only region with common FAO

and USDA countries reporting on yam production, also represent those for the developing market economy countries as a whole.

Comparison of World Totals

Table 12 shows the ratios of world aggregates of FAO and USDA estimates on noncereal staple production for both the common reporting countries and all reporting countries in the two data systems. Except for the totals on yam production, which represent the output of 7 countries in Africa, the percentage differences between aggregated FAO and USDA estimates on noncereals for the three comparison years that data are much less than those between regional aggregates. World totals of the output of the noncereal items during these years differ by less than 1 percent for potato, about 2-3 percent for sweet potato, 0-3 percent for cassava, 2-5 percent for pulses and 2-6 percent for groundnuts. The ratios on yam production, which were shown earlier for geographical regions and economic groups, also apply for the world aggregates. It can also be noted that the USDA aggregates for sweet potato and yams exceed those of the FAO aggregates for all three years and that the opposite pattern is shown for pulses and groundnuts. If the combined noncereal production in the 91 common reporting countries are compared, there would be near total agreement of the FAO and USDA aggregates. Table 12 shows that the the percentage differences between grand totals for 1965, 1970 and 1975 are all less than half a percent.

However, the incompleteness of USDA data on noncereal staple output, in comparison with those of FAO, becomes apparent when the estimates for all reporting countries are considered. The preceding comparisons are confined to FAO and USDA common reporting countries whose numbers are far below those of the FAO reporting countries because of the limited country country coverage by USDA on noncereal staples.

Table 12 -- Ratios of world aggregates of FAO and USDA estimates on the production of rootcrops, pulses, and groundnuts for common and all reporting countries; 1965, 1970 and 1975

Crop	Year	Common Reporting Countries		All Reporting Countries		
		Number	Ratio of World Aggregates	Number		Ratio of World Aggregates
				FAO	USDA	
Potato	1965	69	1.002	119	70	0.889
	1970	69	0.995	124	70	0.875
	1975	69	0.993	125	70	0.843
Sweet Potato	1965	30	1.020	101	31	0.162
	1970	30	1.016	105	31	0.135
	1975	30	1.031	104	31	0.117
Cassava	1965	37	0.967	89	38	0.884
	1970	37	1.014	90	38	0.929
	1975	37	1.003	90	38	0.926
Yams	1965	7	1.054	34	7	0.993
	1970	7	1.152	34	7	1.078
	1975	7	1.192	34	7	1.116
Pulses	1965	21	0.987	139	21	0.225
	1970	21	0.980	146	21	0.230
	1975	21	0.954	147	21	0.181
Groundnuts	1965	46	0.983	91	46	0.787
	1970	46	0.936	91	46	0.757
	1975	46	0.940	91	46	0.762
Total for Noncereals	1965	91	0.997	171	91	0.686
	1970	91	1.004	171	91	0.683
	1975	91	1.003	180	92	0.652

Note: See also Annex Tables 7a to 7f, 8 and 9.

The ratios for all reporting countries shown in Table 12 indicate the considerable degree of undercoverage in the USDA estimates of the output of noncereal staples, except yams. Relative to FAO levels, the world aggregates of USDA estimates of the production of these crops represent only about 15 percent for sweet potato, 20 percent for pulses, 75 perfent for groundnuts, 85 percent for potato and 90 percent for cassava. The situation is different in the case of yams where the USDA aggregates for the common reporting countries for the years in comparison, especially 1970 and 1975, exceed those of the FAO despite much larger number of FAO reporting countries.

World aggregates of the combined production of noncereal staples indicate that USDA levels are less than 70 percent of the FAO estimates. It should be mentioned also that these combined totals cover only the noncereal items whose data are compared. The FAO data system includes estimates other rootcrop items which are not reported in the USDA data. Thus, the actual ratios on the overall aggregates of noncereal output would even be less than indicated by the table.

6. DATA ON IMPORTS AND EXPORTS OF CEREALS

This section of the report deals with comparisons of the FAO and USDA figures on the imports and exports of cereals that are published by the two data systems. As shown in Table 1 which is presented early in the report, the FAO reporting countries on cereal trade in 1975, which number 188 for imports and 145 for exports, exceed those of the USDA by 62 and 35, respectively. The distribution of reporting countries by geographical region show large differences in FAO and USDA country numbers for both import and export data in Africa and for import reports in North/Central America. When distributed by economic group, the numbers of reporting countries in the two data systems for both the developed and the centrally planned economies are about equal; the big difference in country numbers is shown for the developing countries, which group almost wholly accounts for the overall differences in the number of FAO and USDA reporting countries on cereal trade.

Country-Level Comparisons

Tables 13a and 13b present frequency distributions of the reporting countries that are common to both the FAO and USDA data systems based on the percentage differences of the country data on imports and exports of the different cereal items for the years 1965, 1970 and 1975. In general, the FAO country coverage is wider than that of the USDA, the difference ranging from 20 countries for rye to 78 countries for rice in the case of import data; for data on cereal exports the range of difference also occur for rye (3 countries) and rice (37 countries). Like the production data on cereals, more FAO and USDA common reporting countries are shown for wheat, rice and maize which have from about 90 to more than 100 country reports on imports and 55 to 70 country reports on exports. Only around 1/3 to 1/2 these numbers

Table 13a -- Cereal imports: distribution of common reporting countries based on differences in FAO and USDA data; 1965, 1970 and 1975

Percentage Difference 1/	Wheat			Rice			Maize			Barley			Oats			Rye		
	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975
Over 20% larger	13	13	19	20	29	19	27	24	45	11	16	18	9	8	15	6	7	9
10-20% larger	1	9	6	6	4	6	3	6	5	5	1	2	2	0	2	2	1	1
5-10% larger	2	2	6	5	1	2	2	4	1	2	2	0	2	0	2	0	2	0
0-5% larger	5	4	4	8	14	18	3	5	7	1	2	2	2	0	2	1	0	0
Zero (identical)	1	1	6	4	2	7	5	7	8	11	7	8	5	5	6	8	6	4
0-5% smaller	4	5	1	13	11	10	4	8	2	3	1	5	5	2	0	1	0	1
5-10% smaller	9	4	7	9	1	3	6	3	7	4	3	2	0	0	1	1	1	0
10-20% smaller	10	10	12	3	6	3	8	5	2	2	5	4	1	3	0	1	0	0
Over 20% smaller	62	59	46	23	23	23	35	31	16	16	18	14	8	16	6	7	10	12
Total number of countries compared	107	107	107	91	91	91	93	93	93	55	55	55	34	34	34	27	27	27
Total number of reporting countries: FAO	147	147	147	176	176	176	155	155	155	111	111	111	96	96	96	50	50	50
USDA	114	114	114	98	98	98	100	100	100	59	59	59	37	37	37	30	30	30
No. of countries with zero reports by:																		
FAO (w/nonzero USDA)	4	5	3	0	1	3	5	2	0	2	2	0	2	1	0	0	0	0
USDA (w/ nonzero FAO)	4	2	3	10	13	10	15	10	26	2	2	8	4	5	8	3	4	6
FAO and USDA	1	1	3	2	2	3	5	6	5	11	7	7	4	5	6	8	6	4

1/ $\frac{\text{FAO report} - \text{USDA report}}{\text{FAO report}} \times 100$; based on data rounded to thousand metric tons.

Table 13b-- Cereal exports: distribution of common reporting countries based on differences in FAO and USDA data; 1965, 1970 and 1975

Percentage Difference 1/	Wheat			Rice			Maize			Barley			Oats			Rye		
	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975	1965	1970	1975
Over 20% larger	14	13	15	19	28	19	27	25	24	14	19	19	11	15	13	4	7	8
10-20% larger	3	0	0	4	2	3	5	3	1	2	0	0	1	1	0	1	0	2
5-10% larger	0	3	0	3	1	1	1	1	1	2	2	1	2	1	0	0	0	0
0-5% larger	0	2	3	2	2	4	1	5	1	0	2	1	0	0	2	0	1	0
Zero (identical)	11	7	14	8	9	16	8	9	16	9	8	10	5	2	2	4	4	3
0-5% smaller	0	0	2	2	1	2	3	0	1	2	0	0	1	1	1	1	1	0
5-10% smaller	0	1	1	5	0	1	1	4	1	1	1	0	3	1	0	1	1	0
10-20% smaller	2	2	2	1	4	2	2	0	3	2	0	1	1	0	1	0	1	2
Over 20% smaller	26	28	19	20	17	16	20	20	20	14	14	14	5	6	8	9	7	7
Total number of countries compared	56	56	56	64	64	64	68	63	68	46	46	46	28	28	28	21	21	21
Total number of reporting countries:																		
FAO	77	77	77	113	113	113	108	108	103	66	66	66	46	46	46	25	25	25
USDA	73	73	73	75	76	75	72	72	72	49	49	49	29	29	29	22	22	22
Number of countries with zero reports by:																		
FAO (w/nonzero USDA)	5	4	4	3	2	2	3	3	0	3	5	3	1	1	1	2	1	2
USDA (w/nonzero FAO)	4	5	8	11	14	14	18	21	20	10	9	13	6	9	9	3	5	4
FAO and USDA (paried)	11	7	14	8	8	16	8	7	15	9	8	10	5	2	2	4	4	3

1/ $\frac{\text{FAO report} - \text{USDA report}}{\text{USDA report}} \times 100$; based on data rounded to thousand metric tons.

are reflected for the rest of the cereal items. The frequency distributions also clearly indicate the relatively large numbers of USDA country reports on wheat imports and, to a lesser extent, wheat exports which exceed the FAO figures by more than 20 percent.

The number of zero reports for 1965, 1970 and 1975 pose more problems in the comparisons of FAO and USDA data on cereal trade than on production and area. With production and area data, zero entries on certain cereal items during the comparison years were reported only for countries which do not grow these crops and hence, "nonreporting" countries. For the comparisons on import and export data, however, countries with zero reports for the comparison years are considered as "reporting" for any cereal item if a nonzero trade figure for such item exists prior to those years. The tables show the number of zero imports and zero exports reported for common reporting countries by the two data systems in the middle category and both of the end groups of the country classifications.

Cereal imports. Table 13a shows that a high percentage of the matched FAO and USDA data on cereal imports for the common reporting countries in the two systems differ by more than 20 percent in all of the cereal items for the three years of data comparison. Relative to the number of common reporting countries, the number of countries whose reports from the two data systems in 1965, 1970 and 1975 differ by this degree are 60-70 percent for wheat and maize, 45-60 percent for rice and 50-80 percent for barley, oats and rye. The USDA system has a larger number of zero reports in these end groups than the FAO does, especially on rice and maize. Of the more than 1200 matched pairs of FAO and USDA country reports of cereal imports for the three comparison years, some 100 are identical; however, only 14

of these identical figures are represented by nonzero reports from both data systems.

The largest number of countries whose FAO and USDA reports differ by less than 5 percent of the FAO reports for a particular cereal item is 35 (rice in 1975), which represent 38 percent of the number of common countries reporting on rice imports during that year. For the rest of the cereal items, the maximum precentages of countries with import reports differing by less than 5 percent of the FAO reports are 10 percent of the wheat reporting countries in 1975, 22 percent of those for maize in 1970, 27 percent for barley in 1965 and 1975, 35 percent for oats and 37 percent for rye in 1965. Unlike the data on the production and area of cereals and noncereals, the spread of identical FAO and USDA estimates and of the number of paired country data which differ by less than 5 percent for the three comparison years do not appear to reflect agreement over time in the number of FAO and USDA country estimates on cereal imports.

Cereal exports. Differences between the number of FAO and USDA country reports on cereal exports appear to be even wider than those on cereal imports. Except for the data on maize and rye in 1975, cereal export figures of the common reporting countries in the two systems for 1965, 1970 and 1975 show higher percentages of matched country reports which differ by more than 20 percent compared to those observed on import figures. Based on the export data for 1965, about 70 percent of the common FAO and USDA reporting countries on wheat and maize and 60 percent of those on rice, barley, oats and rye belong to this group ; the corresponding percentages generally indicated by the 1970 and 1975 export data are even higher.

On the basis of export data on the different cereal items for the FAO

and USDA common reporting countries during the three comparison years, the largest percentages of paired country reports which differ by less than 5 percent of the FAO figures are 32-34 percent of the common reporting countries for wheat and rice, 29 percent for rye, 24-26 percent for maize and barley and 21 percent for oats. These maximum percentages occurred in 1975 for wheat, rice, maize and barley, and in 1970 and 1965 for rye and oats, respectively.

As in the case of cereal imports, the USDA system has more zero reports of exports for countries which have nonzero FAO figures than the latter system has for countries with nonzero USDA reports, especially for rice, maize, barley and oats. It is also interesting to note that of the 144 identical FAO and USDA figures on the exports of the different cereals, only four pairs are nonzero reports.

Regional Data Comparisons

The ratios of regional aggregates of FAO and USDA data on cereal imports and exports in common reporting countries are presented in Tables 14a and 14b. More than 3/4 of over 200 paired FAO and USDA regional aggregates of the country trade reports differ by greater than 10 percent of the FAO totals. Of around 100 matched regional figures on cereal imports, 27 pairs show differences of less than 10 percent, slightly more than half of the total diverge by 10-50 percent and one-fifth has differences by over 50 percent. The paired export data aggregates indicate wider differences; only 20 diverge by less than 10 percent, 49 differ by 10-50 percent and 31 reflect differences of over 50 percent.

Cereal imports. Matched regional aggregates for the three years show USDA totals for wheat generally larger than those of FAO; exceptions are data for Oceania in 1975 and the USSR in 1970. The closest FAO and USDA

regional wheat aggregates are for Asia in 1975, which differ by only 2.3 percent while the largest difference is indicated by the ratio of the widely divergent estimates for Oceania in 1970.[1/] Considerable differences are also indicated by the wheat import totals for Africa, North/Central America and South America.

Regional totals for rice appear in closer agreement than those for wheat. FAO and USDA aggregates of rice imports in Europe diverge by less than 6 percent for all three reference years. Rice import totals for Africa and Asia are also close for two of the three years of comparison but the FAO and USDA aggregates for South America differ by as much as 25-30 percent.

The FAO and USDA regional aggregates for maize and barley imports differ widely except those for Europe and, in certain years, for other regions; only one of the six ratios on these items for Europe shows a percentage difference of more than 10 percent. The USDA figures on maize and barley imports by the USSR in 1975 are more than twice those reported by the FAO. On oat imports by common reporting countries, identical FAO and USDA figures are indicated for Africa in 1965 and 1970 and for Asia in 1965; other matched aggregates of oat imports show percentage differences ranging from 7 percent in Europe (1965) to 90 percent in the USSR (1975). Table 14a shows rye import totals only for North/Central America, Asia and Europe. Both the closest agreement and largest divergence between the FAO and USDA regional aggregates on rye imports are shown for North/Central America, with the smallest percentage difference of 10 percent occurring in 1970 and the largest difference of 72 percent, in 1965.

1/ The FAO and USDA figures on wheat imports of Oceania in 1970 are 15,000 tons and 102,000 tons respectively, representing totals for New Zealand and Fiji.

Table 14a -- Cereal imports: ratios of aggregates of FAO and USDA estimates for common reporting countries, by geographical region; 1965, 1970 and 1975[1/]

Region	Year	Cereal Items					
		Wheat	Rice	Maize	Barley	Oats	Rye
Africa	1965	1.964	0.921	1.987	0.506	*	-
	1970	2.103	0.929	0.582	0.939	*	-
	1975	1.157	1.510	0.811	0.722	-	-
North/Central America	1965	2.901	0.687	1.192	1.070	1.139	1.724
	1970	1.772	1.373	0.736	0.970	0.630	0.900
	1975	1.319	0.928	0.670	0.887	1.423	1.278
South America	1965	1.526	1.270	1.721	0.691	1.125	-
	1970	1.050	1.282	1.277	0.692	1.345	-
	1975	1.523	0.751	1.039	0.928	1.308	-
Asia	1965	1.501	0.917	0.839	0.787	*	1.239
	1970	1.064	0.760	0.878	1.081	1.348	1.425
	1975	1.023	0.998	1.102	0.883	1.085	0.815
Europe	1965	1.179	1.052	1.097	1.113	1.071	1.119
	1970	1.142	1.023	1.065	0.999	1.378	1.389
	1975	1.156	1.048	0.939	1.016	0.849	1.513
Oceania	1965	1.169	2.000	-	-	-	-
	1970	**	-	2.000	1.643	-	-
	1975	0.860	*	2.000	-	-	-
USSR	1965	1.341	1.155	-	-	-	-
	1970	0.262	1.028	0.891	-	-	-
	1975	1.104	1.161	2.217	2.847	1.896	-

1/ See also Annex Tables 10a to 1f.

* Identical estimates.

** More than 5.0.

Table 14b -- Cereal exports: ratios of aggregates of FAO and USDA estimates for common reporting countries, by geographical region; 1975, 1970 and 1975 1/

Region	Year	Cereal Items					
		Wheat	Rice	Maize	Barley	Oats	Rye
Africa	1965	0.763	1.107	1.541	1.323	1.000	-
	1970	1.680	0.774	1.841	0.502	0.857	-
	1975	2.000	2.000	0.621	**	3.917	-
North/Central America	1965	1.298	0.920	1.080	1.125	1.069	1.714
	1970	1.124	0.841	0.914	1.361	0.898	2.060
	1975	1.045	0.817	1.296	1.54	1.127	1.193
South America	1965	0.848	1.172	1.374	0.377	0.354	0.115
	1970	0.455	1.164	1.108	0.741	0.640	0.038
	1975	1.749	1.649	0.944	2.036	3.655	0.750
Asia	1965	2.443	0.882	1.337	0.710	-	0.919
	1970	1.179	0.914	1.189	0.040	-	-
	1975	3.886	0.900	1.177	-	-	-
Europe	1965	1.441	0.749	1.063	1.296	1.137	1.553
	1970	0.916	0.861	1.213	0.875	1.121	1.529
	1975	1.299	0.946	1.232	1.059	0.802	1.415
Oceania	1965	0.821	1.369	2.000	1.019	0.762	-
	1970	1.315	1.326	**	1.951	2.543	-
	1975	1.083	1.757	**	1.268	1.558	-
USSR	1965	1.582	1.333	0.407	0.954	1.000	1.000
	1970	1.485	1.750	0.940	1.229	0.988	
	1975	0.186	-	-	-	-	-

1/ See also Annex Tables 10a to 10f.

** More than 5.0.

Cereal exports. The few matched pairs of FAO and USDA regional totals of wheat exports which show differences of less than 10 percent in the three comparison years are those for North/Central America and Oceania in 1975 and for Europe in 1970. USDA regional aggregates of wheat exports range from less than 20 percent to almost four times as much as the FAO totals. Four of the paired aggregates on rice exports show a divergence a 10 percent or less; two of these are in Asia (1970 and 1975) and one each in North/Central America (1965) and Europe (1975). In the case of maize, exports regional totals show differences of less than 10 percent for one year each in North/Central America (1970), the USSR (1970), South America (1975) and Europe (1965). Relative to FAO levels, the USDA figures on aggregates maize exports for common reporting countries in Oceania are twice as much in 1965 and more than five times in 1970 and 1975.

Like the regional aggregates of wheat exports, the totals on barley show only three cases of less than 10 percent difference between the USDA and FAO figures -- Europe (1975), Oceania (1965) and the USSR (1965). The USDA regional totals on barley range from as low as 4 percent of the FAO total for Asia in 1970 to more than twice the FAO aggregates for South America in 1975.

FAO and USDA regional totals for common reporting countries on oats and rye also differ considerably. The exceptions are USSR figures and a few 1965 aggregates for some regions (Africa and North/Central America for oats and Asia for rye) which indicate paired data with near total correspondence and differences of less than 10 percent.

Economic Group Comparisons

There appears comparatively better agreement of the matched FAO and USDA economic group aggregates of data for common reporting countries on

cereal imports than on cereal exports, as indicated by Table 15. For the three years of comparison, 43 percent of the paired totals on cereal imports differ by less than 10 percent; only nine of the 54 matched aggregates on cereal exports show the same difference.

Import aggregates by economic group suggest the tendency of USDA reports on wheat, oats and rye to be generally larger than those of FAO. Also evident from the cereal import data are the relatively small differences between FAO and USDA totals for the developed market economy countries compared to the other two economic groups. All of the FAO and USDA aggregates for wheat, rice, and maize and about half of those for barley, oats and rye in the developed market economies differ by less than 10 percent. With the exception of the rice import totals for 1970 and 1975 and that of barley for 1979, the FAO and USDA totals on cereal imports in the developing market economy countries differ widely. In the case of the centrally planned economies, close agreement of cereal imports totals is shown only for wheat in 1970 and for wheat, rice, oats and rye in 1975; furthermore, the USDA totals range from 37 percent (rice 1970) to more than three times (oats, 1970) the FAO aggregates.

USDA economic group aggregates on cereal exports also appear consistently larger than the FAO totals for all the cereal items, except rice, in the developed market economy countries, for maize in the centrally planned economies and for rye in the developing market economies. Considerable differences between the paired aggregates are indicated for rye in the developed market economy group and for wheat, barley and oats (especially in 1975) in the developing market economy countries. FAO and USDA export totals for the centrally planned economies differ by more than 50 percent of the FAO aggregates for wheat in 1975, for rice and barley in 1970 and

Table 15 -- Cereal imports and exports: ratios of aggregates of FAO and USDA estimates for common reporting countries, by economic group: 1965, 1970 and 1975 1/

Economic Group	Year	Cereal Items					
		Wheat	Rice	Maize	Barley	Oats	Rye
		Imports					
Developed Market Economy	1965	1.069	0.963	1.073	1.114	1.069	1.183
	1970	1.072	0.938	0.979	1.147	1.314	1.099
	1975	1.088	1.034	0.948	1.069	1.002	1.528
Developing Market Economy	1965	1.278	0.895	1.202	0.563	1.224	-
	1970	1.343	0.981	0.786	0.934	1.184	-
	1975	1.159	1.009	0.842	0.502	1.217	-
Centrally Planned Economy	1965	2.062	1.062	0.890	1.042	*	1.034
	1970	0.966	0.373	1.199	0.590	3.353	1.679
	1975	1.088	1.348	1.685	1.492	1.278	1.329
		Exports					
Developed Market Economy	1965	1.246	0.909	1.114	1.190	1.003	1.643
	1970	1.120	1.010	1.050	1.108	1.298	1.850
	1975	1.114	0.892	1.203	1.115	1.130	1.312
Developing Market Economy	1965	0.847	0.870	1.264	0.611	0.362	0.465
	1970	0.526	1.057	1.140	0.367	0.649	0.038
	1975	1.772	1.803	1.041	**	3.533	0.750
Centrally Planned Economy	1965	1.832	1.039	0.763	0.998	1.154	1.371
	1970	1.422	0.496	0.894	1.567	0.750	1.020
	1975	0.396	0.351	2.079	0.245	0.677	1.256

1/ See also Annex Tables 10a to 10f.

* Identical estimates.

** More than 5.0.

for all cereals except oats and rye in 1975.

On the whole, poor agreement between the economic group aggregates of FAO and USDA data on cereal exports is indicated by these comparisons. The ratios on cereal exports show that none of the paired FAO and USDA totals for wheat differ by less than 10 percent. Differences of this size are shown for four of the paired totals in rice, two in maize and one each in barley, oats and rye.

Comparison of World Totals

The ratios of the global aggregates of FAO and USDA data on cereal trade for the reference years 1965, 1970 and 1975 are shown for both common and all reporting countries of the two data systems in Tables 16a and 16b. Of the 188 and 126 countries reported by FAO and USDA, respectively, there are 119 common countries which import one or more of the six cereal items for which data are compared. On cereal export data, reporting countries number 145 for FAO and 110 for USDA, of which 93 are common in both systems.

Imports

Table 16a indicates that for the common reporting countries, USDA world aggregates on cereal imports are consistently larger than those of the FAO totals on wheat, rye and oats for all three reference years. The paired aggregates of maize imports for these years show differences of less than 10 percent of the FAO reports, which degree of divergence is also observed in two of the three years for rice, barley and oats. Percentage differences of 12 percent or more are shown by the FAO and USDA paired aggregates for wheat and, especially, rye which reflects the widest divergence of 44 percent of 1975. The overall USDA totals for cereals, as reported for 119 common countries in the two systems, exceed

Table 16a--Cereal imports: Ratios of world aggregates of FAO and USDA data for common and for all reporting countries; 1965, 1970, 1975 1/

Crop	Year	Common Reporting Countries		All Reporting Countries		
		Number	Ratio of World Aggregates	Number FAO	Number USDA	Ratio of World Aggregates
Wheat	1965	107	1.389	147	114	1.227
	1970	107	1.141	147	114	1.136
	1975	107	1.121	147	114	1.111
Rice	1965	91	0.929	176	98	0.895
	1970	91	0.837	176	98	0.807
	1975	91	1.045	176	98	0.833
Maize	1965	93	1.069	155	100	1.061
	1970	93	0.974	155	100	0.969
	1975	93	1.089	155	100	1.081
Barley	1965	55	1.067	111	59	1.060
	1970	55	1.008	111	59	0.998
	1975	55	1.121	111	59	1.113
Oats	1965	34	1.074	96	37	1.017
	1970	34	1.346	96	37	1.317
	1975	34	1.093	96	37	1.072
Rye	1965	27	1.166	50	30	1.151
	1970	27	1.363	50	30	1.543
	1975	27	1.440	50	30	1.110
Total	1965	119	1.221	188	126	1.136
	1970	119	1.056	188	126	1.048
	1975	119	1.106	188	126	1.084

1/ See Also Annex Tables 11 and 12.

Table 16b--Cereal exports: Ratios of world aggregates of FAO and USDA data for common and for all reporting countries; 1965, 1970, 1975[1/]

Crop	Year	Common Reporting Countries		All Reporting Countries		
		Number	Ratio of World Aggregates	Number		Ratio of World Aggregates
				FAO	USDA	
Wheat	1965	56	1.207	77	73	1.208
	1970	56	1.124	77	73	1.125
	1975	56	1.085	77	73	1.085
Rice	1965	64	0.871	113	76	0.911
	1970	64	0.902	113	76	0.898
	1975	64	0.944	113	76	0.915
Maize	1965	68	1.128	108	72	1.123
	1970	68	1.068	108	72	1.068
	1975	68	1.202	108	72	1.201
Barley	1965	46	1.081	66	49	1.081
	1970	46	1.099	66	49	1.099
	1975	46	1.063	66	49	1.060
Oats	1965	28	0.874	46	29	0.874
	1970	28	1.187	46	29	1.186
	1975	28	1.180	46	29	1.179
Rye	1965	21	1.173	25	22	1.173
	1970	21	1.444	25	22	1.444
	1975	21	1.302	25	22	1.302
Total	1965	93	1.139	145	110	1.141
	1970	93	1.089	145	110	1.089
	1975	93	1.118	145	110	1.116

1/ See also Annex Tables 11 and 12.

those of the FAO aggregates by amounts ranging from 6 to 22 percent for the three reference years of data comparison.

Aggregations of cereal import data for all the reporting countries in the two systems yield ratios which come generally close to those shown for the commonly reported countries, except those of rice for 1975 and of barley for 1970. Although half of these ratios indicate movements towards closer agreement, the number of matched totals with differences of less than 10 percent has decreased and the maximum divergence in the aggregates for rye rises to 54 percent.[1/] For the combined world aggregates of cereal imports, the matched FAO and USDA totals for 1970 and 1975 tend slightly towards agreement but those for 1965 still diverge by more than 10 percent.

Exports

Except in the case of rice and, for one of the three years, in oats, the USDA world totals on cereal exports in the common reporting countries during the three references years are larger than the corresponding FAO totals for the different cereal items (Table 16b). The USDA aggregates of rice exports are 5-10 percent below the FAO figures and that of oats for 1965 is about 13 percent less. Less than half of the matched totals show differences of less than 10 percent, including the three year data on barley, the 1970 and 1975 figures on rice and the 1970 reports on maize. Maximum divergence between FAO and USDA figures is again shown by the data on rye which indicate a difference of 44 percent in 1970. The aggregation of all cereal exports for the 93 common reporting countries shows the USDA totals for all cereals exceeding FAO totals by 9-14 percent in the three reference years.

1/ The divergence between FAO and USDA totals for each cereal item was either reduced or increased depending on the difference between the import figures for noncommon countries of the two data systems.

The inclusion of data on cereal exports in the countries that are not common to the FAO and USDA data systems did not significantly change the ratios previously shown for the common reporting countries, except in a few cases. Whatever changes that occurred brought the matched aggregates for rice and maize in 1965 towards closer agreement but widened the differences of the totals for rice in 1975. Despite the inclusion of about 52 FAO and 17 USDA reports for countries that are not commonly reported as cereal exporters in the two data systesms, the ratios of the combined totals remain nearly unchanged, the ratios for all cereals for all reporting countries differing with those for the common reporting countries by only 0.2 percent in 1965 and 1975.

Group Comparisons by Type of Trade

The FAO data system on cereal imports and exports classifies reporting countries into either general or special trade countries according to the method of data reporting employed as defined by FAO.[1/] USDA data on cereal imports and exports are direct accounts of inflows and outflows of these commodities among countries, which reporting method appears to be more in line with FAO's general trade classification. More than half of FAO's 188 reporting countries on cereal imports and 69 of 145 countries which report on cereal exports are in the general trade category.

In order to determine if the FAO country grouping by type of trade contributes any systematic bias in data reporting and thus help explain the wide divergence of FAO and USDA figures on cereal trade, the ratios of the aggregates of their respective data on imports and exports were calculated

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1/ See section on "Data and Methods Used in Comparisons" on FAO definitions of general and special trade.

for the common reporting countries belonging to the FAO trade groups for the reference year 1970. Except possibly in the case of rye exports, near equal numbers of common reporting countries fall in the general and special trade categories for the different cereal items for each of both imports and exports (Table 17).

Cereal Imports. Although the method of reporting USDA trade data on cereals appears to agree with FAO's definition of general trade, wide differences between the matched aggregates of reports for the common reporting countries in this category for 1970 are still evident. For cereal imports in particular, only the data for wheat show close correspondence; the paired totals for the other cereal items show differences ranging from 13 percent for maize to 78 percent for oats, using the FAO group aggregate as basis. In the special trade category, the FAO and USDA totals even have a narrower range of differences, ranging from 3 percent for rye to 42 percent for wheat. The aggregates for all cereals, as reported for about an equal number of common reporting countries, reflect a difference of about 9 percent for general trade countries and 23 percent for special trade countries.

Cereal Exports. Paired FAO and USDA totals on maize exports in the general trade category differ by less than 2 percent while those on rice diverge by less than 10 percent. However, the aggregates for the rest of the cereal items differ widely, with USDA totals generally exceeding the FAO figures. The matched aggregates on cereal export data in the special trade countries also have wide differences for individual cereal items, the closest paired totals occurring for maize with 16-percent divergence. Compared with the ratios of the matched aggregates for general trade countries, those for special trade countries generally indicate more USDA reports on cereal exports that are

Table 17 -- Cereal imports and exports: ratios of aggregates of FAO and USDA data for common reporting countries classified by FAO under general and special trade, 1970[1/]

Cereal	Imports				Exports			
	General Trade		Special Trade		General Trade		Special Trade	
	Number of Countries	USDA/FAO	Number of Countries	USDA/FAO	Number of Countries	USDA/FAO	Number of Countries	USDA/FAO
Wheat	51	0.979	56	1.416	29	1.194	26	0.791
Rice (Milled)	42	0.640	49	1.125	29	0.925	35	0.814
Maize	43	0.869	50	1.057	35	1.016	33	1.161
Barley	25	0.798	30	1.220	21	1.413	25	0.694
Oats	18	1.783	16	1.256	16	1.516	12	0.590
Rye	15	1.459	12	1.030	14	1.453	7	1.421
Total Cereals	60	0.911	59	1.233	45	1.457	48	0.930

1/ See section on "Data and Methods Used in Comparisons" for the FAO definitions of "general trade" and "special trade"; the actual data on aggregates of imports and exports for these two types of trade are presented in Annex Tables 13a and 13b.

lower than the FAO figures. With more offsetting of positive and negative differences among cereal item aggregates in the special trade category, the FAO and USDA totals for all cereals in this group come to close correspondence, as indicated by a difference of only 7 percent, compared to 46 percent in the general trade countries.

Comparisons of Trade Data with Adjusted Reference Period

As indicated earlier, the FAO reference period for data on cereal trade is the calendar year from January to December. USDA trade data, on the other hand, refer to the marketing year which for the most countries covers the same period of the "world" production year, i.e., from July of the reference year to June of the following year. This difference in reference periods can largely account for the wide differences of FAO and USDA figures on cereal imports and exports. In order to determine the changes that would occur in the observed differences if the USDA reference period is adjusted to correspond to that of FAO, the USDA data on wheat trade for the two marketing years 1969 and 1970 are averaged to approximate data for the calendar year 1970; the resulting average is then compared with the 1970 FAO figure.1/

Country Levels. Table 18 shows the original and modified distributions of the common reporting countries for the 1970 wheat imports and exports in the two data systems, based on the relative differences between matched reports. The adjusted USDA data on wheat imports indicate a slight tendency towards agreement with the 1970 FAO figures, as suggested by the movement of both

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1/ In the absence of monthly data on actual imports and exports, the approach merely provides a rough adjustment of the USDA data towards a calendar year reference period since it assumes equal monthly figures during each of the two marketing years.

Table 18 -- Wheat imports and exports: distribution of common reporting countries based on differences between the 1970 FAO and the average 1969-70 and 1970-71 USDA data

	Number of Common Reporting Countries			
	Wheat Imports		Wheat Exports	
Percentage Difference 1/	Original Distribution 2/	New Distribution 3/	Original Distribution 2/	New Distribution 3/
Over 20% larger	13	5	13	9
10 - 20% larger	9	4	0	1
5 - 10% larger	2	9	3	1
0 - 5% larger	4	7	2	2
Zero (identical)	1	3	7	7
0 - 5% smaller	5	6	0	2
5 - 10% smaller	4	9	1	1
10 - 20% smaller	10	8	2	1
Over 20% smaller	59	56	28	32
Total	107	107	56	56

1/ $\frac{\text{FAO report - USDA report}}{\text{FAO report}}$; based on data rounded to thousand metric tons.

2/ Based on 1970 FAO and USDA data; from Tables 13a and 13b.

3/ Based on FAO data for 1970 and the average USDA figures for 1969 (1969-70) and 1970 (1970-71).

sides of the distribution towards smaller differences. However, the number of paired reports which differ by less than 5 percent increased from 10 in the original distribution to 16 if the USDA reports are adjusted. Unlike that for wheat imports, the new distribution for wheat exports does not seem to suggest any movement towards closer agreement between FAO and USDA data; a tendency for smaller differences on one side of the distribution appears to be offset by shifts towards wider divergence at the other end.

Aggregate Levels. Recalculated ratios of the aggregates of FAO and adjusted USDA data of the 1970 wheat trade in common reporting countries are shown in Table 19, for comparisons with previously-observed values. The adjusted USDA figures on wheat imports generally result in smaller percentage differences with FAO data. Ratios of the regional import totals from the two systems suggest a movement towards closer agreement except those for North/Central America and South America whose adjusted USDA reports have become larger than the corresponding FAO figures by 16 percent and 10 percent, respectively, compared to previous indications. Differences between the paired aggregates for Asia and Europe are both less than 10 percent but those for other regions remain large. Although the adjusted USDA figure on wheat imports by the USSR in 1970 has doubled, it is still only 44 percent of the FAO report for the country.

The new import ratios for the three economic groups show closer agreement of the FAO and USDA aggregates for the developed market economies, about unchanged values for the developing market economy countries and a slightly increased divergence for the centrally planned economies. Paired FAO and USDA totals of wheat import data for the developed market economies differ by only about 2.5 percent compared to more than 7 percent that was observed earlier. The aggregates for the developing market economies still diverge

by a little more than 30 percent while those for the centrally planned countries indicate an increased difference from 3 1/2 to 5 percent. Ratios of the world totals of wheat imports by the common reporting countries show that the USDA figure is about 10 percent larger than the FAO report, compared to 14 percent before data adjustment.

In the case of wheat exports, the new ratios result in reduced percentage differences between FAO and adjusted USDA aggregates in five of the seven geographical regions, in all economic groups and, although but slightly, at the world level. The percentage difference between the regional totals for both Africa and Europe has increased. While relatively smaller, the difference between the aggregates for Europe is more important; the region's wheat export levels are more than a hundred times larger than those for Africa which region has the least of exports of less than 100 thousand tons in 1970. The most significant improvement that occured with the adjustment in USDA data is the close agreement reached by the matched aggregates for North/Central America whose difference narrowed from 12 percent to 2 percent.

Export figures for North/Central America in 1970 are at the level of more than 28 million tons, the largest among the seven regions. The paired FAO and USDA totals for the USSR show the USDA wheat export figures still larger than the FAO report by about 41 percent despite the reduced differences of 8 percent from the previously observed ratio.

When aggregated by economic groups, the FAO and adjusted USDA totals of the 1970 wheat export data of common reporting countries show reduced differences of from 12 percent to 9 percent for the developed market economy countries, from 47 percent to 17 percent for the developing market economies and from 43 percent to 39 percent for the centrally planned countries. The 3-percent reduction of the difference in the totals for the developed

Table 19 -- Wheat imports and exports: ratios of aggregates of FAO data for 1970 and average USDA data for 1969-70 and 1970-71 for common reporting countries, by country group

Country Group	Ratio of Country Group Aggregates: USDA/FAO			
	Wheat Imports		Wheat Exports	
	Original Ratio 1/	New Ratio 2/	Original Ratio 1/	New Ratio 2/
World Total	1.141	1.107	1.124	1.112
Economic Group				
Developed Market Economy	1.072	1.026	1.120	1.091
Developing Market Economy	1.343	1.311	0.526	0.831
Centrally Planned Economy	0.966	0.949	1.422	1.389
Geographical Region				
Africa	2.103	1.819	1.680	1.880
North/Central America	1.772	1.931	1.124	1.019
South America	1.050	1.149	0.455	0.741
Asia	1.064	1.053	1.179	1.139
Europe	1.142	1.067	0.916	1.252
Oceania	**	4.533	1.315	1.245
USSR	0.262	0.442	1.485	1.406

1/ Based on the comparison of FAO and USDA data for the 1970 reference year; from Tables 14 and 15.

2/ Based on the comparison of FAO data for 1970 and the average USDA data for 1969 (1969-70) and 1970 (1970-71). See also Annex Table 14.

** More than 5.0.

market economies is significant since this economic group accounts for more than 80 percent of the world's recorded exports of over 50 million tons. Although large in relative terms, the change in the ratio for the developing market economies represents an absolute increase of the USDA aggregate from 1.3 million tons to 2.1 million tons which is still around 83 percent of the FAO figure. The indicated change for the centrally planned countries mainly reflects that cited earlier for the USSR, which accounts for the bulk of economic group's reported exports.

The FAO and adjusted USDA data of the world's total wheat exports of the common reporting countries in 1970 diverge by 11 percent, indicating just a slight reduction of one percent from the difference previously obtained with unadjusted USDA data. In absolute terms, the difference reflected by the modified data represents about 5.6 million tons of wheat exports, down from 6.2 million tons by which the USDA unadjusted data total exceeds that of the FAO.

Comparisons of Six-Year Annual Averages

An alternative procedure for determining whether the difference in the definition of the reference period is a major cause of the wide divergences observed between FAO and USDA data on cereal trade is to compare their annual averages over a number of years. The averaging process further nullifies the effects of lagged trade reports, if any, in either of the two systems. Using again the data on wheat trade, the two six-year averages of FAO and USDA annual figures of imports and exports for the periods 1965-70 and 1970-75 were calculated for comparisons. It can be noted that the beginning and end years of these periods are the reference years of earlier data comparisons.

Country levels. The relative distributions of the 107 common reporting countries on wheat imports and the 56 countries on wheat exports, according

to the relative differences between their FAO and USDA trade data (also based on FAO figures), are shown in Table 20. These distributions again indicate that USDA trade figures on wheat exceed those of the FAO in the majority of common reporting countries. The use of annual averages of FAO and USDA country-level data continues to reflect the wide divergences between the statistics on wheat imports and exports that were observed before. Less than 20 percent of the paired FAO and USDA country averages for wheat imports and less than 5 percent of those for wheat exports fall within a 5-percent divergence. On the other hand, around 3/5 of the 1965-70 averages of wheat imports and about half of those for the 1970-75 period differ by 20 percent or more; more significantly, 70 percent of the paired averages of wheat exports in both periods diverge by this magnitude. The distributions of paired country-level averages of FAO and USDA data on wheat trade appear to indicate slightly reduced differences for imports but wider differences for exports compared to those reflected by the corresponding distributions specific to the 1965, 1970 and 1975 reference years that were presented earlier.

Aggregate levels. Table 21 shows the ratios between the six-year annual averages of country-group aggregates of FAO and USDA data on wheat trade in the common reporting countries of the two systems. For wheat imports, the regional averages of FAO and USDA data for both the 1965-70 and 1970-75 periods still indicate wide divergence in Africa and North/Central America but only a difference of about 10 percent or less in Asia, Europe and the USSR. The paired averages of South America and Oceania differ by less than 10 percent in 1965-70 but widely diverge in 1970-75. The averaging procedure appears to have narrowed considerably the differences between FAO and USDA wheat import data for Europe, Oceania, USSR and, to a

certain extent, Africa compared to those indicated by the data specific to the 1970 reference year. Among economic groups, the six-year averages of FAO and USDA figures on wheat imports indicate a wide difference for the developing market economy countries and a divergence of about 5 percent or less for the developed market economies and the centrally-planned countries. The paired averages of FAO and USDA data on wheat imports at the world's level diverge by about 14 percent in 1965-70 and 10 percent in 1970-75. The differences shown by these six-year annual averages at the economic group and world levels are about the same order of magnitude as those shown in earlier comparisons.

On wheat exports, the relative differences between the six-year averages of FAO and USDA aggregates for the common reporting countries appear to be generally wider than those on wheat imports. The level of a relative difference is of course largely dependent on the magnitude of the wheat exports represented by an aggregate; relatively small quantities can represent sizable percentages of low bases. Such is the case in Africa, among geographical regions, whose paired averages of FAO and USDA aggregates diverge by more than 70 percent in 1965-70 but whose wheat export levels are less than a hundred thousand tons. However, the considerable differences of the averages shown for Europe of more than 30 percent in both periods and for North/Central America of about 42 percent in 1970-75 are significant because these regions are the major wheat exporters. Compared to the indications presented earlier for data specific to the 1970 reference year alone, the use of averages has resulted in substantial reductions of the differences between FAO and USDA statistics of wheat exports in South America, Oceania and the USSR. Among economic groups, the

FAO and USDA averages of wheat exports for the developing market economies show the least difference of about 10 percent or less in both periods; those for the developed market economies and the centrally planned countries diverge by 12-17 percent and 15-20 percent, respectively. The observed difference between the FAO and USDA data for the developed market economies is significantly large since the wheat export level of this group is about 20 times that of the developing market economies and 5 times that of the centrally planned countries. At the world aggregate levels, the FAO and USDA averages differ by 16 percent in 1965-70, which divergence is even wider than that observed between the FAO and USDA totals for the reference year 1970; the 9-percent difference between the 1970-75 averages just about equals the divergence of world wheat export aggregates of the two systems for the reference year 1975.

Table 20. Wheat imports and exports: distribution of common reporting countries based on differences between the annual averages of 1965-70 and 1970-75 FAO and USDA data

Percentage Difference 1/	Number of Common Reporting Countries			
	Wheat Imports		Wheat Exports	
	1965-70 Average	1970-75 Average	1965-70 Average	1970-75 Average
Over 20% larger	6	4	10	14
10% - 20% larger	5	5	1	3
5% - 10% larger	5	8	2	2
0% - 5% larger	5	5	1	1
Zero (identical)	0	0	0	0
0% - 5% smaller	8	14	1	3
5% - 10% smaller	8	11	3	4
10% - 20% smaller	14	13	8	4
Over 20% smaller	56	47	30	25
Total	107	107	56	56

1/ $\frac{\text{FAO report - USDA report}}{\text{FAO report}}$; based on data rounded to thousand metric tons.

Table 21. Wheat imports and exports: ratios of the annual averages of aggregated FAO and USDA data for common reporting countries, 1965-70 and 1970-75, by country group.

Country Group	Ratio of Country Group Aggregates: USDA/FAO			
	Wheat Imports		Wheat Exports	
	1965-70 Average	1970-75 Average	1965-70 Average	1970-75 Average
World Total	1.136	1.097	1.157	1.090
Economic Group				
Developed Market Economy	1.051	1.045	1.167	1.118
Developing Market Economy	1.302	1.255	0.960	1.101
Centrally Planned Economy	1.012	0.956	1.201	0.852
Geographical Region				
Africa	1.632	1.416	1.730	1.108
North/Central America	2.075	1.422	1.112	1.066
South America	1.066	1.191	0.913	1.093
Asia	1.105	1.076	1.266	1.187
Europe	1.078	1.040	1.368	1.335
Oceania	1.098	1.470	1.205	1.050
USSR	0.930	0.934	1.188	0.835

ANNEX A

(Tables 1 - 15)

Table 1 -- FAO and USDA reference periods for production data of major food staples

Commodity	FAO	USDA
Wheat, Maize, Oats and Barley	The production year for any particular crop refers to the calendar year in which the entire harvest or the bulk of it takes place.	The production year refers to the year of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediatley follow; thus the crop harvested in the Northern Hemisphere in 1976 is combined with estimates for the Southern Hemisphere harvests, which begin late in 1976 and end early in 1977.
Rice		Generally, the production year refers to the crop year beginning August 1. Crops harvested in Northern Hemisphere during the latter part of the year shown are combined with those harvested in Asia principally from November to May, and in the Southern Hemisphere harvested during the first part of the following year.
Potatoes		The production year refers to the year of harvest in the Northern Hemisphere and includes the harvest immediately following in the Southern Hemisphere.
Peanuts		The Southern Hemisphere peanut crop, which is harvested from April to June is combined with that of the Northern Hemisphere, harvested from September through December of the same year.

Source: USDA. Agricultural Statistics, 1977. United States Government Printing Office, Washington, D.C. 1977

FAO. Production Yearbook, 1976. Food and Agriculture Organization of the United Nations.

Table 2 -- Cereal production: totals of identical FAO and USDA estimates in 1970, by cereal item and country group

Country/Group	Wheat	Rice	Maize	Barley	Oats	Millet	Sorghum	Rye
Economic Group								
World Total	277,215 (0.871)	20,887 0.100	159,917 (0.621)	105,340 (0.760)	50,434 (0.913)	15,709 (0.345)	10,973 (0.256)	26,570 (0.961)
Developed Market Economy	88,083 (0.849)	5,307 (0.240)	116,772 (0.840)	49,378 (0.845)	30,495 (0.936)	16 (0.320)	763 (0.041)	5,948 (0.969)
Developing Market Economy	42,092 (0.653)	23,221 (0.143)	24,267 (0.363)	9,202 (0.583)	978 (0.898)	13,591 (0.635)	10,210 (0.421)	192 (0.228)
Centrally Planned Economy	147,040 (0.994)	12,575 (0.104)	18,878 (0.359)	46,760 (0.711)	18,961 (0.880)	2,102 (0.087)	0 (-)	20,376 (0.991)
Geographical Region								
Africa	6,348 (0.796)	3,408 (0.486)	3,433 (0.200)	2,419 (0.553)	175 (*)	1,226 (0.146)	1,312 (0.151)	0 (-)
North/Central America	45,809 (0.944)	4,683 (0.932)	108,814 (0.914)	18,186 (0.999)	18,801 (*)1	7	254 (0.012)	1,416 (*)
South America	5,145 (0.585)	958 (0.092)	2,473 (0.092)	771 (0.788)	466 (0.808)	0 0	205 (0.048)	192 (0.901)
Asia	63,597 (0.815)	29,092 (0.104)	17,691 (0.380)	6,391 (0.226)	476 (0.160)	12,376 (0.355)	9,456 (0.986)	0 (-)
Europe	48,692 (0.727)	1,683 (0.946)	18,078 (0.486)	37,050 (0.831)	14,700 (0.874)	7 (0.210)	205 (0.537)	11,908 (0.966)
Oceania	7,890 (0.964)	0 (-)	0 (-)	2,351 (0.931)	1,613 (0.965)	0 (-)	547 (*)	22 (*)
USSR	99,734 (*)	1,279 (*)	9,428 (*)	38,172 (*)	14,203 (*)	2,100 (*)	(-)	12,972 (*)

NOTE: Figures in parenthesis represent ratios relative to FAO estimate of total production for all common reporting countries in 1970.

Table 3a-- Wheat production and area: comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	Area FAO	Area USDA	USDA/FAO Production	USDA/FAO Area
			(000 MT)		(000 HA)		(percent)	
Economic Group								
Developed	1965	24	111,798	111,818	61,100	61,141	1.000	1.00
	1970	24	103,739	103,605	49,822	50,437	0.999	1.01
	1975	24	142,653	142,148	65,942	65,214	0.998	1.00
Developing	1965	38	50,779	45,728	51,232	50,367	0.920	0.98
	1970	40	64,437	61,360	57,343	56,581	0.952	0.98
	1975	41	80,967	75,708	62,384	61,796	0.935	0.99
Centrally Planned	1965	9	104,274	103,151	105,103	104,007	0.989	0.98
	1970	9	149,990	149,984	101,843	99,250	1.000	0.97
	1975	9	131,132	131,305	100,274	97,974	1.000	0.97
Geographical Region								
Africa	1965	13	6,566	6,108	8,087	8,186	0.930	1.0
	1970	14	7,974	7,911	8,663	9,275	0.992	1.0
	1975	15	9,617	8,277	8,372	8,450	0.997	0.9
North/Central America	1965	4	55,165	55,605	32,310	32,383	1.008	1.0
	1970	5	48,521	47,937	23,601	23,449	0.989	0.9
	1975	5	78,024	77,770	38,487	38,414	0.997	0.9
South America	1965	10	8,785	8,587	7,056	6,626	0.778	0.9
	1970	10	8,799	8,706	7,047	7,030	0.989	0.9
	1975	10	12,167	11,714	9,703	1,865	0.963	0.0
Asia	1965	17	61,872	56,956	64,214	62,089	0.921	0.9
	1970	17	78,037	75,514	70,564	67,348	0.967	0.9
	1975	17	99,618	95,938	75,146	72,344	0.963	0.9
Europe	1965	24	67,460	67,341	28,911	28,862	0.998	0.9
	1970	24	67,011	66,836	27,335	27,334	0.997	1.0
	1975	24	77,099	76,985	25,306	25,301	0.999	1.0
Oceania	1965	2	7,317	7,359	7,162	7,169	1.006	1.0
	1970	2	8,177	8,216	6,586	6,575	1.005	0.9
	1975	2	12,183	12,409	8,611	8,655	1.019	1.0
USSR	1965	1	59,686	59,686	70,205	70,205	*	
	1970	1	99,734	99,734	65,230	65,230	*	
	1975	1	66,224	66,224	61,985	61,985	*	

* Indicates that FAO and USDA figures are identical.

Table 3b-- Rice (paddy) production and area: comparison of FAO and USDA estimates for commo eporting countries, by economic group and geographical region: 1965, 1970 and 1975

ountry Group	Year	Number of Countries	Production FAO	Production USDA	Area FAO	Area USDA	USDA/FAO Production	USDA/FAO Area
			(000 MT)		(000 HA)		(percent)	
nomic Group								
eveloped	1965	9	20,962	20,376	4,287	4,285	0.972	0.999
	1970	9	22,138	21,555	4,022	4,019	0.974	0.999
	1975	9	24,993	24,381	4,280	4,283	0.976	1.001
eveloping	1965	63	127,432	128,330	81,681	81,178	1.007	0.994
	1970	63	162,524	160,463	87,280	87,223	0.987	0.999
	1975	63	187,262	186,911	94,328	84,769	0.998	1.005
entrally Planned	1965	7	105,081	105,577	39,306	37,781	1.005	0.961
	1970	7	120,712	127,687	41,836	39,204	1.058	0.937
	1975	7	131,982	145,486	42,316	45,699	1.102	1.080
graphical Region								
frica	1965	20	5,440	5,669	3,148	3,195	1.003	1.015
	1970	20	7,014	7,127	3,783	3,817	1.016	1.009
	1975	20	7,577	7,904	4,310	4,604	1.043	1.068
lorth/Central America	1965	13	4,481	4,502	1,260	1,306	1.003	1.037
	1970	13	5,025	5,323	1,390	1,424	1.023	1.025
	1975	13	7,739	8,049	1,957	2,011	1.040	1.028
South America	1965	12	9,740	7,801	5,589	4,966	0.801	0.689
	1970	12	10,396	8,019	5,960	5,714	0.771	0.959
	1975	12	11,659	12,397	6,456	7,152	1.062	1.108
Asia	1965	23	232,148	218,659	114,709	113,205	0.942	0.987
	1970	23	279,366	285,822	121,224	118,711	1.023	0.979
	1975	23	312,957	323,007	127,253	127,556	1.032	1.002
Europe	1965	9	1,323	1,324	326	329	1.001	1.009
	1970	9	1,780	1,771	400	392	0.995	0.980
	1975	9	1,909	1,885	372	370	0.987	0.995
Oceania	1965	1	153	182	25	26	1.190	1.040
	1970	1	241	209	40	38	1.241	0.950
	1975	1	388	417	76	75	1.075	0.98
USSR	1965	1	583	583	217	217	*	*
	1970	1	1,279	1,279	350	350	*	*
	1975	1	2,009	2,009	500	500	*	*

Indicates that FAO and USDA figures are identical.

Table 3c-- Maize production and area: comparison of FAO and USDA estimates for common orting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	Area FAO	Area USDA	USDA/FAO Production	USDA/FAO Area
			(000 MT)		(000 HA)		(percent)	
onomic Group								
Developed	1965	17	125,347	125,879	32,839	32,708	1.004	0.996
	1970	17	137,970	140,399	35,456	34,315	1.018	0.968
	1975	17	187,746	186,810	40,110	39,072	0.995	0.974
Developing	1965	56	53,418	54,303	45,023	45,349	1.017	1.007
	1970	56	66,852	68,070	49,915	51,490	1.018	1.032
	1975	56	71,042	72,243	50,815	52,685	1.017	1.037
Centrally Planned	1965	9	45,321	42,473	18,689	21,319	0.937	1.141
	1970	10	52,652	51,847	19,373	22,198	0.985	1.146
	1975	11	61,378	63,556	19,656	24,932	1.037	1.271
ographical Region								
Africa	1965	21	14,098	15,641	13,134	13,383	0.991	0.995
	1970	21	17,134	20,736	14,931	14,488	1.210	0.970
	1975	21	22,731	21,135	16,762	15,306	1.010	1.047
North/Central America	1965	14	116,590	115,566	32,353	32,181	0.991	0.995
	1970	14	119,114	119,022	33,028	33,549	1.999	1.016
	1975	14	161,575	163,335	36,382	38,101	1.011	1.047
South America	1965	10	20,150	21,130	14,469	14,419	1.049	0.997
	1970	10	26,967	27,040	16,586	17,196	1.003	1.037
	1975	11	27,510	26,826	16,048	16,378	0.975	1.021
Asia	1965	18	38,859	35,872	22,472	25,070	0.923	1.116
	1970	18	47,177	46,393	25,157	28,034	0.997	1.114
	1975	18	52,769	55,624	26,528	32,090	1.054	1.210
Europe	1965	16	26,158	26,072	11,040	11,027	0.997	0.999
	1970	17	37,192	37,045	11,614	11,262	0.996	0.970
	1975	19	47,768	47,692	12,136	12,132	0.998	0.999
Oceania	1965	2	199	144	90	83	0.724	0.999
	1970	2	251	313	88	98	1.247	1.114
	1975	2	338	364	76	80	1.077	1.053
USSR	1965	1	8,030	8,030	3,177	3,177	*	*
	1970	1	9,428	9,428	3,353	3,353	*	*
	1975	1	7,328	7,328	2,652	2,652	*	*

Indicates that FAO and USDA figures are identical.

Table 3d-- Barley production and area: comparison of FAO and USDA estimates for common orting countries, by economic group and geographical region; 1965, 1970 and 1975

ountry Group	Year	Number of Countries	Production FAO	Production USDA	Area FAO	Area USDA	USDA/FAO Production	USDA/FAO Area
			(000 MT)		(000 HA)		(percent)	
nomic Group								
eveloped	1965	24	46,607	46,617	18,392	18,424	1.000	1.002
	1970	24	57,086	57,165	23,565	23,497	1.001	0.997
	1975	24	67,376	67,126	25,577	25,285	0.996	0.989
eveloping	1965	28	15,569	14,830	15,963	15,814	0.953	0.991
	1970	28	15,703	15,394	15,543	15,273	0.980	0.983
	1975	28	17,866	17,603	15,611	15,154	0.985	0.971
entrally Planned	1965	9	43,684	33,192	34,993	28,414	0.760	0.812
	1970	9	65,771	53,251	37,847	29,951	0.810	0.791
	1975	9	70,603	55,420	50,670	42,455	0.785	0.838
graphical Region								
frica	1965	7	3,619	3,393	4,902	4,900	0.938	1.000
	1970	7	4,374	3,896	5,227	4,890	0.891	0.936
	1975	7	3,863	4,011	4,126	4,030	1.038	0.977
orth/Central Americ	1965	3	13,505	13,503	6,413	6,412	1.000	1.000
	1970	3	18,188	18,186	8,164	8,158	1.000	0.999
	1975	3	18,320	18,073	8,293	8,187	0.987	0.987
outh America	1965	8	946	883	953	872	0.933	0.915
	1970	8	978	899	947	895	0.919	0.945
	1975	8	1,165	1,071	1,031	1,030	0.919	0.999
sia	1965	16	28,643	17,651	22,693	16,132	0.616	0.711
	1970	16	28,222	17,398	22,629	14,877	0.617	0.658
	1975	16	33,693	18,176	23,655	15,395	0.540	0.651
urope	1965	24	37,788	37,783	13,685	13,698	1.000	1.001
	1970	24	44,595	44,588	16,637	16,523	1.000	0.993
	1975	24	59,474	59,434	19,488	19,288	0.999	0.990
ceania	1965	2	1,055	1,063	965	964	1.008	0.999
	1970	2	2,524	2,609	2,056	2,081	1.034	1.012
	1975	2	3,512	3,523	2,447	2,416	1.003	0.987
SSR	1965	1	20,304	20,304	19,737	19,737	*	*
	1970	1	38,172	38,172	21,297	21,297	*	*
	1975	1	35,808	35,808	32,548	32,548	*	*

ndicates that FAO and USDA figures are identical.

Table 3e-- Oat production and area: comparison of FAO and USDA estimates for common porting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	Area FAO	Area USDA	USDA/FAO Production	USDA/FAO Area
			(000 MT)		(000 HA)		(percent)	
onomic Group								
Developed	1965	23	32,917	32,912	18,117	18,435	1.000	1.020
	1970	23	32,600	32,563	17,169	17,436	0.999	1.016
	1975	23	27,568	27,331	13,721	13,890	0.991	1.012
Developing	1965	9	1,316	1,217	1,176	1,140	0.925	0.969
	1970	9	1,089	1,089	947	926	1.000	0.978
	1975	9	1,257	1,168	983	970	0.929	0.987
Centrally Planned	1965	9	12,268	11,634	11,094	10,258	0.948	0.925
	1970	9	21,537	20,417	14,237	13,092	0.948	0.920
	1975	9	20,115	18,552	16,848	15,516	0.922	0.921
eographical Region								
Africa	1965	3	144	132	404	635	0.917	0.995
	1970	3	175	165	346	664	0.943	1.919
	1975	3	212	164	327	663	0.774	2.02
North/Central America	1965	3	19,749	19,688	10,972	10,917	0.997	0.995
	1970	3	18,801	18,773	10,382	10,364	0.999	0.99
	1975	3	14,100	13,870	7,977	7,802	0.984	0.97
South America	1965	5	654	708	624	644	1.083	1.03
	1970	5	577	578	487	490	1.002	1.00
	1975	5	671	651	562	539	0.863	0.95
Asia	1965	3	2,577	1,864	2,662	1,828	0.723	0.68
	1970	3	2,976	1,858	2,947	1,800	0.624	0.61
	1975	3	3,418	1,967	3,073	1,737	0.576	0.56
Europe	1965	24	16,047	16,031	7,690	7,690	0.999	*
	1970	24	16,813	16,810	7,198	7,482	1.000	1.04
	1975	24	16,748	16,742	6,497	6,527	1.000	1.00
Oceania	1965	2	1,147	1,146	1,541	1,541	0.999	*
	1970	2	1,671	1,673	1,573	1,575	1.001	1.00
	1975	2	1,206	1,185	1,009	1,000	0.983	0.99
USSR	1965	1	6,186	6,186	6,628	6,628	*	*
	1970	1	14,203	14,203	9,250	9,250	*	*
	1975	1	12,495	12,495	12,107	12,107	*	*

* Indicates that FAO and USDA figures are identical.

Table 3f-- Millet production and area: comparison of FAO and USDA estimates for common orting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production		Area		USDA/FAO	
			FAO	USDA	FAO	USDA	Production	Area
			(000 MT)		(000 HA)		(percent)	
nomic Group								
Developed	1965	5	62	61	52	51	0.984	0.981
	1970	5	50	45	58	58	0.900	*
	1975	4	29	30	27	25	1.034	0.926
Developing	1965	32	14,903	16,123	33,030	34,301	1.082	1.039
	1970	32	21,297	22,597	35,869	35,384	1.061	0.987
	1975	32	20,650	20,375	35,057	34,847	0.987	1.023
Centrally Planned	1965	4	21,242	12,506	32,286	14,217	0.589	0.440
	1970	4	24,135	15,268	32,020	13,616	0.633	0.425
	1975	4	25,140	12,572	32,825	12,793	0.500	0.390
ographical Region								
Africa	1965	22	7,406	8,556	12,353	13,552	1.553	1.097
	1970	22	8,375	9,553	14,330	13,864	1.147	0.968
	1975	22	9,678	9,023	14,110	14,712	0.932	1.043
North/Central America	1965	0	-	-	-	-	-	-
	1970	0	-	-	-	-	-	-
	1975	0	-	-	-	-	-	-
South America	1965	1	155	186	115	163	1.355	1.200
	1970	1	125	183	132	151	1.536	1.464
	1975	1	194	294	75	231	1.557	1.515
Asia	1965	11	26,382	17,638	49,590	31,492	0.669	0.635
	1970	11	24,866	25,915	50,718	32,221	0.743	0.635
	1975	11	34,038	22,479	49,880	39,898	0.661	0.599
Europe	1965	5	37	83	32	84	0.243	2.605
	1970	5	33	85	27	88	2.575	3.590
	1975	4	12	33	49	49	2.750	*
Oceania	1965	1	22	22	25	25	*	*
	1970	1	34	29	49	49	0.853	*
	1975	1	22	23	22	21	1.046	0.955
USSR	1965	1	2,205	2,205	3,253	3,253	*	*
	1970	1	2,102	2,102	2,691	2,691	*	*
	1975	1	1,125	1,125	2,774	2,774	*	*

Indicates that FAO and USDA figures are identical.

Table 3g--Sorghum production and area: comparison of FAO and USDA estimates for common porting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production		Area		USDA/FAO	
			FAO	USDA	FAO	USDA	Production	Area
			(000 MT)		(000 HA)		(percent)	
onomic Group								
Developed	1965	7	17,934	17,817	5,861	5,993	0.994	1.023
	1970	7	18,682	19,598	6,319	6,340	1.049	1.003
	1975	7	21,108	21,032	7,254	7,135	0.996	0.984
Developing	1965	27	17,423	19,266	30,561	30,886	1.106	1.011
	1970	28	24,256	24,515	32,879	33,176	1.011	1.009
	1975	27	27,573	38,058	32,939	32,238	1.018	0.979
Centrally Planned	1965	1	7	10,768	4	9,410	1.538	2,353
	1970	1	8	15,398	4	8,860	1.925	2,215
	1975	1	19	14,542	7	7,322	0.765	1.046
eographical Region								
Africa	1965	13	7,770	8,421	11,140	11,532	1.094	1.035
	1970	13	8,716	8,983	11,792	11,639	1.031	0.987
	1975	13	9,100	8,728	12,689	11,890	0.959	0.937
North/Central America	1965	7	18,090	18,087	5,842	5,864	1.000	1.004
	1970	8	20,436	20,016	6,738	6,702	0.979	0.995
	1975	7	22,555	22,913	7,712	7,754	1.016	1.005
South America	1965	5	1,153	2,224	886	910	1.929	1.027
	1970	5	4,282	4,882	2,227	2,352	1.140	1.056
	1975	5	6,076	6,224	2,444	2,321	1.024	0.950
Asia	1965	6	8,009	18,770	18,341	27,479	2.345	1.49
	1970	6	8,577	23,948	17,994	26,038	2.792	1.49
	1975	6	10,069	24,664	16,721	24,103	2.050	1.44
Europe	1965	3	147	154	56	59	1.048	1.05
	1970	3	382	384	106	107	1.005	1.00
	1975	3	467	469	123	123	1.004	*
Oceania	1965	1	195	195	140	175	*	1.25
	1970	1	547	1,298	258	552	2.373	2.14
	1975	1	901	1,124	511	504	1.248	0.98
USSR	1965	0	-	-	-	-	-	-
	1970	0	-	-	-	-	-	-
	1975	0	-	-	-	-	-	-

* Indicates that FAO and USDA figures are identical.

Table 3h - Rye production and area: comparison of FAO and USDA estimates for common porting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production		Area		USDA/FAO	
			FAO	USDA	FAO	USDA	Production	Area
			(000 MT)		(000 HA)		(percent)	
onomic Group								
Developed	1965	19	6,710	6,709	3,783	3,786	1.000	1.000
	1970	19	6,176	6,173	3,122	3,073	1.000	0.984
	1975	20	5,011	4,948	2,311	2,342	0.987	1.013
Developing	1965	5	1,047	975	1.093	1.093	0.931	*
	1970	5	843	894	1,029	1,047	1.061	1.018
	1975	5	1,052	1,046	896	891	0.994	0.994
Centrally Planned	1965	8	27,643	27,634	22,121	22,113	1.000	1.000
	1970	8	20,557	20,575	14,559	14,558	1.001	1.000
	1975	8	17,652	17,654	11,746	11,750	1.000	1.000
ographical Region								
Africa	1965	0	-	-	-	-	-	-
	1970	0	-	-	-	-	-	-
	1975	1	4	4	20	100	*	5.000
North/Central America	1965	2	1,299	1,299	919	919	*	*
	1970	2	1,416	1,416	913	914	*	1.000
	1975	2	977	927	649	603	0.949	0.929
South America	1965	4	272	275	363	363	1.011	*
	1970	4	213	214	397	397	1.005	*
	1975	4	302	296	331	326	0.980	0.985
Asia	1965	1	775	700	730	730	0.903	*
	1970	1	630	680	650	650	1.079	*
	1975	1	750	750	565	565	*	*
Europe	1965	23	16,811	16,805	8,934	8,919	1.000	0.998
	1970	23	12,323	12,338	6,707	6,657	1.001	0.993
	1975	23	12,607	12,596	5,368	5,369	0.999	1.000
Oceania	1965	1	11	11	26	26	*	*
	1970	1	22	22	41	41	*	*
	1975	1	11	11	20	20	*	*
USSR	1965	1	16,228	16,228	16,030	16,030	*	*
	1970	1	12,972	12,972	10,020	10,020	*	*
	1975	1	9,064	9,064	8,010	8,010	*	*

Indicates that FAO and USDA figures are identical.

Table 4 -- Cereal production and area: comparison of world aggregates of FAO and USDA estimates for common reporting countries; 1965, 1970 and 1975

Cereals	Year	Number of Countries	Production		Area		USDA/FAO	
			FAO	USDA	FAO	USDA	Production	Area
			(000 MT)		(000 HA)		(percent)	
Wheat	1965	71	226,851	261,697	217,945	215,515	0.981	0.989
	1970	73	318,166	314,949	209,013	206,268	0.999	0.987
	1975	74	354,932	349,431	227,610	224,984	0.985	0.989
Rice (paddy)	1965	79	253,475	254,283	125,274	123,244	1.003	0.984
	1970	79	205,374	309,705	133,138	130,446	1.014	0.980
	1975	79	344,237	356,778	140,924	144,951	1.036	1.029
Maize	1965	82	224,086	222,673	96,551	99,376	0.994	1.029
	1970	83	257,474	260,316	194,744	107,823	1.011	1.029
	1975	86	320,066	322,609	110,581	116,739	1.008	1.056
Barley	1965	61	105,860	94,639	69,551	62,652	0.894	0.983
	1970	61	138,560	125,810	76,955	68,721	0.908	0.893
	1975	61	155,845	140,149	91,858	82,894	0.899	0.902
Oats	1965	41	46,494	45,763	30,387	29,883	0.984	0.983
	1970	41	55,216	54,069	32,353	31,454	0.979	0.972
	1975	41	48,940	47,051	31,552	30,376	0.961	0.963
Millet	1965	41	36,207	28,690	65,368	48,569	0.792	0.743
	1970	41	45,482	37,910	67,947	49,058	0.834	0.722
	1975	40	45,819	32,977	66,911	47,665	0.720	0.712
Sorghum	1965	35	35,364	47,861	36,426	46,019	1.353	1.263
	1970	36	42,946	59,511	39,202	48,376	1.386	1.234
	1975	35	48,700	63,632	40,200	46,695	1.307	1.162
Rye	1965	32	35,400	35,318	27,002	26,992	0.998	1.000
	1970	32	27,576	27,642	18,710	18,678	1.002	0.998
	1975	33	23,715	23,648	14,953	14,983	0.997	1.002
Total Cereals	1965	114	1,003,737	990,914	668,301	652,250	0.987	0.976
	1970	114	1,190,794	1,189,912	682,062	660,824	0.999	0.969
	1975	114	1,342,254	1,336,275	724,589	709,287	0.996	0.979

Table 5 -- Cereal production and area: comparison of world aggregates of FAO and USDA estimates for all reporting countries; 1965, 1970 and 1975

Cereals	Year	No. of Reporting Countries		Production		Area		USDA/FAO	
		FAO	USDA	FAO	USDA	FAO	USDA	Production	Area
Wheat	1965	94	71	267,597	261,697	218,709	215,515	0.978	0.985
	1970	97	73	318,948	314,949	209,738	206,268	0.988	0.984
	1975	97	75	355,824	349,433	228,356	224,987	0.982	0.985
Rice (paddy)	1965	106	80	256,808	254,363	127,277	123,304	0.991	0.969
	1970	108	80	308,681	309,740	134,376	130,476	1.003	0.971
	1975	108	80	348,570	356,813	142,085	144,989	1.024	1.020
Maize	1965	135	82	277,465	222,673	99,440	99,376	0.979	0.999
	1970	141	83	261,178	260,316	107,291	107,823	0.997	1.005
	1975	143	87	324,670	322,729	113,858	116,859	0.994	1.026
Barley	1965	76	61	106,302	94,639	69,680	62,652	0.890	0.899
	1970	78	61	139,057	125,810	77,183	68,721	0.905	0.890
	1975	78	61	156,691	140,149	92,100	82,894	0.895	0.900
Oats	1965	54	41	46,615	45,763	30,580	29,883	0.982	0.977
	1970	54	41	55,346	54,069	32,476	31,456	0.977	0.967
	1975	54	42	49,010	47,053	31,723	30,378	0.960	0.958
Millet	1965	66	42	38,597	28,755	67,893	48,764	0.745	0.718
	1970	67	42	47,813	37,982	70,198	49,273	0.794	0.702
	1975	67	42	46,580	33,057	69,280	47,915	0.710	0.692
Sorghum	1965	77	36	37,637	47,868	39,314	46,231	1.272	1.176
	1970	77	38	44,841	60,285	41,992	48,586	1.347	1.157
	1975	78	39	52,097	64,425	43,768	46,905	1.237	1.072
Rye	1965	39	32	35,451	35,318	27,079	26,993	0.996	0.997
	1970	40	32	27,627	27,642	18,739	18,679	1.001	0.997
	1975	40	33	23,739	23,648	14,979	14,983	0.996	1.004
Total Cereals	1965	152	125	1,016,454	991,076	679,972	653,963	0.975	0.962
	1970	156	124	1,203,491	1,190,893	691,193	661,282	0.990	0.957
	1975	161	124	1,357,081	1,337,217	736,149	709,910	0.985	0.964

Annex Table 5. Cereal production and area: Comparison of world aggregates of FAO and USDA estimates for all reporting countries; 1965, 1970 and 1975

Table 6 -- Cereal production growth rates in developing market economy (DME) countries calculated from FAO and USDA data for the period 1961-76[1/]

Country	Total Cereals		Wheat		Rice		Maize	
	FAO	USDA	FAO	USDA	FAO	USDA	FAO	USDA
ASIA								
Bangladesh	1.39	1.54	10.71	12.14	1.35	1.44	---	---
Burma	1.14	1.27	2.23	5.83	1.14	1.26	2.44	1.83
India	2.69	2.90	7.49	7.48	2.04	2.07	2.33	2.90
Indonesia	4.72	3.02	---	---	5.40	3.80	1.03	-0.18
Korea, Rep.	2.07	1.97	-4.00	-3.05	2.19	1.97	9.36	9.44
Nepal	1.16	1.05	7.45	6.23	1.13	1.29	-0.47	-0.73
Pakistan	5.45	5.39	5.84	5.97	6.79	6.82	3.57	3.63
Philippines	3.93	3.99	---	---	3.33	3.02	5.54	5.65
Thailand	3.02	3.67	---	---	2.10	2.35	10.50	10.51
NORTH AFRICA/MIDDLE EAST								
Afghanistan	1.32	1.04	1.69	1.55	1.99	1.78	0.53	-0.24
Algeria	-0.50	2.79	-0.66	0.46	-10.55	-10.70	2.05	-0.28
Egypt	2.44	2.44	2.06	2.05	3.18	3.22	2.76	2.92
Iran	4.16	2.72	4.57	3.61	4.34	2.62	2.25	8.21
Iraq	0.48	0.18	3.49	2.80	2.76	1.09	19.35	17.79
Lebanon	-2.75	-0.31	-1.10	-1.72	---	---	-23.44	-21.42
Morocco	4.13	5.11	3.90	5.49	-2.68	0.49	1.85	3.74
Saudi Arabia	2.23	4.82	-1.13	0.65	-0.41	2.29	---	---
Turkey	2.19	1.92	3.42	2.72	1.00	0.95	1.50	1.18

Table 6 -- Continued
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Country	Total Cereals		Wheat		Rice		Maize	
	FAO	USDA	FAO	USDA	FAO	USDA	FAO	USDA
SUB-SAHARA AFRICA								
Angola	0.12	1.92	-5.69	-2.51	0.88	-0.80	0.06	2.86
Ethiopia	0.37	5.74	1.34	-1.06	---	---	2.68	0.94
Ghana	6.60	5.33	---	---	7.30	6.85	7.33	5.21
Ivory Coast	3.89	4.62	---	---	5.62	5.67	0.56	4.63
Kenya	2.93	1.69	3.51	3.05	---	---	3.19	1.95
Madagascar	1.41	2.04	---	---	1.52	2.32	0.05	-0.49
Mali	-2.16	-2.38	---	---	-4.08	-3.25	-0.02	-1.33
Mozambique	0.57	-0.79	-2.78	-5.23	1.33	-2.62	0.15	-0.46
Nigeria	0.52	-0.033	---	---	5.13	3.59	1.08	2.38
Senegal	1.22	1.44	---	---	-0.58	-0.68	2.18	1.91
Tanzania	2.80	1.87	12.36	9.31	4.09	7.87	2.69	3.02
Zaire	6.42	5.57	---	---	11.15	12.08	5.22	4.05
LATIN AMERICA								
Argentina	3.31	2.84	-0.21	-0.43	5.50	4.59	4.92	3.49
Bolivia	2.14	1.79	2.52	2.70	6.79	7.23	1.29	0.67
Brazil	3.97	4.22	11.46	20.64	1.72	1.23	4.29	4.11
Chile	0.62	-0.61	-0.64	-2.30	-3.60	-1.90	3.98	2.69
Colombia	4.36	3.42	-4.29	-8.00	7.54	7.69	-0.02	-0.73
Costa Rica	2.25	2.50	---	---	4.08	5.69	-1.14	-1.19
Cuba	4.70	0.96	---	---	9.55	6.59	-1.30	-19.19
Dominican, RP	4.15	4.68	---	---	4.69	5.41	0.94	0.60
Ecuador	2.45	1.35	-2.62	-1.70	3.37	2.79	4.96	2.14
El Salvador	5.08	5.71	---	---	3.61	5.20	5.49	6.34

Table 6 -- Continued
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Country	Total Cereals		Wheat		Rice		Maize	
	FAO	USDA	FAO	USDA	FAO	USDA	FAO	USDA
Guatemala	2.94	2.99	3.89	1.25	6.53	12.35	2.61	2.52
Haiti	1.61	-0.14	---	---	4.15	2.81	0.81	-0.82
Honduras	0.14	0.89	---	---	4.06	1.79	0.29	1.33
Jamaica	-1.56	1.88	---	---	-22.06	-7.08	4.77	5.04
Mexico	4.16	4.50	3.54	3.24	3.93	4.35	1.94	2.81
Nicaragua	3.76	3.91	---	---	6.94	7.04	3.33	3.95
Panama	0.87	0.38	---	---	2.78	2.84	-3.12	-2.95
Paraguay	7.19	6.51	14.49	12.32	8.83	9.52	6.38	5.76
Trinidad & Tobago	3.44	2.35	---	---	3.46	2.12	3.16	2.86
Uruguay	2.15	2.77	-0.78	-0.71	8.07	8.37	1.84	3.98
Venezuela	3.70	3.08	-5.38	-0.25	7.40	7.06	2.00	1.76

1/ Data are presented only for the DME countries for which matching FAO and USDA estimates are available for two of the three cereal commodities wheat, rice and maize.

Table 7a--Potato production: comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000MT)		
Economic Group					
Developed	1965	24	83,716	83,698	1.000
	1970	24	85,965	85,049	0.989
	1975	24	70,431	69,000	0.980
Developing	1965	38	16,233	16,359	1.008
	1970	38	18,620	18,231	0.979
	1975	38	21,686	21,674	0.999
Centrally Planned	1965	7	152,118	152,439	1.002
	1970	7	169,182	169,182	*
	1975	7	151,034	150,672	0.998
Geographical Region					
Africa	1965	16	2,077	2,056	0.990
	1970	16	2,701	2,621	0.970
	1975	16	3,478	3,593	1.033
North/Central America	1965	7	15,691	15,083	1.007
	1970	7	17,683	17,560	0.993
	1975	7	18,053	17,438	0.966
South America	1965	9	7,995	8,044	1.006
	1970	9	9,050	8,790	0.971
	1975	9	8,352	8,186	0.980
Asia	1965	11	10,355	10,333	0.998
	1970	11	10,615	10,615	*
	1975	11	13,212	13,308	1.007
Europe	1965	23	126,439	126,821	1.003
	1970	23	135,923	135,077	0.994
	1975	23	110,397	109,146	0.989
Oceania	1965	2	834	763	0.915
	1970	2	1,012	1,015	1.003
	1975	2	956	972	1.017
USSR	1965	1	88,676	88,676	*
	1970	1	96,783	96,783	*
	1975	1	88,703	88,903	*

Indicates that FAO and USDA figures are identical.

Table 7b--Sweet potato production: comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region: 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000MT)		
:onomic Group					
Developed	1965	3	5,787	5,693	0.984
	1970	3	3,323	3,215	0.968
	1975	3	2,076	2,072	0.998
Developing	1965	27	12,662	13,124	1.0365
	1970	27	13,782	14,167	1.0279
	1975	27	13,247	13,721	1.0358
Centrally Planned	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
:ographical Region					
Africa	1965	17	2,822	3,129	1.109
	1970	17	3,421	3,713	1.085
	1975	17	3,556	3,616	1.017
North/Central America	1965	2	782	779	0.996
	1970	2	695	695	*
	1975	2	707	703	0.9943
South America	1965	4	2,286	2,286	*
	1970	4	2,849	2,884	1.012
	1975	4	2,370	2,824	1.192
Asia	1965	7	12,559	12,623	1.008
	1970	7	10,140	10,090	0.995
	1975	7	8,690	8,650	0.995
Europe	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Oceania	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
USSR	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-

Indicates that FAO and USDA figures are identical.

Table 7c--Cassava production: comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000MT)		
conomic Group					
Developed	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Developing	1965	37	76,717	74,174	0.997
	1970	37	86,299	87,517	1.014
	1975	37	93,378	93,680	1.033
Centrally Planned	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Geographical Region					
Africa	1965	23	30,255	27,713	0.916
	1970	23	32,880	33,986	1.034
	1975	23	36,526	36,710	1.005
North/Central America	1965	3	164	169	1.031
	1970	3	185	181	0.978
	1975	3	182	181	0.995
South America	1965	6	28,205	28,676	1.017
	1970	6	33,330	33,382	1.002
	1975	6	30,204	39,862	0.989
Asia	1965	5	18,093	18,125	1.002
	1970	5	19,904	19,968	1.003
	1975	5	26,466	26,927	1.017
Europe	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Oceania	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
USSR	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-

* Indicates that FAO and USDA figures are identical.

Table 7d--Yam production: comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000MT)		
Economic Group					
Developed	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Developing	1965	7	15,349	16,184	1.054
	1970	7	16,295	18,770	1.152
	1975	7	18,917	22,539	1.192
Centrally Planned	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Geographical Region					
Africa	1965	7	15,349	16,184	1.054
	1970	7	16,295	18,770	1.152
	1975	7	18,917	22,539	1.192
North/Central America	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
South America	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Asia	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Europe	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Oceania	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
USSR	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-

Table 7e--Pulses production: comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000MT)		
conomic Group					
Developed	1965	3	605	526	0.867
	1970	3	580	509	0.878
	1975	3	458	374	0.817
Developing	1965	11	1,414	1,344	0.951
	1970	11	1,743	1,534	0.880
	1975	11	1,934	1,709	0.884
Centrally Planned	1965	7	7,835	7,856	1.003
	1970	7	8,468	8,533	1.008
	1975	7	6,088	6,009	0.9870
Geographical Region					
Africa	1965	6	968	833	0.912
	1970	6	1,282	1,046	0.816
	1975	6	1,226	1,045	0.867
North/Central America	1965	1	2	5	3.500
	1970	1	5	5	*
	1975	1	6	5	0.833
South America	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Asia	1965	5	721	735	1.019
	1970	5	707	737	1.042
	1975	5	868	825	0.951
Europe	1965	7	1,448	1,349	0.932
	1970	7	1,138	1,119	0.983
	1975	7	1,004	866	0.863
Oceania	1965	1	24	65	2.708
	1970	1	50	50	*
	1975	1	56	30	0.536
USSR	1965	1	6,689	6,689	*
	1970	1	7,609	7,619	1.001
	1975	1	5,320	5,321	1.000

* Indicates that FAO and USDA figures are identical.

Table 7f--Groundnuts: Comparison of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Country Group	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000MT)		
Economic Group					
Developed	1965	5	1,442	1,441	0.999
	1970	5	1,855	1,842	0.993
	1975	5	2,142	2,124	0.992
Developing	1965	41	11,403	11,180	0.980
	1970	41	12,937	11,998	0.927
	1975	41	13,755	12,815	0.932
Centrally Planned	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Geographical Region					
Africa	1965	29	5,140	4,955	0.964
	1970	29	4,612	3,719	0.806
	1975	29	4,747	4,104	0.865
North/Central America	1965	3	1,209	1,203	0.995
	1970	3	1,516	1,502	0.991
	1975	3	1,911	1,878	0.983
South America	1965	4	1,202	1,203	1.001
	1970	4	1,181	1,185	1.003
	1975	4	834	731	0.877
Asia	1965	9	5,283	5,249	0.994
	1970	9	7,440	7,391	0.993
	1975	9	8,373	8,194	0.978
Europe	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-
Oceania	1965	1	11	11	*
	1970	1	43	43	*
	1975	1	43	32	*
USSR	1965	-	-	-	-
	1970	-	-	-	-
	1975	-	-	-	-

* Indicates that FAO and USDA figures are identical.

Table 8 -- Non-cereal production: comparison of world aggregates of FAO and USDA estimates for common reporting countries; 1965, 1970 and 1975

Non-Cereals	Year	Number of Countries	Production FAO	Production USDA	USDA/FAO
			(000 MT)		
Potatoes	1965	69	252,067	252,496	1.002
	1970	69	273,767	272,462	0.995
	1975	69	243,151	241,346	0.993
Sweet Potatoes	1965	30	18,449	18,817	1.020
	1970	30	17,105	17,382	1.016
	1975	30	15,323	15,793	1.031
Cassava	1965	37	76,717	74,174	0.967
	1970	37	86,299	87,517	1.014
	1975	37	93,378	93,680	1.003
Yams	1965	7	15,349	16,184	1.054
	1970	7	16,295	18,770	1.152
	1975	7	18,917	22,539	1.192
Pulses	1965	21	9,852	9,726	0.987
	1970	21	10,791	10,576	0.980
	1975	21	8,480	8,092	0.954
Groundnuts	1965	46	12,845	12,621	0.983
	1970	46	14,792	13,840	0.936
	1975	46	14,897	14,939	0.940
Total Non-Cereals	1965	91	385,279	384,018	0.997
	1970	91	419,049	420,546	1.004
	1975	91	395,146	396,389	1.003

Table 9 -- Noncereal production: comparison of world aggregates of FAO and USDA estimates for all reporting countries; 1965, 1970 and 1975

Noncereals	Year	No. of Reporting Countries		Production		USDA/FAO
		FAO	USDA	FAO	USDA	
				(000 MT)		
Potatoes	1965	119	70	285,019	253,433	0.889
	1970	124	70	312,568	273,494	0.875
	1975	125	70	286,773	242,012	0.843
Sweet Potatoes	1965	101	31	116,452	18,857	0.162
	1970	105	31	129,088	17,432	0.135
	1975	104	31	135,855	15,838	0.117
Cassava	1965	89	38	83,485	74,215	0.884
	1970	90	38	94,240	87,563	0.929
	1975	90	38	101,702	93,728	0.922
Yams	1965	34	7	16,300	16,184	0.993
	1970	34	7	17,415	18,770	1.078
	1975	34	7	20,198	22,539	1.116
Pulses	1965	139	21	43,250	9,726	0.225
	1970	146	21	46,030	10,576	0.230
	1975	147	21	44,793	8,092	0.181
Groundnuts	1965	91	46	16,033	12,621	0.787
	1970	91	46	18,278	13,840	0.757
	1975	91	46	19,598	14,939	0.762
Total Non-Cereals	1965	171	91	561,047	385,036	0.686
	1970	171	91	617,619	421,675	0.683
	1975	180	92	609,119	397,148	0.653

Table 10a -- Wheat imports and exports: comparison of aggregates of FAO and USDA estimates for common reportin countries, by economic group and geographical region; 1965, 1970 and 1975

Economic Group or Region	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Economic Group									
Developed Market Economy	1965	23	16,126	17,237	1.069	22	40,412	50,379	1.246
	1970	23	18,503	19,839	1.072	22	41,937	46,968	1.120
	1975	23	18,426	20,049	1.088	22	60,947	67,867	1.114
Developing Market Economy	1965	71	17,331	22,144	1.278	27	7,764	6,573	0.847
	1970	71	17,121	22,992	1.343	27	2,544	1,339	0.526
	1975	71	30,584	35,453	1.159	27	1,899	3,365	1.772
Centrally Planned Economy	1965	13	10,507	21,665	2.062	7	1,940	3,554	1.832
	1970	13	12,554	12,123	0.966	7	5,660	8,051	1.422
	1975	13	17,291	18,820	1.088	7	4,454	1,767	0.396
Geographical Region									
Africa	1965	24	2,319	4,554	1.964	10	240	183	0.763
	1970	24	2,982	6,270	2.103	10	50	84	1.680
	1975	24	7,728	8,924	1.157	10	18	36	2.000
North/Central America	1965	13	583	1,691	2.901	4	30,268	39,276	1.298
	1970	13	917	1,625	1.772	4	38,232	31,735	1.124
	1975	13	1,356	1,789	1.319	4	42,036	43,934	1.045
South America	1965	11	3,258	4,321	1.526	2	6,742	5,718	0.848
	1970	11	3,614	3,793	1.050	2	2,302	1,048	0.455
	1975	11	4,537	6,912	1.523	2	1,826	3,193	1.749
Asia	1965	31	15,154	22,749	1.501	16	97	237	2.443
	1970	31	20,950	22,295	1.064	16	151	178	1.179
	1975	31	27,453	28,038	1.023	16	35	136	3.886
Europe	1965	25	16,109	18,988	1.179	21	5,392	7,770	1.441
	1970	25	17,853	20,385	1.142	21	7,603	6,964	0.916
	1975	25	15,911	18,394	1.156	21	12,844	16,685	1.299
Oceania	1965	2	166	194	1.169	2	5,715	4,691	0.821
	1970	2	15	102	6.800	2	6,952	9,145	1.315
	1975	2	171	147	0.860	2	7,860	8,515	1.083
USSR	1965	1	6,375	8,549	1.341	1	1,663	2,631	1.582
	1970	1	1,846	484	0.262	1	4,852	7,203	1.485
	1975	1	9,146	10,100	1.104	1	2,681	500	0.186

Table 10b -- Rice (milled) imports and exports: comparison of aggregates of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Group or Region	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Economic Region									
Developed Market Economy	1965	19	1,745	1,681	0.963	15	1,864	1,694	0.909
	1970	19	901	845	0.938	15	2,975	3,005	1.010
	1975	19	1,021	1,056	1.034	15	2,933	2,615	0.892
Developing Market Economy	1965	62	5,196	4,649	0.895	43	4,757	4,138	0.870
	1970	62	5,716	5,610	0.981	43	3,673	3,882	1.057
	1975	62	4,875	4,921	1.009	43	2,313	4,170	1.803
Centrally Planned Economy	1965	10	914	971	1.062	6	1,728	1,796	1.039
	1970	10	1,973	736	0.373	6	2,179	1,080	0.496
	1975	10	604	814	1.348	6	3,096	1,086	0.351
Geographical Region									
Africa	1965	21	649	598	0.921	11	354	392	1.107
	1970	21	622	578	0.929	11	736	570	0.774
	1975	21	543	820	1.510	11	111	222	2.000
North/Central America	1965	14	502	345	0.687	10	1,558	1,433	0.920
	1970	14	381	523	1.373	10	1,766	1,485	0.841
	1975	14	445	413	0.928	10	2,144	1,751	0.817
South America	1965	7	111	141	1.270	7	435	510	1.172
	1970	7	39	50	1.282	7	377	439	1.164
	1975	7	5,165	124	0.751	7	348	574	1.649
Asia	1965	27	5,534	5,077	0.917	20	5,671	5,003	0.882
	1970	27	6,398	4,864	0.760	20	5,305	4,849	0.914
	1975	27	4,064	4,057	0.998	20	4,941	4,447	0.900
Europe	1965	19	820	863	1.052	14	263	197	0.749
	1970	19	825	844	1.023	14	509	438	0.861
	1975	19	1,004	1,052	1.048	14	613	580	0.946
Oceania	1965	2	1	2	2.000	1	65	89	1.369
	1970	2	2	0	**	1	129	171	1.326
	1975	2	1	1	*	1	169	297	1.757
USSR	1965	1	238	275	1.155	1	3	4	1.333
	1970	1	323	332	1.028	1	8	14	1.750
	1975	1	279	324	1.161	1	15	0	**

* Identical estimates.

**Zero.

Table 10c -- Maize imports and exports: comparison of aggregates of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Economic Group or Region	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Economic Region									
Developed Market Economy	1965	24	20,958	22,490	1.073	21	17,412	19,394	1.114
	1970	24	24,309	23,805	0.979	21	19,497	20,476	1.050
	1975	24	33,608	31,852	0.948	21	42,075	50,620	1.203
Developing Market Economy	1965	58	1,286	1,546	1.202	38	5,864	7,411	1.264
	1970	58	2,664	2,095	0.786	38	8,680	9,895	1.140
	1975	58	6,854	5,773	0.842	38	7,388	7,698	1.042
Centrally Planned Economy	1965	11	1,472	1,310	0.890	9	1,703	1,299	0.763
	1970	11	1,797	2,134	1.199	9	1,162	1,039	0.894
	1975	11	10,761	18,141	1.685	9	1,298	2,698	2.079
Geographical Region									
Africa	1965	23	376	747	1.987	15	569	877	1.541
	1970	23	595	346	0.582	15	1,475	2,716	1.841
	1975	23	1,193	967	0.811	15	3,097	1,924	0.621
North/Central America	1965	13	808	963	1.192	9	16,604	17,925	1.080
	1970	13	1,648	876	0.736	9	14,452	13,215	0.914
	1975	13	4,238	2,841	0.670	9	33,517	43,451	1.296
South America	1965	9	68	117	1.721	7	3,371	4,633	1.374
	1970	9	282	360	1.277	7	6,727	7,451	1.108
	1975	9	545	566	1.039	7	5,047	4,766	0.944
Asia	1965	21	4,340	3,604	0.839	14	1,163	1,555	1.337
	1970	21	7,746	6,803	0.878	14	1,685	2,004	1.189
	1975	21	11,061	12,191	1.102	14	2,349	2,765	1.177
Europe	1965	24	18,125	19,891	1.097	20	2,715	2,885	1.063
	1970	24	18,195	19,376	1.065	20	4,701	5,702	1.213
	1975	24	28,636	26,899	0.939	20	6,554	8,076	1.232
Oceania	1965	2	a/	1	-	2	1	2	2.000
	1970	2	1	2	2.000	2	1	41	41.000
	1975	2	1	2	2.000	2	1	34	34.000
USSR	1965	1	0	23	-	1	558	227	0.407
	1970	1	304	271	0.891	1	299	281	0.940
	1975	1	5,548	12,300	2.217	1	95	0	**

a/ Less than 500 metric tons.

** Zero.

Table 10d -- Barley imports and exports: comparison of aggregates of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Economic Group or Region	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Economic Group									
Developed Market Economy	1965	22	5,671	6,315	1.114	22	5,082	6,049	1.190
	1970	22	7,568	8,684	1.147	22	9,164	10,157	1.108
	1975	22	7,568	8,092	1.069	22	11,443	12,754	1.115
Developing Market Economy	1965	24	483	272	0.563	17	796	486	0.611
	1970	24	617	576	0.934	17	572	210	0.367
	1975	24	1,433	719	0.502	17	33	178	5.394
Centrally Planned Economy	1965	9	1,962	2,044	1.042	7	2,144	2,140	0.998
	1970	9	2,405	1,418	0.590	7	724	1,134	1.567
	1975	9	3,452	5,149	1.492	7	902	221	0.245
Geographical Region									
Africa	1965	6	89	45	0.506	5	31	41	1.323
	1970	6	198	186	0.939	5	235	118	0.502
	1975	6	230	166	0.722	5	5	27	5.400
North/Central America	1965	3	242	259	1.070	3	2,115	2,519	1.125
	1970	3	270	262	0.970	3	4,146	5,643	1.361
	1975	3	488	433	0.887	3	4,015	4,635	1.154
South America	1965	6	55	38	0.691	3	305	115	0.377
	1970	6	65	45	0.692	3	112	83	0.741
	1975	6	69	64	0.928	3	28	57	2.036
Asia	1965	13	963	758	0.787	10	466	331	0.710
	1970	13	1,506	1,628	1.081	10	255	9	0.040
	1975	13	2,945	2,601	0.883	10	a/	112	-
Europe	1965	24	6,767	7,531	1.113	22	2,669	3,460	1.296
	1970	24	8,539	8,534	0.999	22	4,607	3,499	0.875
	1975	24	7,720	7,846	1.016	22	5,752	6,091	1.059
Oceania	1965	2	0	0	-	2	369	276	1.019
	1970	2	14	23	1.643	2	631	1,231	1.951
	1975	2	0	0	-	2	1,760	2,231	1.268
USSR	1965	1	0	0	-	1	2,068	1,973	0.954
	1970	1	0	0	-	1	503	618	1.229
	1975	1	1,001	2,850	2.847	1	818	0	**

a/ Less than 500 metric tons.

** Zero.

Table 10c -- Oats imports and exports: comparison of aggregates of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Economic Group or Region	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Economic Group									
Developed Market Economy	1965	19	1,396	1,493	1.069	17	1,379	1,383	1.003
	1970	19	1,395	1,833	1.314	17	1,246	1,617	1.298
	1975	19	774	776	1.002	17	1,128	1,275	1.130
Developing Market Economy	1965	8	49	60	1.224	6	356	129	0.362
	1970	8	61	58	1.184	6	231	150	0.649
	1975	8	60	73	1.217	6	30	106	3.533
Centrally Planned Economy	1965	7	37	37	*	5	13	15	1.154
	1970	7	34	114	3.353	5	32	24	0.750
	1975	7	342	437	1.278	5	31	21	0.677
Geographical Region									
Africa	1965	2	15	15	*	21	4	4	*
	1970	2	4	4	*	21	7	6	0.857
	1975	2	0	0	-	21	12	47	3.917
North/Central America	1965	4	79	90	1.139	3	671	717	1.069
	1970	4	54	34	0.630	3	463	416	0.898
	1975	4	26	37	1.423	3	416	469	1.127
South America	1965	5	16	18	1.125	3	353	125	0.354
	1970	5	29	39	1.345	3	225	144	0.640
	1975	5	39	51	1.308	3	29	106	3.655
Asia	1965	1	13	13	*	[illegible]	[illegible]	[illegible]	-
	1970	1	135	182	1.348	[illegible]	[illegible]	[illegible]	-
	1975	1	141	152	1.085	[illegible]	[illegible]	[illegible]	-
Europe	1965	21	1,358	1,454	1.071	17	543	390	1.137
	1970	21	1,267	1,746	1.378	17	587	658	1.121
	1975	21	760	645	0.849	17	454	364	0.802
Oceania	1965	-	[illegible]	[illegible]	-	1	366	279	0.762
	1970	-	[illegible]	[illegible]	-	1	219	557	2.543
	1975	-	[illegible]	[illegible]	[illegible]	1	267	416	1.558
USSR	1965	1	0	0	-	1	12	12	*
	1970	1	0	0	-	1	9	10	1.100
	1975	1	211	400	1.896	1	9	0	**

* Identical estimates.

** Zero.

Table 10f -- Rye imports and exports: comparison of aggregates of FAO and USDA estimates for common reporting countries, by economic group and geographical region; 1965, 1970 and 1975

Economic Group or Region	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Economic Group									
Developed Market Economy	1965	19	437	517	1.183	13	227	373	1.643
	1970	19	322	354	1.099	13	347	642	1.850
	1975	19	309	472	1.528	13	481	631	1.312
Developing Market Economy	1965	1	0	0	-	2	140	79	0.465
	1970	1	a/	1	-	2	26	1	0.038
	1975	1	0	0	-	2	4	3	0.750
Centrally Planned Economy	1965	7	58	60	1.034	6	70	96	1.371
	1970	7	265	445	1.679	6	247	252	1.020
	1975	7	246	327	1.329	6	78	98	1.256
Geographical Region									
Africa	1965	1	a/	0	-	-	-	-	-
	1970	1	3	0	-	-	-	-	-
	1975	1	0	0	-	-	-	-	-
North/Central America	1965	2	29	50	1.724	2	175	300	1.714
	1970	2	30	27	0.900	2	149	307	2.060
	1975	2	18	23	1.278	2	274	327	1.193
South America	1965	1	0	0	-	1	96	11	0.115
	1970	1	a/	1	-	1	76	1	0.038
	1975	1	0	0	-	1	4	3	0.750
Asia	1965	1	46	57	1.239	1	74	68	0.919
	1970	1	73	104	1.425	1	-	-	-
	1975	1	54	44	0.815	1	-	-	-
Europe	1965	20	420	470	1.119	15	85	132	1.553
	1970	20	481	668	1.389	15	272	416	1.529
	1975	20	481	728	1.513	15	284	402	1.415
Oceania	1965	1	0	0	-	1	a/	0	**
	1970	1	0	0	-	1	a/	0	**
	1975	1	2	4	2.000	1	a/	0	**
USSR	1965	1	0	0	-	1	37	37	*
	1970	1	0	0	-	1	171	171	0.988
	1975	1	0	0	-	1	0	0	-

a/ Less than 500 metric tons.

* Identical estimates.

**Zero.

Table 12 -- Cereal imports and exports: comparison of world aggregates of FAO and USDA estimates for all reporting countries; 1965, 1970 and 1975

Cereal	Year	Number of Reporting Countries		Import			Number of Reporting Countries		Export		
		FAO	USDA	FAO	USDA	USDA/FAO	FAO	USDA	FAO	USDA	USDA/FAO
				(000 MT)					(000 MT)		
Wheat	1965	147	114	49,929	61,283	1.227	77	73	50,193	60,652	1.208
	1970	147	114	48,804	55,446	1.136	77	73	50,151	56,415	1.125
	1975	147	114	67,438	74,945	1.111	77	73	67,304	73,054	1.085
Rice	1965	176	98	8,250	7,387	0.895	113	76	8,378	7,629	0.911
	1970	176	98	9,042	7,301	0.807	113	76	8,876	7,973	0.898
	1975	176	98	8,291	6,903	0.833	113	76	8,610	7,882	0.915
Maize	1965	155	100	23,950	25,406	1.061	108	72	25,033	28,107	1.123
	1970	155	100	28,976	28,074	0.969	108	72	29,432	31,432	1.068
	1975	155	100	51,819	56,003	1.081	108	72	50,932	51,156	1.201
Barley	1965	111	59	8,146	8,638	1.060	66	49	8,062	8,712	1.081
	1970	111	59	10,723	10,702	0.998	66	49	10,469	11,502	1.099
	1975	111	59	12,555	13,985	1.113	66	49	12,412	13,160	1.060
Oats	1965	96	37	1,563	1,590	1.017	46	29	1,749	1,528	0.874
	1970	96	37	1,567	2,064	1.317	46	29	1,510	1,791	1.186
	1975	96	37	1,223	1,311	1.072	46	29	1,189	1,402	1.179
Rye	1965	50	30	501	577	1.151	25	22	467	548	1.173
	1970	50	30	587	906	1.543	25	22	620	895	1.444
	1975	50	30	563	807	1.433	25	22	562	732	1.302
World Totals	1965	188	126	92,334	104,881	1.136	145	110	93,882	107,176	1.141
	1970	188	126	99,699	104,493	1.048	145	110	101,058	110,008	1.089
	1975	188	126	141,889	153,772	1.084	145	110	141,009	157,386	1.116

Table 11 -- Cereal imports and exports: comparison of world aggregates of FAO and USDA estimates for common reporting countries; 1965, 1970 and 1975

Cereal	Year	Imports				Exports			
		Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
			(000 MT)				(000 MT)		
Wheat	1965	107	43,963	61,046	1.389	56	50,116	60,506	1.207
	1970	107	48,178	54,954	1.141	56	50,141	56,358	1.124
	1970	107	66,301	74,322	1.121	56	67,300	72,999	1.085
Rice (milled)	1965	91	7,855	7,301	0.929	64	8,349	7,268	0.871
	1970	91	8,590	7,191	0.837	64	8,828	7,967	0.902
	1975	91	6,500	6,791	1.045	64	8,341	7,871	0.944
Maize	1965	93	23,716	25,346	1.069	68	24,904	28,104	1.128
	1970	93	28,770	28,034	0.974	68	29,339	31,410	1.068
	1975	93	51,222	55,766	1.089	68	50,760	61,016	1.202
Barley	1965	55	8,086	8,631	1.067	44	8,022	8,675	1.031
	1970	55	10,593	10,678	1.008	44	10,460	11,501	1.099
	1975	55	12,454	13,960	1.121	44	12,378	13,153	1.063
Rye	1965	27	495	477	1.166	21	467	548	1.173
	1970	27	587	800	1.363	21	620	895	1.444
	1975	27	555	797	1.440	21	562	732	1.302
Oats	1965	34	1,481	1,590	1.074	28	1,748	1,527	0.874
	1970	34	1,490	2,005	1.346	28	1,509	1,791	1.187
	1975	34	1,177	1,286	1.093	28	1,188	1,402	1.180
World Totals	1965	119	85,599	104,491	1.221	93	93,606	106,628	1.139
	1970	119	98,208	103,662	1.056	93	100,897	109,922	1.089
	1975	119	138,209	152,924	1.106	93	140,529	157,173	1.118

Table 13a -- Cereal imports: comparisons of aggregates of FAO and USDA data for common reporting countries classified by FAO into general and special trade countries, 1970

Cereal	General Trade				Special Trade			
	Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
		(000 MT)				(000 MT)		
Wheat	51	30,336	29,684	0.979	56	17,842	25,270	1.416
Rice	42	5,097	3,263	0.640	49	3,493	3,928	1.125
Maize	43	12,672	11,013	0.869	50	16,098	17,021	1.057
Barley	25	5,327	4,253	0.798	30	5,266	6,425	1.220
Oats	18	253	451	1.783	16	1,237	1,554	1.256
Rye	15	455	664	1.459	12	132	136	1.030
Total Cereals	60	54,140	49,328	0.911	59	44,068	54,334	1.233

Table 13b -- Cereal exports: comparisons of aggregates of FAO and USDA data for common reporting countries classified by FAO into general and speical trade countries, 1970

Cereal	General Trade				Special Trade			
	Number of Countries	FAO	USDA	USDA/FAO	Number of Countries	FAO	USDA	USDA/FAO
		(000 MT)				(000 MT)		
Wheat	29	41,460	49,487	1.194	26	8,681	6,871	0.791
Rice	29	7,060	6,528	0.925	35	1,768	1,439	0.814
Maize	35	18,232	18,518	1.016	33	11,107	12,892	1.161
Barley	21	5,901	8,337	1.413	25	4,559	3,164	0.694
Oats	16	973	1,475	1.516	12	536	316	0.590
Rye	14	430	625	1.453	7	190	270	1.421
Total Cereals	45	74,056	84,970	1.147	48	26,841	24,952	0.930

Table 14a-- Wheat imports: ratios of aggregates of USDA to FAO for 1965-70 and 1970-75 average for common reporting countries, by country group

Country Group	1965-70 Average			1970-75 Average		
	FAO	USDA	USDA/FAO	FAO	USDA	USDA/FAO
	(000 MT)			(000 MT)		
World Total	46,802	53,175	1.136	57,942	63,577	1.097
Economic Group						
Developed Market Economy	16,543	17,387	1.051	18,466	19,305	1.045
Developing Market Economy	17,835	23,213	1.302	22,794	28,603	1.255
Centrally Planned Economy	12,424	12,575	1.012	16,682	15,940	0.956
Geographical Region						
Africa	3,331	5,437	1.632	5,115	7,244	1.416
North/Central America	773	1,620	2.095	1,503	2,137	1.422
South America	4,118	4,388	1.066	4,415	5,260	1.191
Asia	19,521	21,577	1.105	22,877	24,616	1.076
Europe	16,289	17,565	1.078	17,414	18,104	1.040
Oceania	82	90	1.098	68	100	1.471
USSR	2,686	2,498	0.930	6,550	6,118	0.934

Table 14b--Wheat exports: Ratios of aggregates of USDA to FAO for 1965-70 and 1970-75 average for common reporting countries, by country group

Country Group	1965-70 Average			1970-75 Average		
	FAO	USDA	USDA/FAO	FAO	USDA	USDA/FAO
	(000 MT)			(000 MT)		
World Total	47,966	55,478	1.157	60,556	66,029	1.090
Economic Group						
Developed Market Economy	38,980	45,488	1.167	52,093	58,241	1.118
Developing Market Economy	3,321	3,188	0.960	2,324	2,558	1.101
Centrally Planned Economy	5,664	6,802	1.201	6,140	5,231	0.852
Geographical Region						
Africa	74	128	1.730	158	175	1.108
North/Central America	27,594	30,697	1.112	36,635	39,058	1.066
South Americas	2,942	2,687	0.913	1,905	2,082	1.093
Asia	173	219	1.266	353	419	1.187
Europe	6,838	9,356	1.368	9,598	12,812	1.335
Oceania	5,887	7,093	1.205	7,152	7,512	1.050
USSR	4,458	5,298	1.188	4,757	3,972	0.835

Table 15 -- FAO and USDA reporting countries on production, area and trade of the major staples, 1975*

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
AFRICA	50	36	52	32	54	36	43	25
Algeria	x	x	x	x	x	x	x	x
Angola	x	x	x	x	x	x	x	x
Benin	x	x	x	x	x	x	x	x
Botswana	x		x		x		x	
Burundi	x	x	x	x	x		x	
Cameroon	x	x	x	x	x	x	x	
Cape Verde	x		x		x		x	
Central African Empire	x		x		x		x	
Chad	x	x	x		x	x	x	
Comoros	x		x		x			
Congo	x		x		x		x	
Djibouti					x		x	
Egypt	x	x	x	x	x	x	x	x
Equatorial Guinea		x	x		x			
Ethiopia	x	x	x	x	x	x	x	x
Gabon	x		x		x			
Gambia	x	x	x		x	x		
Ghana	x	x	x	x	x	x	x	x
Guinea	x	x	x	x	x	x	x	
Guinea-Bissau	x		x		x	x	x	x
Ivory Coast	x	x	x	x	x	x	x	x
Kenya	x	x	x	x	x	x	x	x

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
Lesotho	x		x		x		x	
Liberia	x	x	x	x	x	x	x	
Libya	x	x	x	x	x	x	x	
Madagascar	x	x	x	x	x	x	x	x
Malawi	x	x	x	x	x	x	x	x
Mali	x	x	x	x	x	x	x	x
Mauritania	x		x		x			
Mauritius	x		x		x	x	x	
Morocco	x	x	x	x	x	x	x	x
Mozambique	x	x	x		x	x	x	x
Namibia	x		x					
Niger	x	x	x	x	x	x	x	
Nigeria	x	x	x	x	x	x	x	x
Reunion	x		x		x	x		
Rhodesia	x	x	x	x	x	x	x	x
Rwanda	x	x	x	x	x		x	
St. Helena					x			
Sao Tome & Principe			x		x			
Senegal	x	x	x	x	x	x	x	x
Seychelles			x		x			
Sierra Leone	x	x	x	x	x	x		x
Somalia	x		x		x	x	x	
South Africa	x	x	x	x	x	x	x	x
Sudan	x	x	x	x	x	x	x	x

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
Swaziland	x		x		x		x	
Tanzania	x	x	x	x	x	x	x	x
Togo	x	x	x	x	x		x	
Tunisia	x	x	x	x	x	x	x	x
Uganda	x	x	x	x	x	x	x	x
Upper Volta	x	x	x	x	x	x	x	x
Western Sahara	x				x			
Zaire	x	x	x	x	x	x	x	
Zambia	x	x	x	x	x	x	x	x
NORTH/CENTRAL AMERICA	24	14	27	8	32	14	18	14
Antigua			x		x			
Bahamas					x			
Barbados	x		x		x		x	
Belize	x		x		x		x	
Bermuda			x		x			
Canada	x	x	x	x	x	x	x	x
Costa Rica	x	x	x	x	x	x	x	x
Cuba	x	x	x		x	x		x
Dominica	x		x		x			
Dominican Republic	x	x	x	x	x	x	x	x
El Salvador	x	x	x		x	x	x	x
Greenland					x			
Grenada	x		x		x		x	

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
Guadeloupe	x		x		x		x	
Guatemala	x	x	x	x	x	x	x	x
Haiti	x	x	x		x	x	x	x
Honduras	x	x	x		x	x	x	x
Jamaica	x	x	x	x	x	x	x	x
Martinique			x		x		x	
Mexico	x	x	x	x	x	x	x	x
Montserrat	x		x		x			
Neth. Antilles	x				x			
Nicaragua	x	x	x		x	x	x	x
Panama	x	x	x		x	x	x	x
Puerto Rico	x		x					
St. Kitts-Nevis-Anguilla			x		x			
St. Lucia	x		x		x			
St. Pierre & Miquelon					x			
St. Vincent	x		x		x			
Trinidad & Tobago	x	x	x	x	x	x	x	x
United States	x	x	x	x	x	x	x	x
Virgin Is. (U.K.)					x			
Virgin Is. (U.S.)					x			
SOUTH AMERICA	13	12	13	10	13	11	13	12
Argentina	x	x	x	x	x	x	x	x
Bolivia	x	x	x	x	x	x	x	x

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
Brazil	x	x	x	x	x	x	x	x
Chile	x	x	x	x	x	x	x	x
Colombia	x	x	x	x	x	x	x	x
Ecuador	x	x	x	x	x	x	x	x
French Guiana	x		x		x		x	
Guyana	x	x	x		x	x	x	x
Paraguay	x	x	x	x	x	x	x	x
Peru	x	x	x	x	x	x	x	x
Surinam	x	x	x		x		x	x
Uruguay	x	x	x	x	x	x	x	x
Venezuela	x	x	x	x	x	x	x	x
ASIA	38	33	41	16	43	33	37	31
Afghanistan	x	x	x		x	x		
Bahrain			x		x		x	
Bangladesh	x	x	x		x	x		x
Bhutan	x		x		x		x	
Brunei	x		x		x		x	
Burma	x	x	x	x	x	x	x	x
China	x	x	x	x	x	x	x	x
Cyprus	x	x	x	x	x	x	x	x
East Timor	x		x		x		x	
Hong Kong	x	x	x		x	x	x	x
India	x	x	x	x	x	x	x	x

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA 1/	FAO	USDA	FAO	USDA
Indonesia	x	x	x	x	x	x	x	x
Iran	x	x	x		x	x	x	x
Iraq	x	x	x		x	x	x	x
Israel	x	x	x	x	x	x	x	x
Japan	x	x	x	x	x	x	x	x
Jordan	x	x	x	x	x	x	x	x
Kampuchea, Democratic	x	x	x		x	x	x	x
Korea, DPR	x	x	x		x	x	x	x
Korea, Rep. of	x	x	x	x	x	x	x	x
Kuwait	x	x	x		x	x	x	x
Lao	x	x	x		x	x	x	x
Lebanon	x	x	x	x	x	x	x	x
Macau			x		x		x	
Malaysia	x	x	x	x	x	x	x	x
Maldives	x		x		x		x	
Mongolia	x		x		x	x	x	x
Nepal	x	x	x		x	x	x	x
Oman	x		x		x			
Pakistan	x	x	x		x	x	x	x
Philippines	x	x	x	x	x	x	x	x
Qatar					x		x	
Saudi Arabia	x	x	x		x	x		
Sikkim	x		x		x			

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
Singapore		x	x		x	x	x	x
Sri Lanka	x	x	x	x	x	x	x	x
Syria	x	x	x	x	x	x	x	x
Thailand	x	x	x	x	x	x	x	x
Turkey	x	x	x	x	x	x	x	x
United Arab Emirates		x			x			
Viet Nam	x	x	x		x	x	x	x
Yemen, Arab Rep.	x	x	x		x	x	x	x
Yemen, Democratic	x	x	x		x	x	x	x
EUROPE	25	26	28	23	27	26	24	25
Albania	x	x	x		x	x		x
Austria	x	x	x	x	x	x	x	x
Belgium-Luxembourg	x	x	x	x	x	x	x	x
Bulgaria	x	x	x	x	x	x	x	x
Czechoslovakia	x	x	x	x	x	x	x	x
Denmark	x	x	x	x	x	x	x	x
Faeroe Islands			x		x			
Finland	x	x	x	x	x	x	x	x
France	x	x	x	x	x	x	x	x
German, Dem. Rep.	x	x	x	x	x	x	x	x
Germany, Fed. Rep. of	x	x	x	x	x	x	x	x
Greece	x	x	x	x	x	x	x	x
Hungary	x	x	x	x	x	x	x	x

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA[1/]	FAO	USDA	FAO	USDA
Iceland		x	x		x	x		
Ireland	x	x	x	x	x	x	x	x
Italy	x	x	x	x	x	x	x	x
Liechtenstein			x					
Malta	x	x	x		x	x	x	x
Netherlands	x	x	x	x	x	x	x	x
Norway	x	x	x	x	x	x	x	x
Poland	x	x	x	x	x	x	x	x
Portugal	x	x	x	x	x	x	x	x
Romania	x	x	x	x	x	x	x	x
Spain	x	x	x	x	x	x	x	x
Sweden	x	x	x	x	x	x	x	x
Switzerland	x	x	x	x	x	x	x	x
United Kingdom	x	x	x	x	x	x	x	x
Yugoslavia	x	x	x	x	x	x	x	x
OCEANIA	10	3	18	2	18	4	9	2
American Samoa			x		x			
Australia	x	x	x	x	x	x	x	x
Cook Islands			x		x			
Fiji	x	x	x		x	x	x	
French Polynesia			x		x			
Gilbert Islands			x		x			
Guam	x		x		x		x	

Table 15 -- Continued

Region/Country	Production and Area Data				Cereal Trade Data			
	Cereals		Non-Cereals		Imports		Exports	
	FAO	USDA	FAO	USDA 1/	FAO	USDA	FAO	USDA
Nauru					x			
New Caledonia	x		x		x			
New Hebrides	x		x		x		x	
New Zealand	x	x	x	x	x	x	x	x
Niue Island			x		x	x		
Norfolk Island								
Pacific Islands	x		x		x			
Papua New Guinea	x		x		x	x	x	
Samoa	x		x		x		x	
Solomon Islands	x		x		x		x	
Tokelau			x		x			
Tonga			x		x			
Wallis and Futuna Islands			x					
USSR	1	1	1	1	1	1	1	1
ex-USSR	x	x	x	x	x	x	x	x
WORLD TOTALS	167	124	180	92	188	126	145	110

*Note: (x) denotes that the country reports the specified data in the indicated data system.

1/ Production data only.

ANNEX B

CLASSIFICATION OF REPORTING COUNTRIES BY ECONOMIC CLASSES AND CONTINENTAL REGIONS

Developed Market Economies

Africa:	South Africa
North America:	Canada, United States
Asia:	Israel, Japan (incl. Bonin and Ryukus)
Europe:	Austria, Belgium-Luxembourg, Denmark, Faeroe Islands, Finland, France, Fed. Rep. of Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, Yugoslavia
Oceania:	Australia, New Zealand

Developing Market Economies

Africa:	Algeria, Angola, Benin, Botswana, Burundi, Cameroon, Cape Verde, Central African Empire, Chad, Comoros, Congo, Djibouti, Egypt, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Reunion, Rhodesia, Rwanda, St. Helena, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Upper Volta, Western Sahara, Zaire, Zambia
North America:	Bermuda, Greenland, St. Pierre and Miquelon
Central America:	Antigua, Bahamas, Barbados, Belize, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guadaloupe, Guatemala, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Puerto Rico, St. Kitts-Nevis-Anguilla, St. Lucia, St. Vincent, Trinidad and Tobago, Virgin Islands (U.K.), Virgin Islands (U.S.)
South America:	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Surinam, Uruguay, Venezuela

Asia:	Afghanistan, Bahrain, Bangladesh, Bhutan, Brunei, Burma, Cyprus, East Timor, Hong Kong, India, Indonesia, Iran, Iraq, Jordan, Republic of Korea, Kuwait, Lao, Lebanon, Macau, Malaysia, Maldives, Nepal, Oman, Pakistan, Philippines, Qatar, Saudi Arabia, Sikkim, Singapore, Sri Lanka, Syria, Thailand, Turkey, United Arab Emirates, Yemen Arab Republic, Democratic Yemen
Oceania:	America Samoa, Cook Islands, Fiji, French Polynesia, Gilbert Islands, Guam, Nauru, New Caledonia, New Hebrides, Niue Island, Norfolk Island, Pacific Islands, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Wallis and Futuna Islands

Centrally Planned Economies

Asia:	China, Democratic Kampuchea, Democratic People's Republic of Korea, Mongolia, Viet Nam
Europe:	Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania
U.S.S.R.	

Source: Food and Agriculture Organization of the United Nations. 1976 FAO Production Yearbook, Vol. 30, Rome, 1977.