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**Lesotho Crops  
Export Market Study**  
*Phase I*

**Final Report**

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## **CHAPTER 1: EXECUTIVE SUMMARY**

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Beans have been grown in Lesotho for many years and have traditionally provided a high level of protein to the local diet. Lesotho (Exhibit 1.1) has climatic conditions that are well suited to support such temperate zone crops as pulses (the edible seeds of peas, beans, and lentils). The area with the greatest potential for commercial crop production is the lowlands, which contain about 75 percent of the estimated 810,160 acres of arable land in Lesotho.

Aside from the common bean (*Phaseolus vulgaris*) which has been produced for local consumption, the small white haricot has been widely grown and is ideal for small-scale farming. However, because the white haricot has a long growing period (130-150 days), low yields, and is usually heavily infested with bean common mosaic virus (BCMV) and/or common bacterial blight, it has proven extremely unsuitable as a quality product and has no potential for export.

The Government of Lesotho, together with the U.S. Agency for International Development's (A.I.D.) Mission to Lesotho, have found that a new bean -- the pinto bean -- is well adapted to the local climate, has a relatively short growing season (90 days), is higher in yield than the pulses now grown, and is resistant to BCMV. Because the pinto is considered a "short season crop," it lends itself to multiple croppings per year and can command a higher per pound price, thereby making it a potential cash crop.

A paper (authored by Pomela and Massey) presented at the Workshop on "Bean Improvement in Africa" held in Maseru, Lesotho in February 1989, described the research success of the pinto variety and stressed that "planting this new bean is almost like bringing a new crop into the country. With more information and knowledge, the Pinto could also have the potential to become an exported crop."



The Government of Lesotho realizes this newly introduced variety has considerable potential to alter the Lesotho pulse-growing economy. It is, however, also extremely interested in creating a farm-to-market structure that focuses on various pulses (e.g., dried peas, lentils, dried beans, and seed beans) for the international market.

It is with this in mind that A.I.D.'s Office of Market Development and Investment/Africa Bureau/A.I.D. Washington and the Mission determined that there is sufficient potential for increasing exports of various agricultural products from Lesotho, thereby leading to greater foreign exchange earnings, enhanced employment, and increased income for the rural population. Fintrac, (a Division of RCG/Hagler, Bailly, Inc.), was asked to undertake a preliminary market assessment to identify potential business opportunities for agricultural (pulse) exports to U.S., European, and inter-regional markets. The assessment addressed consumption, production, and exports of pulse, as well as major issues relating to the marketing of African pulses.

Based on extensive discussions with U.S. and European industry representatives, several key issues were identified. These must be addressed before pulses can be imported from Lesotho on a regular basis:

- There must be a clear price incentive to import from Lesotho. It must be recognized that transportation costs to the U.S. and Europe (United Kingdom, West Germany, the Netherlands) from countries such as Mexico, Chile, and Turkey are relatively inexpensive and may be substantially less than from Africa. An analysis of production quantities, transportation configurations, and associated costs will be needed before the pulse importing industry can formulate serious opinions about purchasing pulses from Sub-Saharan Africa in adequate volumes to meet projected demand.

- The perceived risks of operating in Lesotho must be overcome. Because of its location within South Africa, the fear of political actions against exports from Lesotho exists within some U.S. and European companies. A high rate of return on pulse exports will be needed to compensate for this "risk factor" and may result in U.S./European firms being less likely to invest in production facilities. To increase the confidence of major firms regarding Lesotho's political stabilization, A.I.D. must assure the private sector of government support and intervention (as required).
- Prejudices, real or imaginary against African exports must be overcome. These are not universal, but where they exist they are primarily associated with the potential for poor product quality and infested crops (weevils). This situation will require a determination of the investment necessary for fumigation, processing, and storage facilities that are of a uniform standard acceptable to international trading companies. Lesotho must demonstrate a commitment to the importer.
- Because Lesotho has a very limited history of trading pulse crops in the international arena, it could have limited knowledge of export requirements, particularly those relating to grading, produce quality, pricing, and contractual requirements. This will necessitate an evaluation of the institutional framework and technical assistance requirements to support a pulse export project and consideration of the most practical method of market entry and competitive pricing.

While U.S. and European firms have shown an initial interest in Lesotho as a "new source" market, they have been very direct in stating that more detailed information is needed before they can make a definitive commitment about their anticipated involvement. The potential for exporting pulses from Lesotho to U.S. and European markets exists, but it will require a detailed analysis of key issues raised by the industry (as well as a serious commitment by the Government of Lesotho) before potential joint ventures can be established.

Relative to U.S. and European involvement in developing, structuring, and implementing a pulse export program for Lesotho, it has been recommended by the industry-at-large that A.I.D. and the Lesotho Mission determine, at a minimum, the:

- Productivity problems associated with low yields of pulses
- Varieties of pulses that could be produced and the production techniques to be adopted
- Impact of trial work on the pinto bean and subsequent commercialization schemes
- Volume of pulses that could be marketed for export and the development lead time involved
- Level of commitment to the importer and associated grower incentives
- Institutional, management, and organizational infrastructures needed to sustain export trade/joint ventures

- Degree of technical assistance needed to upgrade and maintain pulse quality (to include weevil treatment and container fumigation) at export standards
- Level of investment necessary to establish an export project, develop methods of market entry, and maintain niche markets
- Degree of political risk associated with pulse exports from Lesotho
- Structure for competitive pricing
- Development and application of existing export market models for pulses
- Establishment of optimum transportation configurations
- Financial and economic parameters of the project to determine its mid- to long-term viability
- Institutional, financial, and marketing support required from the Government of Lesotho, the Mission, and A.I.D. to initiate and maintain an export program.

## **CHAPTER 2: BACKGROUND AND INTRODUCTION**

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### **2.1 Historical Perspective**

Originally a British protectorate of Basutoland, Lesotho gained independence from Great Britain on October 4, 1966. The country is a constitutional monarchy with a western-style economy firmly committed to a system of free enterprise.

Lesotho is located entirely outside the tropics (Exhibit 2.1). Its temperate climate, well delineated seasons, and its high altitude (it is the only country in the world with the majority of its land mass approximately 3,000 feet above sea level) keep the country free from tropical diseases.

About the size of the state of Maryland with a Basotho<sup>1</sup> population estimated at 1.57 million, Lesotho is one of the least developed nations in the world with a GNP per capita income of about \$237 (U.S.). Agriculture remains the most important sector of the economy and is the primary occupation of the majority of Basotho.

### **2.2 Political/Economic Considerations**

Lesotho is landlocked within the Republic of South Africa (Exhibit 2.2) and is substantially affected by its economic dependence on South Africa. However, because of Lesotho's interaction in the free-world's political and socio-economic environment, the United States is particularly interested in helping maintain the nation's political/social stability and in providing support so as to achieve long-term economic sustainability.

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<sup>1</sup> Collective name of the people of Lesotho.

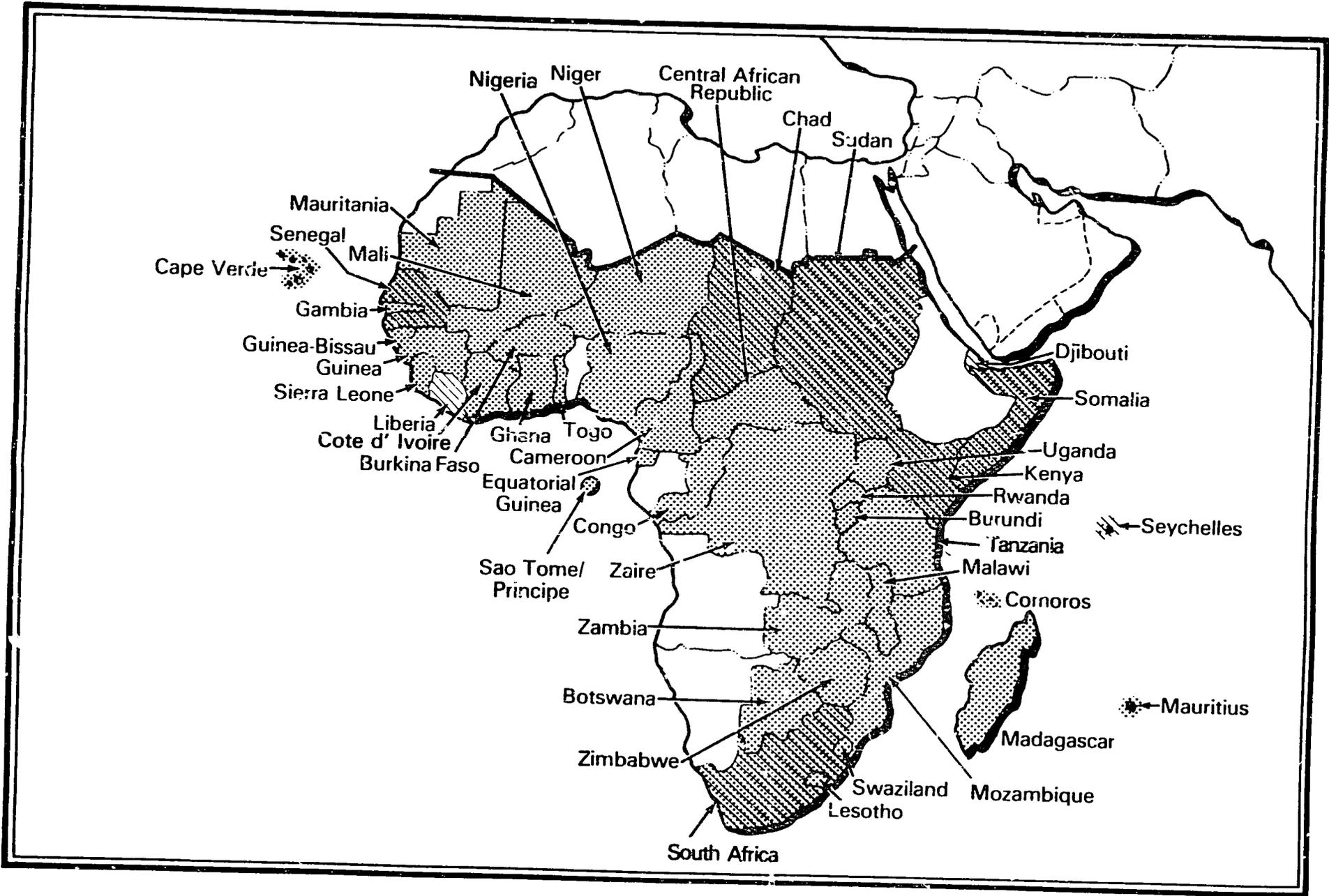
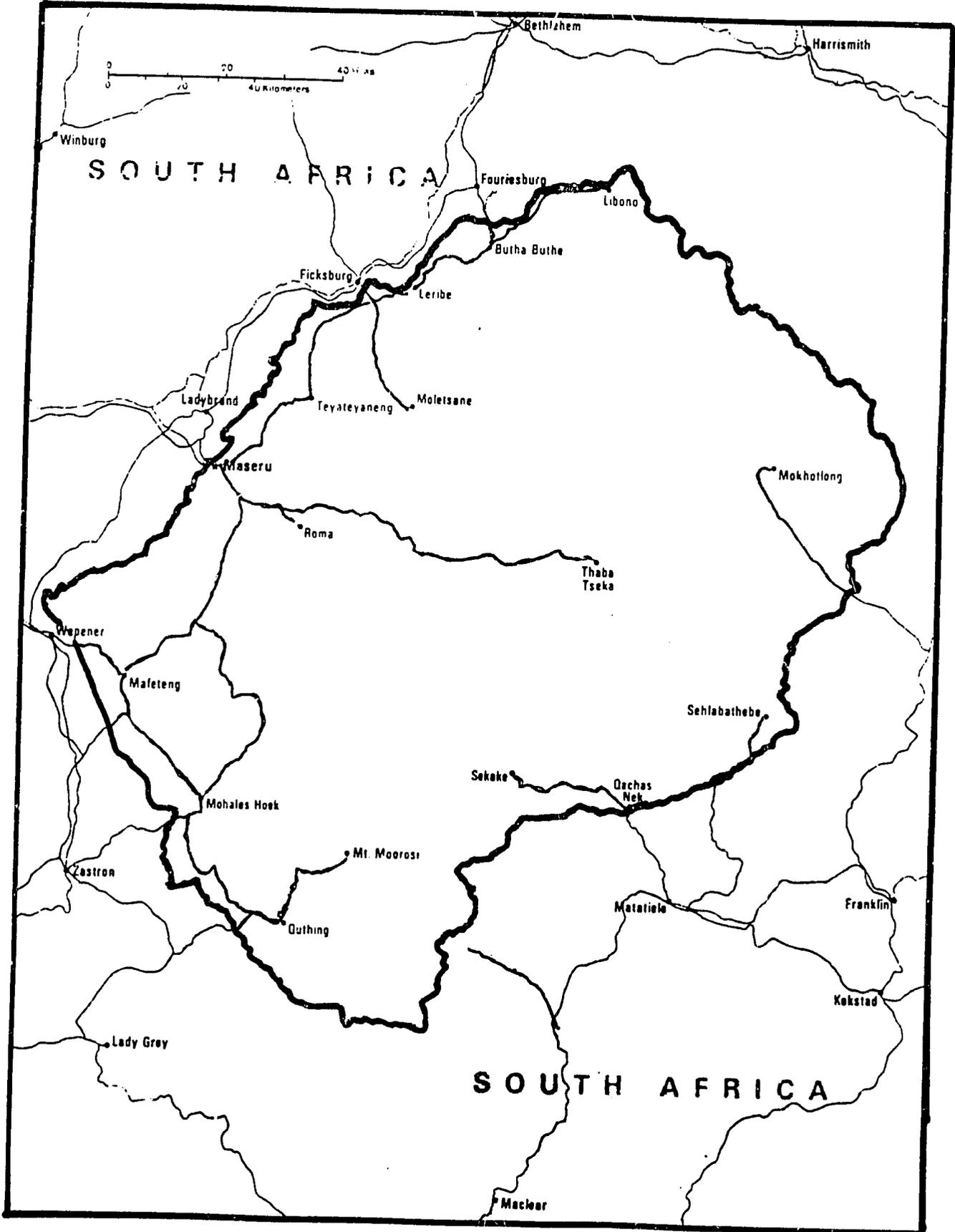


Exhibit 2.1

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# Lesotho



With this in mind A.I.D., in concert with the A.I.D./Lesotho Mission, initiated a strategic development program to help Lesotho become less dependent on South Africa. A major goal of this program is to increase agricultural production, crop diversification, and export marketing through the private sector. To help the private sector grow and diversify, several objectives must be met:

- To increase self-reliance by improving the capacity to export and substitute imports from South Africa
- To promote appropriate agriculture-related micro/macro-enterprises
- To strengthen the agricultural research and marketing infrastructure
- To provide education and skills necessary in business and market development.

### **2.3 Developmental Initiatives**

In support of the A.I.D. Mission in Lesotho (and its strategic development program), the Office of Market Development and Investment/Africa Bureau/A.I.D. Washington (MDI/Africa) established a Manual for Action for the Private Sector (MAPS) to help match A.I.D. programs with appropriate private sector entities in selected countries. In Lesotho, the MAPS concept is focusing on the agribusiness and agroindustry sectors.

The Government of Lesotho as well as the Lesotho National Development Corporation (LNDC) strongly encourage (in parallel with A.I.D.) the development of private enterprise (local and/or foreign) and realize a strong reliance must be placed on foreign investment. The Government and the LNDC are striving to create conditions in which private enterprises are able to profit from returns on their agribusiness and agroindustry investments. On condition that this policy is effectively promoted and conducive operating conditions are met and maintained, then A.I.D./Lesotho-induced investment can be made and an export structure could be created for food products.

The Government of Lesotho continues to support private sector agricultural growth and development programs and projects (such as MAPS), particularly in light of the recently agreed upon Lesotho Agricultural Policy Support Project executed by the Mission and the Government. Both factions realize the critical importance of economic stabilization gained through the development, production, and marketing of such high-value cash crops as pulses (the edible seeds of peas, beans, lentils and similar plants).

The Lesotho Mission conducted an assessment to better utilize private sector resources in the implementation of its current MAPS program. Two of the assessments seven phases focused on (1) diagnosing opportunities/constraints to private sector growth and (2) developing new projects and programs. A major output of the assessment, aside from the need for further study of Lesotho's present and future agricultural marketing system and infrastructure, was the definitive need to investigate possible seed production (and processing) for export markets supported financially and managerially (e.g., a joint venture) by a U.S. company and a Lesotho entrepreneur.

It is with this in mind that MDI/Africa and the Mission determined that there was sufficient potential for increasing exports of agricultural products from Lesotho to targeted international markets, thereby leading to greater foreign exchange earnings, enhanced employment, and increased income for the rural population. Fintrac (a Division of RCG/Hagler, Bailly, Inc.) was requested to undertake a preliminary market assessment that would identify prospective opportunities for agricultural (pulse) exports to U.S., European, and inter-regional markets. This initial assessment addressed consumption, production, exports, and major issues relating to the marketing of African pulses with the objective of attracting the preliminary interest of one or more U.S. agribusiness companies in developing a joint venture seed export agreement with Lesotho.

**2.4 Product (Pulse) Viability**

The Government of Lesotho has determined that beans -- peas, lentils, and seed beans - have major export potential. Beans have been grown in Lesotho for many years and have traditionally provided a high level of protein to the local diet. With rainfall averaging 16 to 20 inches per year in the southern lowlands and increasing to 28 to 32 inches per year in the northern lowlands, Lesotho's climatic conditions are well suited to support temperate zone crops (e.g., pulses). The greatest potential for commercial crop production is in the lowland areas which contain about 75 percent of the estimated 810,160 acres of arable land in Lesotho.

Aside from the common bean (Phaseolus vulgaris) which has been produced for local consumption, the small white haricot has been widely grown and is ideal for small-scale farming. However, because the white haricot has a long growing period (130-150 days), low yields, and is usually heavily infested with bean common mosaic virus (BCMV) and/or common bacterial blight, it has proven extremely unsuitable as a quality product and has no potential for export.

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## **CHAPTER 3: MARKET CHARACTERIZATION AND PERSPECTIVE**

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### **3.1 The U.S. Market**

For this preliminary market assessment, we conducted detailed discussions with key companies involved in the international pulse trade; held dialogues with industry, trade experts, and appropriate U.S. government officials; and have drawn on published data provided by the U.S. Government and U.S. trade organizations.

#### **Consumption of Pulses in the United States**

The U.S. is becoming a major consumer of pulses (dried peas, lentils, dried beans, and seed beans). U.S. consumption of lentils alone has grown dramatically: from 1,400 tons twenty years ago to some 14,000 tons in the past year. This exceedingly strong market growth is expected to continue.

A significant portion of U.S. pulse production is sold to the food production industry. Although there has been a decline in consumer demand for canned products, this has been partially compensated by an increase in the sale of canned products to institutional users and restaurants.

Notwithstanding the enhanced use of pulses by the food production industry, consumers have shown an increasing interest in health foods and ethnic cuisine. Consumers are conscious of cholesterol consumption and are eating less meat, and as a result, are substituting pulses as an alternative source of protein. Health food markets have increased the demand for bean sprout products, and consequently the demand for dried bean seed. Sales of seed varieties such as mung beans have expanded, and there is a renewed interest in heirloom varieties for gourmet markets (these are beans that were grown more than 100 years ago in New England and include varieties such as Fire

Christmas Lima and Jacob's Cattle). New communities of immigrants from Central America and Southeast Asia, and a growing number of ethnic restaurants have created the demand for a wide range of pulse dishes.

Although the consumption of pulses remains modest, it is a rapidly growing market. Continued interest in health and in new cuisine is likely to support this trend in the future. Recent statistics on lentil and dried pea consumption show that their combined consumption in 1987 was approximately 51,000 tons (Exhibit 3.1.1). This is still only about 0.2 kilograms per person per year, but there appears to be excellent potential for future growth in U.S. domestic bean consumption.

### **Production of Pulses in the United States**

The U.S. is a large producer and exporter of pulses, and production is increasing. Exhibit 3.1.2 shows the production of dried peas and lentils during recent years.

At present, approximately 75 percent of the pulse crop is exported, although sales and promotion activities are shifting towards the domestic market because low-cost overseas producers are challenging traditional U.S. export markets. (More detailed data on dry pea and lentil production, exports, and imports are presented in Appendices 3.1.A - 3.1.D.)

The production of pulses, and hence their price, is determined by the cropping pattern chosen by farmers. In general, the pulse price is strongly influenced by the price of wheat because this is the major crop in most growing regions in the U.S. Wheat is grown on a rotation every other year, and pulses are planted as an alternative to leaving the ground fallow. If wheat prices are low, then farmers may plant more pulses instead of wheat.

**Exhibit 3.1.1**

**U.S. Consumption of Pulses  
(in thousand metric tons)**

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
<b>Peas</b>	40	31	31	37
<b>Lentils</b>	11	9	10	14

Source: U.S. Dry Pea and Lentil Updates, 1986-87,  
U.S. Dry Pea and Lentil Council.

**Exhibit 3.1.2**

**U.S. Production of Pulses  
(in thousand metric tons)**

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
<b>Peas</b>	122	105	131	150
<b>Lentils</b>	27	38	81	77

Source: U.S. Dry Pea and Lentil Updates, 1986-87,  
U.S. Dry Pea and Lentil Council.

In some areas of the country other crops have a major impact on the acreage put under pulses. Cotton, for example, can be produced under the same conditions as beans. When cotton prices dropped in the mid-1980s, growers switched from cotton to bean seed. Acreage planted in bean seed doubled, resulting in a corresponding drop in the price of seed beans due to over-supply.

U.S. supply of pulses has been and will continue to be influenced by weather patterns, and pest and disease problems. However, because acreage is widely distributed across the country, the risk of a large national crop disaster is generally stabilized. In some areas the production of pulses seems quite robust, even in adverse weather conditions. For example, drought conditions in the midwest and western United States have not had a major impact on pulse production located in the Pacific Northwest. Although crop yields dropped somewhat below average in the 1977 drought, the Pacific Northwest region has not experienced any significant crop disasters.

In other areas however, poor crop harvests have allowed importers to establish footholds in the U.S. market. For example, regional weather patterns have affected the supply of beans in Michigan, Central Canada, and North Dakota. A drought that spread across this area in 1984 resulted in significant increases in imports from Chile and Argentina. Severe floods in Michigan in 1986 further allowed these South American countries to expand their exports to the U.S. Disease has also hit U.S. production and as a result, nearly all garbanzo bean production has been eliminated in central California -- production has moved to Oregon and Idaho; this in turn has allowed Mexico to establish exports to the U.S. market.

### **Imports of Pulses to the United States**

Although the U.S. is primarily an exporter of pulses, some imports can be competitive in certain circumstances. For example, lower production costs have increased price competition and imports of lentils from Chile and Mexico. Canada has increased lentil

production, and an increase in exports is likely to follow in light of the Canada-U.S. Free Trade Agreement.

Because the United States is a net pulse exporter, American trading companies are mainly exporters. However, they do import some pulses if there is a clear cost advantage to doing so. Trading companies have supply contracts with food processing and retail companies. If for some reason there are unforeseen shortages in domestic supply (e.g., a local crop failure), they will buy some foreign product to meet their contract obligations. Often this will be done with purchases from third-party brokers who buy and sell agricultural produce internationally.

The U.S. Government has little import protection or production promotion policy for beans or pulses in the U.S. Most pulse varieties have their own harmonized system of code numbers, and associated import regulations. Import duties on pulses depend upon the crop, the season, and the country of origin. The average import duty is about \$0.025 per kg., but on some products can go as high as \$0.033 per kg. Imports of some varieties that are grown in the U.S. are free of duty at times of the year when there is no U.S. harvest.

Certain countries (including Lesotho) are permitted duty free pulse imports to the U.S. While this may give Lesotho a slight price advantage over other importers, it is unlikely that fiscal considerations will play a major part in the decision on whether to purchase pulses from Lesotho.

There were 38 identified major firms in the U.S. that import seed and pulses along with 26 major processors of pulses. We conducted detailed trade discussions with a randomly selected group of seven such firms (Exhibit 3.1.3) and held detailed discussions with pulse industry information sources (Exhibit 3.1.4). These discussions shed light on the pulse import conditions in the U.S. A composite listing of major U.S. dry pea and lentil processors and importer/exporters is presented in Appendix 3.1.E.

**Exhibit 3.1.3**

**Major U.S. Pulse Importers/Exporters and Processors**

**Berger and Company**  
1050 Sanaome Street  
San Francisco, CA 94111

Telephone: (415) 956-6100

**Commodities Reserve Co.**  
88 Kearny Street  
Suite 700  
San Francisco, CA 94108

Telephone: (415) 989-9160

**Roger's Seed Company**  
PO Box 4727  
Boise, Idaho 83711

Telephone: (208) 322-7272

**Trinidad Bean and Elevator**  
3425 South Yosemite  
Denver, CO 80222

Telephone: (303) 368-7200

**George F. Brocke & Sons, Inc.**  
PO Box F  
Kendrick, Idaho 83537

Telephone: (208) 289-4242

**Continental Grain Co.**  
200 Market Building  
Suite 1050  
Portland, Oregon 97201

Telephone: (503) 228-9222

**Max Hinricks Seed Co., Inc.**  
Rt. 2 Box 606  
Pullman, WA 99163

Telephone: (509) 334-4412

**Exhibit 3.1.4**

**Discussions Held with Major U.S. Pulse Industry Information Sources**

**U.S. Dry Pea and Lentil Council**  
P.O. Box 8566  
Moscow, Idaho 83843

Telephone: (208) 882-3023

**Dry Bean Association**  
531-a North Alta Avenue  
Dinuba, CA 93618

Telephone: (209) 591-4866

**California Bean Growers Association**  
P.O. Box 512  
Oxnard, CA 93032

Telephone: (805) 483-2261

**Michigan Bean Shippers Association**  
P.O. Box 6008  
Saginaw, Michigan 48608

Telephone: (517) 790-3010

**USDA Foreign Agricultural Service**  
Trade, Economic, and Information  
Division  
FAS/IAS/TEID  
Room 6505 South Building  
14th and Independence, SW  
Washington, DC 20250

Telephone: (202) 382-9055

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**Exports of Pulses from Africa**

The Foreign Agricultural Service of the U.S. Department of Agriculture (FAS-USDA)<sup>2</sup> does not keep separate records for seed beans, beans, peas, and lentils; rather, aggregate totals of pulses imported from each country are given. Their data cover many varieties including kidney beans, white beans, and lima beans. FAS-USDA import statistics for pulses are broken down by importing country, and Exhibit 3.1.5 gives the sources of U.S. imports by region (Appendices 3.1.C and 3.1.D give a complete listing of the quantity and value of U.S. pulse imports over the last five years by country).

Total imports from Sub-Saharan Africa (excluding South Africa) have fluctuated widely, from 1,224 tons in 1984 to 483 tons in 1985. This is a very small percentage of the total quantity of pulses imported to the U.S. There does not seem to be any correlation between aggregate imports and imports originating in Sub-Saharan Africa, and hence, no obvious way of predicting the trends in the market share of this region.

Imports from Sub-Saharan Africa are further disaggregated in Exhibit 3.1.6. Kenya and Malawi are the largest pulse exporters to the U.S. in this region -- together they accounted for nearly all the Sub-Saharan exports to the U.S. in 1988. Six of the countries -- Angola, Cameroon, Ethiopia, Mozambique, Madagascar, and Zimbabwe, have only exported in one year out of the last five. The total value of Sub-Saharan imports of pulses into the U.S. in 1988 was a mere \$560,000.

Trading companies dealing with pulses that we conducted discussions with indicated they believe that African exports to the U.S. may further decline, with more product being shipped to European markets. A few U.S. firms mentioned they bought surplus African

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<sup>2</sup> Incidentally, the raison d'être of the Foreign Agricultural Service is to promote U.S. agricultural exports for the benefit of U.S. farmers and the U.S. economy. They pursue this goal aggressively, and have very little interest in developing new import markets even if U.S. companies are involved. Consequently, information on possible market niches for new exporting countries was not forthcoming from this source.

**Exhibit 3.1.5**

**U.S. Imports of Pulses by Country or Region  
(in metric tons)**

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
<b>Country or Region of Origin*</b>					
Canada	8,061	7,167	12,575	14,756	16,639
Mexico	10,168	8,001	9,663	10,166	11,334
South America	1,284	2,436	2,535	8,009	5,487
Southeast & East Asia	6,378	9,007	5,156	3,881	5,271
Oceania	2,629	4,194	3,010	2,983	3,398
Middle East	1,745	1,309	1,704	1,973	1,863
South Asia	881	1,308	1,142	1,326	1,430
European- Economic Community	493	67 <sup>a</sup>	850	826	972
Sub-Saharan Africa (a)	1,224	483	839	1,197	745
Others (b)	<u>141</u>	<u>57</u>	<u>273</u>	<u>441</u>	<u>160</u>
<b>TOTAL</b>	<b>33,004</b>	<b>34,632</b>	<b>37,747</b>	<b>45,558</b>	<b>47,299</b>

Notes: (a) Excluding the Republic of South Africa.  
 (b) Includes Central America, North Africa, Non-EEC Europe,  
 and the Republic of South Africa.

\* Countries and regions are ranked by the level of exports to the U.S. in 1988.

Source: Foreign Agricultural Service Computer Data Base,  
 U.S. Department of Agriculture, February 1989.

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**Exhibit 3.1.6**

**U.S. Imports of Pulses from Sub-Saharan Africa  
(in metric tons)**

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
<b><u>Country</u></b>					
Cameroon	0	0	0	0	84
Angola	0	0	21	0	0
Ethiopia	16	0	0	0	0
Kenya	986	360	631	880	417
Tanzania	0	18	18	54	0
Mozambique	38	0	0	0	0
Madagascar	62	0	0	0	0
Zimbabwe	0	0	0	158	0
Malawi	122	105	169	105	244

Source: Foreign Agricultural Service Computer Data Base,  
U.S. Department of Agriculture, February 1989.

product in Europe through third party brokers when buying pulses on the spot market was necessary.

A general impression has developed in U.S. companies that African countries are not reliable suppliers. They also have a bad reputation for product quality, resulting from inadequate processing, storage, and sanitation in the country of origin. Several U.S. industry representatives with whom detailed discussions were held referred to Ethiopian lentil imports that were infested with weevils in 1984. After this initial shipment of 15 tons was completed, no further pulses have been imported from that country.

#### **Issues and Barriers Relative to Marketing African Pulses in the U.S.**

The U.S. Dry Pea and Lentil Council has a grower assessment program in place under the Federal Marketing Order Program. The group is providing funds to promote their product aggressively, although the funding of these programs is considered minor compared with other Federal Marketing Order Program promotions for oranges and grapefruit.

The promotion of a product under this program is generic: there is no support for a particular label. Consequently, an increase in pulse consumption could be met by imported beans, and it is likely exporters in Africa (Lesotho) could benefit from this increase in demand.

Based on our discussions with the U.S. industry, the following issues must be addressed in order for pulses to be imported regularly from Lesotho.

- There must be a clear price incentive to import from this country. It must be recognized that transportation costs from Mexico and other South American countries are relatively inexpensive and may be substantially less than from

Africa. A careful analysis of the production quantities and costs (e.g., labor, transport) will be needed before the pulse importing industry can formulate serious opinions about the purchase of pulses from Sub-Saharan Africa in adequate volumes to meet demand.

- The perceived risks of operating in Lesotho must overcome. Because of its location within South Africa, the fear of political actions against exports from Lesotho exists within some U.S. companies. A high rate of return will be needed to compensate for this "risk factor" and may result in firms being less likely to invest in production facilities. It would be beneficial if A.I.D. could assist in facilitating interaction between U.S. importers and Lesotho exporting firms. A.I.D. could work to ensure U.S. firms of the Government of Lesotho's support and intervention (as required) to increase confidence relative to regional political stabilization. The involvement of A.I.D. could increase the confidence of U.S. firms, and thus may be an important factor in helping to mitigate this problem.
- Prejudices, real or imaginary, against African exports must be overcome. These are not universal, but where they exist they are primarily associated with the possibility of poor quality and infested (with weevils) crops. This situation will require a determination of the investment necessary for fumigation, processing, and storage facilities that are of a uniform standard acceptable to international trading companies. Lesotho must demonstrate a commitment to the importer.

Quality control by an international firm may help in the operation of pulse processing and storage facilities. Through a transfer of technical and managerial skills (e.g., fumigation and processing) the problems of pulse quality could be minimized. A joint venture would permit a pulse exporter to have some guarantees of the quality of pulse shipments, and perhaps would raise the confidence of other trading companies. Expatriate staff involvement for perhaps three to five years may be necessary to create a viable joint venture company in Lesotho.

Although U.S. firms have shown initial interest in pulse exports from Lesotho, this interest is somewhat limited at the present time. Based on current information, the leading U.S. pulse import firms have reservations about the suitability of importing from this country when other established trading partners are available (e.g., Latin America). Major investments in Lesotho are unlikely until potential stable markets have been identified. However, it was mentioned in the discussions with importers and processors that U.S. firms could provide technical assistance staff if the import potential appeared to be attractive enough.

**3.2 The European Market (United Kingdom, West Germany, Holland)**

In this preliminary market assessment, we held detailed discussions with key companies involved in international pulse trade, industry/trade experts, and agricultural Ministries, and have drawn upon published data provided by European government agencies and trade organizations in the United Kingdom, West Germany, and Holland. The generic identifier "Europe" will be used for these three nations in the remainder of this report unless otherwise stated.

**Consumption of Pulses in Europe**

The European pulse market offers the greatest potential to exporters among the markets examined here. Although overall consumption of dry peas is falling (as a result of increased availability and better quality of fresh and frozen peas), the per capita consumption of pulses has risen from 2.7 kg in the early 1980s to an estimated 7.5 kg at present.

This increase in pulse consumption can be attributed to the following factors:

- Increased awareness of protein/healthful qualities of pulses
- Demand generated by ethnic-based populations of African, Asian and Caribbean origin who wish to retain their traditional eating habits. (The estimated population of ethnic origin in Western Europe is 16 million)
- Europeans' increased awareness of ethnic-based foods and a desire to try them due to more frequent international travel, increased media coverage, and the desire to eat more interesting and exciting foods

- Improved pulse varieties with reduced preparation and cooking time
- Continued dominance of the food-use sector as the main area of high value business as opposed to animal feeds
- Stable growth in the health food sector which can no longer be regarded as a fad but a distinct market niche.

In the food processing sector, the major canning companies will look to obtain pulses directly from growers/exporters rather than through brokers/principals and/or importers. By sourcing directly, canners can assure themselves of adequate supplies to meet consumer demand.

As the eating habits of European consumers continue to diversify, the amount of canned pulses will increase. The ethnic-based population is expected to remain a steady-state market.

### **Production of Pulses in Europe**

Together, the United Kingdom, West Germany, and Holland are the world's fourth-largest producer of pulses (after India, Russia, and China): their production reached 5 million tons in 1988. Production has increased rapidly since the late 1970s as the result of government subsidies to make domestic beans, peas, and lentils competitive with

imported foodstuffs Exhibit 3.2.1 depicts bean and pea production amounts for the periods 1987/88 and 1988/89.

There continues to be support for domestic European pulse production under the European Economic Community's Common Agricultural Policy which allows European pulses to sell at \$10-\$15 per ton less than, for example, U.S. exports. European financial support mechanisms (subsidies) established for pulse production exceeded \$650 million in 1987-88 -- five times the figure at the beginning of the decade. The European farming lobby is very strong politically, and more likely than not, would not support any reduction in financial support to growers.

### **Imports of Pulses to Europe**

Despite an increasing internal production of pulse crops, European imports have grown in excess of 1 million tons per year. The United States, Oceania, Eastern Europe, South America, and China are the major source of pulses imported to the European market. It is anticipated that because of its exceptionally high quality standards and competitive pricing structure, the U.S. will remain Europe's major supplier of high quality pulses for canning and processing well into the 1990s. Turkey will become the largest (and fastest growing) exporter among developing countries, particularly of lentils and chick peas. The potential for developing countries to increase their exports will depend not only on the overall growth in import demand but also on their ability to compete on price and quality, especially in the higher value markets (canning and processing) in Europe, currently dominated by the U.S.

**Exhibit 3.2.1**

**European Production of Beans and Peas  
1987/88 and 1988/89  
(in thousand metric tons)**

<u>Country</u>	<u>1987/88</u>	<u>1988/89</u>
United Kingdom	570	856
Netherlands	170	180
West Germany	<u>333</u>	<u>328</u>
TOTAL	1,073	1,364

Source: UK Government/Eurostat (1988/89 figures are estimated)

The main international import organization involved in the European pulse industry is the International Pulse Trade Industry Confederation (IPTIC) which is based in Paris. IPTIC is composed of the national trade associations of each of its member countries. The national associations in turn represent the interests of their members, be they importers, canners, or traders as referenced below:

- British Edible Pulse Association
- UK Grain and Feed Trade Association
- Dutch Product Board for Arable Crops
- Grain Dealers Association of the Hamburg Exchange

Europe is a broad and varied market for a wide range of pulses handled by importers, brokers, and wholesalers, all with established market niches. The typical range of beans, peas, and lentils imported and traded in the European arena are:

<u>Beans</u>		<u>Peas</u>	<u>Lentils</u>
Adzuki Beans	Lingot Beans	Alaska Peas	Brown Whole
Alubia Beans	Minden Beans	Blackeye Peas	Green Laird
Black Kidneys	Mung Beans	Blue Peas	Green Large
Broad Beans	Navy Beans	Chick Peas	Green Regular
Brown Kidneys	Pallares Beans	Dun Peas	Green Small
Butter Beans	Palmena Beans	Feeding Peas	Green Speckled (Du Puys)
Cranberry Beans	Pea Beans	Green Peas -	Green Splits
Faba Beans	Pinto Beans	Whole and Split	Red Whole
Flageolets	Red Kidneys	Maple Peas	Red Splits <sup>3</sup>
Foules Medames	Rosecoas	Marrowfat Peas	
Great Northerns	Soya Beans	Pigeon Peas	
Haricot Beans	Speckled Kidneys	Rondo Peas	
Horse Beans	Tic Beans	White Peas	
Lima Beans	White Beans	Yellow Peas -	
	Yellow Beans	Whole and Split	

<sup>3</sup> The U.K. market prefers red split lentils whereas West Germany and Holland have a preference for green split lentils.

Trading organizations in Europe conduct all import trade under the terms and agreements of the Grain and Feed Trade Association which specifies strict terms and conditions for quality, price, payment, insurance, proof of shipment, default, sampling/allowance, loading/discharging arbitration procedures, etc.

There were identified 42 major seed and pulse import/export firms in an European target-nation markets that import product. We conducted detailed trade discussions with a randomly selected group of ten of these firms (Exhibit 3.2.2) and held a dialogue with pulse industry information services (Exhibit 3.2.3). These discussions shed light on the pulse import conditions in Europe. A composite listing of major pulse processors and importers/exporters is presented in Appendix 3.2.A (U.K.), Appendix 3.2.B (West Germany), and Appendix 3.2.C (Holland).

### **Exports of Pulses from Africa**

At this time Europe imports extremely limited quantities of pulses from Africa because it associates all pulses exported from that region with the inherent problem of weevils. This is due to the U.S. experience with pulses it imported from Ethiopia in 1984. Practically the entire crop was infested with weevils. Based on this negative U.S. experience, Europe has not looked recently toward Africa as a potential source of pulses.

However, some European trading companies did express preliminary interest in investigating the potential for expanding their existing import base to include exports from Lesotho -- realizing the U.S. experience may not be totally indicative of overall product quality.

**Exhibit 3.2.2**

**Major European Pulse Importers/Exporters and Processors**

**Rio Del Mar, Ltd.**  
Berisford Wing  
1 Prescott Street  
London EI8AY

Telephone: 01-628-1825

**A. Poortman, Ltd.**  
Prescot House  
32 Prescott Street  
London EI8BB

Telephone: 01-481-2110

**Mandalia, Ltd.**  
287/89 Burnt Oak Broadway  
Edgeware  
Middlesex HA87LU

Telephone: 01-951-3133

**Kent Produce Company, Ltd.**  
St. Bridges House  
32 Beckenbam High Street  
Beckenbam  
Kent BR31AY

Telephone: 01-658-7711

**K.A. Becher GmbH & Co.**  
Slevogtstrasse 50  
D-2800 Bremen 1

Telephone: 0421-340-10

**Gerhard Goluecke GmbH & Co.**  
Glockengiesserwall 19  
D-2000 Hamburg 1

Telephone: 040-33-77-37

**Pehle & Beckmann GmbH & Co.**  
Leege Weg 14  
D-2955 Bunde

Telephone: 049-53-543

**Schleuter & Maack GmbH & Co.**  
Ost-West Strasse 49  
D-2000 Hamburg 11

Telephone: 040-32-81-100

**Cheve N.V.**  
Postbus 200-5460 BC Veghel  
Pater van den Elsenloan 4  
54462 GG VEGHEL

Telephone: 04130-82255

**A.C. Toepfer International B.V.**  
Postbus 324-3000 AH Rotterdam  
Westblaak 5-7 3012 KC Rotterdam

Telephone: 010-4246800

**Exhibit 3.2.3**

**Dialogue Conducted with Major European Pulse Industry Information Services**

**International Pulse Trade Industry  
Confederation**  
Room 286  
Bourse de Commerce  
75040 Paris Cedex-01  
FRANCE

Telephone: 14-2368435

**British Edible Pulse Association**  
c/o Bachelors Food Limited  
Wadsley Bride  
Sheffield S6 1NG  
UNITED KINGDOM

Telephone: 0742-349422

**UK Grain and Feed Trade Association**  
Baltic Exchange Chambers  
28 St. Mary Axe  
London EC3 AEP  
UNITED KINGDOM

Telephone: 01-283 5146

**Royal Dutch Grain and Feed Trade  
Association**  
Heer Bokelweg 157B  
PO Box 202  
AE Rotterdam  
HOLLAND

Telephone: 10 - 4673188

**Product Board for Arable Crops**  
Stadhoudersplantsoen 12-18  
PO Box 29739  
2502 LS The Hague  
HOLLAND

Telephone: 70-708708

**Verein der Getreidehaendler de  
Hamburger**  
Boerse ev (Grain Dealers Association of  
the Hamburg Exchange)  
Boerse Kentor 24  
D-2000 Hamburg  
WEST GERMANY

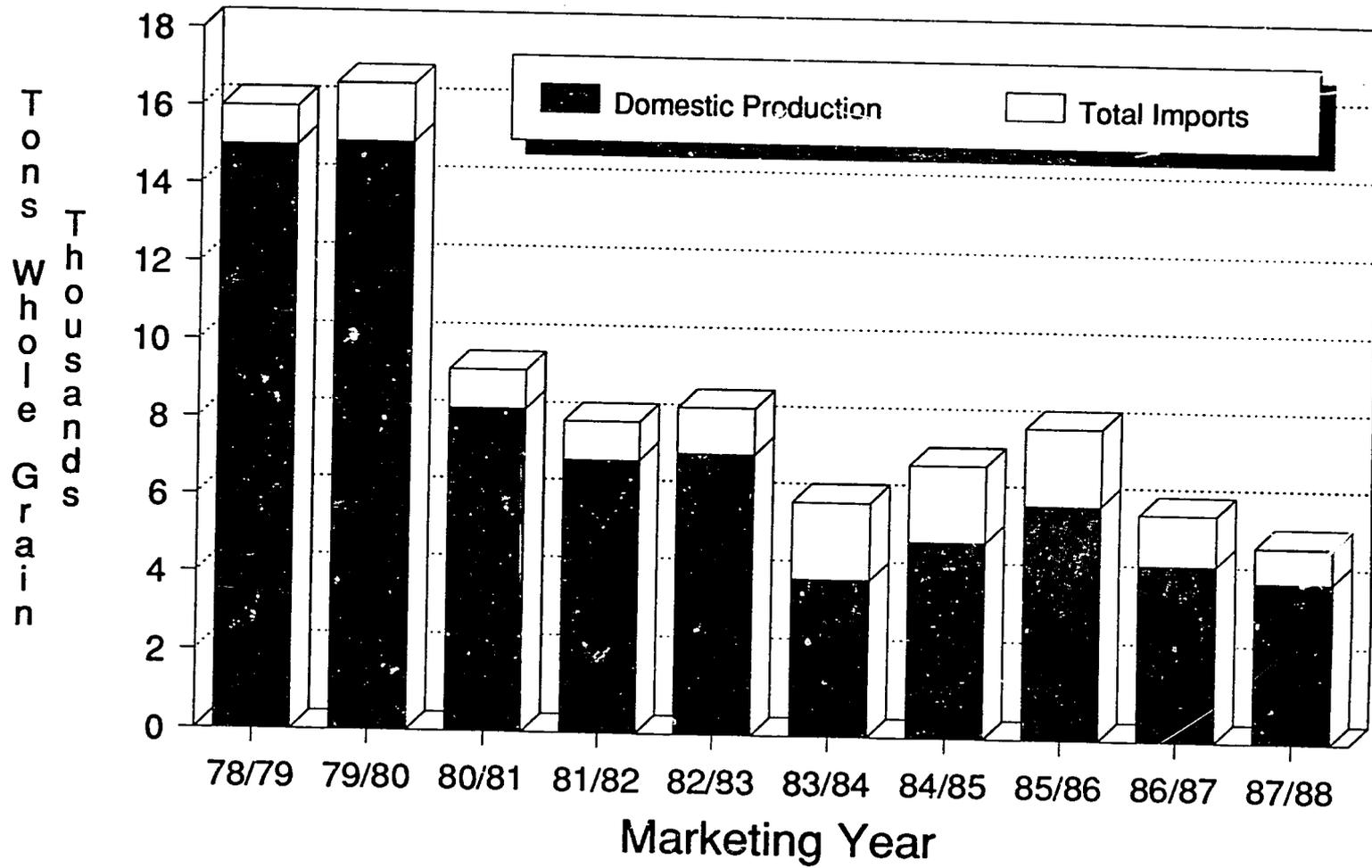
Telephone: 40 - 36 20 25

The European market is interested in export trading relationships (potentially an additional source being Lesotho) that offer long-term supplies of high quality pulses that have been fumigated to protect against weevils and graded and cleaned before shipment. If Lesotho can export the requisite product, it should be prepared to: trade on a cash-against-delay basis until the regularity of quantity and quality can be established, accept price agreements made 30 days in advance of shipment, and provide a standard certificate of health from the Ministry of Agriculture to ensure the import of disease-free pulses.

Different qualities and grades of pulses will each have a different price structure. Should it be deemed practical to encourage Lesotho to export to Europe, Lesotho growers/exporters will not be able, initially, to exert influence on the market price due to the small quantities likely to be involved and the fact that they will be a new market entrant. However, it may be possible to reach an agreement with importers to stimulate initial sales development. For example, prices could be agreed to before pulse crops are even planted if supplies are of high quality, a sound trading relationship has been established, and the quantities to be traded are large (Exhibit 3.2.4 shows that for the last five marketing years, domestic production has declined. This has a direct impact on Lesotho's present ability to provide large quantities of pulses to be traded on the world/European market). However, by agreeing to prices well in advance, changes in market conditions could mean large sums of money could be made or lost. It is anticipated, that per industry discussions, growers/exporters from Lesotho may have to accept price agreements generally made 30 days in advance of shipment.

Lesotho is faced with tough competition for a share of the European market for pulses from both internal production and other established sources of supply. The main sources of external supply to European markets for pulses have traditionally been the U.S. followed by countries such as Canada, Australia, China, Argentina, Mexico, Chile, Turkey, Eastern Europe, South Africa and East African countries -- notably Ethiopia and Tanzania.

Exhibit 3.2.4  
Total Pulse Supply in Lesotho



Source: Lesotho Bureau of Statistics

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**Issues and Barriers Relative to Marketing African Pulses in Europe**

Most importers felt that the current quality and quantity of pulses available from Lesotho may not meet European standards. Further, importers stated that entering into a joint venture import/export/management arrangement at the present time would be highly unlikely unless more was known about the current market structure, processing facilities, and quality control guidelines Lesotho has/will establish. In that Lesotho has a limited or non-existent history of trading pulse crops in Europe, its exporters have only a limited knowledge of Europe's export requirements, particularly those relating to grading, pricing, and contractual requirements. This situation will necessitate an evaluation of the institutional framework and technical assistance requirements needed to support a pulse export project and to consider the most practical method of market entry and competitive pricing for Europe.

However, one U.K. company with a particular interest in Southern Africa and which jointly owns a trading/export company in Zimbabwe, expressed preliminary interest in establishing such a venture in Lesotho. But it was stated that much more information is needed (e.g., a marketing model, organizational structuring, marketing strategy) relative to Lesotho's ability to enter into and sustain such a trade/export venture.

Further, exports from Lesotho, although entering Europe duty-free under regulations of the African-Caribbean-Pacific LOME Convention, will be in direct competition with subsidized domestic production which is already cheaper (on the average of \$10-\$15/ton) than U.S. imports.

Lesotho being land-locked will necessitate pulse shipments being made via South Africa. This issue has some European processors (canners and packers) quite concerned: they are reluctant to handle produce that has any connections with South Africa.

Potential importers have frequently stated that pulse supplies from Africa are automatically associated with the problem of weevils and as a result, regard new suppliers from the continent with suspicion. Other African countries that market pulses to Europe (e.g., Ethiopia, Kenya) are seen as suppliers of poor quality/low quantity irregular shipments. Lesotho is viewed in the same manner merely by geographic association.

The lack of sufficient export financing needs to be thoroughly addressed so as not to become a constraint in gaining market acceptance and market access. Developing country exporters such as Lesotho do not have the extensive resources of developed countries, thereby allowing the latter a much stronger market position in the short, mid, and long-terms.

Overall, preliminary interest in trading with Lesotho has been shown by the European nations assessed. This interest would indicate that with top quality and adequate quantity of pulses guaranteed, and overall cost/economic factors being beneficial to the importing nation, that an export produce activity from Lesotho could conceivably be undertaken and future joint venture opportunities considered.

**3.3 The Inter-Regional Market**

The assessment of the inter-regional market (Swaziland, Botswana, Mozambique, Zimbabwe, and the Republic of South Africa) is non-conclusive due to the lack of detailed, well documented, and credible information.

Limited regional statistics were obtained (Exhibit 3.3.1) but they are incomplete. Thus, care must be taken when interpreting the initial data. Without carrying out a detailed study in-country to analyze the inter-regional markets directly, it was not possible to obtain adequate statistics or trade information, or hold discussions with individual importers/exporters/processors as was the case for the U.S. and Europe.

### Exhibit 3.3.1

#### Africa Pulse Harvest and Yield 1985 - 1987

	Area Harvested (000 ha)			Production (000 Mt)		
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Africa	10,439	11,240	11,090	6,144	7,247	629
Ethiopia	915 *	929 *	926 *	929 *	986 *	885 *
Kenya	480	480	500 *	432	518	460 *
Morocco	524	506	515 *	401	468	376 *
Niger	1,604	1,614	1,625 *	133	313	256 *
Nigeria	1,420 *	2,270 *	2,120 *	661	1,332	1,050 *
South Africa	78	89	87	102	112	95
Sudan	85 *	93	99	108 *	119	112
Tanzania	680 *	696 *	711 *	366 *	376 *	385 *
Uganda	640 *	670 *	670 *	503	528 *	528 *
Zimbabwe	63 *	64 *	65 *	47 *	48 *	45 *

\* FAO estimate due to incomplete data

Source: FAO Commodity Review

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## **CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 The U.S. Market**

While U.S. firms have shown an initial interest in Lesotho as a "new source" market, they have been very direct in stating that more detailed information is needed before they can make a definitive commitment about their potential trading involvement. Unfortunately, pulses from Sub-Saharan Africa have a poor reputation for quality and supply reliability.

Rather than dedicate exports from Lesotho to the U.S., a better approach may be to establish export facilities that primarily supply export markets in Europe and elsewhere in Africa. Pulses could then be exported to the U.S. on a spot basis when the need arises. U.S. companies are at times involved with trade between different countries (e.g., South Africa to Europe) and could potentially trade Lesotho pulses in this manner.

A detailed examination of the export of pulses from Malawi and Kenya would be useful to identify any important steps taken in these countries to create and maintain exports (the values of exports from Malawi and Kenya to the U.S. in 1988 were \$238,000 and \$275,000 respectively). In particular, any actions taken in these countries (and perhaps in the Republic of South Africa) to limit weevil infestation should receive special attention.

Relative to the U.S. involvement (in concert with the Ministry of Agriculture) in developing, structuring, and implementing a pulse export program from Lesotho, the industry-at-large has recommended that A.I.D. and the Mission determine, at a minimum, the:

- Varieties of pulse that could be produced and the production techniques to be adopted

- Volume of pulses that could be marketed and the development lead time involved
- Institutional, management, and organizational structures needed to sustain the export trade
- Degree of technical assistance needed to maintain pulse quality
- Level of investment necessary to establish an export project and maintain niche markets
- Degree of political risk associated with pulse exports from Lesotho
- Development and application of existing export market models for pulses
- Financial and economic parameters of the project to determine its mid- to long-term viability
- Institutional, financial, and marketing support required from the Government of Lesotho, the Mission, and A.I.D. to initiate and maintain an export program.

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**4.2 The European Market (United Kingdom, West Germany, Holland)**

Pulse consumption is increasing in Europe as people move toward healthy, low cholesterol diets. At this time, however, pulses for this market are imported mostly from the U.S., Canada, and Turkey.

While industry discussions have indicated a willingness to consider Lesotho as new supplier of pulses to the European marketplace, importers have had very unsatisfactory experience with the finished product from Africa in general. It appears that Africa's reputation is characterized by poor business practices, unreliable supply, weevil infestation, and less than a total commitment toward the development of customer relationships.

Despite this, we found that European importers were interested in learning more about the possibilities of doing business with Lesotho. It is fair to say that prospective importers know very little about the country. Trade discussions did suggest it seemed feasible that Lesotho could develop an export trade in pulses. But it would not be easy. The main interest generated was due to the possibility of a new entrant into the pulse production/export market -- one which could supply the promising pinto variety.

However, much more detailed information will be required regarding the potential for Lesotho to become an active participant in the international pulse market prior to Europe making a final commitment to export from that country.

The industry representatives we conducted discussions with stressed that to ensure the export success of Lesotho pulse products, the industry must be assured that:

- Adequate volumes of pulses are available for export
- The correct variety can be exported in homogeneous consignments

- An adequate exporting infrastructure exists
- Consignments are properly treated for weevils and containers are properly fumigated
- Lesotho is prepared to demonstrate a commitment to the importer
- Pricing must be competitive.

Before any significant progress can be made, it will be necessary to examine the environment in Lesotho more closely to:

- Evaluate the impact of trial work on the Pinto bean and its subsequent commercialization
- Evaluate the commercial and export potential of other pulse varieties
- Evaluate current productivity problems of low yields to assess how these may be overcome
- Develop forecasts and supply availability schemes for exports
- Evaluate the institutional infrastructure to support an export project/joint venture
- Evaluate the optimum transport configuration

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- Review necessary technical assistance to upgrade pulse quality to export standard
- Consider grower incentives
- Determine the investment necessary with supporting financial analyses
- Consider the most practical method of market entry.

**4.3 The Inter-Regional Market**

Due to the limits of the initial phase of this assessment, it was not possible to determine the relative position on inter-regional trade from Lesotho to other geographically associated nations and draw appropriate conclusions and recommendations.

In conclusion, to develop and implement a pulse export/joint venture program that is totally responsive to the needs of U.S. and European importers, additional field work in Lesotho and a comparative assessment of export programs (export models) in neighboring countries (e.g., Tanzania, Kenya, Zimbabwe) need to be initiated.

Although the potential for exporting of pulses from Lesotho exists, it will require a detailed analysis of existing management and marketing structures in Lesotho, as well as a further evaluation of potential joint venture opportunities in the U.S. and Europe.

There is an opportunity for market entry. Lesotho must be effectively promoted and a serious commitment for export development must be garnered from the Government and the Ministry of Agriculture to support the agricultural strategy objectives of A.I.D.'s Office of Market Development and Investment/Africa Bureau and the agriculture and agroindustry goals of the Mission's long-term MAPS program.

## APPENDICES

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**APPENDIX 3.1.A**

**DRY PEA, LENTIL AND CHICKPEA PRODUCTION DATA, 1978-87**

# DRY PEA, LENTIL & CHICKPEA PRODUCTION DATA, 1978-1987\*

<u>Regular Greens</u>				<u>Small Sieve Greens</u>			
YEAR	Acreage	Average Yield (lbs)	Production (lbs)	YEAR	Acreage	Average Yield (lbs)	Production (lbs)
1987	145,770	2052	299,120,040	1987	10,409	2176	22,650,023
1986	152,556	1684	256,911,751	1986	9,999	1825	18,244,380
1985	128,167	1686	210,526,719	1985	11,181	1909	21,343,730
1984	166,772	1482	247,160,745	1984	19,717	1452	28,636,184
1983	140,170	1836	257,350,017	1983	17,999	2092	37,658,778
1982	141,035	1518	214,153,461	1982	28,943	1582	45,805,684
1981	65,208	2133	138,428,000	1981	15,532	2241	34,800,500
1980	90,016	2474	222,732,464	1980	26,354	1892	49,850,058
1979	88,718	1517	134,595,820	1979	19,006	1707	32,442,811
1978	123,357	1690	208,512,837	1978	20,253	2176	44,067,031
10 year Average	124,177	1763	218,949,185	10 year Average	17,939	1870	33,549,918

<u>Yellow Peas</u>				<u>Lentils</u>			
YEAR	Acreage	Average Yield (lbs)	Production (lbs)	YEAR	Acreage	Average Yield (lbs)	Production (lbs)
1987	20,641	1515	31,260,964	1987	152,115	1115	169,608,015
1986	17,502	1725	30,190,698	1986	161,220	1107	178,470,540
1985	18,974	1492	28,302,689	1985	109,533	752	82,364,290
1984	14,738	1458	21,493,540	1984	71,766	830	59,559,964
1983	33,256	1718	57,132,550	1983	100,960	930	93,928,407
1982	38,094	1529	58,251,547	1982	182,977	856	156,723,310
1981	34,444	1886	64,971,630	1981	192,978	1023	197,416,500
1980	19,410	2232	43,316,529	1980	227,695	947	215,650,000
1979	25,342	1314	33,300,987	1979	158,110	903	142,810,895
1978	52,004	1725	89,690,896	1978	132,344	999	132,166,574
10 year Average	27,441	1669	45,791,203	10 year Average	148,970	959	142,869,850

<u>Chickpeas</u>				<u>Austrian Winter Peas</u>			
YEAR	Acreage	Average Yield (lbs)	Production (lbs)	YEAR	Acreage	Average Yield (lbs)	Production (lbs)
1987	11,675	518	6,046,284	1987	25,761	2023	52,115,305
1986	9,122	1048	9,557,699	1986	27,892	1556	43,400,729
1985	5,497	1112	6,111,189	1985	26,282	1055	27,717,691
1984	1,672	1324	2,214,795	1984	31,826	1032	32,844,460
1983	3,034	978	2,967,966	1983	23,330	1745	40,710,492
				1982	29,117	1326	38,628,577
				1981	10,400	1425	14,819,900
				1980	28,927	862	24,949,471
				1979	23,000	864	19,873,851
				1978	25,000	1511	37,781,614
				10 year Average	25,154	1323	33,284,209

\*Source: As reported to the Association by the Processors.

**APPENDIX 3.1.B**

**MAJOR EXPORT MARKETS FOR U.S.A. DRY PEAS AND LENTILS, 1986-87**

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# 1986/87 TOP EXPORT MARKETS FOR U.S.A. DRY PEAS & LENTILS

<u>GREEN PEAS</u>	<u>VOLUME (MT)</u>	<u>VALUE (US\$)</u>
1) India .....	18,014	\$ 5,014,538
2) Colombia .....	15,535	3,191,143
3) Venezuela .....	8,078	2,628,987
4) Brazil .....	6,682	1,925,377
5) Peru .....	<u>5,525</u>	<u>2,145,238</u>
<b>TOTAL WORLDWIDE EXPORTS .....</b>	<b>70,990</b>	<b>\$20,240,026</b>

<u>YELLOW PEAS</u>	<u>VOLUME (MT)</u>	<u>VALUE (US\$)</u>
1) Iraq .....	3,512	\$ 1,399,616
2) Hong Kong .....	1,777	404,338
3) Panama .....	546	156,808
4) Netherlands .....	385	178,471
5) Hong Kong .....	<u>231</u>	<u>71,198</u>
<b>TOTAL WORLDWIDE EXPORTS .....</b>	<b>7,380</b>	<b>\$ 2,565,397</b>

<u>AUSTRIAN WINTER PEAS</u>	<u>VOLUME (MT)</u>	<u>VALUE (US\$)</u>
1) Japan .....	5,142	\$ 1,400,752
2) Taiwan .....	<u>3,388</u>	<u>687,195</u>
<b>TOTAL WORLDWIDE EXPORTS .....</b>	<b>9,241</b>	<b>\$ 2,290,000</b>

<u>LENTILS</u>	<u>VOLUME (MT)</u>	<u>VALUE (US\$)</u>
1) Spain .....	12,039	\$ 6,067,963
2) Greece .....	4,774	2,365,359
3) Italy .....	4,484	2,306,072
4) Lebanon .....	2,728	1,307,030
5) Germany .....	<u>2,030</u>	<u>1,024,872</u>
<b>TOTAL WORLDWIDE EXPORTS .....</b>	<b>37,789</b>	<b>\$19,594,259</b>

SOURCE: USDA, September 1986 - August 1987

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**APPENDIX 3.1.C**

**U.S. AGRICULTURAL IMPORTS BY SOURCE, 1984-88 (IN TONS)**

COMMODITY IMPORTED AND ORIGIN AREAS/COUNTRIES	C U M U L A T I V E T O D A T E Q U A N T I T Y				
	01/84-12/84	01/85-12/85	01/86-12/86	01/87-12/87	01/88-12/88
PULSES 125	in Metric Tons				
North America					
Canada 122	8,061	7,167	12,575	14,756	16,639
Mexico 201	10,168	8,001	9,663	10,166	11,334
SUBTOTAL.....	18,229	15,168	22,238	24,922	27,973
Caribbean					
Dominican Republic 247	12	18	63	0	22
Leeward-Windward Isl 248	0	2	0	0	0
SUBTOTAL.....	12	20	63	0	22
Central America					
Guatemala 205	3	10	17	65	14
Belize 208	0	0	16	1	0
El Salvador 211	0	0	39	0	0
Honduras 215	0	0	21	0	0
Costa Rica 223	28	0	0	0	0
SUBTOTAL.....	31	10	93	66	14
South America					
Colombia 301	222	0	84	16	1
Venezuela 307	17	0	73	33	0
Ecuador 331	226	12	0	0	0
Peru 333	486	1,590	1,356	1,275	1,573
Chile 337	157	416	591	5,375	2,754
Brazil 351	20	36	1	22	18
Argentina 357	156	382	430	1,288	1,141
SUBTOTAL.....	1,284	2,436	2,535	8,009	5,487
EC-12					
United Kingdom 412	175	128	241	212	190
Ireland 419	42	95	75	99	122
Netherlands 421	10	12	29	16	104
Belgium-Luxembourg 423	25	165	65	25	43
France 427	7	9	7	6	49
Germany, Federal Rep 428	12	3	117	212	215
Spain 470	0	0	1	0	1
Portugal 471	74	137	191	135	169

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\* \* \* \* \*

COMMODITY IMPORTED AND  
 ORIGIN AREAS/COUNTRIES

----- C U M U L A T I V E T O D A T E Q U A N T I T Y -----  
 01/84-12/84 01/85-12/85 01/86-12/86 01/87-12/87 01/88-12/88

		in Metric Tons				
		01/84-12/84	01/85-12/85	01/86-12/86	01/87-12/87	01/88-12/88
PULSES	125					
Italy	475					
Greece	484					
SUBTOTAL.....		145	119	114	105	65
		3	2	10	16	14
		493	670	850	826	972
Other West Europe						
Sweden	401	0	0	0	3	6
Austria	433	39	20	0	63	0
Switzerland	441	0	0	35	267	73
Cyprus	491	0	0	4	0	0
SUBTOTAL.....		39	20	39	333	79
USSR and East Europe						
Hungary	437	0	0	0	0	20
Yugoslavia	479	0	2	0	0	0
SUBTOTAL.....		0	2	0	0	20
Middle East						
Turkey	489	1,745	1,223	1,490	1,821	1,645
Syria	502	0	0	0	2	0
Lebanon	504	6	43	192	72	81
Iran	507	0	13	0	0	0
Israel	508	0	30	22	75	32
United Arab Emirates	520	0	0	0	3	78
SUBTOTAL.....		1,751	1,309	1,704	1,973	1,836
North Africa						
Morocco	714	28	8	28	36	41
Tunisia	723	0	0	0	0	2
Egypt	729	0	0	0	0	4
SUBTOTAL.....		28	8	28	38	47
Other Africa						
Cameroon	742	0	0	0	0	84
Senegal	744	0	0	0	0	0
Angola	762	0	0	21	0	0
Ethiopia	774	15	0	0	0	0
Djibouti Afars-Issas	777	4	0	0	0	0
Kenya	779	986	360	631	880	417

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COMMODITY IMPORTED AND ORIGIN AREAS/COUNTRIES	CUMULATIVE TO DATE QUANTITY				
	01/84-12/84	01/85-12/85	01/86-12/86	01/87-12/87	01/88-12/88
PULSES 125	in Metric Tons				
Tanzania, United Rep 783	0	18	18	54	0
Mozambique 787	37	0	0	0	0
Madagascar 758	61	0	0	0	0
South Africa, Republ 791	43	17	111	4	0
Zimbabwe 796	0	0	0	158	0
Malawi 797	121	105	169	105	244
SUBTOTAL.....	1,267	500	950	1,201	745
South Asia					
Afghanistan 531	0	0	8	0	0
India 533	841	1,160	1,098	1,326	1,430
Pakistan 535	2	0	0	0	0
Nepal 536	38	148	36	0	0
SUBTOTAL.....	881	1,308	1,142	1,326	1,430
Other Asia					
Thailand 549	5,392	7,046	2,967	2,208	2,096
Malaysia 557	18	0	0	0	9
Singapore 559	11	450	216	10	0
Indonesia 560	0	0	1	0	0
Philippines 565	10	1	1	27	9
China (Mainland) 570	399	289	1,007	750	2,061
Korea, Republic of 58^	8	44	54	19	138
Hong Kong 582	117	76	357	319	402
Taiwan 583	396	1,088	529	484	484
Japan 588	27	13	24	64	72
SUBTOTAL.....	6,378	9,007	5,156	3,881	5,271
Oceania					
Australia 602	2,528	4,098	2,827	2,830	2,561
New Zealand 614	101	96	183	153	837
SUBTOTAL.....	2,629	4,194	3,010	2,983	3,398
TOTAL WORLD	33,019	34,649	37,807	45,559	47,292

(-) DENOTES LESS THAN 500 DOLLARS.  
 ALL FIGURES ARE ROUNDED TO THE NEAREST 1000 DOLLARS

NOTE: IF AN AGGREGATE SUBJECT WAS REQUESTED, A DESCRIPTOR LIST FOLLOWS  
 IF A REGION OR GROUPING STUB WAS REQUESTED, A DESCRIPTOR LIST FOLLOWS

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SUBJECT DESCRIPTORS FOR AGGREGATE COMMODITY (PULSES)

1400900	MUNG BEANS,DRD,DEHY	1401400	MUNG BEANS,DRD,DEHY	1401000	RED KIDNY BN,DR,DEHY
1401100	DRIED BEANS,NSPF	1401640	DRIED BEANS,RED KIDN	1401120	DRIED BEANS,LIMA
1401620	DRIED BEANS,LIMA	1401140	DRIED BEANS,OTHER	1401600	BEANS,DRIED,EX MUNC
1401660	DRIED BEANS,OTHER	1402000	CHICKPEA,GARB,SPLIT	1402100	CKPEA GARGANZO,NSPF
1402500	COWPEAS,BLK-EYE,DRD	1402600	COWPS,EX BLK-EYE,DR	1403500	LENTILS,DRD,DEHYD
1403800	LUPINES,DRIED,DEHY	1404500	PEAS,SPLIT,DRD,DEHY	1404600	PEAS,NSPF,DRD,DEHY

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**APPENDIX 3.1.D**

**U.S. AGRICULTURAL IMPORTS BY SOURCE, 1984-88 (IN 1000 U.S. DOLLARS)**

U.S. AGRICULTURAL IMPORTS \*  
 PERIOD: JAN 1984-DEC 1988 \*  
 VALUES ARE IN 1000 DOLLARS \*  
 \* \* \* \* \*

UNITED STATES DEPARTMENT OF AGRICULTURE  
 FOREIGN AGRICULTURAL SERVICE

REPORT 1  
 03/08/89  
 PAGE 001

COMMODITY IMPORTED AND  
 ORIGIN AREAS/COUNTRIES

----- C U M U L A T I V E T O D A T E V A L U E -----  
 01/84-12/84 01/85-12/85 01/86-12/86 01/87-12/87 01/88-12/88

COMMODITY IMPORTED AND ORIGIN AREAS/COUNTRIES	01/84-12/84	01/85-12/85	01/86-12/86	01/87-12/87	01/88-12/88
<b>PULSES 125</b>					
<b>North America</b>					
Canada 122					
Mexico 201					
SUBTOTAL.....	2,941	2,393	4,104	4,659	5,288
	5,396	5,108	6,058	4,377	4,881
	8,337	7,501	10,163	9,036	10,169
<b>Caribbean</b>					
Dominican Republic 247					
Leeward-Windward Isl 248					
SUBTOTAL.....	10	15	49	0	13
	0	2	0	0	0
	10	17	49	0	13
<b>Central America</b>					
Guatemala 205					
Belize 208					
El Salvador 211					
Honduras 215					
Costa Rica 223					
SUBTOTAL.....	3	8	27	42	15
	0	0	29	3	0
	0	0	19	0	0
	0	0	14	0	0
	4	0	0	0	0
	7	8	88	45	15
<b>South America</b>					
Colombia 301					
Venezuela 307					
Ecuador 331					
Peru 333					
Chile 337					
Brazil 351					
Argentina 357					
SUBTOTAL.....	59	0	48	29	1
	6	0	33	9	0
	42	2	0	0	0
	364	1,017	969	715	772
	98	260	364	2,967	1,497
	20	27	1	39	29
	85	211	283	860	659
	674	1,517	1,699	4,619	2,958
<b>EC-12</b>					
United Kingdom 412					
Ireland 419					
Netherlands 421					
Belgium-Luxembourg 423					
France 427					
Germany, Federal Rep 428					
Spain 470					
Portugal 471					
	337	199	397	421	252
	154	328	231	294	224
	14	26	30	39	143
	17	95	39	13	25
	11	9	19	15	89
	31	8	105	276	196
	1	0	1	0	2
	83	136	232	146	249

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COMMODITY IMPORTED AND ORIGIN AREAS/COUNTRIES	C U M U L A T I V E T O D A T E				
	01/84-12/84	01/85-12/85	01/86-12/86	01/87-12/87	01/88-12/88
PULSES	125				
Italy	475	174	161	207	210
Greece	484	5	4	20	38
SUBTOTAL.....		828	965	1,281	1,452
Other West Europe					
Sweden	401	0	0	0	4
Austria	433	33	9	0	28
Switzerland	441	0	0	20	130
Cyprus	491	0	2	6	0
SUBTOTAL.....		33	11	26	161
USSR and East Europe					
Hungary	437	0	0	0	0
Yugoslavia	479	0	2	0	9
SUBTOTAL.....		0	2	0	9
Middle East					
Turkey	489	1,012	836	1,006	979
Syria	502	0	0	0	1
Lebanon	504	3	34	195	48
Iran	507	0	8	0	0
Israel	508	0	45	29	200
United Arab Emirates	520	0	0	0	2
SUBTOTAL.....		1,015	923	1,229	1,230
North Africa					
Morocco	714	10	5	16	32
Tunisia	723	0	0	0	0
Egypt	729	0	0	0	0
SUBTOTAL.....		10	5	16	32
Other Africa					
Cameroon	742	0	0	0	0
Senegal	744	1	0	0	0
Angola	762	0	0	10	0
Ethiopia	774	7	0	0	0
Djibouti Afars-Issas	777	3	0	0	0
Kenya	779	703	258	393	495
					275

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COMMODITY IMPORTED AND ORIGIN AREAS/COUNTRIES	C U M U L A T I V E T O D A T E V A L U E				
	01/84-12/84	01/85-12/85	01/86-12/86	01/87-12/87	01/88-12/88
<b>PULSES</b>					
Tanzania, United Rep	0	9	8	23	0
Mozambique	24	0	0	0	0
Madagascar	74	0	0	0	0
South Africa, Republ	223	70	41	3	0
Zimbabwe	0	0	0	120	0
Malawi	125	101	147	76	238
<b>SUBTOTAL.....</b>	<b>1,161</b>	<b>438</b>	<b>599</b>	<b>717</b>	<b>561</b>
<b>South Asia</b>					
Afghanistan	0	0	6	0	0
India	533	793	954	953	1,185
Pakistan	1	0	0	0	0
Nepal	19	122	27	0	0
<b>SUBTOTAL.....</b>	<b>814</b>	<b>1,103</b>	<b>887</b>	<b>953</b>	<b>1,185</b>
<b>Other Asia</b>					
Thailand	549	3,052	2,240	1,654	1,018
Malaysia	557	15	0	0	1,448
Singapore	559	8	224	98	11
Indonesia	560	1	0	6	0
Philippines	565	15	1	2	0
China (Mainland)	570	340	228	5	28
Korea, Republic of	580	14	54	75	397
Hong Kong	582	114	68	167	46
Taiwan	583	323	740	460	147
Japan	588	81	42	51	566
<b>SUBTOTAL.....</b>	<b>3,962</b>	<b>3,598</b>	<b>2,971</b>	<b>2,276</b>	<b>3,996</b>
<b>Oceania</b>					
Australia	602	1,495	2,278	1,295	1,214
New Zealand	614	23	29	124	244
<b>SUBTOTAL.....</b>	<b>1,518</b>	<b>2,307</b>	<b>1,419</b>	<b>1,458</b>	<b>1,472</b>
<b>TOTAL WORLD</b>	<b>18,369</b>	<b>18,393</b>	<b>20,428</b>	<b>21,981</b>	<b>23,822</b>

(-) DENOTES LESS THAN 500 DOLLARS.  
 ALL FIGURES ARE ROUNDED TO THE NEAREST 1000 DOLLARS

NOTE: IF AN AGGREGATE SUBJECT WAS REQUESTED, A DESCRIPTOR LIST FOLLOWS  
 IF A REGION OR GROUPING SUB WAS REQUESTED, A DESCRIPTOR LIST FOLLOWS

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SUBJECT DESCRIPTORS FOR AGGREGATE COMMODITY (PULSES)

1400900	MUNG BEANS,DRD,DEHY	1401400	MUNG BEANS,DRD,DEHY	1401000	RED KIDNY BN,DR,DEHY
1401100	DRIED BEANS,NSPF	1401640	DRIED BEANS,RED KIDN	1401120	DRIED BEANS,LIMA
1401620	DRIED BEANS,LIMA	1401140	DRIED BEANS,OTHER	1401600	BEANS,DRIED,EX MUNG
1401660	DRIED BEANS,OTHER	1402000	CHICKPEA,GARB,SPLIT	1402100	CKPEA GARBANZO,NSPF
1402500	COWPEAS,BLK-EYE,DRD	1402600	COWPS,EX BLK-EYE,DR	1403500	LENTILS,DRD,DEHYD
1403800	LUPINES,DRIED,DEHY	1404500	PEAS,SPLIT,DRD,DEHY	1404600	PEAS,NSPF,DRD,DEHY

**APPENDIX 3.1.E**

**U.S. PROCESSORS AND EXPORTERS OF DRY PEAS AND LENTILS**

# U.S. PROCESSORS OF DRY PEAS AND LENTILS

## AUVIL-WARNER CO.

Robert Miller  
P.O. Box 14  
Belmont, Washington 99104  
PHONE: (509) 265-4251  
PRODUCTS: Lentils, Whole  
Green and Yellow Peas

## BNP LENTIL CO.

Dan Bruce  
P.O. Box 146  
Farmington, Washington 99128  
PHONE: (509) 287-2711  
TELEX: 152848 BNPLENTIL UD  
PRODUCTS: Lentils  
BRANDS: BNP

## BERGER AND COMPANY

Fenton Herschl  
P.O. Box 82B  
Mesa, Washington 99343  
PHONE: (509) 269-4213  
FAX #: (509) 269-4493  
PRODUCTS: Whole Green Peas  
BRANDS: Zamba Brand and Jack  
Rabbit

## GEORGE F. BROCKE & SONS, INC.

George F. Brocke, Jr.  
P.O. Box F  
Kendrick, Idaho 83537  
PHONE: (208) 289-4231  
FAX #: (208) 289-4242  
PRODUCTS: Lentils, Whole  
Green and Yellow Peas,  
Austrian Winter Peas, Small  
Sieve Green Peas, Chickpeas  
and Decorticated Red Chief  
Lentils  
BRANDS: Top Notch

## CONSOLIDATED COMMODITIES

Pete Paolino/Dennis Baldus  
P.O. Box 250  
Walla Walla, Washington 99362  
PHONE: (509) 529-3366  
PRODUCTS: Whole Green Peas,  
Austrian Winter Peas,  
Chickpeas and Lentils

## CONTINENTAL GRAIN CO.

Clifford Simmons  
200 Market Bldg., Suite 1050  
Portland, Oregon 97201  
PHONE: (503) 228-8222  
TELEX: 360186 CONTLGRAIN PTL  
FAX #: (503) 295-5215  
PRODUCTS: Lentils, Whole  
green and Yellow Peas,  
Chickpeas

## CRITES-MOSCOW GROWERS, INC.

Tom Druffel  
P.O. Box 8912  
Moscow, Idaho 83843  
PHONE: (208) 882-5519  
TELEX: TWX 510-776-0971  
MOSCRITES MOCW  
PRODUCTS: Whole Green Peas,  
Lentils and Small Sieve Green  
Peas

## DUMAS CORPORATION

Jerry Jordan  
P.O. Box 9103  
"A" & Almon Streets  
Moscow, Idaho 83843  
PHONE: (208) 882-2521  
TELEX: TWX 510-776-2882  
PULPORT MOCW  
FAX #: (208) 883-8408  
PRODUCTS: Lentils, Split and  
Whole Green and Yellow Peas,  
Pea Powders  
BRANDS: Heart Brand,  
Worldwide Brand

## GENESEE UNION WAREHOUSE COMPANY

Bill Newbry  
409 West Chestnut Street  
P.O. Box 67  
Genesee, Idaho 83832  
PHONE: (208) 285-1422  
PRODUCTS: Whole Greens and  
Small Sieve Green Peas  
BRANDS: Clipper

## MAX HINRICHS SEED CO., INC.

Max Hinrichs, Jr.  
Rt. 2, Box 606  
Pullman, Washington 99163  
PHONE: (509) 334-4412  
TELEX: 152289 ANEMTECH UD  
FAX #: (509) 332-2389  
PRODUCTS: Lentils, Chickpeas,  
Whole Green and Yellow Peas  
BRANDS: Melody Brand

## INLAND EMPIRE PEA GROWERS ASSOCIATION

Mike Dunlap  
P.O. Box 11126  
Spokane, Washington 99211  
PHONE: (509) 535-2405  
TELEX: 152-847 IEPGA SPK  
FAX #: (509) 535-2406  
PRODUCTS: Lentils, Split and  
Whole Green and Yellow Peas,  
Small Sieve Green Peas and  
Chickpeas  
BRANDS: Empire and Evergreen

## JACKLIN SEED CO.

Jim Henderson  
P.O. Box 218  
Nezperce, Idaho 83543  
PHONE: (208) 837-2481  
TELEX: TWX 510-776-0582  
JACKLIN PFLS  
PRODUCTS: Lentils, Whole  
Green Peas and Austrian Winter  
Peas  
BRANDS: Blue J

## LEWISTON GRAIN GROWERS

Merle Baldwin  
P.O. Box 335  
Lapwai, Idaho 83540  
PHONE: (208) 843-2251  
PRODUCTS: Split and Whole  
Green Peas, Austrian Winter  
Peas and Small Sieve Green  
Peas  
BRANDS: Indian Chief Brand

## MOSCOW IDAHO SEED CO.

a Division of George F. Brocke  
& Sons, Inc.  
Sheri Gropp  
P.O. Box 8983  
223 West 8th Street  
Moscow, Idaho 83843  
PHONE: (208) 882-2324  
FAX #: (208) 882-3312  
PRODUCTS: Lentils, Split and  
Whole Green and Yellow Peas  
BRANDS: Sundried Brand

## NORTH IDAHO BEAN & ELEVATOR CO.

John R. Driscoll  
P.O. Box 130  
Troy, Idaho 83871  
PHONE: (208) 835-2196  
PRODUCTS: Lentils, Whole  
Green and Yellow Peas,  
Austrian Winter Peas, Small  
Sieve Green Peas  
BRANDS: Whaler

## NORTHWEST PEA & BEAN CO., INC.

Hal Roffler  
P.O. Box 27  
Spokane, Washington 99210  
PHONE: (509) 328-8227  
FAX #: (509) 328-0667  
PRODUCTS: Lentils, Split and  
Whole Green and Yellow Peas,  
Small Sieve Green Peas  
BRANDS: Speedy Cook'n Brand

## OAKESDALE GRAIN GROWERS

Marshall Miller  
P.O. Box 108  
Oakesdale, Washington 99158  
PHONE: (509) 285-4311  
FAX #: (509) 285-5830  
PRODUCTS: Lentils and Who  
Green Peas  
BRANDS: Oakesdale's

## PENDLETON GRAIN GROWERS, INC.

Dennis McMillan  
P.O. Box 1248  
Pendleton, Oregon 97801  
PHONE: (503) 276-1338  
PRODUCTS: Whole Green and  
Yellow Peas, Austrian Winter  
Peas  
BRANDS: Let-er-buck

## PERFECTION SEED, INC

Jim Proctor  
Rt. 5, Box 343A  
Walla Walla, Washington 99362  
PHONE: (509) 522-1306  
PRODUCTS: Lentils, Whole  
Green and Yellow Peas,  
Austrian Winter Peas and  
Chickpeas

## R.M.K. FARMS, INC.

Ralph Kilpatrick/Ken  
Kilpatrick  
Rt. 1, Box 29  
Oakesdale, Washington 99158  
PHONE: (509) 285-4973  
PRODUCTS: Lentils

## ROGERS BROTHERS SEED CO.

Kurt Braunwart  
P.O. Box 4727  
Boise, Idaho 83711-0727  
PHONE: (208) 322-7272  
TELEX: TWX 910-878-5909  
ROGSEED IDAH  
FAX #: (208) 322-1436  
PRODUCTS: Whole Green Peas  
Small Sieve Green Peas

## SPOKANE SEED CO.

Pat Johnstone/Peter Johnstone  
P.O. Box 11007  
6015 East Alki Avenue  
Spokane, Washington 99211  
PHONE: (509) 535-3671  
TELEX: 326-425 SPOKSEED  
FAX #: (509) 535-0874  
PRODUCTS: Lentils, Split and  
Whole Green and Yellow Peas,  
Small Sieve Green Peas  
BRANDS: Rumba and Green Pe

# U.S. PROCESSORS OF DRY PEAS AND LENTILS CONTINUED

## STATELINE PROCESSORS, INC.

Gary W. Heaton  
P.O. Box 1026  
Tekoa, Washington 99033  
PHONE: (509) 284-4101  
PRODUCTS: Lentils

## STEGNER GRAIN

David Stegner/Mike Watson  
2051 Wilma Drive  
Clarkston, Washington 99403  
PHONE: (509) 758-1000  
TELEX: TWX 510-601-8863  
STEGNER  
FAX #: (509) 758-5801  
PRODUCTS: Lentils, Whole  
Green Peas, Austrian Winter  
Peas  
BRANDS: Emerald Empire,  
Ezmeralda, Emerald

## WALLACE GRAIN & PEA CO.

Joe Hulett  
P.O. Box 218  
Palouse, Washington 99161  
PHONE: (509) 878-1561  
TELEX: 0062897551 LENTILS  
(EASYLINK MAILBOX #)  
PRODUCTS: Lentils, Split and  
Whole Green and Yellow Peas,  
Chickpeas  
BRANDS: Palouse

## WANOOKA FARMS, INC.

Arthur Wagner/Loren Wagner  
Box 36  
Farmington, Washington 99128  
PHONE: (208) 268-2523  
PRODUCTS: Lentils

# U.S. EXPORTERS OF DRY PEAS AND LENTILS

## BERGER AND COMPANY

Mike Quann/Dale Lovejoy  
1050 Sansome St., Suite 600  
San Francisco, California  
94111  
PHONE: (415) 956-6100  
TELEX: 470112 BERG UI  
34287 BERGERCO SFO  
CABLE: BER SFO  
FAX #: (415) 956-9210  
BRANDS: Zamba Brand

## CALGRAIN CORP.

Kumar Dass  
350 Sansome St., Suite 1000  
(zip 94104)  
P.O. Box 2501 (zip 94126-2501)  
San Francisco, California  
PHONE: (415) 788-6320  
TELEX: 279033 CGSF UR  
CABLE: CALGRAINCO  
FAX #: (415) 788-1827

## COMMODITIES RESERVE CO.

Paul Lambert/Lynn H.  
Virkler/Duffy Segale  
P.O. Box 7011 (zip 94120)  
88 Kearny Street, Suite 1600  
(zip 94108)  
San Francisco, California  
PHONE: (415) 989-9160  
TELEX: 279057 COMRES  
279052 COMRES UR  
FAX #: (415) 433-4820  
BRANDS: Golden Gate

## CONDOR COMMODITIES, INC.

William R. Smith  
351 California St., Suite 920  
San Francisco, California  
94104  
PHONE: (415) 397-7378/7379  
TELEX: 262-464 CCI UR  
FAX #: (415) 362-4042

## CONTINENTAL GRAIN CO.

Clifford Simmons  
200 Market Bldg., Suite 1050  
Portland, Oregon 97201  
PHONE: (503) 228-9222  
TELEX: 360186 CONTLGRAIN PTL  
CABLE: FRIBRENE  
FAX #: (503) 295-5215  
BRANDS: Conti Brand

## FRANKLIN TRADING CO.

M. Kazemi  
827 Franklin Ave.  
Garden City, New York 11530  
PHONE: (516) 294-6520  
TELEX: 221557 KAZMI UR  
645557 GRC4  
FAX #: (516) 294-6307  
BRANDS: Kazemi Brand

## GENERAL FOOD SUPPLY INC.

Bill Vandongen  
14450 N.E. 29th Place,  
Suite 108  
Bellevue, Washington 98007  
PHONE: (206) 881-7285  
TELEX: 6838148 GFS UW  
FAX #: (206) 882-2459

## GERBER AGRI-EXPORT, INC.

Milton Frankel  
855 Avenue of the Americas  
New York, New York 10001  
PHONE: (212) 613-1160  
TELEX: WUI 125812 GERBERCO  
NYK

ITT 425977 GBR AGRI  
RCA 234232 GERAG  
FAX #: (212) 613-1132

## GORDON INTERNATIONAL INC.

Alan Gordon  
P.O. Box 3986  
Portland, Oregon 97207  
PHONE: (503) 295-7849  
TELEX: TWX 910-464-5131  
GORDON PORTLAND  
FAX #: (503) 274-8825

## HANSA-PACIFIC, INC.

Gary Almeda  
P.O. Box 1747 (zip 95021-1747)  
380 Tomkins Ct. (zip 95020)  
Gilroy, California  
PHONE: (408) 848-1060  
TELEX: 171104/176432 GROV  
FAX #: (408) 848-2057

## HARVEST STATES COOP

Donald O. Peterson  
1 SW Columbus, Suite 440  
Portland, Oregon 97258  
PHONE: (503) 221-1660  
TELEX: 185992 TRT  
FAX #: (503) 295-8516

## MAX HINRICHS SEED CO., INC.

Max Hinrichs, Jr.  
Rt. 2, Box 606  
Pullman, Washington 99163  
PHONE: (509) 334-4412  
TELEX: 152299 ANEMTECH UD  
FAX #: (509) 332-2399  
BRANDS: Melody Brand

## INTEGRATED RESOURCES GROUP

Dilmohan S. Chadha  
400 Oyster Point Blvd.,  
Suite 325  
S. San Francisco,  
California 94080  
PHONE: (415) 588-1543  
TELEX: 4890178 OPES UI  
FAX #: (415) 583-0108

## INTERNATIONAL GRAIN TRADE, INC.

J. De J. Piraquiva/Horacio  
Herzberg  
55 East 59th Street,  
21st Floor  
New York, New York 10022  
PHONE: (212) 223-4044  
TELEX: 421-387 INTGRPI  
425-683 INTLUI  
FAX #: (212) 755-6349

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# U.S. EXPORTERS OF DRY PEAS AND LENTILS CONTINUED

## KASHO U.S.A INC.

Mr. K. Ogata  
395 Market Street,  
Suite 1940  
San Francisco,  
California 94105  
PHONE: (415) 543-9710  
TELEX: WU 34-0424 KASHO  
FAX #: (415) 543-5146

## LINDON COMMODITIES, INC.

J.W.M. Schorer/T.K. Driscoll  
222 N. Wall St., Suite 404  
Spokane, Washington 99201  
PHONE: (509) 838-8383  
TELEX: 326-326 LINDONCOM SPK  
CABLE: LINCROM  
FAX #: (509) 823-1099  
BRANDS: Palos Verdes

## OTIS McALLISTER, INC.

Everett C. Golden  
100 California St., Suite 1090  
San Francisco, California  
94111  
PHONE: (415) 421-6010  
TELEX: RCA 278729 OTSMAC  
CABLE: OTISMAC  
FAX #: (415) 421-6016  
BRANDS: Otis Brand

## MITSUBISHI INTERNATIONAL

Takemitsu Nakachi  
1211 S.W. 5th, Suite 2800  
Portland, Oregon 97204  
PHONE: (503) 227-3271  
FAX #: (503) 241-8109

## MOSCOW IDAHO SEED CO., INC.

a Division of George F. Brocke  
& Sons, Inc.  
Sherri Gropp  
P.O. Box 8983  
223 West 8th Street  
Moscow, Idaho 83843  
PHONE: (208) 882-2324  
CABLE: MISCO  
FAX #: (208) 882-3312  
BRANDS: Sundried

## NORTH PACIFIC INTERNATIONAL

Larry Jansky  
P.O. Box 3915  
1505 S.E. Gideon Street  
Portland, Oregon 97208  
PHONE: (503) 231-1166  
TELEX: 36-0713 PTL  
CABLE: ALIMENT  
FAX #: (503) 231-5042  
BRANDS: Carnival

## OREGON COMMODITIES CO.

E. R. (Gene) Kempf  
1130 S.W. Morrison St.,  
Suite 521  
Portland, Oregon 97205  
PHONE: (503) 227-1133  
TELEX: 151068 ORECO  
CABLE: ORECO  
BRANDS: Occo & Octop

## OREGON SEED EXCHANGE, INC.

Charles J. Cutz  
8196 S.W. Hall Blvd.,  
Suite 200  
Beaverton, Oregon 97005  
PHONE: (503) 643-9128  
TELEX: 151-213 ORESEED BEAV  
FAX #: (503) 641-2919

## PACIFIC NORTHWEST COMMODITIES

Bill Foehr  
77 Mark Drive, Suite 14  
San Rafael, California 94903  
PHONE: (415) 492-0657  
TELEX: 276657 PACOM UR  
CABLE: PACOMU UR

## PARROTT COMPANY, INC.

Paul L. Poflaczek  
244 California St., Suite 506  
San Francisco, California  
94111  
PHONE: (415) 433-0297  
TELEX: ITT 470323 EXPO  
CABLE: EXPOSITION  
BRANDS: Don Pepe & El Toro

## PILLSBURY COMPANY

Motz Akhtar  
3310 Pillsbury Center  
Minneapolis, Minnesota 55402  
PHONE: (612) 330-5133  
TELEX: 290-257 pills  
FAX #: (612) 330-7355  
BRANDS: Pillsbury Premium  
Quality & Pillsbury

## PULSE EXPORTS, INC.

Jerry Jordan  
P.O. Box 9102  
"A" & Almon Streets  
Moscow, Idaho 83843  
PHONE: (208) 882-0222  
TELEX: TWX 510-776 2892  
PULPORT MOCW  
FAX #: (208) 883-8408  
BRANDS: Heart Brand,  
Worldwide Brand

## RIO DEL MAR FOODS, INC.

John Quinn  
160 Sansome St., Suite 1101  
San Francisco, California  
94104  
PHONE: (415) 421-6902  
TELEX: WUI 67623 RDMF  
CABLE: RIODELMAR  
FAX #: (415) 391-9636

## J.M. RODRIGUEZ AND CO., INC.

J.M. Rodriguez Jr.  
P.O. Box 231  
222 Bridge Plaza South  
Fort Lee, New Jersey 07024  
PHONE: (201) 481-8500  
TELEX: 200446 RODRIGUEZ  
CABLE: ROQUESA  
FORTELENEWJERSEY  
FAX #: (201) 481-5169  
BRANDS: Roddy Boy & Corazon

## ROEMER-FORNAZOR CO., INC.

John Fornazor  
350 W. Passaic St., 3rd Floor  
Rochelle Park, New Jersey  
07662  
PHONE: (201) 587-9595  
TELEX: 6853616 ROEMERUW  
FAX #: (201) 537-9387

## H. P. SCHMID, INC.

Hans P. Schmid  
P.O. Box 3707 (zip 94119)  
465 California St., Suite 630  
(zip 94104)  
San Francisco, California  
PHONE: (415) 956-5811  
TELEX: RCA 278284 HPS UR  
CABLE: SCHMID SAN FRANCISCO  
FAX #: (415) 858-1179

## SPOKANE SEED COMPANY

Patrick Johnstone/Peter  
Johnstone  
P.O. Box 11007  
6015 East Alld Avenue  
Spokane, Washington 99211  
PHONE: (509) 535-3671  
TELEX: 326-425 SPOKSEED  
CABLE: SPOKSEED  
FAX #: (509) 535-0874  
BRANDS: Rumba & Green Pod

## TOTEM PACIFIC CORP.

Steve Sabin/Larry R. Bryant  
Spokane Industrial Park  
N3808 Sullivan Road, Bldg. #5  
Spokane, Washington 99216  
PHONE: (509) 824-4000  
BRANDS: Totem

## TRINIDAD BEAN & ELEVATOR CO.

Larry Cotham  
P.O. Box 22139  
3435 South Yosemite  
Denver, Colorado 80222  
PHONE: (303) 368-7200  
TELEX: TWX 510-931-2557 TRIAD  
DVR  
FAX #: (303) 337-0993  
BRANDS: Triad & Peak

## VIKING INTERNATIONAL, INC.

Charles Scott/Hans Polstra  
1020 S.W. Taylor St.,  
Suite 780  
Portland, Oregon 97205  
PHONE: (503) 222-5520  
TELEX: 360456/360643/277301  
VIKING PTL  
CABLE: VIKING  
FAX #: (503) 295-2432  
BRANDS: Viking Brand

## L. N. WHITE & CO., INC.

Arnold Gabel  
225 West 34th Street  
New York, New York 10122  
PHONE: (212) 239-7474  
TELEX: 420570 ELENWHITE  
CABLE: ELENWHITE  
FAX #: (212) 563-5389  
BRANDS: Corona

## WILBUR-ELLIS COMPANY

Ronald Patton  
1200 Westlake Ave. N.,  
Suite 1000  
Seattle, Washington 98109  
PHONE: (206) 284-1300  
TELEX: RCA 277114 WECO UR  
RCA 277114 WECO UR  
CABLE: WILBURELL SEA  
FAX #: (206) 281-8604  
BRANDS: Wilbur-Ellis

## WILLIAMS ASIA INTERNATIONAL CO.

Kent R. Williams  
P.O. Box 552  
530 First Street  
Lake Oswego, Oregon 97034  
PHONE: (503) 638-4581/4582  
TELEX: RCA 271292 WAICO LKGO  
ITT 471-011 WAICO LKGO  
CABLE: WAICO LKGO OR  
FAX #: (503) 638-7881

## ZANONTIAN & SONS, CORP.

Tony Zanontian  
P.O. Box 9901 (zip 93794)  
2350 W. Shaw Ave., Suite 141  
(zip 93711)  
Fresno, California  
PHONE: (209) 432-0107  
TELEX: 171814 ZANONT  
CABLE: ZANONT FRESNO CA  
FAX #: (209) 432-8049  
BRANDS: Zanont

**APPENDIX 3.2.A**  
**MAJOR U.K. COMPANIES INVOLVED IN**  
**IMPORTS/EXPORTS/PROCESSING OF PULSES**

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**Batchelor Foods Limited**  
Wadsley Bridge  
Sheffield S6 1NG

Telephone: 0742-349422

**R. Simon Limited**  
Broadwall House  
21 Broadwall  
London SE1 9PL

Telephone: 01-928 8966

**F&E. Clarke Limited**  
Corn Exchange Building  
52-57 Mark Lane  
London EC3 R 7NE

Telephone: 01-481 8707

**Community Foods Limited**  
Micross  
Brent Terrace  
London NW2 1LT

Telephone: 01-450 9411

**S. Daniels & Co. Limited**  
Wilec House  
82-100 City Road  
London EC17 2BU

Telephone: 01-253 9013

**Mandalia (UK) Limited**  
287/289 Burnt Oak Broadway  
Edgeware  
Middlesex HA8 7U

Telephone: 01-951 3133

**George Harker & Company Limited**  
Commodity Division  
9 Eastcheap  
London EC3 M 1BN

Telephone: 01-626 6437

**Kimpton Brothers Limited**  
Berkshire House  
168-173 High Holborn  
London WC1 V 7AF

Telephone: 01-379 6422

**Omni Inc.**  
2 Vertnor Mansions  
45 Ventnor Villas  
Hove  
SUSSEX BN3 3D

Telephone: 0273-773307

**A. Poortman (London) Limited**  
Prescot House  
32 Prescot Street  
London E1 8BB

Telephone: 01-481 2110

**Rio Del Mar (Europe) Limited**  
Berisford Wing  
1 Prescot Street  
London E1 8AY

Telepone: 01-628 1825

**T.R. Suterwalla & Sons Limited**  
Southbridge Way  
The Green  
Southall  
Middlesex UB2 4BY

Telephone: 01-571 3252

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**Enco Products (London) Limited**  
71-75 Fortress Road  
London NW5 1AU

Telephone: 01-485 2217

**Voicevale Limited**  
Middlesex House  
29-45 High Street  
Edgeware  
Middlesex HA8 7HH

Telephone: 01-952-7481

**Kent Produce Company Limited**  
St. Brides House  
32 Beckenham High Street  
Beckenham  
Kent BR3 1AY

Telephone: 01-658 7711

**Maddox Worldwide Export/Import Limited**  
Commodity Division  
2nd Floor, 2-4 Great Eastern Street  
London EC2A 3NT

Telephone: 01-377 1944

**V.T. Foods Limited**  
1 Rossington Street  
London E5 8SP

Telephone: 01-806 1275/1276

**Whitworth Foods Limited**  
Victoria Mills  
Wellingborough  
Northants NN8 2DT

Telephone: 0993-76351

**APPENDIX 3.2.B**

**MAJOR WEST GERMAN COMPANIES INVOLVED IN  
IMPORTS/EXPORTS/PROCESSING OF PULSES**

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**Appel & Frenzel GmbH**  
Kieshecker Weg 240  
D-4000 Duesseldorf 30

Telephone: 0211-41 590

**Beckmann & Krieger**  
Ballindamm 26  
D-2000 Hamburg 1

Telephone: 040-32 43 55

**Kurt A. Becher GmbH & Co. KG**  
Slevogtstrasse 50  
D-2800 Bremen 1

Telephone: 0421-340 10

**Rudolf Boehm**  
Eissendorfer Pferdeweg 13b  
D-2100 Hamburg 90

Telephone: 040-790 80 01

**H. & J. Brueggen**  
Gertrudenstrasse 15  
D-2400 Luebeck

Telephone: 0451-31 000

**Dalgety Hamburg GmbH**  
Hohe Bleichen 18  
D-2000 Hamburg 36

Telephone: 040-35 13 81

**FORUM Handels & Import GmbH**  
Beim Strohhouse 2  
D-2000 Hamburg 1

Telephone: 040-24 84 10

**Otto F.K. Franke GmbH**  
Boersenbruecke 2a  
D-2000 Hamburg 11

Telephone: 040-36 23 81

**Gerhard Goluecke GmbH & Co.**  
Glockengiesserwall 19  
D-2000 Hamburg 1

Telephone: 040-33 77 37

**INFINEX I. Schloer & Co.**  
Handels GmbH  
Bismarckstrasse 70  
D-1000 Berlin 12

Telephone: 030-31 07 01

**Fritz Kraft OHG**  
Brandstwiete 2  
D-2000 Hamburg 11

Telepone: 040-33 50 79

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**Karl W.K. Massberg GmbH & Co.**  
Mollerstrasse 12 a  
D-2000 Hamburg 13

Telephone: 040-44 40 55

**Pehle & Beckmann GmbH & Co. KG**  
Leege Weg 14  
D-2955 Bunde

Telephone: 04953-543

**Schlueter & Maack GmbH & Co.**  
Ost-West-Strasse 49  
D-2000 Hamburg 11

Telephone: 040-32 81 100

**Mueller's Muehle**  
Schneckoppe AG  
Am Stadthafen 42  
D-4650 Gelsenkirchen

Telephone: 0209-40 31

**Georg Roesner Vertriebs GmbH (\*)**  
Regensburgerstrasse 32  
D-8440 Straubing

Telephone: 09421-80 552

(\*) Only organically grown produce.

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**APPENDIX 3.2.C**

**MAJOR DUTCH COMPANIES INVOLVED IN THE  
IMPORTS/EXPORTS/PROCESSING OF PULSES**

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**Cehave N.V.**

Postbus 200 - 5460 BC VEGHEL  
Pater van den Elsenlaan 4 - 5462 GG

Telephone: 04130 - 82255

**Hendrix's Voeders B.V.**

Postbus 1 - 5830 MA BOXMEER  
Veerstraat 38 - 5831 JN BOXMEER

Telephone: 08855 - 89911

**P. van Dorgen B.V.**

Postbus 55 - 3155 ZH MAASLAND  
Oostgang 49 - 3155 CE MAASLAND

Telephone: 01899 - 20033

**J. Soufflet Holland B.V.**

Postbus 164 - 3100 AD SCHIEDAM  
Nieuwe Waterwegstraat 1 - 3115 HE SCHIEDAM

Telephone: 010-4267288

**Alfred C. Toepfer International B.V.**

Postbus 324 - 3000 AH ROTTERDAM  
Westblaak 5-7 - 3012 KC ROTTERDAM

Telephone: 010-4570299

**Granaria B.V.**

Postbus 1226 - 3000 BE ROTTERDAM  
Coolsingel 139 - 3012 AG ROTTERDAM

Telephone: 010-4246800