

CHEMONICS
CONSULTING DIVISION

MARKETING POLICY
FOR FRESH VEGETABLES AND FRUITS
IN JORDAN
REPORT AND RECOMMENDATIONS

PRESENTED TO THE
JORDAN VALLEY AUTHORITY
AMMAN, JORDAN

PREPARED BY
CHEMONICS INTERNATIONAL CONSULTING DIVISION
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CHEMONICS
CONSULTING DIVISION

May 7, 1980

His Excellency
Mr. Omar Abdullah Dokhgan
President
Jordan Valley Authority
Amman, Jordan

Excellency:

It gives us pleasure to place in your hands the enclosed report entitled Marketing Policy for Fresh Vegetables and Fruits in Jordan.

Jordan stands on the threshold of a unique and promising era in fruit and vegetable marketing, one in which the production of fruits and vegetables should be at least doubled during the next decade.

This report attempts to put into perspective and focus major considerations pertaining to marketing which, in our opinion, management needs to consider. It is prepared mostly as a guide for launching of the new marketing program and not as a chart for the entire decade. Running through the report is the philosophy that progress will be made as the result of carefully designed programs at various levels of operation. And nowhere are programs more important than at the farmer level, since it is at this level that the volume of output planned comes into being.

It is our hope that this report will be reviewed and studied both carefully and skeptically as officials and management seek to make the best decisions possible. Nor would we consider our efforts to have been unsuccessful if certain of our ideas were discarded or substantially modified at a later date. Ideas must not only seem

Mr. Omar Abdullah Kokhgan
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logical, but be suitable for a given situation at a given time. The management of the fruit and vegetable system of Jordan has ahead of it a difficult and challenging road. We wish you well.

Sincerely,



John H. Davis
Senior Marketing Specialist



Floyd F. Hedlund
Marketing Regulation Specialist



A. Desmond O'Rourke
Marketing Economist

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SECTION I

STATEMENT OF THE PROBLEM

Jordan's population, per capita income, food needs and the cost of imported foods have all grown dramatically in the 1970's. These factors have combined to create a marked increase in the domestic demand for produce. Simultaneously, factors prevailing in other Middle East countries, e.g., drought and increased oil prices, have stimulated the export demands for winter vegetables and fruits. Produce prices have risen accordingly. As a result, Jordan's most productive agricultural resource, the Jordan Valley, with its unique climatic advantages, has become a major supplier of winter vegetables and fruit, both domestically and throughout the Middle East.

Despite increased demand, Jordan's produce marketing system can still be said to be in a developing stage. Its deficiencies have been blamed on many different factors, including lack of current market information, absence of acceptable quality standards, oligopolistic middlemen, and erratic government policies. To date, however, there has been no comprehensive analysis of the degree to which each of these factors contributes to short supplies, high prices and low quality.

In March and April, 1980, for a total of four weeks, a three-person team was provided by Chemonics International Consulting to study these issues. Its purpose was to review the performance of Jordan's domestic and export markets for fresh vegetables and fruits, and in conjunction with this objective, to survey the various processes of handling, transportation, buying and selling, analyze competitive relationships in the market, and analyze the facilitating and regulatory roles of the Government of Jordan.

The team believed that their assignment, although brief, required the examination of any factor that might influence the quantity, quality, prices or margins of Jordanian vegetables and fruit. Accordingly, they looked at a very wide range of

marketing facilities. They talked with key personnel in government, university and other agencies in Amman, Irbid, and the Jordan Valley, and talked to and/or examined the relationship between all market participants, e.g., sharecroppers, owner-operators, landlords, merchants, commission agents, exporters, jobbers, retailers, and commissaries. In addition, they studied activities as diverse as crop rotation, picking, grading, packing, assembly, storage, transportation, auctioning, bulk packing, consumer packaging, wholesaling, and retailing, and functions such as supply, financing, certification, inspection and selling. Only by taking such a comprehensive view was it believed possible to develop recommendations that are realistic under Jordanian conditions.

This report is the result of the market review just described. Recommendations in the report regarding possible policy actions which might be taken by the Government of Jordan were prepared in draft form and discussed with key marketing personnel before the team's departure from Jordan. The report is designed to be used as the basis for a seminar at the senior ministerial level, and addresses the critical problems of increasing total vegetable and fruit supply, reducing fluctuations in supply, maintaining relatively stable prices, and improving overall produce quality. It is divided into five main sections, as follows:

SECTION I	STATEMENT OF THE PROBLEM
SECTION II	REVIEW OF RECENT MAJOR STUDIES
SECTION III	ASSESSMENT OF THE PRESENT JORDANIAN MARKETING SYSTEM
SECTION IV	GENERAL GUIDELINES FOR FUTURE POLICY
SECTION V	SPECIFIC RECOMMENDATIONS ON KEY ISSUES

While the first three sections are of value as background material, the emphasis of the seminar will be on the general guidelines and specific recommendations of the study team.

The team is deeply indebted to many people, especially the personnel of the Jordan Valley Authority, for their constant encouragement, assistance and comments in the development of this final version of the report.

SECTION II

REVIEW OF RECENT MAJOR STUDIES

During the development of Stage I of the Jordan Valley Project, there have been a number of studies of the existing marketing and distribution system. Jordan has been fortunate in attracting many competent people to conduct these studies. Only those studies most relevant to our mission are discussed here.

In 1969, a UNFAO report by Mittendorf and Mohan looked at a broad range of marketing problems and proposals including the granting of an export monopoly to the Agricultural Marketing Organization (AMO), the use of a processing diversion and the introduction of grading, market outlook and promotion programs. They recommended a studied approach to these efforts supported by \$467,100 of UNDP (Special Fund) assistance.

The Harza reports, published in 1977, developed both supply projections for the Jordan Valley to the year 1995 (after completion of the Maqarin dam), and demand projections for the available output in domestic and export markets. Harza projected exportable surpluses of tomatoes, squash, eggplant and cucumbers by 1995, despite rapid growth of demand in Jordan and existing Middle East markets. Thus, there would be a need to develop additional export markets.

The Harza projections should not be looked upon as permanently carved in stone. They used the best projection techniques and data available at the time of their study. These projections will be most valuable if used as working documents which are regularly updated as new information becomes available.

A mission from the Tropical Products Institute reviewed marketing-related factors in the Jordan Valley in 1977 and 1978. The team was particularly concerned with planning for the proposed marketing centers in the Jordan Valley. However, much of their detailed discussion assumed a situation in the 1979-1980

season which did not exist, and may not exist until the mid-1980s, namely, that the El Arda marketing center would operate as originally planned with plentiful raw product, trained personnel and a complete marketing program.

In 1979, Dangroup-Frigo Consult and Mohamed A.R. Jardaneh discussed the rationale for limited chilled storage in Jordan, and outlined plant specifications and costs. While their technical data on prices, costs and storage life was good, their projections of possible income benefits to farmers were entirely speculative.

Also in 1979, Donald Wolf proposed an operating policy for the El Arda marketing center. Wolf suggested that the center should work in cooperation with established commission agents, although the original and frequently repeated intent of that center was to replace the commission agents in the marketing chain. In Wolf's words, "If I can bring home only one point on my 21-day assignment it would be to steer the program gradually and let the economic realities of increased production and improved farming practices move in their own inevitable direction."

A number of themes appear consistently in these reports, which were published over the period of a decade, e.g., the need for improved grades and standards, the need to strengthen marketing institutions, and the need for more management training. Apparently, little progress has been made over the course of the decade to correct these deficiencies in the Jordanian marketing system.

However, although written records may exist, we were unable to find any that treated: (1) how the host country evaluated the reports of these visiting experts; (2) which recommendations were accepted, but not acted upon; (3) which were acted upon, but were ineffective; and (4) why? For example, why, despite the urging of all the experts, does Jordan still not have in place in 1980, a system for grading and inspection of its primary product, tomatoes?

The disruptions following the 1967 war did slow the normal rate of development in the valley. Some expert advice appears to have been based on incomplete knowledge of the constraints under which the Jordanian economy operates. The host country appears to have been unwilling to alter established strategies in some cases. However, perhaps the most important reason for inaction appears to have been that the various study-team reports have not been able to devise the needed steps to turn good advice into operating procedures. In particular, the government has not spelled out the very important initial steps that will determine, in large measure, farmer attitude towards the new marketing-center program and other initiatives.

With respect to previous studies of the vegetable and fruit marketing and distribution system, we wish to point out that the responsibility of the Chemonics' team did not extend to the development of new data, but rather to the review of existing data, in the form of such studies, and to the formulation of appropriate recommendations.

SECTION III
ASSESSMENT OF THE JORDANIAN MARKETING SYSTEM

A. Introduction

In this section, we begin with a brief discussion of land ownership in the Jordan Valley which, in our view, impacts unfavorably both upon the level of production and, indirectly, on Jordan's marketing capacity. We follow with a discussion of the marketing system itself, focussing on three major problem areas: lack of quality grades; commission agents; and ambiguity and overlapping authorities in several government agencies.

B. Land Ownership and Production

The production of vegetables and fruit in the Jordan Valley is an important part of Jordanian agriculture, accounting for some 70 percent of total domestic agricultural output. The predominance of the Jordan Valley makes it imperative to understand those factors which contribute to increased production and those which inhibit it. In particular, it is necessary to address the issues of land ownership and the extent to which it affects the production of fresh fruits and vegetables.

According to the 1978 census of Ghors, of the 19,383 hectares of land in the Northern and Central Ghors of the Jordan Valley, only 48 percent were farmed by owners of the land. Owner-operators were least numerous in the Salt and Deit Alla sub-districts. Much of the remaining land was owned by absentees and farmed by sharecroppers, who have an illiteracy rate of approximately 65 percent. Complicating matters further, of the 88,000 persons in the Jordan Valley in 1979, 2,350 were non-Jordanian, working mostly as laborers in the Central Ghors.

As a result of these factors, many decisions regarding farm plans and operations in the Ghors are not made by those who farm the land. At least partially as a result of this situation, crop yields are low and the quality of the products is often poor.

Such problems are not strictly within the scope of this study. They do impact to a significant degree, however, on the capacity of the Jordanian marketing system to respond to increased demand for produce. All proposed improvements in marketing interrelationships, infrastructure, policy, etc., must take the production factor into account.

C. The Jordanian Marketing System

1. Lack of Quality Grades and Proper Packaging

The exportation of seasonal fresh vegetables and fruit is of great importance to farmers in Jordan, particularly for tomatoes, cucumbers, eggplant and squash. Foreign markets are relatively nearby; transportation is good and generally available. Export sales, however, are made in competition with several other countries. In international trading in the Middle East, foreign importers are beginning to demand products which are standardized, graded, sized and packed uniformly in new, clean containers. Jordan could have difficulty marketing vegetables at satisfactory prices unless it can supply graded products of acceptable quality.

Currently in Jordan, little grading or quality selection is followed. Also lacking are procedures for certification of grades, specifications for standard containers, and cooling and refrigeration facilities in both wholesale and retail channels of trade. As an example, tomatoes of all sizes and colors are commingled in the same container, generally using apple boxes of 20-22 kilogram capacity, which is much too deep for the mature fruit. Topping of containers is very common.

The effect of these practices is detrimental to domestic trade as well. With few exceptions, the vegetables consumed in Jordan are grown in Jordan. Retail prices are fixed daily by the government at a specific level without differentiating as to quality. Retailers have attempted to compensate for this problem by displaying poor quality produce in open containers

in front of their stores. Consumers then select according to their need. Better quality vegetables are set aside, frequently in a back room. Customers must ask for them specifically and must pay more than the established rate. The average consumer is thus obliged to pay high prices for low quality products, and even higher prices for better quality. The situation understandably causes much consumer dissatisfaction.

2. Commission Agents

Commission agents represent the link between the farmer and the buyer of fresh vegetables and fruit in Jordan. Farmers and retailers have little option but to use their services, since farmers are not permitted to sell directly to urban consumers. The commission rate for these services may not exceed five percent of the selling price, although it may be less.

Commission agents are located at city wholesale markets and at local assembly markets. Practically all sales are made at auction. Each commission agent furnishes an auctioneer and conducts his own auction. There may be, and usually are, several small auctions going on simultaneously.

In addition, commission agents are an important source of credit to farmers to cover their production and marketing costs. They also advance credit to retailers, collect on behalf of the Municipality of Amman a four percent fee levied on all fruit and vegetable sales, and engage in several instances in the export and import trade.

Despite the variety of functions described, commission agents as a group are not held in high repute. Apparently, there is the general view that collusion and shady practices among them may result in undue influence on prices. The involvement of some commission agents in landholding, financing, supply, export, etc., mixed with the selling business, no doubt reinforces the suspicion of double-dealing. In their defense, the commission agents argue that they are supplying a service for a fee, that they do so effectively, and that prices are a result of supply and demand in the market place.

3. Government Agency Intervention

a. Introduction

The Government of Jordan, through its ministries and government-supported bodies, is involved in various aspects of vegetable and fruit marketing. The Agricultural Council, headed by the Prime Minister, is responsible for cabinet-level coordination, but presently exercises little force in improving coordination at the government-agency level. The Ministry of Agriculture has research centers and an extension program in the Jordan Valley, issues a monthly plan for imports and exports and grants export licenses. The University of Jordan's College of Agriculture also has research and extension programs in the Valley. The Ministry of Supply, though primarily oriented to the consumer, can affect the fresh vegetable and fruit market by regulation of food imports and retail prices and margins.

Other government-supported institutions which exercise authority over the market system, either directly or indirectly, are the Jordan Valley Authority (JVA) the Jordan Valley Farmers Association (JVFA), the Agricultural Marketing Organization (AMO), and credit organizations such as the Agricultural Credit Corporation (ACC) and the Jordan Cooperative Organization (JCO). Each of these is further discussed below.

b. The Jordan Valley Authority

The Jordan Valley Authority (JVA) has broad powers over economic and social development and water system management in the Jordan Valley, where most of Jordan's fresh vegetables and fruit are grown. As permitted by law, JVA is currently running the El Arda marketing center and has put together a management and operations team for this purpose.

c. The Jordan Valley Farmers Association

The Jordan Valley Farmers Association (JVFA) came into operation in 1977-78. Initially funded by government, it was envisaged that the JVFA would eventually become farmer-owned and operated, providing valley farmers a complete package of

services, including farm supplies, credit, grading, packing, containers, chilled storage, assembly, auction and even domestic sales and exports.

Specific mention should be made regarding the credit functions of the JVFA. Certain credit needs in the Jordan Valley are provided by the Agricultural Credit Corporation and the Jordan Cooperative Organization, as mentioned. The JVFA is regarded as the lender of last resort and will make small, seasonal loans to sharecroppers who succeed in getting two JVFA members as guarantors.

The JVFA concept had a number of near-fatal flaws. Virtually none of its funds and little of its support came from Valley farmers. In addition, there were significant delays, and often total failure, to hire and train the number and caliber of personnel needed to make the scheme work. Its capital projects suffered similar setbacks. Many of these delays were blamed on conflicts between management and the board of directors. When the new El Arda marketing center was built, JVFA had no funds with which to run the center, and the JVA, as described above, took over this function.

An inherent weakness in the JVFA stems from the fact that eligibility for membership in the association has not been well delineated. Commission agents, for example, who own and farm land in the Valley are eligible for membership, despite an obvious potential conflict of interest between their roles as commission agents and farmers. Similarly, sharecroppers and other small-grower members of JVFA frequently become so obligated to commission agents who provide them with credit and production supplies that they cannot function as free agents when exercising their rights as members of JVFA. The result of such developments weakens the ability of farmers to act as a group in their own enlightened self-interest in formulating JVFA policy. The result is that farmer influence within the total market structure is weakened, a condition which, if continued,

will reduce farmer incentive to produce the volume and quality of fruits and vegetables needed.

d. The Agricultural Marketing Organization

The Agricultural Marketing Organization (AMO) was originally set up to organize the marketing of produce, domestic and foreign, but does neither. It has imported watermelons and potatoes at government request and has attempted to ensure domestic supplies of potatoes through grower contracts. It operates as its own commission agent in the major wholesale markets. AMO has greatly disappointed its promoters and is scrambling to find a marketing activity which will justify its existence.

AMO owns, but has little influence on, the operation of Jordan's only tomato paste processing plant. This plant buys 5-6,000 tons of domestic tomatoes per year at a specified intervention level in order to support farm prices. Its main product is tomato paste in consumer cans. When domestic supplies are not available, it imports highly concentrated tomato paste in barrels and repacks at a lower concentration in consumer cans. While the Ministry of Defense may import tomato paste in consumer packs, the processing plant has a monopoly over all other sales of tomato paste in Jordan.

Though the plant is operated year-round, it is usually underutilized and needs additional volume of low-priced product. Experimental packs of pickles, olives, apricot jam, and turnips have been tried, but sufficient raw materials for volume production are not available. The processing plant also operates the only can-manufacturing facility in Jordan.

e. The Jordan Cooperative Organization

In March, 1980, the JCO entered a new venture considerably outside its traditional cooperative role when it began to operate "parallel markets." Essentially, these are to be retail markets (initially for fresh fruits and vegetables)

set up by the JCO in competition with private retailers. During the team's visit, JCO already had one retail market and four vans for direct selling in operation, and planned to open additional retail stores selling graded, prepackaged produce to demonstrate improved retail marketing.

f. Conclusion

In our view, government ventures into produce marketing in Jordan have often been overly ambitious in terms of the available personnel, level of funding and actual need. There have been numerous attempts to duplicate existing public or private agencies that were already functioning reasonably well. There has been little consultation with existing firms or agencies, and frequently unrealistic appraisals of the obstacles to successful intervention by government.

Since many of the government-sponsored initiatives have had social as well as economic goals, they cannot be evaluated on normal commercial principles. However, we were concerned about the number of government-sponsored initiatives which were set up to show the inefficiency or inequities in private sector produce marketing, but then required continuing government favors or subsidies to survive. Thus, deficiencies in the private sector were only compounded by weak organizations in the public sector.

At the same time, the Jordanian Government has neglected some critical activities which it could reasonably perform. These include provision of adequate crop and price information to farmers upon which to base production and marketing decisions, a system of quality grades for produce, a procedure for certification of those grades, specifications for standard containers, and generally, a program of foreign market expansion and development.

SECTION IV

GENERAL GUIDELINES FOR FUTURE POLICY

Our analysis of existing shortcomings in the marketing of Jordanian vegetables and fruit has indicated numerous specific policy actions which can be taken immediately. These are discussed in Section V.

However, the Government of Jordan needs to adopt some general, long-term policy guidelines on agriculture that will provide a consistent, stable environment for future planning by the private sector and by government agencies.

In our view, the Government of Jordan should give priority to measures which help to expand total production of vegetables and fruit in the Jordan Valley and which improve quality and reduce post-harvest losses of produce. Such a policy would permit expansion of export sales and of sales to domestic consumers at the same time. It would increase farmers' total revenue, increase foreign exchange earnings and assure domestic consumers greater supplies of vegetables and fruit at more reasonable prices.

In the Jordanian situation, the most efficient way to ensure expanded production is by encouraging existing competitive forces in the marketplace and by removing those controls which act as a disincentive to increased production or to improvements or innovations in the marketing system. Export embargoes, retail price controls, and restrictions on the marketing channels for fresh vegetables and fruit reduce competition and incentives.

The forces of competition can be aided by ensuring that no one organization or group controls an undue proportion of marketing facilities, market information or market power. Government can help by removing artificial barriers to the entry of new firms with innovative approaches to the production and marketing of Jordan Valley produce. Government can also help

the marketing system run more efficiently by providing all participants with accurate, timely market information and by taking the lead in standardizing grades and containers.

Also, government itself has, in the past, contributed to the shortcomings of Jordanian agriculture by a proliferation of poorly coordinated programs and agencies with overlapping responsibilities. The future role of each agency needs to be reassessed and the work of all coordinated, with the overall objective of increasing production and stimulating competition.

Finally, during such period that JVA will run the El Arda Marketing Center, an interval now set as two years, the JVA, with cooperation of government ministries, should do its utmost to strengthen the relative role of farmers as a group within the market structure. An approach, used in many countries, is for farmers to organize cooperatively, or otherwise to enter into direct competition with established commission agents. This, in our view, is much preferable to an attempt by government to assist the farmers or consumers by setting margins, maximum and/or minimum prices or quotas by government decree.

SECTION V

SPECIFIC RECOMMENDATIONS ON KEY ISSUES

In this section, we identify specific issues facing the Government of Jordan in the development of future agricultural marketing. We state our views on each issue, and, where appropriate, make specific policy recommendations.

A. Measures to Stimulate Increased Production of Vegetables and Fruit in the Jordan Valley

1. Constraints to Production

Assuming completion and use of the Maqarin Dam, the production area in the Valley will be expanded by about 50 percent. The records show that present yields of vegetables in the Valley are below their potential. The principal problems appear to be disease, inadequate fertilizer use, and poor soil and water technology. If production is to increase more rapidly than acreage, ways to overcome these problems need to be developed and passed on to farmers by specific trials and demonstrations. Known technology needs to be rapidly adopted to ensure increased yields.

2. Quality of Production

Consumers select vegetables by eye appeal: color, size, shape and maturity. For continued success, farmers must produce what buyers demand and what consumers want. The quality of vegetables grown in the Jordan Valley, especially tomatoes, is below international standards and sometimes unmarketable even domestically. Quality needs to be improved dramatically. This process should start on the farm, including use of better seed, preferred varieties, improved cultural practices, harvesting and handling methods. In fact, however, at the present time, intensive research and extension programs to bring updated production information to farmers do not exist or do not function at the required level of effort.

Recommendations:

1. The University of Jordan, existing extension services, commercial companies and various donor projects should work directly with farmers to demonstrate improved soil and water technologies and improved cultivation, harvesting and handling practices. This effort means the development of intensive research, extension and training programs.
2. We further recommend that one or more committees of farm operators be selected on commodity lines to advise in this project. In the long term, the formation of a horticultural society among farmers should be encouraged.
3. Grading standards set by the El Arda marketing center, and advice to farmers from center personnel, should play an important role in improving harvesting practices.

B. Means to Promote Improved Products through Quality Selection and Standardization

Quality is everybody's business: the farmer, the packer, the commission agent, the trader, the retailer, the consumer. For everyone to understand what quality means, even without seeing the product, a system of quality grades or standards is required, identifying quality characteristics of each vegetable or fruit. Such a system is a common practice over much of the world and simplifies buying and selling. It is especially important in international trade. Further, as a necessary adjunct to quality grades, a team of independent inspectors is required to verify whether a particular lot of vegetables meets the standard, and a method of certification needs to be developed so that inspectors can certify in writing that products meet specified grades.

In many countries, the responsibility for grades, standardization, inspection and certification is vested in the Ministry of Agriculture. This course of action would appear to be the logical one for Jordan as well.

Recommendations:

1. We recommend that a system of quality grades and standards be established for vegetables and fruits, with official inspection, certification and enforcement under the leadership of the Ministry of Agriculture.
2. We recommend that whereas the Ministry would assume the leadership role in this effort, there be representation from each group involved in growing, handling or consuming during the formulation of such standards.
3. We recommend that, initially, emphasis be applied to grading products for export, to allow Jordan to compete successfully in an expanding Middle East market.
4. We recommend that in the beginning stages, perhaps in the first year, quality standards be simple and easily understood. It would be best to start with only one or two commodities and to limit each commodity to two or three grades and a limited number of sizes, in order to allow everyone to learn the system gradually.
5. As the grades begin to develop, we recommend that they be put in writing with definite specifications for each quality factor. These standards should then be issued by the government as an official document.
6. We recommend that standards be reviewed and modified with experience to ensure that they are practical and realistic.
7. We recommend that a team of independent inspectors be employed to ensure that set standards are used and respected. Such inspectors should be completely independent and have no interest, financial or otherwise, in the growing, buying or selling of produce. If desired, inspectors could be recruited and/or appointed from suitable government agencies and authorized to act as inspectors under legal guidelines.

8. To ensure that inspectors are familiar with the growing, handling and packing of vegetables and fruit and that they are completely familiar with the quality grading system as established, training programs should be set up, and training conducted on-site, with possible visits to inspectorates in operation outside Jordan. Cyprus is offered as a suggested site for visits, since it is nearby and has an effective system in operation which would undoubtedly be relevant to the Jordanian situation.
9. We recommend that a method of certification be developed for use by inspectors and that a copy of the certificate be made available to the buyer and the seller.
10. We recommend that the military forces and the Jordan Government use the grades and standards as cited above when purchasing food.

C. Standardization of Containers

The perishability of fresh vegetables and fruit demands special packaging to maintain quality during transportation and trading. As mentioned, this factor is particularly important when competing in the international market, but is also required to meet consumer needs domestically.

Recommendations:

1. We recommend that a system of standard containers be adopted, after consultation with interested groups in Jordan and observation of successful operations elsewhere, perhaps in nearby Cyprus. Containers should be of uniform size and weight so that in buying and selling at auction, all units of sale are the same. Reports of volumes sold and prices received can also be compiled more easily and more logically when uniform containers are used.

2. We recommend that the system of standard containers be designed with certain requirements in mind. Container specifications should ensure that the size and perishability of the product is accommodated. Containers should stack easily, fit on pallets and be easily handled. Attractive and descriptive labels for containers are also useful in marketing and promoting vegetable and fruit commodities.

D. Export Policy

The Government of Jordan should give the highest priority to encouraging expansion of vegetable and fruit exports for a number of reasons. First, if efforts to increase production are successful, export expansion will be needed to prevent sharp drops in commodity prices. Secondly, export earnings are needed to offset the rising cost of imported petroleum, food, etc. And finally, the Jordan Valley should continue to enjoy a special advantage in supplying other Middle East countries with winter vegetables at premium prices.

Recommendations:

1. We recommend that export controls be gradually removed. In particular, sudden embargoes should be ended. These make it difficult for farmers, financial agencies, exporters and others to plan ahead. If export embargoes are deemed necessary for special periods, for example, during Ramadan, this policy should be clearly stated in advance.
2. The monthly plan for exports and imports, developed by the Ministry of Agriculture, should be abolished. It adds uncertainty to the market, and can do little to boost domestic production in any particular month. If politically necessary, a winter-season plan and a summer-season plan might be developed, provided these are published before farmers begin planting.

3. Any such seasonal plans should be discussed in advance with the exporter's syndicate. Exporters have a great deal of information about foreign production and market conditions which is not available to Jordanian government officials. This information should be fully utilized.
4. As Jordan develops a system of quality grades for its major commodities, it will need export research and promotion to seek out and utilize new market opportunities. We recommend that any determination as to which agency should assume such a function be deferred until the grading system is further advanced.

E. Import Policy

The importation of vegetables and fruits into Jordan is severely restricted with a few exceptions (potatoes, onions, garlic and apples). These restrictions reduce supplies, increase prices to consumers and tend to reduce the competitive factors involved in food marketing. At the same time, we question whether such restrictions result in any real protection to farmers. Of course, it would be desirable for the Government of Jordan to retain the right to prevent the dumping of subsidized imports on the Jordanian market.

Recommendation:

We recommend the removal of import controls on fresh fruits and vegetables, except where other countries are found to be unfairly dumping produce on the Jordanian market.

F. Domestic Market

Because Jordan's main agricultural products are perishable, non-storage, highly seasonal items for which demand in export markets is strong, supplies and prices will naturally vary widely over any twelve-month period. Since domestic consumers also have rising incomes and a preference for the same products,

they have tended to demand government intervention when prices are high and supplies scarce. However, the government should resist the temptation to intervene. If agricultural exports are to be encouraged and production to grow, Jordanian consumers will have to be educated to the inevitability of wide seasonal swings in the price and supply of fruits and vegetables. Only if total production expands, particularly in winter, can supply for the domestic market be increased and prices kept in check.

Commission agents occupy strategic positions in the financing of agriculture and in decision-making on what and when to produce, when to harvest, and when and where to market. Unfortunately, we found no data on the costs imposed by these activities. We were also unable to find documented evidence of the allegation that commission agents unfairly push up marketing costs. This is an area that merits further study. It is clear, however, that commission-agent support is essential in efforts to lower costs or improve efficiency in food marketing.

In contrast, many retail stores appear to be of low calibre and badly distributed relative to the population, with an apparent surplus of outlets in older neighborhoods and a severe shortage in newer suburbs. In addition, as mentioned in Section III, retail price controls do not specify quality and are frequently evaded.

Despite these problems, the market for fruits and vegetables in Jordan appears to react as one would expect a competitive market to react. When supplies are plentiful, prices are low; when supplies are short, prices rise. While tomatoes are the dominant vegetable, other vegetables are sometimes substituted for them. The goal, therefore, should be to improve the efficiency of a system that already works reasonably well.

Recommendations:

1. Retail price controls on fresh fruits and vegetables should be ended. If price controls are not completely abolished, they should at least reflect variations in quality.
2. We recommend the removal of building restrictions and other factors which inhibit the development of improved food retail outlets. Such action would encourage more investment in efficient and sanitary stores.
3. The municipality of Amman should be required to re-invest a portion of the tax it collects at the Amman wholesale market into maintaining and improving buildings, facilities, security, etc. In addition, the municipality should provide special areas where farmers could sell their products to consumers directly and on a regular basis.
4. In future years, when graded produce is available, wholesale markets and marketing centers should attempt to institute market-wide auctions for graded lots, similar to those in more developed wholesale markets. The current system of many, small auctions may fail to produce competitive bidding and is inefficient for those (such as exporters) who need to buy large, standardized lots.
5. An undue proportion of fruits and vegetable are marketed either immature or overripe. As soon as practicable (that is, once grading for the export market is accepted) grading for the domestic market should begin.
6. The best way to prevent undue influence on marketing by commission agents is to ensure that entry to that business be kept open. We also recommend that alternative channels of marketing that can operate profitably be permitted and encouraged. These include direct sales from farmers to consumers, and operation of parallel markets (see sub-section I).

G. Marketing Centers

The El Arda marketing center is just beginning its operations. Its master plan calls for it to play an important role in assembly, grading, packing and sale of Jordan Valley products. However, the major uncertainty surrounding all plans is the volume of produce that the center can attract. Ultimately, the volume will be determined by the usefulness of the grading and packing service which the center provides. Thus, in its formative years, the center must build a reputation for the quality of the work it performs. A number of other businesses in Jordan e.g. exporters and food outlets, need graded produce. A few now do their own grading manually. The center must be clearly better than existing facilities if it is to succeed.

Recommendations:

1. We recommend that the El Arda marketing center play a major, pilot role in carrying out grading and packing services, and that these services be consistent with and promote the grading and packing standards outlined in sub-sections B and C above.
2. We recommend that the center use its limited managerial and financial resources initially to ensure that its grading function is running properly and smoothly. Other elements of its master plan should be undertaken only when this goal is accomplished.
3. Because of its location, the El Arda center should be built up as a key community resource, with its excess facilities being used for other activities: machinery and fertilizer supply, machinery repair, meetings, information and extension activities, etc.
4. We recommend that further plans for the remaining centers at South Shuneh and Wadi El Yabis be based on the lessons learned at El Arda.

H. Future Role of Jordan Valley Farmers Association

For reasons previously detailed, the Jordan Valley Farmers Association (JVFA) has not been able to fill the role intended for it by the 1974 legislation. It was not a grassroots farmers' organization, its goals were overly ambitious, and it met unanticipated problems both inside and outside the organization.

While the JVFA continues its farm-management, supply, credit, and membership functions at a reduced level, its agribusiness and equipment service and maintenance functions have not yet been activated, and its primary marketing function, establishing a viable marketing center at El Arda, has been taken over by the Jordan Valley Authority (JVA).

JVFA personnel claim to detect some growth in farmer support for its activities. However, since the JVA has put together a team to run the El Arda marketing center, it would seem undesirable to risk disruption of that team by suddenly moving it back under the JVFA or some other agency. It seems unlikely that JVFA will be strong enough by 1981 to integrate operation of the marketing center back into its organization. Yet, under the present law, JVA's authority to operate the center will have expired.

Recommendations:

1. We recommend that the El Arda marketing center continue under JVA operation for the remainder of the two-year period authorized by law.
2. We recommend that a vigorous effort be undertaken to strengthen JVFA as a farmers' organization by re-defining eligibility for membership in a way that eliminates present conflicts of interest and ambiguities.
3. We recommend that the Government of Jordan assist the JVFA in becoming a farmer-oriented, countervailing force in the market by engaging in direct competition with commission agents. While it will take time to allow JVFA to compete effectively, such competition should be a long-term goal of JVFA.

4. As JVFA gains strength, the role of government in assisting it should be reduced, so that ultimately it would function largely independent of government.
5. We recommend that in the event the efforts just described are successful, and JVFA develops into a strong, farmer-oriented organization, it assume sole responsibility for operation of the Jordan Valley marketing centers.
6. As stated, we do not foresee that JVFA will have made sufficient progress by 1981 to warrant or permit taking over management of El Arda and the other centers, and we would therefore recommend, tentatively, that JVA authority over the centers be renewed for an additional four-year period, until 1985, if necessary.
7. If for any reason JVFA should prove to be incapable of assuming any or all of the roles described, the Government of Jordan should assist farmers in the Valley to devise some other means of organizing a farmer-oriented countervailing market structure.

I. Parallel Markets

Responding to their motto, "Wherever there is a need, we come in," the Jordanian Cooperative Organization's (JCO) headquarters staff began to sell fresh fruits and vegetables in March 1980 from a number of vans and one retail outlet in Amman. They buy produce both directly from farmers and from the Amman wholesale market. In its third week, sales of produce at the retail outlet reached J.D. 2,000 on its heaviest day, while sales from vans reached J.D. 1,000. Produce is sold at, or slightly below, the official retail price ceiling. JCO is planning to open more retail outlets in Amman and other major cities in 1980.

Parallel markets are a unique venture in Jordanian food retailing. Initially they have benefitted from the support of other government agencies and from avoidance of the Amman municipal tax. They will face many problems in meeting their ambitious targets for expansion, but could have a severe impact on small, competing retailers if their targets are achieved.

Recommendations:

We recommend that JCO continue its experiment in parallel markets, keeping in mind the risks to itself and the likely impact on small retailers. For its venture to be a genuine demonstration to the private sector of improved retailing methods, its future policy should be to operate its stores without special concessions or subsidies. If this experiment succeeds, private enterprise should be encouraged to enter the field and further develop the concept. While experimentation is an appropriate role for government, we would not encourage continued, large-scale government involvement in retailing.

J. Food Processing

The tomato processing plant provides a diversion outlet for surplus tomatoes and thereby provides relative price stability in the fresh produce market by preventing over-supply. In recognition of this function, there are important economic concessions granted to the processing operation by the government. As an example, the processing plant alone is authorized to import bulk tomato paste, and no tariff is paid.

The plant is presently underutilized, however. While certain improvements can doubtless be made to make it more self-sustaining economically, it is doubtful that operation of the existing plant would ever be justified on purely economic grounds.

Recommendations:

1. We recommend that certain steps be taken to improve the economic viability of the processing plant. These would include:
 - Development of additional products for other commodities;
 - Investigation of the possibility of selling cans to the food processing plant in Riyadh and other neighboring markets;
 - Importation of bulk, concentrated fruit juices, repacked into consumer cans for sale in Jordan.
2. We recommend that despite the existence of tomato varieties more suitable to canning, no effort be made to shift resources away from production of fresh tomato varieties, since the latter are certain to continue to provide a much higher economic rate of return.
3. We recommend that no consideration be given to building additional processing plants in Jordan for the foreseeable future, since such ventures would not be economically viable, and the existing plant is more than adequate to handle surplus produce.

K. Producer Contracts

It is possible to reduce the risk of market fluctuations by contracting to purchase a specified commodity at a stated price. An example is the AMO contract with farmers for the production of potatoes for domestic needs. The AMO imports the seed and purchases the crop at an agreed price. Some export sales are also made in Jordan under advance contracts at stated prices. These offer the possibility for exporters in turn to contract with farmers for the commodities needed to cover such contracts.

While contracting sounds simple in theory, contracting in Jordan is very limited at the present time. It may be that there are relatively few opportunities for farmers and traders to take advantage of the contract system. Those which do exist, such as AMO, have encountered numerous problems. For one thing, there are risks attached to any contract: the risk that sudden changes in market conditions will make a contract unprofitable, and that should such changes occur, either party may fail to abide by the terms.

Recommendations:

1. We recommend that the AMO potato contract be changed or discontinued, since it has not proved viable in its present form.
2. We recommend that producer contracts be undertaken only under special situations, when careful study indicates a minimal risk to all parties.

L. Market Information System

A key ingredient of an efficient marketing system is a body of accurate information on current market conditions which can be rapidly disseminated to all market participants. Good, periodic summaries of market demand, prices, production, consumption, imports and exports are essential to sound, long-term planning by government and the private sector. Such critical information is often not available to Jordanian decision-makers. For example, information is badly needed on trends in yields as production techniques change, on demand in Jordan and its major export markets, and on seasonal differences in demand.

Recommendations:

1. The present system for collecting data on Jordanian agricultural production and marketing should be reviewed by a panel representing government, producers and marketers to determine how the system might better serve the needs of decision makers.

2. The existing program for rapid dissemination of current market information is adequate in conception and needs only to be put into effect in a more vigorous manner. We recommend that the Government of Jordan take the necessary steps to do so.

M. Role of Government in Food and Agriculture

At least nine government departments or agencies presently have responsibilities in food and agriculture. Yet there is no overall policy for agriculture, and no machinery for coordinating the activities of each agency. While many existing activities receive insufficient funding, e.g., research and extension, agencies continue to assume new functions.

Recommendations:

1. We recommend that the Government of Jordan adopt a basic policy for food and agriculture, spelling out broad policy objectives, the specific functions and activities of each government agency, and the functions and activities that are best left to the private sector.
2. Both in developing policy and in regular review, we recommend that the government confer with all relevant groups in the economy, including farmers, merchants, commission agents, exporters, retailers and consumers.
3. In order that the marketing system become more effective, we recommend that the government increase its commitment to market information, product inspection, research and extension, and export expansion.
4. To ensure coordination, the government needs to place one permanent government agency in charge of fresh vegetable and fruit marketing policy and procedures. The activities may actually be delegated to a number of agencies as at present, with the approval of the government, but with a single agency in command.

Appendix I Contacts in Jordan

<u>Name</u>	<u>Organization</u>	<u>Title</u>
Dr. Qasem Rimaur	Ministry of Agriculture	Minister
Dr. Jawad Anani	Ministry of Supply	Minister
Dr. Hassan Gharaybeh	Ministry of Agriculture	Under-secretary
Salah Eddin Taha	Directorate of Standards, Ministry of Industry and Trade	Director
Dr. Subhi Qasem	University of Jordan	Dean, College of Agriculture
Mr. Nicholas A. Veliotes	U.S. Embassy	Ambassador
Ed Harrell	USAID/Jordan	Director
Lois Richards	USAID/Jordan	Deputy Director
Frank Denton	USAID/Jordan	Chief, Technical Projects
Charles Jenkins	USAID/Jordan	Agricultural Development Officer
Bob Staller	Frederiksen, Kamine and Associates	Advising JVFA on Management
Sam Doran	Frederiksen, Kamine and Associates	Advising JVFA on Farm Management
George Marlowe	Frederiksen, Kamine and Associates	Water Management Project
Duane Lindgren	Frederiksen, Kamine and Associates	Pilot Farm Project
Omar Abdullah Dohkan	Jordan Valley Authority (JVA)	President, JVA
Munther Haddadin	Jordan Valley Authority (JVA)	Vice-President, JVA
Ribhi Mousa	Jordan Valley Authority (JVA)	Marketing Director, JVFA
Kamal Haddad	Jordan Valley Authority (JVA)	Donor Liaison (Former asst. D.G. JVFA)
Dr. Islam Ali Husein	Jordan Valley Authority (JVA)	Director, Planning and Evaluation
Sami Sunna	Agricultural Credit Corporation	Deputy Director General
Ibrahim Iriqat	Jordan Valley Authority (JVA)	Manager, El Arda Center
Ian Gibson	Jordan Valley Authority (JVA)	Advisor from U.K.
Mahmoud E. Khasawneh	Directorate of Standards, Ministry of Industry and Trade	Officer

<u>Name</u>	<u>Organization</u>	<u>Title</u>
Hasan S. Nabulsi	Jordan Cooperative Organization (JCO)	Director General
Mousa Araph	Jordan Cooperative Organization (JCO)	Deputy Director General
Rushdi A. Kadir	Agricultural Marketing Organization (AMO)	Commercial Manager
Mr. Mazen	Agricultural Marketing Organization (AMO)	Assistant Manager
Mr. Nabulsi	Ministry of Agriculture	Chief, Marketing Section
Dr. Akram Stertieh	University of Jordan	Dept. of Agricultural Economics
Brigadier Fawzi Yousif Diya (Ret.)	Amman Wholesale Market	Director
Aerif Hamzeh	Sawalha Assembly Market	Commission Agent
Dr. Imad Haddadine	Jordan Valley Farmers Association (JVFA)	Director General
Aku Zorbi	Jordan Valley Farmers Association (JVFA)	Credit Director
Haj Omar S. Almuhausen	H.O.S. Almuhausen and Sons Co.	Director General
Muhammad Y. Hussein	Aqua Drop Irrigation Systems	Former Banker
Rafick N. El Far	Naim S. El-Far and Co.	Sales Manager
Mostafa K. Refky	Roda S.P.A. Fruit Equipment	Area Manager
Dr. Adel Nabulsi	Amman Processing Co.	Director
Dr. Kheir Eddin Oweidat	Deir Alla Experiment Station	Director
Fahmi Yousef Abusham	Exporter	Amman
Ibrahim Ashaikh	Exporter	Amman
Yousef Masaada	Exporter	Amman
Imran Zaitoin	Exporter	Amman
Mrs. Arkaid Abdel-Nour	Frederiksen, Kamine and Associates	Admin. Assistant
Felicity Proctor	Tropical Products Institute, Ministry of Overseas Development, U.K.	Fruit and Vegetable Technologist
Fred Howarth	Jordan Cooperative Organization (JCO)	Advisor
Dr. Basil Jardaneh	National Planning Council	Secretary General
David E. Zweifel	U.S. Embassy	Deputy Chief of Mission

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