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MARKETING OF JORDANIAN FRUITS
AND VEGETABLES IN LEBANON

by

Mahmoud Rashdan

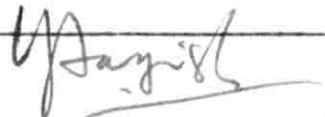
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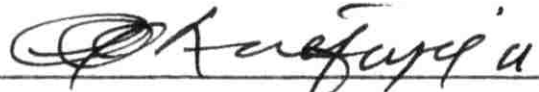
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Marketing Jordanian Produce

M. Rashdan

ABSTRACT

Agriculture is a major and important sector in the economy of Jordan. Fruits and vegetables are gaining more and more importance in Jordanian Agriculture as the area under irrigation is increased. They also form a major constituent in Jordan's exports. The export markets for Jordanian fruits and vegetables are the neighbouring Arab countries mainly Syria, Lebanon, Iraq, Saudi Arabia, and Kuwait. Vegetable exports to Syria and Lebanon depend mainly on the seasonal advantage of Jordan since most vegetables can be produced in winter in the Jordan valley due to its subtropical climate when it is too cold in the importing countries to produce these products during this season.

The present study was concerned with surveying the "Marketing of Jordanian Fruits and Vegetables in Lebanon." It aimed at ascertaining the marketing channels and agencies involved and the services performed by each. Other aspects of marketing studied included seasonality of supplies, the conditions of products upon arrival, and the main problems and deficiencies in the handling of Jordanian fruits and vegetables in the Beirut market.

The procedure followed was to prepare a questionnaire and interview the wholesale merchants and commission agents handling Jordanian products in Beirut to secure factual information regarding the handling of these products. In addition, other relevant data were collected from many sources, including the principal handlers of Jordanian fruits and vegetables in Beirut, the Ministry of Agriculture, the Fruit Board, and the Customs Offices at Chtoura and Beirut sea port.

It was found that the marketing system with its main features is archaic with no recent modernization of facilities or services. A few wholesalers handle most of the produce in Jordan and a few commission agents dispose of it in Beirut. The chain is complete when jobbers and retailers link the gap between the commission agents and consumers. Services performed and the methods of operation by the present marketing agencies, and the facilities available in the wholesale market both in Jordan and at Beirut favor continuation of current practices and no interest in improvement in marketing. The various fruits and vegetables are sent to Beirut without being graded and in a great variety of sizes and types of containers. Topping with large size high quality fruits is the rule. Underneath there are all sizes and qualities of the products.

There is no control on the exports of fruits and vegetables to Lebanon. No information regarding supplies

or prices of these products is supplied to farmers or dealers in Jordan. The result is wide seasonal and daily fluctuations in the supply and quality of these products reaching Beirut. The outcome is a large percentage of waste, a high degree of risk for the wholesalers, and weaker bargaining power for the farmers. This evidently results in reduced revenues to the latter.

Introduction of improvements will depend mainly on the effort of the government, especially at the beginning. Improvements must include:

1. Development of early maturing varieties of high quality and yield to perpetuate the seasonal advantage.
2. Establishing a market news service to provide information regarding supplies leaving to different markets and prices prevailing therein.
3. Extension education of farmers regarding marketing, particularly consumer preferences and how to supply what is demanded.
4. Training necessary personnel regarding better marketing practices, starting on the farms.
5. Developing marketing cooperatives in specialized producing areas and a sales federation to supply various markets in an orderly way.

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TABLE OF CONTENTS

| | Page |
|---|------|
| ABSTRACT | iv |
| ACKNOWLEDGEMENTS | vii |
| LIST OF TABLES | x |
| LIST OF FIGURES | xi |
| INTRODUCTION | 1 |
| Marketing: Importance and Scope | |
| Marketing Functions and Services | |
| Functions which create place utility | |
| Functions which create possession utility | |
| Functions which are auxiliary and facilitatory in nature | |
| Characteristics of Agricultural Products that Affect Marketing | |
| Bulkiness and perishability | |
| Variation in volume of production | |
| Seasonality | |
| Quality variation | |
| AGRICULTURE IN THE ECONOMY OF JORDAN | 14 |
| Fruits and Vegetables in Jordan's Exports | |
| MARKETING CHANNELS AND SERVICES | 23 |
| Services Performed by Farmers | |
| Services Performed by Wholesalers | |
| Services Performed by Commission Agents | |
| Services Performed by Jobbers and Retailers | |

| | Page |
|---|------|
| FLUCTUATIONS AND TRENDS IN THE SUPPLY OF JORDANIAN PRODUCE | 34 |
| Seasonal Fluctuations | |
| Daily Fluctuations | |
| Trends in Fruits and Vegetables Imports into Lebanon | |
| MAJOR PROBLEMS IN THE MARKETING OF JORDAN PRODUCE IN LEBANON | 46 |
| Market Organization | |
| Lack of Grading | |
| Reasons for Lack of Grading | |
| Packing and Packing Cases | |
| Problems Arising from Lack of Grading and Packing Method | |
| Lack of Market Information | |
| Transport | |
| Price Margins | |
| CONCLUSIONS AND RECOMMENDATIONS | 66 |
| Developing Early Maturing Varieties | |
| Developing Better Market Information | |
| Developing Marketing Cooperatives | |
| Establishing Marketing Training Centre | |
| BIBLIOGRAPHY | 75 |
| APPENDICES | |
| Appendix A | |
| Appendix B | |
| Appendix C | |

LIST OF TABLES

| Table | | Page |
|-------|--|------|
| 1. | Industrial Origin of Gross Domestic Product, 1954-1961 (Million J.D's at current factor cost). | 15 |
| 2. | Composition of Agricultural Sector (Million J.D's at Current Prices). | 17 |
| 3. | Crop Production in Jordan 1955-1961 | 18 |
| 4. | Lebanon's Imports of Fresh Fruits and Vegetables During 1960-1962 | 45 |
| 5. | Land Owners and Dunums Owned in East Ghor Canal Project Area in 1960 | 47 |
| 6. | Packing Containers Used for Different Jordanian Products | 53 |
| 7. | Jordan's Fruit and Vegetable Exports to Lebanon During 1960-1962 | 93 |
| 8. | Egypt's Fruit and Vegetable Exports to Lebanon During 1960-1962 | 95 |
| 9. | Syria's Fruit and Vegetable Exports to Lebanon During 1960-1962 | 97 |

LIST OF FIGURES

| Figure | | Page |
|--------|---|------|
| 1. | Market Channels for Jordanian Fruits and Vegetables in Lebanon | 24 |
| 2. | Availability of Some Fruits and Vegetables in Beirut Market | 36 |
| 3. | Monthly Arrivals of Jordanian Fruits and Vegetables in Lebanon 1960-1962 | 37 |
| 4. | Daily Arrivals of Tomatoes from Jordan in Tons and Corresponding Wholesale Prices in P.L./Box During March 1962 | 40 |
| 5. | Commission Selling of Jordanian Tomatoes | 88 |
| 6. | Uncareful Stacking of Vegetable containers | 88 |
| 7. | Jordanian Tomatoes in Apple Boxes | 89 |
| 8. | Beans Packed in Sacks | 89 |
| 9. | Eggplants in Wooden Boxes and Tomatoes in 10 kgs. Boxes | 90 |
| 10. | Careless Staking of Eggplant Sacks | 90 |
| 11. | Retail Selling of Fruits and Vegetables | 91 |
| 12. | Piling Fruits and Vegetables on the Floor of the Market for Retail Sale | 91 |
| 13. | Spoilt Fruits and Vegetables Cover the Floor of the Wholesale Market | 92 |
| 14. | Spoilt Fruits and Vegetables Collected as Garbage | 92 |

INTRODUCTION

Marketing: Importance and Scope

Farmers, especially in the less developed countries, tend to think and behave as if their job ends by producing a crop. They generally neglect the succeeding functions and services by which their crops reach the consumer at the time, place and in the form desired. Such an attitude of non-concern results in inefficient marketing and in reduced returns to the farmers.

If production is economically defined as the creation of utility, then marketing is evidently an integral part of the production process. "Marketing deals primarily with the creation of time, place and possession utilities."¹ Here, the creation of form utility is not included as one of the marketing functions.

H.C. Taylor listed as marketing functions, grading, packing, assembling, processing, selling, transporting, storing and warehousing, financing and risk bearing and dispersing.² Clark and Weld disagreed with this list. To

¹ L.D.H. Weld, The Marketing of Farm Products (New York: The Macmillan Company, 1918), p. 6.

² Henry C. Taylor, Outlines of Agricultural Economics (New York: The Macmillan Company, 1925), pp. 417-426.

them, "... processing is really manufacture and not marketing at all."³ A later author lists three main functions of marketing, (1) assembly, (2) processing (which Clark and Weld considered not a part of marketing at all), and (3) dispersion.⁴

On balance, it seems preferable to exclude creation of form utility from among the marketing functions. It is more logical to speak of marketing of milk so long as milk does not change its form. We are justified in saying, for example, that the consumer's price of milk is 200 percent of the producer's price, if the consumer is really consuming milk and not cheese. We are less justified, or even not justified at all, in saying that the marketing margin for milk is equal to the producer's price, if the consumer is utilizing a milk product, say cheese, rather than milk itself. When milk changes its form by processing, we are handling a milk product, not milk. Accordingly we should speak of "marketing of a milk product, cheese," not "marketing of milk."

Excluding creation of form utility from marketing functions seems to make the study of marketing easier and more systematic. It also allows for a more meaningful use and interpretation of marketing margins.

³ Clark and Weld, Marketing Agricultural Products in the United States (New York: Macmillan Company, 1935), p. 23; cited in G.S. Shepherd, Marketing Farm Products (Ames: The Iowa State College Press, 1958), p. 28.

⁴ F.L. Thomson, Agricultural Marketing (New York: McGraw-Hill Company Inc., 1951), p. 74.

"All the utilities, form, place, time and possession are necessary if goods are to be of the greatest use to the society and the creation of any one of them is production."⁵ The term production, however, is often used in a restricted sense to denote the production of form utility only and the term marketing is reserved for the creation of the other three types of utility namely, place, time, and possession utilities. Irrespective of the sense in which the word "marketing" is used, the essential fact remains that an efficient marketing system is important for increasing the returns to farmers. If farmers want to stop receiving bills for carriage instead of the returns from the sale of their products which they expect at the end of marketing process, they must give more attention to marketing. They must aim at eliminating waste and at higher efficiency in moving their products through to consumers. Kohls defines efficient marketing as

"that minimum input of various economic resources which will result in the satisfaction in goods and services which the consumer desires... Thus, anything which reduces the costs of marketing while maintaining or increasing the desired levels of consumer's satisfaction would then meet the requirements of increasing marketing efficiency."⁶

Marketing Functions and Services

There is no clear distinction between the terms

⁵ Paul D. Converse and Harvey W. Huegy, The Elements of Marketing, 5th ed: (New York: Prentice Hall Inc., 1954), p.1.

⁶ Richard L. Kohls, Marketing of Agricultural Products (New York: The Macmillan Company, 1955), p. 7.

function and service as used in marketing literature. Like all other economic activities, the ultimate goal and essential function of marketing might be considered that of satisfying human wants and desires.

Converse and Huegy define marketing function as "an act, operation or service performed in the process of distributing goods and services."⁷ Service is defined by Brunk and Darrah as "any function which alters a commodity in form, time, place or possession."⁸ For any definition of operational significance, function and service may be used interchangeably without causing any misunderstanding.

When it comes to the classification and listing of marketing functions and services, it must be recognized that this is an arbitrary thing and no one list may have an obvious advantage over the others. Different authors list from as few as eight to as many as eighteen.⁹

The present author will classify marketing functions and services into four categories:

1. Those which create place utility
2. Those which create time utility
3. Those which create possession utility and
4. Those which are auxiliary and facilitatory in nature.

⁷ Op. cit., p. 62.

⁸ Max E. Brunk and L.B. Darrah, Marketing of Agricultural Products (New York: The Roland Press Company, 1955), p.5.

⁹ See for example: Converse and Huegy, op. cit., pp. 63-64.

Services which create form utility are left out and not included under marketing functions. They are another type of production process.

Functions and Services Which Create Place Utility

1. Assembly

The collection of small lots from individual farms and concentration of these at convenient points is an important step in the sequence of operations which comprise agricultural marketing. This makes it easier for the buyers to know where to go and permits the use of transport facilities on a more economical scale and in an orderly way. If full truck loads of produce are assured at certain places, then special arrangements can be made for their transport at certain periods of time. Some kind of sorting and packing can also be done at assembly points to facilitate transport to distant markets. Leaving unsaleable under-grade products in the producing area saves on transportation cost for saleable products.

2. Transportation

Transporting is another important service in marketing. It is a part of every stage in the marketing process, from the farm to the ultimate consumer. Many times efficient transportation necessitates specialized transport organizations with large capital investments. This is especially true where special

arrangements, such as refrigerated trucks have to be provided and where long distances are involved.

Good roads and efficient transportation arrangements make it possible to produce crops in areas best suited for the purpose but which are far from the market. Which of the three means of transportation, water, road, or air transportation to use is determined by the local conditions, types of products, their price, and distance involved.

Many facilitating services, like grading, crating and proper packing, are necessary to make efficient and economical transportation possible. In many cases, though the distance involved is small, the transporting ends in failure and damage of the product due to lack of one or more of these facilitating services.

3. Distribution

This function is highly synonymous with transportation. However, it involves, over and above the physical movements of goods from one place to another, the deliberate action of matching available supplies to consumer demand. It involves moving the available supplies to different consuming centers and dividing them among various uses in a way that maximizes net total returns. Experience and market information are necessary for efficient working of distribution because of the numerous agencies handling the products.

Services That Create Time Utility

1. Storage

Its importance arises mainly from the fact that many kinds of products are seasonal while the consumer demand is continuous the year round. Storage helps to make goods available at the time they are wanted. It helps to match supply with demand and helps avoid temporary oversupply that may result in unsold products or at least in low prices.

This is especially important with short-season crops and perishables. Without adequate and cheap storage facilities, a large crop is no better than a medium size one as far as revenues to the farmer are concerned because it has to be sold before it becomes unsaleable at whatever price the product will bring.

Functions and Services That Create Possession Utility

1. Buying

This involves determination of needs, seeking out a source of supply and activities which are usually associated with paying the price and obtaining the purchased goods. The process of buying may involve activities such as inspection, assembling and transporting.

2. Selling

Selling is more than merely accepting the price offered and receiving the value of the goods sold.

It involves activities such as stimulating demand by advertising and other promotional devices. Activities such as choosing the proper package, seeking out buyers, negotiating and bargaining the price and transfer of title are frequently included in selling.

Auxiliary and Facilitating Functions and Services

These can be many, but here only the most important are mentioned.

1. Grading and Standardization

The first step in standardization is the establishment of uniform measurements and quality specifications to serve as a basis for grading. These specifications may be based on size, shape, color, degree of ripeness, amount of foreign matter, amount of moisture, length of fiber or/and any other measurable characteristic that affects quality and commercial value. Standards should be based on qualities and attributes that the consumers prefer and the market differentiates, and/or on the uses to which the article is to be put.

Grading refers to the actual separation of goods into separate lots based on the already established standards and specifications, such that each lot conforms with the standards of the grade its label designates.

Grading Serves Many Purposes:

- a) It allows the marketing system to work more smoothly and efficiently since buyers and sellers talk the same language and use the same terms. There is no need for a lot of bargaining and waste of time. The buyer can get precisely what he wants, thus increasing his satisfaction.
- b) It facilitates market transactions, and creates a wider market for the graded commodity. Export marketing, where agreements have to be reached by telephone or telegram, is made possible only if specific grading is practiced. Standardized grading furnishes a means of satisfactory description of quality for both buyers and sellers. The need for inspection is minimized or eliminated. Samples of different grades can be provided. Moreover, the market is enlarged by bringing low grades within the reach of low income groups who otherwise would be excluded from buying the product.
- c) More of the product can be sold, and higher prices can be received if consumers know what exactly they are being sold. Otherwise, the risk of low quality is high and consumers may insist on paying low prices or making shifts to more dependable products.
- d) It reduces the costs of transportation and storage since it allows better packing and unmarketable produce may be left at the place of production and thus save on the transportation cost.

- e) Grading minimizes waste since injured and spoiled produce is not packed with healthy products in the same container.
- f) If grade differentials in prices are carried back to the producer, it will serve as a means of guiding production into patterns most suited to the market and thus help to increase returns to the producers.
- g) It minimizes friction and eliminates disputes and quarrels between buyers and sellers that are likely to arise otherwise.

2. Packing

Most products must be put in some kind of container to make possible efficient transportation and storage and easy handling. A good container serves many purposes. It helps protect the product from physical injury, ensures cleanliness, minimizes theft and facilitates measurement. Containers also provide space for labeling and instructions.

3. Market Information

For smooth and efficient marketing operations, the collection, interpretation, and dissemination of market news is a must. Market information helps both farmers and marketing agencies to adjust supply to demand both quantitatively and qualitatively. All other marketing functions and services depend to a

large extent on efficient market information. The market system as a whole can be evaluated on the basis of how far market information is developed.

4. Financing and Risk Bearing

Because of the lag of time between buying and selling and because of the necessary operations that come in between, the need arises for somebody to provide the capital necessary to carry on these operations. Enough inducement should be present to make somebody offer his money for such operations, foregoing the possible use of capital elsewhere.

In all operations there is some risk involved. There must be somebody who will accept the possibility of loss along with the prospect for gain. Risks can be either insurable, like that of physical destruction, or uninsurable such as that of a price fall. Financing and risk bearing can be either combined or separate; they can be done by the same man or by different persons.

The above list of marketing functions and services is by no means exhaustive. It is, however, representative of the most widely acceptable functions and services that are normally involved in marketing.

Characteristics of Agricultural Products That Affect Marketing

Agricultural products exhibit certain characteristics

which influence their marketing. Some of these are discussed below.

Bulkiness and Perishability

Most farm products have large size compared to their monetary value. This can be easily seen by comparing a truckload of watermelons with a truckload of drugs and compare the relative value of each. Bulkiness exerts its effect on the per unit cost of transportation and handling which in turn restricts the areas of production. Bulkiness calls for more containers, larger space for storage and thus higher costs. Beside being bulky, agricultural products, as compared to non-farm products, are perishable. This necessitates additional costs for preservation and refrigeration.

Variation in Volume of Production

Variations in production are both annual and seasonal. They arise in changes in areas sown, numbers of chicks hatched, etc. Agricultural production is also subject to wide variations in nature. Volume of production varies with the weather and is highly affected by biological factors, especially those of pests and diseases.

Though the total agricultural output may be relatively stable from year to year, the fact remains that marketing agencies handle individual commodities or groups of commodities. Thus in case of a bad crop, marketing agencies have to work at less than full capacity.

Agricultural production is also seasonal. The period of availability of strawberries, almonds, loquats, etc., is quite short. Almost all agricultural products have an uneven distribution of production throughout the year due to their dependence upon the climatic conditions and biological nature of production. Annual variation in the volume of production may be largely a response to high or low prices in the previous year.

Quality Variation

The quality is mainly affected by the variety and the growing conditions. Usually high quality and high yields go together and hand in hand. This variation in quality raises problems in grading according to fixed standards. It becomes difficult to keep uniform standards from year to year and abide by them. "Wide variations in quality tend to disorganize the market, cause wide price fluctuations, add to the cost of storage, complicate grading, and make transportation difficult."¹⁰

¹⁰ Brunk and Darrah, op. cit., p. 15.

AGRICULTURE IN THE ECONOMY OF JORDAN

Agriculture is extremely important in the economy of Jordan. Agriculture provides employment for more than one half of the employed labor force (roughly 300,000 people, but many only part time). In normal crop years, it accounts for roughly 25 percent of gross national product. In spite of this fact, until recently, agriculture was given little attention by government and it was left to private initiative, which was lacking, to develop agriculture. Because of the heavy dependence of agriculture on fluctuating rainfall, it is a hazardous occupation in respect to income.

"One of the most significant features of economic development of Jordan in recent years has been the lack of growth in agricultural output as a whole. Agriculture in Jordan is a highly unstable industry. This is because a large proportion of total agricultural output is derived from dry farming in areas subject to frequent droughts." ¹¹

This instability of production in agriculture can be easily seen from Table 1. All the sectors of the economy, except agriculture, show an upward trend over the years. Between 1954 and 1955 income from agriculture declined by 56.3 percent,

¹¹ R.S. Porter, Economic Trends in Jordan 1954-1959 (Beirut: British Embassy, Middle East Development Division, July 1961), p. 2.

TABLE 1

INDUSTRIAL ORIGIN OF GROSS DOMESTIC PRODUCT 1954-1961

Million J.D.s at Current Factor Cost

| | 1954 | 1955 | 1956 | 1957 | 1958 ^a | 1959 | 1960 | 1961 ^b |
|---------------------------------------|------|------|------|------|-------------------|------|------|-------------------|
| Agriculture, forestry and fishing | 14.2 | 6.2 | 19.0 | 12.8 | 12.9 | 11.4 | 13.0 | 23.1 |
| Manufacturing, mining and electricity | 4.2 | 5.2 | 6.3 | 6.8 | 7.6 | 8.1 | 9.1 | 11.7 |
| Construction | 1.2 | 1.5 | 1.7 | 1.9 | 2.4 | 3.7 | 3.0 | 3.4 |
| Transport | 4.4 | 5.5 | 6.8 | 8.3 | 9.0 | 10.8 | 11.3 | 12.8 |
| Trade and banking | 9.3 | 9.3 | 10.5 | 12.0 | 14.4 | 16.1 | 18.0 | 22.7 |
| Ownership of dwellings | 2.3 | 2.3 | 2.9 | 3.1 | 3.3 | 5.4 | 6.1 | 7.1 |
| Public administration and Defense | 9.1 | 9.7 | 11.5 | 13.3 | 15.6 | 16.1 | 17.6 | 17.8 |
| Services | 3.0 | 3.3 | 2.7 | 3.7 | 3.9 | 7.5 | 8.1 | 8.9 |
| Gross domestic Product | 47.7 | 43.0 | 61.4 | 61.9 | 69.1 | 79.1 | 86.2 | 107.5 |

Sources: a R.S. Porter, *Economic Trends in Jordan 1954-1959* (Beirut: British Embassy, Middle East Development Division, July 1961), p. 1.

b Jordan, Department of Statistics, *The National Accounts 1959-1961* (Amman: Department of Statistics, n.d.), p. 2.

and in 1956 income from agriculture was 206.4 percent over that of 1955. The fluctuation continues to a varying extent over the years. Livestock production, though relatively unimportant, adds a highly unstable element to agricultural incomes accentuating the fluctuations in incomes from crops. When the rainfall is low the output of crops is reduced and scarcity of animal feeding stuffs results in the wholesale slaughtering of livestock. Thus, while sales of livestock increase in drought years, against this must be set the reduction in numbers in herds which is a capital loss for the agricultural sector.¹² Data in table 2 reveal the complete story.

In recent years there was, and still is, a trend toward a fall in the production of grains and an upward trend in the production of fruits and vegetables. "Thus in 1954 vegetables, fruits and vines are estimated to have accounted for 32 percent of the total value of agricultural production while in 1959 they accounted for 67 percent."¹³ This is shown in Table 3 which gives areas planted to various groups of crops and estimates of production in thousands of tons.

The upward trend in the cultivation of fruits and vegetables gives Jordanian agriculture more stability and ensures many farmers more dependable income. Areas planted

¹² Ibid.

¹³ Ibid., p. 3.

TABLE 2

COMPOSITION OF AGRICULTURAL SECTOR, 1954-1959

Million J.D. at Current Prices

| | <u>1954</u> | <u>1955</u> | <u>1956</u> | <u>1957</u> | <u>1958</u> | <u>1959</u> |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| <u>Gross Output</u> | | | | | | |
| Crops | 12.59 | 6.50 | 14.62 | 12.38 | 11.66 | 11.43 |
| Forest Products | 0.32 | 0.27 | 0.27 | 0.30 | 0.20 | 0.31 |
| Afforestation and Construction | 0.28 | 0.28 | 0.28 | 0.26 | 0.18 | 0.19 |
| Poultry and honey | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Total | 13.69 | 7.55 | 15.67 | 13.44 | 12.54 | 12.43 |
| Sales of animals and animal products | 1.30 | 1.25 | 1.39 | 1.96 | 3.01 | 3.04 |
| Increase in stock | .60 | -1.40 | 3.60 | -1.00 | -1.00 | -3.20 |
| Net income from livestock | 1.90 | -0.15 | 4.99 | 0.96 | 2.01 | -0.18 |
| Total Gross farm income | 15.59 | 7.40 | 20.66 | 14.40 | 14.55 | 12.25 |
| Agricultural costs* | 1.37 | 1.14 | 1.55 | 1.66 | 1.62 | 1.85 |
| Net farm output | 14.21 | 6.26 | 19.11 | 12.88 | 12.93 | 10.40 |

* Excluding marketing costs

Source: R.S. Porter, Economic Trends in Jordan 1954-1959 (Beirut: British Embassy, Middle East Development Division, July 1961), p. 3.

TABLE 3

CROP PRODUCTION IN JORDAN, 1955-1961

Areas of Various Crops in Thousands of Dunums

| <u>Crop</u> | <u>1955</u> | <u>1956</u> | <u>1957</u> | <u>1958</u> | <u>1959</u> | <u>1960</u> | <u>1961</u> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Grains and Legumes | 4500 | 5323.3 | 4569.4 | 4319.4 | 4084.7 | 3794.1 | 4247.1 |
| Vegetables | 277.8 | 324.0 | 431.5 | 373.3 | 472.1 | 426.9 | 578.6 |
| Fruits | - | 118.5 | 128.6 | 138.5 | 149.0 | 155.8 | 168.5 |
| Vines | - | 162.1 | 163.8 | 175.2 | 182.8 | 187.7 | 199.5 |

ESTIMATES OF PRODUCTION OF CROPS, 1955-1961

Production in (1000 tons)

| | | | | | | | |
|--------------------|-------|-------|-------|-------|-------|-------|-------|
| Grains and Legumes | 130.0 | 407.9 | 346.4 | 102.3 | 154.1 | 68.8 | 228.4 |
| Vegetables | 148.3 | 177.7 | 240.2 | 237.1 | 250.9 | 398.6 | 532.9 |
| Fruits | - | 31.8 | 44.9 | 41.1 | 47.0 | 43.8 | 68.9 |
| Vines | - | 37.0 | 47.0 | 42.6 | 54.1 | 43.3 | 78.4 |

Sources: Jordan, Ministry of National Economy, Department of Statistics, Statistical Yearbook 1961 No. 12; (Amman: Department of Statistics, n.d.), pp. 127-129.

to grains and legumes in 1961 were 79.78 percent of those of 1956, while areas planted to vegetables in 1961 were 178.58 percent of those of 1956 and areas planted to fruits in 1961 were 143 percent of 1956 level. There was an expansion of production of fruits and vegetables due to an extension of the area devoted to these crops, which is to a large extent irrigated, so that the effects of fluctuations in quantity and distribution of rainfall are not felt to such a high degree. The change in the pattern of agricultural output is clear and with future extension of the irrigated area, it would seem probable that this pattern is likely to persist in the future.

Fruits and Vegetables in Jordan's Exports

Fresh fruits and vegetables are a major constituent of Jordan's exports. Out of total exports of J.D. 3,480,866 in 1960, the value of exported fruits and vegetables amounted to J.D. 1,395,739, more than 40 percent of total exports. Tomatoes are the most important among all the exported fresh fruits and vegetables. They accounted for J.D. 595,196, or 42.64 percent of the total value of fruit and vegetable exports.

In 1960, Jordan exported to Lebanon goods of the value of J.D. 521,171. The value of fruits and vegetables was J.D. 320,954 out of this total, which was 61.5 percent. Here, tomatoes again were the most important single crop exported to Lebanon. They accounted for 54 percent of the

total value of Jordan's fruit and vegetables exports to Lebanon. Fruit and vegetables were less important in 1961 exports than in 1960 exports.

Jordan enjoys a favorable exporting position with respect to vegetables and fruits with the neighbouring countries. Vegetables can be produced during the winter season in the Jordan valley when there is little or no competition from other producing countries in the Middle East.

One of the most important aspects in the export of Jordanian fruits and vegetables is marketing. Observation indicates that the present marketing system is far from being the best under the circumstances and that improvements in marketing which will contribute to higher returns are not impossible. The importance of fruits and vegetables in Jordanian exports has already been indicated.

The present study was undertaken to investigate the marketing of Jordanian fruit and vegetables in Lebanon. The aims of the study are:

1. Studying the marketing channels and agencies, the sequence of intermediaries and markets through which the products pass en route from the producer to the ultimate consumer. It also involves studying the functions and services performed by various marketing agencies.
2. Ascertaining the seasons of supply and seasonal fluctuations and their relation to daily and seasonal fluctuation of prices.

3. Discovering trends in the fruit and vegetable imports into Lebanon with the relative position of the chief competitors of Jordan, namely, Syria and Egypt.
4. Evaluating grading, packing, storing and transport.
5. Making clear the defects in the present marketing system with their economic consequences.
6. Formulating appropriate recommendations for improvement of the marketing of Jordanian fruits and vegetables in Lebanon.

Procedure

The study as discussed in the previous few lines is a composite of the functional, institutional and commodity approaches to the study of marketing. The site of the study, by necessity of limitations, was to a large extent confined to Beirut.

A questionnaire to the wholesale merchants and commission agents handling Jordanian fruits and vegetables in Beirut market was prepared and interviews were made in the summer of 1962. A copy of the questionnaire used is attached in the appendix. Before beginning the interviews, several informal visits were paid to these wholesalers and the writer got acquainted with the general conditions prevailing. At the beginning, the writer was given the impression that there were at least thirty persons who handle Jordanian fruits and vegetables. When the actual interviewing was done, only twelve could be found who actually handle Jordanian fruits and

vegetables. Four of these handle almost 90 percent of the total volume arriving from Jordan.

Interviews were made in the commission agents' shops in the wholesale market. In five cases the interviews had to be made in two sessions due to the merchant being so busy that he could not respond to all questions in one interview.

Special and frequent visits were paid to the wholesale market where methods of selling and buying, handling, and special conditions of the products, general conditions of the market facilities, and organization of the market were observed. During these visits questions were asked and inquiries were made with the wholesalers, commission agents, and farmers who happened to be present. These were very useful because they provided the opportunity to discover many things, the discovery of which was not possible otherwise. It was also necessary to collect information and data about the volume of fruit and vegetable imports into Lebanon and the seasons of supply of the various products from the customs office at Shtoura for Syria and Jordan and at Beirut Seaport for imports from Egypt. Some data were also collected from the Ministry of Agriculture of Lebanon, and the Fruit Board.

MARKETING CHANNELS AND SERVICES

"The sequence of intermediaries and markets through which goods pass en route from producer to consumer is known as a market channel."¹⁴ Usually only the people who actually possess, buy and sell, or negotiate buying and selling, such as brokers and commission agents, are included in a particular marketing channel. Railroads, trucking companies, and banks which give loans to finance the marketing process, normally are not included in the marketing channels. The shortest marketing channel is followed when goods are passed by producers directly to consumers. The number of intermediaries depends, inter alia, on the distance involved between the producer and consumer and on the nature and number of services that have to be performed before the goods reach the final consumer. The more links in the chain between the producer and the consumer, generally the wider will be the margin between the producer's price and the consumer's price.

A wide margin is often considered an indication of inefficient marketing. This, however, is not a safe assumption since a wide margin may reflect a multitude of services performed along the chain, that those sought by consumers,

¹⁴ J.C. Abbott, Marketing Problems and Improvement Programs: F.A.O. Marketing Guide No. 1 (Rome: F.A.O., 1958), p. 31.

are costly, or a large number of agencies in the chain between producer and consumer. Efficiency, or inefficiency, of a marketing system is better judged through the appraisal of the economic inputs like labor and money that are used at any one link and whether the same services and utilities, or more, can be achieved through lesser inputs and reduced costs.

According to the wholesalers and commission agents interviewed, the marketing channels depicted in figure 1, with the heavy line indicating the most frequent chain, have been the typical channels for more than a decade. Thus, the typical channel between the producer in Jordan and the consumer in Beirut is for the farmer to sell to a wholesaler in Jordan, the latter to send the produce to a commission agent in Beirut, the commission agent in Beirut sells to retailers, and these in turn sell to consumers.

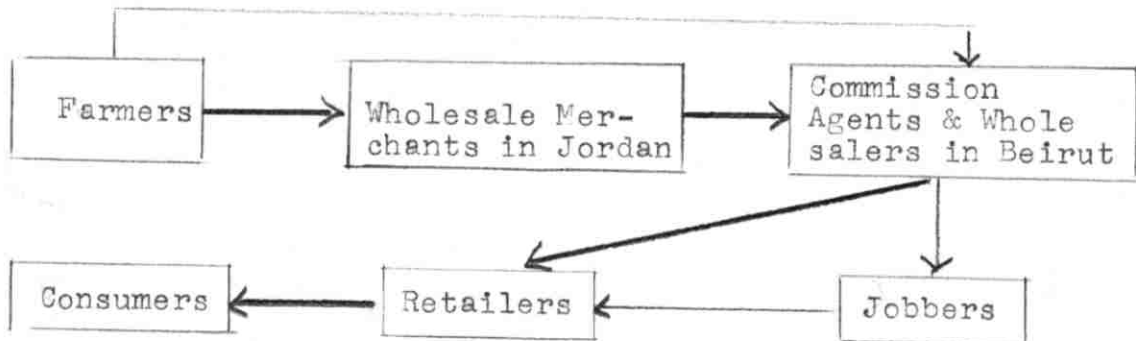


Figure 1. Channels for Marketing Jordanian Fruits and Vegetables in Lebanon.

Information obtained from some farmers interviewed, wholesalers in Jordan, and personnel of the Marketing Bureau

at Amman, indicate that farmers in Jordan have several alternate ways of selling their products in addition to those shown in figure 1.

1. Sale at the roadside

Sales may be made to retailers or to wholesalers, according to who comes along the road and offers an acceptable price. Farmers may harvest their produce and pile it near the roadside for sale

Retailers from nearby markets travel through the producing areas looking for products to satisfy their customers. When they find along the roadside what will satisfy their needs, they buy it from the producer. The prices farmers obtain through such sales usually are lower than what they could obtain at the market itself even if transport costs are taken into account.

Farmers harvesting small lots may also pack them in containers and wait in the field until a wholesaler comes with a truck and buys from these small producers.

The wholesaler, depending on his knowledge of prices in various markets, both locally and abroad, decides where to send his purchases. Usually he decides before he makes the actual purchases. If he decides to send the produce abroad, he sends the truck directly from the farms and thus saves time and reduces transportation costs.

2. Sale in the local market

Farmers producing small amounts may find it convenient to carry their produce to the local market on the back of donkeys or horses where they can sell it to retailers, or even to consumers. The distance involved is usually not great, one to five kilometers.

3. Advance contracts with wholesalers

The farmer may sign an advance contract with a whole-

saler for the sale of his produce. This is especially so when the farmer is in need of money and is unable to obtain a loan from a regular credit agency. The prices received from wholesalers under advance contracts are usually lower than those prevailing at the time of harvest due primarily to uncertainty as to the prices at which the products can be sold following harvest and allowance for interest on the advance payment.

4. Sale through a commission agent

This may be of two kinds

a) Advance agreement

The commission agent advances the farmer some credit and the farmer agrees to market his produce through the commission agent. The commission agent usually charges 5 percent of the goods value of the sales for his services.

b) Direct commission

As the products are harvested, they are sent to a commission agent who sells them and charges 5 percent for his services. In this case the farmer is free to choose any commission agent.

Many commission agents also act as wholesalers and buy products outright when they think they can make more profit by doing so.

The wholesalers and commission agents, both in Jordan and at Beirut, are well established and they are few in number. During the last few years, and according to the twelve respondents to the interviews in the study, the business has been concentrating in a few hands. Five of the commission agents interviewed at Beirut mentioned that the volume of goods they handle from Jordan has been increasing, while another four admitted their volume had declined over the past few years.

Services Performed by Each Link in
the Marketing Channel

The farmer is the first and the primary link in the marketing channel. Except when the farmer himself takes the task of exporting, he usually performs few marketing services. In case the farmer wants to export himself, he harvests the product either by himself and his family and/or with hired labor, obtains the containers, packs the produce in the containers, and hires a truck for transporting the produce to Beirut. This task of direct export is limited to the few relatively large scale farmers who grow sufficient quantities of produce to export by themselves.

The farmers decide to harvest when they think that the amount of product is big enough to justify the labor involved or when the prices are favorable. When they harvest, they usually pick all stages of maturing fruits ranging from fully mature to half-mature or even unripe. When the packing is done, the container is filled with this mixture and good fruits are chosen to put in the top one or two layers.

If other ways of selling are chosen, the services performed by farmers are usually restricted to harvesting and packing in containers supplied by commission agents and wholesalers. The wholesalers may do the packing themselves and in this case they also practice topping. The wholesalers who export to Lebanon supply the containers, may pack themselves or hire labor for packing, hire a truck for transportation, and consign the truck loads to a commission agent in Beirut who, in turn, takes the responsibility of selling the products in various ways.

It is useful to describe briefly the wholesale market at Beirut before discussing the services performed by the commission agent.

Right in the centre of the cosmopolitan city of Beirut, one finds in the produce market area during the early hours of the day a number of trucks loaded with fruits and vegetables of different kinds. These trucks feed the population of the city with respect to fruits and vegetables and transport the material from the production areas of Lebanon and neighbouring countries like Syria and Jordan to this place. The market area abounds in shops of the commission agents who perform the function of selling on behalf of the owners of the loads. The shops are characterized with an office of the commission agent located in the second storey and it is here that a few registers, chairs and tables are found to carry out the transactions with the sellers and purchasers. At the very entrance of the shop, one finds hundreds of packing cases of irregular shape and type being used by the producers or the dealers for different products. The methods of handling and disposal of fruits and vegetables are so unsystematic that no attention is paid to the cleanliness of the surroundings. Rotten tomatoes, egg plants, and other refuse are thrown in the middle of the street. See appendix B for a picture of this.

Some of the retailers also carry out their business in the very area in an unorderedly manner by emptying the packing cases of vegetables on the ground without giving any attention to grading. They keep their products exhibited till they are finally disposed of. The merchants continue to make additions to the already unhygienic conditions of the market by throwing away in the street anything found unfit for sale. The retailers

attract the attention of passers by shouting different words in praise of the products they are offering for sale.

Bargaining is a common feature at the market. A special attraction in the wholesale market at Beirut is the very large number of porters roaming about and occupying almost 60 percent of the small area of the market which makes mobility quite difficult.

The commission agents are employing two or more servants to help them in carrying out their functions. When the goods reach Beirut, the commission agent takes care of unloading. The charges for unloading are, however, charged against the owner's account. The commission agent provides the necessary space and bears the costs of handling and moving the products within and out of the shop. The commission agent may have to recover and repair broken boxes and put them in acceptable shape for sale.

Then, the commission agent has to sell the product. The selling is done through various ways. Auctioning is practiced where the whole truckload is to be sold. This is especially true with watermelons. Auctioning is also done, but to a lesser extent, where the load is sold in lots of a few hundred boxes each. Most of the selling is done through negotiating with the buyer and agreeing on a certain price. The method of selling may also be a combination of auctioning and private negotiating.

Normally, all the goods have to be sold in the same day. The way the commission agent starts auctioning is

arbitrary; he estimates how much of the particular product is available in the market and begins with a price accordingly. There may be no bidders but he will continue announcing the price. If he notices that buyers are passing without buying, then he reduces the price accordingly, and vice versa.

The commission agent may sell on credit, but mostly he collects his money from the jobbers and retailers within one to three days. For these services, the commission agent charges a five percent commission from the gross value of the sales. He usually sends the value of the sales to the owner in the same day with the driver of the truck. However, if the owner of the goods is a wholesale merchant with whom he has mutual financial relations, in which case the value of the goods may be sent later on. It must be noticed that it is very rare that the commission agents in Beirut acquire goods on their own but rather almost all the Jordanian fruits and vegetables are sold on a commission basis. Perhaps, this can be explained by the unwillingness of the commission agents in Beirut to bear any risk from acquiring possession of goods of unknown quality. Selling on commission basis assures them a satisfactory remuneration with the elimination of all risks.

Re-Exports to Oil Countries

Quite a small percentage of the Jordanian vegetables are imported to Lebanon by a company which in turn re-exports them to oil companies in Kuwait and Saudi Arabia after grading them to meet their special requirements. This company obtains

its needed products from Jordan mostly by contracts with known wholesalers and farmers. The prices, in many cases, are agreed upon a few months before harvest. This company usually pays higher prices but it asks for higher quality. To assure obtaining the quality they paid for, they send their own employees to supervise selection and packing the better quality. It should not be understood that there are specific standards on which the sales are based but rather the agreement is on such things as that no injured or very small size fruits can be included. This is obviously subject to misinterpretation. The manager of the company concerned said that usually they take about 30 percent of the total harvest as meeting their specifications. When they grade them in Beirut for re-export, only about 85 percent are re-exported and the rest is marketed in Beirut. The quantities re-exported are very small compared to the total volume marketed in Lebanon. The manager of the company estimated the quantity to be 400 tons annually.

Commission agents handling fruits and vegetables generally limit themselves to these products owing to the specialized knowledge needed in handling them. An appraisal of the function of the commission agents must involve considerations of the expenses of handling and selling, the effect of the method on prices and the abuses that result from this specific method. A commission agent generally handles in a day as much as many salesmen at private sale. This is especially true when he sells at auction in a large crowd of buyers. The expense involved here is not all inclusive, since

much of the goods sold in auction pass through the hands of jobbers before they reach the retailers.

Auctioning is assumed to stabilize prices since it tends to be open, making it easy for the buyer to know the supply available and have equal opportunity to bid. This will prevent prices from going very high or very low. But, the opposite may be true if we consider that auctioning gives free interplay of supply and demand, and thus more price fluctuations, especially if the quantity supplied is not regulated. Abuses may result due to auctioning; as bidding the goods by their owners, the selling of the displayed goods in advance of the auction, and the like. It appears that auctioning of fruits and vegetables in Beirut generally does not suffer from such abuses.

If goods are sold to jobbers, the only apparent service that these perform is to transport the goods to places convenient to the retailers or hold them for a time and thus create time and place utilities. They assemble in their shops an assortment of products so that retailers can obtain their requirements in one place. Jobbers normally do no sorting and no grading.

The last link in the distribution chain is the retailer. Usually he buys from more than one commission agent and/or wholesaler, or he may buy from a jobber. These retailers range from shop keepers who have display space for fresh produce in front of their shops to those pedlars who use hand carts for door to door sales. The main retailing market

for fresh fruits and vegetables is consolidated in a place called Souk Al-Nouriah which is very near the Wholesale market. In general, the retailer practices some kind of sorting, especially when he discovers that there is quite a difference between the top and the bottom layers of produce in a container. This preliminary sorting by the retailer does not eliminate the necessity for inspection by the consumer of each and every piece he buys. Thus, a major source of increased retailing cost is through spoilage caused by inspection by consumers and excessive handling.

FLUCTUATIONS AND TRENDS
IN THE SUPPLY OF JORDANIAN PRODUCE

Seasonal Fluctuations

The major winter vegetable producing area in Jordan is the Jordan Valley. This valley enjoys a subtropical climate and thus various vegetables can be produced in winter when no other neighbouring country is producing them at the same time. This gives Jordan a favorable position in the import markets of neighbouring countries namely, Syria, Iraq, Lebanon, Kuwait and Saudi Arabia.

Lebanon depends heavily for its supply of fresh fruits and vegetables on the local production and to various degrees on imports from Jordan, Syria and Egypt. Imported fresh fruits and vegetables can find a market only when similar local products are not available or are not available in sufficient quantities.

The seasons of supply of various vegetables from different countries may coincide and may vary from year to year depending on the biological nature of production. Tomatoes sold and bought in the Beirut market during February and March are mostly Jordanian. The same is true for eggplant

during the months of February, March, April and May. In general, during the winter months, most of the fresh vegetables in Beirut market are Jordanian.

Figure 2 shows the months of the year during which some fresh fruits and vegetables are available in the Beirut market. This is based on the data collected in the questionnaire and from customs offices. Since the study is about the marketing of Jordanian fruits and vegetables in Lebanon, the products chosen are the most important among Jordan's exports to Lebanon.¹⁵ The chart shows that the main harvest seasons generally do not coincide. When they do, the preference is always for the local product. This preference for the local products is based on freshness and generally cheaper prices, as reported by the people interviewed.

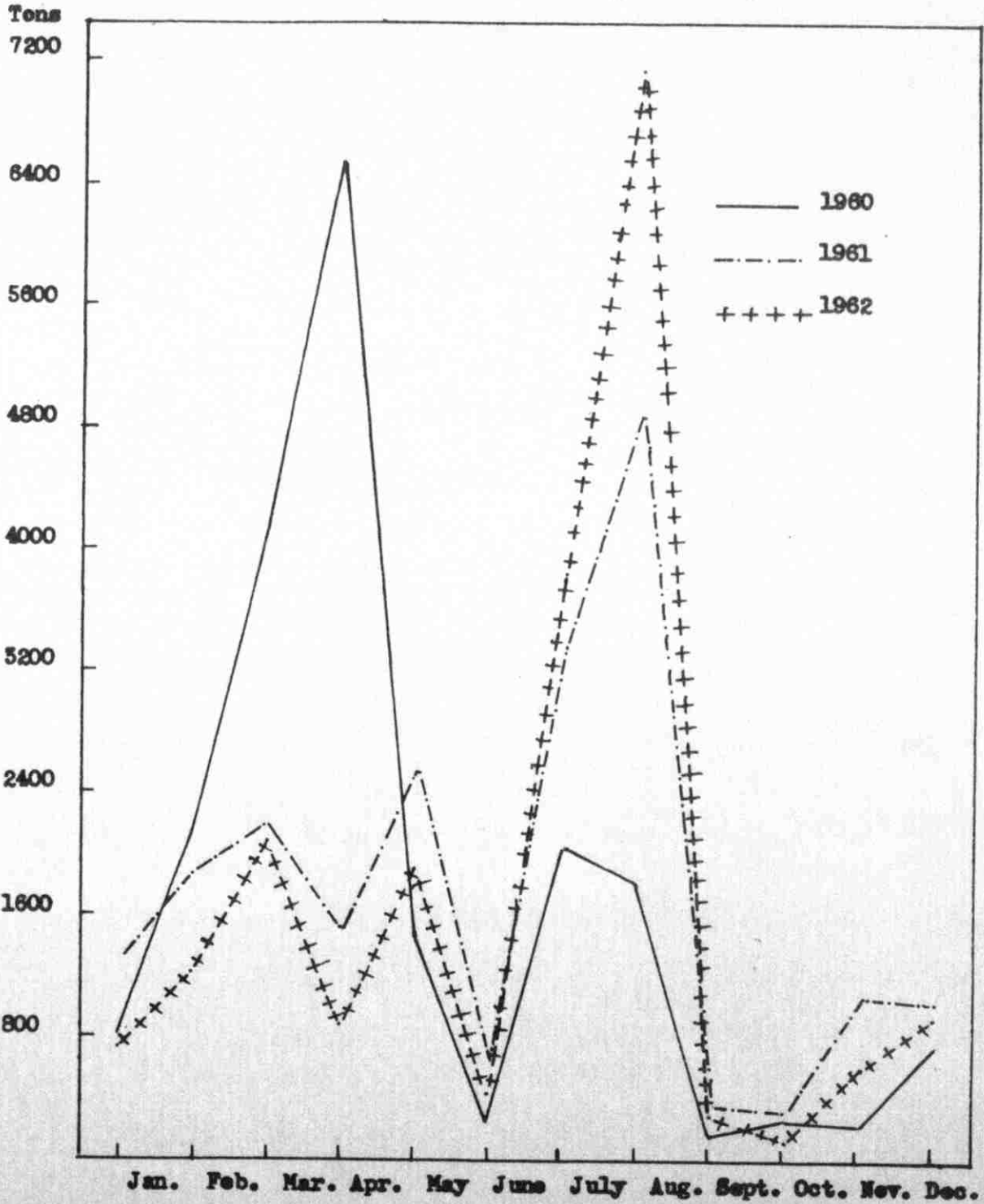
The time boundaries shown in the figure should not be considered as being rigid and not liable to change. But, they are representative and give a fairly good idea about the sources of these products during different months of the year.

There is a wide fluctuation in the seasonal supplies of Jordanian fruits and vegetables on the Beirut market and this fluctuation may show different pattern in different years. These fluctuations are clearly shown by figures on monthly imports tabulated by customs offices and presented in figure 3. Figure 3 illustrates this fact clearly. First, it shows the wide fluctuations in the monthly arrivals of Jordanian fresh fruits and vegetables for the years 1961-1963.

¹⁵ Jordan's exports to Lebanon include as well cabbages, cauliflower, cucumbers, okra, peppers, watermelons, muskmelons, grapes, apricots, guavas, and others.

Figure 5

MONTHLY ARRIVALS OF JORDANIAN FRUITS
AND VEGETABLES IN LEBANON, 1960-1962



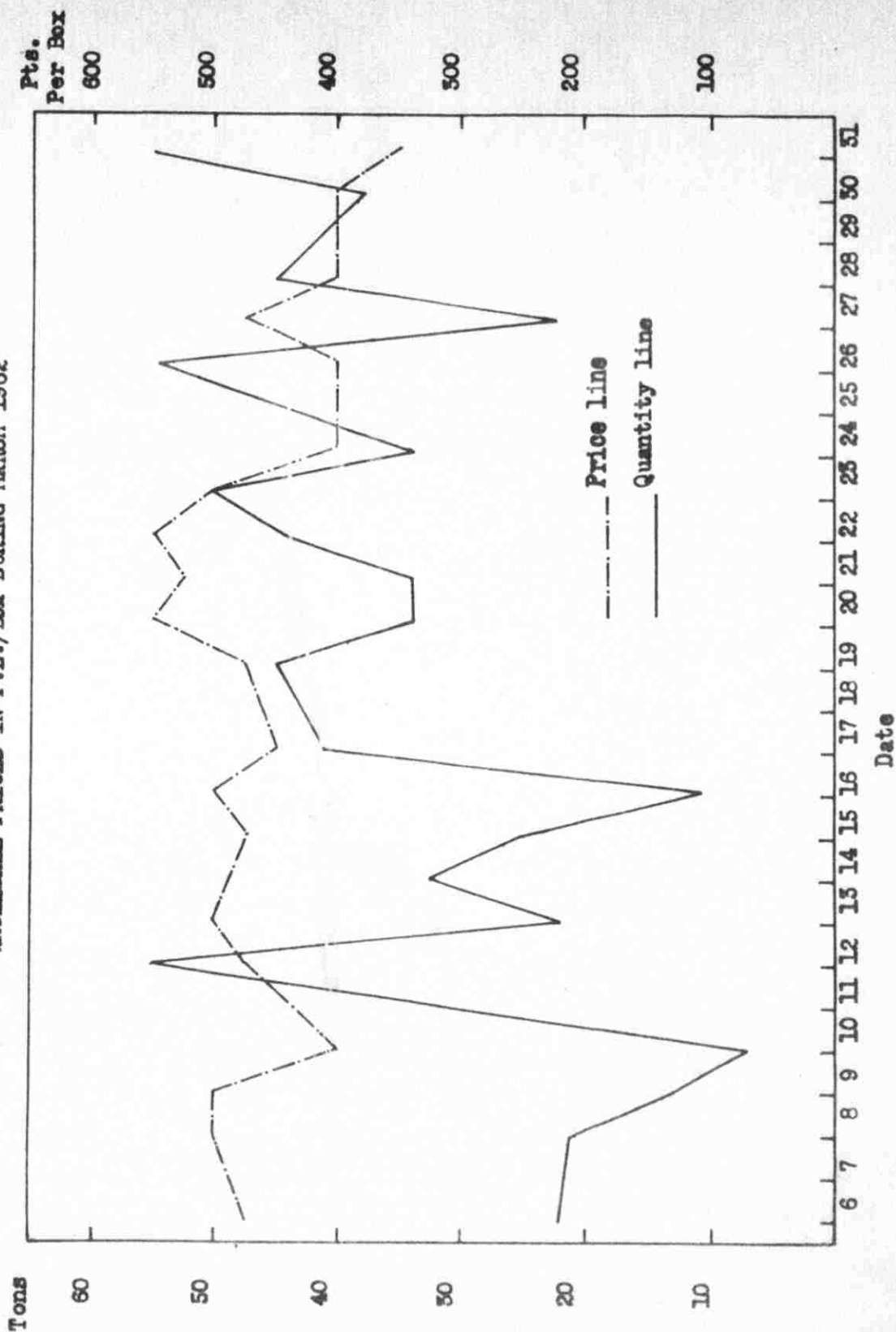
Secondly, it shows variations among the years. For example, in March 1962 about 2,075 tons of fresh fruits and vegetables reached Beirut from Jordan while during April of the same year only 888.8 tons of fresh fruits and vegetables arrived. If one follows any of the three curves for the years 1961-1963, the whole story of seasonal fluctuation becomes evident. On the other hand, while the peak of arrivals in 1962 was during August (about 8,000 tons), the peak of arrivals in 1960 was in April (about 6,532 tons). June, as can be seen, is always a low month. This is due to the fact the local production is quite large during this month. This fluctuation is true for all vegetables taken together and for any single product taken alone. The wide gap between volume of exports in April 1960 and April 1961 and 1962 is due mainly to the heavy drop in export of tomatoes to Lebanon, as shown in table 7 in appendix C. The similar gap in August for the same year is mainly due to increased exports of watermelon during this month. The wide fluctuation observed is mainly due to changes in the climate conditions and changes in areas planted and grown in Jordan.

Daily fluctuations are no less serious than seasonal fluctuations. Arrivals of vegetables from Jordan from day to day exhibit an obvious wide fluctuation. Since there is no control on exports, it is left to the decision of any one to export whatever he likes, in the quantities he chooses, and at any time he pleases.

To illustrate these daily fluctuations in arrivals, data for the most important crop, tomatoes, were obtained from customs at Shtoura for a representative month for which March 1962 was selected and wholesale prices corresponding to these quantities were obtained from the books of one of the biggest commission agents in Beirut. Since no sales are made on Sundays and since custom records at Shtoura show arrivals on Sunday; the arrivals on Sundays were plotted as sales on Mondays and the same was done for all other days because the largest quantities are sold early in the morning from imports during the preceding day. Thus, arrivals recorded at Shtoura on the 7th of March were considered sales at Beirut on the 8th of March, arrivals on the 8th of March were plotted as sales at Beirut on 9th of March, and so on. This is, admittedly, not an entirely safe assumption since in some cases part of the arrivals of any day at Shtoura are sales of the same day in Beirut. But, this is thought to be the most suitable way of handling the problem arising from the discrepancy between dates of arrivals as recorded in Shtoura and dates of sales in Beirut as shown by the books of the commission agents.

Figure 4 is a graphic representation of the daily sales of Jordanian tomatoes in the Beirut wholesale market in kilograms with prices corresponding to these sales stated in piasters L./Box. Prices are plotted in piasters L./Box because this is the way they were recorded in the books of the

Figure 4
DAILY ARRIVALS OF TOMATOES FROM JORDAN IN TONS AND CORRESPONDING
WHOLESALE PRICES IN P.L./BOX DURING MARCH 1962



commission agent and changing the units into piasters L./kg. would involve approximation of how many kilograms are packed per box. Boxes used are apple boxes and they contain from 20 to 24 kilograms of tomatoes. Data for the prices between first of March and sixth of March were not available. The solid line in figure 4 shows the change in daily arrivals of tomatoes in Beirut. The broken line shows the recorded wholesale prices in piasters L./Box. The solid line very clearly shows the extremely wide variation in supplies arriving for sale from day to day. On the 12th of March 54,980 kgs. of Jordanian tomatoes were available for sale. The next day, the 13th of March, only 22,280 kgs arrived. On the 16th, arrivals of tomatoes were 13,020 kgs. while on the 17th arrivals jumped up to 41,180 kgs. Such wide fluctuation in daily arrivals will certainly have an influence on the prices received. It is safe to assume that consumer demand does not change materially from one day to the next so that any observable changes in daily prices can be attributed in the major part to changes in the quantities supplied for sale from day to day.

Though the price line does not show an inverse relationship to the quantity line in all phases, in general it does. This illustrates the influence of changes in supply upon prices. Notice, for example, the supply and price points for the 13th, 16th, 20th, 24th, 27th, 28th and 31st of March.

The inexact correlation between quantities supplied and prices may be attributed in part to variation in quality and imperfections of the market. Another factor is the arrivals of tomatoes from Egypt in varying amounts during March, thus affecting the total supply available for sale.

Trends in Fruit and Vegetable

Imports Into Lebanon

How much Lebanon imports of fresh fruits and vegetables from other Arab countries obviously depends on the volume of production in Lebanon and also on the volume of production in the exporting countries of these fruits and vegetables.

The major competition for imports of Jordanian products comes from the local Lebanese production. Areas devoted to vegetables both in Jordan and in Lebanon have increased over the last few years. Imports from Jordan of fresh fruits and vegetables do not show an obvious trend over the last three years. Imports from Egypt also do not show an obvious trend during this period. See tables 7 and 8 in appendix C. If individual products are examined, a very interesting thing is observed with respect to Jordan's exports of tomatoes to Lebanon. These exports show an obvious decline between 1960 and 1962. In 1960, Jordan exported about 12,200 tons of tomatoes to Lebanon. In 1962 Jordan's exports of tomatoes to Lebanon were only 3,026 tons. This declining

trend was associated with an increase in tomato imports from Egypt and of increased early production in Lebanon. Imports from Egypt increased from about 38 tons in 1960 to 793 tons in 1962. The decline in Lebanon's tomatoes imports from Jordan is not due to lower production in Jordan but rather to an increasing production of Lebanon both due to increases in areas devoted to tomatoes and to harvesting larger amounts early in the spring due to bringing areas along the coast under tomatoes.¹⁶

Thus, while Jordan exported about 6,100 tons of tomatoes in April 1960, in 1962 the corresponding figure was only 78 tons of tomatoes.

Tomato imports from Jordan are meeting strong competition from Egypt, especially when it is noted that Egyptian tomatoes are graded, standardized as to size and ripeness and carefully packed in light small containers of 10 kgs. each, while Jordanian tomatoes lack any of these improved services. The quality of Jordanian tomatoes is not dependable. Most containers are topped with attractive fruits while underneath will be found all sizes and degrees of ripeness.

Tables 7, 8 and 9 in Appendix C show the imports into

¹⁶ Data from the Ministry of Agriculture show that in 1958 only 3,000 dunums were under tomatoes while in 1960 this figure was 20,000 dunums. Figures are not available for 1961 and 1962 but employees of the Ministry assure that they are higher than 20,000 dunums.

Lebanon of fruits and vegetables from Jordan, Egypt and Syria for the years 1960-1962. Products included are those imported from Jordan and similar products imported from Syria and Egypt but not products such as artichoke and mango which are imported from Egypt but not from Jordan.

It is observed that though Jordan exports of tomatoes to Lebanon dropped heavily between 1960 and 1962, the total fruit and vegetable exports showed little change over the same period mainly due to the increased exports of watermelons, muskmelons and almonds.

Tables 7 and 8 in Appendix C show that there is competition between Jordanian and Egyptian watermelons for Beirut market during the month of July. Jordanian watermelons are reported to be preferable. Tables in Appendix C, show as well the high figures, especially in case of Jordan and Syria, for mixed vegetables. This high figure which runs for all the months of the year reflects the wide variability of products imported into Lebanon. Since these products are imported in small quantities all in a truck load; they are not recorded separately with the customs. It would be more helpful and preferable if these products were recorded separately; it would give more insight into the composition of agricultural imports and allow for better analysis.

Table 4 below shows Lebanon's imports of fresh fruits and vegetables during 1960-1962.

The totals show no definite trend except for tomatoes where in case of Jordan there is a declining trend and in case of Egypt there is an upward trend.

TABLE 4

LEBANON'S IMPORTS OF FRESH FRUITS
AND VEGETABLES^a DURING, 1960-1962
(Tons)

| Year | Jordan ^b | | Syria ^b | | Egypt ^c | |
|------|---------------------|----------|--------------------|----------|--------------------|----------|
| | Total | Tomatoes | Total | Tomatoes | Total | Tomatoes |
| 1960 | 20,703 | 12,200 | 2,847 | 504 | 6,283 | 38 |
| 1961 | 21,208 | 6,201 | 1,911 | 27 | 5,940 | 146 |
| 1962 | 20,143 | 3,026 | 2,236 | 118 | 6,120 | 793 |

^a These include tomatoes, eggplant, cucumbers, marrows, broad beans, peas, green beans and harricots, peppers, almonds, olives and others.

^b Customs office at Shtoura.

^c Customs office at Beirut sea port

MAJOR PROBLEMS IN THE MARKETING
OF JORDANIAN PRODUCE IN LEBANON

Most of the problems in marketing Jordanian fruits and vegetables arise from two basic factors:

1. Production pattern and illiteracy of the farmers.
2. Market organization.

These two institutions are interrelated and carry close relationship to each other. One determines the other.

Typically, the individual farm holdings are small and fragmented. About two-thirds of the producers are small-scale operators who have to sell to merchants to dispose of their output. Table 5 gives an idea about the size of holdings in the East Ghor Canal Project Area which is a major vegetable producing area.

A large proportion of the total number of owners had title to a small part of the land. To take one extreme, 36 percent of land owners own plots of under 10 dunums, which together amount to 3.5 percent of the total area, at the other extreme, 1.2 percent of land owners own 23 percent of land in plots over 1000 dunums. 17

¹⁷ Jordan, Department of Statistics, The East Jordan Valley: A Social and Economic Survey (Amman: Department of Statistics, 1961), p. 154.

TABLE 5
 LANDOWNERS AND DUNUMS OWNED IN EAST GHOR
 CANAL PROJECT AREA IN 1960, BY AREA OF LAND OWNED
 (Numbers and Percentages)

| Areas Owned in Dunums | Land Owners | | Area Owned | |
|--------------------------|-------------|------------------------|------------|------------------------|
| | Number | Percentage of Total | Dunums | Percentage of Total |
| Total All Sizes | 3668 | 100.0 | 158,298 | 100.0 |
| 1-9 | 1309 | 35.68 | 5,496 | 3.47 |
| 10-19 | 708 | 19.30 | 9,935 | 6.28 |
| 20-29 | 378 | 10.31 | 9,069 | 5.73 |
| 30-75 | 866 | 23.61 | 39,068 | 24.69 |
| 76-100 | 113 | 3.08 | 9,869 | 6.23 |
| 101-500 | 252 | 6.87 | 47,815 | 30.21 |
| 501-1000 | 32 | 0.87 | 21,782 | 13.76 |
| over 1000 | 10 | 0.28 | 15,244 | 9.63 |

Source: Jordan, Department of Statistics, The East Jordan Valley, A Social and Economic Survey (Amman: Department of Statistics, 1961), p. 155.

The programme of land redistribution, however, in the area of the project aims at reducing the size of the larger properties and also increasing the size of the smallest holding to 30 dunums.¹⁸

¹⁸ Ibid., p. 156.

Farmers produce relatively small quantities of various vegetables for the market. Thus, the concentration of individual surpluses into a reasonable size marketable lot becomes a problem. The farmers, moreover, are mostly above average age, uneducated and conservative. They cannot see the prospects for improved production or the necessity for better presentation of their products to the market.

The market organization, combined with such a production pattern and with farmers lack of education regarding marketing aggravates the problem. The market organization is such that a small number of wholesalers and commission agents handle the bulk of the fruits and vegetables marketed. It appears that these handlers have obvious gains from the present marketing system and have no interest in changing it.

The pattern of small scale production and the small number of well established marketing agencies handling the bulk of the market supply gives rise to various problems in the marketing of Jordanian fruits and vegetables in Lebanon. The major problems are discussed under several headings below.

Grading

As can be seen from examining Jordanian products in the Beirut market and as reported by commission agents interviewed, the most outstanding feature of these products is the lack of grading in the individual lots. Products are put in containers for marketing just as they are picked. All grades and qualities,

large and small size, fully mature and half-mature, injured and healthy, are all placed in one container. The only consideration given in packing the product is that of putting healthy and attractive fruits on the top layers. This practice is called "topping".

This heterogeneous product is then offered for sale. Many problems follow that end in reduced returns to the farmers.

This phenomenon of lack of grading may have its roots in many factors. Lack of education of both producers and consumers certainly is an important factor. Producers lack the idea of grading and are unaware of the prospective increases in their revenue if they were to grade their products. They think that the larger the quantity they can sell, irrespective of the quality, the greater their income. This is, of course, true as long as buyers pay one price for all purchases. On the other hand, consumers are not exacting in their demand. They are accustomed to select their purchases piece by piece from a big pile.

Another factor that perpetuates the marketing of ungraded fruits and vegetables is the lack of demand for graded products in the export markets for fruits and vegetables. The export markets for these products have not been exacting regarding high quality and standardized grading. The export markets for Jordanian fruits and vegetables are the neighbouring Arab countries where the same conditions of

demand and the same level of education of producers and of consumers prevails as in Jordan. Except for the special markets created by the oil companies for quality fresh fruits and vegetables, other markets do not enforce any grading according to size or quality or any standardization of packing.

A third factor that helps to perpetuate the lack of grading in fruits and vegetables is the type of market organization. As we mentioned previously, those who control the marketing of fruits and vegetables seem to have interests in the existing conditions. It is simpler to pay uniform price for all purchases. Graders do not have to be trained and record keeping is simpler. With the indebtedness of the farmers to the commission agents and wholesalers the producers have to deliver their production to these marketing agencies which can manage to reap wide margins and high profits without running the risk of offending numerous farmers by paying them lower prices for low grade products.

Still another factor that helps to perpetuate lack of grading in Jordanian fruits and vegetables is the lack of government regulation and inspection of fruit and vegetable exports. These products leave the country without any attention being paid to their quality, grading and packing. Institutions which can replace the government in assuring grading, such as marketing cooperatives are also lacking. A peculiar thing about the lack of grading is that those who are supposed to have vested interests in the prevailing

conditions, namely the wholesalers and commission agents, expressed their wish to see grading enforced. When they were asked why do they not practice grading themselves, they answered "we cannot." "Why can't you grade?" they were asked; the replies were vague in most cases and, ranged from stating lack of facilities and time to ending in saying there is no need for grading. It must be obvious that commission agents are not expected to have the initiative nor the interest to grade. They receive fixed commission, 5 percent on sales and it is true that they do not have the facilities nor the time to grade. They might lose their business if they required farmers to grade their products before consigning them for sale. Wholesalers, on the other hand, can be expected to practice grading if they see prospects of profit in graded products. Most of them do practice some grading when they send shipments to Kuwait. They use smaller size containers and usually pack only high grade products. This is done because the demand forces them to do it.

In Beirut, all indications point to the profitability of grading. Yet no grading is practiced, partly because the demand for graded products is latent and not yet obviously manifested. The local products are marketed under the same conditions. As was pointed out previously, the lack of grading is aggravated by the practice of topping where there is a vast difference in quality between the top layers and the bottom layers. How this vicious circle will be broken

and how grading best can be brought about? This will be discussed in recommendations in the following section.

Packing and Packing Cases

Again, there is lack of standardization in the packing cases used for Jordanian fruits and vegetables exported to Lebanon. The containers used range from none in bulk loaded products such as watermelons to the use of jute sacks and wooden boxes of various sizes and shapes. All commission agents and wholesalers interviewed reported that there are no specifications, either governmental or trade, for the sizes or the material of packing containers. Table 6 shows the different types of packing cases used for different products. As the table indicates, except for watermelons which are bulk loaded, used wooden boxes of about 20 kgs. capacity and jute sacks are the predominant packing material for most of the products.

It is interesting to note that tomatoes are sometimes marketed in shallow, small boxes of 10-12 kgs. capacity. These kinds of containers are used in Al-Karak area in Jordan. The same kind of containers is used with the tomatoes exported to Kuwait. The reason behind this is the distance involved and the inertia of custom to use that type of container in the area of Al-Karak in the South of Jordan.

These containers used do not allow for seeing the product from outside. It is not easy to tell the quality of the produce packed without emptying the case or the sack, thus the practice of "topping" continues. To judge

TABLE 6

PACKING CONTAINERS USED FOR
DIFFERENT JORDANIAN PRODUCTS

| Commodity | Material and kind of Container | Size or Capacity |
|---------------|--------------------------------|------------------|
| Tomatoes | a) Apple wooden Boxes | 20-25 kgs. net |
| | b) Small wooden Boxes | 10-12 kgs. net |
| Eggplant | a) Wooden Boxes | 16-18 kgs. net |
| | b) Jute Sacks | 30-40 kgs. net |
| Peppers | a) Wooden Boxes | 10-12 kgs. net |
| | b) Jute Sacks | 30-35 kgs. net |
| Broad beans | a) Wooden Boxes | 18-20 kgs. net |
| | b) Jute Sacks | 30-40 kgs. net |
| Beans | Sacks | 30-40 kgs. net |
| Cucumbers | Wooden Boxes | 18-22 kgs. net |
| Musk melons | a) Wooden Boxes | 14-16 kgs. net |
| | b) Bulk loading | |
| Watermelons | Bulk loading | 8-12 tons |
| Almonds fresh | a) Wooden Boxes | 18-20 kgs. net |
| | b) Jute Sacks | 35-50 kgs. net |
| Olives, fresh | a) Wooden Boxes | 25-27 kgs. net |
| | b) Jute Sacks | 40-60 kgs. net |

Source: Questionnaires answered by wholesalers and commission agents in Beirut.

the suitability or unsuitability of the containers used needs examining the loading and handling of these containers. When these containers are filled with the various products they are loaded in a truck of 8-10 tons capacity. Wooden boxes and sacks are piled one over the other such that many layers come above each other without any rigid or hard separation between the layers. This practice causes damage and bruising to the lower layers. If we add to this the careless and rough handling of the produce, we can visualize the extent of damage caused. This damage may reach up to 25 percent, as reported by commission agents interviewed.

When the containers are unloaded in Beirut they are also piled many layers above one another, due to the limited space available; and another source of damage is added. For a picture of this kind of damage see appendix B. The congestion, and the unsanitary conditions of the wholesale market at Beirut stemming from damaged products and spilling on the pavement are appalling.

The lack of grading and the method of packing and loading used give rise to many problems which are discussed below

1. Large percentage of waste

If injured produce is packed with sound products in the same container, and if the containers are piled many layers above each other with

no care or order, and if the handling is careless and excessive, the obvious result will be a large percent of spoiled products. This percentage ranges from five to twenty five percent, as reported by commission agents interviewed. It results in large quantities being thrown on the ground of the market, much of which could be sold if proper and more careful handling was exercised. With such conditions the buyers have to calculate on the basis of high risk of spoiled produce in each container. The rule "caveat emptor" (let the buyer beware) applies. A sign of the awareness of buyers of the need for careful inspection is to see them cutting the sacks at the bottom and inspect the goods inside. The buyers also make intensive inspection inside the wooden boxes where they try to move the top layers and reach the bottom to make sure of the quality of the lower layers. By doing this, some of the produce is spilled out on the ground and never put back.

The only place where one sometimes hears a man advertising that the products he is selling are inferior is in the wholesale market of Beirut. The author once heard a commission agent saying to the buyer "It is waste and you may have to throw it into the sea." When the commission agent was asked

why should he say so; he replied "to save trouble." It happens that a buyer purchases a few boxes of tomatoes, for example, and when he empties them he is disappointed to find a large percentage at the bottom unsaleable. Realizing that this will cause him a loss, he goes back to the commission agent, either to make a fight or to convince him to make some reduction in the price. In almost all such cases, one of the two courses is followed. This not only results in bad economic consequences but also in social disruptions. The frequent quarrels and fights cause distrust and suspicion among the people, less harmony and less peace is maintained.

2. Smaller market

No purchases can be agreed upon over the phone and no orders can be made by telegrams or the like since no common terms for exact description of the product exist. Export markets will be limited unless grading is advanced. Even the local market will be restricted since lack of grading will exclude some low income groups from the market because of relatively high prices of the product.

3. Waste of time and inefficient marketing

Much time has to be spent on inspection and bargaining. A smaller volume of produce can be handled by a single agent. This results in

increased costs of marketing and in economic waste.

4. Cold Storage Uneconomic

While cold storing of perishable fruits and vegetables is technically feasible even before grading and packing; it is considered uneconomic to hold ungraded Jordanian produce in cold storage from days of excess supply to days of short supply. The difference in price that could be obtained if cold storage were practiced is considered by market men to be insufficient to cover storage cost plus the loss on the part of the produce which becomes unsaleable due to deterioration. All the commission agents interviewed in Beirut considered cold storage of Jordanian produce impractical so that they believe it has to be sold within one, or at most, two days after arrival

Lack of Market Information

With the present market organization, there is no efficient system of collecting market information, properly interpreting it, and making it available for people concerned. Many a time the farmer brings his product to Beirut where the prices are lower than those prevailing at Amman or Jerusalem on the same day. Thus he loses a chance of getting higher prices at home, and he may end with a loss. The same thing happens sometimes even with wholesalers at Amman who have connections with Beirut.

Commission agents usually phone their counterparts

in Amman to tell them about the prevailing prices. But it happens that excessive amounts are sent here and the prices drop drastically. Dealers do not know what others are trucking to Beirut.

The fluctuations in supplies and effects on prices have already been discussed in the previous section.

Transport

The only means of transport used in moving Jordanian fruits and vegetables to Lebanon is the truck. Trucks are convenient means of transportation. The trucks used are not equipped with any extra equipment or facilities for better handling of fruits and vegetables. They are not refrigerated nor they are ventilated. The trip from Amman to Beirut takes about twelve hours, including the time spent at the borders for clearance through the customs. The charges for transportation range from J.D's 2.5 to J.D's 3 per ton. The trucks carrying big loads and products improperly packed, there occurs some crushing for the lower layers from the heavy weight on them. When the temperature is high, the compact packing practiced may result in excess heating of the load and enhance deterioration, especially if the produce is overmature. The road connecting Jordan to Lebanon through Syria is asphalted and properly maintained and thus reasonably smooth. This holds down the amount of damaged products below what it otherwise would be.

A problem which may be discussed with transportation is that of delays at the borders. Trade agreements between Jordan and Lebanon stipulate the full and complete freedom of agricultural products between the two countries with full exemption from import duties. Irrespective of that, there is a lack of effective measures to reduce the formal procedures at the borders. These formalities, especially at times of political troubles, become excessive and may involve unloading and then loading again, and so on, which results in delay. This excess delay and excess handling is reported by commission agents to cause a higher than usual amount of damage. If the troubles are more serious, there may be a complete closure of the borders and stoppage of imports. It is difficult to estimate the loss caused in such cases, but it is certainly serious. Everyone interviewed was aware of it and mentioned it as one of the major problems in marketing Jordanian products in Syria and Lebanon. Agreements should be reached by the countries concerned to make agricultural import-export movement not subject to non-economic disturbances.

Price Margins

As was mentioned earlier, the price spread between farmer and consumer and the price margin between wholesale and retail are apparently quite wide for perishables. It was not possible to test this hypothesis empirically for most of the products because of the great difficulty in obtaining prices for specific lots of products at the farmer, wholesale and retail levels. With Jordanian products ungraded, the only way to have comparable quality products at each level of prices is to follow individual lots through the marketing channel from producer to consumer. Prices, however, could be obtained for truck loads of Jordanian watermelons marketed in Lebanon for the period between July 23rd and July 31st inclusive. Wholesale prices paid by retailers at Beirut wholesale market were obtained from the records of commission agents in Beirut. The prices received, or that were offered to farmers in Jordan, were obtained from drivers of the trucks or the farmers themselves, if they happened to come with the truck loads. The prices offered to farmers in the fields on the specified dates were also ascertained by enquiring over the phone from wholesalers in Jordan.

In most cases, watermelons are brought to Lebanon by the farmers themselves, thus eliminating wholesalers from the chain. The farmer does so because it is easy to ship watermelons and because he expects higher net returns than

what the wholesale buyer is offering him in the field.

Prices paid in the field in Jordan were reported in Jordanian Dinars per Ton. They were converted into Lebanese piasters per kilogram at an average exchange rate of LL 8.60/J.D. 1. Retail prices in Beirut were obtained by enquiring about the selling price from retail shops in several localities.

The table on the next page shows the different prices for each of the days between the 23rd and 31st of July, except for the 28th of July which was Sunday and no transactions were carried out.

The table shows that retail prices are more stable than either the farmer's price or the wholesale prices in Beirut. This is so because the retail quantity demanded is relatively stable whereas the daily supply in the wholesale market fluctuates substantially. Once truckloads are brought to the wholesale market, they have to be sold within the same day because the commission agent has no space to hold the product and has no interest in doing so. Furthermore, the driver of the truck is not willing to keep his truck inactive for more than a day. Retailers on the other hand, can hold a truckload of watermelons for several days in the available space and thus can keep their selling prices more stable.

PRICES OF JORDANIAN WATERMELONS AT EACH
LEVEL IN THE MARKETING CHANNEL
(Lebanese Piasters Per Kilogram)

| Date | Farmer's Price in Jordan | | Wholesale Price in Beirut | | | Retail Price in Beirut | | |
|-----------|--------------------------|---------|---------------------------|---------|--------------------------|------------------------|---------|--------------------------|
| | Range | Average | Range | Average | Whole Sale-Farmer Margin | Range | Average | Retail-Whole Sale Margin |
| 1963 July | | | | | | | | |
| 23 | 12-13.5 | 12.8 | 11.0-17.0 | 14.0 | 1.2 | 20-30 | 25 | 11.0 |
| 24 | 12-13.5 | 12.8 | 12.0-15.5 | 13.8 | 1.0 | 20-30 | 25 | 11.2 |
| 25 | 12-13.5 | 12.8 | 10.0-15.0 | 12.5 | -0.3 | 20-30 | 25 | 12.5 |
| 26 | 6-11.0 | 8.5 | 8.5-15.0 | 11.8 | 3.3 | 20-30 | 25 | 13.2 |
| 27 | 6-11.0 | 8.5 | 10.5-12.5 | 11.5 | 3.0 | 15-30 | 22.5 | 11.0 |
| 29 | 9-10.0 | 9.5 | 9.5-17.0 | 13.3 | 3.8 | 15-25 | 20 | 6.7 |
| 30 | 12-13.0 | 12.5 | 9.5-18.0 | 13.8 | 1.3 | 15-25 | 20 | 6.2 |
| 31 | 12-13.0 | 12.5 | 8.5-16.5 | 12.5 | 0.0 | 15-25 | 20 | 7.5 |
| Average | | | | | | | | |
| 23-27 | | 11.1 | | 12.7 | 1.6 | | 24.5 | 11.8 |
| Average | | | | | | | | |
| 29-31 | | 11.5 | | 13.2 | 1.7 | | 20.0 | 6.8 |
| Average | | | | | | | | |
| 23-31 | | 11.2 | | 12.9 | 1.7 | | 22.8 | 9.9 |

If the margins between the farmer's price and wholesale prices, and margins between wholesale prices and retail prices are compared, it is observed that retail margin is much greater than the spread between the farmer's price in Jordan and the wholesale price in Beirut. This is so because of the relative power of the retailer in maintaining his prices, and the inability of farmers and exporters to regulate the supply of watermelons arriving in the Beirut wholesale market. The margin between farmer's price in Jordan and wholesale price at Beirut generally is very narrow. In some cases it is zero, as for July 31st, or negative, as can be seen for July 25th in the table.

In the period cited, there can be seen two periods; the first between 23rd and 27th of July, and the second between 29th and 31st of July. In the second period, the retail-wholesale margin has dropped significantly. This is mainly due to a decline in the retail price as larger quantities were offered to consumers and retailers wanted to dispose of their melons in competition with other sellers. This margin 6.8 piasters per kilogram is still high compared to the farmer-wholesale margin of 1.7 piasters per kilogram.

The margin between farmers price and wholesale price at Beirut becomes especially narrow if compared with

expenses incurred between the field in Jordan and the wholesale market at Beirut. The details of these expenses follow.

1. Dues at the borders

These dues are charged for each truckload irrespective of weight

| | | |
|--|----|--------------|
| a) At Ar-ramtha (Jordanian charges) | LL | 8.60 |
| b) At Dara and Judaidah (Syrian charges) | | 26.00 |
| c) At Al-Masna (Lebanese charges) | | <u>20.00</u> |

Total border charges per truck LL 54.60

2. Commission in Beirut, per truckload LL 27.00

In the case of watermelons, the commission is charged on truckloads irrespective of weight or value as is the case with other products.

Total of border charges and commission per truckload LL 81.60

Average charges per ton when truck

carries 12 tons = $\frac{81.60}{12}$ = LL 6.8

3. Transport cost per ton LL 31.5

This is higher than usual because in most cases trucks have to go back empty, while in earlier seasons they carry back apples and oranges to Jordan and thus charge less per ton for the trip to Beirut.

4. Total cost per ton between farm in Jordan
and Beirut wholesale market LL 38.3
Total cost per kilogram 3.8 piasters.

If this figure is deducted from the average margin between the farmer's price in Jordan and the wholesale price at Beirut (1.7 Piasters) we get -2.1. This negative margin compared with marketing costs indicates that generally it would be more profitable for the farmer to sell in his field in Jordan than to truck watermelons to Lebanon, assuming that the figures for the last week of July, 1963, are representative of the prices throughout the marketing season.

This shows that farmers are taking wrong decisions when they decide to bring their watermelons to Lebanon without comparing net returns from the other alternative of selling at the field in Jordan.

When the price offered in the field in Jordan is within 3.8 Lebanese Piasters of the wholesale price in Beirut, the farmer nets more by selling at his farm rather than shipping to Beirut.

The farmers who truck their melons to Beirut are imitating the exporters without reasonable analysis. They lack market information regarding the prices prevailing in various markets which could help them take the right decision as where to sell their products for highest net returns.

CONCLUSIONS AND RECOMMENDATIONS

The survey reported in the preceding sections forms a basis for a number of conclusions some of which are in the form of tentative hypotheses subject to verification by further studies and investigations.

Conclusions

1. Seasonal advantage of Jordanian exports

Jordan's fruit and vegetable exports to Lebanon are possible only because they come at a time where similar products are not produced locally. The subtropical climate of the Jordan valley enables farmers there to produce vegetables early in winter when it is too cold for Lebanon to produce similar products. This seasonal advantage of Jordan, however, seems to be endangered and is becoming shorter due to the expansion of coastal production areas in Lebanon and increasing shipments from Egypt.

2. Marketing agencies

Most of the Jordanian fruits and vegetables are handled by wholesalers in Jordan and commission agents at Beirut. These are few in number and they enjoy an oligopolistic position.

3. Market facilities

The wholesale market facilities both at Amman and at Beirut are very inadequate and unsanitary. Areas are small for the volume handled, they are not equipped with modern appliances, and their hygienic condition is appalling.

4. Oil company markets

The special markets created by the oil companies did not bring about an improving influence on market tastes and technology, probably because they are quantitatively not very important. The premium prices paid for fancy quality are much higher than consumers in Jordan and Lebanon are willing to pay for the quality they find acceptable in the retail shops.

5. Defects in the present marketing system

a) A large percentage of waste is due to:

(1) Lack of standard containers and careless packing which results in damage in transit and in handling.

(2) Lack of grading intensified by the practice of topping.

(3) Loading in the trucks is un-systematic; many layers are stacked one above the other. This is especially harmful when sacks are used.

(4) Rough and excess handling.

- b) There is no organized market information regarding supplies and prices.
- c) There is wide fluctuations in seasonal and daily arrivals.
- d) Farmers seem to be unaware of the demand and consumer preference in the market and no improvement has taken place for many years.

6. Returns to farmers

The present market organization and prevailing marketing conditions cannot yield the farmers but low returns from the proceeds of the sale of their products. The market intermediaries between the farmer and the ultimate consumer take wide margins because of the high risk involved.

7. Possibilities for improvements

The present market organization and market facilities available are not conducive to bringing about marketing improvements. The wholesalers and commission agents do not have any incentive for effecting desirable improvements. The present system assures them high profits. The farmers, on the other hand, lack the awareness and the capability as individuals for bringing about improvements in marketing.

There is a constructive role for the government to play in the improvement of the present marketing

system in both Jordan and Lebanon. Certain improvements could bring about substantial increase in producers' income.

Recommendations

1. Planting dates and selection of varieties
Experimental stations should put much effort on planting dates and on selection of varieties that will assure both the seasonal advantage in early maturity and higher yields of better quality products. Proper planting dates should be developed to mature products to reach the importing markets when the supply from competitive sources is lacking or low. Quality of exports should also be high to be able to stand the competition from other sources.
2. Choice of marketing agency
It is not possible for any new marketing agency at the beginning to compete the already well established wholesalers and commission agents out of business. It is thus advisable to seek out progressive dealers who would be willing to cooperate in improving the marketing of fruits and vegetables and market through them under improved terms and conditions.
3. The Jordanian Government should undertake to remedy specific defects through:
 - a) Developing better market information and supplying market news broadcasts and reports on

supplies leaving the country for different markets and prices prevailing in each.

- b) Developing grade standards appropriate for different markets and foster their use by exporters. The marketing Bureau already established should be enabled to do that.
- c) Extension education of farmers regarding the marketing of their products and better marketing practices to follow to obtain higher revenues.
- d) Establishing inspection points at the borders to insure uniformity of quality, grading and packing of exports. This should not be too complicated and so time consuming as to reduce the volume of exports.
- e) Training personnel in a marketing training centre to be established to provide necessary training for people working in marketing. It might be necessary to send some people abroad for more technical training.

4. Developing marketing cooperatives

The most suitable institutions that can bring about improvements in marketing in the interest of farmers are marketing cooperatives. At present there are only a few (3) marketing cooperatives in Jordan. The Central Cooperative Union and the Department of

Cooperatives should encourage the development of marketing cooperatives. To assure the utmost possibility of success the following conditions that favor successful cooperative marketing should be observed.

- a) "Specialized producing areas distant from their major markets."
- b) "Concentration and specialization of production."
- c) "Similarity of products and of production methods."
- d) "Population characteristics, economic, cultural or racial" compatible and non conflicting.
- e) "Groups which are dependent on one or a few crops for their total income." 19
- f) Groups of farmers that have been active participants in other types of cooperatives and who understand principles of cooperation.

The cooperatives established should:

- a) Stop the practice of "topping" and introduce grading and standardization to meet market preferences. For Beirut market the author believes that at present there is no need for elaborate grading and standardization. There is, however, a definite need for

19 Abbot, op. cit., pp. 134-136.

uniformity in packing and elimination of topping so that the contents of a container are the same from top to bottom.

- b) Use standard containers and introduce the use of new types better suited for the purpose.
 - c) Eliminate some of the middlemen by establishing themselves on a strong footing with the farmers by returning them higher prices. With an assured large volume of produce cooperatives could export directly to a reliable commission agent in Beirut.
 - d) Regulate the supplies offered for sale and minimize fluctuations in supply and prices.
 - e) Assure better bargaining power and obtain better and cheaper transportation and other services.
 - f) Teach the farmers the proper time at which to harvest their products in order to satisfy the preferences of the market.
- 5) The Government of Jordan should make the following improvements:
- a) Construct a more spacious wholesale market and equip it with modern marketing facilities. The Government of Jordan has already studied such a project, the execution of it should not be delayed. Cooperatives should be assured desirable space in this new market.

- b) More suitable arrangements for the collection of municipality fees. Fees should be collected on quantities which are actually sold not on all quantities entering the market as now is the case.

Additional suggestions

1. Federation of marketing cooperatives

The federating of marketing cooperatives into an area marketing cooperative should be considered. This would help eliminate wasteful competition, increase producer bargaining power, adjust market supplies to the quantity taken by consumers, and make possible more economical operation on a larger scale.

2. Activities of the Marketing Bureau

With the limitation of the number of qualified personnel under the disposal of the Marketing Bureau at present, it would be more fruitful for the Marketing Bureau to limit its activities to a smaller range and to fewer problems that can be worked upon within the present set up. More complicated problems such as specifications of canned and processed foods can be postponed until later.

3. Border problems

The Jordanian Government should reach agreement with the governments of Syria and Lebanon to assure that

non-economic disturbances may not interfere with the free and easy movement of agricultural products to the natural consuming centers.

4. New containers and better truck loading

It is advisable that the use of open-mesh sacks be introduced for products marketed in sacks. They provide self-evident inspection and allow for fewer possibilities of fraud and hiding poor quality at the bottom.

Improvements in truck loading are possible. If simple removable wooden shelves are used to support every few layers, especially when sacks are used, it would minimize spoilage of the lower layers due to crushing and bruising by weight of the top layers while the truck is travelling over the roads.

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APPENDIX A

Survey re Marketing of Jordanian
Fruits and Vegetables in Lebanon

1. Name of the wholesaler _____
2. Sources of fruits and vegetables you handle. a. Lebanon
 b. Jordan c. Syria d. Egypt e. _____
3. Fruits and vegetables you import, or receive from each
 of the above checked countries, in order of importance.

| <u>Name of Country and Product</u> | <u>Received during Months of</u> | | | | | | | | | | | |
|------------------------------------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | <u>Jan.</u> | <u>F</u> | <u>M</u> | <u>A</u> | <u>M</u> | <u>J</u> | <u>J</u> | <u>A</u> | <u>S</u> | <u>O</u> | <u>N</u> | <u>D</u> |

5. Why do you import the same kinds of fruits and vegetables from more than one country at the same time?
- a. Because I cannot obtain all I need from one country _____
 - b. Because the prices vary between the countries of origin _____
 - c. It depends on the preferences of consumers _____
 - d. Others _____
-
-
-

6. Mention the fruits and vegetables you import or receive from Jordan and mention the container or containers used for each.

Name of Product

Types of Containers

7. Do you specify the size of the container for any of the fruits or vegetables you import from Jordan? a. Yes _____
b. No _____

8. Do you specify the material of the container?
a. Yes _____ b. No _____

9. Upon arrival of the fruits and vegetables from Jordan do you find part of them spoiled?
a. Yes _____ b. No _____

10. If yes what is the average percent spoilage for each vegetable and fruit you receive from Jordan?

11. What do you think are the reasons for such spoilage?

- a. Large and unsuitable containers? _____
- b. Bad transportation? _____
- c. Bad handling? _____
- d. Over-ripe when packed? _____

12. Do you notice spoilage of fruits or vegetables after their arrival here and before they are sold? a. Yes

- _____ b. No _____

13. What are the reasons for spoilage after arrival?

- a. Lack of cold storage? _____
- b. Over-ripeness of the product? _____
- c. Careless handling? _____
- d. Other _____

14. How many days does it take, on the average, for the products to reach Beirut from Jordan? _____ days.

15. How much time does it take you, on the average, to dispose of the fruits and vegetables you receive from Jordan? _____ days.

16. To whom do you sell the vegetables and fruits you import or receive from Jordan?

- a. Retailers _____ b. Other wholesalers _____
c. Processing plants _____ d. Others _____

17. Are the fruits or vegetables, you receive or import from Jordan graded in any way? a. Yes _____ b. No _____

18. If yes, mention these fruits and vegetables and mention what kind of grading is done.

19. Is the demand in the Beirut market mostly for graded fruits and vegetables?

- a. Yes _____ b. No _____
c. Retailers prefer _____

20. Can graded fruits and vegetables be sold or disposed of more easily than ungraded ones? a. Yes _____ b. No _____

21. Do graded fruits and vegetables sell for higher prices than similar ungraded ones?

- a. Yes _____ b. No _____

22. Do you practice any kind of grading for the fruits or vegetables you receive or import from Jordan after you receive them? a. Yes _____ No _____

28. Why do you re-export some of what you import from Jordan?

29. On what arrangement do you receive fruits and vegetables from Jordan?

a. Direct purchase _____ b. On commission basis _____

c. Other arrangement _____

30. From whom do you receive or buy, fruits and vegetables from Jordan?

a. Farmers? _____ b. Wholesale Merchants? _____

c. Commission agents? _____ d. _____

31. Do you sometimes receive fruits or vegetables, from Jordan, without previous arrangement?

a. Yes _____ b. No _____ c. Rarely _____

32. If yes, do you accept them always?

a. Yes _____ b. No _____

33. During the last three years, has the volume of fruits and vegetables you received from Jordan been

a. Increasing? _____ b. Decreasing? _____

c. Remaining about the same? _____

34. In the future, do you intend to

a. Increase your imports of fruit and vegetable from Jordan? _____

b. Decrease them? _____

c. _____

38. Where the Jordanian fruits and vegetables are not meeting the local preferences do the Jordanian producers try to improve what they send here?

a. Yes _____ b. No _____

39. When Jordanian fruits and vegetables are available in the market along with similar products from other sources, those from which country are preferred most?

| <u>Name of fruit or vegetable</u> | <u>Name of country</u> |
|-----------------------------------|------------------------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |
| 4. _____ | _____ |
| 5. _____ | _____ |
| 6. _____ | _____ |
| 7. _____ | _____ |
| 8. _____ | _____ |

40. What are the reasons for the above pattern of preferences?

a. Cheaper prices? _____ b. Better quality? _____
c. Freshness? _____ d. _____

41. How do the prices of Jordanian fruits and vegetables compare with prices of similar fruits and vegetables from other sources, during the same time or season.

a. Jordanian prices are higher _____ b. Lower _____
c. _____

42. How do you find dealing with Jordanian merchants?

a. Jordanian sellers are easy to deal with _____
b. Hard to deal with _____
c. Can be trusted _____

d. Cannot be trusted _____

e. In what ways? _____

43. How many Jordanian merchants or farmers you have dealt with during the last two years? _____

44. How many you have stopped dealing with? _____

Why? _____

45. For how many years you have been dealing in Jordanian fruits and vegetables? _____

46. What are the difficulties you meet when dealing in Jordanian fruits and vegetables? _____

47. What are your suggestions for improving Jordanian fruit and vegetable imports to Lebanon?

48. Nationality? _____

Appendix B



Figure 5

A commission agent (with the tarbush) negotiating with jobbers and retailers for the sale of Jordanian tomatoes.



Figure 6

Different vegetables are packed in various size boxes and stacked haphazardly with many layers above each other.

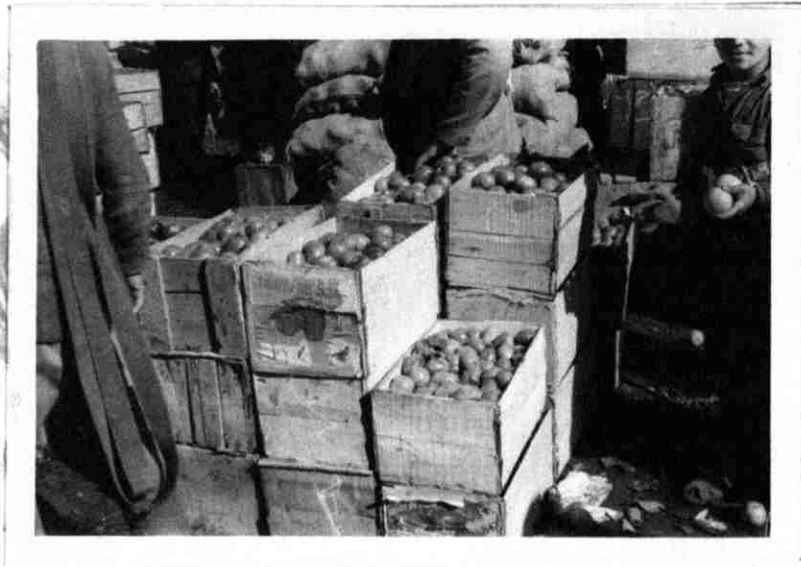


Figure 7

Jordanian tomatoes packed in apple boxes. The top layers are of the larger size and better quality than the balance of the contents.



Figure 8

Beans packed in sacks. The sack at the extreme left has been cut by a buyer to inspect the quality at the bottom.



Figure 9

Eggplants packed in wooden boxes. At the bottom of the picture are eggplants removed by buyers inspecting the underneath fruits and left on the ground.

To the upper left are tomatoes packed in small size wooden boxes of 10 kgs. each.

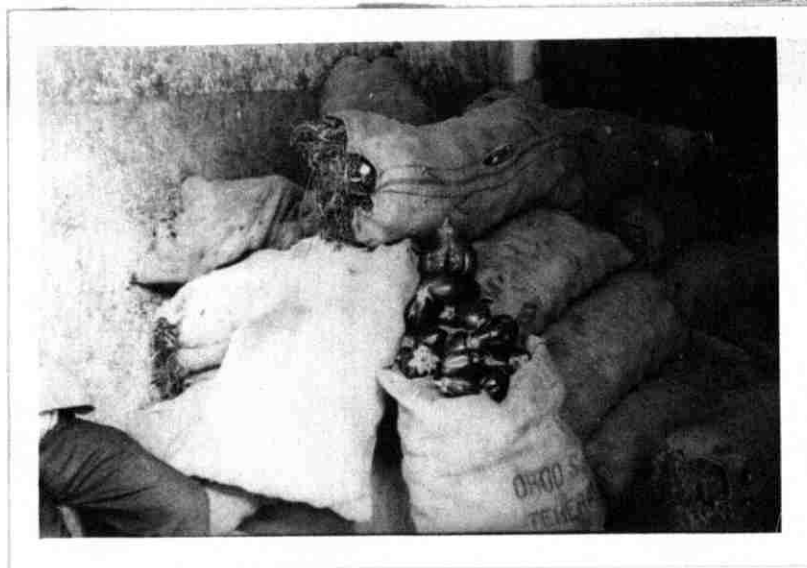


Figure 10

Eggplants packed in sacks holding 30 kgs. and stacked carelessly many layers on top of one another. This causes crushing and bruising of the lower layers.



Figure 11

Different fruits and vegetables exposed for retail sale in Beirut produce market.

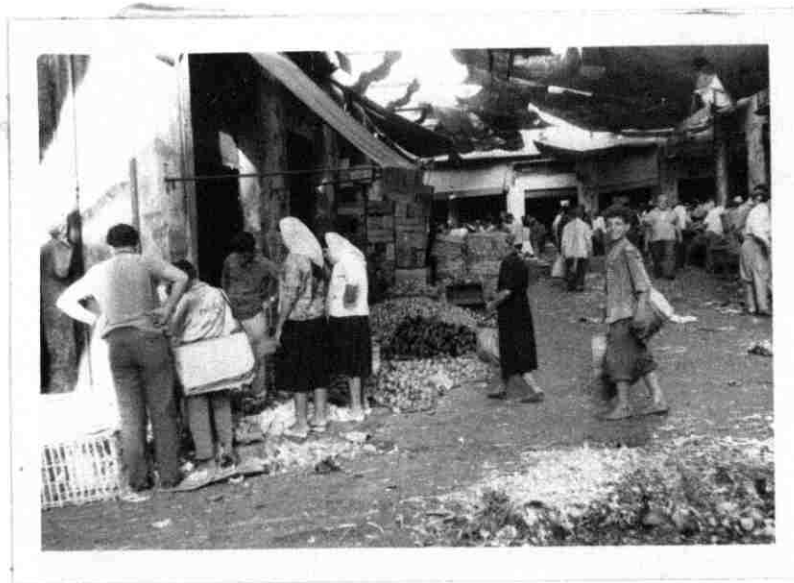


Figure 12

Fruit and vegetables piled on the ground for retail sale. Each customer inspects and chooses his or her needs by him or herself.



Figure 13

Careless handling in the produce market results in a high percentage of waste. The floor of the wholesale market is covered with a mixture of fruits and vegetables discarded as unfit for sale.



Figure 14

Much of this garbage collected from the wholesale market could have been saved for sale if better marketing practices were followed.

TABLE 7

JORDAN'S FRUIT AND VEGETABLE EXPORTS
TO LEBANON DURING 1960-1962 (kgs.)

| | | Jan. | Feb. | Mar. | April | May | June |
|------------------|------|---------|---------|---------|---------|---------|--------|
| Tomatoes | 1960 | 416553 | 1306161 | 3731632 | 6109903 | 636280 | -- |
| | 61 | 493727 | 1336015 | 1585002 | 978084 | 1779892 | 28594 |
| | 62 | 127231 | 384882 | 954676 | 618876 | 931386 | -- |
| Watermelons | 1960 | | | | | | 41500 |
| | 61 | | | | | | 29000 |
| | 62 | | | | | | 24000 |
| Mixed vegetables | 1960 | 305969 | 705846 | 310813 | 414582 | 763839 | 196251 |
| | 61 | 829367 | 551977 | 622877 | 386057 | 754013 | 592594 |
| | 62 | 408684 | 813189 | 991768 | 253178 | 951517 | 438396 |
| Olives Green | 1960 | -- | | | | | |
| | 61 | -- | | | | | |
| | 62 | 162932 | | | | | |
| Olives Pickled | 1960 | -- | 60550 | -- | 5680 | 12560 | 10560 |
| | 61 | -- | -- | -- | 66600 | -- | 7100 |
| | 62 | 25880 | -- | -- | 16770 | -- | -- |
| Almonds Green | 1960 | -- | 1562 | 26887 | 1540 | | |
| | 61 | -- | -- | 7973 | 65585 | | |
| | 60 | -- | 12460 | 116635 | -- | | |
| Almonds Shelled | 1960 | -- | 3939 | -- | -- | -- | 3030 |
| | 61 | -- | -- | -- | -- | -- | -- |
| | 62 | -- | -- | -- | -- | -- | -- |
| Apricots | 1960 | -- | -- | -- | -- | 29129 | 3768 |
| | 61 | -- | -- | -- | -- | 18194 | 1500 |
| | 62 | -- | -- | -- | -- | 19995 | 1800 |
| Guavas | 1960 | | | | | | |
| | 61 | | | | | | |
| | 62 | | | | | | |
| Figs Dried | 1960 | 91995 | 69002 | 35045 | | | |
| | 61 | -- | -- | -- | | | |
| | 62 | -- | 10029 | 11376 | | | |
| Muskmelon | 1960 | -- | -- | -- | -- | -- | -- |
| | 61 | -- | -- | -- | -- | -- | -- |
| | 62 | -- | -- | -- | -- | -- | -- |
| Totals | 1960 | 814517 | 2147060 | 4104377 | 6531765 | 1441808 | 255109 |
| | 61 | 1323094 | 1887992 | 2215852 | 1496326 | 2552099 | 668788 |
| | 62 | 724727 | 1220560 | 2074455 | 888824 | 1902898 | 464196 |

Source: Customs at Shtoura

TABLE 7 - Continued

| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--|---------|---------|---------|---------|---------|---------|------------|
| | | | | | | | 12,200,529 |
| | | | | | | | 6,201,314 |
| | | 8740 | | | | | 3,025,791 |
| | 2029350 | 1778500 | | | | | 3,849,350 |
| | 3293350 | 9919000 | 346000 | | | | 8,587,350 |
| | 3615700 | 7080000 | 247000 | | | | 10,966,700 |
| | 314 | -- | -- | 8769 | 85147 | 671033 | 3,462,563 |
| | 25822 | 379 | 12816 | 22218 | 186199 | 593381 | 4,328,280 |
| | 82343 | -- | -- | 24198 | 512089 | 890700 | 5,368,062 |
| | | | | 119170 | 57724 | 018689 | 195,583 |
| | | | | 155029 | 650420 | 305468 | 1,110,917 |
| | | | | 66084 | 14300 | -- | 243,316 |
| | 18060 | 13215 | 111840 | 111962 | -- | -- | 344,427 |
| | -- | 4000 | 28010 | 71000 | 140670 | 77460 | 394,840 |
| | -- | -- | 16758 | -- | -- | -- | 59,408 |
| | | | | | | | 73,558 |
| | | | | | | | 29,989 |
| | | | | | | | 129,095 |
| | 4832 | 20706 | 49559 | 3323 | -- | -- | 85,389 |
| | -- | 6980 | -- | 14374 | -- | -- | 21,354 |
| | -- | 10167 | 24999 | -- | -- | -- | 35,166 |
| | -- | -- | -- | -- | -- | -- | 32,897 |
| | -- | -- | -- | -- | -- | -- | 19,694 |
| | -- | -- | -- | -- | -- | -- | 21,795 |
| | | | 9460 | 50118 | -- | 1160 | 60,738 |
| | | | 1000 | 28872 | 6820 | -- | 36,692 |
| | | | -- | -- | -- | -- | -- |
| | | | | 13852 | 106621 | 64670 | 381,185 |
| | | | | 42000 | 102876 | 40100 | 184,976 |
| | | | | 47579 | 68283 | 39750 | 177,017 |
| | 104989 | -- | -- | -- | -- | -- | -- |
| | 104989 | -- | 8606 | 5452 | -- | -- | 119,047 |
| | 2052556 | 1812421 | 1170859 | 3307194 | 2249492 | 7555522 | 20,703,388 |
| | 3319172 | 4930359 | 387826 | 333493 | 1086985 | 1016409 | 21,208,395 |
| | 3803032 | 7098907 | 297363 | 143313 | 594672 | 930450 | 20,143,397 |

TABLE 8

EGYPT'S FRUIT AND VEGETABLE EXPORTS
TO LEBANON DURING 1960-1962 (kgs)

| Commodity | | Jan. | Feb. | Mar. | April | May | June |
|-----------------------------|------|--------|--------|--------|--------|--------|---------|
| Tomatoes | 1960 | 8260 | 17100 | 11000 | 1500 | -- | -- |
| | 61 | 63794 | 40378 | 650 | 3150 | 2500 | 10350 |
| | 62 | 242266 | 187523 | 150929 | 78200 | 109477 | -- |
| Watermelons | 1960 | | | | 1525 | 910157 | 3573276 |
| | 61 | | | | -- | 387700 | 3639900 |
| | 62 | | | | -- | 89950 | 3393600 |
| Cucumbers and Marrows | 1960 | -- | 11800 | 15580 | 63564 | 6240 | |
| | 61 | 4250 | 8062 | 5110 | 57758 | 31470 | |
| | 62 | 6024 | 39914 | 75697 | 97000 | 8190 | |
| Broad Beans | 1960 | 10898 | 84894 | 69064 | 18180 | | |
| | 61 | 9042 | 32248 | 75660 | 2020 | | |
| | 62 | 14102 | 41434 | 15520 | -- | | |
| Beans, Harricots | 1960 | 4164 | 20896 | 5120 | 33370 | 2200 | |
| | 61 | 16424 | 10824 | 37144 | 36548 | 19471 | |
| | 62 | 25098 | 12531 | 26458 | 56300 | 18656 | |
| Peas | 1960 | 52732 | 64352 | 12684 | 680 | | |
| | 61 | 18822 | 72412 | 4645 | -- | | |
| | 62 | 155457 | 89025 | 53614 | -- | | |
| Mixed Vegetables | 1960 | 3235 | 13752 | -- | -- | 20100 | |
| | 61 | -- | 623 | 5108 | 99 | 4150 | |
| | 62 | -- | 13526 | -- | -- | -- | |
| Almonds, Shelled | 1960 | | | | | -- | |
| | 61 | | | | | -- | |
| | 62 | | | | | 250 | |
| Totals | 1960 | 79289 | 212794 | 113448 | 118819 | 938697 | 3573276 |
| | 61 | 112332 | 164547 | 128317 | 99575 | 445291 | 3650250 |
| | 62 | 442947 | 383953 | 322218 | 231500 | 226523 | 3393600 |

Source: Customs at Beirut sea port

TABLE 8 - Continued

| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--|---------|------|-------|-------|-------|-------|---------|
| | | | | | | -- | 337860 |
| | | | | | | 25000 | 145822 |
| | | | | | | 25000 | 793395 |
| | 1184565 | | | | | | 5669523 |
| | 1276876 | | | | | | 5304476 |
| | 1035300 | | | | | | 4518850 |
| | | | | | | -- | 97184 |
| | | | | | | 880 | 107530 |
| | | | | | | -- | 226825 |
| | | | | | | | 183036 |
| | | | | | | | 118970 |
| | | | | | | | 71056 |
| | | | | | 11000 | 21929 | 98679 |
| | | | | | -- | 16992 | 137403 |
| | | | | | -- | 14588 | 153631 |
| | | | | | 1110 | 9855 | 141413 |
| | | | | | -- | 20430 | 116309 |
| | | | | | -- | -- | 298096 |
| | | | | | | -- | 37087 |
| | | | | | | -- | 9980 |
| | | | | | | 3558 | 17089 |
| | -- | 5900 | -- | 12000 | -- | | 17900 |
| | -- | -- | -- | -- | -- | | -- |
| | 1000 | -- | -- | 25300 | 14035 | | 40585 |
| | 1184565 | 5900 | -- | 12000 | 12110 | 31784 | 6282682 |
| | 1276876 | -- | -- | -- | -- | 63302 | 5940490 |
| | 1036300 | -- | -- | 25300 | 14035 | 43146 | 6119522 |

TABLE 9
SYRIA'S FRUIT AND VEGETABLE EXPORTS
TO LEBANON DURING 1960-1962 (kgs.)

| Commodity | | Jan. | Feb. | Mar. | Apr. | May | June |
|------------------|------|--------|--------|--------|--------|--------|--------|
| Tomatoes | 1960 | -- | -- | -- | 6060 | 17025 | -- |
| | 61 | -- | -- | -- | -- | 10490 | -- |
| | 62 | -- | -- | -- | 1965 | 42901 | -- |
| Watermelons | 1960 | | | | | | -- |
| | 61 | | | | | | -- |
| | 62 | | | | | | -- |
| Mixed Vegetables | 1960 | 159025 | 101530 | 91199 | 322265 | 171188 | 30705 |
| | 61 | 168201 | 138790 | 123726 | 200278 | 82530 | 24609 |
| | 62 | 98998 | 68125 | 68493 | 297642 | 148048 | 14636 |
| Olives, Green | 1960 | | | | | | |
| | 61 | | | | | | |
| | 62 | | | | | | |
| Olives, Pickled | 1960 | 9000 | -- | -- | -- | -- | -- |
| | 61 | 26227 | 18908 | 22731 | 13612 | 5755 | 3122 |
| | 62 | 2349 | -- | -- | 270 | -- | -- |
| Almonds, Shelled | 1960 | | | | | | |
| | 61 | | | | | | |
| | 62 | | | | | | |
| Apricots | 1960 | | | | | 1605 | 66629 |
| | 61 | | | | | -- | 53807 |
| | 62 | | | | | 1120 | 85890 |
| Figs, Dried | 1960 | -- | -- | | | | |
| | 61 | -- | -- | | | | |
| | 62 | 2362 | 972 | | | | |
| Muskmelons | 1960 | | | | | | 24920 |
| | 61 | | | | | | 20688 |
| | 62 | | | | | | 11516 |
| Totals | 1960 | 168025 | 101530 | 91199 | 328325 | 189818 | 122254 |
| | 61 | 194428 | 157698 | 146457 | 213890 | 98775 | 102226 |
| | 62 | 103709 | 69097 | 68493 | 299877 | 192069 | 112042 |

Source: Customs at Shtoura

TABLE 9 - Continued

| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|--|--------|--------|--------|--------|--------|--------|---------|
| | 23807 | 298960 | 104232 | 54195 | -- | -- | 504279 |
| | -- | -- | 16514 | -- | -- | -- | 27004 |
| | -- | 47580 | 26433 | -- | -- | -- | 118879 |
| | -- | 12700 | 26210 | -- | -- | -- | 38910 |
| | -- | -- | 14952 | 25460 | 21200 | -- | 61612 |
| | -- | -- | 11650 | -- | -- | -- | 11650 |
| | 57297 | 615 | 67146 | 105025 | 380169 | 266356 | 1752520 |
| | 2060 | 3878 | 41227 | 257852 | 293389 | 151921 | 1488461 |
| | 19756 | 150 | 55504 | 222116 | 601736 | 258845 | 1854049 |
| | | | -- | 87369 | 264304 | 42441 | 394114 |
| | | | 4438 | 1127 | 6076 | -- | 11641 |
| | | | -- | 7906 | 46828 | 22651 | 77385 |
| | -- | -- | -- | 1896 | -- | -- | 10896 |
| | -- | 2905 | -- | 6510 | 13004 | 25820 | 138594 |
| | -- | 270 | -- | -- | -- | -- | 2889 |
| | | | -- | | | -- | -- |
| | | | 22905 | | | -- | 2905 |
| | | | 10275 | | | 1550 | 11825 |
| | 14576 | | | | | | 82810 |
| | 51619 | | | | | | 105426 |
| | 7062 | | | | | | 94072 |
| | | | -- | -- | -- | -- | -- |
| | | | -- | 1285 | -- | -- | 1285 |
| | | | 17006 | 6733 | 900 | -- | 27973 |
| | 38515 | -- | 370 | -- | -- | | 63805 |
| | 14770 | 12910 | 14450 | -- | 11280 | | 74098 |
| | 25400 | -- | -- | -- | -- | | 36916 |
| | 134195 | 312275 | 197958 | 248485 | 644473 | 308797 | 2847334 |
| | 68449 | 19693 | 94486 | 290949 | 346234 | 177741 | 1911026 |
| | 52218 | 48000 | 103862 | 247028 | 655297 | 283946 | 2235638 |