

CITRUS EXPORT SYSTEM IN PAKISTAN

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ABSTRACT

Pakistan is one of the largest citrus producing countries of the world. Among the citrus varieties, Kinnow contributes a lion share (95%) to citrus export. So Kinnow variety was taken into consideration for the present study. A survey of citrus processing industry was undertaken in Sargodha district in March 2005. The results indicated that harvested Kinnow is generally exported through different channels. First, exporters purchase Kinnow from the beoparies (middleman), process and then they export it. Secondly, exporters directly purchase the commodity from the farmers, process and then it is exported. Thirdly, exporters have their own orchards, process the produce and then they export to different countries. The produce is brought to Kinnow processing factories generally in 20 and 40 kg plastic buckets on Mazda vans (small trucks). After unloading, the produce is washed, dried, waxed, again dried, graded, packed and labelled in the processing plant. After packing (cardboard and wooden boxes), fruit is transported to Karachi Port either in open-top trucks or refrigerated containers. Then it is shipped to different countries. Majority of the exporters (66.7%) use refrigerated containers. However, open-top trucks are also used for transporting the fruit to Karachi Port. The problems associated with Kinnow export include low produce quality, lack of storage facilities, non-availability of quality packing, poor transportation facilities, high freight charges, weak role of export promoting agencies and inconsistent government policies.

KEYWORDS: Citrus fruits; farmers; exports; grading; packaging; Pakistan.

INTRODUCTION

Citrus is a prized fruit of Pakistan and holds number one position among all fruits both for area and production in the country. Pakistan is among the top 15 citrus producing countries of the world (2). There was an average production of 1760.3 thousand tonnes from an area of 176.5 thousand hectares in the last year (2004). The share of Punjab in area and production is about 94 and 96 percent, respectively.

Citrus is the major exportable fruit of Pakistan. Total export of citrus during 2003-2004 amounted to Rs. 1771.34 million. Among exportable citrus

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varieties, Kinnow is the major one. Its share to total citrus export is more than 98 percent (4). Pakistan is the largest producer of citrus Reticulata variety (Kinnow). According to an estimate, about 95 percent of world total Kinnow production is produced in Pakistan. The export season lasts for four months, starting from mid December to mid of April. However, approximately 20 to 40 percent of produce is wasted during pre and post-harvest stages. Mismanagement of orchards, disease attacks severe weather changes, delay in harvesting, absence of proper roads and cold storage facilities, glut formation in the markets etc. are responsible for these losses. However, it is widely claimed that fruits of Pakistan especially mango and Kinnow rank well for taste, flavour and appearance in world markets (5). In spite of quality edge, Kinnow export is not flourishing due to certain reasons i.e. fluctuation in annual production, post harvest losses, insufficient freight space and complicated export formalities. So there is a need to evaluate production and marketing systems to take suitable measures for sustainable and healthy kinnow export particularly under WTO regime.

The present study was planned with special reference to sustainable export of Kinnow from Pakistan. It was focussed on specific aspects of export system like transportation, processing, packaging and labeling.

METHODOLOGY

Survey of citrus processing industry was conducted in Sargodha district during March, 2005 by Technology Transfer Institute (PARC), Ayub Agricultural Research Institute, Faisalabad. Secondary information regarding the study area and citrus processing industry was collected from Department of Agriculture, Sargodha and Pakistan Horticultural Development Export Board (PHDEB) to construct questionnaire for the study. Through informal survey, questionnaire covering important issues related to Kinnow export was prepared and pre-tested in the field to check workability for inclusion the relevant necessary questions and flow of questionnaire before formal survey. The Sargodha district is contributing 25 percent to total citrus production of the country. Among the citrus varieties, about 95 percent export includes Kinnow. So only Kinnow variety was included in the survey. About 33 Kinnow exporters were interviewed randomly for data collection. The major Kinnow processing industry is situated on Kotmomin - Bhalwal Road and Bhalwal - Sargodha Road. The data were compiled, tabulated and analyzed by using descriptive statistics.

RESULTS AND DISCUSSION

Personal characteristics of exporters

Personal characterizing include age, education and exporting experience. These attributes of exporters do affect the quality and performance of business. A matured, well educated and experienced person can manage the business in a better way as compared to an uneducated and inexperienced person. The survey results showed that average age of the exporters was 37 years. The exporters were well educated. They had an average education of 11 years. They possessed an experience of about 8 years in running the export business (Table 1).

Table 1. Personal characteristics of the exporters (years).

Characteristics	Minimum	Maximum	Mean	Std.Deviation
Age	20	50	37.31	7.811
Education	5	16	12.41	2.8
Experience	1	28	.80	8.0

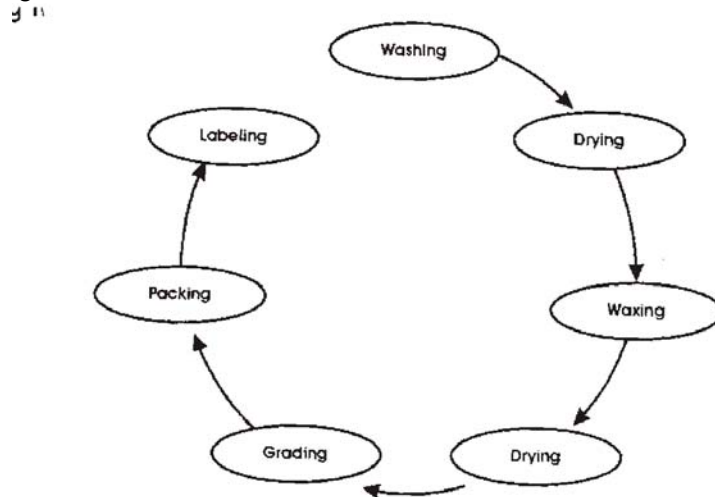
Majority of the exporters (45%) belonged to the farming families. They were well aware of the production as well as marketing aspects of their business. The survey results revealed that large number of exporters (72.7%) had sole ownership of business while remaining ran the business on partnership basis (Table 2). Generally the exporters stored their produce in traditional cold stores available near the fruit market. These cold stores were old fashioned and were operated by ill trained staff. After storage, Kinnow produce needs to be placed in a place where temperature is gradually raised and atmosphere gases are properly controlled but common practice is opposite to this. As a result fruit skin absorbs water and gets softened and losses value. Only a small percentage of exporters (30%) had cold storage facility while the remaining exporters stored their produce in rental storages. These results are in line with the findings narrated in SMEDA report.

Table 2. Business related characteristics of sampled exporters.

Characteristics	Percent
Family background	
Business	41.9
Agriculture	45.2
Business + Agriculture	12.9
Sole ownership partnership	
Owner	72.7
Partnership	27.3
Storage facilities	
Yes	30.3
No	69.7

General pattern of export

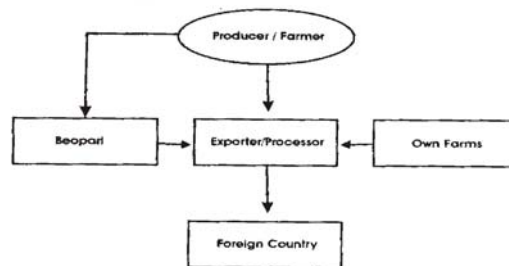
In first pattern, exporters purchased Kinnow from the beoparies, processed and then exported. In second, exporters directly purchased the commodity from the farmers, processed and then exported. In third pattern exporters had their own orchards, processed the produce of these orchards and then exported to different countries. The export pattern of Kinnow is given in following flow chart.



Majority of exporters (about 36%) purchased Kinnow both from beoparies and farmers followed by the purchase (about 27%) from beoparies, farmers and own orchards.

Processing of fruit

The produce was brought to Kinnow processing factories generally in 20 kg and 40 kg plastic buckets on Mazda vans (small trucks). After unloading, the produce was washed, dried, waxed, again dried, graded, packed and labelled in the processing plant. All these operations were performed mechanically. The sequence of these operations is given in the following flow chart:-



Packing material used for export

Perishable commodities require proper packing otherwise it may lose its value in the market. Benefits of quality packing includes intact freshness of produce with less damage, longer shelf life and better appearance. Both the cardboard and wooden boxes were used for export. Kinnow exported to Middle East especially Dubai and KSA in the wooden and cardboard boxes. However, Kinnow exported to Russian States, Far East and Europe was totally packed in cardboard boxes.

Packing size

Exporters used different sizes of crates for export of Kinnow depending upon the importing country's demand. They generally packed the produce in 6, 8, 10 and 13 kg weight. Similarly, number of fruits per crate also varied depending upon crate size e.g. they packed minimum number of 26 and maximum number of 48 Kinnows in 6 kg crate. For 8 kg crate they packed on an average 49 kinnows with a minimum number of 36 and maximum 62 (Table 3). The import agents order the type of packing, crate size and average number of fruits per crate.

Table 3. Different crate sizes used for exports.

Package size (kg)	Number of fruits packed		Mean
	Minimum	Maximum	
6	36	48	39
8	36	62	49
10	48	105	76
13	74	108	91

Transport used for exports

After packing, fruit was transported to Karachi port either in open top trucks or refrigerated containers. Then it was shipped to different countries. Majority of the exporters (66%) used refrigerated containers. However, open top trucks were also used for transporting the fruit to Karachi Port.

The problems associated with transport were; shortage of refrigerated containers in the season and high rent of containers. The drivers of the refrigerated containers also switch off the refrigeration to save the diesel which affects the quality of fruit. Similarly freight charges of shipping companies were also very high.

Awareness about export promoting agencies

There are several agencies involved in the promotion of exports in the country. These include Export Promotion Bureau (EPB), Pakistan Horticultural Development Export Board (PHDEB), etc. Majority of the Kinnow exporters were aware of these agencies (Table 4) but especially the small exporters were dissatisfied over their performance.

Table 4. Awareness about export promotion agencies.

Export promoting agencies	Percent
Export Promotion Bureau	
Yes	41.7
No	58.3
Pakistan Horticultural Development Export Board	
Yes	74.2
No	25.8

Awareness about WTO

All departments of Punjab Government have established WTO cells to keep the different stakeholders abreast of the latest requirements for international trade and to undertake research on different issues confronting the country in WTO regime. It demands competitiveness, quality and free access. Presently there is no change in the export pattern. Export to a specific country depends upon its import policy e.g. this year Pakistani export to Indonesia is less due to the import duty imposed on Pakistani Kinnow. Similarly Japan and Iran restricted the import of Pakistani Kinnow due to fruitfly treatment.

Most of the exporters (82%) were aware of WTO and its agreement on agriculture. They knew that world is becoming a global village but they were not in general ready to face its challenges.

Constraints to Kinnow export

Low quality

Exporters complained that quality of Kinnow is deteriorating overtime. There is serious problem of diseases and insect pests. Generally the crop management practices like planting, pruning, fertilization, irrigation and spraying were very poor. It was also observed during survey that sanitary condition of Kinnow processing factories was poor. All these factors result in low quality produce which ultimately leads to less value in the international market.

Lack of storage facilities

Cold storage facilities in the area are poor in general. There is no commercial controlled atmosphere cold stores. Very few factories have their own storage facility and their capacity is very limited. Generally, exporters and traders store their consignments in traditional cold stores available near fruit markets. When there is glut in the market, Kinnows are even thrown on the roads which indicate the fact of poor storage facilities. The other problems related to cold storage facilities are high rent and poor quality of storage.

Non-availability of quality packing

Packing material available is of low quality with high prices. The cardboard boxes cannot sustain the pressure of weight in the containers, so the packing gets loose affecting the fruit quality. Poor quality packing fetches low price in international market.

Poor transportation facilities

In peak season refrigerated containers become short and costly. Only few companies ensure the required temperature of container which is normally 4°C during transporting the produce but their fares are high. Moreover, the temperature is not maintained in the refrigerated containers which affects the quality of fruit.

High freight charges

Almost all the exporters reported that freight charges of foreign shipping companies are high during the season. It increases their expenditures which are very difficult to afford especially by the small exporters or new entrants in the export business.

Weak role of export promoting agencies

There are many public agencies involved in boosting the export of the country but they are not playing their active role as expected by the exporters. Exporters are not kept aware of new markets and market needs in WTO scenario.

Inconsistent Government policies

The government policies are not consistent. The Govt. banned the export in wooden crates three years back and now use of wooden boxes has been

allowed again for export. There are regional blocks as well as trade agreements of the competing Kinnow exporting countries e.g. China signed a trade agreement with Indonesia this year so our export to Indonesia is less as compared to the previous year.

CONCLUSIONS AND RECOMMENDATIONS

The findings of the study conclude that there is no change in the export pattern even after the implementation of WTO in January 2005. The export to a country depends on its import policy. Generally, exporters purchased Kinnow from beoparies and processed the fruit for export. The fruit is packed in cardboard and as well as in wooden boxes depending upon the demand of importing country then it is transported to seaport for final destination. The exporters are in general aware of WTO due to awareness campaign launched by different government and non-governmental organizations but it requires more efforts to harness the Kinnow export potential. Following recommendations are made to improve the situation:-

Strengthening export promotional activities

There are different agencies involved in boosting the export of country. These mainly include the Export Promotion Bureau (EPB) and Pakistan Horticultural Development and Export Board (PHDEB). The government should strengthen these agencies with highly qualified professional staff and then a strong monitoring of the targets should be undertaken.

They should arrange trainings for exporters to compete in a better way in international market. The agencies are sending delegations to foreign countries but generally small and medium exporters are ignored. Therefore, it is suggested that the interests of small and medium exporters should be properly watched.

Export friendly and consistent government policies

Government should frame and implement export friendly policies. Another important aspect is the consistency in policies which should not be ignored. The government should set the short, medium and long term goals and provide all the support needed for achieving these goals.

Setting up of a cool chain

Fruits and vegetables are perishable and have to be processed through a cool chain to preserve and prolong their shelf life. Technological interventions in preservation and processing technologies are available in the market. The infrastructure required for cold storage, cool transport and processing is at the priority list of Govt. to the develop of this sector. The private sector shall be encouraged to invest in this area for exporting high value added Kinnnow.

Development of quality standards

The quality standards for exportable commodities should be developed. Then these quality standards should be monitored and supervised to boost the exports. At present the Kinnnow export quality standards are either non-existent or not implemented in letter and spirit.

Role of line development

To promote citrus export, the officials of government departments especially relating to tax and electricity should not harass the exporters.

Incentives for exporters

To promote Kinnnow export, the government should give incentives to the leading and upcoming exporters to develop healthy export competition among them.

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