

Emerging International Compliance Issues: Challenge to Fresh Fruits and Vegetable Exports

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Abstract

Pakistan annually produces 13 million tons of fresh produce, divided into fruits 46% and vegetables 54%. Its market value at current factor cost is estimated around US\$ 2 billion. The annual export of fresh produce is estimated around half a million tons which earns foreign exchange of worth US\$ 140 million. Fresh fruits and vegetables export is a growing industry and pace of both production and exports can be much accelerated. In the medium-term Development Framework 2005-10, production of fruits and vegetables has been projected at about 18 million tons by 2009/10 and exports at US\$ 238 million. The major challenge being faced by the fresh fruit export industry is the emerging issues of international compliance mainly focused on food safety (SPS measures), traceability, residues of different agro-chemicals, lack of Good Agricultural Practices, reduction of post harvest diseases and pests (quarantine treatments) and issues pertaining to safety of food packaging materials. Currently, the hazards analysis and critical control point (HACCP), Global GAP, British retailer's consortium (BRC) and monitoring of maximum residues limits (MRL's) are the major challenges. An integrated and comprehensive approach is required to address these issues from both the government and private sector to meet the export targets as addressed under the MTFD of the government of Pakistan (US\$ 238 million) by the year 2010.

INTRODUCTION

Current export value of fresh fruits and vegetables of Pakistan is US\$ 216.5 million. These exports are growing at an incredible rate of 15% per annum. The government of Pakistan has set the target to increase export to new markets like EU, East Europe, China, Canada, Africa and Australia (Ali, 2011). This goal must be accomplished through foreign investment (branded companies) in value addition, implementing GAP at farm level, HACCP at industry level, establishment of processing plants/cold storages, reefers, and common facility centers (CFCs) (PHDEC, 2010). A growing consumer and retailer concern about food safety that is a global issue transcending national borders which is critical to be taken care of. Consumers throughout the world question about food production conditions with respect to safety and hygiene (Bajwa. 2009). The

commonly recognized reference standards of Good Agricultural Practices at farm level and HACCP at the processor level are emerging trends for Pakistan. For our growing horticulture economy, there might be a very simple and obvious reason for adopting these practices. International buyers have put these standards for further purchase as "inevitable requirements" (Aujla *et al.*, 2007). This problem is further compounded by food safety concerns leading to stringent quarantine measures, traceability and demand for international certifications of Global GAP, British Retailers Consortium (BRC) and HACCP. The Pakistan's horticulture industry is facing the multifaceted problems, which are briefly revealed below:

Compliance to International Market Requirements

Produce Quality and Marketing

In international markets, production price is determined on the basis of its market grade, which usually is based on its size, colour, and blemish percentage as well as internal quality criteria. Since the country does not have adequate packing, grading and cold storage facilities, the produce from Pakistan is often delivered in inferior and inconsistent quality. Currently, fruits and vegetables are predominantly packed and exported in wooden crates, which are banned in many of the import markets. Further, traceability of produce is becoming a requirement under new export protocol, and to comply, proper packing facilities with electronic bar coding system to be introduced (Mohy-ud-Din, 2012).

Food Safety Issues

Contaminants in fresh produce is an area of concern for many countries. Importing countries are imposing stringent food safety checks, particularly with respect to Maximum Residual Limits (MRLs) of pesticides and contamination with human and animal pathogens as contaminants (Tahir, 2011).

Riaz, 2009 stated that due to non-availability of proper packing and grading facilities, most of the produce is packed and shipped without proper washing and cleaning, with risk of contaminants present on produce. Further, the packaging material (jute bags, recycled polypropylene bags etc) being used for packing and transportation from farm to wholesale markets could also be a potential source of contamination, since these materials are used without any cleaning and washing operation.

Quarantine Pests and Diseases:

Number of pest and diseases are of quarantine concern for Pakistan's fresh produce industry. Among them, fruit fly is the most serious insect pest, two of its species being major concern (*Bactrocera zonatus* and *Bactrocera dorsalis*). Fruit fly has become a wide spread problem in almost all parts of the country. Apart from controlling it through integrated production means, the country must meet fruit fly disinfestation requirement (cold storage/refrigerated transport for citrus: 2.2°C for 16 days; Hot water treatment for mango: 46°C -75 minutes for Iran; 48°C – 60 minutes for China) (Anon, 2007). Currently, export of fresh produce to many countries requires fruit fly disinfestation treatment and such facilities are very limited in Pakistan. Since, these are usually part of modern packing and grading system.

Due to quarantine diseases, citrus exporters could be threatened by two major quarantine issues i.e. citrus canker and citrus greening disease. Citrus canker has been in the orchards since long, however the greening disease is a new threat; for which the lab detection system has not yet been developed in Pakistan (Anon, 2006). Both diseases are extremely dangerous and they can engulf the orchards in limited time-period, to an

extent that the only way to get rid of it is to uproot the trees. There is hardly awareness in the industry as well as in the extension staff about the seriousness of these threats and the strategy to tackle the issues.

Brief Overview of The Emerging Standards

Good Agricultural Practices

Global GAP is a single integrated standard with modular applications for different product groups, ranging from plant and livestock production to plant propagation materials and compound feed manufacturing. The standard serves as a global reference system for other existing standards and can also easily and directly be applied by all parties of the primary food sector. Global GAP operates like a satellite navigation system. It equips members with a reliable tool kit, which allows each partner in the supply chain to position themselves in a global market with respect to consumer requirements (Collins *et al.*, 2008). Feedback from nearly ten years of working with the standard – with more than one hundred thousand completed audits – have been incorporated to make the new third version of 2007, more relevant to today's concerns and advanced production techniques. The comprehensive documentation of the system of the new Global GAP (former EurepGAP) is organized into five major blocks:

- System rules referred to as General Regulations (GR).
- Requirements referred to as Control Points and Compliance Criteria (CPCC).
- Inspection documents referred to as Checklists (CL).
- National GAP requirements referred to as Approved National Interpretation Guidelines.
- Harmonization tools referred to as Bench marking Cross Reference Checklist (BMCL) and other guidelines.

The British Retailers Consortium (BRC) Global Standard

British Retail Consortium is the trade association that represents the whole range of UK retailers including large multiples, department stores and independent shops, selling a wide selection of products to centre of town, out of town, rural and virtual stores. The BRC is directly involved in various important issues affecting retailing and the consumer, including product safety, all forms of legislation, e-commerce, environment and retail crime. The BRC lobbies in UK and EU give opinion on these and many other issues (Khan, 2006). The BRC Standards have been utilized by various retailers outside the UK and other users, such as major food manufacturers and food service organizations. BRC are working closely with other European and Global retailers to meet their requirements.

The key deliverables of BRC system are:

- Establishment of an effective quality management system (QMS)
- Operate a HACCP section as the cornerstone of a food safety management system in the processing
- Eliminating issues of major industry importance, such as allergens and site security
- Revision of product categories that focus on technology of food production

Strategies, Recommendations and Conclusion

Postharvest Management

Postharvest management infrastructure including packaging, grading plants, cold storage and refrigerated containers/trucks need to be established. Such facilities will help to reduce postharvest losses and improve shelf life and quality. Establishment of processing industries and processing zones for value added products in different

localities. Special training courses for targeted groups (pickers, packers etc.) and operations (Blemish sorting, cold store maintenance etc) in supply chain need to be designed as per industry requirements (SMEDA, 2010).

Developing Infrastructure and Cold Chain

Provision of physical infrastructure is a pre-requisite for improving the current situation. Development of cold storage facilities at farm level improved logistics, especially reefer containers, and cold storage facilities at exit points will make the real breakthrough in reducing postharvest losses, improving quality and profitability of fresh produce industry.

Strengthening R&D

There is need of capacity building particularly in developing postharvest and cold chain research facilities. It is suggested to set up a center of excellence in Fresh Produce at University of Agriculture, Faisalabad, which should include all the areas of postharvest management including harvest/handling, packing, grading, storage, shipment and diseases and disorders, and quality testing.

There is a need of increased linkages between industry and academia/ research. Priority research areas in different crops need to be determined by involving the stakeholders and a clear R&D framework is to be developed to meet these challenges.

Developing Indigenous Gap Standards

The approach is to develop the GAP standards for Pakistan's produce against the different organizations. Pakistan will apply to the Global GAP forum for acceptance and recognition of Pakistan's GAP standards. The process would be carried out through benchmarking which is one of Global GAP's core objectives. In order to ensure integrity and transparency of the system, Global GAP has adopted this benchmarking procedure and appointed external, recognized and competent organizations to undertake the technical review and witness audits. The purpose of this scheme is to define the procedure for establishing the equivalence of specified standards (and other normative documents) against the Global GAP set of standards, such that this procedure is completed in a consistent, reliable and transparent manner, thereby facilitating acceptance on a national and international basis and so furthering international trade. The expected benefits under this scheme launched by the PHDEB involve the harmonization of horticulture crops standards all over Pakistan to get them approved by Global GAP. This would entail the international acceptance of our Good Agricultural Practices for the access of horticulture products from Pakistan to the best retail chains of the EU and other countries.

Increasing Global Gap and BRC Certifications

The Pakistan Horticulture Development and Export Board (PHDEB) at this moment has initiated a process to enhance the possibility of Global GAP certification as means to demonstrate commitment to produce safe food in a sustainable manner. The Ministry of Commerce, Government of Pakistan has also announced incentives on the certification of GAP, BRC and HACCP in the trade policy 2007-08. The food industry (both fresh and processing) should take a lead role to up-grade the production and processing systems in line with these requirements.

Policy Issues

Government should declare Horticulture as a developing industry and take measures to help remove financial limitation of growers, traders, transporters and exporters. The improvement of infrastructure including roads and cold chain is the key to increase and extend the produce availability, improve the quality, stabilize the market prices and increasing the export which eventually will provide increased opportunities for employment. However, infrastructure development requires large investment and without Government help it is not possible. While the Government provides roads and railway infrastructure, private sector needs to be financed and involved in setting up modern packing and grading facilities and specialized transport infrastructure.

The export market of fresh produce is highly dependent on the quality of produce and the consistency in supply. Standards development and enforcement should be introduced at local level, as some exporters tend to dispatch inferior quality or underweight produce and bring bad name to the industry. The farmers, who adopt the Good Management Practices (GAP) and fulfill the requirements of export quality horticultural products should be given premium price at farm gate and to enjoy preferential treatment so that others are encouraged to adopt the same technology.

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