



HORTEX NEWSLETTER

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Editor's Note

Consumers ask for good quality horticultural produces both in domestic and export markets. Production factors influence growing of good quality produce in the field. This quality is also to be maintained throughout the post-harvest handling chain until the produce reaches the consumers. In other words, we need to emphasize on both production and post harvest management systems to produce safe and clean high value crops.

The fact remains that post harvest spoilage of fruits and vegetables varies from commodity to commodity, e.g. 37% tomato, 35% papaya, 33% mango, 27% bitter gourd etc at the producer, collector, wholesaler and retailer levels (BARI - 2006). The losses assume considerable economic and social importance in developing countries like Bangladesh. Efforts to increase production of horticultural crops per unit area and time through the use of high yielding varieties, adoption of improved agro-techniques and plant protection measures will have no significant effect unless post harvest losses are reduced to a minimum level.

Post harvest losses are mainly due to mechanical injury, microbial infections, high temperature and humidity among other causes. Post harvest loss means the wastage of all the production inputs, farmer's labor, time, money investment which obviously have negative effect on productivity and availability of commodity. Post harvest losses can be reduced through the integrated scientific approaches addressing the issues pertaining to production, post harvest handling, processing, storage and transportation.

Hortex Foundation is involved in facilitating the producers as well as exporters in the quality production of the horticultural crops and their proper post harvest handling, packaging and transportation by providing technical know-how and logistic support as and when needed. However, it is most likely that establishment of a central pack house in Dhaka and other pack houses in concentrated areas of production of high value crops will minimize post harvest losses to a greater extent.

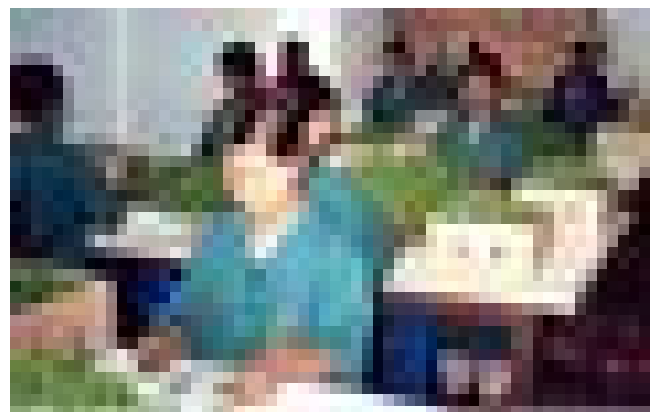
Post-harvest management of fruits & vegetables for better quality and export

High quality, disease-free produce with a good shelf life is a result of appropriate production practices, proper management during harvest, appropriate post-harvest handling and storage.

The global consumer demand for high-quality fresh and nutritious foods has created considerable interest and investment opportunity in the development of new or improved post-harvest storage and food processing techniques. Traditional post-harvest food processing technologies such as freezing and canning are no longer at the forefront of consumer demand.

As per Bangladesh Bureau of Statistics (2008), total production of fruits & vegetables in Bangladesh in 2006-07 was 6.78 million tones, comprising 4.12 million tones of fruits and 2.66 million tones of vegetables.

But generally, post-harvest losses are more than one-third of the total production of horticultural crops in Bangladesh and estimated to be more than 2 (two) million tones fruits & vegetables in last year.



Sorting, grading and packaging of vegetables for export

In developing countries there are so many causes lead to post harvest losses. These include inefficient harvesting and handling methods, poor processing techniques, inadequate methods of storage and distribution and even poor preparation of foods at home. Losses are, of course,

not simply calculated as absolute volume losses, but quality losses as well.

The causes of loss may be classified into the following sub-groups:

Biological

The direct consumption of food by insects, rodents or birds; apart from material losses, the level of contamination by excreta, hair and odors can be so high that the food will be condemned for human consumption.

Microbiological

Damage of food at storage by fungi, bacteria and other microorganisms can spoil produce to the point where they become unacceptable because of rotting or other defects, such as aflatoxin, produced by moulds or unsightly bacterial rotting.

Mechanical

Owing to their tender texture and high moisture content, fresh fruits and vegetables are very susceptible to mechanical injury. Poor handling, unsuitable containers, improper packaging and transportation can easily cause bruising, cutting, breaking, impact wounding and other forms of injury.

Chemical

Many of the natural chemical constituents present in foods can react causing loss of color, flavor, texture and nutritional value; examples include the reactions that cause browning in dried fruits.

Biochemical

A large number of natural enzyme-activated reactions can occur in foods during storage giving rise to off-flavors, discoloration and softening.

Physiological

Natural respiratory losses which occur in all organisms account for a significant level of weight loss and can also generate damaging heat; changes during maturation, such as ripening, wilting and sprouting, also increase the susceptibility of the product to mechanical damage or infection by pathogens; a reduction in nutrient level, such as vitamin C, and consumer acceptability can also accompany these changes.

Of the above primary causes, the biological, microbiological, mechanical and physiological factors are responsible for the majority of the losses in perishable crops.

But in context of Bangladesh there are so many other secondary factors responsible for post-harvest losses as follows:

- Improper production practices;
- Collection of immature and over-mature crops;
- Excess sun light and rain fall exposé;
- Rough and non-hygienic handling of harvested produce;
- Dumping of produce;
- No sorting or grading of damaged produce;
- Rough road condition/transportation/load/unload;
- No specific collection centers/pack-houses;

- No available market sources for immediate selling;
- Inadequate storage and poor supply chain management.

A grower should know the general information on growing conditions and production practices to ensure post-harvest quality.

Harvest handling

Care taken during harvesting is repaid later, because fewer bruises and other injuries mean less disease and enhanced value. Quality cannot be improved after harvest, only maintained; therefore it is important to harvest fruits, vegetables, and flowers at the proper stage of maturity, size and at peak quality. Immature or over-mature produce may not last in storage as long as mature produce does.

Harvest should be completed during the coolest time of the day, which is usually in the early morning, and produce should be kept shaded in the field and then handle produce gently. Crops destined for storage should be as free as possible from skin breaks, bruises, spots, rots, decay, and other deterioration. Bruises and other mechanical damage not only affect appearance, but provide entrance to decay organisms as well.

Post-harvest decays are more prevalent in fruits and vegetables that are bruised or otherwise damaged. Mechanical damage also increases moisture loss. Damage can be prevented by training harvest labor to handle the crop gently; harvesting at proper maturity; harvesting dry whenever possible; handling each fruit or vegetable no more than necessary (field pack if possible); installing padding inside bulk bins; and avoiding over- or under-packing of containers.

Post-harvest Technology

Horticultural produce remain alive long after harvest. Like other living materials they use oxygen and release carbon dioxide. It also means that they have to receive intensive care. The role of post-harvest handling is to sustain the shelf life of the produce as long as possible.

Post-harvest technologies are significantly influencing the status of post-harvest losses and the quality of produce at grading, packaging, pre-cooling, storage and transportation. Some produce require more care in the form of cleaning, ornamentation, disease and insect control, waxing, ripening, etc.

All possible technologies are described below:

Sorting / Grading

Harvested horticultural crops must be sorted and graded to segregate the better ones from the bad ones before selling in market. Before packing and transportation it should be done otherwise damaged or pest and disease affected fruits and vegetables may result in spoilage of other good ones. In our country in most cases sorting and grading are done manually by hands. In large pack houses typically use dumpers, conveyor belts or rollers.



Sorted and graded vegetables in local market

High Temperature

Temperature is the single most important factor in maintaining quality after harvest. Cooling or refrigeration slows down the following elements that deteriorate quality of perishable crops: aging, over ripening, softening, color change, metabolic changes, moisture loss, undesirable growth, etc. That's why the harvested produces have to be transported to the packing shed without delay.

Pre-Cooling

In the field, heat of the sun and respiration of the produce combine to heat up the produce. This accumulation of heat reduces the post-harvest life of the produces, so the produce has to be removed quickly from the field. Even under the best conditions, when the harvest is in the cool of the morning and the bins are placed in the shade, heat production can only be controlled by active refrigeration.

Pre-cooling requires a greater refrigeration capacity than does cool storage and is often best done as a separate step. Hydro-cooling with cold water drenches, forced air cooling through stacks that ensure proper air distribution and packing with ice are the systems most commonly used, with the choice depending on the individual requirements of the commodity. Some different cooling systems are described under:

Room cooling: Produce is placed in a protected room equipped with refrigeration units. This method can be used with most commodities, but is slow compared to other options. A room used only to store previously cooled produce requires a relatively small refrigeration unit. However, if it is used to cool produce, a larger unit is needed. Containers should be stacked so that cold air can move around them, and constructed so that it can move through them. Used refrigerated truck bodies make excellent small cooling rooms.

Forced-air cooling: Fans are used in conjunction with a cooling room to pull cool air through packages of produce. Although the cooling rate depends on the air temperature and the rate of air flow, this method is usually 75-90 percent faster than room cooling. Fans should be equipped

with a thermostat that automatically shuts them off as soon as the desired product temperature is reached.

Hydro-cooling: Dumping produce into cold water or running cold water is an efficient way to removing heat, and can serve as a means of cleaning the produce at the same time. In addition, hydro-cooling reduces water loss and wilting. Use of a disinfectant in the water is recommended to reduce the spread of diseases. Hydro-cooling is not appropriate for berries, potatoes to be stored, sweet potatoes, bulb onions, garlic, or other commodities that cannot tolerate wetting.

Liquid icing: Icing is particularly effective on dense products and palletized packages that are difficult to cool with forced air. In liquid icing, crushed ice is added to the container over the top of the produce by hand or machine. For liquid icing, a mixture of water and ice is injected into produce packages through vents or handholds without removing the packages from pallets and opening their tops.

Refrigeration

Refrigeration is the most important tool for extending the shelf life of fruit and vegetables. Whatever else is available to give additional storage life, good temperature control is critical to all of them. One of the most important functions of refrigeration is to control the crop's respiration rate. Respiration generates heat as sugars, fats, and proteins in the cells of the crop are oxidized. Loss of these stored food reserves through respiration means decreased food value, loss of flavor, loss of salable weight, and more rapid deterioration. For refrigeration to be effective in postponing deterioration, it is important that the temperature in cold storage rooms be kept as constant as possible.

Preventing moisture loss

Most fruit and vegetable crops retain better quality at high relative humidity (80 to 95 percent), but at this humidity, disease growth is enhanced. The cool temperatures in storage rooms help to reduce disease growth, but sanitation and other preventative measures are also required. Maintaining high relative humidity in storage is complicated by the fact that refrigeration removes moisture. Humidification devices such as spinning disc aspirators may be used. Even buckets of water will increase humidity as the fans blow air across the water's surface and increase evaporation.

Sanitation

Sanitation is of great concern to produce handlers, not only to protect produce from post-harvest pests, but also to protect consumers from food-borne illnesses. *E. coli*, *Salmonella*, *Chyptosporidium*, *Hepatitis*, and *Cyclospora* are among the disease-causing organisms that have been transferred via fresh fruits and vegetables. Use of a disinfectant in wash water can help prevent both post-harvest diseases and food-borne illnesses. Chlorine in the form of a sodium hypochlorite solution or as a dry, powdered calcium hypochlorite can be used in hydro-cooling or wash water as a disinfectant.

Storage

Usually horticultural produces are marketed as quickly as possible after harvest and majority of them have very short post-harvest lives. So, they require optimum natural conditions like temperature, humidity, atmospheric conditions, etc to slow down any metabolic changes. Most storage crops require low temperatures and high humidity, two factors that don't come together easily. Several others require low humidity and low temperatures. And then there are a few that fall in between.

Packaging

Packaging should be designed to prevent physical damage to produce, and be easy to handle. There are three types of packaging: 1) Sales packaging: It is the immediate layer of packaging around the goods - the packaging that remains when the goods reach their end-users.

2) Outer packaging: It is an intermediate layer of packaging, which often also serves a retail-promotion purpose.

3) Transport or export packaging: It is the outermost layer of packaging and is designed to protect the goods during transit.

Mixed loads

When different commodities are stored or transported together, it is important to combine only those products that are compatible with respect to their requirements for temperature, relative humidity, atmosphere (oxygen and carbon dioxide), protection from scents/smells, and protection from ethylene.

Transportation

The basic requirements for conditions during transportation are similar to those needed for storage, including proper control of temperature, humidity and adequate ventilation (except in case of modified atmosphere). In addition, the produce should be immobilized by proper packaging and stacking to avoid excessive movement or vibration, which can cause severe bruising or other type of mechanical injury. Cool chain transportation (using reefer trucks) is one of the most suitable modes for perishable horticultural produces.

Conclusion

Efficient post-harvest handling is the critical step to maintain high quality fresh produce. All actors in the chain directly or indirectly are responsible in maintaining quality of the produces from field to the dinner table. The aim of post-harvest management is to maximize the value addition to the produce for both domestic and export markets.

Bangladesh has a high potentiality of export expansion due to increased global demand for high value horticultural crops. With improvement of post-harvest technologies in handling, packaging and cooling system, we will have a bright future for boosting horticultural export from Bangladesh.

Dr. Debashish Chanda
AGM (Marketing), Hortex Foundation

Naga marich – the hottest chili in the World



Naga marich means snake or serpent chili. The name naga possibly stems from the extreme hotness represented by the aggressive temperament of the warriors of Naga community in India. The hotness is described by some as like drinking cobra venom. Capsaicin is mainly responsible for hotness of chili, which is measured by the Scoville Scale named after the inventor, chemist Wilbur Scoville. Naga marich has highest pungency as its Scoville rating varies from 855,000 to 1,042,427 units.

Dorset Naga chili is a hybrid of *Capsicum chinense* × *Capsicum frutescens* made by couple in Dorset in England.

Some facts about Naga marich are appended as under:

Scientific name: *Capsicum chinense*

Other names: Kamranga marich, Bombai marich, Ghia marich in Bangladesh, Bih jolokia, Bhut jolokia, Nagahari,,Naga moresh, Raja mirchi in India.

Family: Solanaceae

Origin: North East India including the adjacent country of Bangladesh

Morphological Characters (some):

Plant height	120-150 cm (shade) 90-110 cm (sun)
Stem	Green & branched
Leaf	Ovate & pale green
Fruit shape	Sub conical to conical
Fruit length	5.3-6 cm
Fruit width	2.14-2.5 cm
Fruit wt.	4.1-5 cm
Seeds/fruit	20-22

Production practices: Based on visit at Srimangal and Komalganj Upazilas under Moulvibazar district.

Climate: Plants grow under both the sun and partial shade conditions. Hot, humid and high rainfalls are favorable for more pungency. Plants are day neutral in respect of flowering.

Soil: Soil rich in organic matter is preferred. High land with well drainage system is suitable for its cultivation

Planting time: Mid September-mid October and Mid January-mid February

Planting system: Transplanting seedlings (30-35 days old) maintaining spacing of 105cm (Row) × 90cm (Plant) as sole crop and 120cm × 120cm as intercrop with lemon in raised (25-30 cm) bed

Cropping system: Sole cropping and intercropping are practiced. Naga marich is grown as intercrop with lemon, yard long bean, bitter gourd etc.

Cropping pattern: Chili- Potato / winter vegetable, Chili + Yard long bean / Bitter gourd or any other creeping vegetable

Manure and fertilizer: Doses vary from farmer to farmer due to non availability of their recommendation. Application of manure and fertilizer (33 decimal) is mentioned for sole crop and intercrop (information from Sub Asst. Agriculture Officer and a farmer respectively).

Entire amount of TSP, Gypsum, 50% cow dung and 50% MP should be thoroughly mixed with during land preparation for sole chili cropping. Remaining cow dung is applied in the pits made for transplanting seedlings. First side dressing urea will be after two weeks of seedling transplanting while second and third installments should be at four weeks interval. Fifty percent MP are to be given to plants during first side dressing urea.

Intercultural operations: Weeding, mulching, irrigation, draining water and propping are done as and when necessary. Land should be well drained to avoid water logging.

Pest management: Termite, caterpillar, aphids, white flies, fruit borer, mite, cercospora leaf spot, anthracnose, bacterial wilt, nematode wilt are the major pests of this chili. Farmers are not well aware of their control measures.

Flowering and fruiting : Plants start flowering after 45-50 days of transplanting and then fruits are set on self pollination and some times cross pollination. At least three times flowering and fruiting occur in a year.

Harvesting: After 40-45 days of flowering, first harvesting of mature fruit begins. The light green fruit turns into deep green on maturity. Ripe chili is red/ deep orange.

Yield: 300-400 fruits/plant and their wt. may be 1.2-1.6 kg

Marketing: Price Tk.150-200 per 100 chili, during off season, and Tk. 40-50 during peak season (April to June). Farmers directly sell chili to the trader at production site and sometimes sell their produce to the whole sale market. It was found at Nutan bazaar, Srimangal that some paikers buy chili from whole sale market and then send those to traders/ exporters in Sylhet who eventually export straight way to London after grading according to size and maturity. Sometimes they send those to Dhaka trader for export and local market.

*Dr. S. M. Monowar Hossain,
MD, Hortex Foundation*

HORTEX NEWS IN BRIEF

New Chairman of Hortex Foundation

Mr. C.Q.K. Mustaq Ahmed is the new Chairman, Horticulture Export Development Foundation (Hortex Foundation) since June 09, 2009 on being elected unanimously.



Chairman, Hortex Foundation.

He is a senior Government official of BCS (Administration) Cadre, presently working as the Secretary, Ministry of Agriculture. Prior to this, he was Secretary, Bridges Division, Ministry of Communication and Secretary, Ministry of Liberation War Affairs. He also held the position of Additional Secretary in the Ministries of Health and Agriculture.

He also worked as Deputy Commissioner, Narayanganj, Joint Secretary, External Resource Division (ERD) and Director General, NGO Affairs Bureau. He had the diplomatic assignment in the Bangladesh High Commission in London, UK for more than three years. He received M.A. in Economics with Honors from Dhaka University and professional training at home and abroad. He visited a good number of countries as a Govt. delegate and participated in many conferences/seminars abroad.

Governing Body Meetings



73rd Governing Body meeting

During the period under review, three Governing Body Meetings viz. 71st, 72nd and 73rd were held on May 27, June 9 and June 29, 2009 respectively.

In those meetings, among others, some management level decisions were taken including election of Mr. C. Q. K. Mustaq Ahmed, Secretary, Ministry of Agriculture, as the Chairman of Hortex Foundation, extension of services of all Hortex personnel for three years, apart from approval of one year budget including work plan for FY 2009-2010 and the Annual Report of Hortex Foundation for 2007-08.

Cool Chain Support

Hortex Foundation provided 61 round trips of cool chain transportation supports to 20 organizations to caring their fresh and frozen products for home and abroad.

The organizations are: Momota General Stores, Associate Capsules Pvt. Ltd., Pharma Trade., Homebond Packers and Shippers Ltd., Trade Clippers Cargo Ltd., J. B. Trading Company, Dawn International, Golden Harvest Agro Industries, Trade Abroad, Transcom Food Ltd., Seven Ocean Sea Food, Nation Wide Frozen Food Co Ltd, Agah International, AG Enterprises, Padma Trading, Marine Gold, Dhaka Regency Hotel, AH International, Badal & Co and Panin Sula Sea Food Ltd.

Seminars/Training Participation

During the period Hortex officials attended number of seminars, workshops, trainings and discussion meetings on various issues of agriculture and export related affairs. Some of them are as follows:

- Inter-Ministry discussion meeting on Export Rules & Policy for 2009-2012, in Ministry of Commerce on May 06, 2009.
- Seminar on Sustainable Rural Livelihoods for Resource Poor Farmers: Recent Innovation in Rural Institutions, at SAARC Agric Center, BARC, on May 07, 2009.
- Trainer-cum-Counselor training programme on Basic course on Packaging for the officials of Bangladesh organized by ITC, Geneva under the EC funded Bangladesh Quality Support Programme BGD-75-21A at the Indian Institute of Packaging (IIP), Salt Lake, Kolkata from 17 to 23 May, 2009.
- 5-days long training course on Intellectual Property Rights (IPR) and Patent system in BCDM, Razendrapur, Gazipur, from May 28 to June 01, 2009, organized by BARC and FAO.
- Workshop on Crop Diversification in Northwest Bangladesh: NCDP Experience on the way Forward at BARC on June 10, 2009

- Seminar on Contribution of fruit trees in establishing one home - one farm for food safety and nutrition at BCFC, on June 16, 2009.

Production and Marketing Advisory Services

During this period April to June 2009 advisory services were provided to 43 entrepreneurs, producers, NGOs, researchers, university students, govt. organizations on various aspects of production, post-harvest technology, processing, cool-chain transportation and marketing of horticulture crops at home and abroad. The notable among the recipients of such services are: Rajbari Rural Development Foundation, Khwaja Agri-Horticultural Research Center, Agriculture Marketing Department of Sher-e-Bangla Agricultural University; Asian Business Corporation, Jutevilla Ltd., Shajia Agro Complex, Alpha Agro Ltd., Prompt Services, Rural Women Farmers Poverty Reduction and Self-sufficiency Organization, Al-Amin Traders, Unnayan Onneshan ó The Foundation, Sherpur palli Bidyut Samity, HMA mushrooms Ltd, Arafat Trade Syndicate, Ahsanullah Technical University and Dhaka University (IBA).

Success story of a fruit farmer

A small house surrounded by fruit plants of different species and varieties belongs to Mr. Imamuddin Sarker at village Chaitannya under Shibpur upazila of Narshingdi. He has established an orchard in about 4.5 acres covering homestead as well as adjacent parcel of land.



(Md. Imamuddin Sarker)

He does not grow any other field crops except fruit plants which include zara lemon, jackfruit, lotkon, annola, Indian olive, palmyra palm, guava among others. His linkage with the exporters and opportunity for more earning than any other field crops are the driving forces for motivation to plant fruit species.

He initially planted zara lemon collecting saplings from Sylhet in 2002 and then other fruit saplings locally under his own initiative. Meanwhile, he became a successful fruit producer cum supplier for export market. According to him about 400 farm families are involved in fruit production at Shibpur for both domestic and export markets. He works as a resource person to advise other

farmers based on his experience and technical guidance from Hortex and other organizations. Mr. Sarker seems to be a happy man maintaining a better livelihood of the family members consisting of four sons, two daughters and wife. He is ready to welcome any visitor to his orchard with a big smile and warm hospitality.

Air Freight of Fresh Produce to Various Destinations

Major destination wise air cargo freight for the perishables by Biman Bangladesh Airlines in the form of SIP rates are given below:

Destination	Current SIP* for perishables
	Air Freight Tk/kg
Jeddah/Riyadh	89.60
Kuwait	87.50
Dubai	76.40
London/Paris	125.00
Singapore	77.80
Kuala Lumpur	45.20

Source: Biman Bangladesh Airlines, Cargo Department, July 13, 2009

* SIP : Special Inducement Price

** Air Freight

In addition to the base rate mentioned above, total freight includes Terminal Handling Charge, Scanning Charge and Fuel Surcharge on per kg and Airway Bill charge on per consignment basis.

The rate is applicable for 500 kg or above for Jeddah / Riyadh, Dubai and 250 kg or above for Kuwait, Singapore, Kuala Lumpur, London and Paris. If the cargo weight is less than the above, rate will be higher.

D-Net Workshop

A day long workshop on the Role of Tele-centers in Agribusiness Development in Bangladesh held at Hortex conference room on June 24, 2009.

Managing Director, Hortex Foundation, being the Chair of the session welcomed all participants and appreciated the workshop organizers.

Dr. Ananya Raihan, Executive Director, D-Net, during his presentation briefed on their network and activities, as to how they help farmers/producers with essential information on agricultural production, harvest management, post-harvest handling and marketing. He urged all agricultural organizations including Hortex Foundation to work together for betterment of the farmers. Another resource speaker, Sk. Masudur Rahman, Sr. Program Officer, D-Net, briefed on the works of Tele-centers through a nice power point presentation including

the activities of their workers in rural areas. During presentation it was informed that they already established 140 such Tele-centers all over the Bangladesh to develop farmers awareness for sustainable livelihoods.

All staffs of Hortex Foundation and NATP were present in the workshop.

Wholesale Market Price of Selected Fresh Produce in Selected UK markets

All prices quoted relate to stated pack weight and reflect the range of prices for class one produce prevailing on the day of collection as quoted by the selected market sources. All prices listed in pence.

Produce	Origin, Pack	Market	Median Price, GB (Range) Pence / pack
Mangoes	Brazil, 4 kg	Western Intø	600
Mangoes	Brazil, 4 kg	Liverpool	390
Mangoes	Mexico, 4 kg	Birmingham	400
Mangoes	Pakistan, Carton	Glasgow	425
Grapefruit (Red)	Argentina, 15 kg	New Covent Garden	750
Grapefruit (Rose)	South Africa, 15 kg	New Covent Garden	1050
Strawberries	Belgium, 500gm	New Covent Garden	165 (30)
Strawberries	UK, 500gm	Glasgow	120 (40)
Strawberries	UK, 500gm	Liverpool	90 (20)
Strawberries	USA, 500gm	New Covent Garden	150
Strawberries	USA, 500gm	New Spitalfields	120
Papaya	Malaysia, 5kg	Birmingham	700
Papaya	Cote d'ivoire, 4kg	Liverpool	1000
Pineapples	Costa Rica, 6, each	New Spitalfields	130
Pineapples	Costa Rica, 8, Carton	Bristol	700
Pineapples	Costa Rica, each	Belfast	90
Beans (Fine)	Kenya, 2 kg	Glasgow	510
Beans (Fine)	Kenya, 2 kg	Birmingham	500
Capsicum, Green	The Netherlands, 5kg	Glasgow	525
Capsicum, Green	UK, 5kg	New Covent Garden	500
Chillies, green	Gambia, 1.8 kg	Liverpool	625 (50)

Produce	Origin, Pack	Market	Median Price, GB (Range) Pence / pack
Chillies, Green	Kenya, 2 kg	Glasgow	765 (30)
Chillies, Green	The Netherlands, 3kg	Western Intd	750
Chillies, red	Egypt, 1.8 kg	Liverpool	900
Chillies, red	The Netherlands, 3kg	New Covent Garden	550
Chillies, red	The Netherlands, 3kg	Birmingham	1000
Ginger	Thailand, 13.5kg	Liverpool	1460
Ginger	China, 13.5 kg	Liverpool	1050
Mushrooms	Ireland, 2.73kg	Liverpool	400 (100)
Mushrooms	Belgium, 3 kg	Glasgow	575 (50)
Onion	Chile, 20 kg	Belfast	1000
Garlic	China, 10 kg	Liverpool	825
Okra	Kenya, 2 kg	Western Intd	850
Okra	Thailand, 2kg	Liverpool	800

Source: *Fresh Produce Journal UK*, June 26, 2009

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For further details please contact:

(02) 9141331, 8123433

Admin Department, Hortex Foundation

EU Market Information

Importers of Fresh Produce in **Brussels, Belgium**

Name and Contact details of the Importers
AIDA Tel: 242 64 25, Fax: 245 62 31 E-mail: jngoemaere@vandamme.be , www.aida-orange.be
AMOROSO Tel: 242 54 17, Fax: 215 88 59 E-mail: amoroso@amoroso.be , www.amorose.be
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