Postharvest Management and Marketing in Organic Farms

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Product Handling

- Conduct early morning harvest
- Minimize damage at harvest
- Protect from sun exposure

Harvest - careful handling to minimize mechanical damage, In some crops a natural break point exists at junction of Stem and stalk when produce is mature

Once Harvested a Vegetable is still Alive, and continues to use its stored Energy Reserves

Environmental Factors

- Water (Relative Humidity)
- Temperature
- Oxygen

Removing ‘field-heat’ soon after harvest to maintain quality
A small tub of cold water may be useful for leafy crops
Crops with a high respiration rate must be cooled to an optimal storage temperature to slow metabolism and extend storage life.

Factors that reduce quality
- Harvest at incorrect maturity
- Careless Handling
- Lack of Sanitation
- Delays in pre-cooling

Product Quality
- Appearance
- Texture
- Flavor
- Nutritive value
- Safety

Product Handling
Any Practice that Reduces the number of times the product is handled will help reduce losses.

Shipping containers
- Provide protection and ventilation during shipment

Field packing with a small cart
With single wheel in front to push along the row
Factors that maintain quality

- Minimize mechanical injury
- Proper temperature
- Proper Relative Humidity
- Sanitation

Timeliness essential to maintain product quality

- timely harvest
- transport to packing-shed
- packing and precooling
- transport to buyer

Pre-cooling

- The rapid removal of field heat to temperatures approaching optimal storage temperature

Vacuum cooling for leafy crops, Oahu

Vacuum-cooling

- Product is wetted and placed in air-tight vacuum chamber
- leafy crops

Cooling produce with hydrocooler (flushed ice)
Hydrocooling

- Vegetables cooled with ice water by immersion or overhead drench
- sweet corn, beans, cucumber, roots

Mechanical Injury

- Leading cause of quality loss at wholesale and retail level

Mechanical Injury

- Bruises
- Cuts
- Punctures
- Abrasions

Packing shed coop Nicaragua: Quality and consistency

Packing line, cooperative, Nicaragua
Storage room in Packing House, Nicaragua

Factors that reduce quality

- Shipping or storage above or below optimal temperature
- Lack of proper moisture
- Exposure to ethylene gas

Storage temperatures

- Chilling sensitive (above 50 F)
- Temperate crops (above 32F)

Washing Tank, Stainless Steel

Packing House Layout
Dumping and grading with dry or water-assisted methods

Small Scale field packing Station
Structure oriented to minimize sun exposure
Curing or yams and tropical root crops require high temperatures and high RH. Cover for about 4 days.
Sanitation of Storage structures

Marketing Strategies for Small Marketers
Targeting Retail Opportunities

• Specialty/Niche Marketing
• High Quality
• Value-added Products
• Agri-Tourism
• More Services
• Owner’s Identity
• Collaboration, Joint Ventures, Alliances

Give the Customer a Reason to Do Business with You

Don’t Just Satisfy the Customer; “Delight” the Customer

Exceed the Expectations

Strategies to deal with risk

• Develop a business plan
• Form or join a marketing cooperative
• Direct marketing
• Diversification
• Off-farm employment
• USDA FSA emergency assistance
• Follow “good ag practices”

Food Stands: add color and variety to attract customers
Labels and Brands may be key to your marketing program