

Good Agricultural and Handling Workshops

The Importance of Farm Food Safety in the Regional Food Chain

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What Are Good Agricultural and Handling Practices?

- Good Agricultural Practices (GAPs) and Good Handling Practices (GHPs) are recommendations to minimize the risk of food contamination at the farm level.
- Contaminations of food by microbial pathogens or “biohazards” cause over 76 million cases of food poisoning annually according to the CDC.
- GAPs and GHPs are based on FDA guidelines and cover a wide range of products.

What Are Good Agricultural and Handling Practices?

- GAPs and GHPS are really two sides of the same coin; with GAPs more focused on field production/harvest and GHPs more focused on post-harvest handling and processing.
- They are very common-sense approaches to reducing contamination risks.
- Understanding and implementing both are necessary for any farm operation.

What Are Good Agricultural and Handling Practices?

- Having a farm plan and keeping good records are the two most important elements of managing GAP & GHP.
- Successful family farm operations are already using most of the GAP & GHP recommendations.
- This workshop will outline the recommendations and give you tools to begin documenting GAP & GHP on your farm.

What If My Farm is Already Using Michigan GAAMPS?

- GAAMPS or Generally Accepted Agricultural Management Practices are authorized under Michigan's Right to Farm Act to protect farmers from nuisance lawsuits
- Like GAP & GHP, following GAAMPS is voluntary
- GAAMPS currently cover (7) farm operation areas and there is some overlap with GAP/GHP guidelines
- GAP/GHP certification is national in scope, is administered by USDA and has a separate audit & certification system
- Go to www.michigan.gov/mda to learn more about GAAMPS

What Are Good Agricultural Practices?

- GAPs focus on four key areas of farm production to reduce contamination risks:
 - 1) Soil
 - 2) Water
 - 3) Handling
 - 4) Surfaces

Source: Iowa State Extension Publications

What Are Good Agricultural Practices?

- Soil contamination prevention considers the use of raw manures, composted manures and treated municipal “biosolids” as fertilizers
- Reducing contamination risks are achieved through application timing, having adequate time between application and harvest and proper storage of manures
- Documenting what gets done and when you do it are important steps in completing your farm food safety plan

What Are Good Agricultural Practices?

- Water contamination prevention considers the use of irrigation water, its sources and application methods in crop production
- Reducing contamination risks are achieved through water quality testing, adequate sewage treatment and the separation of crop and livestock operations on the farm
- Documenting test results and logging routine checks of septic or ponds are important steps in completing your farm food safety plan

What Are Good Agricultural Practices?

- Handling or “hand” contamination prevention considers the use and availability of equipment for personal hygiene by workers that come in contact with food crops
- Reducing contamination risks are achieved through having portable toilets, potable water for hand washing and training for workers.
- Documenting maintenance of toilets and training session attendance are important steps in completing your farm food safety plan.

What Are Good Agricultural Practices?

- Surface contamination prevention considers what food crops come in contact with during the harvesting process.
- Making sure that equipment, knives, temporary storage bins and other harvesting implements are cleaned after use can reduce the risks of food crop contamination.
- Documenting a regular sanitation program is a key to completing a food safety plan for your farm.

What Are Good Handling Practices?

- GHPs focus on three key areas of post-harvest, on-farm handling to reduce food contamination risks:
 - 1) Packing
 - 2) Storage and Transportation
 - 3) Trace-Back

What Are Good Handling Practices?

- Packing contamination prevention considers conditions during receiving, washing and cooling food crops at the farm level
- Reducing contamination risks are achieved through the quality of water used for washing and ice baths, general sanitation conditions and food grade materials in the process
- Documenting water quality testing and maintenance schedules are important steps in completing your farm food safety plan

What Are Good Handling Practices?

- Storage and transportation contamination prevention considers practices, materials and facilities used at the farm level
- Reducing contamination risks are achieved through securing boxes and containers, monitoring temperature controls and ridding facilities of pests and rodents.
- Documenting building and equipment maintenance schedules are important steps in completing your farm food safety plan

What Are Good Handling Practices?

- Trace-back allows the farm source of fresh foods to be identified in case there is contamination confirmed or suspected at the farm level
- Knowing information such as farm location, packing & harvesting dates and even the field location can help *pinpoint and eliminate* the sources of food contamination.
- Documenting the sources of all the food you produce and doing periodic mock-recalls are important steps in completing your farm food safety plan

Why Implement Good Agricultural and Handling Practices on Your Farm?

- Contaminations of food by microbial pathogens or “biohazards” cause over 76 million cases of food poisoning annually according to the CDC.
- Very few, if any outbreaks, have ever been traced back to crops grown on small-scale farms or to food produced and distributed within a single region.

Why Implement Good Agricultural and Handling Practices on Your Farm?

- Eventually, the scale and location of operations may be shown scientifically to be a factor in food contamination. Such a finding would be a significant advantage for those farms.
- In the meantime, the growing interest among consumers to purchase more fresh, regionally grown foods through other than direct market channels.....

Why Implement Good Agricultural and Handling Practices on Your Farm?

- ...leads grocery, food service and restaurants that want to buy more regionally grown foods to need some level of assurance that the food is safe.
- Going through a self-audit, third-party certification and/or creating a farm food safety plan may be required to do business with these buyers.

What Exactly is a Farm Food Safety Plan?

- A “roadmap” for actively reducing food safety risks on your farm.
- The plan describes procedures for all aspects of production and handling including:
 - manure storage
 - worker and equipment sanitation
 - irrigation and water quality
 - employee training
 - crisis management

How Do I Develop a Farm Food Safety Plan?

1. List steps from planting preparation through post-harvest handling
2. Identify steps where crop contamination is a risk
3. Identify how you can measure or monitor the risk
4. Consider changes that would reduce the risk
5. Document how the changes were made and how the risks will be measured or monitored.

Example – Cooling Room Temperatures and Bacteria Growth.

Why Bother with Fresh Produce Markets and a Food Safety Plan?

- According to USDA figures, fresh produce consumption is increasing:
 - 13lb rise in per capita vegetable demand
 - 50lb rise in per capita fruit demand
- Yet imports are taking a large share of this new demand; 50% in fruit and 25% in vegetables.

Why Bother with Fresh Produce Markets?

- Demand for local and regional foods is increasing:
 - estimated at \$5.0 billion and increasing at least 10% annually.
 - consumers want more information about their food; who grew it, how and where it comes from?
 - retailers and food service are looking to “green” their operations. This includes buying more local food.
 - local production can provide a higher level of food security for consumers and retailers.

Why Bother with Fresh Produce Markets?

- Moving “up” the supply chain can mean higher prices, new market opportunities and increased margins...
- But you have to add “value” in the form of handling, cooling, storing and shipping that meets the needs of fresh produce markets.

The Keys to Success

The Wholesale Markets Manual

1. Knowing Your Costs
2. Relationship Building & Communication
3. Crop Planning & Pricing
4. Food Safety & Handling
5. Creating a Brand
6. Protecting the Cold Chain
7. Producing What You Grow Well

What's My Role in the “Cold Chain”?

- The cold chain starts the minute produce is harvested. See pages 167 & 168 of the *Wholesale Success* manual for ideas on building a portacooler.
- The growers role in cleaning, cooling and temporarily storing produce at the correct temperature and humidity is what makes the fresh produce industry possible.
- Even though the majority of produce is shipped by commercial carrier, the grower needs to take responsibility for proper transportation.
- A visit to your buyers loading dock will give you much needed insight into how your produce will be handled at destination.
- See page 40 of the *Wholesale Success* manual for key points along the cold chain that you need to manage.

What Else Do I Need to Know About Handling and Cooling Produce?

- Consider ethylene producing sources when deciding which produce to store and transport together.
- Check the temperatures of vans and truck boxes before loading.
- Consider how many different temperature and humidity zones will be needed for temporary storage.
- Trained employees and proper equipment are the keys to sorting produce effectively and efficiently.
- Produce boxes that carry your “brand” are an important way to communicate with consumers.

How Do I Implement Good Quality Control?

- The “Wholesale Success” manual includes crop profiles that provide information on handling and USDA references for key Michigan crops.
- Follow these guidelines *and* know what your buyers expect in terms of appearance, size and weight.
- Communicate frequently during the season with your buyer. Have a “no surprises” attitude.
- Use training and frequent inspections within your operations to ensure quality.

What Else Should I Know About Selling Fresh Produce?

- The Perishable Agricultural Commodities Act (PACA) governs the trade of fresh and frozen produce.
- PACA is particularly important for growers in settling payment, grade and delivery disputes.
- Growers should make sure that their buyers are PACA licensed.
- More information on PACA and the list of licensed traders can be found at www.ams.gov/fv/paca.

Are Fresh Produce Market Opportunities Here To Stay??.....



IT'S
A SAD
BUT
CLASSIC
CASE

A LONGTIME ADDICT

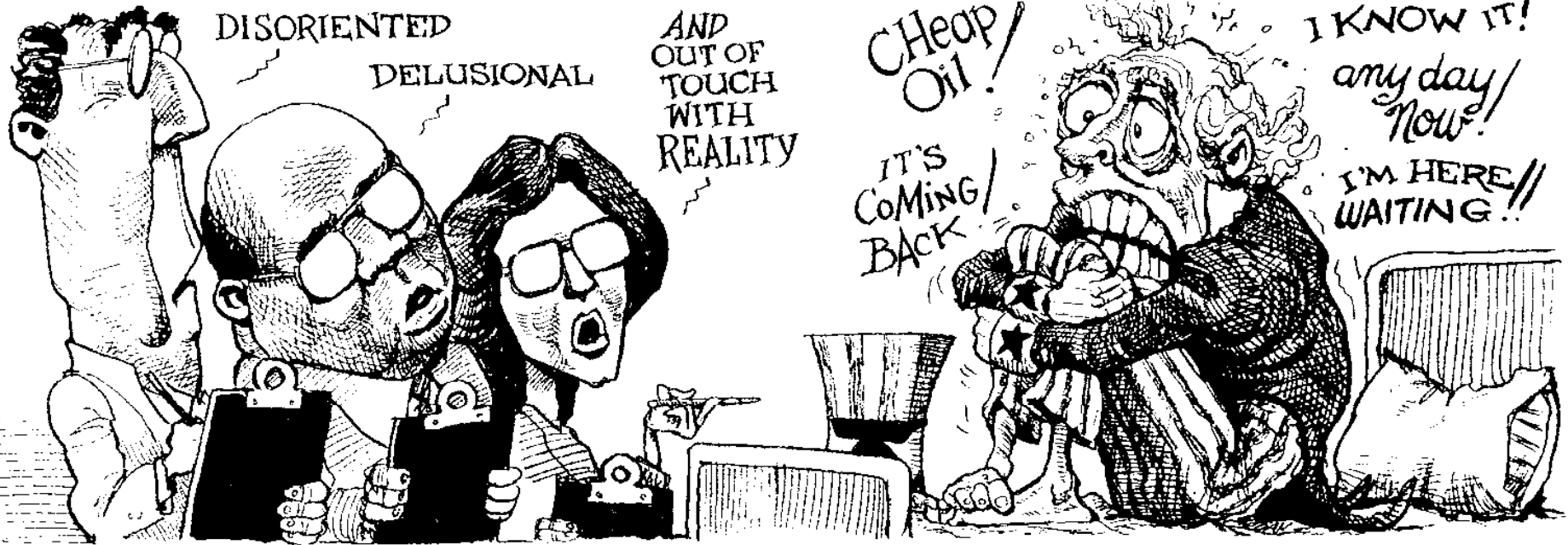
SUFFERING
WITHDRAWAL
SYMPTOMS

DISORIENTED
DELUSIONAL

AND
OUT OF
TOUCH
WITH
REALITY

CHEAP
Oil!
IT'S
COMING/
BACK

I KNOW IT!
any day/
Now!
I'M HERE//
WAITING..



Questions and Comments?

Final Thought.....

“Postharvest handling is the ultimate stage in the process of producing quality fresh fruits and vegetables; getting these unique packages of water (fresh commodities) to the supper table...”

Final Thought.....

Production costs, plus postharvest handling, packaging, cooling, transportation, and marketing costs are the same whether the fruits, vegetables, and flowers that leave the farm are sold and/or consumed or not....

Final Thought.....

Considering such investments, growers should do everything they possibly can to assure the quality maintenance of their commodities; and the satisfaction of those who purchase them. Remember, *marketing is extremely competitive.*”

L.G. Wallace – NC Cooperative Extension Service