

# WATERMELON GOOD AGRICULTURAL PRACTICES & GOOD HANDLING PRACTICES

**Frequently Asked Questions & Answers**  
**Read the document carefully - These limited Questions and Answers are not meant to cover all areas; merely to address questions that have arisen**

## **What does food safety mean to you?**

Food safety is important for everyone. You should become very familiar with all the steps that should be taken to enhance food safety and minimize contamination in your operation.

You should obtain a copy of the Watermelon Good Agricultural Practices (GAP) for field and greenhouse production if you are a grower and follow the recommendations and requirements as closely as possible. The National Watermelon Association can assist in this regard.

If you are a packer or involved in any post-harvest operations, you should obtain a copy of the Watermelon Good Handling Practices (GHP) and follow the recommendations and requirements as closely as possible.

## **Where can I get a copy of the Watermelon GAP or GHP?**

The National Watermelon Association is diligently working to finalize the development of a GAP and GHP program that is specific to the watermelon industry. The programs will be posted on the NWA's web site, [www.nationalwatermelonassociation.com](http://www.nationalwatermelonassociation.com) later this summer, for downloading and utilization in your operations. You will also be able to contact the NWA at 813-754-7575 with any questions that you may have.

Included in the GAP and GHP program will be a number of supportive tools that can provide you with guidance on your farm or in your packing facility:

- Watermelon specific farm self-audit
- Watermelon specific packing self-audit
- Worker training methods and documentation procedures
- Traceability options for each individual watermelon
- Other supporting materials as developed and appropriate

### **What are the current penalties for not complying with GAP and GHP?**

There are no current fines or penalties in place for non-compliance. This is a voluntary program that the NWA is recommending to the entire industry. However, there is a substantial penalty for non-compliance at the moment. The potential for a major food borne disease outbreak would have dramatic costs in human health, and economic losses for your business and the “entire” industry. Protecting your business will protect the industry; not doing so puts everyone at risk.

### **What other documents would help me to better understand the food safety risks and needed good practices for fresh produce?**

The U.S. Food and Drug Administration (FDA) has reports on the current food borne outbreaks at [www.fda.gov](http://www.fda.gov). The National Watermelon Association will forward pertinent news releases to you on a frequent basis and will point out lessons learned from these situations. All that the NWA needs is your name and email address, and you can be updated on a regular basis. Some key documents that you can review currently are:

Guide to Minimize Food Safety Hazards for Fresh Fruits & Vegetables  
FDA/USDA/CDC, <http://www.cfsan.fda.gov/~mow/arprodgu.html>

FDA’s Produce Safety Action Plan, <http://www.cfsan.fda.gov/~dms/prodpla2.html>

Safe Handling of Fresh Produce and Fresh –Squeezed Fruit and Vegetable Juices  
(Consumer Piece), <http://www.cfsan.fda.gov/~dms/prodsafe.html>

Partnership for Food Safety Education, <http://www.fightbac.org/content/view/6/11/>

Cornell University’s National GAPs program training & documentation materials,  
<http://www.gaps.cornell.edu/>

Commodity Specific Food Safety Guidelines for the Melon Supply Chain,  
[www.nationalwatermelonassociation.com](http://www.nationalwatermelonassociation.com)

### **When will everything in this document be required?**

We are all working together to find the best way to implement these practices that will give us the maximum benefits to food safety in a common sense manner. We will continue to work with the industry as a whole, with individual producers, packers and all segments across the U.S. and our neighboring country suppliers as well.

We are anticipating that some type of federal mandates will be forthcoming to cover all produce in food safety programs in the near future. It will therefore be highly recommended that the watermelon industry embrace and implement these food safety practices prior to federal mandates becoming law.

**What can I do to minimize contamination on the farm or in the packing shed?**

Any surface or equipment that touches fresh produce is a food contact surface and must be cleaned and sanitized as such. Establish routine cleaning and sanitizing procedures and document these standard operating procedures in writing. Maintain all equipment and surfaces in such a way as to minimize contamination of and injury to watermelons.

**What about pets or other domestic animals?**

No domestic animals or other animals should be permitted in areas where watermelons are grown, packed or handled.

**Since I'm not a major grower or packer, aren't I exempt from these requirements?**

No, food safety is everyone's responsibility. If you farm and sell to the consumer or to another party for resale, the watermelons should meet all the safety provisions. It is our hope that everyone will want to enhance the food safety of their watermelons to the maximum degree possible.

**How does this affect my current dealings with third party auditors?**

First, the third party that is auditing you currently is probably the same company required by your customers to assure compliance with good practices. The GAP and GHP programs for our watermelon industry will not affect this relationship or your use of any third party firm.

The FDA is in the process of writing a federal rule through the Federal Register (which will be open for public comment) that discusses the certification of third party auditors and firms. The rule will address the need for common practices of auditing that match the needs of industry and consumers in the areas of produce food safety.

**What if a third party audit does not require an item in the watermelon GAP or GHP?**

We are hearing from companies all over the country that some harmonization or consistency is needed in third party evaluations. This can be a long-range goal but cannot be achieved in a short time frame.

If your third party auditor does not require an item in the GAP or GHP watermelon program, you may still want to meet the recommendation in that section. For instance, some third party audits do not require you to look at irrigation waters yet current events with food borne disease outbreaks show how critical this requirement is to the overall safety of your product.

**With all this focus on food safety, does that mean that a Marketing Agreement or Marketing Order could be in the industry's future?**

We are hopeful that every farmer, packer, shipper and seller of watermelons will implement the food safety practices prescribed in GAP and GHP to not only protect their own business but also protect the entire industry.

Both marketing agreements and orders are voted on by the industry, when they are needed, to enforce an action that is typically in the best interests of that industry. The difference between the two is that an agreement is 'voluntary', and an order is "mandatory".

The use of marketing agreements and orders have been used in dire circumstances by a few produce crop industries to respond to declining consumer confidence as a result of significant food safety issues within their crop industries (i.e. spinach, tomatoes). With your help, we will not have to consider either of these courses of action, as we wait for federal laws to support the premises of GAP and GHP.

**I've seen other Good Agricultural Practices documents in the past. Are any of these valuable to help me?**

Yes, many of these documents will help you see the reasoning behind the requirements and may help you comply. Many of these documents are available in numerous web sites from government to universities, and will be available on the NWA web site, [www.nationalwatermelonassociation](http://www.nationalwatermelonassociation), later this summer.

**What frequency should I follow to educate or train my workers at all levels?**

To ensure that safety practices will be enhanced, basic food safety knowledge at all levels should be required by your operation. Annual education is recommended throughout the watermelon industry to provide the knowledge of food safety practices for all in the industry. Certification of course completion should be documented and watermelon growers and packing houses should maintain training records for a period of three years.

In particular, workers on the farm and in packing facilities should be trained annually on proper hygiene practices and product handling procedures that will minimize any potential contamination. Assuming that they know the basics of business is not an excuse that should be accepted by the business owner.

**Should I do anything different that I am currently doing in the field or in the packing shed with worker hygiene?**

Sanitation facilities should be provided for all field workers during planting, harvest or other field activities in accordance with OSHA (29 CFR 1928.110), FDA Title 21 CFR 110.

Workers who report or are observed to have diarrhea or symptoms of illness that could impact food safety should be reassigned to activities that do not involve food contact. Training and education with respect to safety, hygiene and sanitation practices is recommended. And most importantly, document and monitor worker hygiene and sanitation practices to improve practices through training and education.

**I do not hire or directly employ the workers in the field or in the packing shed. That is handled by a contractor. What is my responsibility for them?**

Growers and Packers should ensure that harvest contractors, crews and packing facility workers are aware of food safety risks and provide or require annual training that is documented and maintained for a period of three years. Anyone that handles your crop is a risk that must be trained to minimize issues from arising. Hygiene practices and proper product handling is everyone's job.

**What records do I need, and how long should I keep them?**

All record keeping should be maintained for 3 calendar years unless a longer period is required by state or federal law, and they should be producible in a reasonable amount of time upon request. Records should be maintained for product packed/shipped/handled, product transported or stored, testing or monitoring records for water usage, any microbial testing for product/equipment, daily logs of sanitation procedures, monitoring records for hand washing facilities/toilets, and other records relating to other state or federal laws that may also apply.

Remember this rule ..... *"If it is not documented, then it never happened"*.

## Questions on Field Production

### **How can I be responsible for anything to do with the environment when I am growing in an open field exposed to all the elements?**

The environment you use to grow your watermelons is a critical item for the safety of your product. The recent events with illnesses and deaths from fresh spinach in one packing plant from certain fields in California illustrate the critical need to ensure you know your environment.

Any animal operation adjacent to your watermelon field is a potential for danger.

The exact strain of E. coli O157:H7 in the California spinach was found in cattle and wild hog feces in a field adjacent to the spinach field. The October 2006 lettuce recall was due to finding E. coli O157:H7 in irrigation waters.

Animal and human feces are the source of Salmonella, E. coli and other pathogens on produce crops. Animal control is critical. Don't have any animal operations next to watermelon fields. Don't allow run-off of water from any adjacent land with animals onto your watermelon fields. Don't have dogs, cats, pets, etc. in watermelon fields. Yes, you are in an open environment but control animal entry to the degree possible. If you go in a watermelon field and see an increased population of toads, frogs, lizards, etc, this is a high potential for contamination. For any new watermelon fields, know the previous land usage. If animals have been grazing on this land or manures spread on this land, check with your local scientists on management. A minimum of 120 days is required for tilling in manures and that length of time may not be adequate. Some papers indicate salmonella survival in soil for 6 months. Remove any piles of debris that can harbor rodents, animals, be an attractant, etc.

Set up an environmental evaluation record for the land on which you are growing. Record your water source for each crop, what you find on animal species, what controls you are putting in place, what is the use of the adjacent lands, etc. Keep this as a written record.

### **If I am field packing then I don't have to apply any of the recommendations now?**

No, you should carefully read and apply all of the recommendations to the degree possible. For instance, your liability and chance of causing food borne illness is greatly increased if you harvest from any field adjacent to an animal operation such as pasture with cattle, dairy, etc. You are responsible for knowing the conditions in the field where you are harvesting. You are also responsible for ensuring that all sanitary provisions on facilities, hand washing, cleanliness of harvesting containers, etc. are followed. Although you may not be the grower, you are responsible for ensuring that the actual grower has records of analysis for the irrigation waters and has used properly registered pesticides, etc. Read the document carefully and question the growers in whose fields you are packing the watermelons.

**Am I required to use properly sanitized harvesting containers if I'm field packing?**

Yes, everyone should use properly sanitized harvesting containers. Any surfaces or equipment that touches fresh produce is a food contact surface and should be cleaned and sanitized. You should establish routine cleaning and sanitizing procedures and maintain these standard operating procedures in writing. You should maintain all equipment and surfaces in such a way as to minimize contamination of and injury to watermelons. You need to remove debris from the fields and prevent injury to watermelons you are harvesting in the field.

**What other procedures should I follow if I am field packing watermelons?**

Carefully review the sections in the GAP document about crews, harvesting, water and equipment. You should instruct your work crews on food safety practices. You should not use any surface water on the watermelons you are packing. Do not pack in used, dirty containers. Do not wipe the watermelons with a rag before packing. This merely spreads more bacteria on the surface and from watermelon to watermelon.

**How can I prove that I am making a good faith effort to comply?**

Record all that you are doing. Be certain to write down in a notebook, that you keep with you, all the procedures you are using. Write down when you have verified with the grower that he/she is following proper procedures on irrigation water, fertilizer and pesticide use, animal control, etc. Record all of your training efforts with your workers.

Remember this phrase ..... *"If it is not documented, then it never happened"*.

**What are important areas when we are harvesting?**

Everyone who touches a watermelon is a potential source of contamination. We all need to ensure that the crews harvesting watermelons are aware of food safety practices and their importance. Debris and culls must be removed to the degree possible. Injured watermelons are easily contaminated with pathogens if present and once internalized the pathogens cannot be readily killed.

All surfaces that watermelons touch are considered food contact surfaces and must be cleaned and sanitized as such. Ensure that you are using cleaned and sanitized harvesting containers.

**Why should I be concerned about the water I am using to irrigate?**

It is critical for you to analyze any waters used for irrigation for pathogens. The recent lettuce recall in California was because of finding E. coli O157:H7 in the irrigation water. Well water is less contaminated than surface waters. If you are using ground water (from wells) you may need to test less frequently than for surface water. Analyze your irrigation waters now and keep a record of the testing. If the testing shows any pathogens, immediately contact a scientist or laboratory who can help you with a water treatment procedure to eliminate the pathogens.

Try not to use surface water in overhead irrigation once plants are in blossom and fruit stage. Also, please do not use surface water to dilute any pesticide or chemicals applied to a crop. Several studies have shown direct contamination leading to illnesses. The reuse of waters can be a source of contamination and is a food safety risk. If you are

being pressured to reuse irrigation waters, analyze the reused water, and contact local officials for assistance in resolving any conflicts with the Water Management District. Water conservation measures cannot be in conflict with food safety requirements. Any reuse of water will probably require some type of treatment to eliminate pathogens.

The fresh fruits and vegetables in any flooded field are considered as adulterated by FDA due to the potential for contamination with food borne disease organisms.

### **What do I need to change on crop production practices under these new guidelines?**

You are currently required to follow the fertilizer laws and pesticide laws of your state. Any pesticide you are using has to be registered both by the EPA and your State and used only in accordance with the label. **You cannot use any surface water out of a pond or canal to dilute a pesticide or ag chemical applied to the crop.** Use only well water or potable water. **No fresh manure should be used on any fresh fruit or vegetable crop.**

Properly composted manures may be used but the exact conditions of composting must be known to ensure that all pathogens have been eliminated. Keep accurate up-to-date records of all fertilizers, pesticides and other chemicals applied to crops.

### **Where can I go for help?**

Everyone in the industry is working together to make certain we are enhancing the safety of our watermelons. We all should do all we can to prevent food borne illness, and we are doing this in a common sense way that we can accomplish. Give the National Watermelon Association a call and they can refer someone to you to help you with your food safety program. Contact your County Extension office for support.



## **Questions for Packinghouses and Post Harvest Handling**

### **I've run a good packing shed for years. What will be different with the GHP's?**

Basically, nothing should be different if you have been following good sanitary procedures and cleanliness for your packinghouse operation, equipment, watermelon handling, worker hygiene, etc. You should be very careful to have written documentation of all procedures, all monitoring of your water, all analytical testing of watermelons, sanitation of equipment, pest control, chemical usage, etc. Ensure you have adequate procedures for cleaning and sanitizing all areas including the packing lines, packing floor, storage rooms, etc.

### **I have never had a problem with my watermelons, because of the rind as the protection for the meat. Why should I worry about this?**

Watermelon is a fresh produce item that is grown outdoors in an unprotected environment, on the ground, and open to wild animals, birds and weather impacts. Pathogens can develop on the rind and will spread with ease to other watermelons during the harvest or packing. Unless your packing shed has a washing step in place, the rind can be a carrier of pathogens. That in itself creates a risk that we should address.

### **I do not wash my watermelons, but rather have my workers wipe them down with a cloth. Isn't that enough?**

No, actually wiping watermelons with a cloth can spread pathogens on the rind from one watermelon to many others. It is suggested that the wiping of dirt and other debris from watermelons be done with a paper towel, and not reused from one watermelon to another. That process will eliminate the potential spread of pathogens to multiple watermelons.

### **I ran out of new boxes last week during a run and was told that I could not reuse boxes that were previously packed. Why?**

Reused boxes can't be used for final packing of watermelons. If watermelons are shipped in bulk they can be packed in a properly sanitized plastic bin or new, unused corrugated bin. All watermelons should have positive lot identification so that you can trace back any watermelons that you have packed and shipped.

### **Is there anything in particular that I should watch out for when packing or repacking a load?**

Watermelons undergoing packing or repacking should not be commingled with watermelons from other producers. Tracing the watermelon from the consumer to the farm is a vital cog in the food safety equation. Commingling complicates that process, and can spread any contaminants to other watermelons.

**Do I have any responsibility for the trucks before they leave with my loads?**

You should inspect any transportation vehicle for cleanliness, dirt and debris before loading product and make sure the trailer or container is cleaned and sanitary before loading. Records documenting inspection of vehicles should be maintained.

If there is any doubt regarding previous loads transported in a vehicle, verify records of previous loads with the transportation firm to prevent contamination. To facilitate possible trace backs, ensure that the transporters maintain positive lot identification for all products as implemented by the watermelon industry.

**How can I be responsible for trace back? What's all the talk about transparency?**

If illness occurs or something goes wrong, we have to be able to quickly trace back to the origin of the problem. You may not be able to be responsible for the whole chain, but you certainly know the watermelons you packed, the growers of those watermelons, and your customers that received them. Being transparent just means being open about all of your records, your procedures, and how you run your business.

**Why is it important to be able to trace a watermelon from consumer to the farm?**

The spinach outbreak of September 2006 was devastating to an entire industry, with businesses closing their doors, and an industry that is still far from full recovery. That issue was eventually traced back to one small farm in California which also caused irreparable damage through lost sales of spinach and negative consumer confidence.

Traceability is vital and needed with every individual watermelon to be traced back to the point of production within a couple of hours, if not sooner. That process will allow our industry to seclude the issue to a farm, work with the government and media to investigate the crisis, and minimize the damage to the industry as much as possible. Therefore, it is vital that every packing operation installs a viable traceability program as soon as possible to provide product tracking which will help us with a crisis investigation in the best interests of the industry, and hopefully the supporting business' best interests.

**Why all this emphasis on record keeping? I'm doing the right things in my shed.**

Regrettably, without a written record you don't have any proof of what you are doing. It is just your word. If something goes wrong, a written record of your procedures and the recorded results of your monitoring is your best insurance.

Remember ..... *"If it is not documented, then it never happened".*

**After doing everything I can, what if something goes wrong? What do I do first?**

Our main goal is prevention; however, we must be prepared for crises before they occur. First of all have a written workable plan in place right now as to what you will do in time of a crisis involving your product due to a recall or other crisis. Decide who will communicate for your company in a crisis. Get a copy of the National Watermelon Promotions Board's Crisis Management program brochure, which will provide insights and tips in case an issue occurs. Make sure you have after hour telephone numbers to notify the NWPB and the NWA, the local county health department, the local state inspector, and other key officials. Rapid notification and rapid correction can help to limit illnesses and damages.

Second, the other key is cooperation. In case of a crisis, quickly and readily meet with any officials that will be working on an investigation and make all records available to them as rapidly as possible.

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**Again, food safety is everyone's responsibility. The entire watermelon industry is pro-active in working to enhance the food safety of our crop. Please join us in this effort, and help us to help you to protect your business interests, and the entire industry. Together, we can maintain and build consumer confidence in the safety of watermelons.**