

## Filling in the: *Good Agricultural Practices*

### Frequently asked questions:

**Q – *What does Good Agricultural Practices (GAPs) mean?***

A – It is any agricultural management practice or operation that reduces microbial risks or prevents contamination of fruits and vegetables on the farm or in the packinghouse. This does not mean all risks or contamination will be eliminated. The best that can be done now is to reduce the risk.

**Q – *What is a third party audit?***

A – It is an independent person not employed by the farm operation to verify that the food safety program put in place is being followed.

**Q – *Is the third party audit government regulation?***

A – No! Some wholesale buyers of fresh fruits and vegetables are requesting a food safety program and a third party audit from their sellers. The United States Department of Agriculture working with individual states (NJDA in New Jersey) has put together a third party audit program to help growers comply with this request.

**Q – *Do I need to use NJDA to do my audit?***

A – No. There are private third party audit firms that can carry out the audit for you. In fact, some wholesales may want you to use a private firm. There have been misconceptions related to the cost of third party audits. I have heard statements that the audit costs thousands of dollars. If the audit is carried out through the New Jersey Department of Agriculture who collaborates with the United States Department of Agriculture (USDA) the cost at present is \$75.00/hr. Most audits take 4-6 hours if all grower paper work is in order. USDA is instituting an additional unannounced audit for 2008 after the scheduled audit is passed. This will mean the cost approximately doubles. This is being done to verify that a comprehensive food safety program has been implemented and is being followed throughout the growing and packing season.

Some buyers, not USDA, are requiring a third party audit by a private company. The cost for these audits is higher and depends on where the auditor is located. All have a flat fee plus travel expenses. Most will bill on a daily basis so you will probably pay at minimum for one day. Check on the website of the individual

companies to help determine the minimum cost.

Remember third party audits are not required by government regulation except for someone selling to the USDA Commodity Purchase programs. The purchaser of the produce is requesting all other audits. This is also the reason that a buyer can specify which group does the audit.

Growers have hoped that third party audits would go away. Think about how many recalls have occurred this year. There have been recalls for salad mixes, meats, etc. Were the salad mixes grown in New Jersey? No, but that does not matter. Whatever is being done on the food safety front in California or Florida will apply to New Jersey and the rest of the country. There is a move to develop crop specific and regional specific guidelines for food safety. This will help New Jersey growers have something which makes more sense under local conditions. The best thing growers can do is be involved as these guidelines are developed. Do not expect someone else will do it for you.

***Q – How often do I need a third party audit?***

A – The audit is good for one year and must be carried out when the farm is in operation. In other words, it cannot be done in the winter. Some operations will need an unannounced audit during the production season. This will depend on the length of the production season. An agreement is signed between the auditee and NJDA/USDA to allow for unannounced audits. It outlines the expectations for each party and must be signed before audits can commence. The number of unannounced audits will depend on the length of the growing season. If less than 30 days only one regular audit; if 30 to 90 days one regular and one unannounced and if greater than 90 days one regular and two unannounced audits.

If any audit does not meet the minimum score (80%) or has an automatic unsatisfactory, the operation must file a corrective action report before being re-audited explaining what they did to fix the problem in the short term and the root cause.

The operation must pass all scopes requested in order to be posted on the USDA website. **It is important to know exactly which selections you want audited before the assessment starts!**

If an unannounced audit results in a failure, the operation will be removed from the USDA website until it passes a follow-up audit.

**Q - Do all crops need to be audited?**

A – No, for a vegetable farm that grows spring, summer and fall crops the grower and the buyer can decide which crops they would like audited. Only the crops audited will be listed on the USDA website. USDA auditors will work with the operation to group crops together.

For example, if greens are grown in the spring and fall the spring audit can also apply for the fall crops. However, if summer crops are grown (i.e. tomatoes, peppers, eggplant, etc.) and the operation/buyer would like those audited then two audits would be required. With the second audit, generally it only would be the packing and field operations related to those crops. The general question section would not be revisited unless the auditors see a health and safety issue. This also will help reduce the cost of the second audit.

**Q – Why are we being asked to have more than one audit by buyers?**

A – It depends on who is purchasing the produce. Most buyers will accept the USDA audit, but there are exceptions. If two different buyers ask a grower to use different auditing firms talk to the buyers to see which auditing firm would be acceptable to both.

**Q – Do packing sheds need to be enclosed?**

A – No, but there must be some way to exclude birds and rodents from the open shed. This can be done by covering the eaves with mesh screens, using distress signals, bird guards, etc. Remember the presence of birds or rodents or signs of either can result in an automatic failure of the audit. If a new packing shed is being built, I would recommend it be enclosed. There is no question that enclosed packing sheds are much better than open sheds. If the packing shed is enclosed, make sure the doors are closed at night. This will help reduce the bird problem.

**Q – Do all water sources need to be tested?**

A – Yes, the wells that are used for drinking and the packing shed must be potable water. This means the normal test for house wells (drinking water standards) will be carried out. That includes testing for total Coliform.

For irrigation sources, the water does not need to be potable. Those sources must be tested for at least fecal coliform and preferably E. coli. **A total coliform count will not tell the grower whether it is fecal or not.** If surface water is tested,

there will be coliform present. Do not waste time and money testing for total coliform and then have to re-test for fecal coliform.

**Q – When will a Third Party Audit be required by the Food and Drug Administration (FDA) or USDA?**

A - It depends on:

- 1) how many food-borne illness outbreaks occur which result in pressure to implement regulations; and
- 2) how effective the present voluntary programs are in reducing outbreaks (e.g. California Leafy Greens Agreement).

If a grower sells items through the school lunch or other federal programs, a USDA third party audit is already required.

Florida has implemented the Tomato Good Agricultural Practices (T-GAPs) for field and greenhouse tomatoes and Tomato Best Management Practices (T-BMPs) for packinghouses programs. These were initially voluntary programs established in 2006 through a grower organization. During 2007, legislation was signed by the Florida Governor to cover all tomatoes in Florida and making it a mandatory program.

Thirty-one New Jersey agricultural operations have passed the USDA third party audit during the past year. Other operations have passed audits carried out by other auditing firms. What firm you use for the audit may depend on to whom you sell. Buyers sometimes select the auditing firm they will accept.

In September 2007, USDA made changes to the audit program. Please see “Notice to the Industry” following this article on page 6 which describes those changes. The main changes are (1) they may require a minimum of one unannounced audit; and (2) the audit results will only be posted on the USDA website when all sections audited are passed.

**Q – What water sources need to be tested?**

A – All water sources used in production, spraying or post harvest operations must be tested. This includes municipal, well and surface water.

**Q - How often do I test?**

A - Municipal water test results can be obtained from the local water authority on an annual basis. Well water should be tested twice each year and treated if fecal

coliforms are present. Surface water should be tested three times during the growing season – first at planting, second at peak use, and third near harvest.

**Q – What do I test for?**

A – Test for fecal coliform not total coliform. The results should be reported in numbers not just presence or absence. Testing for E. coli is also recommended.

**Q – What if the test comes back positive for fecal coliform or E. coli?**

A – Well water can be shock treated for the bacteria prior to use. Information is available through our office or contact the health department. Surface water is harder to treat.

**Q – What levels are acceptable?**

A. – For potable water, it is the same as drinking water standards. For irrigation water the acceptable levels are still being discussed. For this year, New Jersey will use 200 Fecal Coliform units/100 ml. There will be continued research in this area to refine the levels.

**Q – What do I do with the results?**

A – When you request an audit, the auditor will request to see the results to verify that water testing is a standard practice. These test results should be kept to compare one sampling date to the next.

**Q – Do I need to use potable water for all applications?**

A – No, potable water must be used for drinking, hand washing, cooling produce and ice making. Surface water is not considered potable so it cannot be used for post harvest activities.

**Q: What are the guidelines for Manure in Vegetable Fields at Harvest?**

**A:** The California Leafy Green Products Handler Marketing Agreement (leafy green agreement) requires checking fields' before harvest for animal manure. If any is found a no harvest zone within a 5-foot radius of animal manure is required. The question by growers is whether this is necessary. Dr. Jorge Fonseca, University of Arizona, and his research team placed fresh manure from cattle, dogs and birds in a three-acre romaine lettuce field to determine the spread of bacteria. They found that the spread is influenced by wind speed, wind direction, where the fecal matter was placed and maturity of the plants. Overhead irrigation spread the bacteria and if puddles formed in the field, the bacteria splashed on the plants. When wind speeds stayed below 13 miles/hr the fecal matter splashing was limited to 18 inches or less. When plants were young, there was more problem with splashing and bacterial spread since the romaine does not cover the ground or provide a barrier to reduce spread. Wet fields at harvest can make the problem worst because as workers walk through the field they can spread the bacteria to areas not yet contaminated. There are big climatic differences between Arizona and New Jersey. Since our fields stay wet longer especially for fall planted lettuce, the bacterial spread may be greater.

**Q: Is the audit required by government regulations?**

**A:** No, this is market driven. Supermarkets and institutional buyers are requiring third party audits. Each time there is a new foodborne illness outbreak there is more pressure to increase the number of audits. Legislation has been introduced into the new congress that may require some form of audit in the future. The State of Florida did pass legislation at the request of their tomato growers to require audits. Also, the California Leafy Greens Agreement is a volunteer program instituted by handlers of approximately 98% of all leafy greens produced in California that requires a third party audit.

**Q: How do I get started with the audit process?**

**A:** In New Jersey we have written a manual to help you develop your food safety plan. This has been developed with funds from the New Jersey Department of Agriculture. The manual walks you through the process of writing a plan. Each farm is unique so the manual is not a cookie cutter document. It helps you tailor a plan that fits your operation.

**Q: Do I need to write a plan?**

**A:** Yes, without a written plan, no auditing firm including the NJ Department of Agriculture will carry out an audit .

**Q: I have heard growers talking about a mock audit. What is it?**

**A:** Cooperative Extension and the NJDA provide training around the state during the winter for individuals interested in going through the third party audit process. As part of this training, Cooperative Extension offers to visit your farm, review the food safety plan,

and do a walk through of the facilities. This is not required for an audit, but it is another set of eyes to see where changes maybe needed.

**Q: Do I need to have the NJ Department of Agriculture do my audit?**

**A:** No, there are other auditors and firms that do audits such as Safe Quality Food (SQF), Global GAP, Primuslabs, etc. Each one has a slightly different audit. Phil Neary, Sunny Valley International, gave a presentation at the New Jersey Vegetable Meeting where he compared a USDA/NJDA audit and audits by private companies. These are the key differences he pointed out in his presentation:

**USDA/NJDA vs. Private**

**USDA/NJDA**

Narrower scope and simpler  
Pass or fail questions  
Volunteer self-audit  
Security optional  
Relatively low cost

**Private audits**

Broader scope & more detailed/complex  
Pesticides & fertilizer questions  
Security review  
Written Standard Operating Procedures  
Letters of guarantee required  
MSDS sheets for all products  
Hand washing procedures  
Produce testing  
Traceability  
Recall procedures  
Partial credit questions  
Mandatory self-audit  
Security probably not optional  
Pass or fail – obligation to correct  
Higher cost (implementation & audit)

**Pros**

**USDA/NJDA**

Cost effective  
Easier implementation  
Choice to fail certain aspects

**Private**

Broader acceptance  
Broader range of risks  
Web-based resources/services

**Cons**

**USDA/NJDA**

Lack of broad acceptance

**Private**

Relatively expensive  
Higher level management  
Obligated to corrective actions  
Lots of paper!

Neary concluded that the USDA/NJDA program is a good starting point and is appropriate for smaller family farms. It also provides a good base for more elaborate programs if needed in the future. He said the private programs can be cost effective, but it depends on the customer. The private programs were more flexible “user friendly” than expected. These are some points to consider when deciding about an auditing organization.

**Q: Do I need to pass all parts of the USDA/NJDA audit?**

**A:** Everyone must pass the General Questions section which covers mainly health & safety and worker hygiene issues. After the General Questions, there are five parts which relate to growers (Farm Review, Field Harvest and Field Packing Activities, House Packing Facility, Storage and Transportation and Traceback). It is up to the individual grower to decide which parts to be audited. Their buyer may require certain parts or may only want to see that the operation was audited.

**Q: What is the procedure to schedule an audit?**

**A:** After your food safety plan is written, contact Larry Hardwick, New Jersey Department of Agriculture, at 856-453-3870 to schedule the audit. He will meet with you prior to the audit and explain costs and the process. That is when you decide which parts to be included in the audit.

**Q: I understand the audit is by commodity (leafy greens, tomatoes, etc.). Is this correct?**

**A:** That is correct. Try to group as many crops together as possible so there only needs to be one audit. However, if you grow strawberries and tomatoes or eggplant you will probably need two audits since they may not be in production at the same time.

**Q: What happens after I pass the audit?**

**A:** The results will be posted on the USDA website so a buyer can check to see which commodities and what parts of the audit were completed. USDA will also provide a certificate that can be used as proof.

**Q: What happens if I fail the audit or part of it?**

**A:** Nothing will be posted on the website and no certificate issued until a corrective action is written for the parts not passed and a reaudit takes place. Once the deficient parts are passed, the results will be posted on the website and the certificate issued.

**Q: I understand there is an unannounced audit besides the initial audit. Is this correct?**



**A:** That is correct. Sometime during the production season, there is a possibility that an unannounced audit will take place. This gives more validity to the audit process.

**Q – What if I fail the unannounced audit?**

**A -** Your name will be removed from the website until corrective actions are taken and you pass a new audit.