FOOD SAFETY RECOMMENDATIONS FOR ON FARM SALES
Seeing produce advertised along a roadside is a welcome sign of the season and can make for a fun day in the country. Whether for repeat customers or Sunday drivers, roadside stands, retail farm stores or home-based businesses can provide a significant portion of a family’s food, as well as an opportunity to experience just-picked corn, fresh flowers, or other types of a farm or garden’s bounty. In considering different types of on-farm sales outlets, common categories include:

**Farm-based direct marketing operations** – Some farms sell their own products out of their homes without a formal retail space. These products are often potentially hazardous foods, such as dairy products, meats and eggs, requiring temperature control. The products are not out for public viewing; customers pick up the products out of the farmers’ own storage space (cellars, sheds, freezers or refrigerators). The purchases may be facilitated by the farm owner, while others are on a self-serve system. These types of businesses may not have any road signage, but rely on existing customers and word of mouth to sell their products.

**Self-serve roadside stands** – Unstaffed booths or simple displays set up to sell homegrown farm products to customers using the honor system. Products offered may be the farm’s own products or products supplemented from another farm. (If potentially hazardous foods from outside sources are offered for sale, an Article 28, Retail Food Store license may be required. If such a license is required, a permanent, enclosed building is required.) Structures can be covered or not and location varies from front lawns to inside farm buildings. Information about products is typically conveyed using signage and labels, such as instructions for payment, including pricing and scales for weighing. The emphasis is on self-service by the customer. Packaging can include grocery bags, cartons, or none (customers are expected to provide their own). Occasionally such stands can include a more sophisticated set up that includes refrigeration or freezer space for perishable items.
**Roadside stands** – The most basic of on-farm sales venues that includes staffing. Structures can be covered or not and location varies from front lawns to inside farm buildings. Occasionally such stands can include a more sophisticated set up that includes refrigeration or freezer space for perishable items. An employee, whether hired or a family member, is present to assist customers with sales, answer questions and supervise the display. Packaging is typically bags, both paper and plastic; with some customers supplying their own reusable cloth totes. Product is generally from the host farm, although there may be some products purchased from other local farmers and resold. Roadside stand operators should understand that adding products other than their own farm products may require additional licensing, such as a 28A Food Store license from the NYS Department of Agriculture and Markets.

**Farm markets/stores** – Staffed spaces with regular hours, typically separate from existing farm buildings or farmhouses. Facilities often are more formal, with refrigerated coolers and storage for ready-to-eat foods and pre-packaged re-sale products. Owners might staff the market, hire employees, or employ a combination of both. Products are varied, and often include products sourced off the farm, as well as featuring their own products. Along with farm products, farm markets/stores will often include an on-farm bakery, ready-to-eat foods or on-site food service. The addition of the food service requires additional licensing not normally required by roadside stands or farm-based direct marketing operations.

*Other on-farm sales venues include agritourism farms and Pick-Your-Own farms. These types of on-farm venues will be discussed separately.*

Local zoning laws would apply to any commercial on-farm enterprise. Depending on types of services and products offered, additional state and local permits (and their facility/operational requirements) are mandatory both for business regulation and sanitation. Liability insurance for products and the farm itself is also a major consideration when hosting the public. The are publications that will assist you with recognizing and dealing with liability issues. This document, however, will focus on food safety issues.

*In order to reduce food safety risks and prevent the likelihood of foodborne illness outbreaks at farm retail businesses, farmers need to understand how to identify risks and implement practices to mitigate these risks. This document is intended to help farmers understand what microbiological, chemical, and physical hazards exist on their farms and at the market they attend, assess the risks associated with these hazards, and adopt outlined recommendations that can reduce these risks. Each farmer must perform their own risks assessment and determine which guidelines are appropriate for their operation.*
POTENTIAL SOURCES OF CONTAMINATION

1. POTENTIAL SOURCE OF CONTAMINATION: PRODUCTS

There is a wide variety of products being sold at on-farm locations, from fresh fruits and vegetables, meats, dairy, maple, honey, wines, prepared foods, processed foods, to plants, fresh cut flowers and crafts. Each product may have health code regulations that must be adhered to. See the Farmers Market Federation of NYS checklist, attached, for regulatory permits and licenses required, based on product sold.

Production and Post-Harvest Handling Farm producers should produce, harvest and handle food products under Good Agricultural Practices (GAPs). These practices have been developed as a means to minimize microbiological contamination and reduce the chances of foodborne illnesses coming from the farm. Farmers should consider the marketing impact of being able to tell their customers that they are concerned about their well-being, and therefore, are GAPs compliant.

It should be noted that a small scale producer is no safer than a large producer, nor do production methods (e.g., organic, biodynamic, etc.) alter the inherent safety of the foods produced. Rather it is important that each producer understand the risks that exist on their farms and implement GAPs that address these risks and are scaled to each producer’s farm practices so that they are effectively practiced.

RECOMMENDATION: Understand and implement GAPs to reduce food safety risks that exist in production and post-harvest handling of fruits and vegetables.
Washing Produce  Washing fruits and vegetables to remove field debris or field heat can be an important step in providing safe foods for consumers; however, it does not ensure the produce is free from contaminants. Therefore, it is important to understand that produce washed at the farm is not a ready-to-eat food. To be a ready-to-eat food requires a food service license from the health department and then washing under food service protocols. Produce coming in from the fields with a high level of organic matter attached can be rinsed in a single pass method; e.g. rinsed under running water. If washing in a sink, dunk tank or other submersible means, a disinfectant should be added to the water to prevent any contamination that may be present from spreading. Disinfectants added to water (even single pass water) can also improve the shelf life of the produce by helping to control plant pathogens and spoilage organisms.

RECOMMENDATION: All water used in post-harvest handling should be potable.

RECOMMENDATION: All water used in a communal or dunk tank must contain a disinfectant appropriate for the commodity with levels monitored for effectiveness.

RECOMMENDATION: Signs should be posted with a message to consumers to thoroughly rinse all produce in cool, running water before consumption.

Live Animals Sold for Consumption  Some farms sell live animals to consumers, who will then perform their own slaughter. This is a tradition among some ethnic groups and one that farmers wish to respect. However, having live food animals in farm sales displays can be a concern for cross contamination with other foods nearby.

RECOMMENDATION: All live animals for sale or on display should be maintained segregated and downwind from all other foods being sold.

References:

2. POTENTIAL SOURCE OF CONTAMINATION: WATER

Water is a basic ingredient of life. However, water can also be a source of bacteria that can contaminate foods and cause serious illness and death. Thus, water quality and its intended use are very important in assessing food safety risks. Water at farm markets may be used for handwashing or to rinse fresh produce prior to consumption. All water used at farmers markets needs to be potable. During the Washington, NY County Fair in 1999, one well used by vendors in their food preparation and as drinking water for thousands of fairgoers was contaminated with *E coli* O157:H7. A hard rain on drought-parched soil caused significant runoff that passed through a cattle barn on its way to the underground aquifer. The contamination was enough to cause over 1000 people to become sick, 65 requiring hospitalization. It also resulted in the death of 2 people. What this shows is that water can be a source of harmful bacteria and developing and following food safety practices including water testing of water sources used for food production will protect the health of consumers, and thus, the safety, image and survival of the market itself.

**RECOMMENDATION:** All water being used for food preparation, handwashing and drinking, that is not from a municipal source should have microbiological testing conducted prior to each season opening and as often as required by county regulatory agencies.

Testing of all water sources will ensure consumers that the water is safe for drinking, for hand washing and that any water used in the preparation of foods at the market, is clean and bacteria-free water. While requirements may vary from county to county, generally non-public water sources will need to be tested for coliform bacteria on a quarterly basis during the months in operation and a nitrate test annually. Test results should be maintained on file as proof of testing.

**References:**
www.health.state.ny.us/environmental/water/drinking/regulations
3. POTENTIAL SOURCE OF CONTAMINATION: FARMER/EMPLOYEES

To maintain high quality foods and ensure the safety of the foods being sold to consumers, farm families and employees should be trained in these issues. GAPs training is important to educate all who work with the foods produced on the farm to understand the principles involved in providing food safe from pathogens and disease. In addition, all farm family members and employees should be trained in the regulations that cover the foods being sold, including NYS Department of Agriculture and Markets regulations, as well as NYS Department of Health regulations. This will help all who work with customers to recognize potential risks and work to minimize those risks.

Farmers should also take care to present a positive image to their consumers. It is as much a marketing tool as it is a food safety precaution. Clean clothes, hair and body minimize the risk of spreading bacteria, germs and contaminants from person to product.

Whenever a seller has an open wound, it should be immediately cleaned and covered with a bandage. Gloves should then be worn as a secondary barrier to protect the food from being contaminated with blood and blood borne pathogens.

Maintaining clean body, hair and clothes also means vendors should refrain from smoking and eating while selling food.

**RECOMMENDATION:** All market sellers should have clean body, hair and clothes and be free from any signs of illness or open sores.

**RECOMMENDATION:** All vendors must wash hands before beginning work and any time they become soiled, i.e. after using restroom facilities, handling live animals, eating and drinking. Note that anti-bacterial gels are not a substitute for hand washing.

**RECOMMENDATION:** Smoking should not be allowed while selling and/or handling food. NYS Health Laws prohibit smoking where food is being handled, whether it is preparation or the sale of food.

**References:***
Food Safety Begins on the Farm: A Grower Self Assessment of Food Safety Risks, [http://www.gaps.cornell.edu/farmassessmentws.html](http://www.gaps.cornell.edu/farmassessmentws.html)
4. POTENTIAL SOURCE OF CONTAMINATION: DISPLAY

Common sense plays a significant role in ensuring the display of food in a manner that will inhibit contamination. Displays should be designed to limit consumer handling of product and be supervised to recognize cross contamination and all contaminated foods removed.

Consumer reach for product should fall between knee and shoulder height to maximize sales opportunities. This is as much a marketing tool as it is a food safety issue. Food that is displayed off the ground eliminates potential contamination from animals and pests, as well as soil and ground debris.

**RECOMMENDATION:** All foods should be kept off the ground or floor during storage and display.

To maximize sales, farmers must make every effort to safeguard the quality of their foods. One way is to provide overhead protection that will guard against the elements and protects against airborne contaminants, including bird droppings.

**RECOMMENDATION:** All displays of food should have overhead protection, such as a permanent roof or a canopy.

Meats sold through on-farm sales are packaged from a USDA slaughterhouse. While the packaging minimizes the risk of contamination, leaks do occur. Keeping meat separate from other foods on display will further minimize the risk.

**RECOMMENDATION:** Foods on display should be segregated from potentially hazardous foods to ensure there is no cross contamination; particularly raw meat, poultry, seafood, and eggs.

**Display Material** Foods can be contaminated if displayed or packed in contaminated containers/surfaces. To minimize the risk of contamination, containers and display surfaces such as tables should be cleaned and sanitized before each use. Display surfaces should be cleaned between uses or covered with clean tablecloths to prevent contamination from residues of past market sales.

**RECOMMENDATION:** Storage and display containers should be free from food and plant residue and other debris. They should be cleaned and sanitized (if possible) before each use.

**RECOMMENDATION:** Display surfaces should be clean and sanitized before each use.
**Consumer Packaging** Once a disposable bag has been used, it should never be used for the sale of foods. It could be contaminated with soil, spoiled food particles, blood from meat, or other contaminants. In addition, bags that are not food grade may leach harmful chemicals into any food that is placed in it.

**RECOMMENDATION:** Bags for foods sold to consumers should be new and free from chemicals that could contaminate food products.

Reusing egg cartons is a common practice for on-farm sales. Environmentally conscious consumers will return egg cartons when they are ready to purchase another. Used egg cartons can carry be contaminated with pathogens such as *Salmonella* that can contaminate new eggs that may be place in the carton. Farmers should consider the risk of contamination when choosing to reuse them.

**RECOMMENDATION:** Using only new cartons is the safest action. If reusing cartons, all prior markings, including producer identification, grade and size statements should be removed from used egg cartons. The cartons should be clean and free of any residue, and re-labeled with the farmer’s identification, according to NYS Labeling Laws.

**RECOMMENDATION:** Shell eggs must be held at 45° or below.

**Temperature Controls** With both indoor and outdoor displays at on-farm sales venues, care must be taken to maintain the proper temperature of foods.

**RECOMMENDATION:** While on display all hot foods MUST remain hot, 140°F* or above, cold foods MUST remain cold, 41°F or below, with shell eggs held at 45°F or below, and frozen foods MUST remain frozen, 0°F or below.

*There are differences in temperature requirements determined by the regulatory agency. The recommendations above comply with the NYS Department of Agriculture and Markets, as well as the NYS Department of Health.*

Outside of the recommended temperature ranges, bacteria will grow at an accelerated rate. Any foods requiring temperature control and held outside of the recommended temperature ranges for 2 hours or longer should be destroyed.

When using a cooler to maintain cold or frozen foods, a thermometer should be available to test the temperature throughout each day to ensure the appropriate temperature range is being maintained. In addition, the ice being used must be made from potable water. The cooler should have proper drainage for ice melt to prevent food products from sitting in water. In addition, ice melt should be collected and disposed of properly.
**RECOMMENDATION:** All potentially hazardous and prepared/processed foods must be prepackaged. Foods prepared on site under New York State Health Department Temporary Food Service Permit must be displayed under a protective cover, to prevent contamination.

**RECOMMENDATION:** All prepackaged foods must be labeled in accordance with New York State Labeling laws.

**Animals on the Farm** Animals are a fact on farms. Farm animals being raised for meat or milk are part of many farm operations. Family pets can also be found on the farmstead. With the rural nature of farms, wild animals are a constant; often wandering the farm fields, making their way on to the farmstead itself. Unfortunately, animals, whether domesticated or wild, carry pathogens and the potential for disease. Care must be taken to eliminate animals from food areas.

**RECOMMENDATION:** All animals should be excluded from anywhere food is being grown, harvested, prepared for sale, or being sold.

Some farms use farm animal displays as an attraction for their customers. Children, of all ages, enjoy visiting the animals and learning about the role they play on the farm. Customers need to understand the risk posed by farm animal displays and the risk to customers must be minimized.

**RECOMMENDATION:** All live animals for display should be maintained segregated and downwind from food displays.

**RECOMMENDATION:** Any person working with the animals should not handle foods.

**RECOMMENDATION:** Consumers should be prohibited from eating in the animal display area.

**RECOMMENDATION:** A first aid kit, hand wash station, and signs should be used to remind visitors to wash their hands after visiting the exhibit.
5. POTENTIAL SOURCE OF CONTAMINATION: BUILDING CONSIDERATIONS

Many farmers make use of buildings for their on-farm sales. In some cases, the farm may host a store, either in a farm building or as a free-standing building. The store would host consumers as they purchase the farm’s products. The building may also contain storage for food waiting to be sold, including a walk-in cooler.

Often farms will utilize a walk-in cooler to house harvested foods while waiting for delivery to a sales venue. The cooler is vital to maintaining the quality of foods, removing field heat and maintaining the product at a cool temperature to slow down the rate of deterioration. The cooler should have a temperature gauge to monitor the temperature inside. Also, a plastic curtain that allows easy in and out will help maintain the temperature when employees frequently enter and exit the cooler.
**RECOMMENDATION:** Cooler walls, ceiling and floor should be easily cleanable and periodically sanitized to eliminate the build-up of dirt, debris and mold.

**RECOMMENDATION:** Foods should be stored off the floor and not in direct contact with the cooler walls.

**RECOMMENDATION:** Condensation within a cooler should be prevented from dripping on food products or food containers.

Other forms of food storage, such as shelving, should be maintained in such a way as to eliminate contamination from pests, rodents, dust and dirt.

Lighting in a farm market situation will be necessary, as much for personal safety as for highlighting the foods on display. Most lighting would be overhead, whether fluorescent or HFC. When the light burns out, it can cause the bulb to fracture, sending shards of glass and chemical contaminants to rain down. It is critical that these light fixtures be covered to contain any fallout from bulb failures.

**RECOMMENDATION:** Lighting fixtures should be covered to prevent contamination of food products should the lights blow out.

**References:**
Food Safety Begins on the Farm: A Grower Self Assessment of Food Safety Risks, [http://www.gaps.cornell.edu/farmassessmentws.html](http://www.gaps.cornell.edu/farmassessmentws.html)

6. **POTENTIAL SOURCE OF CONTAMINATION: CONSUMER CONTAMINATION**

Consumers themselves, can be the cause of food contamination. Dirty hands, sneezing, even children who take a little taste, can contaminate foods. Farmers should provide supervision over their displays to guard against such possibilities, removing any products that have been potentially contaminated. To reduce risks, consumers should be encouraged to follow proper hygiene and food handling practices. Signs can be posted encouraging consumers to wash their hands before handling fresh produce and rinsing all fresh produce in cool water before it is consumed.

**RECOMMENDATION:** Signs should be posted for consumers indicating, “Food Safety is a priority at our farm. Please wash your hands after using the restroom, touching animals, eating or any time they are dirty.”

**References:** Fight BAC campaign, [www.fightbac.org](http://www.fightbac.org)
ADDITIONAL CONSIDERATIONS FOR FOOD SAFETY FOR ON-FARM MARKETS:

EVENTS AND INFORMATION SHARING
Many farms incorporate events as a way to draw new customers to the farm and entertain and educate the farm’s customers. Events can range from food sampling, to encourage additional sales, to full-scale festivals. Any event that includes food must adhere to New York State Department of Health codes covering food service.

RECOMMENDATION: Food demonstrations must follow the Food Demonstration Guidelines for Direct Marketing Venues as outlined in the attached reference.

RECOMMENDATION: Food sampling must follow the Food Sampling Guidelines for Direct Marketing Venues as outlined in the attached reference.

Many farmers use information sharing (newsletters, Facebook postings, etc.) as a means to educate their members about agriculture, their farm, and the foods they produce. Along with news about the farm, they often will offer recipes, tips and techniques for using the fresh foods produced on the farm. The farmer can be ultimately liable if information given is inaccurate and causes illness or injury.

RECOMMENDATION: All recipes and information shared should be consistent with federal and state regulations. In addition, cite sources for recipes and information shared to mitigate personal liability.

RECOMMENDATION: Information on food preservation should be avoided, instead directing consumers to Cooperative Extension Educators for accurate and up-to-date information.

Attachments:
General Guidelines for Food Sampling at Direct Marketing Venues
General Guidelines for Food Demonstrations at Direct Marketing Venues
BATHROOM FACILITIES

Every farm should consider having bathroom facilities for their customers, providing for their needs and comfort. That doesn’t mean the farm must build public restrooms, instead, port-a-johns can be used. When locating a port-a-john, it should be close enough to be convenient, but kept at enough distance so any spill will not come into contact with food being sold.

Along with port-a-john toilets, or any bathroom facilities, is the need for a hand washing station. The hand washing station should be maintained outside of the port-a-john. This will prevent urine splash or unintentional contamination, keep the toilets available for optimum use, and promote hand washing when its practice is visible to all. The hand washing station requires potable water, soap, a catch basin for gray-water, single use towels, and optimally hands-free operation of faucets. There must also be signage posted at the hand washing station that “Employees/Vendors must wash hands before returning to work.”

In addition, all toilet facilities need to be monitored for cleanliness, cleaned when dirty, and restocked when empty. The port-a-john contractor or other service provider can be contracted to clean and restock the toilets and hand washing stations and be able to provide service records to show the frequency of cleaning. The contractor should also have a spill containment plan that is shared with the market and workable for the market situation.

TRACEABILITY

A concern in any foodborne illness outbreak is being able to trace contaminated food back to the source of contamination so that the outbreak can be stopped. For food processors this may involve batch coding and elaborate electronic tracking systems to follow each batch through the food system. For farm stands, this is much simpler since there is a direct sale from farmer to consumer. Farmers should make every effort to identify their farm by labeling all bags/containers they sell with their farm name and contact information. Farm records should be kept to identify the field, harvest date and field worker for products. All producer information should be on hand for products purchased for resale. This information is not only important for food safety, but is also a valuable marketing tool, as it makes it easier for consumers to return to their favorite farm.

RECOMMENDATION: All farms should display farm signage and label all bags and containers of food they sell with their farm name and contact information.
Farmers should also consider other ways they can keep their farm name in front of customers, such as table signage that includes the farm name, farm brochures, business cards and name tags on clothing.

In addition, any products offered for sale that are not produced on the farm should be traceable to the farm of origin. Records should be maintained to identify the product, farm location and contact information of each product purchased for resale.

**RECCOMENDATION:** All products being sold that are not produced on the farm, should be marked with the farm of origin.

Finally, it is important that each farm document harvest information for each lot they harvest including the field from which it was harvested, date of harvest, date of packing (if different from harvest date), person(s) involved in harvesting and packing, and any other information specific to the crop. For each market day, a log should be kept to document the type and amount of each commodity that was taken to the market. This information should be linked to harvest logs so that all relevant information is available to help trace the product should an illness occur. Harvest logs are not only important to food safety, but can also help farmers track harvest quantities and sales at markets. This information allows farmers to estimate revenues for each market and plan for upcoming markets by noting what items sell best and how they can modify their marketing strategies to encourage sales of items that may not be selling so well.

**References:**

**Attachments:**
Traceability Procedures  
Harvest Logs

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A 28A Food Store license is required for all sellers of packaged, potentially hazardous foods, such as milk and dairy products, eggs and meat; unless the products are the farm’s own products.  
A 20C license is required whenever there is food processing occurring; i.e. baking, cutting of fruits and vegetables for sale in pieces or parts, etc.
State funds for this project were matched with Federal funds under the Federal-State Marketing Improvement Program of the Agricultural Marketing Service, U.S. Department of Agriculture.