Bulletin #4282

Guidance on Food Safety for Wild Blueberry Producers in Maine

Developed by Lily Calderwood, Extension Wild Blueberry Specialist and Assistant Professor of Horticulture, University of Maine Cooperative Extension and Robson Machado, Associate Extension Professor and Food Science Specialist, University of Maine Cooperative Extension.

Reviewed by Lindsay Werner, Food Inspection Supervisor, Maine Department of Agriculture, Conservation & Forestry and Eric Venturini, Executive Director, Wild Blueberry Commission of Maine.

The goal of this factsheet is to provide some wild blueberry food safety guidance, as well as to familiarize wild blueberry growers with the Produce Safety Rule. This factsheet is a living document. Therefore, the practices discussed here are subject to change as science evolves. The University of Maine Cooperative Extension developed this guidance document in coordination with the Maine Department of Agriculture, Conservation and Forestry (DACF), and the Wild Blueberry Commission of Maine.

Introduction

The overarching goal of food safety is to identify the risk of contamination and then reduce that risk. The University of Maine Cooperative Extension has identified the following practices to assist wild blueberry growers and processors in producing safe food. This fact sheet is not a regulatory document, and the practices described are not legal requirements of the Produce Safety Rule.

Produce Safety Rule Overview

The Produce Safety Rule (21 CFR 112) is a federal regulation that applies to larger farms with the potential to impact the health of a significant consumer base. In Maine, the federal rule is enforced by state inspectors under FDA authority following FDA procedures.
Wild blueberry farms are subject to the Produce Safety Rule if gross annual produce sales exceed $25K. There is an exemption from inspection for farms with gross total food sales (all food for human or animal) less than $500K if more than

50% of the sales are to the person who eats the food or a retail store/restaurant within the same state/within 275 miles of the farm. These dollar values are adjusted for inflation every April. The current cut-offs can be found here: www.fda.gov/food/food-safety-modernization-act-fsma/fsma-inflation-adjusted-cut-offs. Qualified Exempt farms must keep financial records demonstrating their exemption status and maintain a written record of annual review and verification of continued eligibility. Packaged produce must be labeled with the name and address of the farm. You can find more information about the qualified exemption in University of Maine Cooperative Extension bulletin #4281, Food Safety Modernization Act (FSMA) Produce Safety Rule Exemptions.

There is another exemption for produce sold to a processor where the processing steps result in pathogen load reduction adequate to prevent human illness (commonly referred to as a kill step). Examples would be cooking, canning, fermenting into wine, or pasteurizing. Other types of processing may be considered a kill step. To be recognized as a kill step, the process needs to be assessed by FDA. Farms that sell exclusively to wild blueberry processors may be exempt from inspection if FDA determines that the processor's finished product has been adequately processed.

All other wild blueberry farms are subject to inspection under the Produce Safety Rule.

The best way to prepare for inspection is to know the regulation. This knowledge enables you to explain to an inspector how your farm meets the requirements. The Maine Department of Agriculture, Conservation & Forestry (DACF) offers technical assistance on produce farm food safety and interpretation of the Produce Safety Rule in addition to the On-Farm Readiness Review program, which prepares farms for inspection. For more information, please contact the Maine DACF at 207-287-3841 or visit the department website at www.maine.gov/dacf/qar/fsma/index.shtml

Wild Blueberry Farm Practices

Pay attention to the use of the words should and must. Produce Safety Rule requirements are specified by the use of the word must. Suggested practices are specified by the use of the word should. A must is only applicable to those farms that are subject to the rule. Suggested practices to reduce contamination risk are encouraged but not required.

Pre-Harvest

- **Must** train all workers (temporary, part-time, seasonal, and contracted) in the following:
  - The parts of the Produce Safety Rule that affect their responsibilities in an easily understandable way.
  - Worker health and hygiene.
  - How to recognize people with foodborne illness-related symptoms (vomiting, nausea, diarrhea, fever, jaundice) as well as open wounds and what to do about it.
  - The basic principles of food safety (vulnerable people get sick from pathogens, pathogens usually come from feces, pathogens get on food via people, animals, water, tools, and equipment).

- **Must** train all harvest workers (outsourced, on-farm, and volunteers) to:
  - Not harvest any blueberries visibly contaminated with feces.
  - Inspect harvest containers and equipment to make sure they're clean, working, and in good shape. For the Produce Safety Rule, 'clean' means free of visible accumulations. Blueberry stains aren't a problem as long as the harvest container is clean.
  - Correcting, or reporting to a supervisor, problems with harvest containers or equipment.

- **Should** assess for significant animal contamination during the growing season and document that activity if it is reasonably likely to result in crop contamination. If a significant

risk of contamination is identified, inform harvesters before harvesting that the area is to be avoided during harvesting.

- **Should** inspect, maintain, and clean harvesting bins and equipment before use. If you believe that they had contact with animal droppings, bodily fluids, or otherwise became contaminated, you must clean and sanitize them. You must document the cleaning and sanitizing of food-contact equipment.

- **Should** inspect, maintain, and clean transport trucks as needed during the harvest season.

- Start thinking about the quality of your pre-harvest agricultural water source(s). As defined in the Produce Safety Rule, this includes any water that is directly applied on covered produce, including water used for frost protection, irrigation, pesticide, and fertilizer application. Pre-harvest agricultural water sources and distribution systems must be inspected/assessed for risks. Although there is no requirement to test, we recommend that you test your pre-harvest agricultural water to understand the level of E. coli in your water sources.

During Harvest

- **Should** check to make sure that harvest bins are clear of any soil before harvesting.

- **Must** take all measures reasonably necessary to identify and not harvest berries that are reasonably likely to be contaminated (e.g., berries that are visibly contaminated with feces). If droppings are discovered in a bin, you must discard the berries and clean and sanitize the bin and harvesting equipment before continuing use.

- **Must** not eat or use tobacco in the field. Drivers can eat inside a harvester cab if the cab is enclosed, and the driver doesn't have contact with berries after eating and before washing their hands. The best practice is for everyone to take lunch breaks at pre-established break areas outside the field. Do NOT eat blueberries in the field while harvesting.

- Workers **must** wash their hands before handling berries. Materials needed for proper hand washing include clean water, soap, single-use towels, and a trash bin. Water for handwashing does not need to be heated; but is considered harvest/post-harvest water, which must be tested to show that it has no E. coli.

- Under normal conditions, there is no need to cover berries in transport. However, if an event occurs or circumstances change, the risk of contamination could increase. For example, if street sweeping or construction is occurring on your route to the processing facility, it would be best to cover the berries.

At the start of the harvest season, harvesting bins, rakes, equipment, and all other food contact surfaces should be cleaned and sanitized. They should also be cleaned and sanitized during the season as needed to protect against contamination. Equipment and tools should be stored and maintained in a way to minimize the risk of contamination and prevent them from attracting and harboring pests.

Rakes

- **Must** take all measures reasonably necessary to identify and not rake animal droppings or f ruit contaminated (or suspected to be contaminated) with animal droppings.

- Clear rakes of blueberry "gunk" and debris when necessary.

Walk-behind Harvesters

- The driver should look ahead and avoid animal droppings.

- The operator should check the conveyor belt and harvester rakes to make sure droppings are not present. Clean out the harvester when necessary.

Tractor Harvesters

- Drivers **should** look ahead to avoid harvesting animal droppings.

- The ground crew **should** watch the back end of the harvester to make sure droppings are not present. Clean out the harvester when necessary.

Harvesting Bins

- Efforts **must** be made to keep harvest bins free from being contaminated with known or reasonably foreseeable hazards (i.e., clean) and prevent them from attracting and harboring pests. Inspect the location where bins are stored to avoid sources of contamination.

- Bin bottoms can be maintained reasonably clean and free from potential sources of contamination by harvesting into clean bins and placing those bins on surfaces like the natural ground cover that the wild blueberry crop provides. Take care not to place bins in areas of potential contamination (e.g., mud, animal feces).

- If harvest bins are used for harvesting both fresh-pack and berries exempt from the Produce Safety Rule because they are processed to adequately reduce human pathogens, special attention is needed. If the farm does not follow the Produce Safety Rule requirements for berries that are processed, bins used for the processed berries must be cleaned and sanitized before use for harvesting berries that are not processed (e.g., fresh-pack berries).

Post-Harvest (Fresh-Pack Lines)

- **Must** check to make sure food contact surfaces are clear of visible soil and blueberry gunk as frequently as reasonably necessary. **Should** wash/clean the picking belt at the beginning of the day with water and a detergent/soap. Should sanitize when needed.

- Workers **must** NOT eat berries or other food while sorting.

- Workers **must** wash their hands before handling berries—the same requirements as during harvesting.

- Workers **should** store berries in a way that minimizes contamination risk.

Toilet Availability

The Produce Safety Rule requires easily accessible toilets and handwashing facilities for the workers. The OSHA regulation (29 CFR 1910) more clearly defines this as one toilet and one handwashing facility per every 20 workers within a ¼ mile of the working area, regardless of the work being done, or within a 5-minute drive if the farm provides transportation (e.g., a truck is always available for workers when they are in the field). If you receive visitors at your farm, a toilet and handwashing facility must be available for them to use as well. Toilets must be maintained clean and stocked with supplies.

Health and Hygiene

All workers on the farm should be trained to follow the farm food safety plan if the farm has one. Workers must not handle berries or food contact equipment if they have an infection or communicable illness that could pose a risk to consumers or coworkers (common symptoms are nausea, vomiting, diarrhea, fever, and jaundice) or have an open lesion. They must also report to a supervisor any illnesses or injuries that occur while working. Workers must maintain adequate personal cleanliness and must wash their hands before handling produce, after using the restroom, before starting or returning to work, after eating or smoking, and whenever their hands are dirty/become contaminated (e.g., touching animals).

Developing a Farm Food Safety Plan

Having a formal farm food safety plan is a requirement for a USDA Good Agricultural Practices audit but not a requirement of the Produce Safety Rule. UMaine Extension recommends that you have one. A food safety plan gives you a chance to think through your entire operation and where there may be food safety risks to your customers. The food safety controls you put in the plan help protect your customers and your business and can make training your workers to the same standards a lot easier.

The Produce Safety Alliance (PSA) Grower Training offered by UMaine Extension provides the necessary knowledge and tools to create a farm food safety plan. The Produce Safety Rule requires that at least one person per covered farm take the PSA Grower Training or equivalent. UMaine Cooperative Extension offers this training periodically, and you can find the same training elsewhere listed on the PSA website.

Recordkeeping

- **Must** practice good record keeping. Required records may include the following:
  - Qualified exemption review: the information needed to claim an exemption.
  - Worker training: to show that workers were trained to do their jobs safely.
  - Compost Treatment Record: the information about compost treatment if you do it yourself.
  - Cleaning and Sanitizing Record: information about your sanitation activities.
  - Water system inspection and assessment of pre-harvest ag water.
  - Water quality testing lab results according to the intended use.
  - If you use any alternative practices: keep copies of the scientific data or other information to support such practices.

Traceability

Having a traceability plan is a requirement for USDA GAP audits and for farms subject to the FDA FSMA Traceability Rule (21 CFR 1 Subpart J). Wild blueberries—either fresh or frozen—are not on the FDA Food Traceability List and are, therefore, not subject to the FDA FSMA Traceability Rule. Other fresh and fresh-cut produce on the list is subject to the rule. There are some exemptions for certain farm sizes and packaging/labeling criteria. In summary, wild blueberries must have a traceability plan for GAP certification. A suggested practice is to maintain records for what is harvested by date/location (one step back) and to whom that product is sold (one step forward). A lot number can be generated, which follows the product through the supply chain. When issues with a product arise, the source of the product and where it was sold can be identified.

Resources

FSMA Produce Safety Full text

- Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption

Draft Guidance document:

- Draft Guidance for Industry: Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption

PSA Grower Training:

- For more information about the PSR and how it affects your farm, we encourage you to take the FSMA PSR training. You can find future training opportunities at UMaine Extension Produce Safety Training webpage or the Produce Safety Alliance Grower Training webpage.

Call 800.287.0274 (in Maine), or 207.581.3188, for information on publications and program offerings from University of Maine Cooperative Extension, or visit extension.umaine.edu.

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