

# Produce Safety Rule In Oregon



## Produce Safety on the Blueberry Farm

Oregon is a major producer of the United States' blueberry crop. Blueberries are subject to the Food Safety Modernization Act Produce Safety Rule which is a federal regulation being implemented by the Food and Drug Administration. This handout summarizes some key elements of produce safety for blueberry growers to consider related to the Produce Safety Rule.

### Worker Hygiene

Harvest employees will touch blueberries and food contact surfaces. The Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR) requires farmers to train workers in proper hygiene practices using a language and literacy level that their workers can understand. Workers should understand how they can spread microorganisms from their hands to food contact surfaces and berries. Workers need to maintain proper hygiene by wearing clean clothes and by proper and frequent handwashing. Gloves are not required by the PSR (112.32(b)(4)), but if a farm chooses to use gloves, then workers must maintain them in good condition, change or clean them as needed, and wash hands prior to putting gloves on. Growers must supply adequate handwashing and toilet facilities for their employees.

### Water Quality

The agricultural water portion of the PSR is being revised (spring/summer 2022) and is currently not being enforced. During this period, water testing is not required; however, inspecting your water source and distribution system and identifying ways to protect and manage your water quality is encouraged.

Water that comes into direct contact with your berries could be a source of contamination. This includes water used for any purpose: irrigation, evaporative cooling, pesticide application. Water that is directly applied to the berries very close to harvest (i.e., evaporative cooling) carries the highest risk. The quality of water used to mix pesticides is also important. Water used in drip irrigation lines is unlikely to contact the berries and has little risk.

# Harvesting

## Harvest Containers: Buckets, Trays, and Lugs

Containers used for harvesting berries, including buckets, trays, and lugs, must be clean and sanitary. These harvest containers should be cleaned and sanitized. Workers should be trained to check buckets, trays, and lugs for debris and obvious contamination. They should not harvest berries into dirty containers and should know what to do if they find a dirty harvest container.

Harvest containers need to be handled and managed so that they do not become a source of contamination. If buckets are placed on the ground, then the bottom of the bucket can be contaminated. Pickers will likely touch the bottom of the bucket, and buckets are often stacked which can lead to contamination of the berries. If buckets are placed on the ground, workers should be trained to not touch the bottom of the bucket so that their hands do not become contaminated. If bucket harnesses are used, these should also be cleaned and sanitized. If buckets are stacked, they should be cleaned and sanitized before use.

## Mechanical Harvesting Considerations: Cleaning and Sanitizing

The mechanical harvester has many food contact surfaces that need to be cleaned and sanitized. Cleaning may only require brushing away leaves, twigs, and the odd berry. However, if buildup of soil and berry debris happens, then thorough wet cleaning and sanitation will likely be needed. Growers often clean harvesters by putting a detergent solution in the harvest cups and letting the machine continue to operate for several minutes before rinsing with a sanitizer solution. All food contact surfaces, including the shakers and catch plates should be cleaned and sanitized.

## Pre-Harvest Inspection

Mechanical harvesting is an efficient way to harvest berries; however, automation leads to inflexibility. Mechanical harvesters are not able to skip over a contaminated bush or reverse in the middle of a row. This is why a pre-harvest assessment for wildlife intrusion is especially important for mechanical harvesting operations. If you find a blueberry bush covered in bird feces during the pre-harvest assessment, then you could strip the contaminated fruit and leaves off the bush prior to harvest.

Bushes that are overloaded with fruit that are touching the ground are “dropped produce” and cannot be harvested for fresh market. These branches should be stripped or pruned during the pre-harvest assessment.

## Night Harvesting

Small animals can be picked up by the mechanical harvester, especially during night harvests. Blood, feces, and animal carcasses all have the potential to spread harmful bacteria and contaminate the blueberries. Segregate and dispose of fruit that touched these animal parts. When this happens, harvesting should be paused, and the harvester should be cleaned and sanitized before resuming harvest.



## General Questions and Answers

### What are the requirements for handwashing stations?

Handwashing stations must have **soap, running water, and adequate drying devices to dry hands** (such as single service towels, sanitary towel service, or electric hand dryers).

The text of the rule (21 CFR § 112.130(b)) states:

- (a) You must provide personnel with adequate, readily accessible handwashing facilities during growing activities that take place in a fully-enclosed building, and during covered harvest, packing, or holding activities.*
- (b) Your hand-washing facilities must be furnished with:*
  - (1) Soap (or other effective surfactant);*
  - (2) Running water that satisfies the requirements of § 112.44(a) for water used to wash hands; and*
  - (3) Adequate drying devices (such as single service towels, sanitary towel service, or electric hand dryers).*
- (c) You must provide for appropriate disposal of waste (for example, waste water and used single-service towels) associated with a hand-washing facility and take appropriate measures to prevent waste water from a handwashing facility from contaminating covered produce, food contact surfaces, areas used for a covered activity, agricultural water sources, and agricultural water distribution systems with known or reasonably foreseeable hazards.*
- (d) You may not use antiseptic hand rubs as a substitute for soap (or other effective surfactant) and water.*

While hands-free nozzles are recommended, they are not required by the PSR.

### During active harvest what are the requirements for worker clothing?

When working with covered produce, worker clothing should be clean (21 CFR § 112.23(b)(1)). Gloves, bootie covers, arm sleeves, aprons or other protective outer wear are not required by the PSR. Workers are not required to wear disposable booties over footwear when entering the restroom. However, growers may choose to use these items to support food safety management.

### Is protective outerwear required to be worn on a mechanical harvester?

The platform on the top of the harvester is made of a grid-like material that could allow debris from workers clothes or shoes to fall onto the berries and plants below. Maintaining worker clothing and footwear in a clean manner meets the requirement for managing this risk. Workers are not required to wear protective outerwear when working on a harvester.

### Can harvest containers be stacked?

Stacking or “nesting” harvest containers means they are put on top of or inside of other containers. Contamination from the bottom of one bucket can be introduced to the inside of another. Workers should be trained to not nest buckets during harvest and to empty buckets into flats without touching the bottom of the bucket. If they do touch the bottom of a bucket, then it would be recommended for them to wash their hands or change gloves.



## Wildlife Intrusion

Ripe blueberries attract many kinds of wildlife, including a wide variety of small and large birds, deer, coyote and other predators. The presence of the animals is not the problem, but their feces creates a significant food safety risk.

There is no one right way to manage wildlife on the farm. Farms vary in how they balance priorities of food safety, wildlife preservation, and land management.

Wildlife deterrents fall into several categories:

- exclusion (nets and fencing),
- visual and aural startling (sparkle tape, noisemakers, hazarding with shot),
- predator fear (predator/distress calls, falconry),
- palatability (sugar sprays),
- hunting/trapping.

Rotating deterrents or using multiple deterrents simultaneously are often effective options. Timing of deterrents is important and should be implemented before fruit ripens.

The PSR prohibits farms from harvesting produce that is visibly contaminated or likely to be contaminated with wildlife feces. It does not require or encourage any particular approach for wildlife management.



Photo: Erik Van Dijk



## Refrigeration

Many growers will store or transport harvested berries in refrigerated trailers to maintain quality. These trailers must be inspected and cleaned as necessary to maintain adequate sanitary quality. Prior to loading, check the floors and walls for debris. Sweep away debris and spot clean areas with crushed fruit. Use your nose—even if a trailer looks clean, if it smells sour, sweet, or otherwise ‘off’, then a more thorough cleaning and sanitizing may be needed. Always check the condenser to make sure that condensate is not dripping onto fruit. Monitor the temperature of the trailer to confirm that your equipment is working properly.

### LEARN MORE

For more information, visit our webpage at [oda.direct/producesafety](https://oda.direct/producesafety)



**OREGON  
DEPARTMENT OF  
AGRICULTURE**

635 Capitol St NE,  
Salem, OR 97301-2532 USA  
503.986.4645 | [Oregon.gov/ODA](https://Oregon.gov/ODA)

*This publication is supported by the Food and Drug Administration (FDA) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award U2FFD007422 totaling \$630,000 with 100 percent funded by FDA/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by FDA/HHS, or the U.S. Government. Draft revised 6/6/22*