

The background of the slide is a dense, overlapping pattern of thin, circular slices of purple vegetables, likely purple carrots or beets. The slices are arranged in a somewhat chaotic but repetitive pattern, filling the entire frame. The color is a rich, deep purple with some lighter, fibrous-looking areas in the center of the slices.

# Looking At Post Harvest Areas Through An Inspector's Lens

Common Post-Harvest Wash and  
Pack Observations from a FSMA  
Inspector

New England Vegetable  
and Fruit Conference,  
December 2024

# Misconceptions of Post Harvest Requirements

- No prohibition against wood surfaces
- No requirement to use sanitizer in wash water
- No requirement to use chlorine (bleach)
- No requirement to wash produce
- Indoor? Outdoor? Doesn't matter
- No set cleaning schedule or regimen
- All aspects must be clean and sanitary and not a source of contamination



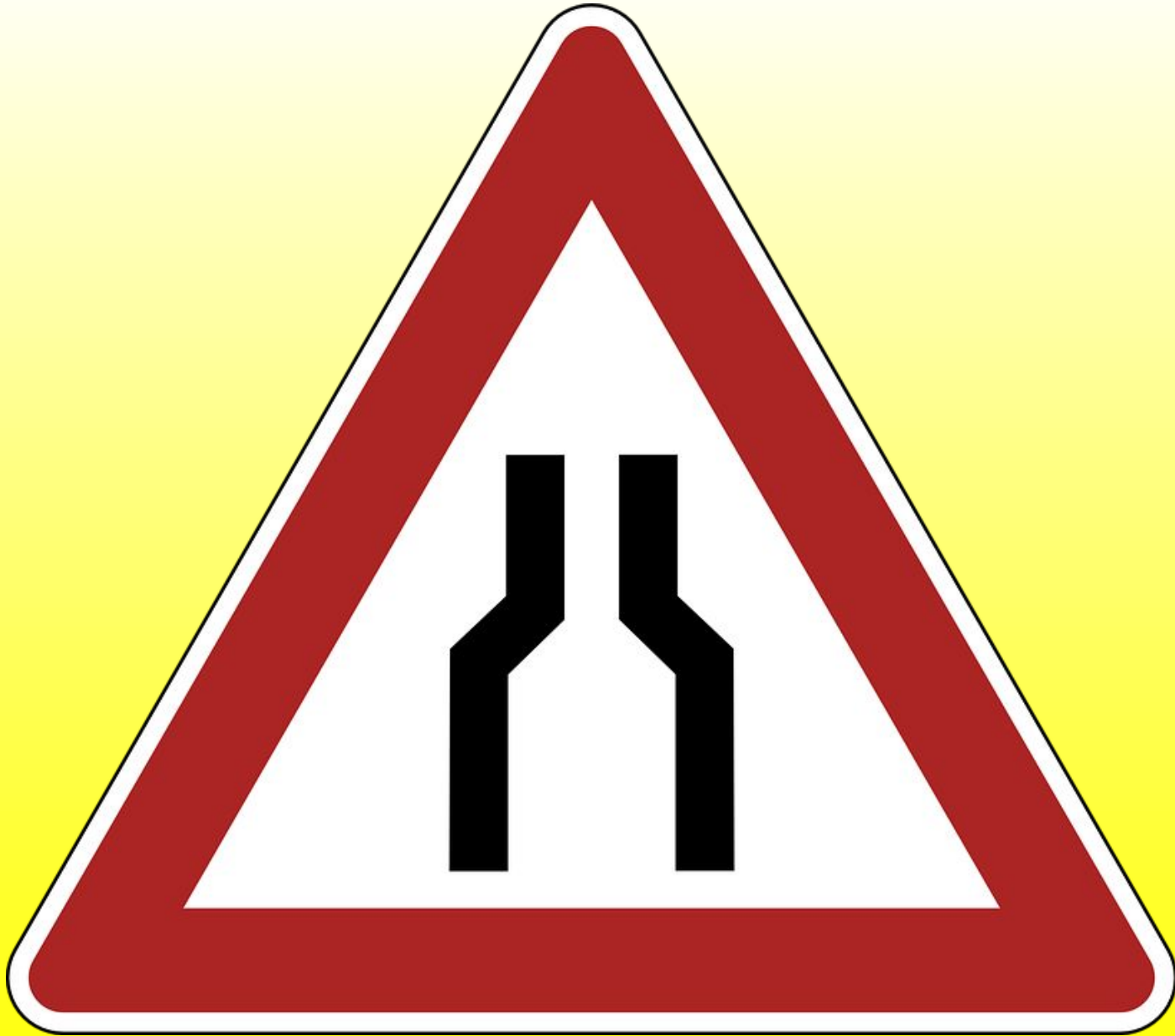
# Cross Contamination

- What is the flow of produce through this space?
- Which surfaces are food contact and which are not?
- What are the environments where hazards could colonize or multiply?
- Are there pathways for hazards to contaminate produce or food contact surfaces?
- Handwashing, handwashing, handwashing!

## *BOTTLENECKS*

A source of congestion; a narrow route

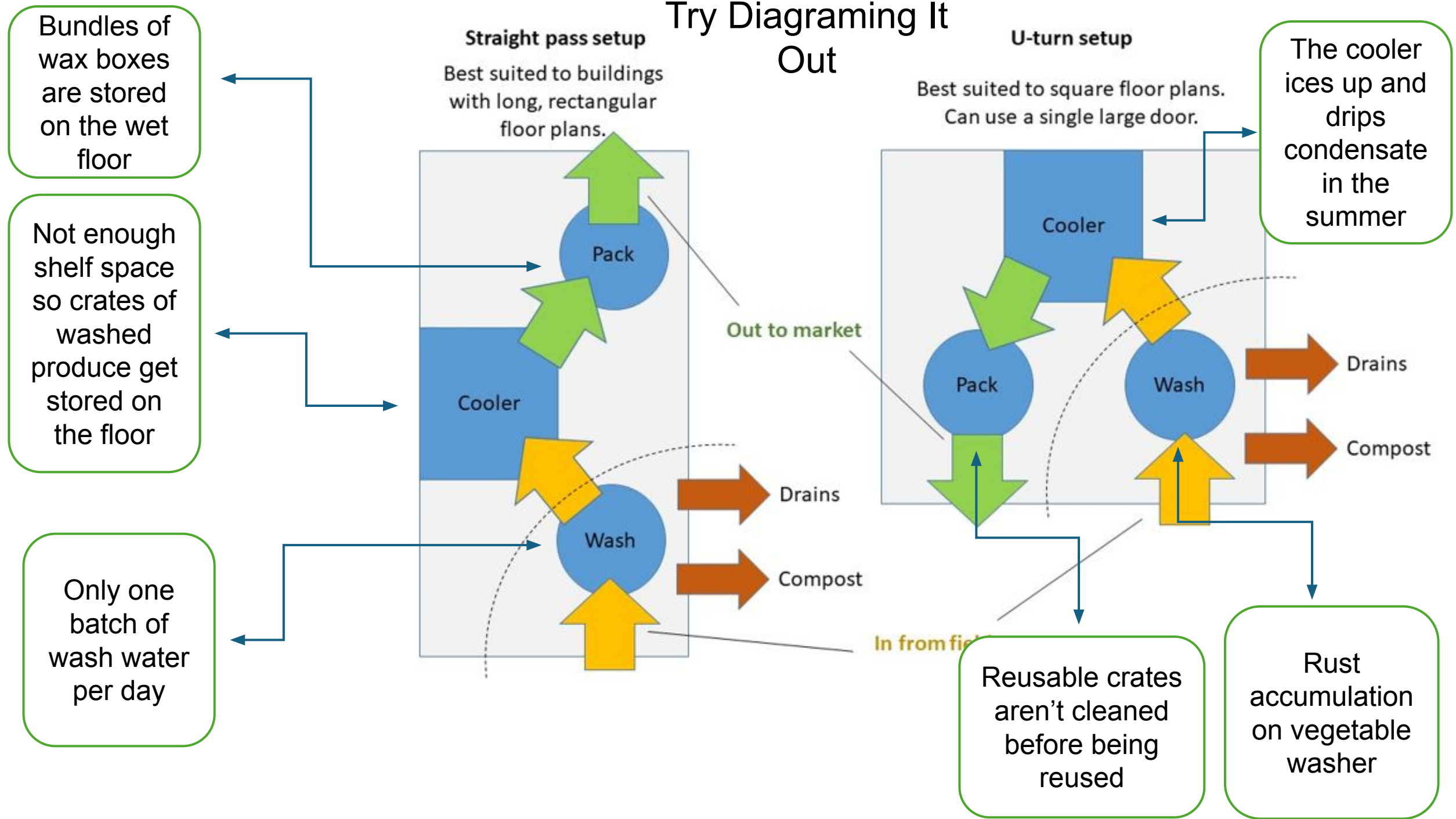
Where does “everything” get touched by “one thing” and how clean and sanitary is that “one thing?”



## Examples of Bottlenecks

- Vegetable Washer
- Greens Spinner
- Conveyor Belt
- Sorting Table
- Sinks/Tubs
- Wash Water
- Tabletops
- Ice Scoop
- HANDS**

# Try Diagramming It Out



# What Does Clean Mean?

Inspectors will ask “how do you clean this?”



- Just rinsing, brushing, or wiping is not enough
- Must have detergent step and a sanitizing step
- Step 1: Remove dirt and debris
- Step 2: Soap, water, agitation
- Step 3: Applying a sanitizer **per label instructions!**
- Step 4: A record or a log

A close-up photograph of a honeybee on a yellow flower, likely a rapeseed or mustard flower. The bee is positioned on the left side of the flower, facing right. The background is a soft, out-of-focus gradient of blue and yellow. The text is overlaid on the left side of the image.

# Examples of Common Observations in Post Harvest Areas

Observations from Summary Reports- given to the grower  
From Massachusetts Inspections 2023-2024  
Wording varies from state to state/ inspector to inspector

# Observation Examples Equipment

- ***Observed that both incline conveyor belts on the bagging machine are grimy and dirty. Observed the rubber cleats on both incline conveyor belts are peeling off, with built up dirt and grime accumulation. Recommend the belts be replaced this season***
- ***Observed chipped paint and worn bumpers on the apple grader. Observed some surfaces around the conveyor have been covered in layers of duct tape. Observed one grading table has torn plastic. Recommend the machine be updated and broken and chipped paint fixed.***







# Observation Examples

## Routine Cleaning and Sanitizing

- ***Harvest buckets are not cleaned or sanitized. The farmer explained the buckets are rinsed with water and brushed every day after harvest. Recommend buckets be scrubbed with soap and water and then sanitized as a last step. Sanitizer can be sprayed on or buckets can be dunked into a sanitizer solution.***
- ***Dunk tank and vegetable conveyor are not cleaned or sanitized on a regular basis. Recommend a cleaning and sanitizing step be added, potentially before use every day.***

# Observation Examples

## Boxes of Produce on the Floor

- ***Observed wooden apples storage crates being used as floor crates. Recommend floor crates be distinguished from storage crates in the future.***
- ***Observed non-floor crates being used as floor crates. The farm paints X's on floor crates to distinguish them from regular harvest crates. Recommend the crew be reminded only crates with X's can be floor crates.***





# Observation Examples

## Dripping Condensation

- ***Observed condensation on the underside of a PVC pipe above the packing table and harvested produce. Observed algae growth and streaks in the algae suggesting excessive dripping. Recommend this pipe be insulated to prevent condensation buildup or the packing table and produce be pulled out from underneath the pipe.***
- ***Observed a flexible drain tube dripping AC condensate onto the loading dock, pooling water in proximity to recently harvested onions being stored in wooden harvest baskets on the loading dock floor. Recommend the drain tube be modified to carry water away from the loading dock and that produce not be stored on the floor.***

# Observation Examples

## Pest Incursion

- ***Observed multiple doors leading into the wash/pack room are lacking door sweeps, with a significant gap between the door and floor. Recommend door sweeps be installed to prevent pest intrusion.***
- ***Observed the cooler double doors, which lead outside, have gaps along the bottom and in between the doors. Observed daylight streaming in. These doors must be secure from the outside with new door sweeps and insulation installed.***





# Observation Examples Employee

## Contamination

- ***Observed tomatoes and basil are stored on shelves in the break room. Observed some employee belongings were being stored alongside the produce. Farm manager related that the break room table is sometimes used to pack produce and CSA boxes. Recommend signage be posted prohibiting staff from storing belongings on the shelves and that the break room table either no longer be utilized in packing or that a cleaning and sanitizing protocol be established for the table before being utilized in packing.***
- ***Observed an employee smoking a cigarette while carrying harvested microgreens from the greenhouse to the cooler. Observed the same employee later smoking a cigarette while watering microgreens trays in the greenhouse. Asked the employee to discard the cigarette and wash his hands in both instances. Recommend employees be reminded of the farm's smoking policy and be closely watched for compliance.***

# KEY TAKEAWAYS

The PSR is primarily concerned with microbiological hazards and inspectors are looking for cross contamination

Looking for “bottlenecks” in your post harvest areas can help identify trouble spots

Proper “cleaning” involves a detergent and sanitizer step. Don’t neglect records!

Inspections aren’t that scary, amiright folks?

# Thank You Any Questions?

Ben Comeau

Produce Safety Inspector

Massachusetts Department of  
Agricultural Resources

[Ben.Comeau@mass.gov](mailto:Ben.Comeau@mass.gov)

