

Historical Water Quality in Malheur County - The E.Coli Story





Owyhee Irrigation Project, 1932

Agricultural Water Quality in the Treasure Valley

Treasure Valley irrigation systems mix clean water with runoff water.

E.g., runoff water in the Owyhee River basin is typically around 570 CFU /100 ml.

E.g., runoff water in the Malheur River basin is typically around 1,000 CFU /100 ml.

Some water exceeds 10,000 CFU /100 ml.





Transformations of Irrigation Systems



Proposed rule defines “agricultural water”

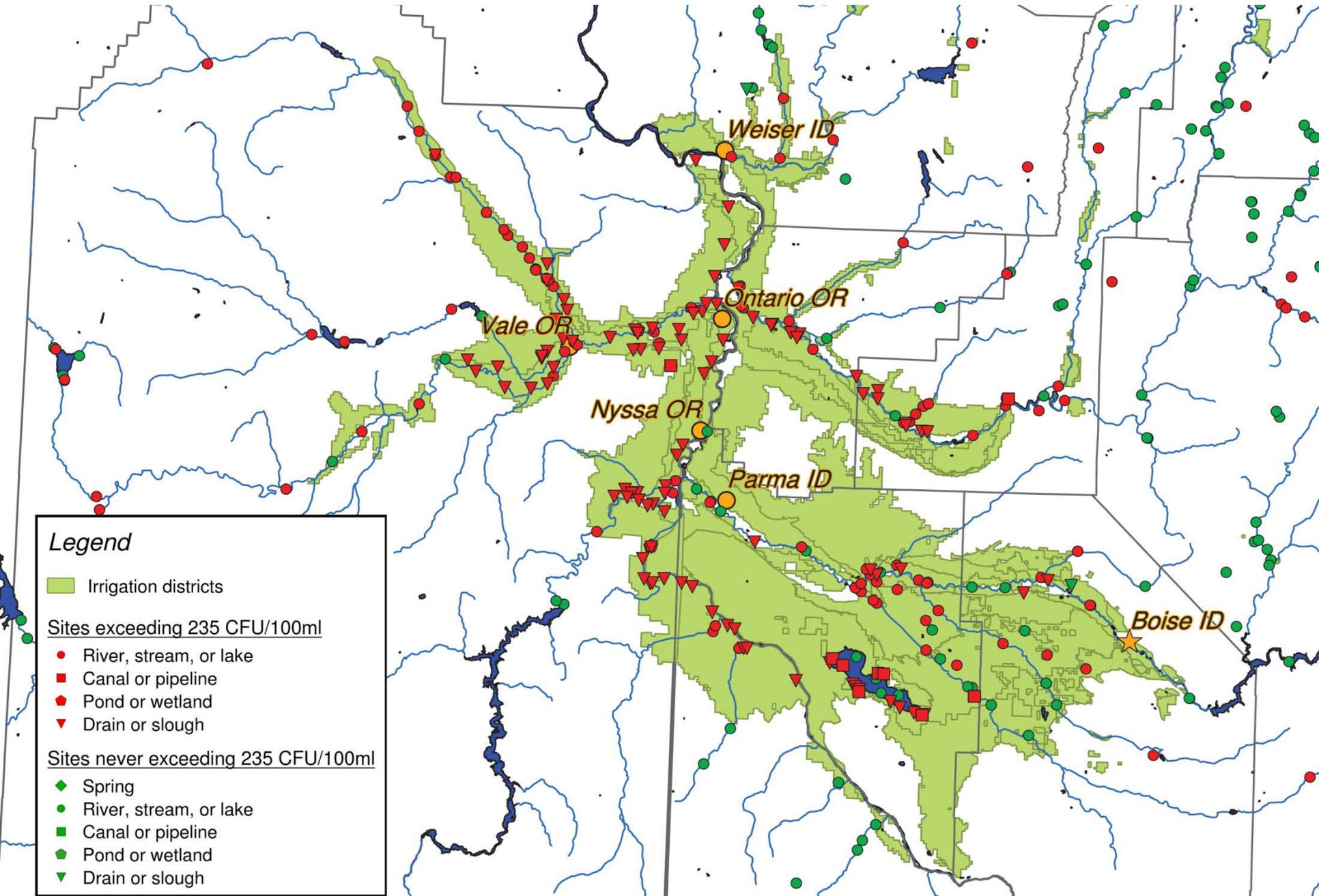
“Any applied water that comes into contact with the produce surface”

Prior to harvest, agricultural water would need to be tested regularly

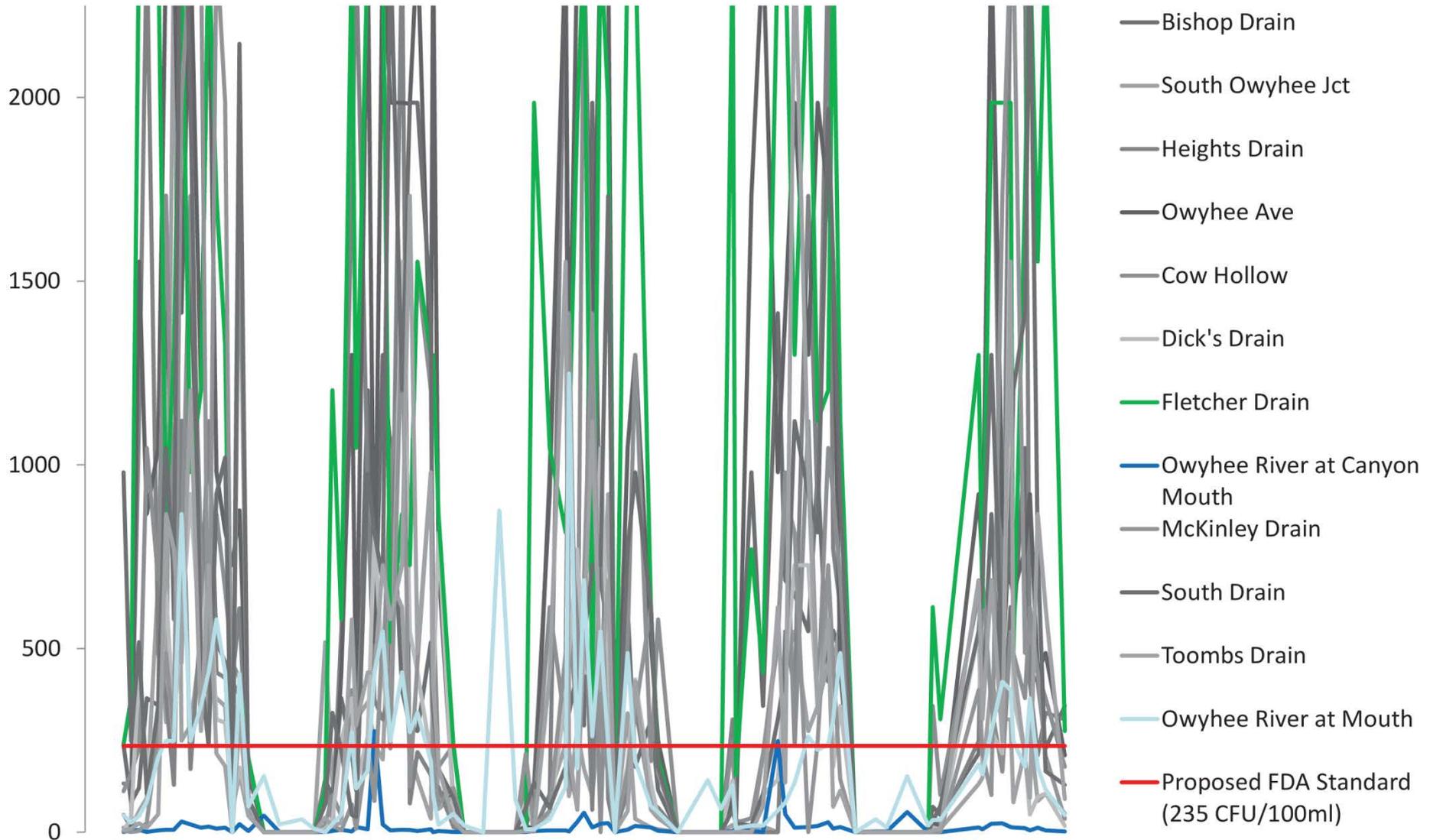
Agricultural water would need to have fewer than 235 units of *E. coli*/100 ml to be applied**

Producers would *not* be allowed to use agricultural water that does not meet the standard for fresh produce

Historical Surface Water Quality: Treasure Valley

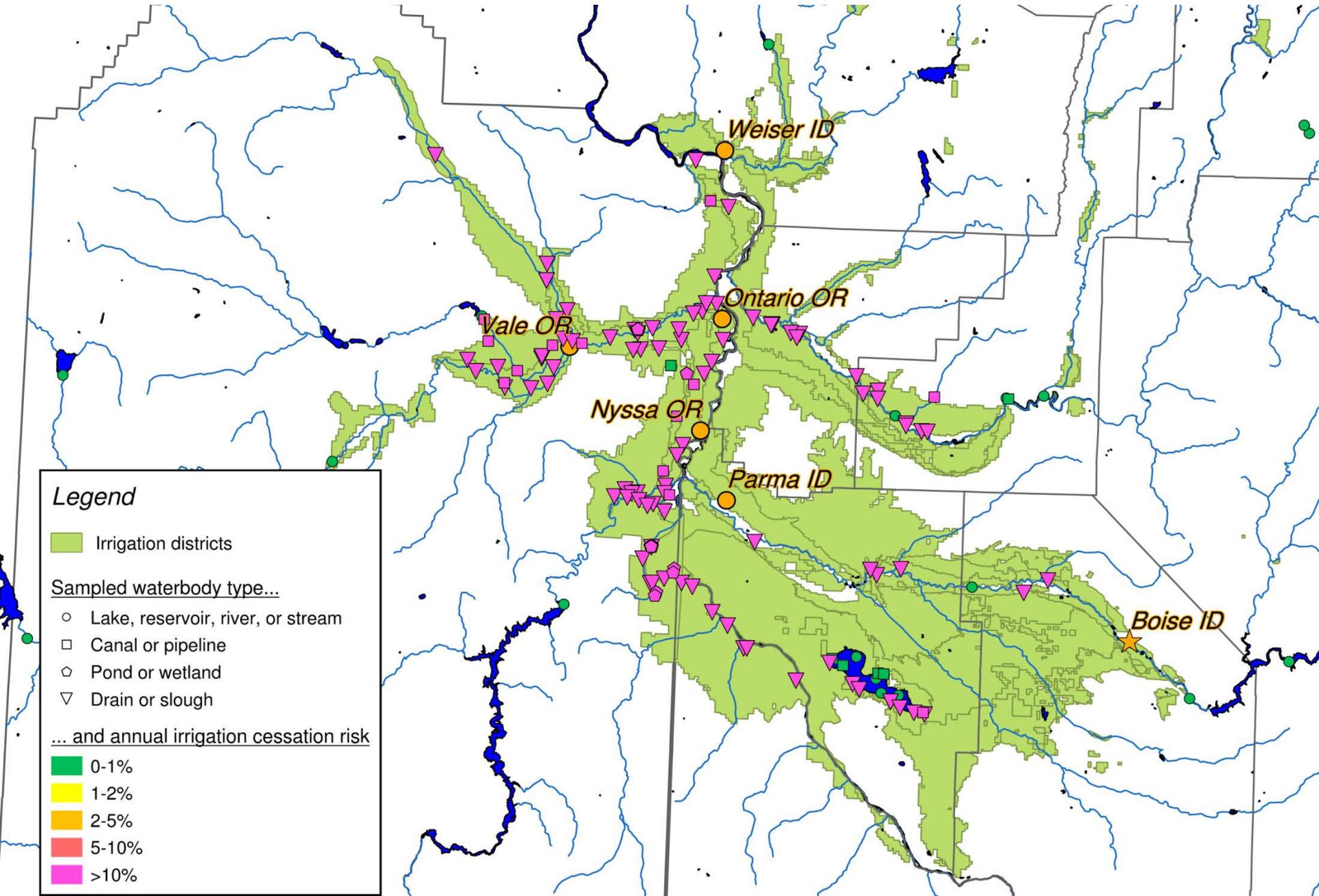


E. coli in Owyhee Irrigation District, 2008-2012



Courtesy of Gary Faw, Malheur SWCD

Risk of Irrigation Cessation under the Proposed Rule



Proposed rule: covered produce

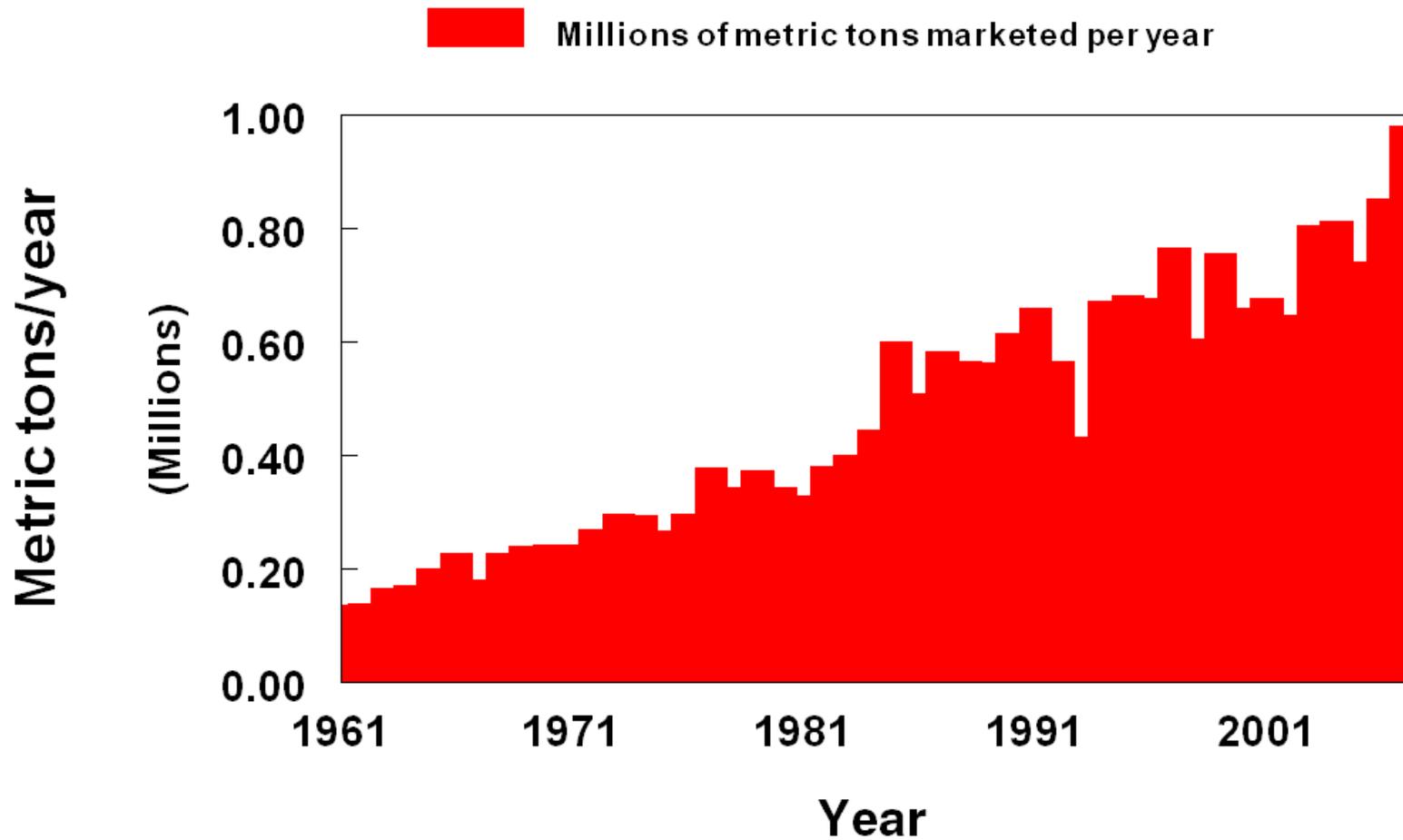
Any fresh produce that is not usually cooked prior to eating

Fresh produce that will be processed prior to consumption is *not* covered

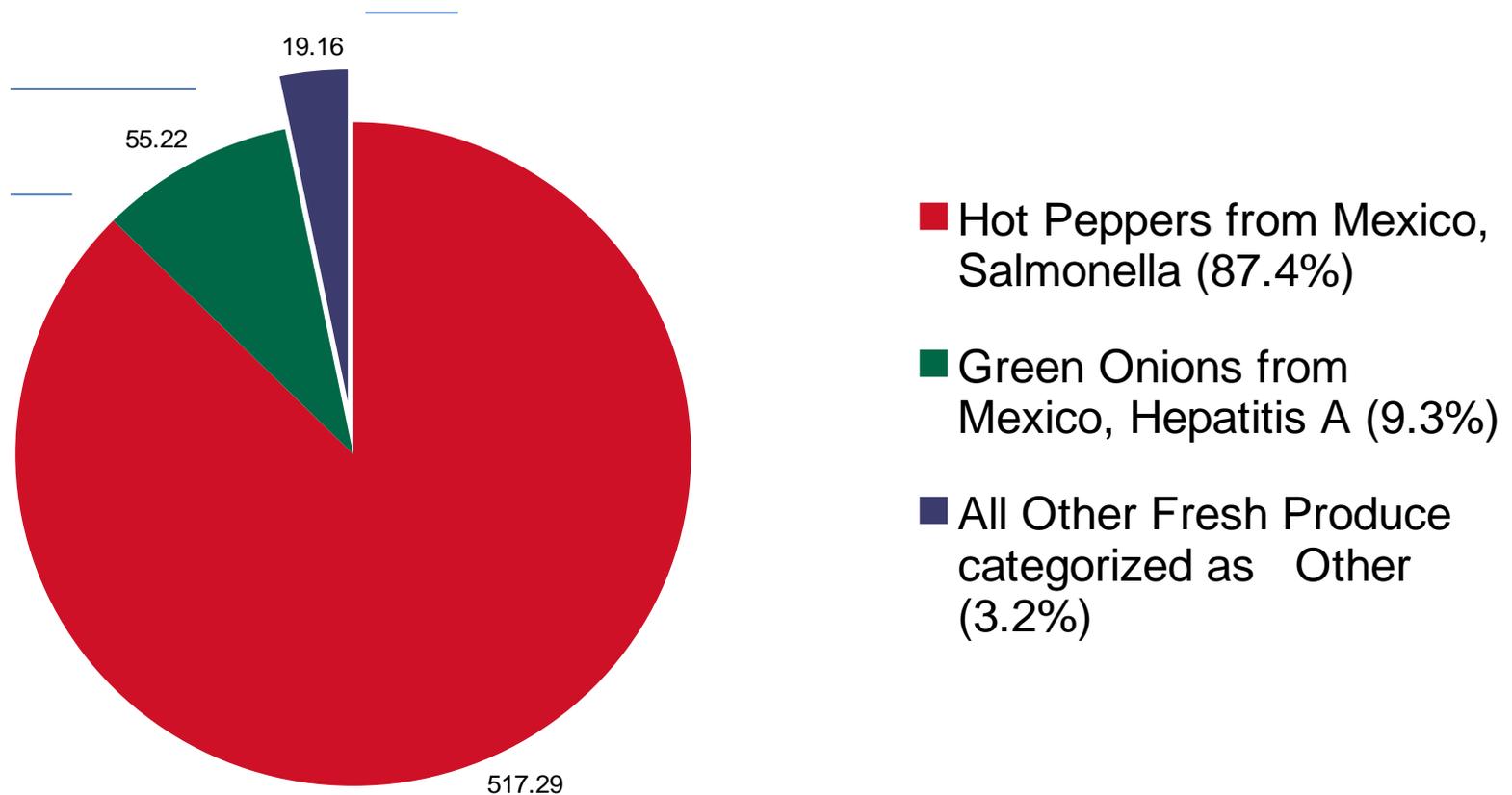
Covered: onions for fresh market, grapes for fresh market

Not covered: onions for processing, potatoes, grapes for wine

Trend in Treasure Valley onion marketing



Public Health Burden Attributable by FDA Methodology to “Other” Fresh Produce, 2003-2008 (in millions of dollars)



Greg Walden, Mike Simpson lead meeting with FDA to voice concerns about new water quality rules affecting fruit and vegetable growers



Oregon Rep. Greg Walden (second from right) and Idaho Rep. Mike Simpson (right) meet with FDA officials to share fruit and vegetable growers' concerns about new water quality rules. At left is Mike Taylor, Deputy Commissioner for Foods and Veterinary Medicine (More photos available upon request)

WASHINGTON, D.C. — U.S. Reps. Greg Walden (R-Ore.) and Mike Simpson (R-Idaho) today led a meeting with other members of Congress and top officials at the Food and Drug Administration (FDA) to directly convey concerns they have heard from Oregon and Idaho onion farmers and fruit growers about new water quality rules that could cripple family farms nationwide.

Walden and Simpson invited the FDA officials to travel to Oregon and Idaho, and the officials are planning a trip to Oregon, Idaho, and Washington next month to hear from Northwest growers first-hand.

Scientific studies needed to support requests for exemptions and variances

History of lack of foodborne illness outbreaks

Study of current practices. For each affected crop, compile existing grower water records, grower produce records, certification records, and packing shed records

Epidemiological assessment

Fate of *E. coli*, *E. coli* O157:H7, *Salmonella*, etc.

Hypothesis: For most fresh produce, the quality water received during most of the growing season has little or no significant effect on the microbial load at harvest

Produce specific

Water -> Soil -> Produce surface -> Produce edible portion

Throughout the growing season

Engineering considerations

RATIONALE: *Treasure Valley irrigation systems mix clean water with runoff water.*

- Redesign irrigation systems to deliver clean water to each farm.