OR EPR Impacts on Environment, Farmers, & Food Prices

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Berry Clamshell is Currently the Most Sustainable Package for Highly Perishable Produce

Made from the most recycled plastic in the world - PET

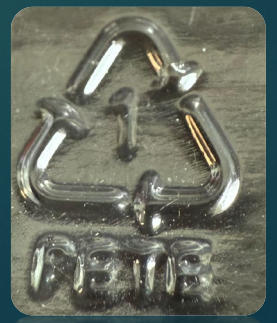
Commonly Exceeds 50% Post Consumer Recycled Content

100% Recyclable – Association of Plastic Recyclers Guidelines

Recycled Using the Same Technology to Recycle PET Beverage Containers

Best Option to Meet Functional Requirements:

- Single use packaging is required by Federal Food Safety Law
- Safest Food Contact Surface
- Best for Protecting the Fruit from Damage and Food Waste
- Lowest GHG Impacts from Transportation
- Durability for field packing



Environmental Tradeoffs

Plastic PET clamshell

Greater than 50% rPET

rPET Bales

100% Closed Loop

Consumer

MRFs

Curbside Recycling

Paper/Fiber clamshell

2X heavier than PET

Need ~1,000 acres of trees annually

Consumer

Composting Soil Amendment

No Closed Loop

Landfill - Increased GHGs and VMT

Image Source: Canva.com; Values from CSC estimates

Conflicts with National and International Standards

- FDA rule* food packaging and material must;

  "(a) Use food-packing material that is adequate for its intended use, which include being:
  *(1) Cleanable (for reuse) or designed for **single use**; and*
  (2) Unlikely to support growth or transfer of bacteria."

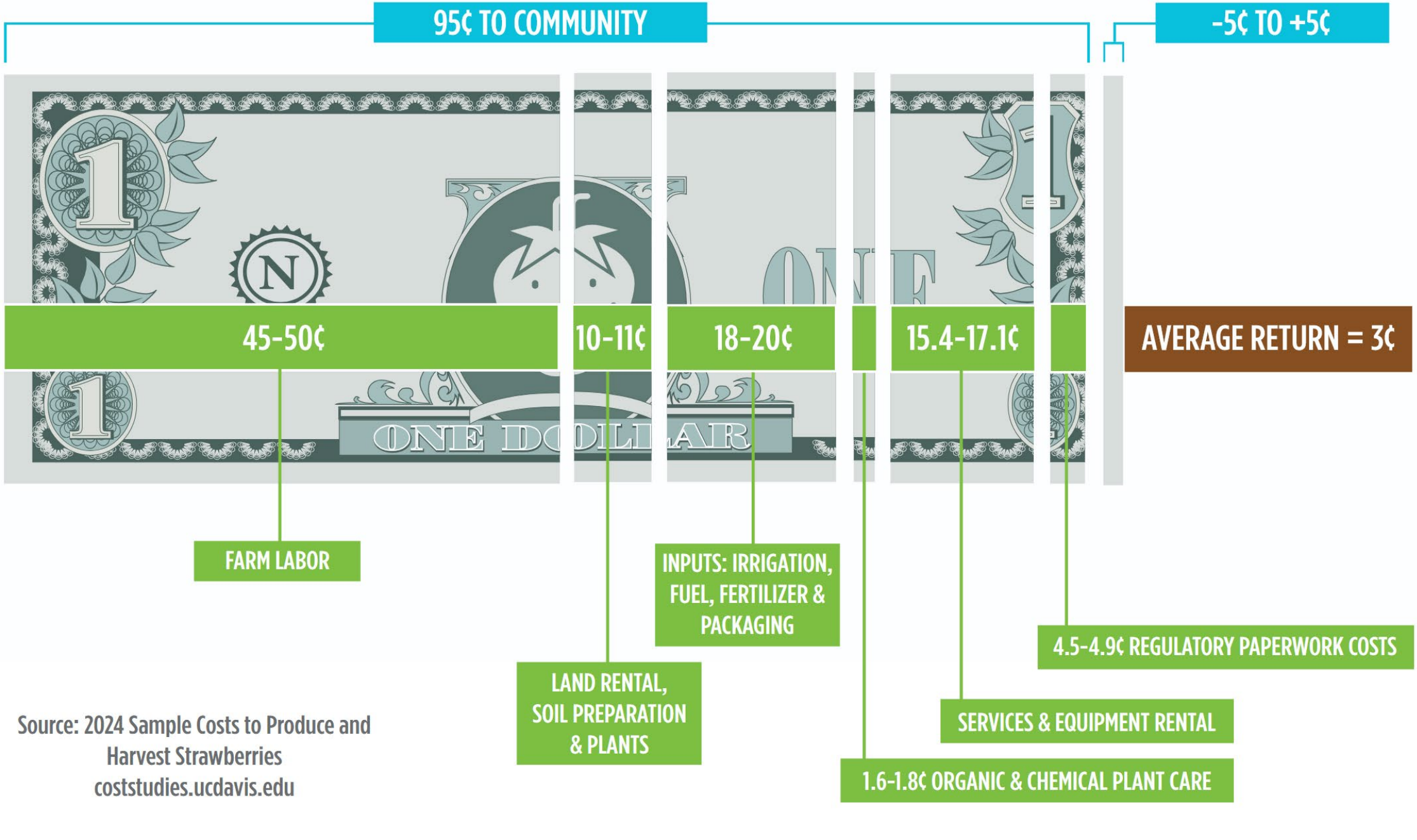
- Canada - After learning more about the benefits of berry clamshells and its contributions to food safety and national food security, Canada paused the ban on plastic PET clamshells

  "A much different picture emerged in relation to product protection functions. A direct correlation exists between the importance of packaging functions related to product protection and products' perishability. The increased importance of these packaging functions extends across the value chain."

- France - Permanently exempted 29 fruits and vegetables from its EPR program

  "This French decree is an implementation of the Anti-waste and Circular Economy (Agec) law which… provides exemptions for "fruits and vegetables presenting a risk of deterioration when sold in bulk."

* Section 112:116 of 21 CFR under "Growing, Harvesting, Packing, and Holding Activities"



Source: 2024 Sample Costs to Produce and Harvest Strawberries
coststudies.ucdavis.edu

Summary

- Average return to farmer - 3% ($0.03 cents/$1.00)
- OR EPR "low" fees range from 1.06-3.45%
- OR EPR "high" fees range from 1.40-4.54%
- One-third to over 100% of farmer returns are consumed by OR EPR fees

Consequences

- Food prices will increase
- Increased imports from elsewhere that have less regulations and sustainability standards and increase greenhouse gases due to increased fuel use form longer transportation distances
- CA has exclusionary language for the strawberry plastic PET clamshell to meet USDA and FDA standards for structural integrity and food safety

Cost Impact Reference Slides
(slides 8-12)

Understanding of Economic Impacts are Evolving as OR EPR is Implemented

- CSC Comment Letter to the Oregon DEQ dated April 11, 2025;

"Since the Act exempts some producers, including all non-U.S. companies, the cost impact of the DEQ described fee allocation on fresh produce packaging may exceed the profit margin for some farmers. In such circumstances, farmers will have no option but to pass those costs forward to the buyer."

- Since then, with publication of fees and invoices sent July 1, 2025, this comment can be revised to;

"Since the Act exempts some producers, including all non-U.S. companies, the cost impact of the DEQ described fee allocation on fresh produce packaging will exceed the profit margin for ~~some~~ farmers. In such circumstances, farmers will have no option but to pass those costs forward to the buyer."

Estimated OR EPR Fees (Pre-July 1, 2025)

Oregon EPR Implementation Costs

Possible Berry Pallet Packaging (based on 120 8-1lb. trays per pallet)						
Material		Actual Weights Vary (lbs.)	Low Fee	High Fee	Total Cost - Low	Total Cost - High
	Clamshell	55.35	$ 0.55	$ 0.74	$ 30.44	$ 40.96
	Tray	89.08	$ 0.03	$ 0.03	$ 2.67	$ 2.67
		Cardboard				
	Pallet Tie Sheet	4.27	$ 0.03	$ 0.03	$ 0.13	$ 0.13
	Pallet Cap	1.57	$ 0.03	$ 0.03	$ 0.05	$ 0.05
		LDPE				
	Pallet Bag	2.00	$ 0.54	$ 0.72	$ 1.08	$ 1.44
	Pallet Wrap	1.00	$ 0.54	$ 0.72	$ 0.54	$ 0.72
Total per Pallet		**153.27**			**$ 34.91**	**$ 45.97**
Total per Tray		**1.28**			**$ 0.29**	**$ 0.38**

Current OR EPR Fees (tertiary packaging was excluded)

Oregon EPR Implementation Costs

Possible Berry Pallet Packaging (based on 120 8-1lb. trays per pallet)						
	Material	Actual Weights Vary (lbs.)	Low Fee	High Fee	Total Cost - Low	Total Cost - High
✓	Clamshell	55.35	$ 0.55	$ 0.74	$ 30.44	$ 40.96
✓	Tray	89.08	$ 0.03	$ 0.03	$ 2.67	$ 2.67
	Cardboard					
✗	Pallet Tie Sheet	4.27	$ 0.03	$ 0.03	$ 0.13	$ 0.13
✗	Pallet Cap	1.57	$ 0.03	$ 0.03	$ 0.05	$ 0.05
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Fees "low" as a Result of Cost - $33.11/pallet

	Price/Tray Conventional ($)*	Price/Tray Organic ($)*	Per pallet Conventional ($)#	Per pallet Organic ($)#	OR EPR Low Fees Percentage Conventional	OR EPR Low Fees Packaging Percentage Organic
Average price 10/14/2025	18	26	2160	3120	1.53%	1.06%
Average price 6/2/2025	8	12	960	1440	3.45%	2.30%
Average price 8/4/2025	8.5	11	1020	1320	3.25%	2.51%
Annual 2024	11.02	20.2	1322.4	2424	2.50%	1.37%

Fees "high" as a Result of Cost - $43.63/pallet

	Price/Tray Conventional ($)*	Price/Tray Organic ($)*	Per pallet Conventional ($) #	Per pallet Organic ($) #	OR EPR High Fees Percentage Conventional	OR EPR High Fees Packaging Percentage Organic
Average price 10/14/2025	18	26	2160	3120	2.02%	1.40%
Average price 6/2/2025	8	12	960	1440	4.54%	3.03%
Average price 8/4/2025	8.5	11	1020	1320	4.28%	3.31%
Annual 2024	11.02	20.2	1322.4	2424	3.30%	1.80%

120 trays per pallet.

*Daily Report is generated from data compiled by the USDA Agricultural Marketing Service which is available publicly on the USDA Fruit and Vegetable Market News website https://www.marketnews.usda.gov/mnp/fv-home.

University of California Davis report (March 2024)

Bolda et et.[1] UC Davis 2024 study. Table 4. Range Analysis (page 17)

- Yield and strawberry tray price determine net returns
- Yields must be over 7,000 trays/acre and $14/tray to have net positive return
- Yield must be over 11,000 trays/acre and $12/tray to be net positive with returns

- In 2024, production was 6047 trays/acre and $11/tray. Large losses!

1. https://coststudyfiles.ucdavis.edu/2024/04/04/2024Strawberry-FULL-FINAL-March2024.pdf