Can Soil Health Be Used as the Next Consumer Label to Incentivize Grower Change?

Larimer County Farmers' Market, Summer 2026 | Pratima Bhandari | Mentor: Tian Guo & Maggie Switzer | Colorado State University

Introduction

Nationally, 68% of values-based shoppers have heard of "regenerative agriculture", but only 37% say they understand what it means (Regenified, 2024). Unlike "organic," which has a codified legal definition and decades of market infrastructure behind it, "soil health" has no standardized label, leaving both shoppers and growers without a shared signal to act on. This project asks whether a clearer, trusted "soil health" label could close that gap locally at the Larimer County Farmers' Market, building consumer demand strong enough to incentivize growers to adopt and market soil-health practices.

Methods

We surveyed 104 shoppers on purchasing habits, soil-health awareness, and willingness to pay a premium. Ran a soil-health trivia board and a simulated "Spend Your Market Budget" game (35 active players) to compare stated attitudes against actual choices. Reviewed different academic and industry sources to check local findings against the literature. Analyzed responses with chi-square tests and logistic regression to identify what predicts willingness to pay a premium, deeper understanding of soil health, and trust in a certification label.

Who We Surveyed

- 58% of respondents visit the market monthly or weekly, frequent, engaged shoppers.
- But most source under 25% of their groceries from the market (71 of 104), valued for the experience, not as a primary food source.
- Vegetables (86) and fruit (79) are what most people come for, baked goods (46), prepared food (24), meat (21), and eggs/dairy (17) trail behind.
- 96% had heard the term "soil health", and 66% said they understand it (n=102 answered) , awareness is already high.

Field Photos



Picture 1: Trivia board : "Test Your Soil Smarts" at the market booth



Picture 2: "Spend your market budget " Game at Farmer's Market

Finding 1: Freshness and Taste Matters The Most, But Soil-Health Choices Still Win at the Register

When asked directly, shoppers rank freshness and taste far above production method ,"regenerative" ranks near the bottom of stated importance. But in a simulated shopping game with real trade-offs, uptake of the soil-health option still reached 50–93% depending on the product and fell as the price premium rose (r = -0.70). Stated preference says the produce itself matters most; revealed choice shows people still choose the soil-health option when it's available and the price gap stays small.

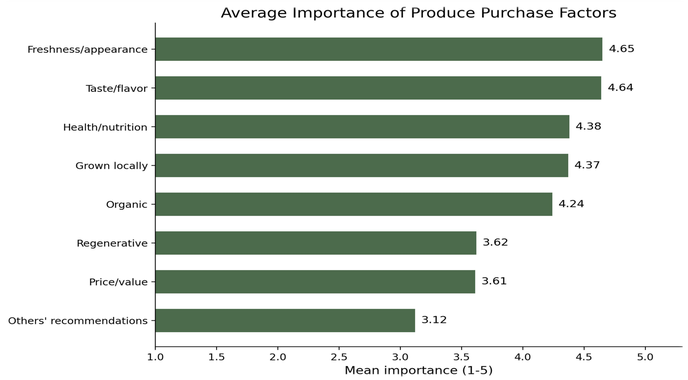


Figure 1. Average importance of Produce purchase factors

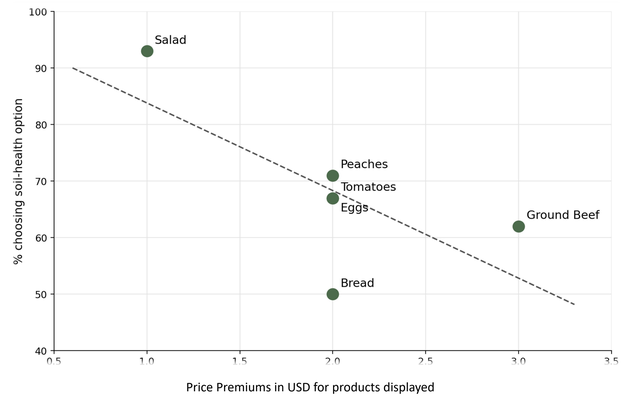


Figure 2: Revealed preference, uptake falls as price premium rises (spend your budget game, n=35 players across 6 products; premiums in USD, set based on market price).

Finding 2: Shoppers Already Value Soil Health .They Need Better Information to Act on It

"76% would pay a premium, but most cap it at "up to 10% more." When asked what would make them more likely to buy, vendor signage, vendor explanation, and more information/education topped the list, well ahead of a lower price alone. The receptiveness is already there: shoppers rate "supporting farmers who care for the land" as the single highest-agreement statement in the whole survey (4.73/5), but agreement collapses for "I have enough information" (2.73/5). The opportunity isn't convincing people to care; it's giving them a way to act on values they already hold.

- 42 of 100 respondents (42%) said a label on the product would make them more likely to buy.
- 49 of 100 (49%) said having a vendor explain the practices would help.
- 21 of 100 (21%) said a taste test would make a difference.
- Only 3 of 100 (3%) said nothing would change their behavior; they already buy soil-health produce.

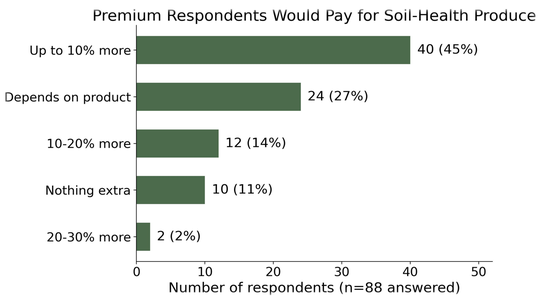


Figure 3. Premium amount by the proportion of respondents

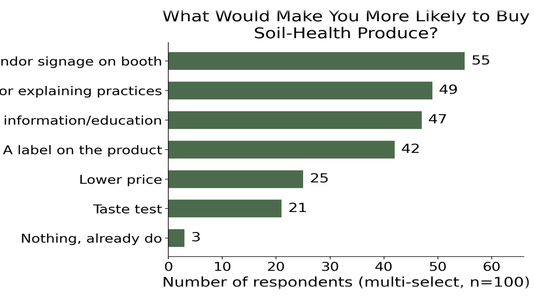


Figure 4: What would make the respondents buy soil health products

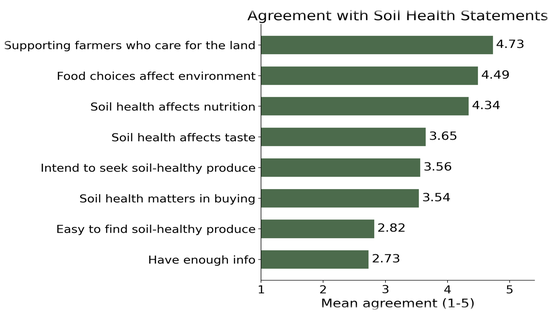


Figure:5 Values are high, but info access lags

Finding 3: A New Label Would Face Real Skepticism in an Already Crowded Market

Despite high awareness, trust in a hypothetical "Soil-Health Certified" label was lukewarm; just 33% agreed or strongly agreed they'd trust it, while over half stayed neutral. Nothing we measured (attitude, awareness, or labels already seen) significantly predicted this trust. In a field already crowded with USDA Organic, Certified Naturally Grown, and Regenerative Organic Certified, a new label faces real skepticism unless introduced with credibility behind it.

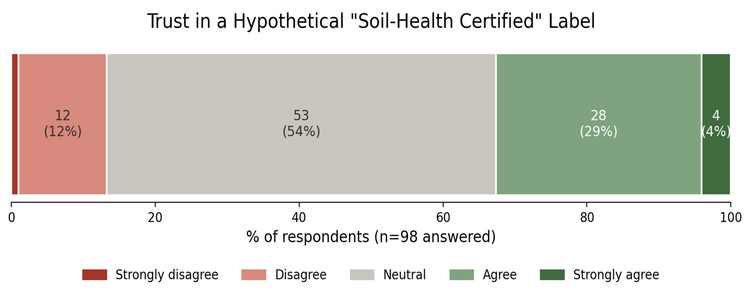


Figure6: Respondent's Trust in a soil-health label

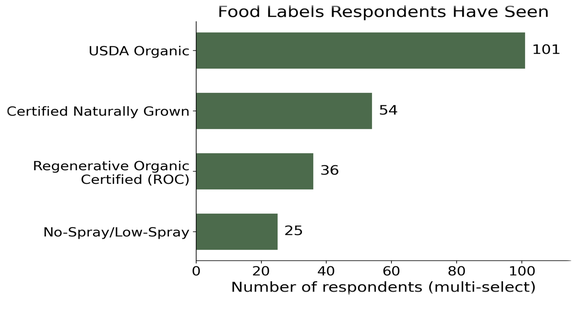


Figure 7: Existing labels shoppers already recognize

Test	Key Result	p-value
Chi-square: awareness × willingness to pay	$\chi^2 = 3.66$, df = 2	0.161
Logistic: premium ~ attitude + awareness	OR(attitude) = 3.54	0.034
Logistic: understanding ~ info sources	OR = 1.77	0.032
Logistic: label trust ~ attitude + awareness	OR(awareness) = 2.11	0.113

Table 1. Key statistical results

Limitations and Lessons Learned

Limitations

- Convenience sample at a single market; results describe engaged farmers' market shoppers, not the general public.
- Trivia board and budget game are self-selected, with no demographic linkage.
- Single survey wave describes current attitudes, not change over time.

Lessons Learned

- Attitude, not awareness, drives willingness to pay; a label should lead with trust and clear information, not just visibility.
- Label trust must be earned separately; it doesn't follow automatically from caring about soil health.

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References: Morrison et al. (2025), Soil Security • Printezis, Grebitus & Hirsch (2019), PLoS ONE • Regenified (2024), Consumer Trends Report • Stobbe (2023), Frontiers in Sustainable Food Systems • Wilson, Hendrickson & Myers (2025), Agriculture and Human Values • Witzling, Shaw & Trechter (2019), Agriculture and Human Values