

Affordable Sustainability? Can Marketing Messages Improve Market Access for Regional Producers and Better Serve Rural Consumers?

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Abstract

This study examines how consumers across income groups respond to sustainability-related food labels and claims in local food purchasing decisions. Using a field experiment conducted in Solano County, California, the analysis combines stated preference measures, including perceived quality and willingness to pay (WTP), with revealed preference measures based on actual purchase decisions. Participants evaluated strawberry baskets before and after exposure to different combinations of sustainability-related labels and claims, including the USDA Organic seal and the Sustainable Solano logo. The results suggest that sustainability-related labels generally increase both perceived quality and WTP relative to unlabeled products, although the effectiveness of different labeling strategies varies. The USDA Organic seal generates the strongest improvements in perceived quality, while combining local sustainability claims with the USDA Organic seal produces largest increase in WTP, suggesting that monetary valuations reflect not only perceived product quality but also broader consumer values, such as support for local farmers and regional food systems. The findings also reveal substantial heterogeneity across income groups, with lower-income consumers exhibiting stronger responses to label information than higher-income consumers. At the same time, the results highlight an important distinction between stated and revealed preferences. Although labels improve product evaluations and valuations, their effects on actual purchase decisions remain relatively limited, suggesting that consumer purchasing behavior may be more resistant to change than stated evaluations alone would imply.

Keywords: Food Labeling; Local Food; Sustainability Labels; Consumer Behavior

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1 Introduction

Demand and interest in locally produced foods have grown significantly in recent decades, with strong evidence of consumer preferences for local products (USDA ERS, 2010; He et al., 2021; Spalding and Kiesel, 2025). Even prior to the COVID-19 pandemic, consumer interest in local foods ranked above other prominent food-related concerns, including organic production and genetically modified ingredients (NielsenIQ, 2019). More recent supply disruptions and policy responses have further reinforced consumer demand for local foods and policymakers’ commitments towards building more resilient regional food systems and promoting locally-produced foods (Hobbs, 2020). Consumers’ ability to purchase local foods seemed limited only by the perception that local production was not clearly advertised in most retail settings, a consumer concern quickly addressed by manufacturers of all sizes, specialty stores, grocery chains, and supercenters alike (Burt et al., 2015).

“Local” claims frequently appear on packages and retail shelves, and promoting local production has become an eminent positioning strategy pursued by producers at all stages of the supply chains, often without providing a clear definition of what differentiates their products from those without these claims. Unlike organic production, which is standardized, certified, and regulated by the USDA, local production is not regulated in the U.S., and to date, no commonly agreed-upon, universally accepted definition exists.¹

Local production is most commonly defined using distance-based metrics. The 2008 Farm Act first defined local foods as those sold within 400 miles of their origin or within the state where the product is produced, although institutions, retailers, and restaurants often use shorter distances, production within a specific county, city, or even in-house (USDA ERS, 2010; Kiesel and Spalding, 2019; Spalding and Kiesel, 2025). Existing research on consumer preferences for locally produced foods further highlights the multi-dimensionality of consumer perceptions and valuations for locally produced foods (Jeon et al., 2025). Their stated preferences are shaped by concerns about health and sustainability, perceptions of

¹In contrast to the U.S., the European Union (EU) employs a formal system of Geographic Indications (e.g., Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI), which provides legally definition and regulated geographic labeling standards.

fairness, and a strong desire to support small, community-based farmers and food businesses.

While local foods are frequently associated with superior taste and quality differences observable at point of sale (e.g., differences in overall appearance, such as color and freshness), consumers also associate local production with credence attributes that are difficult to verify even after consumption. These include perceived health benefits, environmental and ethical considerations, use of organic or sustainable farming practices, and regional production. Marketing messages aim at reinforcing this perceived value-added, and, if effective, turn these otherwise unobservable credence qualities into search or experience attributes ([Kiesel and Spalding, 2019](#); [He et al., 2021](#); [Spalding and Kiesel, 2025](#)).

This study employs an incentive-compatible lab-in-the-field experiment to examine how strategic sustainability messaging (e.g., combinations of several statements, and in some cases, strategic redundancies) influences consumers' quality perceptions, willingness to pay (WTP), and purchase decisions for regionally grown strawberries, a relatively homogeneous product that is difficult to effectively differentiate without further information provision. In particular, I examine whether organic labels and local claims reinforce or compete with each other, and whether responses vary across income groups. Differences in income may shape how consumers interpret local and organic sustainability signals, particularly when organic products are perceived as relatively costly or premium products.

This experiment was conducted in collaboration with a local non-profit organization in Solano County, California, and communicates production within a mostly rural county with significant agricultural production. I vary the presence or absence of local claims (e.g., Grown in Solano County), sustainability messaging conveyed through the Sustainable Solano logo (e.g., "Sustainably Grown in Solano County"), and the USDA Organic seal, and test whether the purchase likelihood of different combinations of statements will vary by income level.

In addition, I test whether redundant labels or claims enhance perceived quality ratings, WTP, or purchase likelihood for some consumers while having the opposite effect for others, thereby revealing potential distributional effects that would be masked when focusing only on average valuations. More specifically, I test four labeling treatments: 1) No labels or claims,

2) Grown in Solano County + Sustainable Solano logo (Sustainably Grown in Solano), 3) Grown in Solano County + USDA Organic seal, 4) Grown in Solano County + Sustainable Solano logo + USDA Organic seal.

The combination of Grown in Solano County + Sustainable Solano logo (Sustainably Grown in Solano) may convey overlapping geographic information, as both emphasize local production within the same county. In contrast, the USDA Organic seal introduces a distinct certified production standard. Thus, some treatment involves potentially redundant signals along the same quality dimension (local origin), while others combine distinct quality attributes (e.g., local and certified organic production). This design allows me to distinguish between within-dimension reinforcement and cross-dimension bundling of quality signals.

Whether such potentially redundant messaging is perceived as complementary or substitutable, and whether these perceptions differ across income levels, remains an open empirical question. Despite growing interest in food labels, and sustainability messaging in particular, relatively few studies have examined the interaction effects between the USDA Organic seal and local claims, leaving it unclear whether and under what conditions these signals reinforce one another or instead crowd each other out. [Onozaka and McFadden \(2011\)](#) suggest that local claims and organic labels may complement and reinforce each other, rather than being perceived as substitutable. Similarly, [He et al. \(2021\)](#) demonstrate that awareness that a product is locally produced leads to increased WTP. At the same time, the study indicates that evaluations of local foods depend on the stage of consumption, search attributes such as color, size, and freshness, and experience attributes such as taste and texture after consumption, significantly influence consumers' quality perceptions of local foods. In contrast, [Meas et al. \(2015\)](#) document strong substitution effects between the USDA Organic seal and sub-state local claims, as well as lower total premiums when both are present due to overlapping perceived values. They also showed that organic labels and "State" logos act as complements, increasing total WTP when featured together. More recently, [Lee and Kiesel \(2025\)](#) find that many consumers do not update their initial beliefs and continue to prefer products with local claims, even when additional information is provided that suggests

relatively greater accuracy of organic production signaled via the USDA organic seal, compared to local claims. Taken together, these findings suggest that the interaction between local and organic sustainability signals is context-dependent, particularly when accounting for heterogeneous beliefs.

This study makes three main contributions to the existing literature on food labeling and consumer information processing. First, I examine the interaction between the USDA Organic seal and local claims, assessing whether these sustainability signals function as complements or substitutes, and whether perceptions, valuations, and purchase behavior vary across income groups. These interactions may have important distributional implications, as sustainability-related signals can be interpreted as premium attributes by higher-income consumers while raising affordability concerns among lower-income households. Second, I investigate consumer responses to redundant local messaging, focusing on cases in which multiple labels and claims communicate where and how the product is produced. Finally, I analyze whether endorsements or certifications by local non-profit organizations can enhance the credibility of quality signals in ways similar to or different from government-certified labels when communicating several dimensions of sustainable production.

The results suggest that sustainability-related labels generally increase consumers' perceived quality and WTP relative to unlabeled products, although the effects differ across labeling strategies. The USDA Organic seal generates the strongest improvements in perceived quality, while combining local sustainability claims with the USDA Organic seal leads to larger increases in WTP. The findings also indicate substantial heterogeneity across income groups, with lower-income consumers exhibiting stronger responses to label information than higher-income consumers. Despite these improvements in stated evaluations, the effects on actual purchase decisions remain relatively limited.

Understanding consumer responses to various sustainability messages that differentiate products based on credence attributes is critical for developing effective marketing strategies. Such strategies can engage both new and existing consumer segments, enhance the revenue opportunities for local and regional producers, and food businesses, and ultimately

strengthen regional food systems while ensuring more equitable outcomes for producers and consumers alike. This study offers new, policy-relevant insights into strategic firm behavior and heterogeneous consumer responses through a unique experimental design and detailed data collection.

The remainder of the paper is structured as follows. Section 2 reviews the existing literature on consumer perceptions and preferences for local claims and sustainability-related food labels. Section 3 describes the experimental design and data collection procedures. Section 4 provides descriptive statistics and summarizes survey responses. Section 5 presents the study hypotheses. Section 6 outlines the econometric specifications. Section 7 presents the empirical results on perceived quality, willingness to pay, and purchase decisions. Finally, Section 8 concludes with a discussion of the main findings, limitations, and implications.

2 Consumer Perceptions and Preferences for Local Claims

Existing research suggests that consumers frequently associate local foods with a variety of desirable attributes, including freshness, taste, safety, environmental sustainability, and support for local farmers and regional economies ([Kiesel and Spalding, 2019](#); [He et al., 2021](#); [Jeon et al., 2025](#)). Unlike search attributes that can be directly evaluated at the point of purchase, many of these perceived benefits represent credence attributes that consumers cannot easily verify even after consumption. As a result, consumers often rely on labels, claims, and other informational signals when forming quality perceptions and purchase decisions.

Prior studies further suggest that consumers frequently associate local production with broader sustainability-related attributes, including organic or environmentally friendly production practices ([Kiesel and Spalding, 2019](#)). This creates the possibility that local claims and certified sustainability labels may either reinforce or substitute for one another in consumers' evaluations. [Onozaka and McFadden \(2011\)](#), for example, find evidence that local and organic labels may complement each other and generate higher valuations when presented jointly. Similarly, [He et al. \(2021\)](#) show that awareness that a product is locally

produced increases consumers' WTP. However, their findings also suggest that evaluations of local foods depend heavily on observable product characteristics such as color, freshness, taste, and texture, indicating that the effectiveness of local claims may vary across consumption settings.

At the same time, other studies suggest that local and organic labels may compete rather than reinforce each other. [Meas et al. \(2015\)](#) document substitution effects between USDA Organic labels and sub-state local claims, finding that combined labeling may generate smaller total premiums due to overlapping perceived values. More recently, [Lee and Kiesel \(2025\)](#) show that many consumers continue to rely on local claims even when additional information suggests that USDA Organic certification may provide a more reliable production signal. These findings suggest that the relationship between local and organic sustainability signals is context-dependent and may vary according to consumers' prior beliefs and perceptions.

Despite growing interest in sustainability-related food labels, relatively little research has examined how consumers respond to potentially redundant sustainability messaging, particularly when multiple labels or claims communicate overlapping dimensions of product quality. In addition, few studies have explored whether these responses vary systematically across income groups or whether improvements in stated evaluations translate into actual purchasing behavior. This study contributes to the existing literature by examining how combinations of local sustainability claims and certified labels influence perceived quality, WTP, and purchase decisions across heterogeneous consumer groups.

3 Experimental Design

The focus of data collection was a carefully designed, incentive-compatible lab-in-the-field experiment. The experiment was conducted in collaboration with a local non-profit organization in Solano County, California, a predominantly rural county located between the San Francisco Bay Area and the Sacramento Valley. Solano County maintains a strong

agricultural base. At the same time, the county exhibits substantial income heterogeneity, the median income among Solano County households is somewhat higher than the median income statewide, while nearly half of all households earn \$100,000 or more per year, about 10% of the population still lives below the poverty line (U.S. Census Bureau, 2023a,b).

The county’s food retail landscape includes national grocery chains, discount retailers, independent markets, and farmers’ markets, providing multiple channels through which sustainability-related marketing messages may reach consumers with differing purchasing power (Figure 1). This combination of agricultural production, income dispersion, and retail diversity makes Solano County a particularly suitable setting for examining whether sustainability labels function as complements or substitutes, and whether their effects vary systematically across income groups.

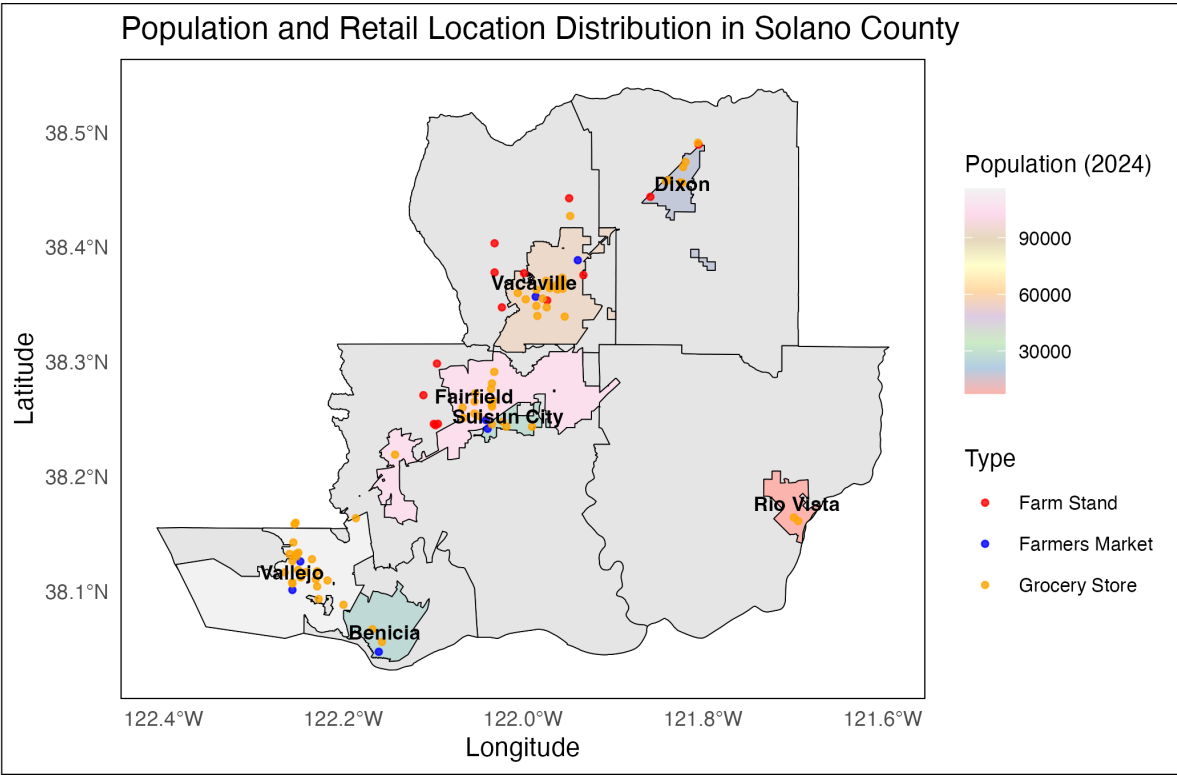


Figure 1: Population and Retail Location Distribution in Solano County

3.1 Generic Survey and Focus Group Interview

Prior to conducting the full-scale experiment, I carried out a series of preliminary surveys among consumers in Solano County to investigate their stated preferences including purchasing habits, motivations, and perceptions of product quality, particularly with respect to local and other food labels.² These data were collected during a local food cooking class held on April 12, 2025 at the Vacaville Senior Center, as well as during food giveaway events held on May 23 near the Solano County Fairgrounds and on June 11 at the Benicia Public Library.

To capture heterogeneity in consumer characteristics, survey locations were deliberately selected to reflect different consumer groups, effectively serving as distinct focus groups. In addition, brief interviews were conducted alongside the surveys to obtain more detailed insights into purchasing patterns and perceptions of local and other food labels. These qualitative responses complemented the structured survey data by providing additional context beyond the questionnaire.

Participants completed the survey either by filling out a paper questionnaire or by accessing an online version via a QR code; the survey instrument was identical across both modes of administration. Additional responses were collected through a generic online survey conducted after the main data collection period. These surveys included items that overlapped with those used in the pre- and post-surveys of the lab-in-the-field retail experiment conducted on June 28 and October 22.

3.2 Experimental Setup and Procedure

I conducted an additional experiment to examine both consumers' stated and revealed preferences. The experiment builds on a previously conducted generic survey by incorporating its stated preference measures, while also including revealed preference measures such as actual purchase decisions. The experiment was conducted on June 28, 2025, at the Fairfield Civic Center Library in Solano County, California, and again on October 22, 2025, at Solano

²I obtained an additional 201 responses through the survey.

County Health & Social Services. For the present analysis, I pool data from both sessions into a single dataset.

A total of 108 individuals participated in the experiment. The experiment consists of three sections: a pre-experiment questionnaire, the experiment, and a post-experiment questionnaire. Prior to participating in the labeling and purchasing experiment, participants filled out a pre-experiment survey. It collects information on participants' grocery shopping patterns and habits, knowledge of agricultural production more generally, and a farm or food business located in Solano County. Approximately half of the participants pre-registered for the experiment, while the remainder were recruited on site.

The experiment examined consumer quality perceptions, WTP, and purchasing decisions under different labeling conditions (Figure 2). All participants first evaluated two baskets of strawberries without any labels or claims, providing baseline measures of perceived quality on a 1-10 scale and WTP under the no-label condition.³ Participants were then randomly assigned to one of three treatment groups upon registration. For one of the two baskets, a labeling treatment was introduced: (1) Grown in Solano County statement combined with the Sustainable Solano logo (S); (2) Grown in Solano County statement combined with the USDA Organic seal (O); and (3) Grown in Solano County statement combined with both the Sustainable Solano logo and the USDA Organic seal (SO). Of the 108 participants, 38 were assigned to Group S, 27 to Group O, and 43 to Group SO. After exposure to the assigned label, participants again evaluated the strawberries in terms of perceived quality and WTP.

This experimental design allows me to compare changes in quality perceptions and WTP relative to a common no-label baseline while isolating the effects of different label combinations. Importantly, participants were given the option to purchase one of the baskets of strawberries at a posted price of \$5, allowing measurement of both stated and revealed preferences.

Following the experimental task, participants completed a post-experiment survey. After receiving detailed information about the meaning and certification standards associated with

³WTP was elicited on a discrete scale in which participants could choose \$0 or select a value between \$3.00 and \$8.00 in \$0.25 increments.

the Sustainable Solano logo and the USDA Organic seal, participants were asked to reassess their preferences. Specifically, the survey elicited updated perceived quality ratings and maximum WTP for each possible labeling combination. Participants also indicated their preferred labeling option.

The post-experiment survey further collected information on preferences for locally grown and produced foods, actual and perceived meaning of sustainability labels and claims as well as WTP, familiarity with Sustainable Solano, and demographic characteristics. Participants received \$30 for completing all components of the study. Those who chose to purchase a basket paid \$5 from this amount and retained the remaining \$25.

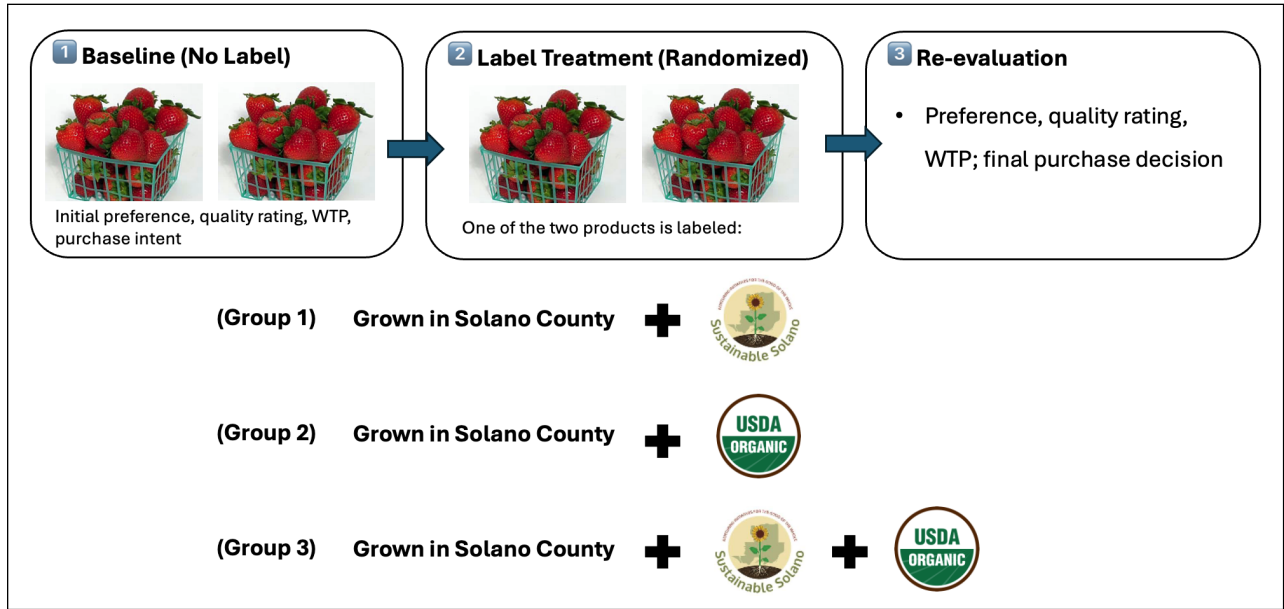


Figure 2: Experimental Design and Procedure

4 Survey Responses

This section presents descriptive evidence from the survey and experimental data, focusing on respondents' demographic characteristics, grocery shopping behavior, familiarity with food labels and claims, stated preferences related to local and organic foods, and their responses to sustainability-related labeling, including changes in perceived quality, WTP, and purchase decisions.

4.1 Descriptive Statistics

Table 1 reports selected demographic characteristics of the survey participants.⁴ On average, respondents live in households of approximately 2.8 members, and about 33% report having at least one child under the age of 18. Among households with children, the average number of child is 2.4.

A majority of participants (55%) report having lived in Solano County for more than ten years, suggesting that the sample includes a large share of long-term residents familiar with the local community. Approximately 27% of respondents report having a family member employed in agriculture or a related field, reflecting the agricultural character of the region.

In terms of individual characteristics, 61% of respondents are female, with an average age of 45 years, and most identify as the primary grocery shopper in their household (83.7%). The sample is racially diverse, with 64% identifying as non-White and 30% identifying as Hispanic or Latinx.

The sample also includes a meaningful share of lower-income households. About 34% report annual household incomes below \$35,000, and 46% indicate participation in food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP), Women, Infants, and Children (WIC), or food pantries.

Tables 2 and 3 summarize respondents' reported grocery shopping locations and reasons for shopping at different locations. The descriptive evidence indicates that respondents shop across multiple retail channels and are generally price-conscious in their grocery purchasing decisions, with 60.9% citing price as a primary factor. Most participants report shopping at supermarkets, supercenters, and discount grocery stores, although a nontrivial share also purchases food through local channels such as farmers markets and farm stands. In addition to price, respondents report seeking greater product variety (50.0%), convenient location or ease of access (42.7%), and stores known for higher-quality produce, meat, or other grocery items (40.0%).

⁴The summary statistics reported here are based on the experimental sample, as the regression analysis relies on experimental data. Additional summary statistics, including those that incorporate responses from the generic survey, are provided in the appendix.

Table 1: Selective Summary Statistics: Demographic Characteristics (N=108)

Variable	Description	Mean	Std.Dev.
Household Size	Number of people living in household	2.67	1.78
Children in Household	1 = at least one child under 18	0.33	0.47
Number of Children	Conditional on having children	2.41	1.32
Long-term Resident	1 = lived in Solano County more than 10 years	0.55	0.50
Agricultural Background	1 = family employed in agriculture or related fields	0.27	0.44
Car Access	1 = has access to a car	0.63	0.48
Female	1 = identifies as female	0.57	0.50
Age	Age in years	44.3	15.94
Non-White	1 = not White or Caucasian	0.55	0.50
Hispanic / Latinx	1 = identifies as Hispanic, Spanish, or Latinx	0.26	0.44
Low Income	1 = household income below \$35,000	0.30	0.46
Food Assistance	1 = participates in SNAP, WIC, or food pantries	0.43	0.50

Notes: Means for binary variables represent sample proportions. Respondents selecting “I do not know” or “I prefer not to respond” are excluded from calculations. Household income is categorized as low income if annual income is below \$35,000.

Table 2: Grocery Shopping Locations

Response	N	Percent
1. Supermarket or grocery chain (e.g., Safeway, Raley’s, Trader Joe’s)	82	74.5
2. Supercenter (e.g., Costco, Sam’s Club, Walmart)	70	63.6
3. Discount grocery store (e.g., Grocery Outlet, Smart and Final)	44	40.0
4. Specialty grocery store (e.g., Whole Foods, Nuggets, Sprouts)	25	22.7
5. Convenience store or corner store	19	17.3
6. Farmers market	35	31.8
7. Farm stand or farm direct/CSA box	22	20.0
8. Food distribution or similar event	13	11.8
9. Other	8	7.3

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each shopping location.

Table 3: Reasons for Shopping at Different Stores

Response	N	Percent
1. To find the best prices or take advantage of regular discounts and promotions.	67	60.9
2. When certain items are out of stock at one store, I visit other stores to find what I need.	41	37.3
3. Different stores may offer a wider range of products or unique items not available elsewhere.	55	50.0
4. Seeking stores known for offering higher-quality produce, meat, or other grocery items.	44	40.0
5. Choosing different stores based on location and ease of access.	47	42.7
6. Returning to stores where I trust the products or customer service, or enjoy loyalty programs.	41	37.3
7. Other	10	9.1

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each response option.

Table 4 presents the share of respondents who report intentionally purchasing products with specific labels or claims, by income group.⁵ The USDA Organic seal is the most commonly selected label across all income groups, indicating its broad recognition and appeal. However, notable heterogeneity emerges across income levels. High-income consumers are more likely to report purchasing products with credence attributes such as non-GMO and local labels. In contrast, middle-income consumers exhibit relatively low participation across most categories. Low-income consumers display moderate engagement overall, but show relatively higher selection rates for certain attributes such as fair trade and pesticide-related claims. Finally, several labels, including transitional, regenerative, and B corporation, are selected infrequently across all income groups, indicating limited consumer awareness or relevance.

Table 4: Labels or Claims Intentionally Purchased in the Last Six Months by Income Group

Response	Low Income	Middle Income	High Income
1. USDA organic	16 (48.5)	13 (61.9)	16 (57.1)
2. All natural / Naturally grown	13 (39.4)	8 (38.1)	13 (46.4)
3. Non-GMO	9 (27.3)	5 (23.8)	11 (39.3)
4. Transitional	1 (3)	0 (0)	1 (3.6)
5. Zero pesticides / No pesticides	7 (21.2)	3 (14.3)	3 (10.7)
6. Regenerative	2 (6.1)	0 (0)	0 (0)
7. Local	11 (33.3)	4 (19)	16 (57.1)
8. Pesticide Residue Free	7 (21.2)	3 (14.3)	2 (7.1)
9. Fair Trade	6 (18.2)	1 (4.8)	3 (10.7)
10. B corporation	1 (3)	1 (4.8)	1 (3.6)
11. Other	2 (6.1)	1 (4.8)	0 (0)

Notes: Values are counts with percentages in parentheses. Multiple responses were allowed. Percentages are calculated within each income group.

Table 5 reports respondents' levels of trust in information about food production and handling across different source. Overall, trust varies substantially by sources. Statements certified by the USDA and those endorsed by local Non-Governmental Organizations (NGOs) or Nonprofit Organizations (NPOs) receive relatively high levels of trust, as do information provided directly by growers or farmers and recommendations from friends and family. In

⁵See Appendix Table ?? for overall response distributions. Household income categories from the survey were consolidated into three broader groups for the heterogeneity analysis: low income (below \$35,000), middle income (\$35,000–\$74,999), and high income (\$75,000 or more). The grouping structure was designed to obtain relatively balanced observations across categories while preserving sufficient sample size within each group. Income groups are distributed as follows: 33 low-income (40.2%), 21 middle-income (25.6%), and 28 high-income (34.1%).

contrast, respondents express lower levels of trust in statements added by retailers and in information provided by processors or distributors, while information from influencers or consumer reviews are the most polarized.

Table 5: Trust in Information about Food Production and Handling by Source (%)

Source	Very low trust	Low trust	Trust	High trust	Very high trust
<i>Statements or Information</i>					
certified by the USDA	9.6	16.4	44.2	13.4	16.4
certified by a third-party certifying agency (e.g., Fair Trade)	15.6	29.5	33.3	10.8	10.8
certified by peer review within an industry	11.6	17.5	50.5	12.6	7.8
added by the retailer	17.9	39.7	31.7	4.9	6.0
made by growers/farmers	4.0	12.1	43.4	25.2	15.1
provided by processors/distributors	11.8	37.2	34.3	10.8	5.9
endorsed by local NGOs/NPOs	5.8	19.3	45.2	15.3	14.4
provided by influencers or consumer reviews	24.7	21.9	34.2	8.6	10.5
provided by friends and family (e.g., recommendations)	4.8	11.5	40.4	25.0	18.3

Notes: Percentages are calculated excluding respondents who selected “N/A.” Each row sums to 100.

Furthermore, respondents report that organic and local attributes are more important when purchasing fresh produce and dairy products than when purchasing meat and processed foods (Table 6). The share of respondents indicating agreement is highest for fresh produce, while responses for meat and processed foods are more concentrated around neutral categories. These findings support the experimental setting of this study, which focuses on fresh produce, and suggest that strawberries provide a relevant product context for examining consumer responses to sustainability-related labels and claims.

Table 6: Agreement with Statements on Considering Local and Organic Production (%)

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<i>I consider organic production</i>					
when purchasing fresh produce.	4.8	8.7	21.2	38.5	27.0
when purchasing meat.	3.9	9.8	38.3	28.5	19.6
when purchasing dairy products.	2.9	11.5	31.7	34.6	19.3
when purchasing processed foods.	3.8	12.4	34.2	29.5	20.0
<i>I consider local production</i>					
when purchasing fresh produce.	2.8	1.9	27.4	41.5	26.4
when purchasing meat.	3.8	8.8	42.7	34.9	9.7
when purchasing dairy products.	2.8	10.4	26.4	41.5	18.9
when purchasing processed foods.	3.7	11.2	30.8	35.5	18.7

Notes: Percentages are calculated excluding respondents who selected “N/A.” Each row sums to 100.

Finally, respondents were asked more directly about their motivations and barriers related to purchasing locally produced food (Tables 7 and 8). The most commonly cited motivations include perceived value, support for local farmers and the local economy, as well as freshness and transparency. At the same time, respondents report several barriers, particularly higher prices, limited accessibility, and convenience. Notably, respondents identify price and availability as key motivations for purchasing local products, while at the same time citing high prices and limited availability as primary barriers to purchase.

Table 7: Motivations for Purchasing Local Foods

Response	N	Percent
1. Local food is reasonably priced or a good value.	84	76.4
2. Local food is available where I shop.	65	59.1
3. I care about sustainability.	40	36.4
4. I value transparency and knowing where, how, and by whom my food is produced.	58	52.7
5. Local food is fresher.	60	54.5
6. Local food tastes better.	42	38.2
7. Local food is safer.	34	30.9
8. Local food is healthier.	42	38.2
9. I want to support local farmers, food businesses, and the local economy.	71	64.5
10. Other	14	12.7

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each response option.

Table 8: Barriers to Purchasing Local Foods

Response	N	Percent
1. Local food is too expensive.	69	62.7
2. It's hard to access places that sell local food.	57	51.8
3. I don't see local food where I usually shop.	48	43.6
4. I'm not sure what local means.	9	8.2
5. I don't think local food is higher quality than other food.	14	12.7
6. I don't see any added value in buying local foods.	10	9.1
7. I just buy what's convenient.	47	42.7
8. Other	9	8.2

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each response option.

4.2 Labeling Effects on Perceived Quality, WTP, and Purchase Decision

The analysis first examines respondents' quality perceptions, WTP, and actual purchase decisions for the strawberry baskets in the experimental setting. Table 9 presents the differ-

ences in perceived quality and WTP between the initially chosen basket and the alternative, both before and after the introduction of label information. This analysis does not distinguish across labeling treatments and instead focuses on how participants evaluate products relative to their own initial choices. In this sense, the initially chosen option serves as a reference point for subsequent evaluations.

In the pre-label stage, the chosen basket is rated, on average, 1.93 points higher in perceived quality and receives a \$1.26 higher WTP than the alternative. These positive differences suggest that participants tend to evaluate their initially chosen basket more favorably than the alternative.

After label information is introduced, the differences remain positive but decline in magnitude. The chosen basket is rated 1.41 points higher in perceived quality and receives a \$1.08 higher WTP. This suggests that while participants update their evaluations in response to new information, initial preferences continue to influence their perceptions and valuations. This persistence in relative evaluations suggests that initial preferences may continue to serve as a reference point when participants are later exposed to label information.

Table 9: Differences in Quality and WTP Relative to Initial Choice

Stage	Mean Quality Differences	Mean WTP Differences	N
Pre-label	1.93 (1.82)	1.26 (1.75)	88
Post-label	1.41 (2.67)	1.08 (2.27)	88

Notes: Standard deviations in parentheses.

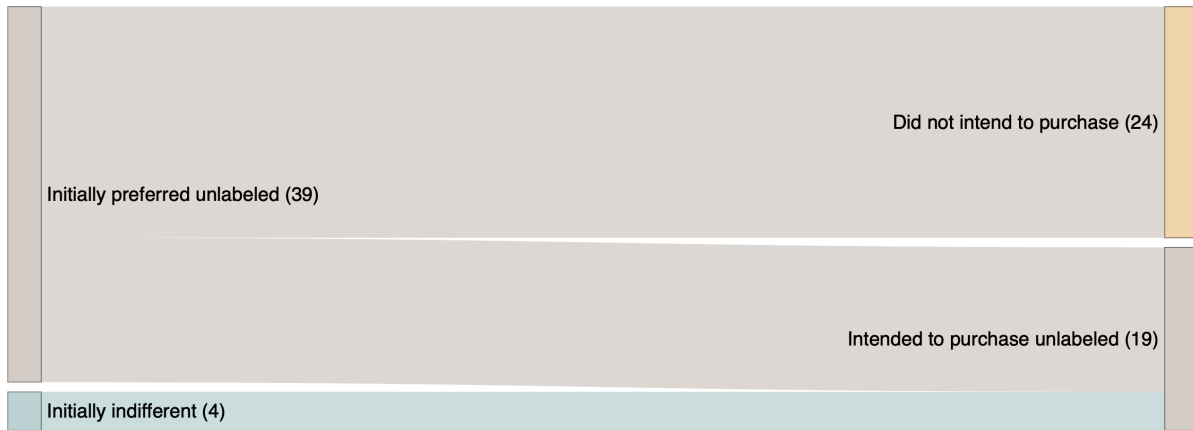
Figure 3 illustrates the relationship between participants' initial preferences and their purchase intentions prior to the introduction of label information. Panel A focuses on participants who initially preferred the strawberry basket associated with a label, while Panel B focuses on those who initially preferred the unlabeled basket.

Across both panels, purchase decisions largely remain aligned with participants' initial preferences, suggesting that initial evaluations play an important role in shaping subsequent decisions. Notably, even potentially arbitrary initial preferences appear to persist throughout later stages of the experiment and continue to influence subsequent evaluations and purchase decisions. This pattern provides additional evidence that participants do not evaluate prod-

ucts in a neutral manner, but rather relative to their own initial preferences. The figure therefore supports the interpretation that initial choices may serve as a behavioral reference point when participants are later exposed to label information.



(a) Initial Preferences and Purchase Decisions Conditional on Initial Preference for the Labeled Strawberry Basket



(b) Initial Preferences and Purchase Decisions Conditional on Initial Preference for the Unlabeled Strawberry Basket

Figure 3: Initial Preferences and Purchase Intentions Before Label Information

Table 10 presents average changes in perceived product quality across treatment groups.⁶ The difference is defined as the difference between the change in perceived quality for the labeled product and the change for the unlabeled product. Initial quality is reported as the average baseline perceived quality across both products.

The results show a clear pattern across treatments. Initial quality ratings (i.e., before pro-

⁶Within-group and pairwise between-group t-tests are reported in Appendix Table A.10.

viding label information) are similar across groups, although the Sustainable Solano treatment (S) exhibits a slightly higher baseline (7.07) compared to the USDA Organic (O) and triple-label (SO) treatments (6.93 and 6.94, respectively). Prior to label exposure, paired t-tests indicate no statistically significant differences in initial perceived quality between the left and right baskets, suggesting that participants did not systematically favor one basket before treatment exposure (Table A.9).

Regarding the difference, the largest increase in perceived quality is observed in the USDA Organic treatment (O), followed by the triple-label treatment (SO), while the Sustainable Solano treatment (S) produces only a small effect. The increase in perceived quality is 1.48 in the O group, compared to 1.05 in the SO group and 0.29 in the S group. In percentage terms, these correspond to increases of approximately 21.4%, 15.1%, and 4.1%, respectively. Among the three treatments, the quality increases in Group O and Group SO are statistically significant, while the effect in Group S is not distinguishable from zero. Pairwise comparisons further indicate that Group O generates a significantly larger increase in perceived quality than Group S, whereas the difference between O and SO is not statistically significant. The difference between SO and S is positive but only marginally significant.

Decomposing these effects reveals that changes in perceived quality are driven not only by improvements in the evaluation of the labeled product but also, in some cases, by declines in the evaluation of the unlabeled alternative. In Groups O and SO, the labeled product is evaluated more favorably, while the unlabeled product receives lower ratings, suggesting that the presence of sustainability-related labels may alter how participants evaluate the unlabeled alternative. The limited effect in Group S likely reflects consumers' lower familiarity with the Sustainable Solano logo, which may reduce its credibility as a quality signal. In addition, the Sustainable Solano logo may convey information that partially overlaps with the existing "Grown in Solano County" claim, thereby providing limited additional informational value. The slightly higher baseline rating in this group may also contribute, limiting the scope for further increases in perceived quality.

In sum, these findings suggest that certified labels, such as the USDA Organic seal,

provide a stronger and more credible quality signal than local sustainability claims. The fact that the triple-label treatment does not outperform the organic-only treatment further indicates that additional sustainability signals may provide limited incremental informational value once a well-established certification is already present. One possible interpretation is that the additional local sustainability signal in the SO treatment conveys information that partially overlaps with the existing “Grown in Solano County” claim, thereby providing limited incremental informational value.

Table 10: Average Changes in Perceived Quality by Treatment Group

Group	N	Initial Quality	Final Quality Diff (Lab-Unlab)	Change (%)	Labeled Change	Unlabeled Change
O	27	6.93 (1.40)	1.48*** (2.56)	21.4	0.89 (1.45)	-0.59 (1.50)
S	38	7.07 (1.38)	0.29 (1.81)	4.1	0.32 (0.87)	0.03 (1.42)
SO	43	6.94 (1.12)	1.05*** (2.30)	15.1	0.56 (1.53)	-0.49 (1.72)

Notes: Standard deviations in parentheses. Significance stars indicate within-group t-tests of whether the total effect differs from zero. Prior to label exposure, paired t-tests indicate no statistically significant differences in initial perceived quality between the left and right baskets. *p<0.1; **p<0.05; ***p<0.01.

Table 11 reports average changes in WTP across treatment groups.⁷ As with the perceived quality analysis, the change is defined as the difference between the change in WTP for the labeled product and the change for the unlabeled product. Initial WTP is reported as the average baseline WTP across both products prior to the introduction of sustainability-related labeling. Prior to label exposure, paired t-tests indicate no statistically significant differences in initial WTP between the left and right baskets, suggesting that participants did not systematically favor one basket before treatment exposure (Table A.9).

Following the introduction of sustainability-related labeling, WTP increases across all treatment groups. The largest increase is observed in the SO group (\$1.33), followed by the O group (\$1.17) and the S group (\$0.59). In percentage terms, these correspond to increases of approximately 31.2%, 30.6%, and 19.7%, respectively. Unlike the perceived quality results, where Group O generated the largest effect, the combined-label treatment (SO) produces the largest increase in WTP. Within-group t-tests indicate statistically significant increases in WTP for Groups O and SO, while the increase in Group S is only marginally significant

⁷Within-group and pairwise between-group t-tests are reported in Appendix Table A.11.

at the 10% level.

Decomposing the change reveals that changes in WTP are driven by both higher valuations of the labeled product and lower valuations of the unlabeled alternative, broadly consistent with the pattern observed for perceived quality. In Groups O and SO, WTP for the labeled product increases while WTP for the unlabeled alternative declines slightly, suggesting that the presence of sustainability-related labels may alter how participants evaluate the unlabeled option. In contrast, Group S shows positive changes for both the labeled and unlabeled products, resulting in only a modest net effect.

These findings suggest that certified labels such as the USDA Organic seal provide a stronger and more credible quality signal, whereas WTP reflects a broader evaluation that may also incorporate preferences for local attributes, such as supporting local farmers and the local economy. This interpretation is consistent with the fact that the combined-label treatment (SO) generates the largest numerical increase in WTP, despite not producing significantly larger effects relative to the other treatments. At the same time, pairwise comparisons across groups reveal no statistically significant differences in total WTP effects, suggesting that while the labels differ in their impact on perceived quality, their effects on WTP are broadly similar across treatments. This divergence between perceived quality and WTP suggests that improvements in perceived quality do not necessarily translate proportionally into monetary valuations, which may help explain the relatively limited effects observed for actual purchase decisions.

Table 11: Average Changes in WTP by Treatment Group

Group	N	Initial WTP	Final Quality Diff (Lab-Unlab)	Change (%)	Change Labeled	Change Unlabeled
O	27	3.99 (1.84)	1.17** (2.19)	31.2	0.78 (1.11)	-0.39 (1.40)
S	38	3.71 (1.53)	0.59* (1.84)	19.7	0.64 (1.32)	0.05 (1.07)
SO	43	4.09 (1.72)	1.33*** (2.20)	30.6	1.00 (1.40)	-0.35 (1.57)

Notes: Standard deviations in parentheses. Prior to label exposure, paired t-tests indicate no statistically significant differences in initial WTP between the left and right baskets, suggesting that participants did not systematically favor one basket before treatment exposure. Significance stars indicate within-group t-tests of whether the total effect differs from zero. *p<0.1; **p<0.05; ***p<0.01.

Table 12 shows that the share of participants choosing to purchase a basket remains largely unchanged after the introduction of label information. In both stages, a majority

of participants choose not to purchase either basket at the posted price. The share of participants choosing to make a purchase declines slightly from 36.1% to 35.2%, suggesting that label information has little effect on overall purchase behavior.

Table 12: Purchase Decisions Before and After Label Information

Stage	Buy	No Buy
Pre-label	39 (36.1)	69 (63.9)
Post-label	38 (35.2)	70 (64.8)

Notes: Values are counts with percentages in parentheses.

Figure 4 illustrates how initial purchase decisions transition into final purchase outcomes following the introduction of label information. The left side categorizes participants according to their initial purchase decision and whether the initially selected product was later associated with a label. Participants who initially selected a product that subsequently received a label are classified as “Initially chose labeled,” while those who selected a product that remained unlabeled are classified as “Initially chose unlabeled.” Participants who initially chose neither product are categorized as “Neither.” The right side shows the corresponding final purchase decisions after label information is introduced, distinguishing between purchasing the labeled product, purchasing the unlabeled product, and choosing neither.

Across all groups, purchase decisions remain strongly aligned with participants’ initial choices. Among the 20 participants who initially selected the product that was later labeled, 15 continue to purchase that product after label information is introduced, while only 1 switches to the unlabeled alternative and 4 move to the neither category. Similarly, among the 19 participants who initially selected the product that remained unlabeled, 10 continue to purchase the same option, while 6 switch to the labeled product and 3 choose neither. Although some switching toward labeled products is observed, the overall magnitude of switching remains limited.

A similar pattern emerges among participants who initially selected neither option. Of the 69 participants in this group, the vast majority remain in the neither category after label exposure, with only 4 switching to the labeled product and 2 switching to the unlabeled product. This suggests that sustainability-related labels have limited ability to induce new

purchases among previously non-participating consumers.

Taken together, these patterns indicate that while label information may influence perceived quality and WTP, its effect on actual purchase behavior is considerably more limited. The persistence of initial purchase decisions further suggests that participants do not evaluate products in a neutral manner after receiving label information, but instead continue to evaluate products relative to their initial preferences and purchase decisions.

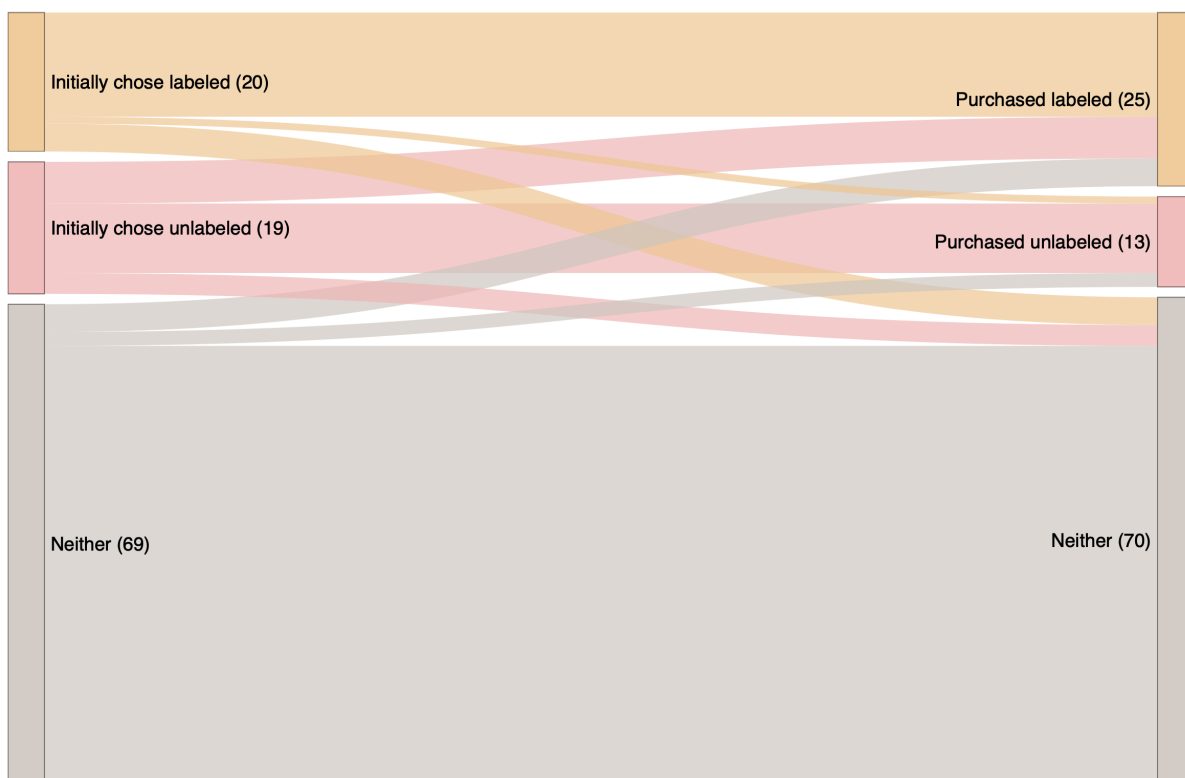


Figure 4: Initial and Final Purchase Decisions

Notes: This figure tracks how initial purchase decisions, classified according to whether the initially selected product later received a label, transition into final purchase decisions after label information is introduced.

I additionally examine the effect of labeling on purchase decisions by income group and labeling treatment (Table 13). Purchase participation is measured as the share of participants who chose either product (as opposed to neither), and the reported values correspond to group-level averages of this indicator. The results show that the effect varies across income groups; however, this heterogeneity is primarily driven by the organic (O) treatment.

Low-income consumers exhibit little to no change in purchase participation across all

treatment conditions. Middle-income consumers show a notable decline under the organic treatment, with purchase participation dropping by 28.6 percentage points (from 28.6% to 0%), though this result should be interpreted with caution given the small sample size.⁸ High-income consumers, by contrast, exhibit a modest increase under the organic treatment, with participation rising by 11.1 percentage points (from 44.4% to 55.6%). Little to no change is observed for the S and SO treatments across any income group.

These patterns suggest that the USDA Organic label may elicit heterogeneous responses across income groups, with high-income consumers appearing more responsive to certified quality signals. However, given the small sample sizes within each cell, these findings should be treated as descriptive and interpreted with caution.

Table 13: Purchase Participation by Income and Label Treatment Group

Income	Group	Pre-labeling (%)	Post-labeling (%)	Change (%)	Obs.
Low (<35k)	O	16.7	16.7	0.0	6
	S	45.5	45.5	0.0	11
	SO	31.2	31.2	0.0	16
Middle (35k–74k)	O	28.6	0.0	-28.6	7
	S	0.0	0.0	0.0	6
	SO	50.0	50.0	0.0	8
High (75k+)	O	44.4	55.6	11.1	9
	S	45.5	45.5	0.0	11
	SO	62.5	62.5	0.0	8

5 Hypotheses

This study examines how consumers process sustainability-related information and how such information affects their quality perceptions, valuation, and purchasing decisions. In particular, I focus on the role of initial reference points, the combination of information provided, heterogeneity across consumers, and the link between stated preferences and purchasing behavior.

One mechanism underlying consumer responses is the role of initial reference points, which shape quality perceptions, valuation, and purchasing decisions. Consumers may form

⁸The decline observed in the middle-income O group is based on only 7 observations and should be interpreted with caution.

an initial reference point based on their prior experience and knowledge before receiving additional information (e.g., labels and claims), and subsequently update their beliefs in an asymmetric manner (Kahneman and Tversky, 1979). Specifically, individuals may place greater weight on information that confirms their initial choice, while discounting information that contradicts it (e.g., confirmatory vs. disconfirmatory bias). Accordingly, this study hypothesizes that participants will update their perceived quality and WTP asymmetrically, assigning higher valuations to products consistent with their initial choice and making smaller adjustments when new information contradicts their prior preference (H1).

- **H1a** (reference point effect): Participants will assign higher perceived quality and WTP to products consistent with their initial choice.
- **H1b** (asymmetric updating): Participants will adjust perceived quality and WTP more in response to information that confirms their initial choice than information that contradicts it.

Beyond initial beliefs, I next consider whether combining multiple labels or claims affects consumer quality perceptions and valuations. The effect of sustainability-related labeling may depend not only on the presence of labels, but also on their combination and informational content. Not all labels or claims may have equal information value. In particular, certified labels such as the USDA Organic seal may be perceived as more credible than local sustainability claims. Thus, this study hypothesizes that products displaying combinations of labels that include a certified label will receive higher quality ratings and WTP than those displaying only local sustainability claims (H2a).

At the same time, adding additional claims to an already labeled product may not always generate incremental benefits. When multiple signals convey overlapping or redundant information, for example, when both a “Grown in Solano County” statement and a Sustainable Solano logo emphasize similar local attributes, their marginal contribution may diminish. Accordingly, this study hypothesizes that adding a third sustainability-related label or claim will yield little or no additional increase in perceived quality or WTP (H2b).

- **H2a** (heterogeneous information effect): Products displaying combinations of labels that include a certified label (e.g., Grown in Solano County + USDA Organic seal) will elicit higher perceived quality and WTP than those displaying local sustainability claims (e.g., Grown in Solano County + Sustainable Solano logo).
- **H2b** (redundancy effect): Adding a third sustainability-related claim to an already labeled product (e.g., Grown in Solano County + USDA Organic seal + Sustainable Solano logo) will yield little or no additional increase in perceived quality and WTP relative to a two-label combination (e.g., Grown in Solano County + USDA Organic seal) due to potential redundancy in information.

I further investigate whether responses to labeling vary across consumer groups. Specifically, what role do differences in income play and do they shape how consumers interpret and respond to sustainability signals. Among low-income consumers, local sustainability claims may be perceived as more accessible or or less costly signals of sustainability compared to certified labels, leading to higher purchase likelihood for products displaying local claims (H3a). In contrast, high-income consumers may respond more positively to products displaying both local and certified labels, as these combinations provide multiple signals of product quality and sustainability (H3b).

- **H3a** (heterogeneity by income): Among low-income consumers, products displaying local sustainability claims (e.g., Grown in Solano County + Sustainable Solano logo) will be more likely to be purchased than those displaying the USDA Organic seal.
- **H3b** (complementarity at higher income): Among high-income consumers, products displaying both local sustainability claims and the USDA Organic seal will be more likely to be purchased than those displaying only local sustainability claims.

Finally, this study examines how label information influences actual purchase decisions. Beyond its effects on perceived quality and WTP, labeling may differentially affect the likelihood of purchase depending on consumers' initial preferences, the type of label presented,

and their income level. Specifically, I investigate whether the reference point established by initial product preferences shapes purchase behavior following label exposure, whether certified labels such as the USDA Organic seal generate stronger purchase responses than local sustainability claims, and whether these effects vary systematically across income groups (H4).

- **H4a** (reference point and purchase): Participants are more likely to purchase a labeled product when the label is attached to their initially preferred basket.
- **H4b** (label treatment and purchase): Participants exposed to the USDA Organic label are more likely to purchase the labeled product than those exposed to the Sustainable Solano label.
- **H4c** (income heterogeneity and purchase): The effect of label treatment on purchase decisions varies across income groups, with high-income consumers being more responsive to certified labels.

6 Econometric Specifications

To examine how consumers respond to sustainability-related labels and claims, I estimate a series of regression models using changes in perceived quality and WTP as the primary dependent variables. The analysis focuses on whether different combinations of local sustainability claims and certified labels generate heterogeneous responses across treatment groups and income levels.

The dependent variables are defined as:

$$\Delta Quality_{ij} = Quality_{ij}^{Post} - Quality_{ij}^{Pre}$$

$$\Delta WTP_{ij} = WTP_{ij}^{Post} - WTP_{ij}^{Pre}$$

where i indexes participants and j indexes the strawberry baskets evaluated during the experiment. The change variables capture the extent to which participants update their

evaluations after the introduction of label information.

The full empirical specification is given by:

$$\begin{aligned}\Delta Y_{ij} = & \beta_0 + \beta_1 \textit{Label}_{ij} + \beta_2 O_i + \beta_3 SO_i + \beta_4 \textit{InitialLabeled}_i \\ & + \beta_5 \textit{MiddleIncome}_i + \beta_6 \textit{HighIncome}_i \\ & + \beta_7 (\textit{Label}_{ij} \times O_i) + \beta_8 (\textit{Label}_{ij} \times SO_i) + \beta_9 (\textit{Label}_{ij} \times \textit{InitialLabeled}_i) \\ & + \beta_{10} (\textit{Label}_{ij} \times \textit{MiddleIncome}_i) + \beta_{11} (\textit{Label}_{ij} \times \textit{HighIncome}_i) + \mathbf{X}_i \boldsymbol{\gamma} + \varepsilon_{ij}\end{aligned}$$

where ΔY_{ij} represents either the change in perceived quality or the change in WTP for participant i and product j . $\textit{Label}_{ij}$ is an indicator equal to one if product j received label information during the experiment. O_i and SO_i denote assignment to the USDA Organic treatment and the combined Sustainable Solano + USDA Organic treatment, respectively, with the Sustainable Solano-only treatment serving as the reference category. $\textit{InitialLabeled}_i$ is an indicator equal to one if the participant's initially preferred product subsequently received the label. $\textit{MiddleIncome}_i$ and $\textit{HighIncome}_i$ are indicators for household income categories, with low-income serving as the reference category. $\mathbf{X}_i$ is a vector of additional demographic and behavioral controls including age, gender, household size, presence of children in the household, agricultural experience, Solano County residency, local shopping behavior (e.g., shopping at farmers' markets or farm stands), and grocery shopping frequency.

The baseline specification (Model 1) includes only $\textit{Label}_{ij}$, treatment indicators, and $\textit{InitialLabeled}_i$. Model 2 adds demographic controls $\mathbf{X}_i$ and income indicators. Model 3 further incorporates interactions between the label indicator and income groups to examine heterogeneous treatment effects across income levels. Since each participant evaluates two products, the dataset is structured in long format with two observations per participant. Standard errors are clustered at the participant level to account for within-participant correlation.

7 Results

This section presents the main empirical findings from the experimental setting. I first examine how label information affects participants’ evaluations relative to their initial choices by comparing perceived quality and WTP between the initially chosen and alternative products before and after label exposure. I then investigate the effects of different label treatments on changes in perceived quality and WTP, with particular attention to whether certified labels such as the USDA Organic seal generate stronger responses than local sustainability claims, and whether combining multiple sustainability-related signals yields additional gains. Building on this analysis, I explore heterogeneous treatment effects across income groups, examining whether responsiveness to label information varies by household income.

7.1 Effects of Label Information on Perceived Quality

Table 14 presents OLS estimates of the effect of label information on changes in perceived quality ratings. Column (1) includes only the treatment group indicators and the reference point variable, Column (2) adds demographic controls, and Column (3) further incorporates interactions between label exposure and income group.

Across specifications, the coefficient on the labeled product indicator is positive and statistically significant, suggesting that the introduction of label information generally increases perceived product quality. In Model (1), the label coefficient is 0.924, and this effect strengthens considerably in Model (3) to 1.908, where income interactions are accounted for.

The interaction terms reveal substantial heterogeneity across treatment groups. Relative to the baseline treatment group (S), the interaction between labeled products and Group O is positive and statistically significant in Model (1) and (3), indicating that the combination of the “Grown in Solano County” statement with the USDA Organic seal generates a larger increase in perceived quality. In contrast, the interaction between labeled products and Group SO is smaller and loses statistical significance once additional controls are introduced. This pattern suggests that when a nationally certified label (USDA Organic) is already

present, the addition of a local sustainability label (Sustainable Solano) provides limited incremental informational value for quality perception, consistent with H2b.

Initial preferences also appear to influence subsequent evaluation. In Model (1), participants who initially preferred the labeled basket exhibit significantly larger increases in perceived quality ratings. However, the negative coefficient on the interaction between the labeled product indicator and initial preference for the labeled basket suggests that the marginal effect of label information is smaller among participants who already initially favored the labeled product. One possible interpretation is that participants partially anchor subsequent evaluations to their initial preferences, leaving less room for further upward revision once label information is introduced.

With respect to income heterogeneity in Model (3), the results reveal an important moderating role of income, suggesting heterogeneous responses to label information across income groups. In Model (3), the interaction terms between labeled products and both middle- and high-income groups are negative and statistically significant. Relative to low-income participants, middle- and high-income consumers exhibit smaller increases in perceived quality following the introduction of label information. This finding suggests that lower-income consumers may respond more strongly to informational cues provided by sustainability-related labels. One possible explanation is that labels reduce uncertainty about product quality and therefore carry greater informational salience for consumers facing tighter budget constraints. In contrast, higher-income consumers may already hold relatively strong prior beliefs regarding product attributes, limiting the incremental impact of additional label information on perceived quality evaluations.

7.2 Effects of Label Information on WTP

Table 15 presents the corresponding results for changes in WTP. Similar to the perceived quality specification, Column (1) includes treatment-group indicators and the reference point variable, Column (2) adds demographic controls, and Column (3) further incorporates interactions between label exposure and income group.

Table 14: Effect of Label Information on Perceived Quality

Model:	<i>Dependent variable:</i>		
	Difference in Quality Rating		
	(1)	(2)	(3)
<i>Variables</i>			
Label	0.9243*	0.9269*	1.908***
	(0.4773)	(0.4815)	(0.6035)
Group O	-0.6048	-0.7920	-0.8266
	(0.4386)	(0.5519)	(0.5465)
Group SO	-0.6857*	-0.7209*	-0.4996
	(0.3983)	(0.4009)	(0.3771)
Initial Choice Labeled	0.5916*	0.2519	0.0758
	(0.3524)	(0.4640)	(0.4512)
Labeled $\times$ Group O	1.276*	1.645	1.714*
	(0.6837)	(1.014)	(0.9645)
Labeled $\times$ Group SO	0.9141*	0.9477	0.5051
	(0.5252)	(0.6914)	(0.6638)
Labeled $\times$ Initial Choice Labeled	-1.266**	-1.179	-0.8270
	(0.5073)	(0.7632)	(0.7472)
Middle Income		0.1893	1.140**
		(0.3265)	(0.5453)
High Income		-0.0466	0.7223
		(0.3076)	(0.5480)
Household size		-0.0263	-0.0263
		(0.0685)	(0.0693)
Solano County Resident		-0.4932	-0.4932
		(0.3631)	(0.3670)
Age		-0.0026	-0.0026
		(0.0082)	(0.0083)
Children		-0.1063	-0.1063
		(0.2645)	(0.2673)
Ag experience		-0.0730	-0.0730
		(0.2231)	(0.2255)
Gender		-0.1740	-0.1740
		(0.2323)	(0.2347)
Local shopper		-0.1281	-0.1281
		(0.2720)	(0.2749)
Grocery frequency		-0.1709	-0.1709
		(0.1377)	(0.1392)
Labeled $\times$ Middle Income			-1.901**
			(0.8820)
Labeled $\times$ High Income			-1.538*
			(0.7970)
Constant	-0.2094	1.162	0.6710
	(0.3748)	(0.8623)	(0.9141)
<i>Fit statistics</i>			
Observations	178	114	114
R ²	0.14800	0.21358	0.27740
Adjusted R ²	0.11292	0.07432	0.13135

Clustered (Participant ID) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Across specifications, the coefficient on the labeled product indicator is generally positive, suggesting that label information increases consumers' valuation of the product. In Model (1), the introduction of label information increases WTP by approximately \$0.97 on average. Although the coefficient becomes statistically insignificant in Model (2), the estimated effect becomes larger again in Model (3) once income interactions are incorporated.

The interaction terms indicate that WTP responses differ across labeling strategies. Unlike the perceived quality regressions, the interaction between labeled products and Group O is not statistically significant across specifications, suggesting that the USDA Organic seal alone does not generate substantially larger WTP increases relative to the baseline treatment group (S). In contrast, the interaction between labeled products and Group SO is positive and statistically significant in Models (2) and (3). This divergence may reflect the fact that WTP may reflect not only perceived product quality but also broader consumer values, such as supporting local farmers or sustainability-related initiatives.

This interpretation is also consistent with the positive and statistically significant coefficient on Solano County residency in the WTP regressions. This effect is not observed in the perceived quality regressions, suggesting that local residency may influence value-based purchasing motivations rather than perceptions of product quality itself. In this context, local identity may amplify the monetary value consumers place on sustainability-related labels, potentially reflecting additional utility derived from supporting local farmers or contributing to the regional food system.

The results also reveal heterogeneity in WTP responses across income group, though the pattern is somewhat weaker than for perceived quality. In Model (3), the interaction between labeled product and the high-income group is negative and statistically significant, indicating that high-income consumers exhibit smaller increases in WTP following label exposure relative to low-income participants. The interaction for the middle-income group is also negative, although statistically insignificant. Overall, these findings suggest that sustainability-related labels may carry greater informational or economic salience for lower-income consumers, leading to larger valuation responses. In contrast, higher-income

consumers may already possess relatively strong prior beliefs regarding product attributes or may be less sensitive to marginal changes in perceived product value.

Taken together, the quality and WTP results reveal a consistent pattern of heterogeneous label effects across treatment groups and income levels, while also highlighting important differences between the two outcome measures. Label information generates stronger quality updating under the organic treatment, consistent with the notion that certified labels provide more credible quality signals than local sustainability claims. In contrast, WTP responses are more uniform across label treatments, suggesting that monetary valuations reflect a broader set of consumer preferences beyond product quality alone.

8 Conclusion

This study examines how consumers from varying income categories respond to sustainability-related food labels and claims. Using a field experiment conducted in Solano County, California, the analysis combines both stated preference measures, including perceived quality and WTP, and revealed preference measures based on actual purchase decisions. The results highlight important differences between how consumers evaluate products and how they ultimately behave in purchase settings, while also revealing substantial heterogeneity in responses to sustainability-related labels across income groups.

Overall, the findings suggest that sustainability-related messages improve consumers' perceptions and valuations of local food products. Label exposure generally increases both perceived quality and WTP relative to unlabeled products. However, not all labels generate the same response. The USDA Organic seal produces the strongest effects on perceived quality, suggesting that nationally recognized certified labels provide particularly credible quality signals to consumers. In contrast, the local sustainability label alone generates more limited effects. Nevertheless, when combined with the USDA Organic seal, the local sustainability messaging results in increased WTP, indicating that monetary valuations may reflect not only individual benefits such as health and food safety considerations, but also community

Table 15: Effect of Label Information on WTP

Model:	<i>Dependent variable:</i>		
	Difference in WTP		
	(1)	(2)	(3)
<i>Variables</i>			
Label	0.9706** (0.4177)	0.4858 (0.4913)	1.274* (0.7088)
Group O	-0.2838 (0.3351)	-0.6172 (0.4654)	-0.6606 (0.4872)
Group SO	-0.4194 (0.3351)	-0.9008** (0.4022)	-0.7133* (0.3696)
Initial Choice Labeled	0.3685 (0.2949)	0.4622 (0.5004)	0.3381 (0.4975)
Labeled $\times$ Group O	0.4356 (0.5594)	0.5214 (0.8346)	0.6084 (0.8909)
Labeled $\times$ Group SO	0.8433 (0.5097)	1.582** (0.7235)	1.207* (0.6335)
Labeled $\times$ Initial Choice Labeled	-0.6691 (0.4647)	-0.3866 (0.7127)	-0.1383 (0.6681)
Middle Income		-0.0990 (0.4109)	0.5178 (0.6266)
High Income		-0.3935 (0.4911)	0.2969 (0.6711)
Household size		0.0198 (0.1038)	0.0198 (0.1048)
Solano County Resident		0.7035* (0.4149)	0.7035* (0.4192)
Age		0.0144 (0.0088)	0.0144 (0.0089)
Children		-0.2560 (0.3465)	-0.2560 (0.3501)
Ag experience		-0.0259 (0.2743)	-0.0259 (0.2772)
Gender		0.2015 (0.2958)	0.2015 (0.2990)
Local shopper		-0.1881 (0.3561)	-0.1881 (0.3599)
Grocery frequency		-0.0675 (0.1585)	-0.0675 (0.1602)
Labeled $\times$ Middle Income			-1.233 (0.7570)
Labeled $\times$ High Income			-1.381* (0.7925)
Constant	-0.1886 (0.2564)	-0.7934 (0.9411)	-1.188 (0.9927)
<i>Fit statistics</i>			
Observations	177	114	114
R ²	0.16034	0.21191	0.24792
Adjusted R ²	0.12556	0.07235	0.09590

Clustered (Participant ID) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

benefits such as supporting local farmers or local sustainability-related initiatives.

At the same time, the results indicate that changes in perceptions and valuations do not necessarily translate into actual purchase behavior, at least not in the short-term. Although labels increase perceived quality and WTP, their effects on purchase decisions remain relatively limited. This distinction highlights an important gap between stated preferences and revealed preferences. Consumers may express favorable attitudes toward sustainability-related labels and even report higher valuations, while still choosing not to purchase a product promoted via such messaging in an actual choice setting.

The results also reveal substantial heterogeneity in consumer responses across income groups. Low-income consumers generally exhibit stronger responses to label information in terms of perceived quality and WTP adjustments, suggesting that sustainability-related labels have a greater potential to move these consumers stated preferences. In contrast, high-income consumers tend to display more muted responses. One possible explanation is that high-income consumers have a relatively high initial evaluation of product quality and WTP, leaving less room for further increases following label exposure. Another possible explanation is that high-income consumers may already possess relatively strong prior beliefs regarding product attributes or be less sensitive to marginal changes in perceived value due to greater prior exposure to sustainability-related labels and claims.

In addition, local identity plays an important role in shaping valuation responses. Solano County residents exhibit larger increases in WTP following label exposure than non-residents do, suggesting that local consumers may derive additional utility from supporting farmers in their county or from contributing to economic resilience in their regional food system.

Several limitations should also be acknowledged. First, the study is based on a relatively small sample drawn from a specific geographic region, which may limit the generalizability of the findings. Second, while the experiment incorporates actual purchase decisions, the experimental setting may still differ from real-world retail environments where consumers face repeated choices, broader product assortments, and more complex informational contexts. In particular, the posted purchase price was held constant across all labeling treatments

in the experiment, whereas in actual retail settings, products carrying USDA Organic or local sustainability-related labels may differ in price and are often sold at price premiums. As a result, the experimental setting may understate the extent to which higher market prices act as barriers for low-income consumers who wish to purchase local or sustainability-labeled food. Third, some subgroup analyses, particularly those involving income-treatment interactions and purchase switching behavior, rely on relatively small cell sizes and should therefore be interpreted with caution. Future research could extend this analysis using larger and more diverse samples, alternative product categories, and retail field settings that more closely replicate real market conditions.

Overall, the findings suggest that sustainability-related labels influence consumer perceptions and valuations, but their effectiveness in changing actual purchasing behavior is likely limited and context-dependent. This study further emphasizes the importance of distinguishing between stated and revealed preferences when evaluating the effectiveness of sustainability-related food labeling strategies.

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Appendices

Appendix A Additional Tables

A.1 Descriptive Statistics with Generic Dataset

Table A.1 presents selective demographic characteristics from the supplemental survey sample. Overall, the supplemental survey sample exhibits demographic patterns broadly similar to those observed in the experimental sample, including variation in household structure, racial composition, and participation in food assistance programs. At the same time, some differences emerge across samples. Relative to the supplemental survey sample, participants in the experimental setting appear somewhat more likely to be low-income, receive food assistance, and reside long-term in Solano County. These differences likely reflect the community-based recruitment settings used in the experiment.

Table A.1: Selective Summary Statistics for the Supplemental Survey Sample

Variable	Description	Mean	Std.Dev.
Household Size	Number of people living in household	2.76	1.65
Children in Household	1 = at least one child under 18	0.36	0.48
Number of Children	Conditional on having children	2.36	1.32
Long-term Resident	1 = lived in Solano County more than 10 years	0.39	0.49
Agricultural Background	1 = family employed in agriculture or related fields	0.20	0.40
Car Access	1 = has access to a car	0.57	0.50
Female	1 = identifies as female	0.49	0.50
Age	Age in years	47.6	16.8
Non-White	1 = not White or Caucasian	0.48	0.50
Hispanic / Latinx	1 = identifies as Hispanic, Spanish, or Latinx	0.16	0.36
Low Income	1 = household income below \$35,000	0.17	0.38
Food Assistance	1 = participates in SNAP, WIC, or food pantries	0.25	0.43

Notes: The supplemental survey sample contains up to 282 observations. The number of observations varies across variables due to missing responses.

Table A.2: Grocery Shopping Locations: Supplemental Survey Sample

Response	N	Percent
1. Supermarket or grocery chain (e.g., Safeway, Raley's, Trader Joe's)	149	52.8
2. Supercenter (e.g., Costco, Sam's Club, Walmart)	123	43.6
3. Discount grocery store (e.g., Grocery Outlet, Smart and Final)	80	28.4
4. Specialty grocery store (e.g., Whole Foods, Nuggets, Sprouts)	63	22.3
5. Convenience store or corner store	26	9.2
6. Farmers market	85	30.1
7. Farm stand or farm direct/CSA box	52	18.4
8. Food distribution or similar event	22	7.8
9. Other (Please specify)	8	2.8

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each shopping location.

Table A.3: Labels or Claims Intentionally Purchased in the Last Six Months by Income Group: Supplemental Survey Sample

Response	Low Income	Middle Income	High Income
1. USDA organic	24 (50.0)	26 (61.9)	49 (68.1)
2. All natural / Naturally grown	20 (41.7)	19 (45.2)	27 (37.5)
3. Non-GMO	11 (22.9)	17 (40.5)	34 (47.2)
4. Transitional	1 (2.1)	0 (0)	2 (2.8)
5. Zero pesticides / No pesticides	10 (20.8)	11 (26.2)	18 (25)
6. Regenerative	4 (8.3)	5 (11.9)	6 (8.3)
7. Local	17 (35.4)	17 (40.5)	48 (66.7)
8. Pesticide Residue Free	9 (18.8)	8 (19)	10 (13.9)
9. Fair Trade	11 (22.9)	10 (23.8)	20 (27.8)
10. B corporation	3 (6.2)	3 (7.1)	8 (11.1)
11. Other (please specify)	3 (6.2)	6 (14.3)	5 (6.9)

Notes: Values are counts with percentages in parentheses. Multiple responses were allowed. Percentages are calculated within each income group.

Table A.4: Agreement with Statements on Preferences for Local Foods: Supplemental Survey Sample (%)

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<i>I have a preference for</i>					
locally grown produce	25.4	16.4	20.7	23.5	14.1
locally produced value-added (processed) foods	18.4	20.8	25.9	24.5	10.4

Notes: Percentages are calculated excluding respondents who selected "N/A." Each row sums to 100.

Table A.5: Motivations for Purchasing Local Foods: Supplemental Survey Sample

Response	N	Percent
1. Local food is reasonably priced or a good value.	114	40.4
2. Local food is available where I shop.	95	33.7
3. I care about sustainability.	89	31.6
4. I value transparency and knowing where, how, and by whom my food is produced.	105	37.2
5. Local food is fresher.	112	39.7
6. Local food tastes better.	72	25.5
7. Local food is safer.	43	15.2
8. Local food is healthier.	62	22.0
9. I want to support local farmers, food businesses, and the local economy.	133	47.2
10. Other	18	6.4

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each response option.

Table A.6: Barriers to Purchasing Local Foods: Supplemental Survey Sample

Response	N	Percent
1. Local food is too expensive.	96	34.0
2. It's hard to access places that sell local food.	87	30.9
3. I don't see local food where I usually shop.	76	27.0
4. I'm not sure what local means.	10	3.5
5. I don't think local food is higher quality than other food.	20	7.1
6. I don't see any added value in buying local foods.	10	3.5
7. I just buy what's convenient.	67	23.8
8. Other (please specify).	22	7.8

Notes: Multiple responses were allowed. Percentages are calculated as the share of respondents selecting each response option.

A.2 Choice–Evaluation Consistency

Table A.7 reports the consistency between participants’ product choices and subsequent evaluations before and after the introduction of label information. In the pre-label stage, consistency is defined as whether respondents assign higher perceived quality and WTP to the option they initially selected. In the post-label stage, consistency is defined as whether respondents who selected the labeled product also assigned higher perceived quality and WTP to that labeled option.

In the pre-label stage, where no label information is provided, the vast majority of participants assign higher perceived quality and WTP to the basket they initially selected. Specifically, 95.5% of participants exhibit consistency in perceived quality evaluations and 93.2% in WTP, indicating that initial choices are strongly aligned with subsequent valuations.

In the post-label stage, among respondents who selected the labeled product, a large majority also assign higher perceived quality and WTP to the labeled option. In particular, 86.1% of respondents exhibit consistency in perceived quality evaluations and 92.4% in WTP. These findings suggest that respondents who choose the labeled product also tend to evaluate it more favorably, assigning it higher perceived quality and WTP relative to the unlabeled alternative.

Table A.7: Consistency Between Choice and Evaluations Before and After Label Information

Stage	Category	Quality	WTP
Pre-label	Consistent	84 (95.5)	82 (93.2)
	Inconsistent	4 (4.5)	6 (6.8)
Post-label (among labeled-choice respondents)	Consistent	68 (86.1)	73 (92.4)
	Inconsistent	11 (13.9)	6 (7.6)

Notes: Values are counts with percentages in parentheses.

A.3 Direction of Changes in Perceived Quality and WTP

Table A.8 reports the direction of changes in perceived quality and WTP between the pre- and post-label stages for labeled and unlabeled products across treatment groups. Rather than focusing on average treatment effects, this table illustrates how individual participants adjusted their evaluations following the introduction of label information.

Table A.8: Direction of Changes in Perceived Quality and WTP by Treatment Group

	Group	Labeled Product			Unlabeled Product		
		Increase	No Change	Decrease	Increase	No Change	Decrease
<i>Quality</i>							
	S	12	21	5	9	20	9
	O	11	16	0	3	17	7
	SO	19	17	7	7	20	16
<i>WTP</i>							
	S	18	17	3	8	24	6
	O	14	12	1	4	17	6
	SO	24	17	1	5	25	13

Notes: Increase, No Change, and Decrease indicate whether perceived quality or WTP increased, remained unchanged, or decreased between the pre- and post-label stages for labeled and unlabeled products, respectively.

A.4 Supplementary t-test Results

Table A.9 reports paired t-tests comparing initial perceived quality evaluations and WTP between the left and right strawberry baskets prior to label exposure. Positive mean differences indicate higher average evaluations for the left basket. Because the two baskets were presented without labels and were otherwise identical, the tests provide a simple check of baseline balance and potential positional bias. The results indicate no statistically significant differences in either perceived quality or WTP between the two baskets, suggesting that participants did not systematically favor one basket before treatment exposure.

Table A.9: Paired t-tests for Initial Evaluations Between Left and Right Baskets

Outcome	Mean Difference	t-stat	p-value
Perceived Quality	0.056	0.237	0.813
WTP	0.151	0.803	0.424

Tables A.10 and A.11 report within- and between-group t-tests for changes in perceived

quality and WTP across treatment groups. Panel A examines whether the average total effect within each treatment group differs significantly from zero, while Panel B compares differences in total effects across treatment groups.

For perceived quality, the within-group results indicate statistically significant positive effects in the USDA Organic (O) and combined-label (SO) treatments, whereas the Sustainable Solano-only (S) treatment does not generate a statistically significant effect. The between-group comparisons further show that the quality effect in Group O is significantly larger than in Group S, while the differences between O and SO and between SO and S are not statistically significant. These results are consistent with the main analysis suggesting that certified labels generate stronger quality responses than local sustainability claims alone.

Table A.10: t-tests for Changes in Perceived Quality: Within- and Between-Group Results

<i>Panel A: Within-group (total effect vs. 0)</i>				
Comparison	Difference	t-stat	p-value	Significance
O	1.481	3.004	0.006	***
S	0.289	0.983	0.332	
SO	1.047	2.986	0.005	***
<i>Panel B: Between-group</i>				
Comparison	Difference	t-stat	p-value	Significance
S vs O	-1.192	-2.075	0.044	**
SO vs O	-0.435	-0.719	0.475	
SO vs S	0.757	1.654	0.102	

For WTP, all treatment groups exhibit positive average effects, although the magnitude and statistical significance differ across treatments. The within-group results indicate statistically significant increases in WTP for Groups O and SO, while the effect in Group S is weaker and only marginally significant. In contrast to the perceived quality results, the between-group comparisons reveal no statistically significant differences in WTP effects across treatment groups. This pattern suggests that although certified labels appear to generate stronger quality perceptions, differences in monetary valuations across treatments are more limited.

Table A.11: t-tests for Changes in WTP: Within- and Between-Group Results

<i>Panel A: Within-group (total effect vs. 0)</i>				
Comparison	Difference	t-stat	p-value	Significance
O	1.167	2.765	0.010	**
S	0.592	1.983	0.055	*
SO	1.333	3.934	0.000	***
<i>Panel B: Between-group</i>				
Comparison	Difference	t-stat	p-value	Significance
S vs O	-0.575	-1.112	0.272	
SO vs O	0.167	0.308	0.759	
SO vs S	0.741	1.641	0.105	

A.5 Participants with WTP Above the Posted Price

Table A.12 reports the number and percentage of participants whose stated WTP exceeded the posted purchase price of \$5 for at least one strawberry basket before and after the introduction of label information. This comparison provides additional insight into whether increases in stated WTP were sufficient to exceed the posted purchase price of \$5 used in the experiment. The results show that the share of participants with WTP above the posted price increases following label exposure, suggesting that sustainability-related labels increased valuations for at least some respondents, even though overall purchase participation remained relatively stable.

Table A.12: Participants with WTP Above the Posted Price

Stage	N	Total	Percent
Pre-label	29	108	26.9
Post-label	40	107	37.4

Table A.13: Switching Patterns in Purchase Choices by Income and Label Treatment

Income	Group	Pre-labeling choice	Post: Labeled	Post: Unlabeled	Post: No purchase
Low (<35k)	S	Labeled	1 (100)	0 (0.0)	0 (0.0)
		Unlabeled	0 (0.0)	4 (100)	0 (0.0)
		No purchase	0 (0.0)	0 (0.0)	6 (100)
	O	Labeled	0 (0.0)	0 (0.0)	0 (0.0)
		Unlabeled	1 (100)	0 (0.0)	0 (0.0)
		No purchase	0 (0.0)	0 (0.0)	5 (100)
	SO	Labeled	3 (75)	0 (0.0)	1 (25)
		Unlabeled	1 (100)	0 (0.0)	0 (0.0)
		No purchase	1 (9.1)	0 (0.0)	10 (90.9)
Middle (35k–74k)	S	Labeled	0 (0.0)	0 (0.0)	6 (100)
		Unlabeled	0 (0.0)	0 (0.0)	0 (0.0)
		No purchase	0 (0.0)	0 (0.0)	0 (0.0)
	O	Labeled	0 (0.0)	0 (0.0)	1 (100)
		Unlabeled	0 (0.0)	0 (0.0)	1 (100)
		No purchase	0 (0.0)	0 (0.0)	5 (100)
	SO	Labeled	2 (100)	0 (0.0)	0 (0.0)
		Unlabeled	0 (0.0)	2 (100)	0 (0.0)
		No purchase	0 (0.0)	0 (0.0)	4 (100)
High (75k+)	S	Labeled	0 (0.0)	1 (100)	0 (0.0)
		Unlabeled	2 (50)	2 (50)	0 (0.0)
		No purchase	0 (0.0)	0 (0.0)	6 (100)
	O	Labeled	3 (100)	0 (0.0)	0 (0.0)
		Unlabeled	1 (100)	0 (0.0)	0 (0.0)
		No purchase	1 (20)	0 (0.0)	4 (80)
	SO	Labeled	3 (100)	0 (0.0)	0 (0.0)
		Unlabeled	0 (0.0)	1 (50)	1 (50)
		No purchase	1 (33.3)	0 (0.0)	2 (66.7)

Table A.14: Initial Evaluations and Label Responses by Age Group

Age group	N	Initial Quality	Change	Change (%)	Initial WTP	Change	Change (%)
18-39	32	6.77 (1.3)	1.22 (2.20)	19.0	4.18 (1.54)	1.43 (2.62)	40.6
40-54	25	7.08 (1.43)	0.52 (2.63)	6.5	4.00 (1.20)	1.02 (1.46)	26.5
55+	28	6.79 (0.93)	0.75 (2.17)	11.3	3.40 (1.71)	0.42 (1.69)	11.7

Appendix B Data Analysis: Post-Experiment

In our analysis of data collected from our post-experiment survey, as a first step, we once more focus on providing summary statistics. Table B.1 reports respondents’ stated preferences for local and organic foods after participation in the experiment. Across product types, respondents expressed stronger preferences for locally produced foods than for organic foods. In particular, 68.6% of respondents agreed or strongly agreed that they prefer locally grown produce, compared with 59.2% who reported a preference for organic produce.

Preferences were generally weaker for value-added (processed) foods than for fresh produce. While 59.8% of respondents indicated a preference for locally produced value-added foods, only 50.5% expressed a preference for organic value-added foods. Across all statements, relatively few respondents showed strong disagreement, suggesting that both local and organic attributes are viewed favorably by a large share of our respondents. These patterns are consistent with the responses reported in Table 6.

Respondents generally report favorable attitudes toward locally produced food, citing value, freshness, and support for local farmers as important motivations for purchasing local products. However, respondents also identify several barriers to purchasing local food, particularly higher prices, limited visibility in the stores where they usually shop. These responses suggest that while consumers have positive perceptions of local food, price and convenience remain main constraints on actual purchasing behavior.

Table B.1: Agreement with Statements on Preferences for Local and Organic Foods (%)

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
<i>I have a preference for</i>					
locally grown produce	7.4	0.0	24.1	41.7	26.9
locally produced value-added (processed) foods	3.7	6.5	29.9	41.1	18.7
<i>I have a preference for</i>					
organic produce	6.5	3.7	30.6	36.1	23.1
organic value-added (processed) foods	5.6	9.3	34.6	31.8	18.7

Table B.2 confirms that respondents’ strongly preferred labeling options for strawberry baskets that combine organic labels with additional quality or sustainability signals. Here,

however, we find that the most frequently selected option was Grown in Solano County + USDA Organic, chosen by 50.5% of respondents, followed closely by Grown in Solano County + Sustainable Solano logo + USDA Organic (46.7%).

Statements that only highlight local productions were valued somewhat lower. 40.2% of respondents selected Grown in Solano County, and 34.6% indicating a preference for the combination of local and Sustainable Solano logo. Relatively few respondents preferred strawberries with no labels or claims (10.3%), reported indifference across labeling options (9.3%), or indicated that they did not like any of the available labels and claims (1.9%).

Taken together, the results suggest that respondents generally prefer strawberries with labels or claims to unlabeled products, and that strategically combining multiple sustainability messages can affect consumers' valuation and purchase intent. However, consumers' stated preferences are not aligned with their perceived quality perceptions and revealed preferences, a discrepancy that points to the importance of considering information costs. This is an area we will investigate further.

Table B.2: Summary of Responses to C5: Preferred Strawberry Basket Labeling (Multiple Responses Allowed)

Response	Count	Percent
1. No labels or claims added	11	10.3
2. Grown in Solano County	43	40.2
3. Grown in Solano County + Sustainable Solano logo	37	34.6
4. Grown in Solano County + USDA organic seal	54	50.5
5. Grown in Solano County + Sustainable Solano logo + USDA organic seal	50	46.7
6. I am indifferent between any of these	10	9.3
7. I don't like any of these	2	1.9

Table B.3: Perceived Overall Quality of Strawberry Baskets by Labeling Condition (Scale: 1–10)

Response	Count	Mean	s.d.
1. No labels or claims added	104	4.24	2.90
2. Grown in Solano County	104	6.98	2.38
3. Grown in Solano County + Sustainable Solano logo	103	7.32	2.41
4. Grown in Solano County + USDA organic seal	105	7.80	2.39
5. Grown in Solano County + Sustainable Solano logo + USDA organic seal	105	8.10	2.27

Table B.4: Willingness to Pay for Strawberry Baskets by Labeling Condition (\$)

Response	Count	Mean	s.d.
1. No labels or claims added	104	3.34	1.89
2. Grown in Solano County	104	4.51	1.60
3. Grown in Solano County + Sustainable Solano logo	104	4.60	1.65
4. Grown in Solano County + USDA organic seal	105	4.86	1.74
5. Grown in Solano County + Sustainable Solano logo + USDA organic seal	105	5.03	1.83

Table B.5: Summary of Responses to C22: Preferred Strawberry Basket Labeling After Providing Information (Multiple Responses Allowed)

Response	Count	Percent
1. No labels or claims added	10	10.1
2. Grown in Solano County	27	27.3
3. Grown in Solano County + Sustainable Solano logo	41	41.4
4. Grown in Solano County + USDA organic seal	43	43.4
5. Grown in Solano County + Sustainable Solano logo + USDA organic seal	59	59.6
6. I am indifferent between any of these	10	10.1
7. I don't like any of these	1	1.0

Table B.6: Perceived Overall Quality of Strawberry Baskets by Labeling Condition (Scale: 1–10)

Response	N	Mean	SD
1. No labels or claims added	101	3.78	2.70
2. Grown in Solano County	104	6.46	2.43
3. Grown in Solano County + Sustainable Solano logo	102	7.06	2.43
4. Grown in Solano County + USDA organic seal	102	7.74	2.22
5. Grown in Solano County + Sustainable Solano logo + USDA organic seal	103	8.12	2.34

Table B.7: Willingness to Pay for Strawberry Baskets by Labeling (\$)

Response	N	Mean	SD
1. No labels or claims added	104	3.38	1.85
2. Grown in Solano County	105	4.34	1.53
3. Grown in Solano County + Sustainable Solano logo	105	4.72	1.53
4. Grown in Solano County + USDA organic seal	105	4.96	1.56
5. Grown in Solano County + Sustainable Solano logo + USDA organic seal	105	5.11	1.74

Table B.8: Summary of Responses to C25: Intention to Purchase Local Food

Response	Count	Percent
1. Strongly agree	38	38.0
2. Agree	37	37.0
3. Neither agree nor disagree	22	22.0
4. Disagree	3	3.0
5. Strongly Disagree	0	0.0

Appendix C Questionnaires



A Lab-in-the-Field Retail Experiment Survey

Participant ID (to be filled out by staff): _____ Participant name: _____

Investigators: Sustainable Solano in collaboration with the University of California, Davis (PI: Kristin Kiesel)

Introduction to respondent

Thank you for considering participating in this study. We are enumerators from a project conducted by researchers at UC Davis and would like to learn more about your purchasing habits and perceptions. We will ask you to fill out two surveys and conduct a retail experiment. **You will receive up to \$30 for participating in our study today and you have the opportunity to purchase a basket of strawberries.** The surveys take **10-15 minutes each** and you will be able to complete the retail experiment in **20 minutes or less**.

We assure you that all information collected is kept strictly confidential, and data will be used for research purposes only. Results will only be reported in the aggregate and in a way that does not reveal your identity. Your participation and identity will not be revealed at any point, and data will not be shared with any outside person or entity. Please sign or print your name to indicate that you have read and understood this information. You will then be asked to give informed consent about participating in this study.

Please print or sign your name: _____

Please indicate if you CONSENT to participating in the survey.

- ☐ I DO consent to participating in this study.
- ☐ I DO NOT consent or wish to participate in this study.

We really appreciate your participation and time spent engaging with us!

Part 1: Pre-Experiment Questionnaire

SECTION A: Purchasing Behaviors

A1: Where do you buy your groceries? (Please select all that apply.)

- ☐ Supermarket or grocery chain (e.g., Safeway, Raley's, Trader Joe's)
- ☐ Supercenter (e.g., Costco, Sam's Club, Walmart)
- ☐ Discount grocery store (e.g., Grocery Outlet, Smart and Final)
- ☐ Specialty grocery store (e.g., Whole Foods, Nuggets, Sprouts)
- ☐ Convenience store or corner store
- ☐ Farmers market
- ☐ Farm stand or farm direct/Community Supported Agriculture (CSA) box
- ☐ Food distribution or similar event
- ☐ Other (Please specify) _____

A2: Do you shop at different places? (If you answer 'yes,' proceed to A3, if 'no,' proceed to A4.)

- ☐ Yes
- ☐ No

A3: What are the reasons you shop for groceries at different places? (Please select all that apply.)

- ☐ To find the best prices or take advantage of regular discounts and promotions offered by certain stores.
- ☐ When certain items are out of stock at one store, I visit other stores to find what I need.
- ☐ Different stores may offer a wider range of products or unique items that aren't available at other locations.
- ☐ Seeking stores known for offering higher-quality produce, meat, or other grocery items.
- ☐ Choosing different stores based on location and ease of access.
- ☐ Returning to stores where I trust the products, customer service, or enjoy rewards and loyalty programs.
- ☐ Other (please briefly describe):

A4: Are you the primary shopper in your household? (If you answer 'yes,' proceed to A6, if 'no,' proceed to A5.)

- ☐ Yes
- ☐ No

A5: Who is the primary shopper in your household (specify your relation, e.g., wife, father)?

A6. Have you looked for and intentionally purchased foods identified by any of these labels or claims in the last six months? (Please select all that apply.)

- ☐ USDA organic
- ☐ All natural/Naturally Grown
- ☐ Non-GMO
- ☐ Transitional
- ☐ Zero Pesticides (or No pesticides)
- ☐ Regenerative
- ☐ Local
- ☐ Pesticide Residue Free
- ☐ Fair Trade
- ☐ B corporation
- ☐ Other (please specify) _____

What is your level of trust in the accuracy of information about food production and handling provided from the following sources?

Source of production information	Trust in sources of information				
	Very low trust (1)	Low trust (2)	Trust (3)	High trust (4)	Very high trust (5)
<i>Source of food labeling information</i>					
A7. Statements certified by the USDA					
A8. Statements certified by a third-party certifying agency (e.g., CCOF, Fair Trade USA)					
A9. Statements certified by peer review within an industry (e.g., other farmers or manufacturers)					
A10. Statements added by the retailer					
A11. Statements made by growers/farmers					
A12. Statements added provided by processor/distributor					
A13. Statements endorsed by local Non-Government Organizations (NGOs) or Non-Profit Organizations (NPOs)					
A14. Information provided by influencers or consumer reviews					

A15. Information provided by friends and family (e.g. recommendations)					
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A16. Now assume you saw a 'local' label or claim on a food product. From the following statements below, which one do you think best matches the meaning of 'local'? Please order the following statements from 1- 8, where 1 represents the most likely meaning of 'local' and 8 represents the least likely meaning of 'local'.

	The food product was organically grown/uses only organic ingredients and is produced by a small farm or business.
	The food product is of higher quality than other products in this category.
	The food product was organically grown/uses only organic ingredients.
	The food product was produced in Solano County by a small farm or business.
	The food product was produced in Solano County and is of higher quality than other products in this category.
	The food product was produced within Solano County.
	The food product is produced by a small farm or business.
	The food product was organically grown/uses only organic ingredients, is produced by a small farm or business, and is of higher quality.

Please indicate how much you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
A17. I consider local production when purchasing fresh produce.					
A18. I consider local production when purchasing meat.					
A19. I consider local production when purchasing dairy products.					
A20. I consider local production when purchasing processed foods (e.g., jams, oils, salsas, honey, etc.)					
A21. I consider organic production when purchasing fresh produce.					
A22. I consider organic production when consuming meat.					
A23. I consider organic production when purchasing dairy products.					
A24. I consider organic production when purchasing processed foods (e.g., jams, oils, salsas, honey, etc.)					

A25. What might motivate you to purchase local produce or foods? *(Please select all that apply.)*

- ☐ Local food is reasonably priced or a good value.
- ☐ Local food is available where I shop.
- ☐ I care about sustainability.
- ☐ I value transparency and knowing where, how, and by whom my food is produced.
- ☐ Local food is fresher.
- ☐ Local food tastes better.
- ☐ Local food is safer.
- ☐ Local food is healthier.
- ☐ I want to support local farmers, food businesses, and the local economy.
- ☐ other (please specify) _____

A26. What might prevent you from purchasing local produce or foods? *(Please select all that apply.)*

- ☐ Local food is too expensive.
- ☐ It's hard to access places that sell local food.
- ☐ I don't see local food where I usually shop.
- ☐ I'm not sure what *local* means.
- ☐ I don't think local food is higher quality than other food.
- ☐ I don't see any added value in buying local foods.
- ☐ I just buy what's convenient.
- ☐ Other (please specify) _____

Please indicate how much you agree or disagree with the following statements regarding your fresh produce purchasing decisions based on prior experiences and what you can observe at point of purchase.

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
A27. Affordability is an important factor when purchasing fresh produce.					
A28. Appearance and presentation are important factors when purchasing fresh produce.					
A29. Specific varieties are an important factor when purchasing fresh produce.					
A30. Specific brands are an important factor when purchasing fresh produce.					
A31. The quantity or size of packages is an important factor when purchasing fresh produce.					
A32. Ease of preparation is an important factor when purchasing fresh produce.					
A33. Food safety information is an important factor when purchasing fresh produce.					
A34. Freshness or harvest date is an important factor when purchasing fresh produce.					
A35. Nutrition facts are an important factor when purchasing fresh produce.					
A36. The origin or growing region is an important factor when purchasing fresh produce.					
A37. Information about the production process or growing methods (e.g., regenerative agriculture, organic, no tillage) are important factors when purchasing fresh produce.					
A38. How long the fresh produce will last is an important factor when purchasing fresh produce.					
A39. Taste is an important factor when purchasing fresh produce.					
A40. My prior experience with or knowledge about fruits or vegetables is an important factor when purchasing fresh produce.					

A41. Please evaluate the following statement: "I am knowledgeable about agricultural production."

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

A42. Can you name a farm or food business located in Solano County?

- ☐ No
- ☐ Yes (Please list all that come to mind) _____

Thank you for filling out the Pre-experiment survey. Please proceed to the experiment stations.

Participant ID: _____ Participant name: _____
 Enumerator ID: _____ Enumerator name: _____
 Starting Time: _____ End Time: _____
 Group Number: _____
 Pre-experiment survey collected (Please check)? ☐

Part 2: Experiment

SECTION B: Experiment

Now imagine you are at a retail market and have an opportunity to purchase one of the baskets of strawberries displayed in front of you. Please take a moment to examine each basket. Each basket contains about one pound (lb) of strawberries or 350-500g.

ENUMERATOR: DO NOT MENTION THAT ONE OF THE STRAWBERRIES IS LABELED

----- Labels not revealed -----

B1. Enumerator: Please mark which strawberry is on the left or right (FROM ENUMERATOR VIEW) on the table.

Labeled _____ (1: left, 2: right)

Unlabeled _____ (1: left, 2: right)

B2. (Ask participant) Do you prefer one of the baskets of strawberries over the other. If so, please point at the option you prefer. (FROM ENUMERTOR VIEW)

- ☐ Left
- ☐ Right
- ☐ I like them equally
- ☐ I don't like either

B2a. (If one is preferred), why?

 Enumerator: Please ask participant to briefly state the reason (e.g., appearance, weight, freshness etc.)

B3. On a scale of 1 to 10, with 10 being the highest possible overall quality, what values would you assign as your perceived qualities for each of these baskets of strawberries?

	(Lowest)									(Highest)
Left	1	2	3	4	5	6	7	8	9	10
Right	1	2	3	4	5	6	7	8	9	10

B4. What is the maximum amount you would be willing to pay for each basket of strawberries? (\$)

Left	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Right	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00

B5. We already shared that you will receive up to \$30 once you completed the pre-survey, this experiment, and the post-survey to compensate you for your time. You now have an opportunity to purchase one of these two baskets of strawberries at the price of \$5 (you would receive \$25 instead of \$30 upon completion of this experiment and post-survey). Would you like to purchase one of these baskets?

(Enumerator: Explain to the participant that, they can select one of the strawberries, but that they cannot buy both.)

- ☐ Left
- ☐ Right
- ☐ Neither

Imagine you return to the supermarket and learn that you have the choice between two types of strawberries: One type does not include any information, while the other is labeled as follows:

(Enumerator: Turn over additional information.)

(Group 1) Grown in Solano County + Sustainable Solano logo (Sustainably Grown in Solano)

(Group 2) Grown in Solano County + USDA Organic seal

(Group 3) Grown in Solano County + Sustainable Solano logo + USDA Organic Seal

B6. Enumerator: Please mark once more which basket of strawberries is on the left or right (FROM ENUMERATOR VIEW) on the table.

Labeled _____ (1: left, 2: right)

Unlabeled _____ (1: left, 2: right)

B7. Given this additional information, please re-evaluate your two options once more and point to the basket of strawberries you now prefer. (FROM ENUMERTOR VIEW)

- ☐ Left
- ☐ Right
- ☐ I like them equally
- ☐ I don't like either

B8. On a scale of 1 to 10, with 10 being the highest possible overall quality, what values would you now assign as your perceived qualities for each of these baskets of strawberries?

	(Lowest) (Highest)									
Left	1	2	3	4	5	6	7	8	9	10
Right	1	2	3	4	5	6	7	8	9	10

B9. What is the maximum amount you would be willing to pay for each basket of strawberries now? (\$)

Left	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Right	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00

B10. Would you like to adjust your prior purchase decision (e.g., you can decide to buy a different basket of strawberries or not to purchase any). The price is unchanged and is still \$5.

Enumerator: Explain to the participants that, they can still only select one of the strawberries, but that they cannot buy both.

- ☐ Left
- ☐ Right
- ☐ Neither

*Enumerator: Thank them for their participation in this experiment and hand them the post-experiment survey. If they decided to buy one of the baskets, please hand it to them as well. Tell them that once they have completed the post-experiment survey, they can proceed to the check-out table to collect their payoff. **Please make sure you add the participant id to the first page of the post-experiment survey and indicate whether they purchased a basket of strawberries.***

Participant ID (to be filled out by enumerator): ____ Participant name: _____

Strawberries purchased (to be filled out by enumerator): No ☐ Yes ☐

Part 3: Post-Experiment Questionnaire

SECTION C: Preferences and Beliefs

Please indicate how much you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
C1. I have a preference for locally grown produce.					
C2. I have a preference for locally produced value-added (processed) foods (e.g., jams, oils, salsas, honey, etc.)					
C3. I have a preference for organic produce.					
C4. I have a preference for organic value-added (processed) foods (e.g., jams, oils, salsas, honey, etc.)					

C5. If you had the option to choose between baskets of strawberries labeled in any of the following ways, which of these labeling options would you prefer? *(Please select all that apply.)*

- ☐ No labels or claims added
- ☐ Grown in Solano County
- ☐ Grown in Solano County + Sustainable Solano logo
- ☐ Grown in Solano County + USDA organic seal
- ☐ Grown in Solano County + Sustainable Solano logo + USDA organic seal
- ☐ I am indifferent between any of these
- ☐ I don't like any of these

You may encounter no labels or any of the following labels when purchasing fresh produce. Please indicate what you believe these labels communicate:

If you believe that a statement corresponds with the label, place a ✓ (Check) in that cell. If you do not believe that a statement corresponds with a label, place an X in that cell. If you do not know, place a O (circle) in that cell.

	(No Label)	Local	Organic	Fair Trade
C6. Growers are prohibited to use pesticides and chemical fertilizers.				
C7. Growers only use fertilizers and pesticides approved by government and comply with application regulations.				
C8. Products are certified and governed by regulations.				
C9. Products are sustainably grown. (e.g., low impacts on environment)				
C10. Products are reasonably priced or a good value.				
C11. Products are of higher quality than other products in the same category.				
C12. Products are healthier.				
C13. Products are fresher.				
C14. Products are safer.				
C15. Products taste better.				
C16. Products were produced within Solano County.				
C17. Products were produced by a small farm or business.				
C18. Products support local farmers, food businesses, and the local economy.				
C19. Fair prices are guaranteed for growers/producers.				

C20. On a scale of 1 to 10, with 10 being the highest possible overall quality, what values would you now assign as your perceived qualities for each of these baskets of strawberries?

	(Lowest) (Highest)									
No labels or claims added	1	2	3	4	5	6	7	8	9	10
Grown in Solano County	1	2	3	4	5	6	7	8	9	10
Grown in Solano County + Sustainable Solano logo	1	2	3	4	5	6	7	8	9	10
Grown in Solano County + USDA organic seal	1	2	3	4	5	6	7	8	9	10
Grown in Solano County + Sustainable Solano logo + USDA organic seal	1	2	3	4	5	6	7	8	9	10

C21. What is the maximum amount you would be willing to pay for each basket of strawberries? (\$)

No labels or claims added	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County + Sustainable Solano logo	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County + USDA organic seal	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County + Sustainable Solano logo + USDA organic seal	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00

Now, please take a moment to read through the following information:

Sustainable Solano logo: Sustainable Solano is a local nonprofit organization. It is based in Solano County and promotes increased access to sustainably grown local foods, community resilience, public health, and regenerative landscapes. In collaboration with local partners, its goal is to create ecologically regenerative, economically and socially just communities and to strengthen a local food system that better serves Solano's farmers and county residents alike.



USDA organic seal: The National Organic Program regulates and enforces [consistent national standards](#) for organically produced agricultural products sold in the United States. Fruits and vegetables carrying the USDA organic seal are inspected by accredited agencies and USDA certified to be using sustainable production methods and mechanisms that foster cycling of resources, promote ecological balance, conserve biodiversity, and meet animal welfare standards. They are grown without the use of synthetic fertilizers, sewage sludge, irradiation, and genetically engineered organisms. Certification requires that fruits and vegetables are grown on soil that had no prohibited substances applied for three years prior to harvest.



Given the information provided, we would like to ask you a few questions once more:

C22. If you had the option to choose between baskets of strawberries labeled in any of the following ways, which option would you prefer? (Please select all that apply.)

- ☐ No labels or claims added
- ☐ Grown in Solano County
- ☐ Grown in Solano County + Sustainable Solano logo
- ☐ Grown in Solano County + USDA organic seal
- ☐ Grown in Solano County + Sustainable Solano logo + USDA organic seal
- ☐ I am indifferent between any of these
- ☐ I don't like any of these

C23. On a scale of 1 to 10, with 10 being the highest possible overall quality, what values would you now assign as your perceived qualities for each of these baskets of strawberries?

	(Lowest) (Highest)									
No labels or claims added	1	2	3	4	5	6	7	8	9	10
Grown in Solano County	1	2	3	4	5	6	7	8	9	10
Grown in Solano County + Sustainable Solano logo	1	2	3	4	5	6	7	8	9	10
Grown in Solano County + USDA organic seal	1	2	3	4	5	6	7	8	9	10
Grown in Solano County + Sustainable Solano logo + USDA organic seal	1	2	3	4	5	6	7	8	9	10

C24. What is the maximum amount you would be willing to pay for each basket of strawberries? (\$)

No labels or claims added	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County + Sustainable Solano logo	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County + USDA organic seal	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00
Grown in Solano County + Sustainable Solano logo + USDA organic seal	0	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00

C25. Please evaluate the following statement: "I will look for and intentionally purchase local food."

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

**C26. Please also indicate which of the following actions you would be willing to pursue/participate in.
(Please check all that apply.)**

- ☐ Prioritize Solano grown or regional produce
- ☐ Commit 5% of your family food budget to purchase local produce
- ☐ Regularly visit farmers market and farm stands in Solano County
- ☐ Inquire about employer's food purchasing policies and ask to for commitments to source from within Solano County
- ☐ Subscribe to Community Supported Agriculture (CSA) programs sourcing from farms located in Solano County (and receive weekly produce deliveries)
- ☐ Ask your favorite restaurant to source ingredients from within Solano County when possible
- ☐ Advocate for local farmers and food businesses
- ☐ Donate to organization and initiatives strengthening regional food systems
- ☐ Volunteer my time and get involved with organizations and initiatives promoting local foods
- ☐ Other (Please briefly describe):

C27. Would you like to receive more information about how to support farmers and food businesses operating in Solano County?

- ☐ No
- ☐ Yes (Please share your contact email):

C28. Is this the first time you heard of *Sustainable Solano*?

- ☐ Yes
- ☐ No (Where did you hear/encounter this organization in the past?):

The next couple of questions collect basic sociodemographic information. As a reminder, we assure you that all information collected is kept strictly confidential, and data will be used for research purposes only. Results will only be reported in the aggregate and in a way that does not reveal your identity. If any of the questions asked make you feel uncomfortable, you do not have to answer them.

SECTION D: Demographics

D1. How many people live in your household (including yourself)?

- ☐ Only myself
- ☐ Two people
- ☐ Three to four people
- ☐ Five to six people
- ☐ Seven or more people

D2. Do you have children (e.g., persons under 18) living with you?

- ☐ No
- ☐ Yes (Please specify how many) _____

D3a. How long have you lived in Solano County?

- ☐ Less than a year
- ☐ 1-2 years
- ☐ 3-5 years
- ☐ 5-10 years
- ☐ More than 10 years
- ☐ I do not live in Solano County (Please specify zip code or city where you live):

- ☐ I prefer not to respond

D3b. Where in Solano County do you currently live (and where do you work):

Home address (zip code or city only): _____

Work address (zip code or city only): _____

D4. Do you/did you ever work in agricultural production, food service or related fields (e.g., education)?

- ☐ Yes
- ☐ No
- ☐ I prefer not to respond

D5. Does or did anyone in your family work in agricultural production, food service, or related fields (e.g., education)?

- ☐ Yes, please specify who (e.g., father, grandmother):

- ☐ No
- ☐ I prefer not to respond

D6. What is your annual household income?

- ☐ Less than \$15,000
- ☐ \$15,000 - \$24,999
- ☐ \$25,000 - \$34,999
- ☐ \$35,000 - \$44,999
- ☐ \$45,000 - \$54,999
- ☐ \$55,000 - \$64,999
- ☐ \$65,000 - \$74,999
- ☐ \$75,000 - \$84,999
- ☐ \$85,000 - \$94,999
- ☐ \$95,000 - \$104,999
- ☐ More than \$105,000
- ☐ I do not know
- ☐ I prefer not to respond

D7. Do you regularly cook/eat at home?

- ☐ Everyday
- ☐ Once a week
- ☐ 2-3 times a week
- ☐ 4-5 times a week
- ☐ No
- ☐ I prefer not to respond

D8. How frequently (per week) do you shop for food/groceries?

- ☐ Once
- ☐ Twice
- ☐ Three times
- ☐ Four or more
- ☐ I prefer not to respond

D9. What is your typical weekly food expenditure?

- ☐ Less than \$50
- ☐ \$50 - \$100
- ☐ \$101 - 150
- ☐ \$151 - \$200
- ☐ More than \$200
- ☐ I prefer not to respond

D10. What is your typical monthly food expenditure?

- ☐ Less than \$200
- ☐ \$210 - \$400
- ☐ \$401 - 600
- ☐ \$601 - \$800
- ☐ More than \$800
- ☐ I prefer not to respond

D11. Is your household currently participating in/receiving food assistance? (Please check all that apply.)

- ☐ No
- ☐ Yes, my household is receiving food benefits through the Supplemental Nutrition Assistance Program (SNAP).
- ☐ Yes, my household is receiving foods and other services through the Women, Infants, and Children Program (WIC).
- ☐ Yes, my household regularly picks up food donations from food banks and/or pantries.
- ☐ Yes, other (Please specify): _____
- ☐ I do not know
- ☐ I prefer not to respond

D12. Do you own or have access to a car?

- ☐ Yes
- ☐ No
- ☐ I prefer not to respond

D13. What is your gender identity?

- ☐ Male
- ☐ Female
- ☐ Non-binary/third gender
- ☐ Self-identified (Please specify): _____
- ☐ I prefer not to respond

D14. What is your age?

- Please enter: _____
- ☐ I prefer not to respond

D15. What is your race?

- ☐ White or Caucasian
- ☐ Asian or Pacific Islander
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Other (Please specify): _____
- ☐ I prefer not to respond

D16. Are you a native English speaker?

- ☐ Yes
- ☐ No (Please specify your native language): _____
- ☐ I prefer not to respond

D16a. Did you (your parents/grandparents) immigrate to the US?

- ☐ No
- ☐ Yes, I am a first-generation immigrant
- ☐ Yes, I am a second-generation immigrant (my parents immigrated to the US)
- ☐ Yes, I am a third-generation immigrant (my grandparents immigrated to the US)
- ☐ I prefer not to respond

D16b. Do you consider yourself to be of Spanish, Hispanic, or Latinx origin or background regardless of race?

- ☐ Yes
- ☐ No
- ☐ I prefer not to respond

We have reached the end of the survey. Please proceed to check out to collect your payout. Thank you for your time and cooperation with us today and please do not share what we discussed during this time with anyone else as it may impact the results of the study.

THANK YOU!