Asap Local Food Research Center

Data Brief: Market and Retail Pricing

An ancillary study of farmers market and retail food pricing and labeling in Buncombe County, North Carolina

MAY 2026

For an online version of this publication, visit **asapconnections.org/local-food-research-center**.

Recommended citation: Local Food Research Center, ASAP (2026). Data Brief: Market and Retail Pricing. Buncombe County, NC.

Summary

ASAP's "Why Buy Local?" consumer research report (2025) found that 87 percent of consumers in Western North Carolina (WNC) purchased local food products at least monthly with the primary driver being connection and support of local farmers. However, 35 percent of these local food shoppers reported that price was a barrier to buying more local food. Among typical shoppers, this figure rose to 57 percent. The study found that transparency (knowing how and where their food was grown) is a top consideration among 39 percent of customers. Lack of labeling was named as a barrier to purchasing more local food by 14 percent of local food shoppers.

Therefore, ASAP's Local Food Research Center conducted an environmental audit of 10 farmers markets and 13 nearby retail stores in September and October 2025. The primary purpose of the audit was to assess food prices on seasonal food items with a secondary aim focused on product labeling (name/variety, price, growing practices). Key audit findings include:

- For the fruit category, farmers market **apples were the same price or even a lower price than grocery stores if bought in bulk.**
- For the nine seasonal vegetables, **six of nine were comparable** in price. Farmers market carrots and potatoes were higher in cost, about $1 per pound more than grocery store offerings.
- **Farmers market eggs were found to be less expensive or comparable to eggs labeled as pasture-raised** (free-range and cage-free were not included as comparable varieties).
- Locally raised ground meats were found to be more expensive at the farmers market.
- Honey sold at farmers markets was also higher in price than grocery store varieties.

Assessment of labeling and signage found that at farmers markets four out of five products, or 80 percent, had their name or varietal listed somewhere at the site. Also, **83 percent of products listed the price in some format** at the farmers market (e.g., sandwich board, at point of sale, on bins).

A shortcoming observed at farmers markets was labeling of growing practices. Only 17 percent of food items at farmers markets were clearly labeled with growing practices, with **44 percent of meat products** and only 3 percent of vegetables were sold with signage indicating how they were grown.

Price was not the primary factor behind local food purchasing in the 2025 report, but price for some shoppers was reported as a factor. We did not find that farmers markets had higher food prices for all food categories. Farmers markets continue to bring forth opportunities for WNC shoppers to support their local food purchasing values including connection to local farms, health, better taste/quality, transparency, environment, cultural foods, and competitive prices, especially for eggs, fruit, and produce.

ASAP's **Farmer Toolkit** and **Farmers Market Toolkit** contain resources to support farm partners in their efforts to market and brand their local products to meet consumer needs and values. In addition, the **Business of Farming Conference** is held annually in WNC, and **1:1 consultations** are available on an ongoing basis. Shopping at farmers markets can be an economically viable option for shoppers and helps them be an active participant in the local food system.

Context

This data brief details an ancillary study implemented by the Local Food Research Center (LFRC) of Appalachian Sustainable Agriculture Project (ASAP), a nonprofit based in Asheville, North Carolina, serving the Southern Appalachian region.

ASAP released the "Why Buy Local?" consumer survey research report in summer 2025 showing that 87 percent of consumers in Western North Carolina (WNC) purchased local food products at least once monthly. The study was fielded in 2024 and found that supporting local farms/farm workers was the primary factor for buying local food whereas price was the primary reason for purchasing non-local food. In addition to location and convenience, 35 percent of survey local food shoppers reported that price was a barrier to purchasing more local food. A higher percentage, 57 percent of typical food shoppers (those that don't purchase local food at least monthly), reported price as a factor. We also learned that, when purchasing local food, transparency (knowing how and where their food was grown) is a top consideration among 39 percent of customers. Additionally, lack of labeling was named as a barrier to purchasing more local food by 14 percent of local food shoppers.

As part of ongoing United States Department of Agriculture (USDA) Southern Sustainable Agriculture Research and Education (SARE) funded research on consumer food shopping perspectives and connections to the local WNC farm economy, this new SARE supported study focuses on food prices and labeling within local farmers markets and retail stores in fall 2025. It provides a snapshot assessment of the retail environment in Buncombe County (Asheville area), North Carolina, and how farmers can consider customer values and needs around local foods and sustainable agriculture. This includes attracting and supporting knowledge for consumers through labeling, marketing, branding, and farm to consumer connections.

The use of local, time-bound data collection was important to assess differences in price of locally produced food sold at farmers markets versus food available at grocery stores or supercenters. Buncombe County was well situated for this study as there are 10 farmer markets with long seasons. In addition, there is a variety of brick and mortar retail environments for residents including grocery stores, limited assortment dollar formats, natural grocery stores (e.g., Whole Foods, Earth Fare), and supercenters.

Methods

The LFRC conducted an environmental audit of farmers market and retail stores in September and October 2025. The primary purpose of the audit was to assess food prices on key household food items including fresh fruits and vegetables, meat, eggs, honey, and bread. A secondary aim was focused on product labeling including name/variety, price, and growing practices.

Audit Design

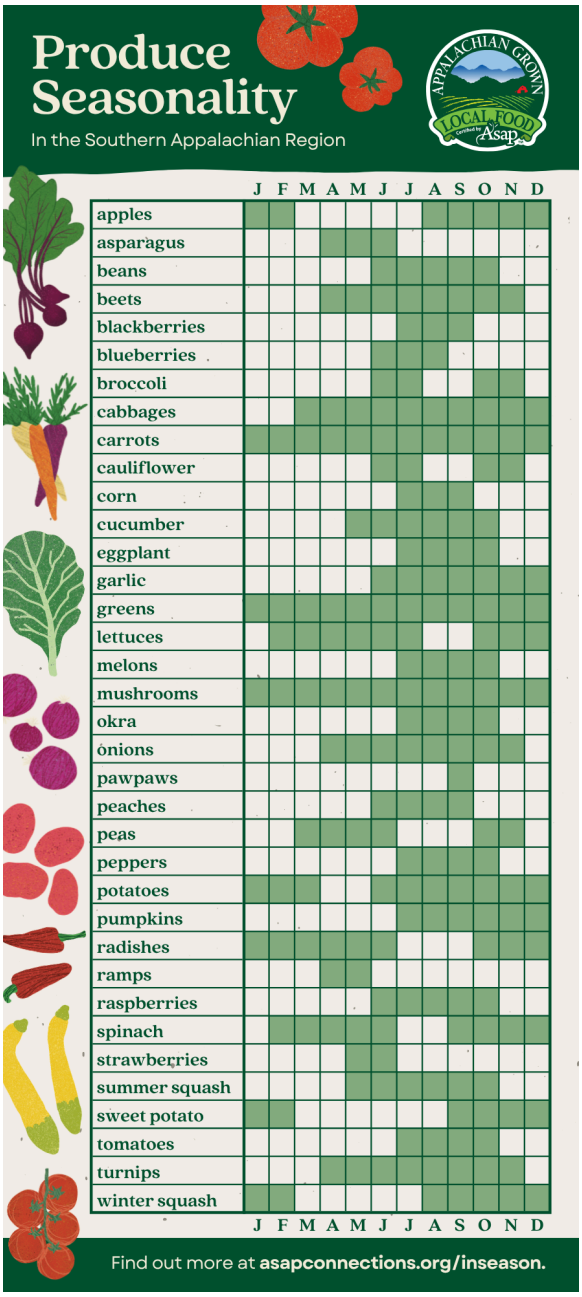
The first step of designing the local food audit survey was to determine sentinel food items. Per prior research, we constructed a market basket consisting of items that would typically be purchased at a grocery store or farmers market in Asheville during the late summer and fall harvest season.

Source resources for the audit design included review of the USDA Thrifty Food Plan (TFP).[1] The TFP is one of four food plans designed by the U.S. Department of Agriculture. The TFP provides recommendations for weekly food purchases to families who supplement their grocery budget with the supplemental nutrition assistance program (SNAP, formerly called food stamps).

The TFP includes foods from six major food categories including grains, vegetables, fruits, milk products, proteins, and "other" (spices, seasoning, coffee, etc.). We did not assess items within the "other" category as seasonings and spices are occasional purchases that often last families a few weeks/months. We based the overall categories of our audit and its "market basket" on suggestions made by the TFP as the plan aims to provide families with affordable and nutritious meals.

The ASAP produce seasonality guide (**Figure 1**) was used to determine what fruits and vegetables would be available locally and which farmers markets were open.[2] Selected foods were based upon availability at farmers markets and grocery stores in the months of September, October, and November, thus local and seasonal.

Figure 2.
ASAP's Produce Seasonality Guide



[1] https://www.fns.usda.gov/cnpp/thrifty-food-plan-2021

[2] https://asapconnections.org/find-local-food/

FRUITS AND VEGETABLES

The TFP recommends a weekly meal plan that includes fresh, nutrient-dense vegetables. It provides a list of dark leafy greens, orange- and red-colored vegetables, and vegetables high in vitamin C. Select fruits are available locally throughout the audit months, especially **apples**, in WNC and were therefore included in the market basket.

The seasonal vegetables that we assessed were: **bell peppers, broccoli, carrots, kale, lettuce, onions, potatoes, sweet potatoes, and tomatoes.**

Only fresh fruits and vegetables were compared in the present study. Canned, frozen, and prepared fruit and vegetable products are commonly available at retail outlets, but have very different pricing structures and rarely have information regarding their sub-country geographical production. Therefore, no data was collected.

GRAINS/BREADS

Whole grain breads are regularly available at many local markets and are a TFP staple grocery item. These breads are prepared and baked locally and are often considered "artisan." The current labeling did not provide information on how much of the ingredients are sourced locally. We thus collected prices for **whole grain, whole wheat, multigrain, and/or sourdough bread** at the farmers markets. If the bread was found in a store and labeled as "all-natural," "freshly baked," or produced by a local bakery, it was included in the audit as a comparator item.

DAIRY

The TFP recommends weekly allotments of milk and cheese in its food plan. Pasteurized milk and cow-based cheese, however, were not consistently available at all farmers' markets visited. Goat or sheep cheese was more widely available at most farmers' markets but the versions sold may be more artisanal and not used in typical cultural meal recipes. Though some data was collected about such dairy products, these were ultimately not included in the primary analysis.

PROTEIN (ANIMAL PRODUCTS)

Ground beef and chicken are included in the TFP as healthy sources of protein and are available at farmers markets. At some markets, however, no ground beef was available but there were several farmers who sold ground pork and/or breakfast sausage, therefore these **pork products** were included in the animal protein category analysis. We also included **eggs** as an important animal-based protein for families.

Survey Tool: NEMS

We used the Nutrition and Environment Measurement Surveys (NEMS) audit tools for data capture.[3] The NEMS survey has been used throughout the U.S. in a variety of retail establishments and has a defined protocol that aids data collection (e.g., lower cost variety but no foods on sale).

Drawing from the NEMS protocol, we selected a typical household size for each item, but noted any additional pricing structures such as bulk discounts (e.g., apples priced per ¼ peck, ½ peck, and full peck versus per pound). Sale prices were not captured unless the original price was not listed, in which case a note was made on the data collection sheet.

Retail Comparison Foods

At retail outlets, the data capture focused on items with comparable location (locally grown, labeling included North Carolina), values-based information such as the term "heirloom", or growing practices, referred to in the present study as good growing practices (GGP). Thus many products that were included were listed as locally grown/produced and certified organic, as further details on production practices of grocery store products were rarely observed. Though the research team captured information on items that were not labeled with growing practices or locality, these products are not included in this report.

Audit Data Capture

Figure 2 shows the data collection sheet used by the research team for the present study. We opted for a paper and pencil method rather than using a mobile device such as a smartphone or tablet in the field. During the audit pilot, team members found it easier to quickly record information and write more extensive notes. The data was later entered into a shared Google Sheets file; locations were given number identities. For each location, we recorded the physical address and type of venue (e.g., farmers

[3] https://nems-upenn.org/

market, supercenter, dollar store, etc.). At retail locations, we noted the number of cash registers (both self-checkout and registers operated by store employees). At markets, we recorded the number of vendors selling food products. In addition to collecting information about product name, price, and growing/production practices, we noted whether this information was clearly listed. For the purpose of this study, "clearly listed" was defined as having some sort of written signage either at the market booth/grocery store section or on/beside the individual product(s).

The 13 retail stores included three limited assortment grocers (such as Trader Joe's and Aldi), two organic grocers, seven traditional grocery stores, and two supercenters (a common large big-box store).

Food products at three dollar format stores in Buncombe County were also assessed. The only food products, within the categories and requirements included, typically offered at these stores were bread and eggs. However, only bread was found to have labeling that included enough information, and few to no comparable varieties were available (one store carried a popular name brand national whole grain variety). Therefore, data collected at these stores was excluded from the primary analysis.

Figure 2.
Sample Data Collection Sheet

Date of Audit: _____/_____/_____ Auditor: _____ Venue: _____

Physical Address/Location _____ Type of Food Store _____ # of Store Cash Registers _____

# of Food Vendors at Farmers Market _____

Fruits & Vegetables

Produce (Incl. Varietal Name)	Price and Unit Size	Vendor Name/ Supplier	Growing Practice(s)	Growing practices clearly listed?	Product name clearly listed?	Prices clearly listed?	Notes
Apples Variety: _____ Variety: _____	$. per _____ $. per _____			___ Yes ___ No ___ Yes ___ No	___ Yes ___ No ___ Yes ___ No	___ Yes ___ No ___ Yes ___ No	
Apples Variety: _____ Variety: _____	$. per _____ $. per _____			___ Yes ___ No ___ Yes ___ No	___ Yes ___ No ___ Yes ___ No	___ Yes ___ No ___ Yes ___ No	
Bell Peppers	$. per _____			___ Yes ___ No	___ Yes ___ No	___ Yes ___ No	
Bell Peppers	$. per _____			___ Yes ___ No	___ Yes ___ No	___ Yes ___ No	
Broccoli	$. per _____			___ Yes ___ No	___ Yes ___ No	___ Yes ___ No	
Broccoli	$. per _____			___ Yes ___ No	___ Yes ___ No	___ Yes ___ No	

Analysis

We calculated the average, minimum and maximum price found per purchasable unit for each item, locally and store bought, using Google Sheets. The "purchasable unit" price was often per piece or per pound, with a few products being priced differently (noted in the figures below).

As large supercenter formats may buy in such large quantities and may be able to negotiate pricing contracts in ways that differ from other smaller grocery formats, we analyzed the data with and without supercenters. Thus, for retail environments, separate calculations were made for all retail outlets (grocers and supercenters) and only grocery stores without the supercenter (SC) data (noted below as Retail (+SC) and Retail (-SC), respectively).

As a secondary objective, we also noted whether or not information about product/variety name, price, and growing/production practices were listed for each item. We then calculated the percentage of each of the observed products which were clearly labeled.

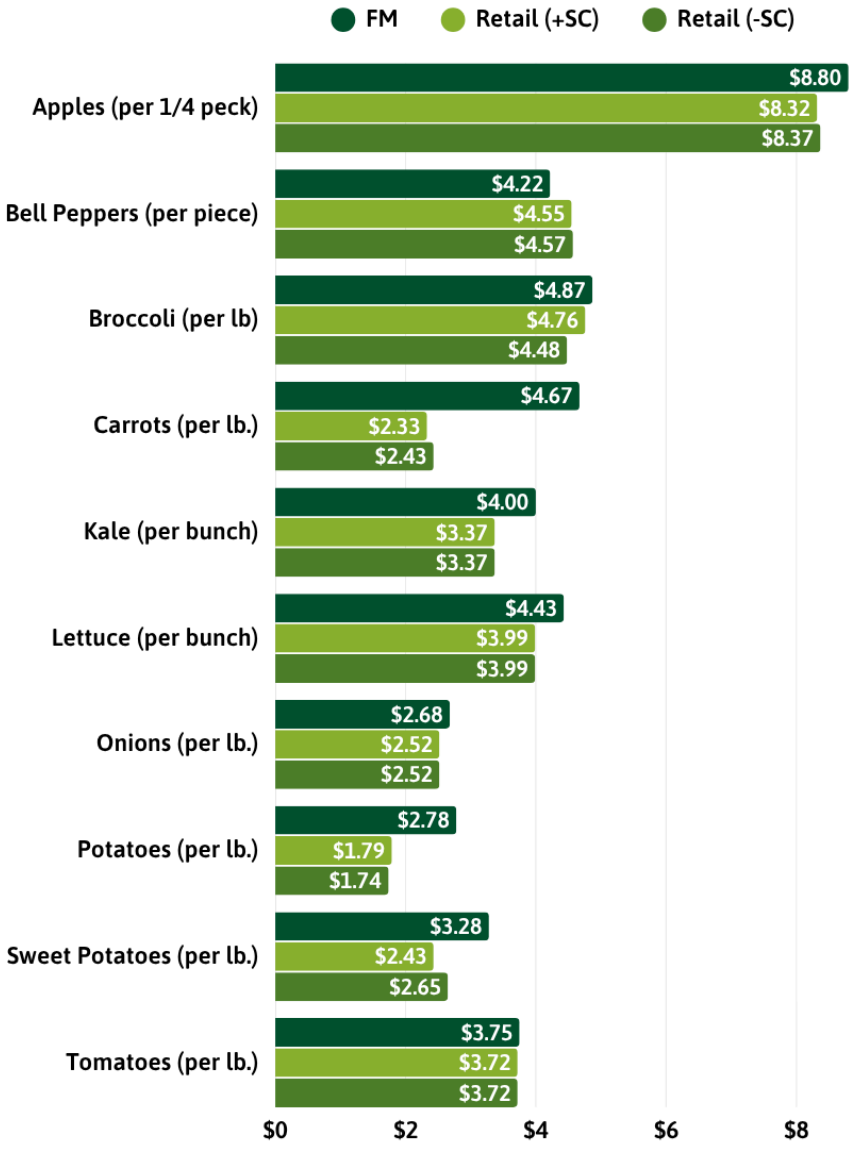
Price, Food Categories

We found that that at least half of the farmers market produce is comparable in price to locally grown/organic fruits and vegetables sold at retail stores. **Figure 3** details the price comparisons of farmers market, retail (grocery and supercenter), and grocery (retail excluding supercenter) items (the average retail prices only include items with GGP - items with no information on locality or growing practices were excluded from analysis). Overall, we found that bell peppers, broccoli, onions, and tomatoes were very similar in price for the vegetable category and apples as the seasonal fruit item were also comparable.

Though slightly more expensive per ¼ peck on average, bulk discounts are often available on apples purchased at the farmers market. Vendors often structure their pricing in such a way that customers are able to get more product for a cheaper price. For example, while ¼ peck of apples may cost $8, a farmer could offer a full peck for $24, saving the customer $8 compared to the cost of four ¼ peck bags.

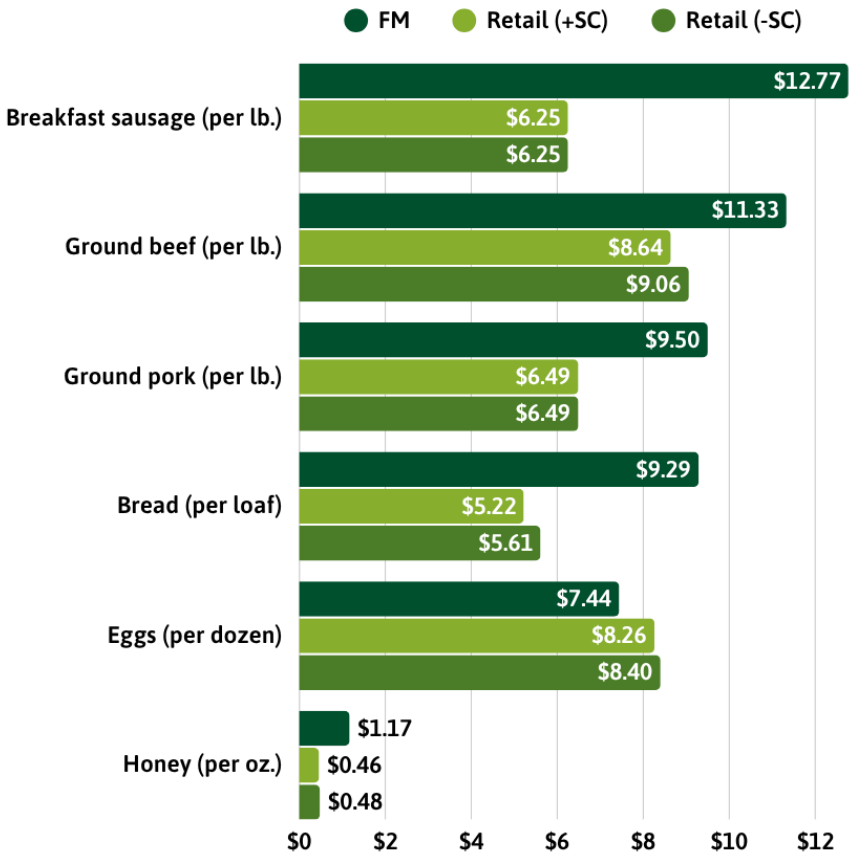
A few vegetable items were higher on average including carrots (roughly double the price), and potatoes (on average $1 more per pound). Leafy greens (kale and lettuce) cost slightly more per bunch when purchased at the market, but the price was only an average of 14.9 percent more (18.7 percent more for kale, 11.0 percent more for lettuce).

Figure 3.
Price Audit - Produce Items



Meat raised locally and sold at farmers markets was generally more expensive than comparable grocery store products. **Figure 4** shows that all three of the meat items included in this study—breakfast sausage, ground beef, and ground pork—were an average of 61 percent higher in labeled cost at farmers markets than these meat products sold at grocery stores and supercenters.

Figure 4.
Price Audit - Animal Products and Bread



Eggs were found to be less expensive at farmers markets, averaging approximately $7.44 per dozen. However, noting that only pasture-raised eggs from retail stores were included as comparable varieties; cage-free and free-range were not included in our GGP criteria.

Since honey was often packaged in containers of varying sizes, especially at retail outlets, we calculated the "per ounce" price for a more consistent comparator. On average, farmers market honey had a higher cost. Similarly, loaves of locally made artisan sourdough bread (regardless of their locally sourced ingredients) were more expensive when purchased from the farmers market compared to similarly labeled products within stores.

Overall, the inclusion or exclusion of supercenters led to minimal changes in pricing results.

Price, Market Basket Model

In 2013, research conducted by UNC Asheville student H. Garrett and Dr. L. Mathews found that local foods cost three percent less, on average, than store-bought foods when comparing farmers market foods to certified organic or locally sourced foods found in stores (Report titled, "Eating Local: A Cost Analysis of Farmers' Market Vs. Store-Bought Foods In Asheville, North Carolina," available upon request). When compared to all foods found in stores, including foods produced using conventional farming methods, the study found that farmers market foods cost 41 percent higher on average. Garrett's study findings led them to suggest that an economic incentive to shop at a farmers market does exist for consumers who prefer either locally grown or certified organic foods, while consumers who do not have specific preferences would save money by purchasing their foods at a grocery store. We mirrored the "basket" approach used in H. Garrett's 2013 paper as an alternative model. All food items listed above in **Figures 3 and 4** were included in this model. To create these baskets, we opted to use the baseline unit of measurement (per pound, per piece, per bunch, etc.) for all items except honey

as the quantity that a typical household would purchase. (For honey, we used an eight ounce jar as our standard size.) The retail and farmers market Produce baskets, which included all 10 fruits and vegetables listed above, were nearly the same price (**Table 1**), with a differential equal to $5.70. The Vegetarian basket (Produce basket plus bread, eggs, and honey) was still fairly comparable to both retail baskets. The addition of meats (contents of Vegetarian basket plus breakfast sausage, ground beef, ground pork) into the All Products basket made the most meaningful impact on overall basket price.

Table 1.
Basket Model - Farmers Market and Retail Comparisons

	RETAIL - GGP ONLY	RETAIL - GGP (EXCLUDING SUPERCENTERS)	FARMERS MARKET
PRODUCE	$37.78	$37.84	$43.48
VEGETARIAN	$54.94	$55.69	$69.57
ALL PRODUCTS	$76.59	$77.49	$103.17

Secondary Analysis: Labeling

From the "Why Buy Local?" consumer survey, we learned that, when purchasing local food, transparency (knowing how and where their food was grown) is a top consideration among 39 percent of customers who regularly buy local food. This was seven percent higher than those who named price as one of their top three considerations (32 percent). Additionally, lack of labeling was named as a barrier to purchasing more local food by 11 percent of typical shoppers and 14 percent of local food shoppers.

Table 2.
Percentage of Food Products at Farmers Market and Retail Environments Clearly Labeled

	FARMERS MARKET	RETAIL
PRICE	83.2%	98.4%
PRODUCT/VARIETY NAME	80.2%	98.6%
GROWING PRACTICES	17.0%	50.6%

Nearly all products at retail outlets were labeled with product name/variety and price. Seen below in **Table 2**, approximately 98 percent of items were clearly priced, and just under 99 percent had the product name clearly listed on or near the item. These percentages were a bit lower at farmers markets, with **83 percent of products being listed with price** and **just under 80 percent being listed with the name.**

The biggest shortcoming at both farmers markets and grocery stores was labeling of production or growing practices. Only 17 percent of food items at farmers markets were clearly labeled with any information on how they were grown. There was notable variation by product type. While 44 percent of meat products (ground beef/pork, breakfast sausage, etc.) were labeled with information on how the animals were raised, only three percent of vegetables were sold with clear signage indicating how they were grown. At retail outlets, production practices were listed more often, but were still not consistently available.

Limitations, Strengths, and Considerations

This study is subject to a number of limitations. Steps were taken to ensure quality, however interrater reliability was not assessed, meaning no site was audited multiple times by different researchers. An early pilot of the study was conducted simultaneously by two members of the research team, and weekly check-ins occurred to review progress. In addition, the definition of local food was not based on a strict geographic value such as 100 or 400 miles. For this project, within farmers market products, ASAP defined local based on vendor on-site availability of the products at the 10 farmers markets included in the audit as most tailgate and farmers markets have requirements on the products being from local farms; this is different than a large commercial format market that does call itself a farmers market but takes in produce from southern states that are not part of Appalachia including Florida. The definition of local varied across individual products available at retail outlets, and the research team noted when items were labeled as local and where they were produced/raised (if that information was available).

Seasonality also impacted the products that were included. Most fruits, such as strawberries, blueberries, peaches, melons are available in WNC during the spring and summer. By the time the audit was conducted from late September through late October, fruits other than apples were scarce. We did find a few vendors with Asian pears as an example of a regional fruit but we often could not find a comparable item in regular stores. Select heirloom varieties of squash and cultural food items including Asian greens were plentiful in local markets but were not available in grocery formats and therefore could not be included, but show the ability of farmers markets to meet local food needs. We assessed only fresh fruits and vegetables; we did not assess the costs of other forms of produce that are often purchased by price-sensitive households such as canned, dried, or frozen products.

We did not determine how much local product (e.g., grains, yeast) were in locally produced breads; a future study could add questions regarding this to the methodology.

A strength of our study was using a short window for the audit. A challenge for this type of study is the fluctuation of prices at outlets. During the study window, in the U.S., aspects of inflation, tariffs and trade negotiations may have contributed to some price fluctuations and these may be captured in the range data. Per context, according to the U.S Bureau of Labor Statistics "The Consumer Price Index for all items rose 2.7 percent from December 2024 to December 2025. Food prices increased 3.1 percent, reflecting a 2.4-percent increase in prices for food at home and a 4.1-percent increase in prices for food away from home." We utilized a short window of time to conduct the audit to reduce variation but did note that during follow-up site visits for quality control purposes (e.g., weighing bunches of produce to create comparator item equivalencies) the regular prices of many key items had increased.

Take Aways and Resources

Why might people purchase local food from a farmers market, for example, if it costs the same or more than similar food from a grocery store? ASAP's "Why Buy Local?" consumer survey found that, rather than price alone, social capital was the biggest motivator. The top three reported considerations when purchasing local food in WNC were found to be connecting with and supporting farmers and farm workers, health benefits, and the quality/and or taste of the food. While there are numerous factors to consider when it comes to the ability to access and purchase local food, the primary motivators for many extend beyond price.

Though price was not the primary motivator for shopping for local food according to ASAP's "Why Buy Local?" report, there is a common perception that locally grown food is more expensive. Fifty-seven percent of typical shoppers and 35 percent of local shoppers named price as a perceived barrier to purchasing more local food. As demonstrated by the present report, farmers markets offer customers many options for produce and other food items (including eggs) that are similarly priced to products found at retail environments.

Shopping at farmers markets can be an economically viable option for shoppers. Additionally, some farmers markets are conveniently located across the street from (co-located) and many are within half to two miles of a grocery store, thus enabling customers to shop local first before shopping at a retail store for staple household items that may be unavailable at the market. Farmers markets and farm stands participating in "Double SNAP" and other nutrition incentive programs can offer the dual benefit of reducing food costs for low income customers and paying farmers a fair price for fresh local products.

Farmers in the region, especially those that sell via direct market outlets, are in a unique position to engage shoppers. Connection with farmers is the primary reason why consumers shop for local food. Extra effort should be put into developing relationships. For example, farms could include a flyer at their stand or postcards for shoppers with details about their farming journey and production practices. At farmers markets, vendors can make an extra effort to both share information about their farm business and learn information about shoppers' values.

Ensuring their products are clearly labeled is one of the easiest ways farmers can help make the shopping experience more accessible for customers. Though customers have the opportunity via some direct market outlets (farmers markets, namely) to speak with farmers about what a product is, how much it

costs, and how it was grown or produced, this information not being readily available in print can deter customers from purchasing local foods that may have a higher cost such as regenerative beef or pork. Pricing information is crucial to avoid worry or stigma in customers asking about price as they balance that week's needs. Offering pre-bagged or bunched products in $1 increments, and/or by the piece rather than weight, offers price transparency and can increase sales, especially for those purchasing farmers market tokens as tender.

Fourteen percent of local food shoppers said that lack of labeling was a barrier to purchasing more local food. Signage could look like a chalkboard or custom banner to display at a market booth, or it could be as simple as a laminated sheet of paper. For farms selling through retail outlets, including local branding or labeling could increase your market share.

ASAP offers a variety of resources to support farmers, including online and in-person offerings:

- ASAP's **Farmer Toolkit**, which offers an overview of available support and resources on business planning and marketing. The toolkit can be accessed online at asapconnections.org/farmer-resources/toolkit.
- ASAP's **Farmers Market Toolkit** with content on vendor best practices and marketing, which can be accessed online at asapconnections.org/resources/farmers-market-support.
- The **Business of Farming Conference**, an annual gathering which brings together professional farmers from across the Southeast region. Farmers learn about marketing, business planning, and financial management from experts and innovative peers. asapconnections.org/farmer-resources/business-of-farming-conference.
- **Appalachian Grown Cost Share** program, which reimburses up to 75 percent (up to $1,500) of the costs of marketing projects including the design and production of labels, packaging, or promotional materials featuring the Appalachian Grown logo. (Note: this program is limited to WNC farmers. Please visit asapconnections.org/farmer-resources/cost-share for more program details, including a full list of eligibility requirements.)
- **1:1 farmer consultations**, offered through ASAP and our partner organizations, on marketing and branding, market outlets, business planning, and managing production risk. For more details and scheduling information, please visit asapconnections.org/farmer-resources/consultation.

In summary, price was not the primary factor reported in the 2025 "Why Buy Local?" consumer survey research report for buying local food, however a perception remains for some consumers that farmers market items are more expensive. Our audit did find that pricing was higher for some types of foods but found particularly comparable prices for farmers market eggs, fruits, and many vegetables. Farmers markets often have bulk discounts and sell cultural food items that are not available in grocery or other retail formats.

Farmers markets and farm vendors continue to bring forth opportunities for WNC shoppers to support their local food purchasing values including connection to local farms and farmers, competitive local food prices, better environmental practices, transparency, and access to healthy, tasty, high quality food for their families.

Acknowledgements

Thank you to ASAP's food system partners including farmers market managers and assistants, farmers and farm workers in our region, and past and present ASAP staff who supported the "Why Buy Local?" consumer survey including Jessica Ruiz, Amy Marion, and UNCA Intern Sunshyne Shirley.

We acknowledge a key resource for this study was the prior market basket research project conducted by Halcyon Garrett and Dr. Leah Mathews at UNCA, "Eating Local: A Cost Analysis of Farmers' Market vs. Store-Bought Foods In Asheville, North Carolina," published in the UNCA Journal of Undergraduate Research, May 2013. We also thank Dr. Mathews for her guidance on the project and product review.

This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 00003162, RNIFA000151140A through the Southern Sustainable Agriculture Research and Education under subaward number LS23-382.

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