

# Gainesville - Food Waste - and Supermarkets

2020-2022 ZWG Supermarket Survey Results

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## Introduction and Background

In the span of one lifetime - roughly 75 years - the food industry reinvented itself. The independently owned corner grocery store is largely replaced by corporate supermarkets that are managed at regional, national, and international levels. Farmers and Consumers have always bookended the food industry. In recent decades, however, these bookends are increasingly connected by a complex web of food distributors, manufacturers, and businesses.

From a customer's perspective as they shop in their favorite supermarket, the food industry appears to be a "well-oiled" food chain. The reality is our entire food supply chain is extremely inefficient and results in tons of wasted food.

## How Much Waste?

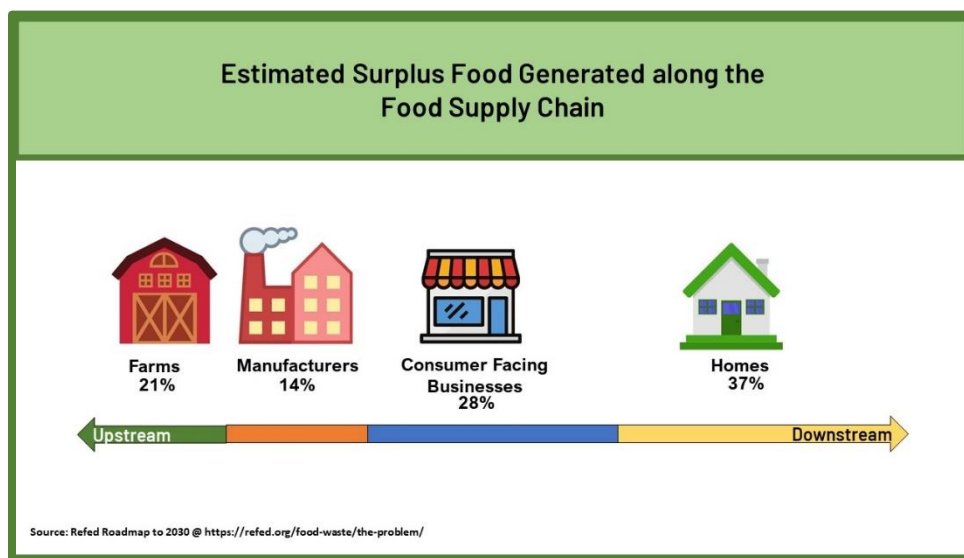


Figure 1: Surplus food across the food supply chain with most occurring downstream.

Every year [30-40%](#) of all food produced in the U.S. becomes [surplus food](#), which is defined as available food that goes unsold or uneaten. This is equal to more than [54 million tons of food](#), and the number has remained stubbornly stable despite efforts to reduce it.

Although surplus food occurs at every level of the supply chain, over 50% occurs downstream in homes and businesses. According to [ReFED](#), only a small amount of surplus food is donated or recycled, and the remainder is sent to landfills as waste.

Using data from ReFED, the [Washington Post](#) recently reported that our annual **food waste** amounts to "about \$408 billion worth of food, grown on 18 percent of U.S. farmland with 4 trillion tons of water." Unfortunately, that represents only the tip of an iceberg of wasted resources used to grow, process, transport and sell food that is never eaten ([Refed](#), [NRDC](#)).

## Why Supermarkets?

ZWG's interest in supermarkets began in 2020. On two occasions a member of ZWG was greeted by walls of empty cooler shelves while shopping at a local chain supermarket. A prolonged power outage had rendered thousands of pounds and dollars of dairy and meat products inedible and destined for the landfill.

During our research on food waste in supermarkets, we learned that government and non-government entities are also focused on supermarkets.

- Research by these entities ([ReFED](#), [NRDC](#)) shows that supermarkets are in a unique position to impact food waste across the food chain. “Because of [their direct links](#) with farmers, processors, and consumers, . . . [supermarkets] have the power to influence every facet of the supply chain.”
- In contrast, [The Center for Biological Diversity](#) states that “[s]upermarkets are gatekeepers to the U.S. food system, influencing what [food] makes it from farms to shelves, what happens to unsold food, and what types of food shoppers buy.”

ZWG sought to determine where Gainesville’s supermarkets fell on this continuum of Gatekeeper → Influencer. To gather information, we conducted a Supermarket Survey from Spring 2021 to Winter 2022. Read on to learn more.

## Part 1: ZWG Supermarket Survey - 2021-2022

### The Beginning -- Our Goals:

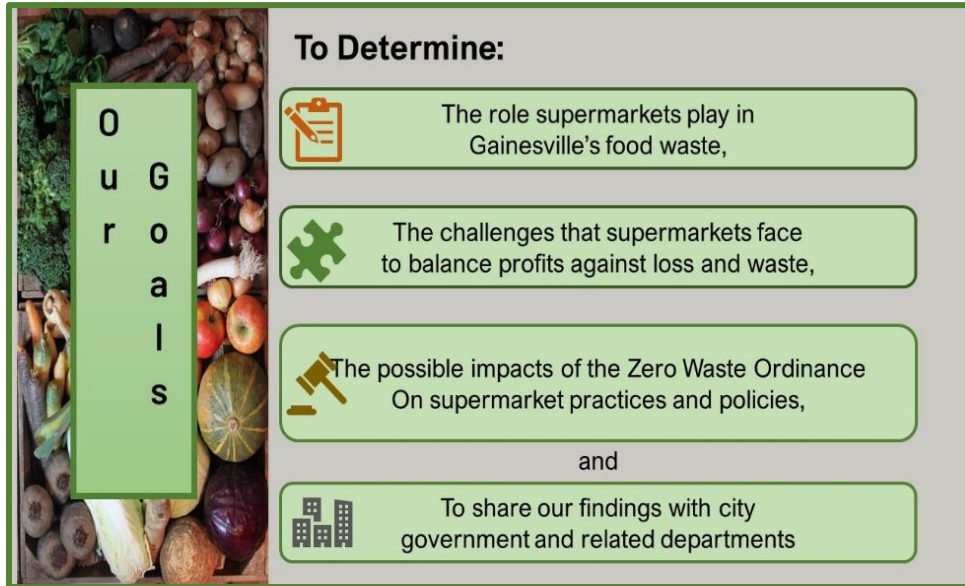


Figure 2: Goals of Zero Waste Gainesville Supermarket Survey.

In spring 2021, we identified our goals, developed our survey tool, consulted with a local supermarket manager, tested our survey tool, and adjusted it as recommended.

### Our Timeline and Methodology:

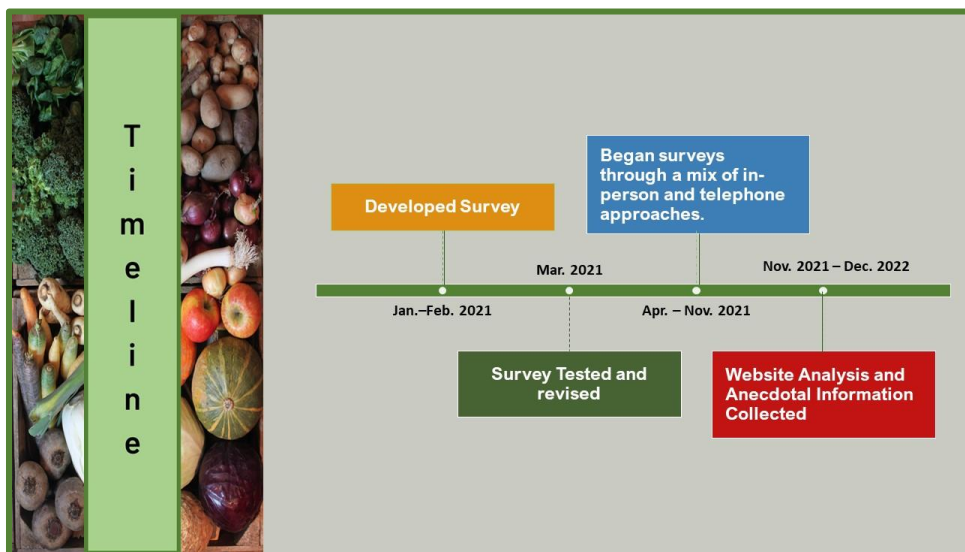


Figure 3: Timeline that included supermarket survey and supermarket website analysis.

- The [Center for Biological Diversity's supermarket surveys](#) were especially helpful as primary sources.
- Due to COVID, supermarkets were initially contacted by phone. A transition to face-to-face contact and interviews improved the entire process.
- Each interview was conducted with two interviewers to mitigate internal variation.
- We offered anonymity to all prospective participants. All survey participants chose to be anonymous.

**Our Survey Questions:**

Our survey questions were developed in line with Zero Waste Principles of Reduce, Reuse, Recycle as well as the [EPA Food Recovery Hierarchy](#)



Figure 4: Overview of questions asked in Supermarket Survey Tool.

**Supermarkets/Grocery Stores Approached**

- Thirteen store managers were approached to participate in the survey because their stores carry the full array of food – produce, dairy, meats, canned goods, etc. Large corporate supermarkets with more than one Gainesville store counted as one entity (e.g., Publix had 10 stores at the time of survey but is counted as one entity.)
- Convenience Stores, Discount Stores like Dollar General, and Specialty Stores (Bakeries, Fish Stores, etc.) were not included.

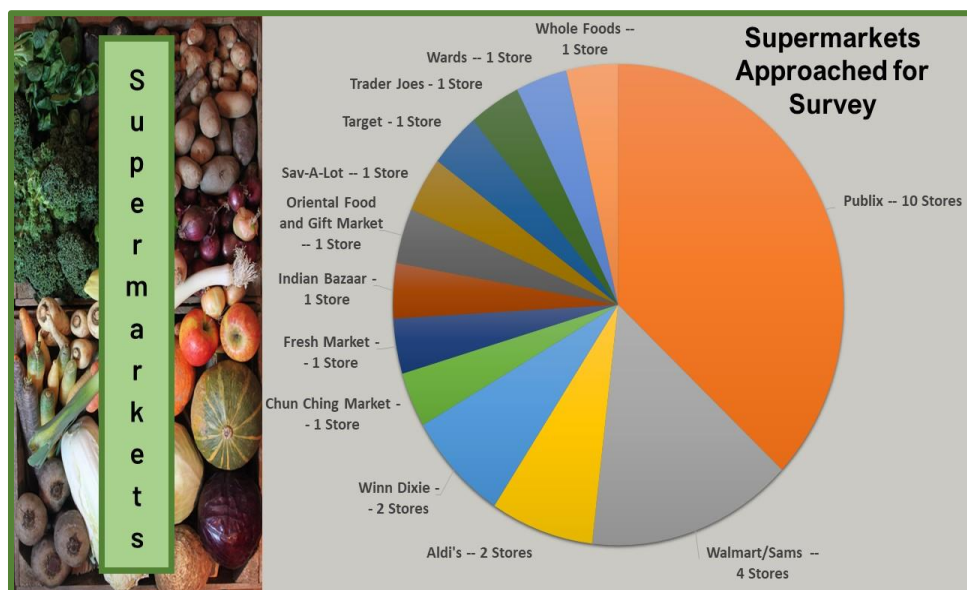


Figure 5: Stores approached for survey.

**Our Challenges:**

- Lack of participation was our greatest challenge and ultimately lengthened the timeline of the project.

- Three supermarkets participated in our survey; each provided valuable information and insight.
- Six declined to participate and sent us to their corporate offices and websites for information. In most cases we were unable to reach anyone on the corporate office level; when we did speak with corporate level representatives, they refused to participate.
- Seven additional supermarkets were not included due to:
  - difficulty finding a primary manager for approval,
  - presence of a language barrier, and/or
  - no available store website.

## Survey Findings – Supermarket Survey, Spring 2021

<ul style="list-style-type: none"> <li>○ <b>Sustainable policies for two stores</b> are made at the regional level, and there is little transparency. The <b>third participant</b> has complete autonomy regarding policies and procedures.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Two of the three survey participants</b> track their food inventory electronically and report to regional levels.           <ul style="list-style-type: none"> <li>○ One store continuously tracks and uses “real time” data to make decisions. Weekly meetings occur with regional level staff to review the amounts sold compared with that thrown away.</li> <li>○ The other store uses their tracking data to decide instore inventory.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>All stores</b> use dating (“sell by,” “packed on,” etc.) to determine shelf-life. Produce is judged by appearance as well as dates for two store participants.</li> </ul>
<ul style="list-style-type: none"> <li>○ <b>One participant</b> mentioned that selling edible produce that is beyond their sell-by date is against their freshness standard. None of the participants offers the option to purchase edible produce that is past the “sell by” date for a reduced price.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>One survey participant</b> offers prepackaged prepared food that is strictly disposed of by use-by dates. <b>A second participant</b> repurposes some in-store food in their deli, adheres strictly to dates set by guidelines, and mentioned that food bars, etc., generate a “huge chunk” of food waste.</li> </ul>
<ul style="list-style-type: none"> <li>• The labor cost to stock and remove food prohibits <b>one participant</b> from accepting wholesale vendor deliveries unless the food has “seven sellable days on the shelf.” If fewer days, the delivery is refused, and the vendor is “financially on the hook.” If vendors are unable to find another recipient (e.g., store, food bank, etc.), the food is landfilled. <b>A second participant</b> also indicated a freedom to turn vendors away if contents aren’t as expected.</li> </ul>
<ul style="list-style-type: none"> <li>• During catastrophic food waste events, <b>none of the participants</b> have backup generators on site. Options available to markets (if time permits) include:           <ul style="list-style-type: none"> <li>○ Offering to local food banks,</li> <li>○ Bringing generators from a regional level, and/or</li> <li>○ Having distributors remove and store perishable item.</li> <li>○ <b>One participant</b> shared a catastrophic event within the last 10 years that resulted in approximately \$200,000 of lost inventory.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Two survey participants</b> expressed interest in the City’s composting program. One had independently investigated composting options previously but found the cost prohibitive.</li> <li>• Food waste is separated for diversion and waste <b>in the third supermarket</b>. Contracts for waste are made at the regional level and the store will likely maintain that. Adherence to various local ordinances in communities where their stores are located would be difficult.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>None of the participants</b> shared the percentage of their wholesale inventory that is landfilled, which is the true measure of supermarket food waste.</li> <li>• All supermarkets in Gainesville independently contract waste removal. The City has no direct way of measuring supermarkets’ contribution to Gainesville’s food waste.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Two participants</b> donate to Bread of the Might weekly. <b>One participant</b> does not donate food.</li> </ul>

## Food Disposal Procedures of Three Survey Participants

Our data showed considerable variability in disposal practices. Store 3 stated a reluctance to donate food, fearing liability for any negative incidents that might result from their donations. They were unaware of the [Bill Emerson Food Donation Act](#).

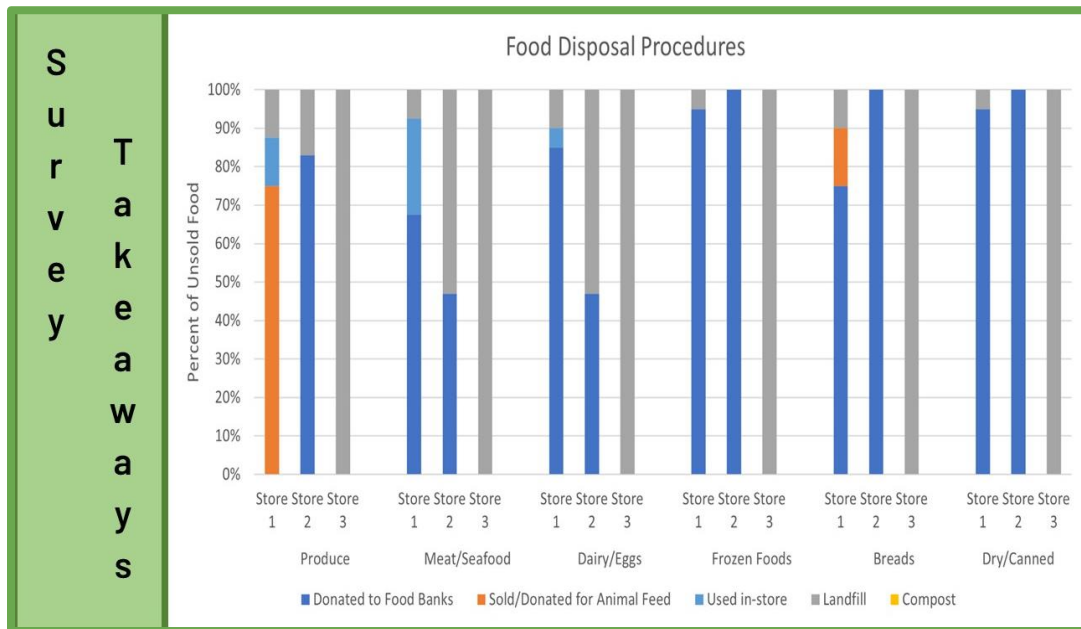


Figure 6: Survey Participants food disposal procedures

Stores 1 and 2 donate surplus food to Bread of the Mighty every week. Store 2 volunteered specific data regarding the impact of their annual food donations.

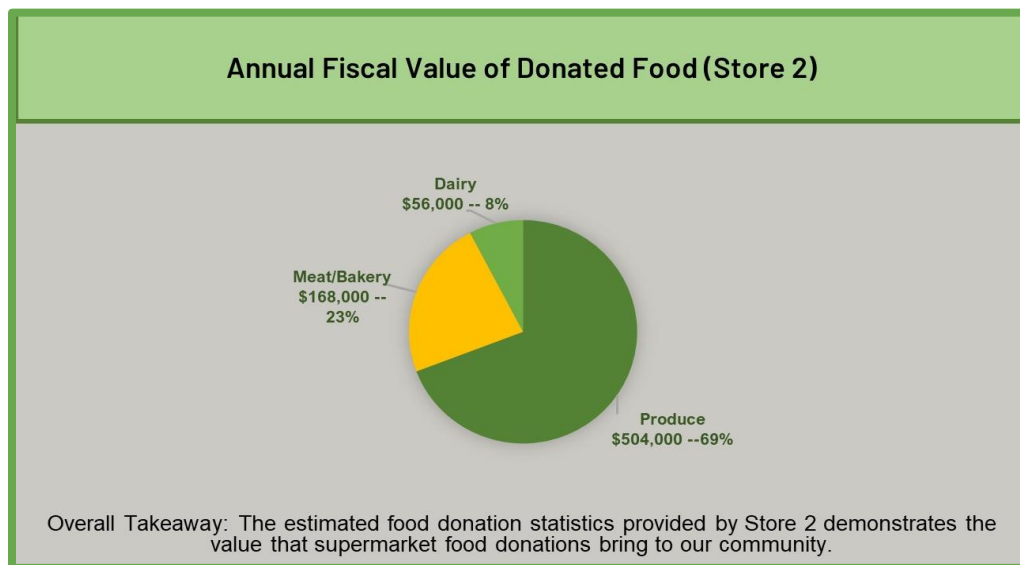


Figure 7: Fiscal value of Store 2's donated food.

## Part 2: ZWG Supermarket Website Evaluation - 2021-2022

### Survey Project Expansion -- Website Evaluation:

It was soon apparent that participation in our survey would be limited. Consequently, ZWG expanded the project to include the evaluation of each supermarket's website. In Spring 2022 we developed a [website evaluation tool](#) that was seeking similar information to our survey questionnaire. Nine websites were evaluated. These included the six supermarkets that declined the survey plus the three survey participants. To broaden our viewpoint, we also shopped in each of the supermarkets on several occasions and gathered anecdotal information to support website claims.

**Website Evaluation Tool and Results:**

Our evaluation tool included 16 food-waste related categories. Each category was scored on a scale of 0 – 5 as indicated below:

**Scoring for each Category**

<b>0</b>	<b>Absent</b>
<b>1</b>	<b>Broadly Mentions</b>
<b>2</b>	<b>Broad Statement of Goals, policies, and/or procedures</b>
<b>3</b>	<b>Increasingly specific statement of goals, policies, and/or procedures and/or partnerships</b>
<b>4</b>	<b>Detailed statement of goals, policies, and procedures with supportive data</b>
<b>5</b>	<b>Full transparency of goals, policies, procedures, and data regarding food management.</b>

**Results: Website Evaluation**

**Categories 1-6:** Does the Supermarket have an Easily Accessed Sustainability Plan that Details Food Waste Reduction through policies, procedures, & goals?

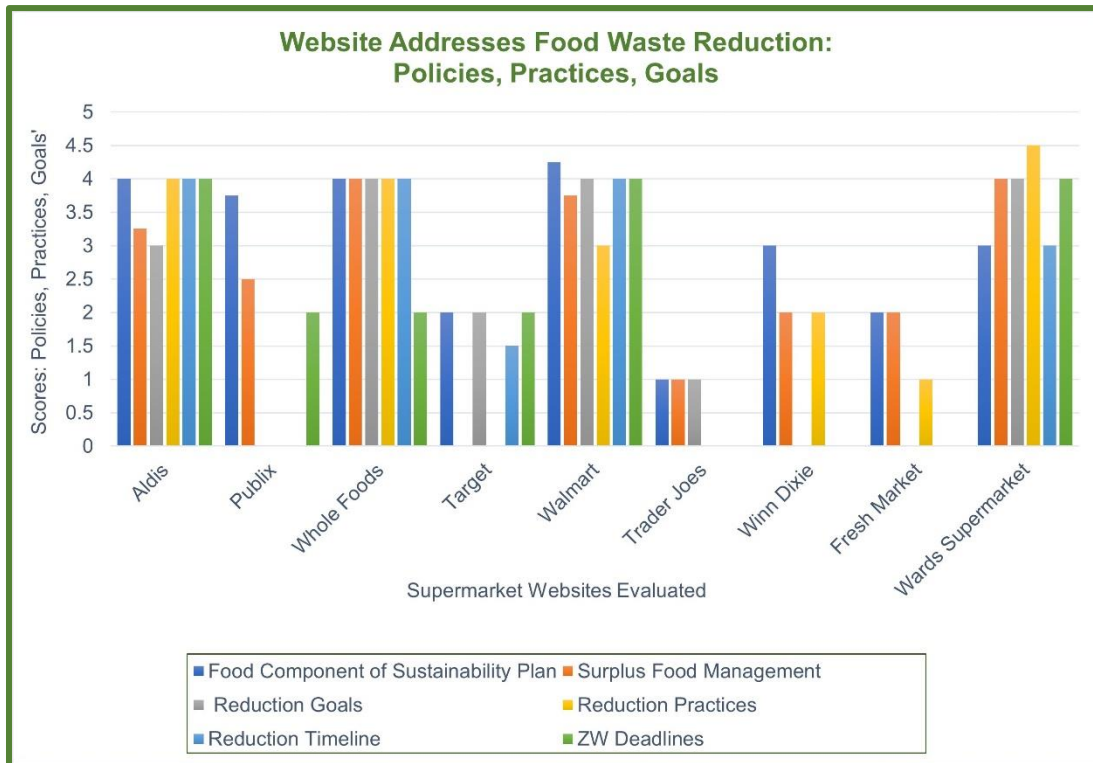


Figure 8: The degree to which Sustainability Reports acknowledge food waste reduction through policy, practice, and goals.

**Discussion:**

The website sustainability plans were quite varied. Some plans were formal reports and others were a collection of web pages. Some sustainability plans did not include a food waste reduction component. Those that did approached the topic differently and with varying degrees of specificity. Waste reduction procedures, timelines and goals were often the missing criteria.

[Aldi's](#) website describes how their philosophy and store design minimizes surplus food/food waste. Their stores are smaller, they stock fewer products, and do not overstock their shelves. When shopping in their stores, we noticed that Aldi's seems unphased by empty shelves when items are sold out. [Trader Joe's](#) uses a similar model, but their website does not emphasize food waste reduction in any detail.

[Winn Dixie](#) is the only supermarket that mentions a waste audit (done in 2021) that serves as a guide for sustainability decisions, including reduction of organic waste. Winn Dixie and Whole Foods follow the EPA Hierarchy in managing their surplus food.

[Walmart](#) offers [data](#) regarding food waste reduction policies and goals. Their reduction process is somewhat obscure and instore observation and shopping did not offer clarification.

Walmart, Aldi's, and Wholefoods are [USDA Food Loss and Waste Champions](#) with a goal to cut their food waste by 50% by 2030.

Much like Aldi's, [Ward's](#) supermarket model and stated goals are designed to combat food waste. Their store size is small, and they offer a wide array of bulk items to support shoppers who practice zero waste. Their website includes a blog that offers guidelines for sustainable shopping. (access blog examples [here](#), [here](#)) Ward's is the only store that has a small section set aside for reduced-priced, edible food that is past its "sell-by" date.

Whole Foods offers some staple bulk items that include nut butters.

**Categories 7-13: Does the Supermarket Website Address Specific Instore Management Practices that have been Positively Linked to Food Waste Reduction?**

These practices include collaborating with upstream providers, food labeling, animal welfare, food sourcing, instore product-line, partnerships, and tracking food.

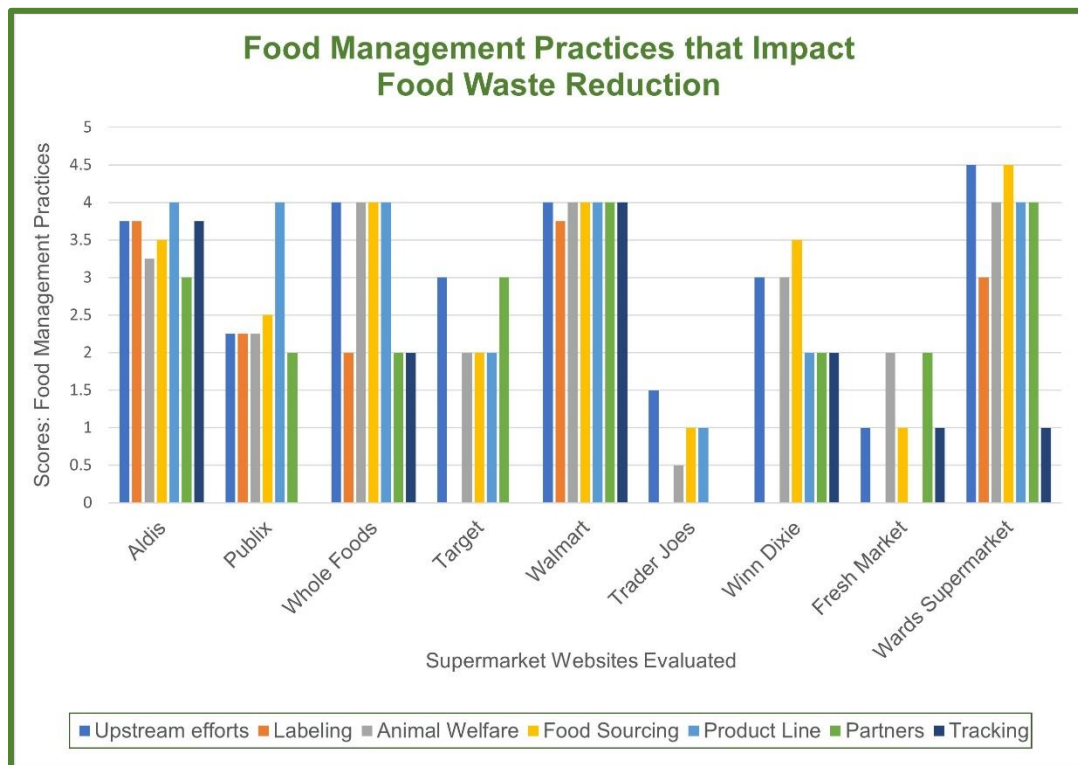


Figure 9: The extent that supermarket websites detail specific food management practices that are linked to food waste reduction.

**Discussion**

There was significant variability regarding upstream efforts to reduce food waste. These efforts were often linked to partnerships with growers/food sources and NGOs. Walmart, for example, [partners with the Environmental Defense Fund](#) to work directly with farmers to better manage croplands.

All supermarkets address animal welfare and food sourcing on their websites. [Publix](#), [Winn Dixie](#), and [Ward's](#) each emphasized regional and/or local sourcing. Proximity to food sources was linked to reduction of food loss and waste.

Store brands can play a significant role in food waste reduction. When stores have their own product line, they also have control over food sourcing, distribution, labeling, pricing, etc. [Aldi's](#) indicates their instore product line will play a role as they work to reach their zero waste goals. This is emphasized to varying extents on other supermarket websites, as well. Nevertheless, the sustainability value of store brands can only be a consideration if the supermarket adheres to environmentally sound decisions and practices.

Tracking and labeling are often implied more than they are described on most websites. Two exceptions are [Walmart](#) and [Aldi's](#). Walmart provides detailed tracking information that is used to ensure sustainable sourcing, and Aldi's identifies both tracking and labeling as essential practices for meeting their food waste reduction goals.

### How Transparent are the Websites When it Comes to Sustainability and Food Waste Reduction?

Two evaluation categories addressed transparency: 1) How detailed is the supermarket's entire sustainability plan in terms of food loss and waste, and 2) Does the supermarket disclose how much of their total food inventory is sent to the landfill?

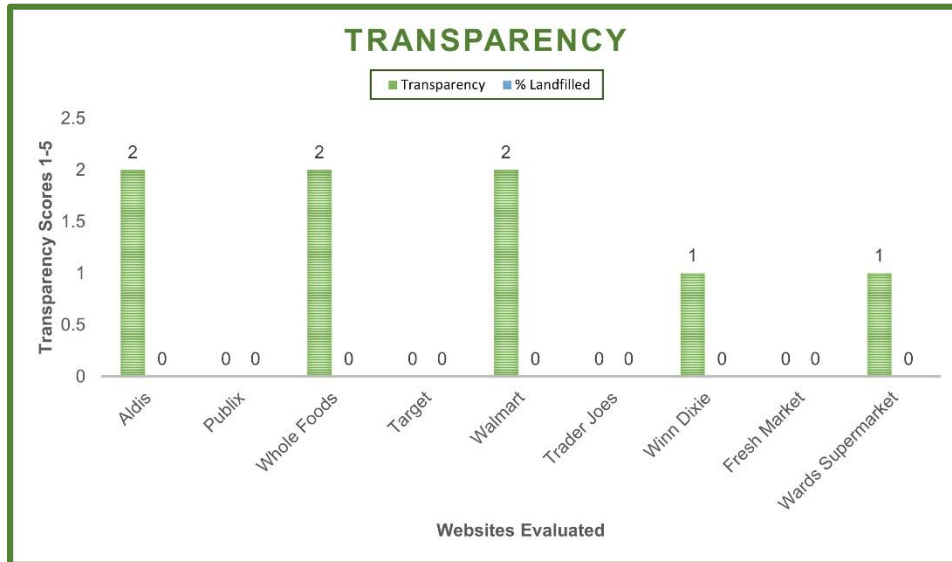


Figure 10: Supermarket's website transparency regarding food waste reduction.

### Discussion:

All supermarkets are selective about transparency. Most readily share data about the amount of food that has been diverted/donated and recycled. The amounts are impressive, but impossible to interpret. Unless we know a supermarket's total food inventory and what part of that is discarded in landfills, we cannot accurately interpret their food diversion and recycling rates. None of the supermarkets shared that information.

Aldi's, Whole Foods, Walmart, Trader Joe's, Winn Dixie, and Ward's received transparency scores in the first category because they broadly discuss procedures and decisions that address food waste reduction. Aldi's, Whole Foods, and Walmart also received an additional point for being USDA Food Loss and Waste Champions.

### What non-food sustainable actions have been implemented in recent years?

One category evaluated non-food sustainable measures, such as upgrading electricity, refrigeration, water usage, etc.

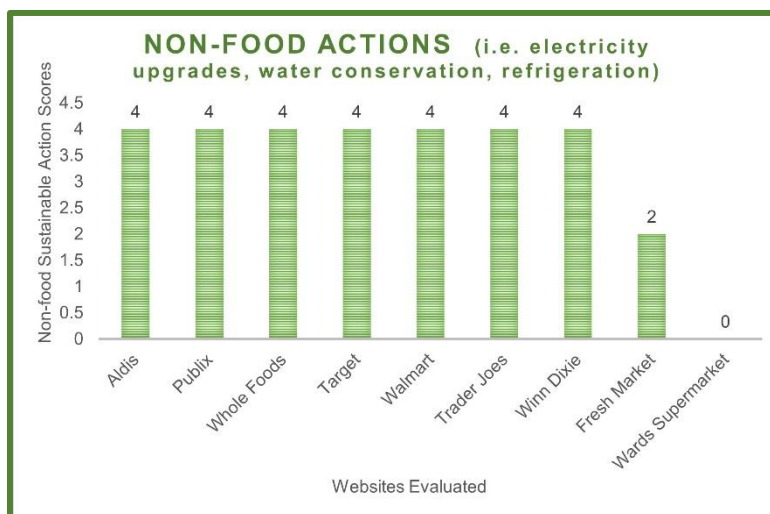


Figure 11: Supermarket upgrades other than food management policies.



## **Discussion:**

Many stores share more information about non-food upgrades than about food. Upgrades in electricity, water usage, and refrigeration have been made for all stores except Ward's according to their websites. Ward's website is dedicated to food related topics.

Catastrophic Food Loss Events are often linked to loss of electricity. These food loss events are not mentioned on any websites. During our survey, however, we became aware of investments by one chain supermarket to mitigate these catastrophic events. At considerable expense to Publix, every store has immediate access to a generator that is located behind their stores in the event of electrical disruptions.

## **Finally, what about Downstream practices such as recycling, diversion – and specifically donations?**

Although we evaluated each website for recycling and diversion practices, we did not include the scores in this report. Recycling and diversion can also refer to non-food items, and it was difficult to accurately separate and evaluate practices. We can confidently state, however, that most Gainesville supermarkets donate to Bread of the Mighty.

Composting was mentioned on some websites, but it did not appear to be a widespread practice. The passage of Gainesville's Zero Waste Ordinance and its emphasis on composting ensures that more of Gainesville's food waste will be recycled in the future. In a conversation with an employee of a large supermarket chain, they queried whether the City had the capacity to manage the volume of organics from supermarkets. Because Life Soils will begin composting operations in Alachua County, this concern has hopefully been resolved.

## **Conclusions**

### **Conclusions:**

Supermarket surveys have been conducted by several organizations in recent years. These studies rank or give a grade to the supermarkets at the conclusion. ZWG has chosen not to do this, but our findings do resemble those found in the previous studies.

As Jonathan Bloom pointed out over a decade ago in his book, *American Wasteland*, food is being wasted in our supermarkets. He briefly worked in a supermarket and saw first-hand how prevalent the waste was. Estimated food waste levels have remained fairly static since Bloom's book was first published. Although recent commitments have been made by several large supermarket chains to reduce their waste levels, the pace has been glacial.

We do not know what food or how much food is landfilled by Gainesville's supermarkets. The supermarkets have not shared that data. We do know that Gainesville supermarkets rely on downstream practices of diversion, repurposing, and recycling when managing part of their surplus food. The new Zero Waste Ordinance provides a future composting option for food waste that is currently being landfilled.

The problem is that these measures do not address the real issue – “Why do we have large quantities of surplus food?” One contributing factor is our norm has become mountains of perfect produce, overstuffed shelves filled with endless varieties of food, coolers filled with meat cut to our specifications, and much more. We often leave the supermarket with more food than we intend or need. But this isn't a viable model, especially when [1 in 8 Americans](#) are food insecure, and food prices have sky rocketed.

In stark terms consumers are currently paying good money to throw away nearly half of all the food that is grown. That amounts to [over \\$1800](#) every year for the average American. We would never tolerate that kind of waste when making other purchases.

If we are to end food waste, our focus must transition from downstream practices that only manage the surplus food and begin to focus on reducing the amount. That reduction can only occur if we stop wasting food across the supply chain, and especially in our supermarkets and homes. Gainesville is fortunate to have supermarkets that not only reduce the amount and variety of food they offer but also help shoppers reduce their waste. Easy access to these supermarkets is not available for all residents, however.

Each of you has a favorite supermarket, and we hope our Supermarket Survey findings will inform and influence your shopping choices and food waste practices. Our goal is to share what we have learned and hopefully motivate you, as we have been motivated by our research, to be thoughtful shoppers with food waste reduction in mind.