



WHITE PAPER



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Margins Matter

**Reducing Fresh Food Waste to Improve
Product Margins by 6% or More**

How to Improve Grocery Profitability in Competitive Times

Life has never been more challenging for retail grocers. It must be tough to get out of bed in the morning to headlines like the Washington Post's [The New Era of Grocery Just Claimed Its First Victims](#). For an industry that has generally enjoyed decades of relative stability, grocers are now facing a perfect storm that includes:

- New low-price competitors, both domestic and international, that are setting off price wars. This is on top of the existing national discounters that have dominated the market. Fresh food is the new battleground, as it has been recognized as a leading source of foot traffic and customer loyalty, so competitive pressure will only increase.
- Dramatic increases in freight costs due to a shortage of drivers and the implementation of electronic logging devices (ELDs) that strictly limit driving hours. According to [The Packer](#), freight costs are up 20%-30% over a year ago in some regions. The cost of delivered fresh food has increased dramatically, and there's no relief in sight.
- Consumers are spending more of their food dollars at restaurants and on prepared food items – meaning less revenue for the grocer.
- New delivery channels such as click-and-collect or home delivery are adding costs, without the offsetting pricing power. While you need to invest in competitive delivery offerings, it is hurting the bottom line.
- Millennials, as well as other demographic groups, are demanding visibility into the origin, authenticity and freshness of the products they buy – what will this cost?

Kroger recently announced that it cut its profit outlook for 2018, in part due to, “competitive pricing pressures.” As [CNBC put it](#), “The U.S. grocery industry is under pressure from all sides, leaving Kroger in combat mode.” The [Wall Street Journal](#) even reported that General Mills may have to raise the cost of Cheerios. Why? Higher costs in the supply chain, primarily due to increased freight costs. Why does that matter? It means that costs for even shelf-stable products are rising. With costs rising, prices falling under competitive pressure, and a need for investments in new delivery channels, it's no wonder that grocers are feeling squeezed.

Grocery margins have always been tight. But, in this turbulent market, grocers need to save every cent they can to maximize margins and they need to focus on offering products that bring customers into their stores and keep them coming back. Fresh food has always



Customers are Searching for both Quality and Value, Increasing Margin Pressures

been a challenge to manage, resulting in high shrink – roughly 13% for national grocers (ERS 2016). While traditionally this has been the cost of offering fresh food, grocers can no longer turn a blind eye to waste.

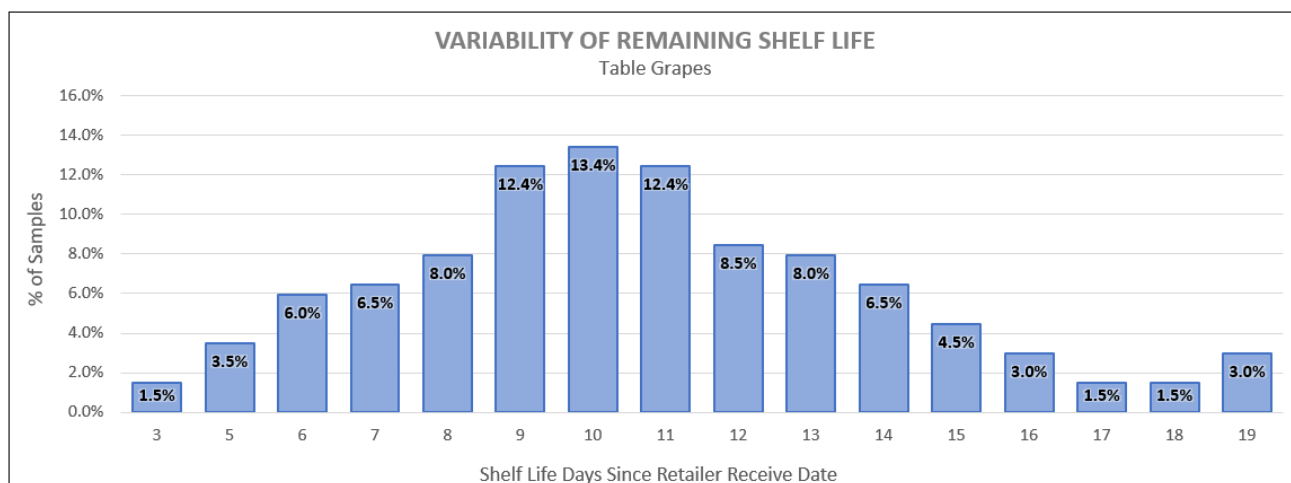
What Can You Do?

The first step to reducing fresh food waste is to understand the cause. Many store operators believe the primary cause of fresh food shrink (combined waste and markdowns) is due to poor in store handling. This belief is a convenient rational for assigning blame to the last person responsible for the produce when it spoiled. But haven't we all experienced buying produce that looked good when you picked it at the store, only to see it spoil or grow mold the very next day. Well, the grocer has the same problem. It turns out that there is much more to why fresh food spoils at the store, and that happens upstream, before the produce ever reaches the store.

Cutting the Cost of Waste

Waste or shrink doesn't start at the store. It can start at harvest as your produce is impacted by harvest conditions, processing, shipping and handling. While date labels imply that all produce harvested on the same day have the same shelf-life, there are many studies that show post-harvest handling can have a multi-day impact on remaining shelf-life, invalidating the data label indication. This means that the remaining shelf-life of produce delivered to the store can vary by many days, and the produce manager has no way to tell. For example, in a recent Zest Labs analysis involving grapes, the shelf-life of the grapes received at a retail distribution center varied from 3 days to 19 days.

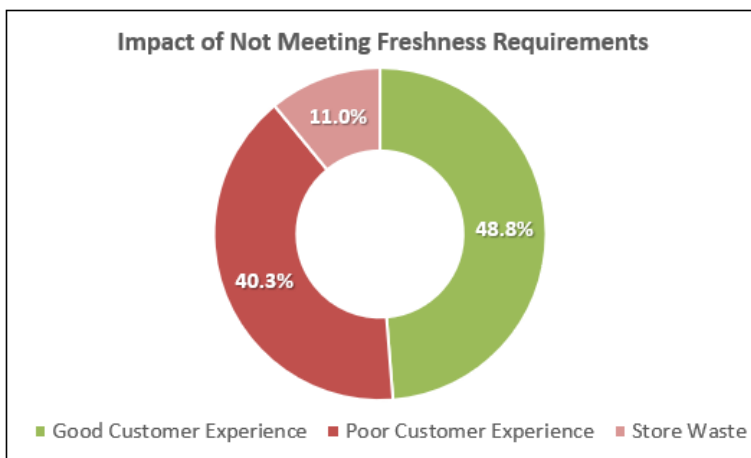
Yes, you read that correctly – a 16 day spread.



Summary: Sample remaining shelf life varied from 3 to 19 days across all shipments.

And you can't tell what the remaining shelf-life is by visual inspection, as visual freshness indicators are lagging indicators – meaning they don't reflect how much shelf-life there will be in the future. When the produce starts to show spoilage characteristics – discoloration, decay, shriveling – your customers see the same thing, and it's just too late to do anything about it.

What's the impact to your store and customers?? It's not good news. Based on this grape study analysis, and reflected in the chart below, the customer would have a poor experience 40% of the time – meaning the product could have spoiled before the customer could consume it. An additional 11% of the product spoiled at the store where it likely goes in to the dumpster.



Improving Your Profitability

The necessary approach is to find a way to achieve consistent remaining shelf-life for the product delivered to the store, and to know what that remaining shelf-life is for each product – as it will vary for each product. It is unrealistic to do more than properly display produce at the store, so the solution must be to ensure consistent shelf-life or freshness further upstream, at the distribution center or even at the grower.

As harvest conditions, processing, shipping and handling all impact remaining shelf-life, it means the solution really needs to track these conditions starting from the field. The solution also needs to track the product at the pallet level – not a widely adopted practice today – as each pallet has a unique experience through the supply chain, with significant pallet-to-pallet variations in shelf-life. In fact, the same study on grapes referenced earlier saw a variance of up to five days in remaining shelf-life within the same trailer load of delivery, all with the same date label. So, monitoring pallet-level condition starting at the field is necessary for ensuring consistent freshness, but the amount of data associated with doing this could be overwhelming. Fortunately, it doesn't have to be.

Zest Labs offers the Zest Fresh™ solution that not only provides the pallet-level condition monitoring from the field to the store, but it also includes predictive analytics to reliably translate the condition data into the remaining days of shelf-life. Zest Labs calls this freshness metric the ZIPR Code (for Zest Intelligent Pallet Routing Code), and it is used to match the actual calculated freshness of each pallet – like a dynamic date label – with the freshness requirement for each store. The approach of matching actual shelf-life with required shelf-life within the first 24 hours is critical, as the growers' decision of where to ship each pallet – whether one day transit away or up to six days away – will have the most impact to your delivered freshness.

You cannot fix the delivered freshness or shelf-life when receiving the product at the distribution center. It must be addressed earlier, at the point it is loaded on the trailer for the longest part of its supply chain journey from the grower/shipper to the distribution center. The Zest Fresh solution does this by matching the calculated ZIPR Code of each pallet with each destination's requirement. This approach has been proven to reduce store level shrink by 50% or more.

What does it mean to cut store-level shrink by at least half? How much will your margins increase? Conservatively, by as much as 6% to 10% (depending on the product).

Freshness consistency is really the Achilles' heel of fresh food, as once the actual remaining shelf-life diverges from the date label assumption – which happens roughly 1/3 of the time – none of the routing, inventory, stocking or buying decisions are being made correctly. Without freshness consistency, product will be seen as spoiling early when that same product could have been consumed earlier at full quality. Avoiding waste by utilizing a freshness management solution is one of the best ways of improving your product margin, and proactively managing freshness upstream delivers that value.

How much can cutting shrink at the store-level increase your product margins?

Conservatively, by as much as 6% to 10%.

A solution that tracks food from the field to the store also provides the pedigree and provenance information that consumers want. The same condition monitoring devices that ensure consistent shelf-life provide reliable data on the product source and the quality of handling, helping ensure food safety and consumer confidence.

Where Should You Start?

A logical first step is to do a baseline study which measures the actual freshness from a sample of each pallet of the product you're receiving now. Zest Labs can help. We work with you to identify a high-value and highly perishable product, like strawberries, and determine the shelf-life variation that you're currently experiencing. This determines the size and scope of your delivered freshness challenge – and how much it contributes to store level shrink. Once you have isolated the primary contributor to store level shrink, you can look to fix it and enjoy the improved product margin. Zest Fresh can help you improve shelf-life consistency, reducing waste by at least half, and improve your product margins as a result. It's a solution that quickly pays for itself many times over.

And, at the same time, you'll be providing your customers with consistently fresher product, keeping them coming back for more.

For more information on Zest Fresh and how it can improve your business please contact us at:

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