THE MUSHROOM COUNCIL

2022 FRESH MUSHROOMS RETAIL BEST PRACTICES

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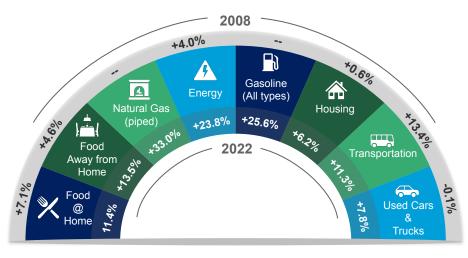
OVERVIEW





Households are faced with much higher inflation today than they were in 2008

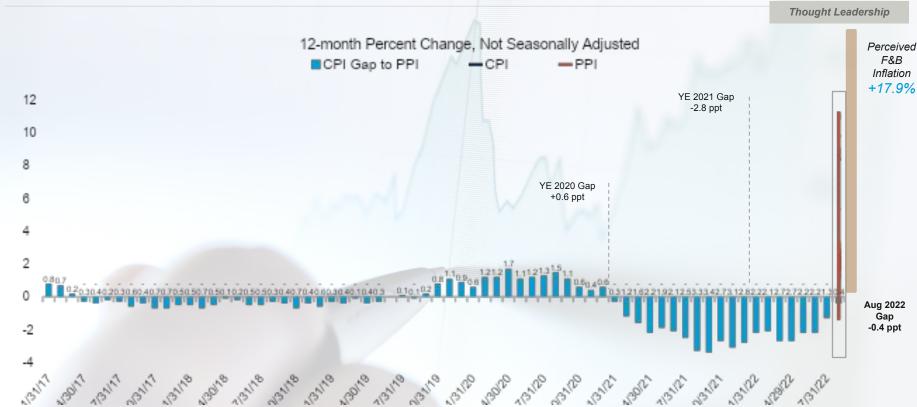
Thought Leadership



+5.6% CPI +8.3%



Price will continue to increase as the gap between CPI vs. PPI closes (historically ~-0.5ppt) indicating future inflationary pressure on consumer prices, already perceived as much higher



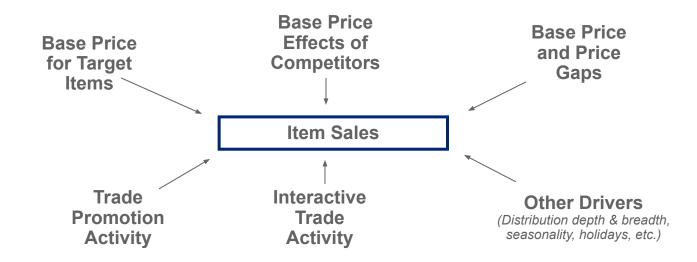




Own Base Price is Just One Factor in Effective Price Management

Educational Content

Price and Promotion Models incorporate a comprehensive set of volume drivers.





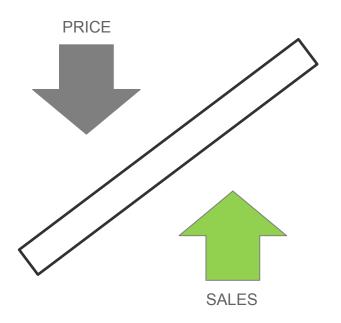
What is price elasticity?



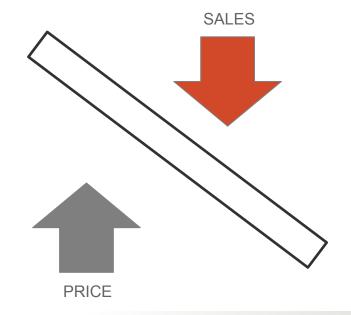
Educational Content

Price elasticity is a measure of how price change impacts sales

When price decreases, sales increase



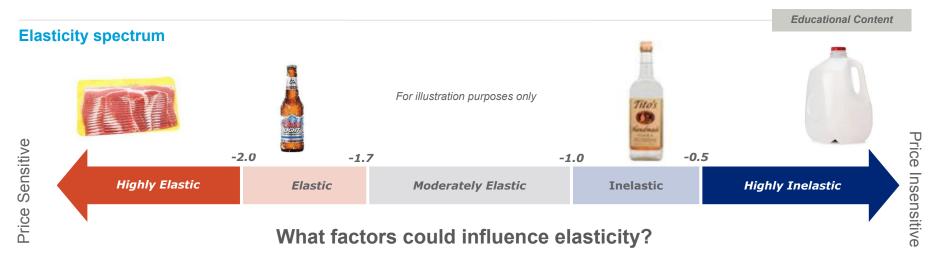
When price increases, sales decrease





Elastic vs. Inelastic





ELASTIC

- Heavily promoted
- Strong branded competitors
- More commoditized
- Expandable consumption categories (e.g., snacks)

INELASTIC

- Strong equity
- Premium product
- Need driven
- New categories



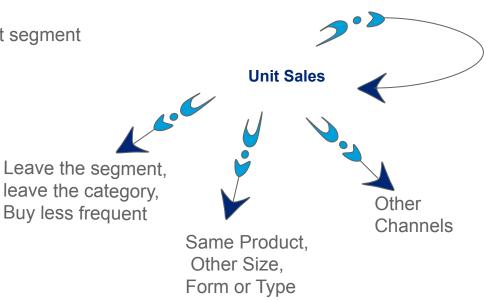


Impact of Price Changes Requires Comprehensive Analysis

Educational Content

When price is raised for Consumer-Packaged Good products, consumers have several options. They can:

- 1. Continue to buy it
- 2. Switch to a different size
- 3. Switch to a different product segment
- 4. Purchase less frequently
- 5. Leave the category
- Leave the channel







What Are Price Thresholds?

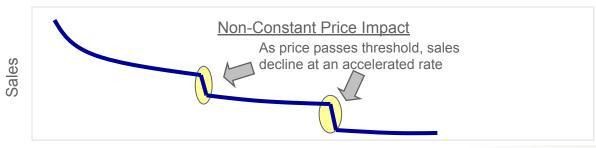
Educational Content

• Typically, price elasticity (base and promoted) is depicted as a smooth constant relationship between price and volume



Price

- In reality, the curve exhibits threshold points at which the change in sales is much more pronounced
- Thresholds work both ways:
 - Sales decline at a faster rate when threshold is passed by increasing price
 - Sales increase at a faster rate when threshold is passed by decreasing price







Educational Content

Significant Base Price Gaps or Pricing Ladders - What are They?

A base price gap is the difference in base price between an item and a price interactive item. A negative gap indicates that the item is priced lower than the related, interactive item.



<u>Price Gaps</u> indicate that an additional change in sales is realized when this gap is non-compliant. In this example increasing the gap beyond the significant threshold yield an increase in volume as the item becomes priced increasingly less than the interactive item; decreasing the gap beyond the significant Price Gap yields a decrease in volume for the item.



Study: Fresh Mushroom Best Practices in Today's Disrupted Marketplace Background and Objectives



Background

- Volume demand is affected by price, especially in a market with 40-year high inflation
- The Mushroom Council contracted IRI to help understand likely volume movement in response to price and promotion changes across types, package sizes, format and attributes in key channels
- Specifically, the study examined volume demand in reaction to changes in pricing, inter-category volume shifts and interactions, key price point thresholds and trade promotion lifts
- These insights will allow mushroom growers and their retail partners understand likely volume changes in the light of price & promotional strategies

Objectives

- Determine elasticity of mushrooms, mushroom types, package sizes and by channel
- Understand volume response to absolute price points and adjacent category price gaps
- Understand any interactions with other products in the store
- Understand promotional pricing lifts versus everyday across types, package sizes and by channel
- Trade spend analysis on lifts by merchandising vehicle to understand current trade productivity and ROI



Demand Analysis



3-step process to evaluate and quantify opportunities

Step 1

Step 2

Step 3

Parameterize Price & Trade Models

Evaluate Consumer Diagnostics

Address Business Issues & Develop Volume Impact Insights

- Target Products
 - 18 Mushroom PPGs
- Geographies
 - Total US Food (grocery)
 - Walmart Corp.
 - Club Retailers
 - 35 States
 - 8 IRI Standard Food Regions
 - 14 Selected RMAs
- Time Period:
 - 52 weeks ending 7/10/2022

*Note: IRI price elasticity models also control for impacts from extraneous factors, such as: seasonality, holiday weeks, and reduced out-of-home consumption due to COVID (Google Mobility data), Out-of-Stocks or other distribution drivers.

- Evaluate consumer price sensitivity across:
 - Price Promoted Groups (PPGs)
 - Channels
 - Geographies
- Evaluate price & trade diagnostics across:

Base Drivers

- Base Price Elasticity
- Category and Cross-Category Interactions

Cross Price Elasticities Interactive Base Price Gaps

Promotion Drivers

- Promoted Price Elasticity
- Quality Merchandising Lifts
- Promo Price Thresholds

- Evaluate pricing architecture to understand current pricing and opportunities to better manage pricing and trade practices
- Document pricing observations based on consumer response metrics
- Partner with Mushroom Council to activate strategic implications through tactical applications, including the IRI provided simulation tool, for targeted execution and impact estimation.



Scope Parameters



Product Groups

- Sliced conventional white 8oz
- Whole conventional white 8oz
- Sliced conventional white 16oz
- Sliced conventional brown 8oz
- Whole conventional brown 8oz
- Whole conventional brown 16oz
- Whole conventional white 16oz
- Whole conventional white random weight
- Sliced conventional brown 16oz
- Whole organic white 8oz
- Whole organic brown 8oz
- Sliced organic white 8oz
- Whole organic brown 16oz
- Sliced organic brown 8oz
- Whole organic white 16oz
- Whole conventional portabella 6-8oz
- Sliced conventional portabella 6-8oz
- Sliced conventional shiitake 5oz

Geographies / Channels / Retailer Marketing Areas (RMAs)

- Total US Food* (Grocery abbreviated to TUS Food)
- Walmart Corp
- Club Retailers (Sam's & BJs)
- KR Corp-RMA Food
- AlbertsonsCo Corp-RMA Food
- Walmart Div M West-RMA Walmart
- Walmart Div A South-RMA Walmart
- Walmart Div E North-RMA Walmart
- ADUSA Ahold Corp-RMA Food
- ADUSA Delhaize Corp-RMA Food
- · Wakefern Corp-RMA Food
- Wegmans Corp-RMA Food
- ADUSA Stop & Shop Div-RMA Food

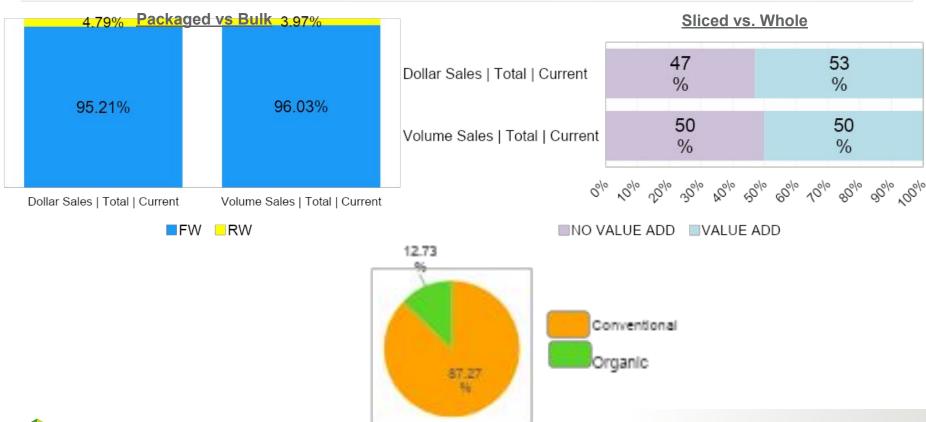
Individual retailers have all been confirmed as multi-supplier accounts to provide best-in-class examples across different channels

*Also includes 8 IRI Standard Regions and 35 States





Market Refresher: Mushroom Share by Attribute 52 weeks ending 7-10-22





Market Refresher- Total U.S. Multi-Outlet (MULO) 52 weeks ending 7-10-22 Study covers items representing ¾ of mushroom share



	Dol	lars	Volume	Cumulative Share	Cum Lb Share
•Sliced conventional white 8oz	\$	184,987,200	42,542,077	14%	15%
•Whole conventional white 8oz	\$	150,281,513	36,342,372	26%	27%
•Sliced conventional white 16oz	\$	89,927,695	29,916,432	33%	38%
•Sliced conventional brown 8oz	\$	113,586,981	21,773,440	42%	45%
•Whole conventional brown 8oz	\$	67,444,871	13,420,670	47%	50%
•Whole conventional brown 16oz	\$	33,261,585	8,191,262	50%	53%
•Whole conventional white 16oz	\$	54,490,140	15, 184, 961	54%	58%
•Whole conventional white random weight	\$	17,379,296	4,254,179	55%	60%
•Sliced conventional brown 16oz	\$	32,895,759	7,751,402	58%	62%
•Whole organic white 8oz	\$	25,739,976	4,757,326	60%	64%
•Whole organic brown 8oz	\$	27,054,203	4,476,836	62%	66%
•Sliced organic white 8oz	\$	19,773,350	3,697,689	64%	67%
•Whole organic brown 16oz	\$	14,118,056	2,849,326	65%	68%
•Sliced organic brown 8oz	\$	12,860,540	2,061,303	66%	69%
•Whole organic white 16oz	\$	8,299,706	1,868,620	66%	69%
•Whole conventional portabella 6-8oz	\$	11,956,407	1,875,230	67%	70%
•Sliced conventional portabella 6-8oz	\$	66,371,384	11,586,954	73%	74%
•Sliced conventional shiitake 5oz	\$	23,931,937	1,487,887	74%	74%
Total Mushrooms		\$1,282,349,166	287,525,589		







STRATEGIC ANALYSIS





The Mushroom Council 2022 Volume Management Study Summary Findings & Recommendations



FINDINGS

RECOMMENDATIONS

 Mushrooms have a "low risk, low reward" price response profile. Except for a couple products in the Food channel Mushrooms are well positioned in an inflationary environment.

Everyday Pricing

- Base price gaps and price point thresholds form a secondary risk to volume impact that can be larger than the elasticity impacts and are important to understand and maintain.
- Regional differences in volume response warrant a bottoms-up management approach, making a national strategy less desirable.
- Demand shifts overwhelmingly take place within the Mushroom category instead of being affected by other items in the store. This work codifies consumer willingness to pay for specific attributes.

- Inelastic products allow growers to consider passing along COGs inflation and protect profitability. Volume for more price responsive items could be protected by disproportionately taking price on less elastic products.
- Leverage POS data to understand the risks and opportunities of gap violation and sales upside associated with conversion to compliance.
- Manage price point thresholds commensurate with the risk they pose when contemplating crossing them with a planned price increase.
- Tailor pricing guidelines & policies to known strengths of your portfolio in each region to optimize price realization and trade ROIs.
- Use the within portfolio price gap learnings to understand consumer perceived price ladders between sizes and product attributes.



The Mushroom Council 2022 Revenue Growth Management Summary Findings & Recommendations



FINDINGS

RECOMMENDATIONS

 Mushrooms have very little promotional pricing power. Promo price response is 10% less than everyday price response.

Trade Promotion

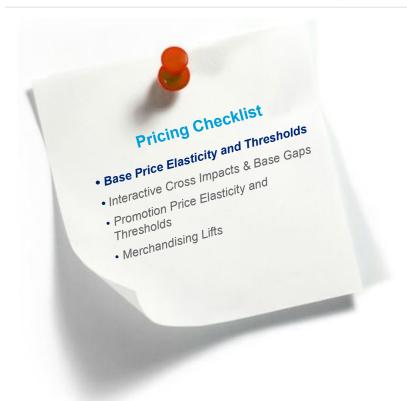
- Channel and Region level promotional price response varies to some degree providing growers the opportunity to prioritize trade funding to the most responsive, better ROI events.
- Promoted Price Thresholds are a productive mechanism for increasing trade event effectiveness and numerous Hot Points were detected Mushrooms across channels and regions.
- Upgrading to quality merchandising may not always improve trade efficiencies when feature / display lifts are just nominally better than temporary price reduction (TPR) lifts.

- To increase trade ROIs Mushrooms will need to plan against the quantified Hot Price Points and Quality Merchandising levers on the most response product/geography combinations.
- For less promo responsive products or regions, look to optimize everyday pricing and use trade funds for more aggressive base price gap management or everyday price cliff protection.
- In order to fully realize the benefit that Promoted Price Thresholds can provide the organization may need to consider a rebalance of trade depth versus frequency.
- Leverage the IRI Price & Trade Impact calculator to estimate the magnitude of trade events in the planning process and prior to allocation.



Checklist for Price/Volume Management: Structuring our picture of the pricing landscape





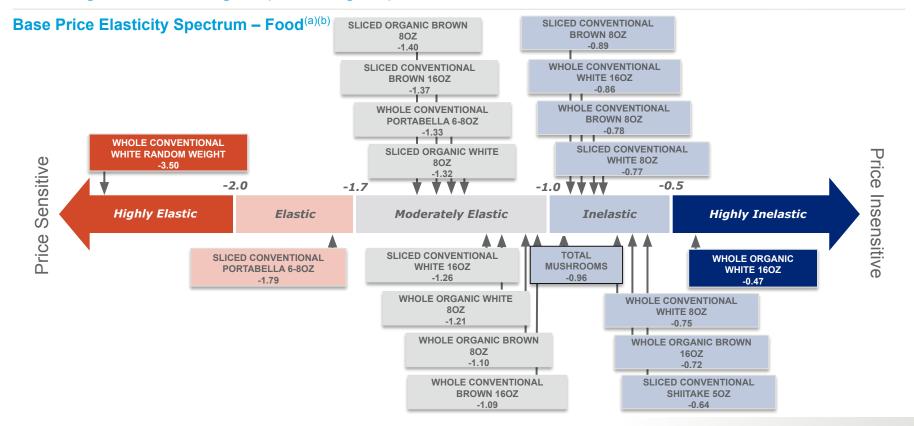
Key Topics for Discussion

- 1. How sensitive is my product to base price changes? Does this vary by type, size, or channel? Is there any risk associated with crossing base price point thresholds?
- What is the role of competition and strength of price interactions? Does my product have significant base gaps with competition?
- 3. How sensitive is my product and competition to promoted price changes? Are there promoted price point thresholds at which my consumer response to price accelerates?
- What role does merchandising play in driving response to trade execution?



65% of Mushroom sales (volume) are inelastic / highly inelastic to price changes, including 5 of the 6 largest product groups

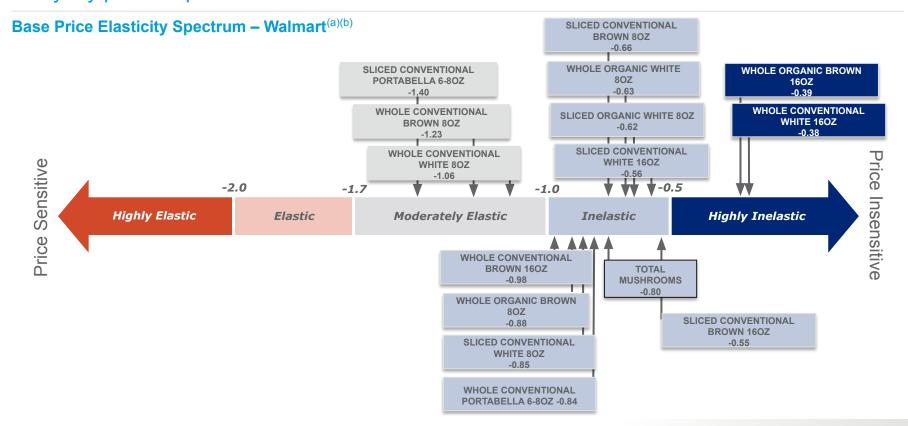






In Walmart, most Mushroom product groups skew inelastic. Overall, Walmart everyday price response is 16% less than that measured in the Food Channel







The elasticity variance across the Mushroom portfolio could allow growers to protect more price sensitive offerings and pass more COGs inflation along on less elastic PPGs





Base/ Actual Price Elasticity by Product and Channel^(a)

Base/Actual Price Elasticity(b)(c)

		noo =naonony
	Food	Walmart ^(d)
TOTAL MUSHROOMS	-0.96	-0.80
Sliced conventional white 8oz	-0.77	-0.85
Whole conventional white 8oz	-0.75	-1.06
Sliced conventional white 16oz	-1.26	-0.56
Sliced conventional brown 8oz	-0.89	-0.66
Whole conventional brown 8oz	-0.78	-1.23
Whole conventional white 16oz	-0.86	-0.38
Whole conventional portabella 6-8oz	-1.33	-0.84
Whole conventional white random weight	3.50	
Sliced conventional brown 16oz	-1.37	-0.55
Whole conventional brown 16oz	-1.09	-0.98
Whole organic white 8oz	-1.21	-0.63
Whole organic brown 8oz	-1.10	-0.88
Sliced organic white 8oz	-1.32	-0.62
Whole organic brown 16oz	-0.72	-0.39
Sliced conventional portabella 6-8oz	-1.79	-1.40
Sliced organic brown 8oz	-1.40	
Whole organic white 16oz	-0.47	
Sliced conventional shiitake 5oz	-0.64	

Volume Impact on a 10% Price Increase

	,		
Food	Walmart		
-8.7%	-7.4%		
-7.0%	-7.8%		
-6.9%	-9.6%		
-11.3%	-5.2%		
-8.1%	-6.1%		
-7.2%	-11.1%		
-7.8%	-3.5%		
-11.9%	-7.7%		
-28.4%			
-12.2%	-5.1%		
-9.9%	-8.9%		
-10.9%	-5.8%		
-10.0%	-8.1%		
-11.8%	-5.7%		
-6.6%	-3.7%		
-15.7%	-12.5%		
-12.5%			
-4.4%			
-5.9%			

What does this mean?



Base price sensitivity varies by region suggesting opportunities to evaluate everyday price strategies by region to identify price realization opportunities



Base Price Elasticity by IRI Standard Region – Index to TUS Food (Total US Food)(a)(b)

Geography	TTL \$ Sales (MM)	SLICED CONVENTIONAL WHITE 8OZ	WHOLE CONVENTIONAL WHITE 8OZ	SLICED CONVENTIONAL WHITE 16OZ	SLICED CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 16OZ	WHOLE CONVENTIONAL WHITE 16OZ	WHOLE CONVENTIONAL WHITE RW	SLICED CONVENTIONAL BROWN 16OZ
TUS Food	\$704.3	-0.77	-0.75	-1.26	-0.89	-0.78	-1.09	-0.86	-3.50	-1.37
Great Lakes	\$122.6	91	99	66	69	112	112	74		51
Northeast	\$115.6	123	103	78	100	109	134	77		139
West	\$107.9	101	90	57	57	110	127	96		68
Southeast	\$97.3	110	85	116	134	51	140	131		78
Mid-South	\$90.7	99	87	98	82	119	63	116		67
California	\$84.5	47	130	83	194	39	28	100		163
Plains	\$45.4	124	161	33	127	187	114	70		118
South Central	\$40.3	114	61	54	69	39	28	124	100	88

Base price responsiveness is 15%+ higher than national average

Base price responsiveness is 15%+ lower than national average



Regional price response is even more varied on the organic and specialty Mushroom product groups, which should inform execution such as price up / spend back



Base Price Elasticity by IRI Standard Region – Index to TUS Food^{(a)(b)}

Geography	TTL \$ Sales (MM)	WHOLE ORGANIC WHITE 80Z	WHOLE ORGANIC BROWN 80Z	SLICED ORGANIC WHITE 80Z	WHOLE ORGANIC BROWN 160Z	SLICED ORGANIC BROWN 80Z	WHOLE ORGANIC WHITE 16OZ	WHOLE CONVENTIONAL PORTABELLA 6-80Z	SLICED CONVENTIONAL PORTABELLA 6-80Z	SLICED CONVENTIONAL SHIITAKE 50Z
TUS Food	\$704.3	-1.21	-1.10	-1.32	-0.72	-1.40	-0.47	-1.33	-1.79	-0.64
Great Lakes	\$122.6	87	76	84	56	64	72	59	84	124
Northeast	\$115.6	36	40	90		22		100	99	151
West	\$107.9	46	82	71	137	84	175	31	148	60
Southeast	\$97.3	164	128	108	101	58		121	70	101
Mid-South	\$90.7	109	116	125	42	107	246	67	101	86
California	\$84.5	252	197	211	117	244	75	131	44	61
Plains	\$45.4	61	110	116	375	49	290	120	110	89
South Central	\$40.3	48	186	78	155	161	291	94	95	47

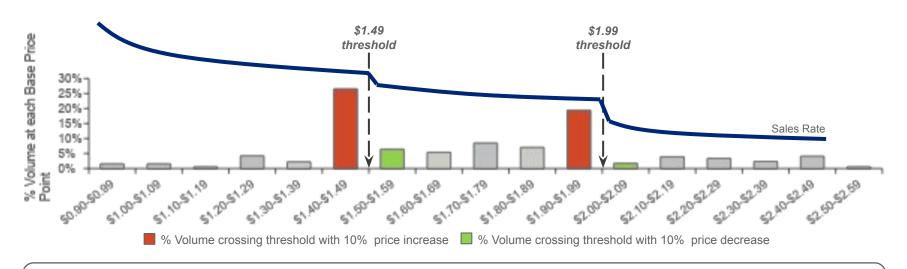






As price passes a price point threshold, sales change at an accelerated rate. Protecting these price cliffs can be important in avoiding sales lost due to pricing actions

Price Threshold Example(a)



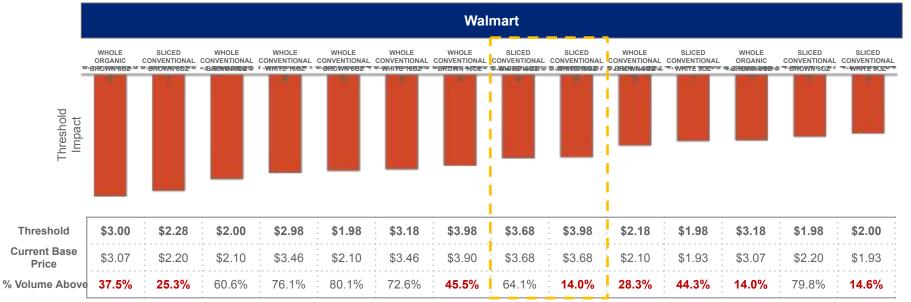
Typically, price elasticity is a smooth, constant relationship between price and sales. In reality, there are price thresholds at which consumers will walk away from that planned purchase.

Notes: a) Distribution and thresholds shown are examples for illustrative purposes only.



Walmart consumers are more aware of price thresholds as the top 11 price cliffs were identified at this retailer. Sliced Conventional White 16oz is approaching the \$3.68 & \$3.98 price points where 12% risk lies

Walmart: Base Price Thresholds(a)



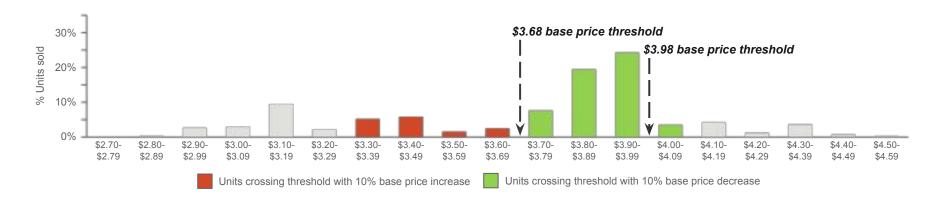
Red Font represents price thresholds where less than half of the volume is selling above the identified price cliff





Sliced Conventional White 16oz Mushrooms in Walmart have two base price thresholds that pose moderate risk when crossed at retailer. Protection should justify the risk

WALMART, SLICED CONVENTIONAL WHITE 16OZ: Base Price Distribution(a)



Channel	Product	Base Price Elasticity	Current Base Price	Base Price Threshold	Threshold Impact Range & Top Responding Regions
Walmart	SLICED CONVENTIONAL WHITE 16OZ	-1.26	\$3.68	\$3.68	-5.8% to -6.3% (Walmart Div M West)
vvailliart	SLICED CONVENTIONAL WHITE 1802			\$3.98	-5.6% to -6.2% (Walmart Div E North)





Walmart consumers are more aware of price thresholds as the top 11 price cliffs were identified at this retailer. Sliced Conventional White 8oz is approaching the \$2.00 price points where 4% risk lies

Walmart: Base Price Thresholds(a)



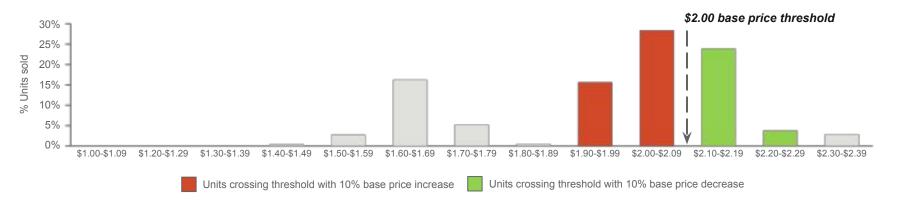
Red Font represents price thresholds where less than half of the volume is selling above the identified price cliff





Sliced Conventional White 8oz is dangerously close to the \$2.00 price cliff at Walmart. Although the impacts are smaller, the overall unit risk for this is large and could be a strategic battlefield

WALMART, SLICED CONVENTIONAL WHITE 80Z: Base Price Distribution(a)



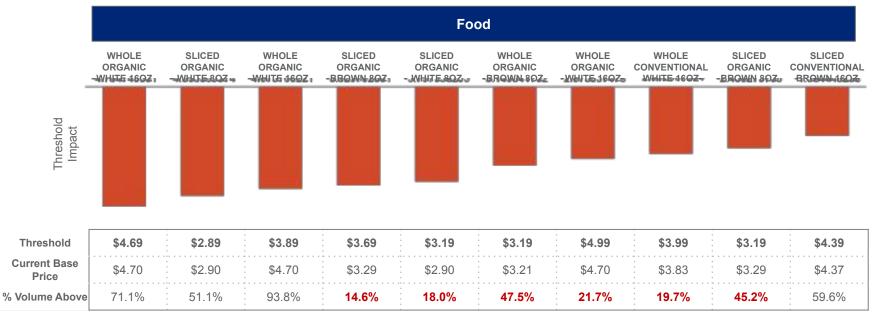
Channel	Product	Base Price Elasticity	Current Base Price	Base Price Threshold	Threshold Impact Range & Top Responding Regions
Walmart	SLICED CONVENTIONAL WHITE 80Z	-0.85	\$1.93	\$2.00	-4.0% to -4.5% (Walmart Div A South)





Base Price Thresholds are more impactful at the region / customer level and should be accounted for in any price action as they represent a secondary source of pricing risk

Food Channel: Base Price Thresholds(a)



Red Font represents price thresholds where less than half of the volume is selling above the identified price cliff



Whole Conventional White 16OZ has 2 different base price thresholds in the Food channel, the median price is sitting right at the \$3.99 threshold, but \$4.29 has more downside potential

TUS FOOD, WHOLE CONVENTIONAL WHITE 16OZ: Base Price Distribution(a)

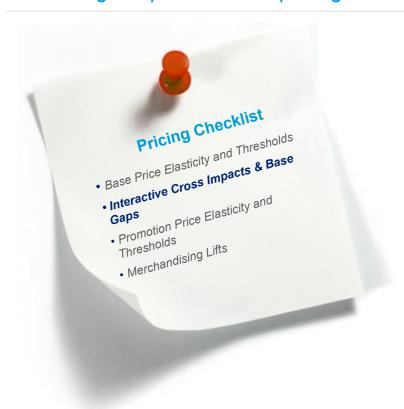


Channel	Product	Base Price Elasticity	Current Base Price	Base Price Threshold	Threshold Impact Range & Top Responding Regions / States
Total US Food	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	40.00	\$3.99	-0.1% to -7.3% (Idaho – State, Maryland - State)
10tal 05 F000	WHOLE CONVENTIONAL WHITE 1802	-0.06	\$3.83	\$4.29	-0.3% to -13.9% (Northeast – Region, Pennsylvania – State)





Checklist for Price Management: Structuring our picture of the pricing landscape



Key Topics for Discussion

- . How sensitive is my product to base price changes? Does this vary by type, size, or channel? Is there any risk associated with crossing base price point thresholds?
- What is the role of competition and strength of price interactions? Does my product have significant base gaps with competition?
- 3. How sensitive is my product and competition to promoted price changes? Are there promoted price point thresholds at which my consumer response to price accelerates?
- . What role does merchandising play in driving response to trade execution?



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Cross price elasticity measures the responsiveness of demand for the target product following a change in price of a Interactive product

Educational Content

Cross Price Elasticity Example

Interactive Product

Activity = Base Price Increase



Sales Impact:



Target Product





Interpretation: When the Interactive product increases everyday price <u>or</u> decreases promotional activity, sales increase for the target product



Mushrooms compete almost entirely with Mushrooms on price. In the Food channel we do see some slight interaction with tomatoes and potatoes





Strongest Competition (Top 2) by Channel^{(a)(b)}

= PF internal co	ompetition
------------------	------------

	Food					
Target Product	Strongest Competitor	2 nd Strongest Competitor				
Sliced conventional white 8oz	Sliced conventional brown 8oz	Whole conventional white 8oz 0.04				
Whole conventional portabella 6-8oz	Sliced conventional white 8oz	Cheddar and blends private label 8 OZ 0.08				
Whole conventional white 16oz	Snacking tomatoes private label 10 oz 0.05	Sliced conventional white 8oz				
Sliced conventional brown 16oz	Sliced conventional brown 8oz	Whole conventional brown 8oz 0.05				
Sliced conventional white 16oz	Snacking tomatoes private label 10 OZ 0.13	Sliced conventional white 8oz				
Whole conventional brown 8oz	Sliced conventional brown 16oz	Sliced conventional white 8oz				
Whole organic brown 8oz	Sliced conventional portabella 6-8oz 0.06	Sliced conventional brown 8oz 0.04				
Sliced conventional portabella 6-8oz	Whole organic brown 8oz 0.07	Sliced conventional white 8oz				
Sliced organic white 8oz	Sliced conventional shiitake 5oz 0.11	Whole conventional white 8oz 0.1				

	Food					
Target Product	Strongest Competitor	2 nd Strongest Competitor				
Whole organic white 16oz	Whole conventional white 8oz 0.06	Whole organic brown 8oz 0.05				
Sliced conventional brown 8oz	Snacking tomatoes private label 10 oz 0.03	Russet potatoes private label 8 oz 0.02				
Whole conventional white 8oz	Sliced conventional white 8oz	Sliced conventional brown 8oz				
Sliced conventional shiitake 5oz	Russet potatoes private label 8 oz 0.02	Whole conventional portabella 6-8oz				
Sliced organic brown 8oz	Sliced conventional white 8oz 0.16	Whole conventional white 8oz 0.05				
Whole organic brown 16oz	Whole organic white 8oz	Hamburger buns private label 12 oz 0.02				
Whole conventional brown 16oz	Sliced conventional brown 8oz	Sliced conventional white 16oz				
Whole organic white 8oz	Sliced conventional white 8oz 0.13	Whole conventional portabella 6-8oz 0.1				



Iceberg lettuce is the only non-Mushroom price competitor in Walmart, but size and form are the predominant price interactor for within mushrooms



Strongest Competition (Top 2) by Channel (a)(b)

= PF internal competition

2 .2 .	Walı	mart				
Target Product	Strongest Competitor	2 nd Strongest Competitor				
Sliced conventional white 8oz	Sliced conventional white 16oz	Whole conventional white 8oz				
Whole conventional portabella 6-8oz	Whole conventional brown 16oz	Sliced conventional white 16oz				
Whole conventional white 16oz	Whole conventional white 8oz	Whole conventional brown 16oz				
Sliced conventional brown 16oz	Sliced conventional brown 8oz	Sliced conventional white 8oz				
Sliced conventional white 16oz	Whole conventional white 8oz	Whole conventional brown 8oz				
Whole conventional brown 8oz	Whole conventional brown 16oz	Sliced conventional brown 8oz				

	Wal	mart				
Target Product	Strongest Competitor	2 nd Strongest Competitor				
Whole organic brown 8oz	Iceberg lettuce all brand 28 oz	Whole conventional brown 8oz				
Sliced conventional portabella 6-8oz	Sliced conventional white 16oz	Whole conventional white 16oz				
Sliced conventional brown 8oz	Sliced conventional white 8oz	Sliced conventional portabella 6-8c				
Whole conventional white 8oz	Whole conventional white 16oz	Sliced conventional white 8oz				
Whole conventional brown 16oz	Whole conventional brown 8oz	Sliced conventional white 16oz				
Whole organic white 8oz	Sliced conventional white 8oz	Iceberg lettuce all brand 28 oz				

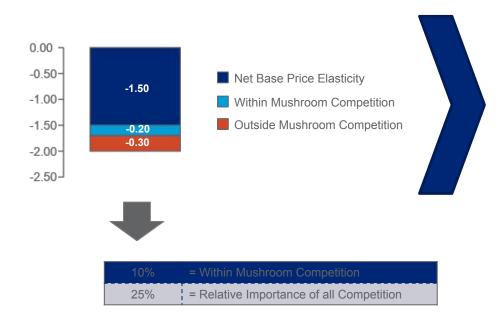




Strength of price interactions can be measured by proportionality to base price elasticity; >35% is highly interactive. Net Elasticity assumes all competitors follow on price

Educational Content

Base Price Elasticity Components & Considerations



Relative Importance of Competitors	> 35%	20% – 35%	< 20%
	,		
Interactive Grade	Strong	Medium	Weak

If price interaction is "strong", this implies items need to watch for Interactive pricing actions as they have a strong impact on own volume.

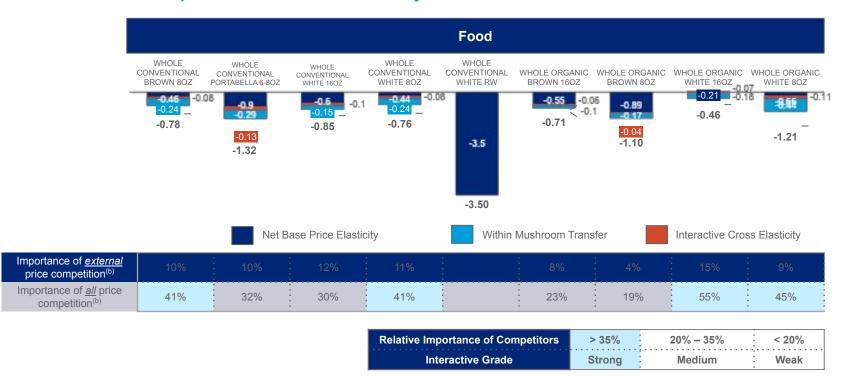
If price interactions are "weak", the manufacturer controls their own pricing destiny, as the majority of sales impacts will be determined by their pricing action and not the competitor's response.



Pricing interactions outside of Mushrooms are limited in the Food channel and Mushrooms' own price is responsible for the vast majority of pricing impacts



Food Channel: Components of Base Price Elasticity^(a)







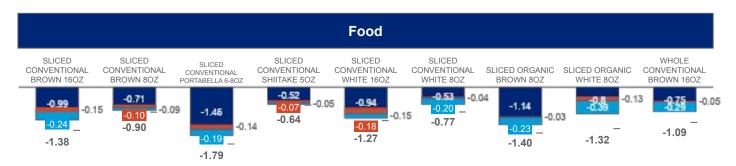
a) Modeling Period is 52 weeks ending 7/10/2022;

Pricing interactions outside of Mushrooms are limited in the Food channel with Sliced Conventional White 16oz having the most interaction, but still classified as "weak"





Food Channel: Components of Base Price Elasticity^(a)





Relative Importance of Competitors	> 35%	20% – 35%	< 20%
Interactive Grade	Strong	Medium	Weak



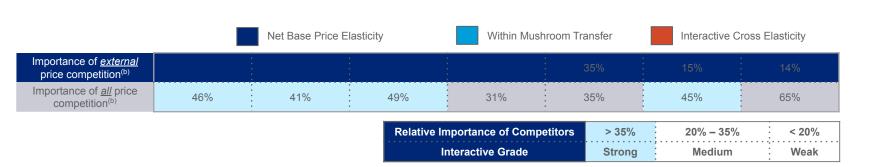
a) Modeling Period is 52 weeks ending 7/10/2022;

External price competition, or non-Mushroom price interactions, are nearly non-existent in Walmart



Walmart: Components of base price elasticity(a)







There are higher levels of price interaction within Mushroom product groups. This could be an opportunity to re-evaluate pricing ladders to move consumption into more profitable products





Walmart: Components of Base Price Elasticity(a)



Relative Importance of Competitors	> 35%	20% – 35%	< 20%
Interactive Grade	Strong	Medium	Weak



competition(b)

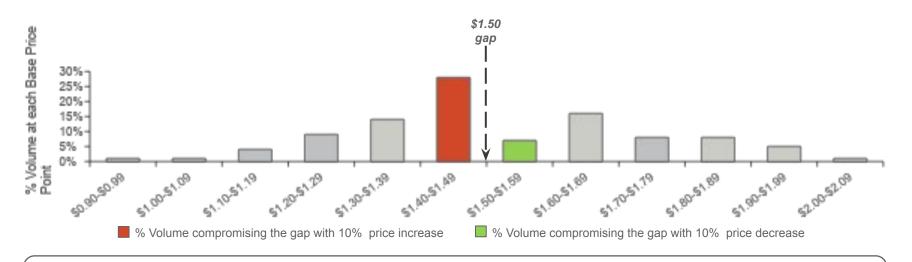
a) Modeling Period is 52 weeks ending 7/10/2022;

As Interactive price gaps change, sales impacts will occur at an accelerated rate relative to a product's elasticity



Educational Content

Base gap example(a)



Significant Price Gaps indicate that an additional change in sales is realized when this gap between Interactive products is crossed.

Notes: (a) Distribution and thresholds shown are examples for illustrative purposes only





Price cliffs are an important secondary risk component for Walmart Interactive price gaps are a more important risk in Food

Interactive Base Price Gaps – TUS Food(a)



Price Gap	\$1.90		\$1.10	\$0.60	-\$1.30	-\$0.40	-\$1.30	-\$1.20	-\$2.60	-\$1.10	-\$0.70	-\$1.30	-\$1.20	\$2.10	-\$1.20
Current Gap Price	\$1.48	:	\$1.08	\$0.47	-\$2.23	-\$0.87	-\$1.24	-\$1.55	-\$2.38	-\$2.20	-\$0.55	-\$0.62	-\$1.34	\$1.77	-\$0.62
% Volume Above	10.1%	-	33.2%	22.1%	9.8%	13.7%	26.9%	10.3%	47.2%	9.2%	58.8%	71.7%	52.2%	20.6%	70.0%

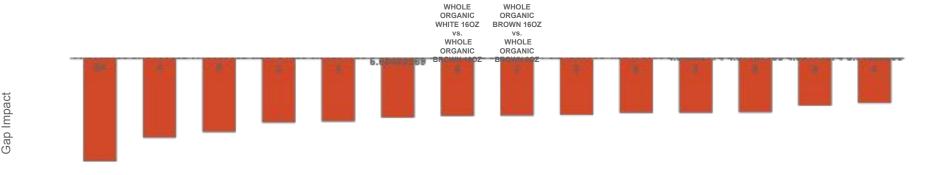
Red Font represents price gaps where less than half of the volume is selling in violation of the identified price gap



Just as base price thresholds are a secondary driver of pricing risk, base price gaps that are non-compliant can cause volume to leak to a competitor above and beyond elasticity



Interactive Base Price Gaps – TUS Food(a)



Price Gap	\$1.70					: .		 -\$0.70				 			
Current Gap Price	\$2.20	\$0.62	\$1.88	\$2.89	\$0.65		\$2.17	-\$0.54	\$2.03	-\$0.15	-\$0.12	\$0.12	\$0.62	\$0.25	-\$0.55
% Volume Above								57.8%						52.9%	

Red Font represents price gaps where less than half of the volume is selling in violation of the identified price gap



Price gaps between like products illustrate what consumers are willing to pay for a specific attribute. In this case Consumers are willing to pay \$0.50 more for Organic (8oz, Whole)

TUS FOOD, WHOLE ORGANIC WHITE 8OZ vs WHOLE CONV. WHITE 8 OZ: Base Price Gap Distribution (a)



Channel	Product	Interactive Product	Base Price Elasticity	Current Gap	Identified Gap	Gap Impact Range & Top Responding Regions & States
TUS Food	WHOLE ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.21	\$0.62	\$0.50	-6% to -11.3% (Wisconsin – State)

The combination of attributes, like organic and sliced bring an added premium. Sliced Organic White 8oz can sell for \$0.70 more than Whole Conventional White 8oz Mushrooms

TUS FOOD, SLICED ORGANIC WHITE 8OZ vs WHOLE CONV. WHITE 8OZ: Base Price Gap Distribution (a)



Channel	Product	Interactive Product	Base Price Elasticity	Current Gap	Identified Gap	Gap Impact Range & Top Responding Regions & States
TUS Food	SLICED ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.32	\$0.65	\$0.70	-0.4% to -17% (South Caroline – State)





We also see the sales of Whole Organic White 16oz Mushrooms pick up by 5% when they are priced \$0.70 below Whole Organic Brown 16oz Mushrooms

TUS FOOD, WHOLE ORGANIC WHITE 16OZ vs WHOLE ORGANIC BROWN 16OZ: Base Price Gap Distribution (a)



Channel	Product	Interactive Product	Base Price Elasticity	Current Gap	Identified Gap	Gap Impact Range & Top Responding Regions & States
TUS Food	WHOLE ORGANIC WHITE 160Z	WHOLE ORGANIC BROWN 160Z	-0.47	-\$0.54	-\$0.70	-4.6% to -5.4% (Great Lakes – Region)



Price gaps also help us understand optimal price laddering between sizes. Whole Organic Brown 16oz Mushrooms are ideally priced no more than \$1.70 more than 8oz

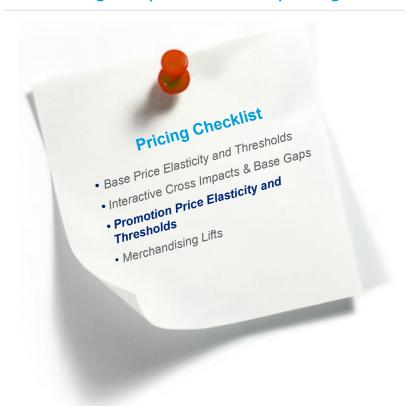
TUS FOOD, WHOLE ORGANIC BROWN 160Z vs WHOLE ORGANIC BROWN 80Z: Base Price Gap Distribution (a)



Channel	Product	Interactive Product	Base Price Elasticity	Current Gap	Identified Gap	Gap Impact Range & Top Responding Regions & States
TUS Food	WHOLE ORGANIC BROWN 160Z	WHOLE ORGANIC BROWN 80Z	-0.72	\$2.03	\$1.70	-4.1% to -6.5% (Great Lakes – Region)

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Checklist for Price Management: Structuring our picture of the pricing landscape



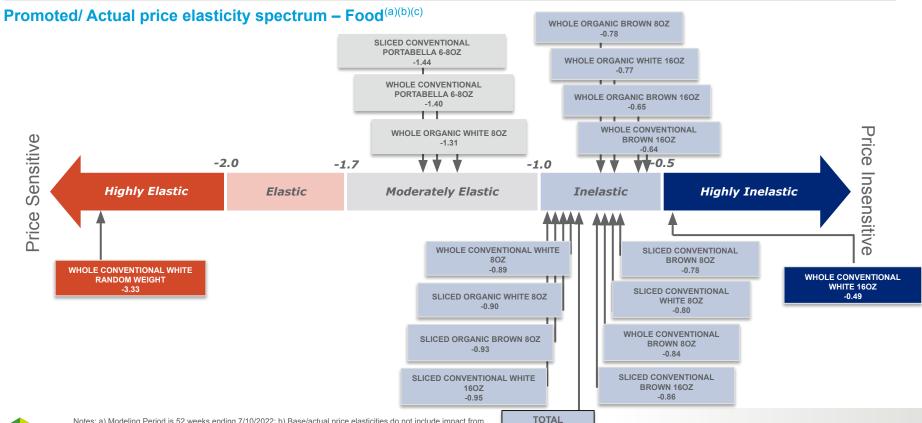
Key Topics for Discussion

- . How sensitive is my product to base price changes? Does this vary by type, size, or channel? Is there any risk associated with crossing base price point thresholds?
- What is the role of competition and strength of price interactions? Does my product have significant base gaps with competition?
- 3. How sensitive is my product and competition to promoted price changes? Are there promoted price point thresholds at which my consumer response to price accelerates?
- What role does merchandising play in driving response to trade execution?



Mushroom's response to promo pricing is comparable to its response to everyday pricing, which will make profitable trade executions a challenge





MUSHROOMS

-0.86

Differences in promotional price response by channel will require a varied promotional fresh promotional price response by channel will require a varied promotional fresh promotional price response by channel will require a varied promotional fresh promotional price response by channel will require a varied promotional fresh promotional price response by channel will require a varied promotional fresh pro approach by class of trade and customer to drive optimal trade spending ROIs





Promoted/ Actual price elasticity by product and channel^(a)

Promoted/Actual Price Elasticity(b)(c)

What does this mean?

	1 101110100071010101	
	Food	Walmart ^(d)
TOTAL MUSHROOMS	-0.86	-0.80
SLICED CONVENTIONAL WHITE 80Z	-0.8	-0.85
WHOLE CONVENTIONAL WHITE 80Z	-0.89	-1.06
SLICED CONVENTIONAL WHITE 16OZ	-0.95	-0.56
SLICED CONVENTIONAL BROWN 80Z	-0.78	-0.66
WHOLE CONVENTIONAL BROWN 80Z	-0.84	-1.23
WHOLE CONVENTIONAL WHITE 16OZ	-0.49	-0.38
WHOLE CONVENTIONAL PORTABELLA 6-80Z	-1.40	-0.84
WHOLE CONVENTIONAL WHITE RW	-3.33	
SLICED CONVENTIONAL BROWN 160Z	-0.86	-0.55
WHOLE CONVENTIONAL BROWN 160Z	-0.64	-0.98
WHOLE ORGANIC WHITE 8OZ	-1.31	-0.63
WHOLE ORGANIC BROWN 80Z	-0.78	-0.88
SLICED ORGANIC WHITE 8OZ	-0.9	-0.62
WHOLE ORGANIC BROWN 16OZ	-0.65	-0.39
SLICED CONVENTIONAL PORTABELLA 6-80Z	-1.44	-1.4
SLICED ORGANIC BROWN 80Z	-0.93	
WHOLE ORGANIC WHITE 16OZ	-0.77	
SLICED CONVENTIONAL SHIITAKE 50Z	-0.71	

Volume Impact on a 10% Price Decrease

Food	Walmart
-9.5%	8.8%
8.8%	11.8%
9.8%	6.1%
10.5%	7.1%
8.6%	13.9%
9.3%	4.1%
5.3%	9.2%
15.9%	
42.0%	6.0%
9.5%	10.9%
7.0%	6.9%
14.8%	9.8%
8.6%	6.8%
9.9%	4.2%
7.0%	15.9%
16.4%	
10.2%	
8.4%	
7.8%	9.4%





Unlike the base price response by customer grid, this promoted price response grid should be used as a trade spend treasure map to identify opportunities to improve trade allocations & ROIs

Promoted Price Elasticity by IRI Standard Region – Index to TUS Food^(a)

Geography	TTL \$ Sales (MM)	SLICED CONVENTIONAL WHITE 8OZ	WHOLE CONVENTIONAL WHITE 8OZ	SLICED CONVENTIONAL WHITE 16OZ	SLICED CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 16OZ	WHOLE CONVENTIONAL WHITE 16OZ	WHOLE CONVENTIONAL WHITE RW	SLICED CONVENTIONAL BROWN 16OZ
TUS Food	\$704.30	-0.80	-0.89	-0.95	-0.78	-0.84	-0.64	-0.49	-3.33	-0.86
Great Lakes	\$122.63	108	101	48	73	95	97	74		52
Northeast	\$115.60	150	129	89	154	98	203	279		212
West	\$107.85	68	92	37	63	75	47	71		35
Southeast	\$97.32	72	100	128	63	91	47	112		42
Mid-South	\$90.73	81	85	58	131	137	65	68		35
California	\$84.51	69	59	33	61	36	47	61		35
Plains	\$45.36	152	140	65	99	197	183	170		36
South Central	\$40.29	73	106	43	57	106	139	130	100	35

Promoted price responsiveness is 15%+ lower than national average

Promoted price responsiveness is 15%+ higher than national average





Lower promoted price elasticities require planning and execution work to target "Hot Price Points" and the most responsive trade vehicle to design profitable events

Promoted Price Elasticity by IRI Standard Region – Index to TUS Food^(a)

Geography	TTL \$ Sales (MM)	WHOLE ORGANIC WHITE 80Z	WHOLE ORGANIC BROWN 80Z	SLICED ORGANIC WHITE 80Z	WHOLE ORGANIC BROWN 16OZ	SLICED ORGANIC BROWN 80Z	WHOLE ORGANIC WHITE 16OZ	WHOLE CONVENTIONAL PORTABELLA 6-80Z	SLICED CONVENTIONAL PORTABELLA 6-80Z	SLICED CONVENTIONAL SHIITAKE 5OZ
TUS Food	\$704.30	-1.31	-0.78	-0.90	-0.65	-0.93	-0.77	-1.40	-1.44	-0.71
Great Lakes	\$122.63	108	164	116	150	124	124	50	135	42
Northeast	\$115.60	41	50	60		36		58	94	46
West	\$107.85	91	45	82	65	72	62	29	22	43
Southeast	\$97.32	211	119	119	48	33		155	116	210
Mid-South	\$90.73	83	94	140	47	52	147	51	155	70
California	\$84.51	39	39	34	47	101	62	21	54	43
Plains	\$45.36	52	169	159	183	147	170	36	139	47
South Central	\$40.29	107	69	118	59	32	153	25	62	45

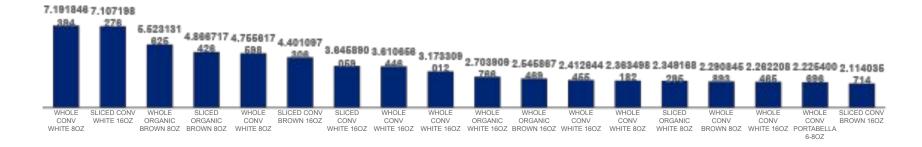
Promoted price responsiveness is 15%+ lower than national average

Promoted price responsiveness is 15%+ higher than national average



Like Base Price Thresholds, Promo Price Thresholds appear average to low at the TUS Food level, but can produce much more efficiently at the regional level

TUS Food: Promoted Price Thresholds



Promoted Threshold Current Promo Price % Volume Above

	\$1.9	99	\$2	2.19	\$3.09	\$2.49	\$1.29	\$4.69		\$3.09	\$2.99	\$3.69		\$3.39	\$5.19	\$3.09	\$1.79	\$2.69	\$	2.49	\$3	.89		\$3.39	\$4.79
ا دِ	\$1.8	85	\$2	2.24	\$2.48	\$2.46	\$1.85	\$3.97	:	\$2.24	\$3.28	\$3.28	: 5	\$3.78	\$4.48	\$3.28	\$1.85	\$2.20	\$	2.28	\$3	.28	:	\$2.35	\$3.97
Î	39.2	2%	26	.2%	9.4%	34.1%	89.0%	8.1%		14.7%	77.3%	15.3%	6	5.7%	13.9%	70.9%	62.8%	14.4%	23	3.2%	6.	5%		11.3%	5.2%

Red Font represents price thresholds where more than half of the volume is selling above the identified Hot Price Point or not deep enough to capture the promo price threshold benefits



Whole Conventional White 16oz Mushrooms have low promotional pricing power (aka low promo elasticity). Executing events at \$3/\$2.99 in the Southeast states of FL & NC, for example, can add 35% sales lift to events

TUS FOOD, WHOLE CONVENTIONAL WHITE 16OZ: Promoted Price Distribution(a)



Channel	Product	Promo Price Elasticity	Current Promoted Price	Promoted Price Threshold	Avg. Threshold Impact	Threshold Impact Range & Top Responding Regions / State	
				\$2.99	3.6%	0.1% to 35.8% (North Carolina - State)	
TUS Food	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$3.69	3.2%	0.1% to 10.3% (Great Lakes – Region)	
				\$3.00	2.4%	0.7% to 32.8% (Florida – State)	



Whole Conventional White 8oz Mushrooms have a similar promotional profile, where targeting and executing against a promo price threshold will make or break event profitability





Channel	Product	Promo Price Elasticity	Current Promoted Price	Promoted Price Threshold	Avg. Threshold Impact	Threshold Impact Range & Top Responding Regions / State
				\$1.99	7.2%	0.1% to 47% (Florida – State)
TUS Food	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.29	4.8%	3.6% to 45.7% (Great Lakes – Region)
				\$1.79	2.4%	2.4% to 36.9% (Northeast – Region)



Promoted Sliced Conventional White 16oz mushrooms below \$3.00 in the Northeast region may simply be subsidizing consumer purchases that can be had at the \$3 price point

TUS FOOD, SLICED CONVENTIONAL WHITE 16OZ: Promoted Price Distribution (a)

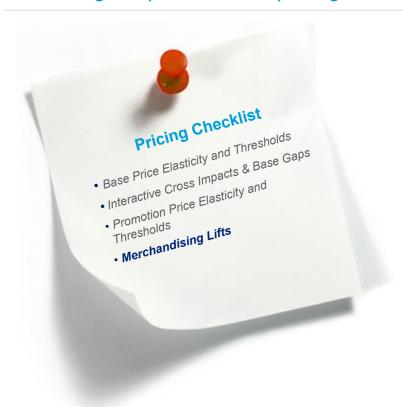


Channel	Product	Promo Price Elasticity	Current Promoted Price	Promoted Price Threshold	Avg. Threshold Impact	Threshold Impact Range & Top Responding Regions / State
TUS	SLICED CONVENTIONAL WHITE 16OZ	-0.95	\$2.24	\$2.19	7.1%	0.9% to 11.9% (Southeast – Region)
Food	SLICED CONVENTIONAL WHITE 1602	-0.95	\$2.24	\$3.00	3.6%	1.5% to 32% (Northeast – Region)



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Checklist for Price Management: Structuring our picture of the pricing landscape



Key Topics for Discussion

- How sensitive is my product to base price changes?
 Does this vary by type, size, or channel? Is there any risk associated with crossing base price point thresholds?
- What is the role of competition and strength of price interactions? Does my product have significant base gaps with competition?
- 3. How sensitive is my product and competition to promoted price changes? Are there promoted price point thresholds at which my consumer response to price accelerates?
- 4. What role does merchandising play in driving response to trade execution?

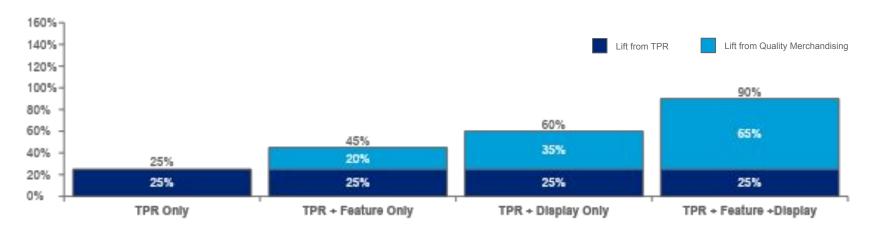




The decomposition of quality merchandising effects need to be considered in total to understand their full impacts to sales & ROIs on your trade dollars spent at retail_____

Educational Content

Examples of promotional lifts(a)



TPR Lift + Quality Merchandising Lift = Total Lift

Understanding the various components of merchandising lifts will allow for strategic management of promotional strategy across retailers and the portfolio.

Notes: a) Lifts shown are examples for illustrative purposes only.

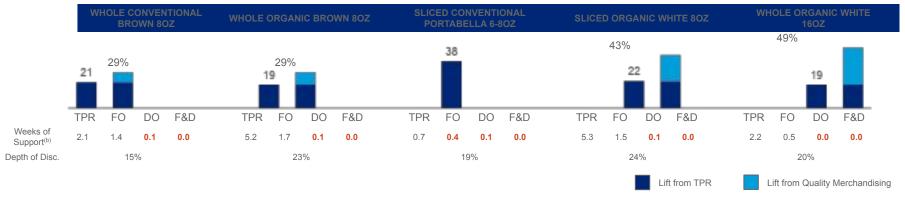


There are very few Mushroom product groups that look like added investments in quality merchandising will result in profitable trade spending



Merchandising lifts with 20% price discount – TUS Food^(a)



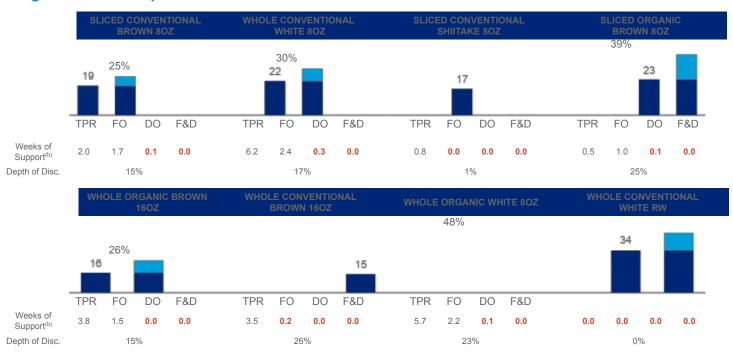




Target and execute against the identified hot price points to add incremental lifts to these merchandising lift and promote with the retailers that represent the best consumer response



Merchandising lifts with 20% price discount – TUS Food^(a)





Lift from TPR

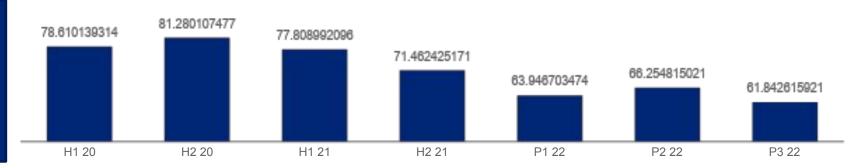
Lift from Quality Merchandising

Promo investment levels are now at ~62% of pre-pandemic levels, reduced investment driven both by lower frequency and depth

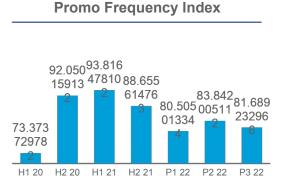
Thought Leadership

Promo Price Investment and Drivers Trends (Indexed to 2019), Edible excl. Fresh, Food Channel



















QUESTIONS & NEXT STEPS







THANK YOU!



For More Information, Contact Us...

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Understanding the driving factors of pricing risk will allow clients to strategically manage their portfolio



i otai voiume impact

Decomposition of pricing risk (Illustration)

Price Gap Impact

Impact if a pricing action causes volume to cross a base price gap



Base Price Threshold Impact

Impact if a pricing action causes volume to cross a base price threshold



Interactive Impact

Impact if no competitors follow your pricing action



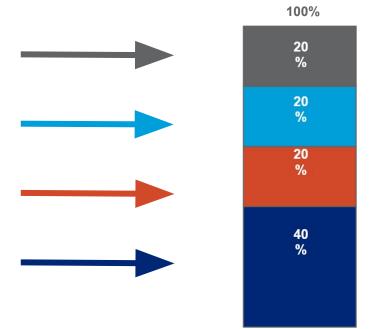
Net Base Price Change Impact

Impact from a pricing action in which all competition follows with a similar pricing action



Total Volume Impact

Impact of a price change considering own price change, cross price interactions, price gap violation and crossing of price thresholds





Base price sensitivity varies by RMA suggesting opportunities to evaluate base price strategy granularly by region to identify revenue capture scenarios



Base Price Elasticity by IRI Standard region – Index to TUS Food^{(a)(b)}

Geography	TTL \$ Sales (MM)	SLICED CONVENTIONAL WHITE 8OZ	WHOLE CONVENTIONAL WHITE 8OZ	SLICED CONVENTIONAL WHITE 16OZ	SLICED CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 16OZ	WHOLE CONVENTIONAL WHITE 16OZ	WHOLE CONVENTIONAL WHITE RW	SLICED CONVENTIONAL BROWN 160Z
TUS Food	\$704.3	-0.77	-0.75	-1.26	-0.89	-0.78	-1.09	-0.86	-3.50	-1.37
Kroger	\$143.6	91	90	68	82	91	96	93		75
AlberstonsCo	\$89.4	94	103	79	106	84	105	120		
ADUSA Ahold	\$40.7	118	102	81	95	112	126	78		124
ADUSA Delhaize	\$31.8	104	86		108	107				
ADUSA Stop & Shop	\$21.7	121	105	76	100	113	127			138
Wakefern	\$11.4	116	110	76	96	84		90		134
SEG Corp	\$9.6	136	77	127	143	46	132	129		118
Wegmans Corp	\$8.6	115			92			79		



Base price responsiveness is 15%+ higher than national average



Base price responsiveness is 15%+ lower than national average



A bottoms up price promo architecture maximizes price realization efforts by tailoring execution at the appropriate product, geography combination





Base Price Elasticity by IRI Standard region – Index to TUS Food^{(a)(b)}

Geography	TTL \$ Sales (MM)	WHOLE ORGANIC WHITE 8OZ	WHOLE ORGANIC BROWN 80Z	SLICED ORGANIC WHITE 8OZ	WHOLE ORGANIC BROWN 16OZ	SLICED ORGANIC BROWN 80Z	WHOLE ORGANIC WHITE 16OZ	WHOLE CONVENTIONAL PORTABELLA 6-80Z	SLICED CONVENTIONAL PORTABELLA 6-80Z	SLICED CONVENTIONAL SHIITAKE 5OZ
TUS Food	\$704.3	-1.21	-1.10	-1.32	-0.72	-1.40	-0.47	-1.33	-1.79	-0.64
Kroger	\$143.6	86	109	93	107	60	155	64	80	72
AlberstonsCo	\$89.4	133	129	126	86	155	68	88	111	79
ADUSA Ahold	\$40.7	54	46	107		43		86	102	
ADUSA Delhaize	\$31.8	32	83	83		82		70	99	111
ADUSA Stop & Shop	\$21.7	32	27	83		21		95	99	
Kroger Harris Teeter	\$14.1	102	85					75	96	85
Wakefern	\$11.4	45	61	85		120		91	95	142
SEG Corp	\$9.6	178	128	97		72		107	68	
Wegmans Corp	\$8.6	58	76	101				83		124



Base price responsiveness is 15%+ higher than national average



Base price responsiveness is 15%+ lower than national average





Walmart consumers are more aware of price thresholds as the top 11 price cliffs were identified at this retailer. Whole Conventional White 16oz lost 14% when crossing the \$2.98 & \$3.18 price points

Walmart: Base Price Thresholds(a)



Red Font represents price thresholds where less than half of the volume is selling above the identified price cliff





More than half of Whole Conventional White 16OZ units have already crossed the 2 everyday price thresholds of \$2.98 and \$3.18 measure at Walmart

WALMART, WHOLE CONVENTIONAL WHITE 16OZ: Base Price Distribution(a)



Channel	Product	Base Price Elasticity	Current Base Price	Base Price Threshold	Threshold Impact Range & Top Responding Regions
Walmart	Walmart WHOLE CONVENTIONAL WHITE 160Z		\$3.46	\$2.98	-6.6% to -7.7% (Walmart Div E North)
vvaiiilait	WHOLE CONVENTIONAL WHITE 1802	-0.86	\$3.40	\$3.18	-6.4% to -7.1% (Walmart Div A South)





Whole Conventional White 16OZ has 2 different base price thresholds in Food

TUS Food, WHOLE CONVENTIONAL WHITE 16OZ: Base price distribution(a)



Channel	Product	Base Price	Current Base	Base Price	Threshold	% Units at Risk	Net Impact ^(b)		
Chamilei	Product	Elasticity	Price	Threshold	Impact	% Ullits at Risk	Risk	Opportunity	
Total US	WHOLE CONVENTIONAL WHITE 160Z	-0.86	\$3.83	\$3.99	-2.7%	58.9%	-1.6%	0.3%	
Food	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.83	\$4.29	-1.5%	40.8%	-0.6%	0.1%	
	SLICED CONVENTIONAL WHITE 16OZ	-1.26	\$3.68	\$3.69	-6.0%	11.5%	-0.7%	3.2%	
Walmart	SLICED CONVENTIONAL WHITE 160Z	-1.26	\$3.68	\$3.99	-5.9%	54.1%	-3.2%	0.7%	
VValillart	WHOLE CONVENTIONAL WHITE 160Z	-0.86	\$3.46	\$2.99	-7.1%	15.3%	-1.1%	0.3%	
	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.46	\$3.19	-6.8%	8.3%	-0.6%	0.4%	





More than half of Whole Conventional White 16OZ units have crossed the 2 base price thresholds of \$2.99 and \$3.19

Walmart, Whole Conventional White 16OZ: Base price distribution(a)



Channel	Product	Base Price	Current Base	Base Price	Threshold	% Units at Risk	Net Impact ^(b)		
Chamilei	Product	Elasticity	Price	Threshold	Impact	% Ullits at Risk	Risk	Opportunity	
Total US	WHOLE CONVENTIONAL WHITE 160Z	-0.86	\$3.83	\$3.99	-2.7%	58.9%	-1.6%	0.3%	
Food	WHOLE CONVENTIONAL WHITE 160Z	-0.86	\$3.83	\$4.29	-1.5%	40.8%	-0.6%	0.1%	
	SLICED CONVENTIONAL WHITE 160Z	-1.26	\$3.68	\$3.69	-6.0%	11.5%	-0.7%	3.2%	
Walmart	SLICED CONVENTIONAL WHITE 160Z	-1.26	\$3.68	\$3.99	-5.9%	54.1%	-3.2%	0.7%	
VValillait	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.46	\$2.99	-7.1%	15.3%	-1.1%	0.3%	
	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.46	\$3.19	-6.8%	8.3%	-0.6%	0.4%	





Sliced Conventional White 16OZ demonstrates a base price risk around \$3.69 and \$3.99 in Walmart

Walmart, SLICED CONVENTIONAL WHITE 160Z: Base price distribution(a)



Channel	Product	Base Price	Current Base	Base Price	Threshold	% Units at Risk	Net Impact ^(b)		
Chamilei	Product	Elasticity	Price	Threshold	Impact	% Utilis at Risk	Risk	Opportunity	
Total US	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.83	\$3.99	-2.7%	58.9%	-1.6%	0.3%	
Food	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.83	\$4.29	-1.5%	40.8%	-0.6%	0.1%	
	SLICED CONVENTIONAL WHITE 16OZ	-1.26	\$3.68	\$3.69	-6.0%	11.5%	-0.7%	3.2%	
Walmart	SLICED CONVENTIONAL WHITE 16OZ	-1.26	\$3.68	\$3.99	-5.9%	54.1%	-3.2%	0.7%	
	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.46	\$2.99	-7.1%	15.3%	-1.1%	0.3%	
	WHOLE CONVENTIONAL WHITE 16OZ	-0.86	\$3.46	\$3.19	-6.8%	8.3%	-0.6%	0.4%	



Competitor Cross Effects: How They Work

Competitor price changes have an impact

Example: Competitor raises an item's price by 10%. As a result, your item's sales increase by 2%

$$\frac{\text{Target}}{\text{Competitor}} = \frac{+2\%}{+10\%} = \frac{\text{Elasticity}}{+0.2}$$

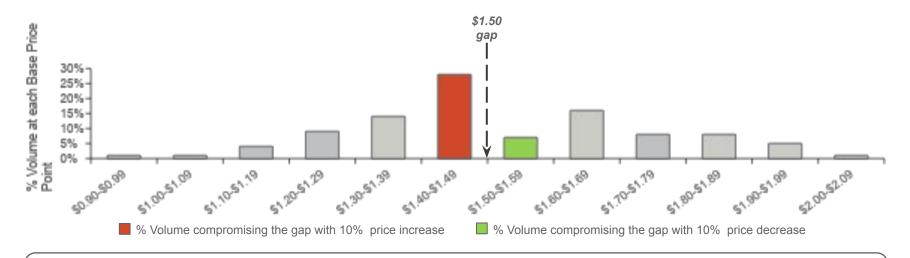
Note: Cross-elasticities are asymmetric. The impact of X's price on Competitor Y sales is not the same as the impact of Competitor Y price on X sales.





As Interactive price gaps change, sales impacts will occur at an accelerated rate

Base gap example^(a)



Significant Price Gaps indicate that an additional change in sales is realized when this gap between Interactive products is crossed.

Notes: a) Distribution and thresholds shown are examples for illustrative purposes only.





Manage price carefully where PPGs are jointly distributed to max profit

TUS Food, WHOLE ORGANIC WHITE 8OZ vs WHOLE CONV. WHITE 8 OZ: Base price gap distribution(a)



Channel	Product		Base Price	Current Gap	Price Gap	Gap Impact	% Units at Risk	Net Impact ^(b)	
Chamilei	Product	iliteractive Froduct	Elasticity	Current Gap	гисе бар	Зар шірасі	% Units at Risk	Risk	Opportunity
	WHOLE ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.21	\$0.62	\$0.50	-8.2%	9.8%	-0.7%	-3.1%
TUS	SLICED ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.32	\$0.65	\$0.70	-6.1%	22.4%	-1.4%	-1.4%
Food	WHOLE ORGANIC WHITE 160Z	WHOLE ORGANIC BROWN 160Z	-0.47	-\$0.54	-\$0.70	-5.4%	25.3%	-1.4%	-2.9%
	WHOLE ORGANIC BROWN 160Z WHOLE ORGANIC BROWN 80Z		-0.72	\$2.03	\$1.70	-5.3%	26.8%	-1.4%	-1.7%





A price gap exists between Sliced Organic White 8OZ and Whole Conventional White 8OZ

TUS Food, SLICED ORGANIC WHITE 80Z vs WHOLE CONV. WHITE 80Z: Base price gap distribution (a)



Channel	Product	Interactive Product		Current Gap	Price Gap	Gap Impact	% Units at Risk	Net Impact ^(b)	
Citatillei	Product	interactive Product	Elasticity	Current Gap	гисе бар	Зар шірасі	% Units at Risk	Risk	Opportunity
	WHOLE ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.21	\$0.62	\$0.50	-8.2%	9.8%	-0.7%	-3.1%
TUS	SLICED ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.32	\$0.65	\$0.70	-6.1%	22.4%	-1.4%	-1.4%
Food	WHOLE ORGANIC WHITE 160Z	WHOLE ORGANIC BROWN 160Z	-0.47	-\$0.54	-\$0.70	-5.4%	25.3%	-1.4%	-2.9%
	WHOLE ORGANIC BROWN 160Z	WHOLE ORGANIC BROWN 80Z	-0.72	\$2.03	\$1.70	-5.3%	26.8%	-1.4%	-1.7%





Manage price carefully where PPGs are jointly distributed to max profit

TUS Food, WHOLE ORGANIC WHITE 16OZ vs WHOLE ORGANIC BROWN 16OZ: Base price gap distribution (a)



Channel	Product	Interactive Product	Base Price	Current Gap	Price Gap	Gap Impact	% Units at Risk	Net Impact ^(b)	
Chamilei	Product	iliteractive Froduct	Elasticity	Current Gap	гисе бар	Зар шірасі	% Units at Risk	Risk	Opportunity
	WHOLE ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.21	\$0.62	\$0.50	-8.2%	9.8%	-0.7%	-3.1%
TUS	SLICED ORGANIC WHITE 8OZ	WHOLE CONVENTIONAL WHITE 80Z	-1.32	\$0.65	\$0.70	-6.1%	22.4%	-1.4%	-1.4%
Food	WHOLE ORGANIC WHITE 160Z	WHOLE ORGANIC BROWN 160Z	-0.47	-\$0.54	-\$0.70	-5.4%	25.3%	-1.4%	-2.9%
	WHOLE ORGANIC BROWN 160Z	WHOLE ORGANIC BROWN 80Z	-0.72	\$2.03	\$1.70	-5.3%	26.8%	-1.4%	-1.7%





A \$1.70 gap exists between the 2 Whole Organic Brown PPGs

TUS Food, WHOLE ORGANIC BROWN 16OZ vs WHOLE ORGANIC BROWN 8OZ: Base price gap distribution (a)



Channel	Product	Interactive Product	Base Price	Current Gap	Price Gap	Gap Impact	% Units at Risk	Net Impact ^(b)	
Citatillei	Floudet	iliteractive Froduct	Elasticity	Current Gap	гисе бар	Зар шірасі	% Units at Risk	Risk	Opportunity
	WHOLE ORGANIC WHITE 80Z	WHOLE CONVENTIONAL WHITE 80Z	-1.21	\$0.62	\$0.50	-8.2%	9.8%	-0.7%	-3.1%
TUS	SLICED ORGANIC WHITE 8OZ	WHOLE CONVENTIONAL WHITE 80Z	-1.32	\$0.65	\$0.70	-6.1%	22.4%	-1.4%	-1.4%
Food	WHOLE ORGANIC WHITE 16OZ	WHOLE ORGANIC BROWN 160Z	-0.47	-\$0.54	-\$0.70	-5.4%	25.3%	-1.4%	-2.9%
	WHOLE ORGANIC BROWN 160Z	WHOLE ORGANIC BROWN 80Z	-0.72	\$2.03	\$1.70	-5.3%	26.8%	-1.4%	-1.7%



Just as base price thresholds are a secondary driver of pricing risk, base price gaps that are non-compliant can cause volume to leak to a different mushroom product group



Interactive Base Price Gaps – Walmart(a)



Red Font represents price gaps where less than half of the volume is selling in violation of the identified price gap



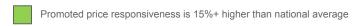


Promo price sensitivity varies by RMA suggesting opportunities to evaluate base price strategy granularly by region to identify revenue capture scenarios

Promoted price sensitivity by IRI Standard Region – Index to TUS Food^(a)

Geography	TTL \$ Sales (MM)	SLICED CONVENTIONAL WHITE 8OZ	WHOLE CONVENTIONAL WHITE 8OZ	SLICED CONVENTIONAL WHITE 16OZ	SLICED CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 80Z	WHOLE CONVENTIONAL BROWN 16OZ	WHOLE CONVENTIONAL WHITE 16OZ	WHOLE CONVENTIONAL WHITE RW	SLICED CONVENTIONAL BROWN 160Z
TUS Food	\$704.3	-0.80	-0.89	-0.95	-0.78	-0.84	-0.64	-0.49	-3.33	-0.86
Kroger	\$143.6	72	85	44	74	85	66	71		40
AlberstonsCo	\$89.4	79	89	76	63	78	106	128		
ADUSA Ahold	\$40.7	127	112	86	50	103	176	263		190
ADUSA Delhaize	\$31.8	92	89		75	124				
ADUSA Stop & Shop	\$21.7	142	117	96	40	74	186			241
Wakefern	\$11.4	166	124	78	67	73		263		171
SEG Corp	\$9.6	139	94	142	109	114	57	143		37
Wegmans Corp	\$8.6	110			56			224		

Promoted price responsiveness is 15%+ lower than national average





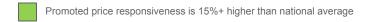


Promo price sensitivity varies by RMA suggesting opportunities to evaluate base price strategy granularly by region to identify revenue capture scenarios

Promoted price sensitivity by IRI Standard Region – Index to TUS Food^(a)

Geography	TTL \$ Sales (MM)	WHOLE ORGANIC WHITE 8OZ	WHOLE ORGANIC BROWN 80Z	SLICED ORGANIC WHITE 8OZ	WHOLE ORGANIC BROWN 160Z	SLICED ORGANIC BROWN 80Z	WHOLE ORGANIC WHITE 16OZ	WHOLE CONVENTIONAL PORTABELLA 6-8OZ	SLICED CONVENTIONAL PORTABELLA 6-8OZ	SLICED CONVENTIONAL SHIITAKE 5OZ
TUS Food	\$704.3	-1.31	-0.78	-0.90	-0.65	-0.93	-0.77	-1.40	-1.44	-0.71
Kroger	\$143.6	88	66	97	73	82	66	36	129	56
AlberstonsCo	\$89.4	84	83	84	94	94	106	34	66	44
ADUSA Ahold	\$40.7	48	151	82		35		43	116	
ADUSA Delhaize	\$31.8	38	108	55		43		67	83	73
ADUSA Stop & Shop	\$21.7	40	138	57		34		52	95	
Wakefern	\$11.4	49	174	59		47		55	97	43
SEG Corp	\$9.6	119	78	116		34		103	103	
Wegmans Corp	\$8.6	54	93	83				38		51

Promoted price responsiveness is 15%+ lower than national average







Targeting promoted price thresholds or hot price points can increase incremental trade driven volume as part of an event's execution

TUS Food, WHOLE CONVENTIONAL WHITE 16OZ: Promoted price distribution^(a)



Channel	Product	Promo Price Elasticity	Current Promoted	Promoted Price	Threshold Impact	% Units at Risk	Net Impact ^(b)		
Chamilei	Floudet	Promo Price Elasticity	Price	Threshold	Tilleshold lilipact	% Units at Risk	Risk	Opportunity	
	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$2.99	3.6%	14.0%	0.5%	-0.8%	
	WHOLE CONVENTIONAL WHITE 16OZ	-0.49	\$3.28	\$3.69	3.2%	39.3%	1.2%	-0.4%	
	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$3.09	2.4%	17.9%	0.4%	-0.6%	
TUS	SLICED CONVENTIONAL WHITE 160Z	-0.95	\$2.24	\$2.19	7.1%	59.5%	4.2%	-0.6%	
Food	SLICED CONVENTIONAL WHITE 160Z	-0.95	\$2.24	\$3.09	3.6%	2.8%	0.1%	-0.1%	
	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.99	7.2%	23.6%	1.7%	-2.0%	
	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.29	4.8%	2.7%	0.1%	0.0%	
	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.79	2.4%	20.4%	0.5%	-0.2%	





Targeting promoted price thresholds or hot price points can increase incremental trade driven volume as part of an event's execution

TUS Food, SLICED CONVENTIONAL WHITE 16OZ: Promoted price distribution^(a)



Channel	Product	Promo Price Elasticity	Current Promoted	Promoted Price	Threshold Impact	% Units at Risk	Net Impact ^(b)		
Citatillei	Froduct	Fromo Frice Liasticity	Price	Threshold	Tillesiloid illipact	// Units at Risk	Risk	Opportunity	
	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$2.99	3.6%	14.0%	0.5%	-0.8%	
	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$3.69	3.2%	39.3%	1.2%	-0.4%	
	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$3.09	2.4%	17.9%	0.4%	-0.6%	
TUS	SLICED CONVENTIONAL WHITE 160Z	-0.95	\$2.24	\$2.19	7.1%	59.5%	4.2%	-0.6%	
Food	SLICED CONVENTIONAL WHITE 16OZ	-0.95	\$2.24	\$3.09	3.6%	2.8%	0.1%	-0.1%	
	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.99	7.2%	23.6%	1.7%	-2.0%	
	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.29	4.8%	2.7%	0.1%	0.0%	
	WHOLE CONVENTIONAL WHITE 80Z	-0.89	\$1.85	\$1.79	2.4%	20.4%	0.5%	-0.2%	



Targeting promoted price thresholds or hot price points can increase incremental trade driven volume as part of an event's execution





Channel	Product	Promo Price Elasticity	Current Promoted	Promoted Price	Threshold Impact	% Units at Risk	Net Impact ^(b)		
Chamilei	Floudet	Promo Price Elasticity	Price	Threshold	Tillesiloid lilipact	% Units at Risk	Risk	Opportunity	
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	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$3.69	3.2%	39.3%	1.2%	-0.4%	
	WHOLE CONVENTIONAL WHITE 160Z	-0.49	\$3.28	\$3.09	2.4%	17.9%	0.4%	-0.6%	
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