



# AI-Enabled Real Time Pricing Markdowns for Grocery Retail

Optimise the pricing for expiring and delisted items





Customers have become savvy about discounts, some waiting for the daily savings to make a purchase and others sharing offers online. With discounts of up to 75% on near-expiry or damaged goods, it is no wonder guides have been created as to how to grab the best bargain. For the supermarket, these price drops are a must to help clear merchandise, generate some revenue and reduce waste. However, too often the prices are not optimised – setting the right price based on inventory levels, accurate price elasticity calculation and intelligent customer demand forecast is complex.

With 66 tonnes of food wasted every second and estimated to rise by nearly a third over this decade, according to analysis by Boston Consulting, retailers need to address this financial and sustainability issue urgently. However, machine learning techniques are now enabling retailers to set real-time prices based on the individual needs of each item, in each particular store, helping retailers maximise margin and minimise waste, whilst reducing employee costs and complexity.

Check out how much food has been wasted Globally so far this year



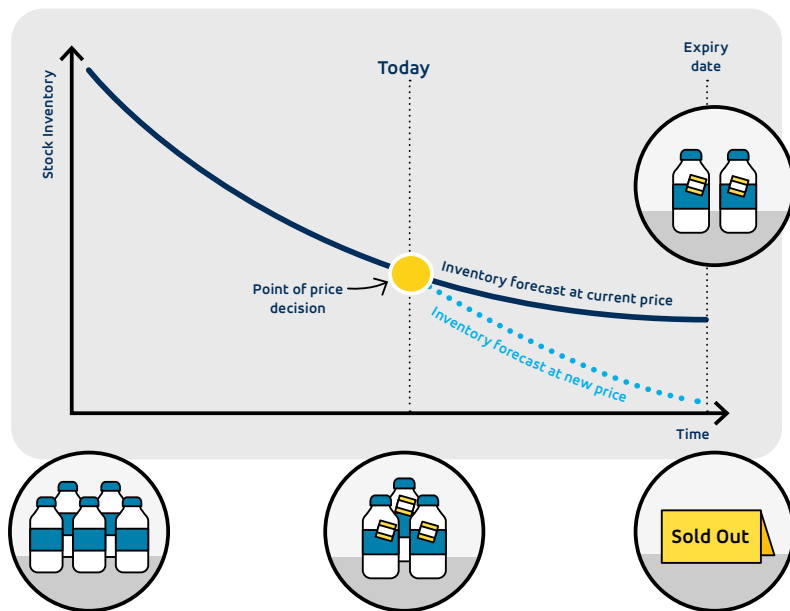
How much?

# The Clearance Price Challenge

When faced with near-expiring goods, the fresh clearance challenge for grocery is to understand the right course of action. Reducing waste is important for all retailers but margin also needs to be optimised. What impact will different price changes make? Is it affected by the day of the week? What will the impact be on full price merchandise also and how will it affect its margin and waste?

Blue Yonder's AI-enabled Luminate Pricing Real Time optimisation solution understands many factors, recommending the optimal price for each item and store to meet your business objectives. Enabling price markdown optimisation beyond simple rules-based pricing or even 'gut feel,' data-driven, continuously optimised prices can be automatically recommended to your store associates for execution or even link straight to electronic shelf labels.

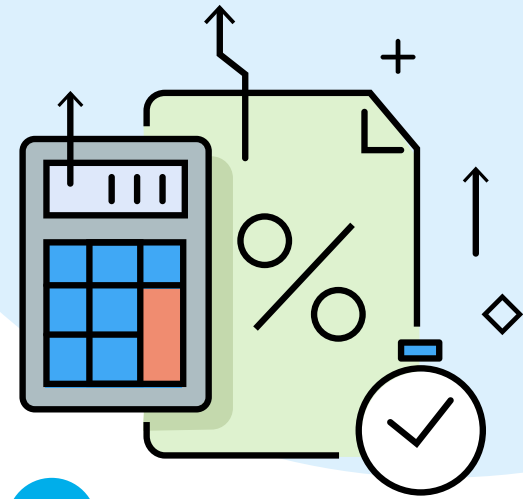
Setting the right price intelligently not only improves store efficiency and reduces waste but improves profits and satisfies the customer. Blue Yonder AI can help you meet the clearance price challenge.



# Three Steps to Optimised Clearance Prices

Luminate Pricing Real Time solution creates KPI based optimisation that balances different goals like revenue, profit, waste and operational costs on inventory through a three step process.

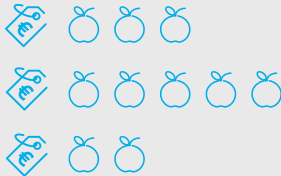
Real-time APIs from and to the store enable a direct response within milliseconds as to the optimal new price and the corresponding discount percentage. This is all easily integrated to any current in-store handheld device to minimise disruptions.



1

## Measure Price Elasticities

Evaluate price elasticity accurately for each item and store based on unique patterns and demand



2

## Forecast Demand

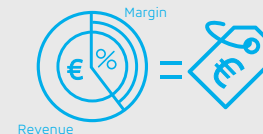
Precise forecast of sales based on multiple pricing scenarios taking into account internal and external factors such as weather and events



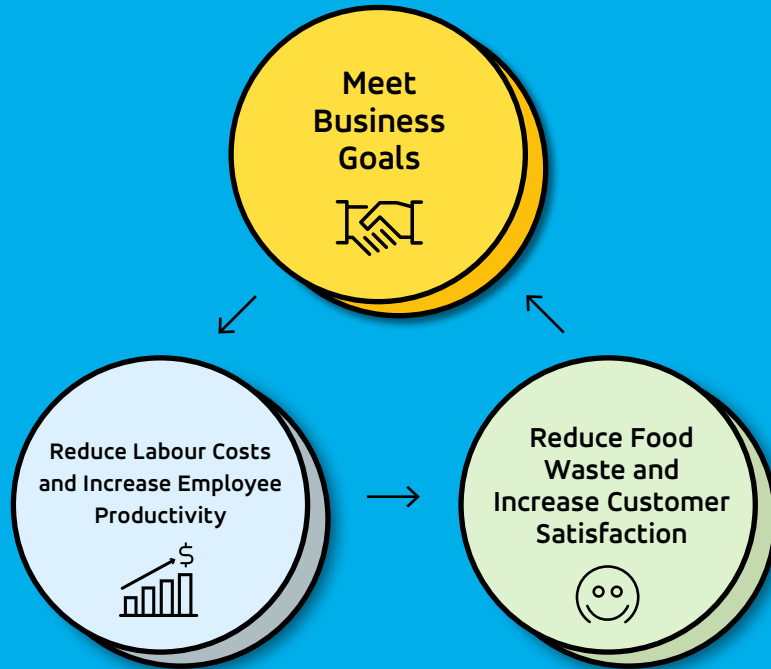
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## Automate Pricing

Set optimum price based on demand and inventory to meet the business strategy such as maximising profit, reducing waste or a combination



# Achieve Grocery Retail Business Goals



# Meet Business Goals

## Optimal real-time markdowns for grocery items driven by business strategies

For fresh grocery and perishable goods, there is a fine line between maximising availability and minimising waste. Blue Yonder's Luminate Pricing Real Time solution recommends the best price and best time to achieve this balance. You can balance your KPIs with an inventory, profit or revenue projection which allows you to improve your revenue and profit margin, whilst managing waste and meeting your operational goals.

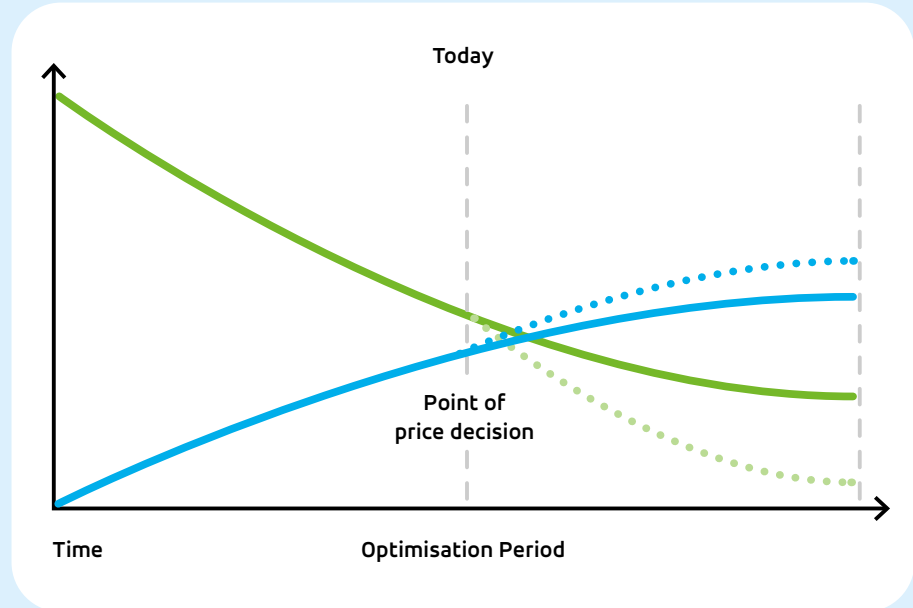
Achieve  
best possible  
outcome via  
optimised price  
decisions

### Inventory Projection

- Projection with current price
- ... Projection with new, reduced price

### Profit Projection

- Projection with current price
- ... Projection with new, reduced price



# Reduce Food Waste and Increase Customer Satisfaction

## Finding the right balance

Sustainability is a major focus for grocery retailers. Assortment and supply chains must align with new key values and buying behaviour from changing demographics. Waste affects a business' social and environmental goals as well as profitability. Grocery retailers are seeing a consumer-led revolution which is driving an increased focus on commitments to the environment and customers.



# Reduce Labour Costs and Increase Employee Productivity

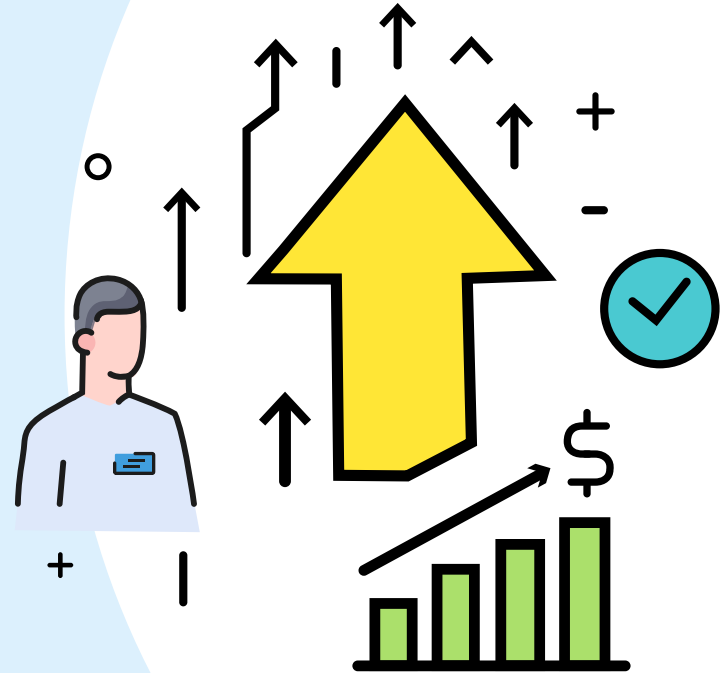
Fresh food products are highly perishable and require daily attention to prevent out of date items being sold to customers.

Grocery retailers have a markdown process which, for many, has been very manual, with grocery staff marking down prices at several points during the day with a stickered price reduction.

Blue Yonder's Luminate Pricing Real Time solution significantly improves staff productivity and labour costs by automating clearance pricing decisions.

"Typically, a lot of the management in a grocery store is still very manual. You have the department heads walking through the aisles with their notepads, assessing how many boxes of bananas and tomatoes they need. It's a gut-feel decision, which can't possibly consider all the variables."

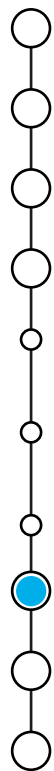
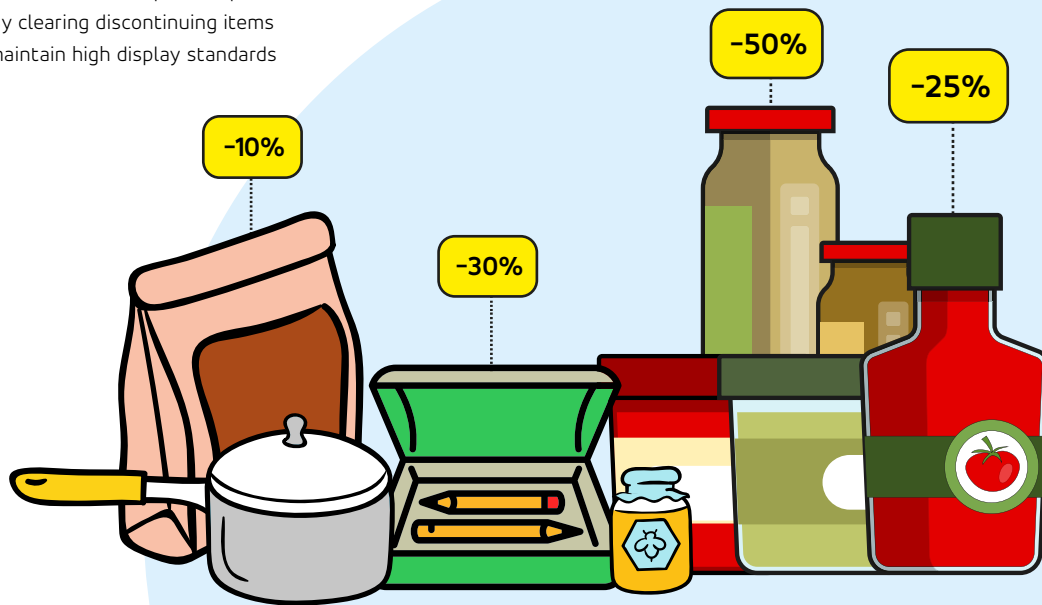
Stock that is not sold by shelf life date is wasted and disposed of according to product type.





# It's Not Just About Fresh

As new products are introduced, retailers need to discontinue other items. This could be nationally or for an individual store. Deciding the right time to mark down the old item to create space for the new product is complex. By using machine-learning demand forecasting capabilities, retailers can understand the optimum price and timing to make those decisions. By clearing discontinuing items profitably, retailers can ensure they maintain high display standards whilst maximising profits.



# Intelligently Deliver Optimised Pricing in Real Time

Blue Yonder's Luminate Pricing Real Time intelligently delivers optimised pricing in real time that continually measures fluctuating demand and price elasticity helping you scale up and down as needed. It goes beyond simple competitive price matching to deliver optimised, daily prices according to consumer demand, competitive advantage and other factors, all while reducing labour costs and boosting profitability.

## In summary you can:

- Measures consumer demand and price-elasticity, automatically factoring in external demand signals such as weather and events
- Forecast demand with support for multiple pricing strategies
- Optimise prices to meet your business strategy
- Provides prices to store colleagues in real time at a time that suits your store

Blue Yonder understands what it takes to remain competitive and successful. Our SaaS-based capabilities scale up and down with demand, taking the manual work off of your hands and allowing you to focus on projects that maximise value.



**Learn how Blue Yonder  
Markdown Optimisation has  
Helped Morrisons**



**"The clearance model really tries to focus on ensuring that we've got zero stock left at the end of the day so our markdown bill can be a little higher than our waste bill"**

**Watch** Rob Jenkins, Head of Supply Chain Development at Morrisons, discuss their journey to AI-enabled fresh markdowns

# Take The Guesswork Out of Pricing

## Speed to Value

Typical implementation  
is 4-6 weeks\*

Blue Yonder's Luminate Pricing Real Time solution takes the guesswork out of pricing, providing strategic adjustments to maximise sales before certain foods are no longer fit for consumers. As grocery products near expiration dates, pricing tools, powered by AI, can proactively suggest moderate markdowns to ensure that profit margins are maximised and stock is used before it reaches its expiry date.

Machine learning algorithms predict price-dependent demand for each product and store on a daily level.



Markdown optimisation  
for ageing inventory that expires  
within the next 0-2 days



Prices are optimised using  
demand and price-elasticity  
forecast and a KPI-strategy defined  
by the customer



Delivers price information in  
real-time using the latest  
inventory data



KPI based optimisation  
that balances different goals  
like revenue, profit, waste and  
operational effort



Precise forecast of sales and  
the change in demand in case of  
price reductions



A real-time API to which the  
product, the location, the expiring  
quantity and the expiration time  
can be transmitted



Ease of integration within the  
current in-store handheld device



Direct response within  
milliseconds that provides the optimal  
new price and the corresponding  
discount percentage

\*Dependant on retailer's IT architecture





Learn more about how Blue Yonder can enable markdown pricing optimisation, while improving an overall shopping environment, customer satisfaction, profitability and sustainability.

Learn more



### **Improve Customer Experience**

Offer competitive prices that support your business objectives



### **Maximise Margins**

Maximise margin with a single tool



### **More Profit for the Business**

Demonstrate KPI impact



### **Workforce Productivity**

Free up time spent on manual price validation and less pricing errors