



The University Caterers Organisation

Beer 101 & Hard Seltzer

Webinar Housekeeping

- Mics are muted
- Chat Function
- Q&A Function
- Slides / recording available

<https://www.tuco.ac.uk/academy/professional-development/courses/previous#previous-courses>





Beer 101

Sumit Dey

What should I know?

- **Beer Ingredients**
- **Tasting & Describing a Beer**
- **Beer Styles**
- **How to Make a Beer**





Beer Ingredients

Beer Ingredients

Water

The first, and probably the most important ingredient makes up between **90% - 96% of beer**.

Additionally, nature sources of water have **different mineral content and can affect the flavour of the beer**. Before brewers could manipulate the mineral content, the natural source was instrumental to the quality and style of beers.

Historic brewing cities like Munich and Dublin have a higher limestone content, which is ideal of more acidic malt forward beers like the Dunkel and Irish Stout.

The high calcium sulphate of Burton-Upon-Trent gives Pale Ales the ideal crispness, the original location of Bass.



Beer Ingredients

Barley

Barley is a **member of the grass family** and is the key ingredient in most modern beer.

Barley provides the beer with its **colour, the backbone of flavour as well as sugars to create alcohol** and give the 'body' to the beer.

Barley is malted (Placed in warm water, germinated and the 'kilned' or roasted). Varying heat levels and time spent in 'kilning' gives the different types of colours of malt, or malted barley.



VERY PALE/
YELLOW BEER

GOLDEN BEER



PALE/LIGHT
AMBER BEER

AMBER-
COLOURED
BEER

BROWN
BEER

BLACK
BEER

Beer Ingredients

Hops

Hops provide a **balancing bitterness to the sweetness to the malt** in the form of fruity, spicy and earth flavours and aromas.

Hops also have a **natural preserving qualities** that act as an anti-microbial which is why they were essential when exporting beers all around the world.

Hops are usually dried and are either **added as whole corns or as compressed pellets**

Different varieties of **Hops are grown in regions around the world** that offer a variety of flavour and levels of bitterness



Beer Ingredients

Hops

German / Czech

Characteristics: Herbal Spice, Earthy, Floral, Leafy, Minty, Peppery

Example: Saaz Hop (Stella Artois)



British

Characteristics : Floral, Peach, Lime, Grassy, Earthy, Woodsy

Example: Fuggles Hop (Bass Pale Ale)



North American

Characteristics : Grapefruit, Pine, Resin, Citrus, Tropical

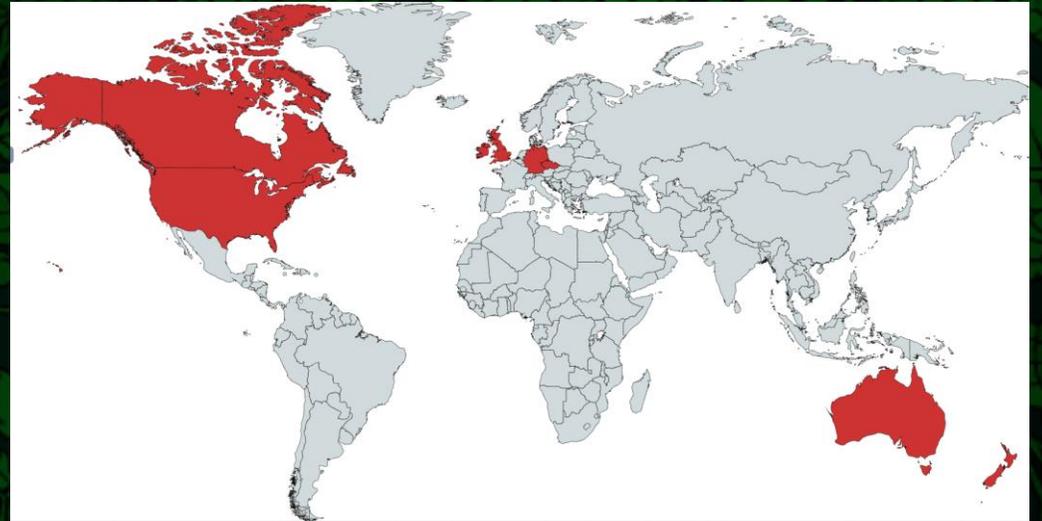
Example: Mosaic Hop (Goose Island Midway)



New Zealand / Australian

Characteristics : Mandarin, Passion Fruit, Tropical,

Example: Nelson Sauv(Wicked Weed Pernicious IPA)



Beer Ingredients

Yeast

Yeast is a **micro-organism from the fungus family**. It is essential in all alcoholic beverages as it is the organism that **turns sugars into alcohol by consuming the malted barley** and then releasing alcohol.

There are **two main species** of yeast.

Ale Yeast – Top fermenting at warmer temperatures (15 – 24 Celsius) and produces beers that are fruitier and spicier in flavour.

Lager Yeast – Bottom fermenting at cooler temperatures (4 - 14 Celsius) and produces beers with cleaner and crisp flavours

Other yeast species may also be present, such as beers that brewed in an environment with spontaneous fermentation. This is called **Wild Yeast or Bacteria**, which can produce sour and lactic acid flavours.



Additional Ingredients

Adjuncts

Adjuncts are sources of **fermentable sugars outside of malted barley** that can add **extra alcohol, additional flavours, decrease body and colour** and add a simplicity and cleanness to the beer.



Rice

Most famously added to Budweiser.

Brewers in China extensively use rice as an adjunct due to its price and availability.

Produces a very pale colour to a beer with a crisp and light finish.



Maize

Maize or corn has been used for centuries in Latin America and now found for commercial lagers like Stella Artois.

Sugars in corn are plentiful as it lightens the colour and adds a hint of sweetness to a beer.



Wheat

The defining ingredient in beers like the Hefeweizen and Witbiers.

Wheat can lighten the body as well add a little acidity and sweetness to the beer.



Sugar

Sugar or corn syrup can be added to enhance the alcohol content of a beer without adding any body to it.

Sugar only adds sweetness if it is unfermentable or added after fermentation.

Flavouring Ingredients

Adjuncts

Anything edible can be thrown into the brew kettle or fermenter to give an endless array of flavours.



Fruit

This has been used for centuries and today, fruit is found in American wheat beers, Belgian lambics. It features in almost every beer style.



Vegetables

This can make an interesting addition to beer and most commonly found would be Thanksgiving and Halloween pumpkin ale. There can also be chill pepper beer!



Coffee Beans

Coffee beans are a popular addition to many popular stouts and other dark beer styles and are roasted before use, similar with malted barley.



Herbs

Including flowers and roots, herbs have been used in beer in the form of gruit long before hops were the common ingredient. There has recently been a revival in use of herbs within the craft beer world.



Spices

Spices used to be added to warm beer as a variant of wassail as a Christmas seasonal treat. More famously, the use of coriander in Belgian Witbiers (Hoegaarden) can add spicy notes.



Oak (Barrels)

Beer has been kept in barrels for over 2000 years, as were many other beverages and food. The wood was treated so it would not impart any flavour. Popular use involves Whiskey and Stouts, Including BCS

A close-up photograph of a woman with dark hair tied back, wearing a blue lace-trimmed top and a light blue button-down shirt. She is holding a clear glass filled with beer and a head of foam, bringing it to her nose to smell. The background is blurred, showing what appears to be a bar or brewery setting with shelves of bottles.

Tasting & Describing a Beer

How to taste Beer

Tasting Beer

Perceiving flavour is just as important by the smell of the aroma as well as taste. This is why flavour is hard to taste when you have a blocked nose.

The five tastes are:

- >Sweet
- >Salty
- >Sour
- >Bitter
- >Umami

Mouthfeel of the beer is determined by the carbonation level and the body of the beer.

Step 1
Look at the beer and assess colour and head



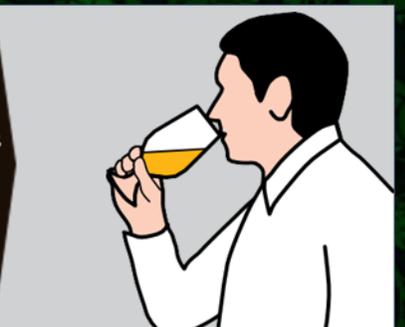
Step 2
Give the beer a gentle swirl to release aromas



Step 3
Tip glass to 45° and put your nose in to inhale the aromas



Step 4
Allow beer to reach all parts of the mouth before swallowing



Describing a Beer

Colour



Perceived Bitterness (IBU)



Head

Flat	Loose	Tight	Creamy	Expansive
Eg: Gravity dispense cask ale	Eg: Cask Ale Beer engine dispense	Eg: Keg dispense lager or ale	Eg: Nitro dispense stout/ales inc. Guinness	Eg: Hefeweizen & wit beers bottle/ keg dispense

Clarity

Clear	Hazy	Cloudy
Beer has no trace of haze or particles whatsoever e.g. Pilsner	Beer has slight hazy appearance e.g. Tank Beers	Beer is unfiltered and shows a denser, cloudy appearance e.g. Belgian Witbeer

Flavours & Aromas

The flavour and aroma of a beer is contributed not just by the hop as assumed. It can also be flavoured by the malted barley and yeast with each component giving a beer a unique taste profile.



Citrus Fruit
Stone Fruit
Resin

Spicy
Earthy
Blackcurrant

Tropical Fruit
Bitterness
Woody

Herbaceous
Pine
Skunky, Floral



Nutty
Grainy
Honey
Caramel
Bread Crust

Toasted
Roasty
Dried Fruit
Coffee
Burnt Toast

Toffee
Bready
Biscuit
Sweetcorn

Cocoa
Ovaltine/Horlicks
Smokey
Pastry



Pear
Clove
Bread

Apple
Barnyard
Sulphur

Banana
Butter
Meaty/Bovril

Anise
Nail Polish





Beer Styles

Beer Styles

Beer Styles

The evolution of beer and styles have largely been dependent on the ingredients that were available to the brewer at the time. In the development of technology and movement of trade, has meant that different styles of beers have emerged from all around the world.

Delineating beer styles is not an exact science and there is now law telling a brewer what they should call their beer. There is a huge amount of cross-over between styles and they are there give the consumer an understanding of what the beer is.



KONA BREWING CO.
BIG WAVE
Golden Ale



Hoegaarden



How to make a Beer (With basic ingredients!)

What do you need? (Wheat Beer)

- > Bay Leaf (3 bay leaves boiled for 15 minutes))
- > Black tea- 0.25oz (boiled for 5 minutes)
- > Coriander (1/2 teaspoon boiled for 5 minutes)
- > Soft white wheat- 1lb
- > Wheat germ- 4oz
- > Yeast
- > Large plastic container/bottle



[Brew your own beer at Home – YouTube Link](#)

Mikes Hard Seltzer- Training & Tasting



AGENDA

- Hard Seltzer Revolution
- Why Hard Seltzers is the future
- Introduction to Mikes
- TASTING!
- Food Pairing
- Quiz Time

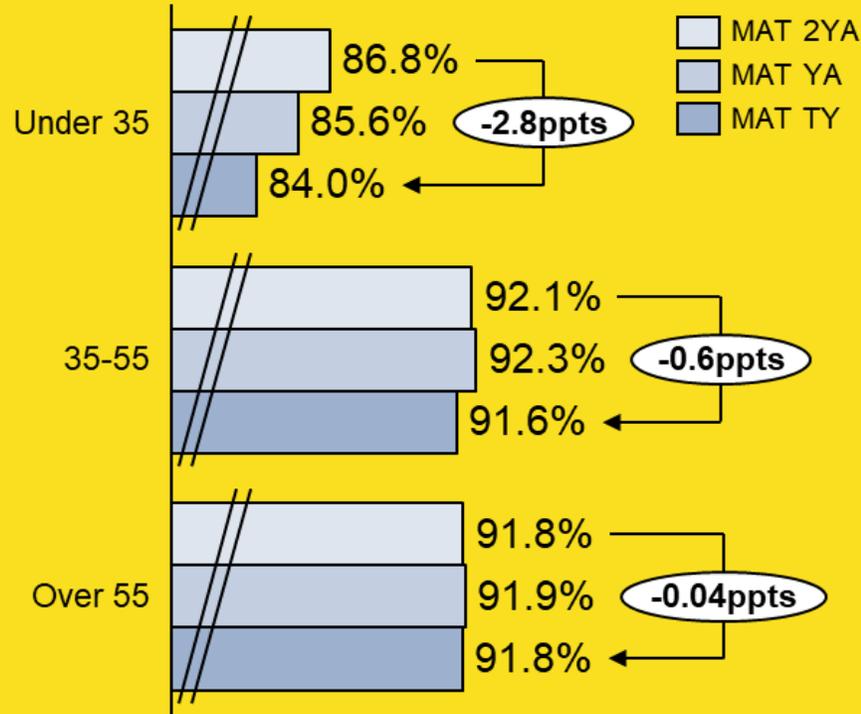


What is Hard Seltzer?

Alcoholic Sparkling water.
It's that simple.

THE DRIVERS BEHIND HARD SELTZER

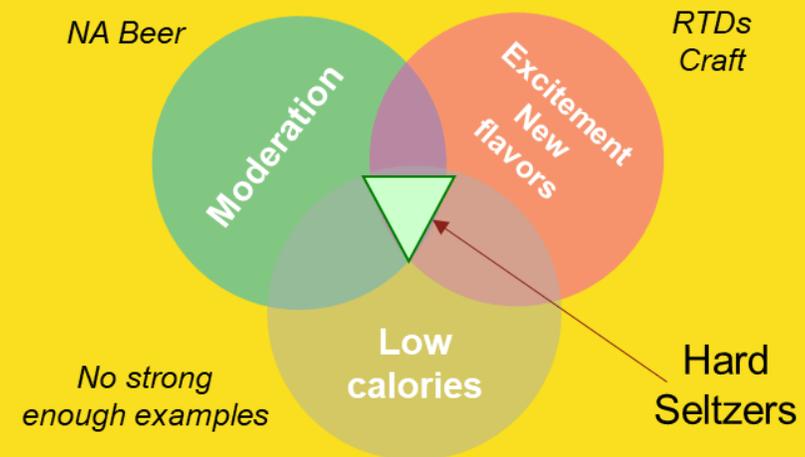
Long term penetration in alcohol declines most significantly across younger age shopper group



Why are they leaving traditional staples?

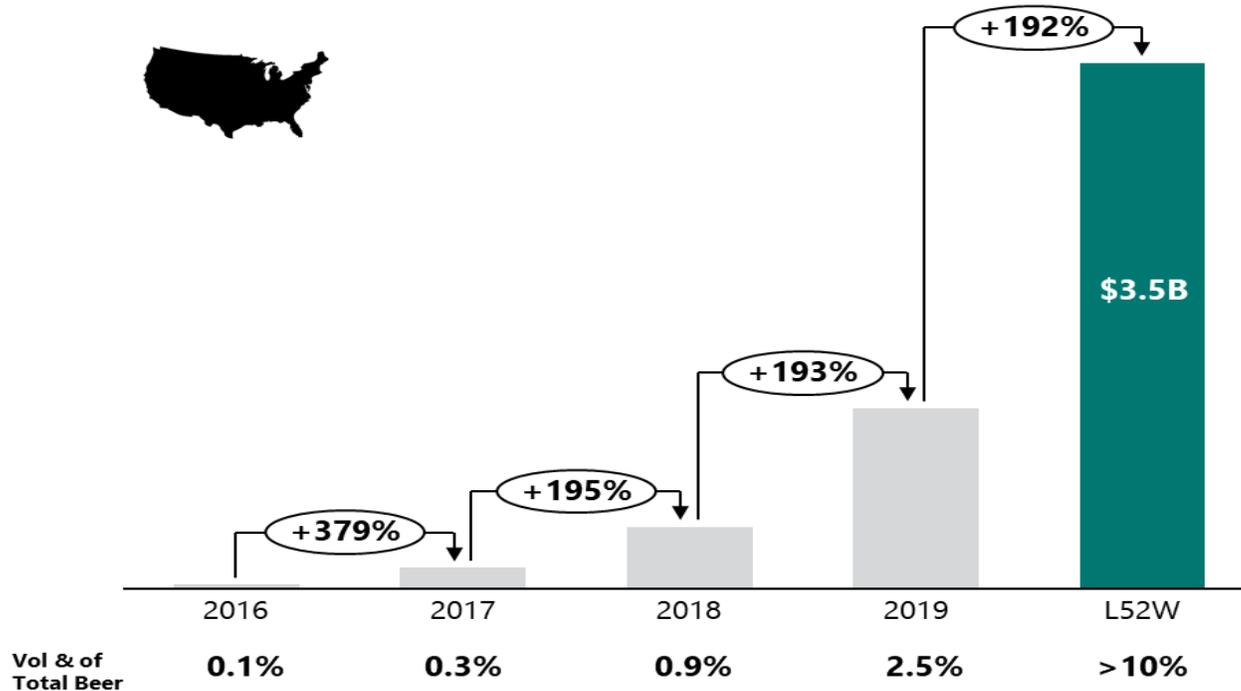
- High ABV
- Heavy & Bloating
- High Sugar & Non-natural ingredients

What is the younger generation looking for?

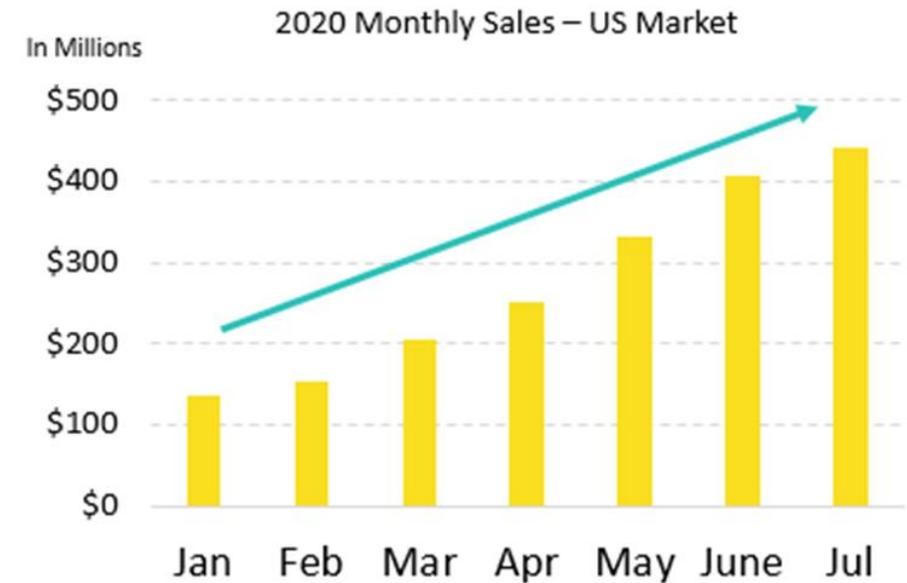


THE HARD SELTZER REVOLUTION

They are on fire in the US!



And prove resilient to Covid and seasonality



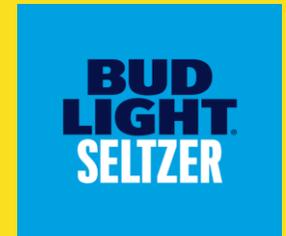
THE HARD SELTZER BOOM HAS LANDED IN THE UK



HS value, Mio £



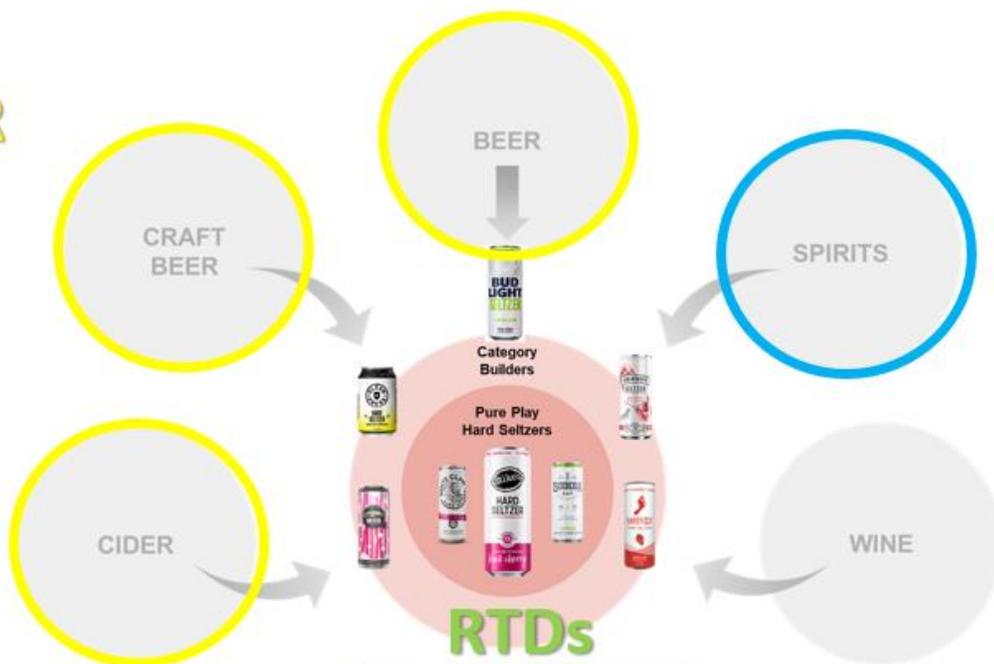
WE'VE NOW SEEN A CLEAR TREND OF GROWTH IN THE UK IN 2020, WITH MORE CONSUMERS ENTERING THE CATEGORY



HARD SELTZER'S MAIN MISSION IS TO DELIVER SUPERIOR REFRESHMENT VS CURRENT ALCOHOL CATEGORIES

BEER & CIDER

sociable, easy-drinking,
refreshing



SPIRITS

neutral & versatile

RTDs
Simple, affordable, portable

HARD SELTZERS

Superior Refreshment through
sessionability, flavour, balance

WHY HARD SELTZER IS THE FUTURE

**YOUNG CONSUMERS
(18-35)**

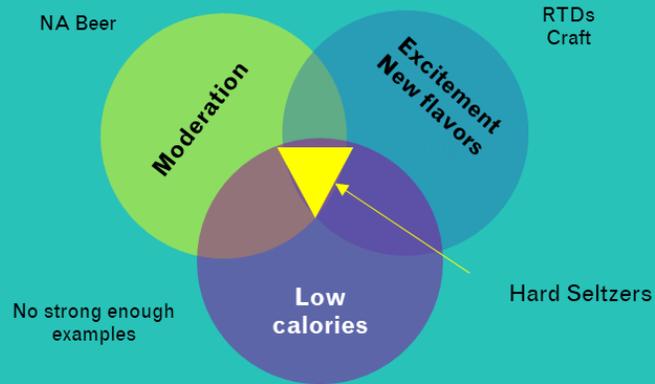
Are looking for new options

HARD SELTZER

Tap into all mega trends

INCREMENTALITY

28% additional consumers



Mega Trend	Hard Seltzers
Premium	✓
Health & Wellness	✓
Gender Revolution	✓
Authenticity & Purpose	✓

What would you buy instead?

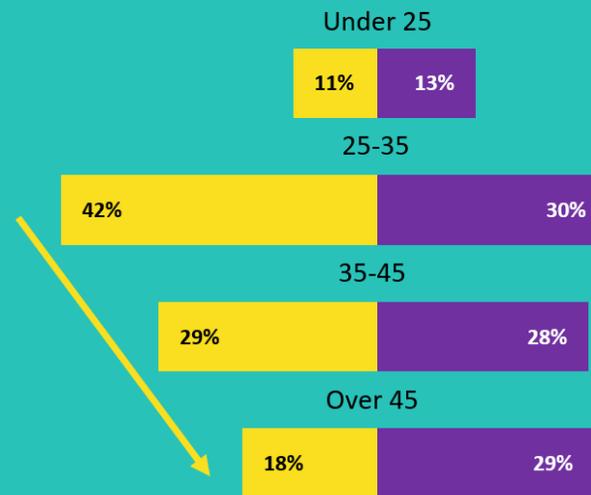
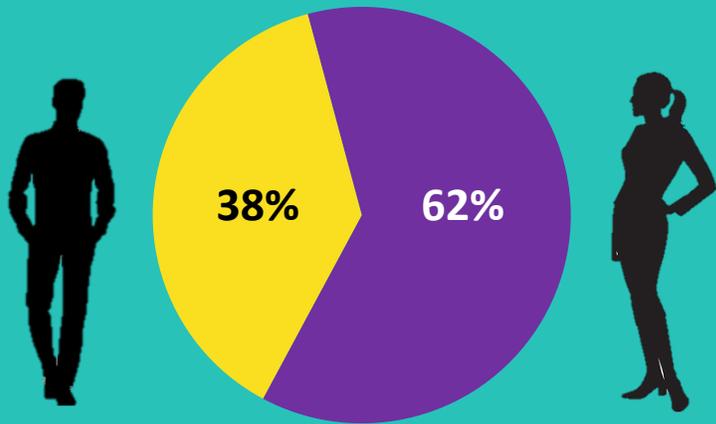


THE HARD SELTZER CONSUMER IN THE UK

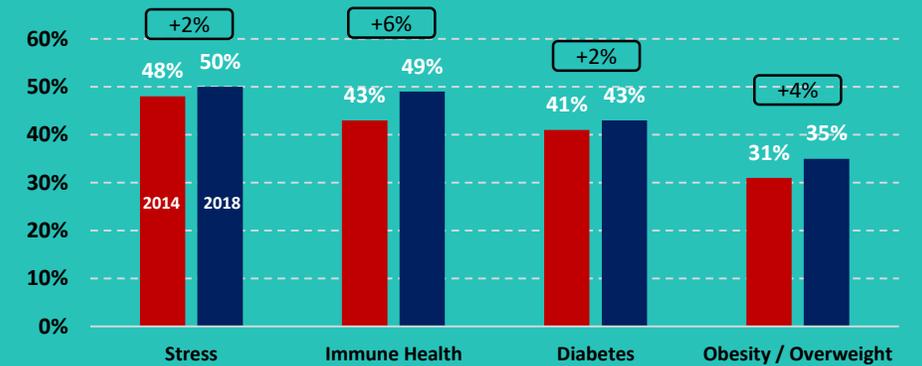
CO-ED

AGE GROUPS

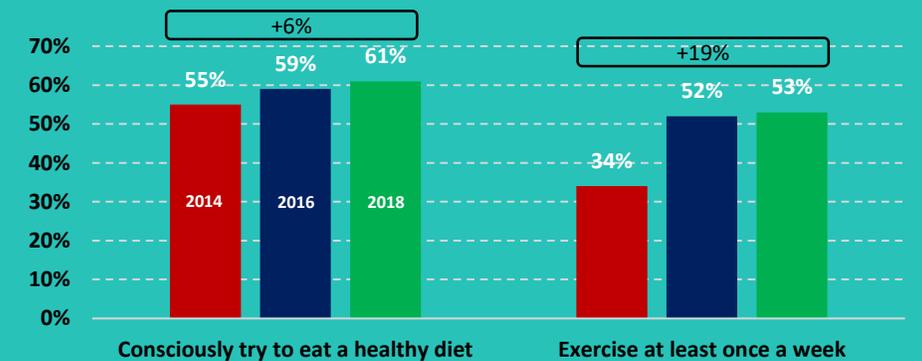
CARE FOR H&W



Consumers Affected by Specific Problems



And as a result change their behaviour



IMPORTANCE OF FLAVOUR TO GROW THE CATEGORY

Berries



Exotic



Citrus



Botanical



CHECK THIS...



5% ALCOHOL.
100 calories, 2g Sugar
12 x 330ml

100 CALORIES.
5% ALCOHOL.
REFRESHING.
NATURAL FLAVOURS.

EASY DRINKING, NATURAL
REFRESHMENT THAT YOU CAN
ENJOY FREELY!



MIKE'S IS ALL ABOUT TASTE

TASTE is the #1 driver of purchase in the UK, with consumers unwilling to compromise.

We genuinely **listened** to our consumers, and improved our liquid.



Real Fruit
Flavors

5x Distilled
Spirit



Consumer
Feedback



#1

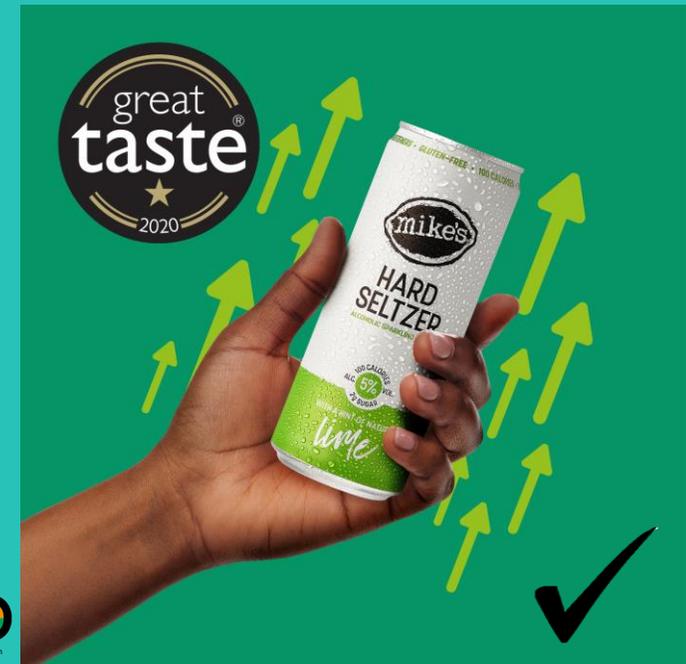
Repeat rate

#1

Penetration rate



*Mike's in a taste test vs. other leading Hard Seltzers
Source: Kantar World panel August



WHAT MAKES MIKES TASTE SO GREAT?



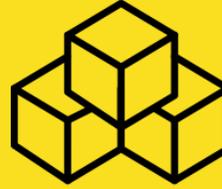
Distilled Vodka, made from wheat and distilled five times for an extra clean taste



High quality natural flavours derived from the named fruit bringing vibrant flavour and aromas



Real lemon juice added from concentrate for a bold flavour and mouthfeel



Sucrose, produced naturally in plants, is added to the liquid to balance sweetness



Acidity regulators; Citric acid and sodium citrate are added to balance perceived acidity of the fruit



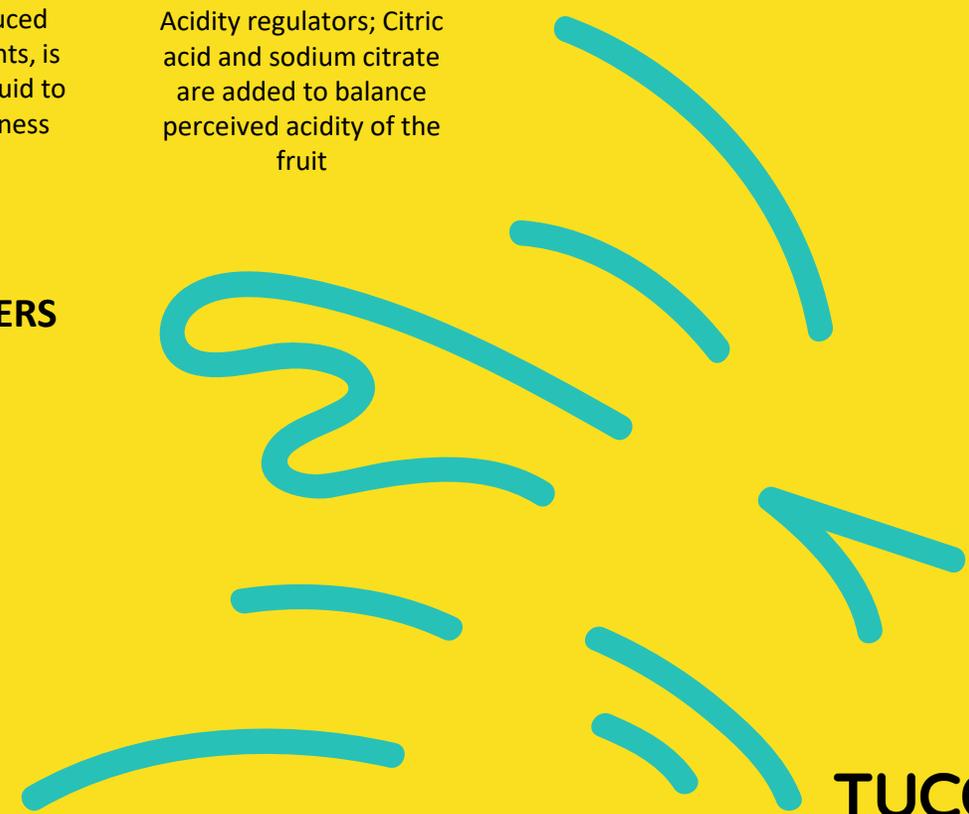
Water, purified at production to strip back any minerals



NEVER ANY ARTIFICIAL SWEETENERS OR PRESERVATIVES



HARD SELTZER



TIME TO TASTE....

Option 1

Straight out of the can



Option 2

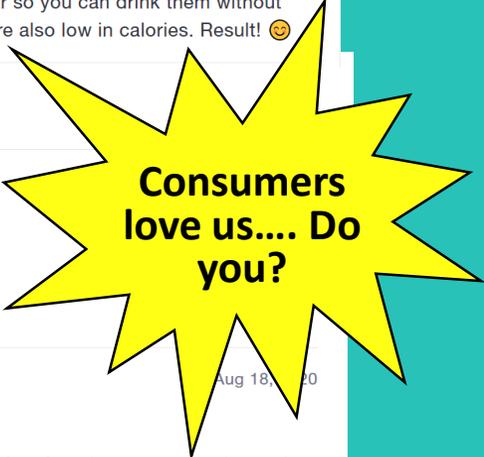
Pour it into a glass with ice and garnish



Review 1: Rachel (13 reviews, Verified, Aug 18, 2020). 5 stars. Winner..... Really refreshing lightly flavoured drink. Perfect for a hot summer's day and unlike fruity ciders these are not full of sugar so you can drink them without starting to get that sickly feeling and they are also low in calories. Result! 😊

Review 2: Nick (5 reviews, Verified). 5 stars. Refreshing and great tasting drink.

Review 3: Mrs Rachel Earle (9 reviews, Verified, Sep 4, 2020). 5 stars. Winner..... These drinks are great. These drinks are great, refreshing and a good option to take to picnics, parties etc.



FOOD PAIRING

BERRY

Black Cherry & Raspberry

- Spicy dishes
 - The fruity flavours from the berries offer a sweetness which balances spicy flavours
- Salty foods
 - Sweet flavours from the berries also pair perfectly with salty foods, think French fries, sushi etc.
- Dishes with high fat content
 - Carbonation scrubs away any residual fat from fatty foods (oily fish, cheese etc) on the tongue ensuring fresh palate for each bite



Signature Pairing- Thai Infused Salmon stir fry with sweet and sour sauce

CITRUS

Lime & Lemon

- Dishes with high fat content
 - Citrus flavours pair perfectly with fats. The creaminess from the fat mellows out the tart mouth sensation of the acid
 - Carbonation scrubs away any residual fat from fatty foods (fried food, cheese etc) on the tongue ensuring fresh palate for each bite
- Salty foods
 - Acidic flavours and salt bring out the best in each other, it creates a perfect balance



Signature Pairing- Traditional Greek Salad topped with Feta & Olives

WHICH FLAVOUR ARE YOU?



TIME TO TEST YOUR KNOWLEDGE

Kahoot!

Visit <https://kahoot.it/>

Enter Game Pin

Choose your Nickname

Who's going to take the Mikes crown?



You either know it or you don't....



The University Caterers Organisation

Thank You – please complete our survey on
your way out!

www.tuco.ac.uk