

Designing out
**FOOD
WASTE**

GSTC Conference
21-24 Apr 2026 - Phuket

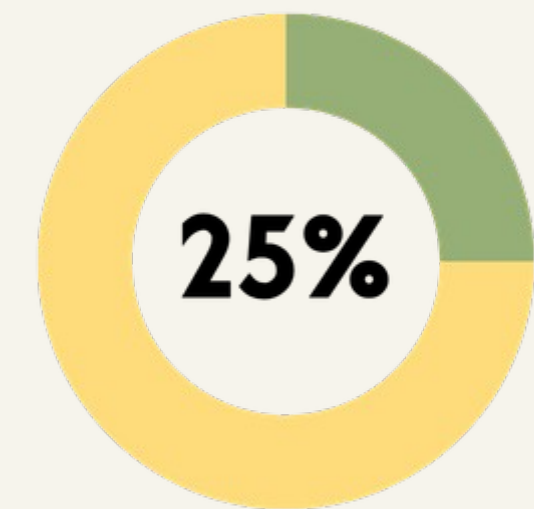


**Food,
Waste
to Good
Taste**

IMPACT OF FOOD WASTE



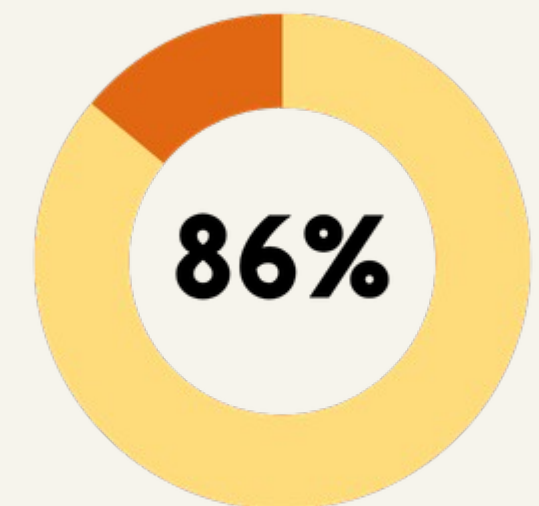
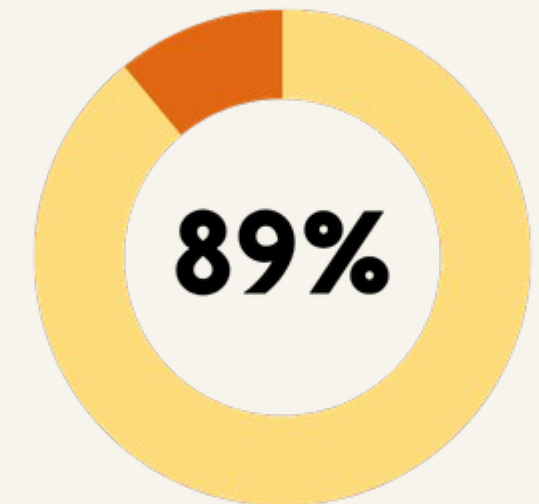
- 1/3 of all food produced is lost or wasted - an area greater than China is used to produce food that is never eaten
- 8-10% of annual global greenhouse gas emissions - if food loss and waste were a country => 3rd largest emitter
- 25% of the world's fresh water supply is used to grow the food that is never eaten
- Hospitality: 1% of all food production emissions, and generating 3% of global food waste



INCENTIVES TO REDUCE FOOD WASTE



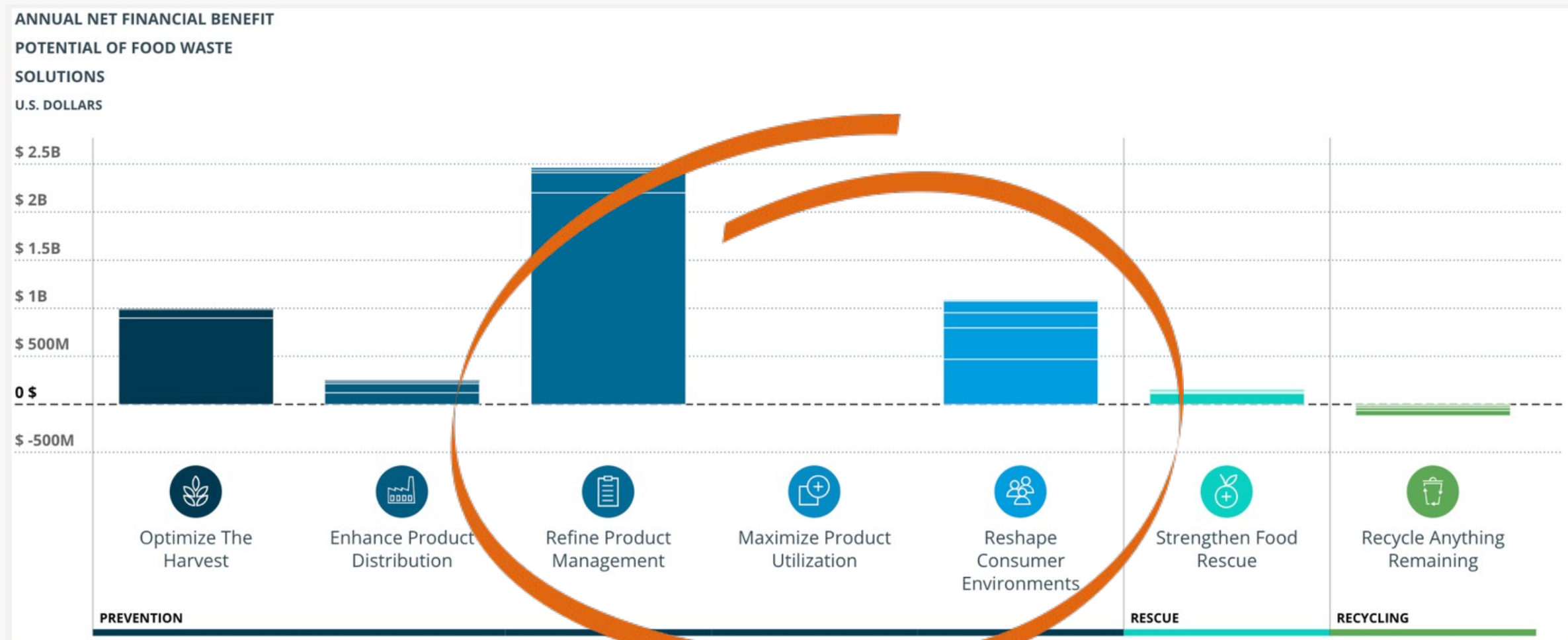
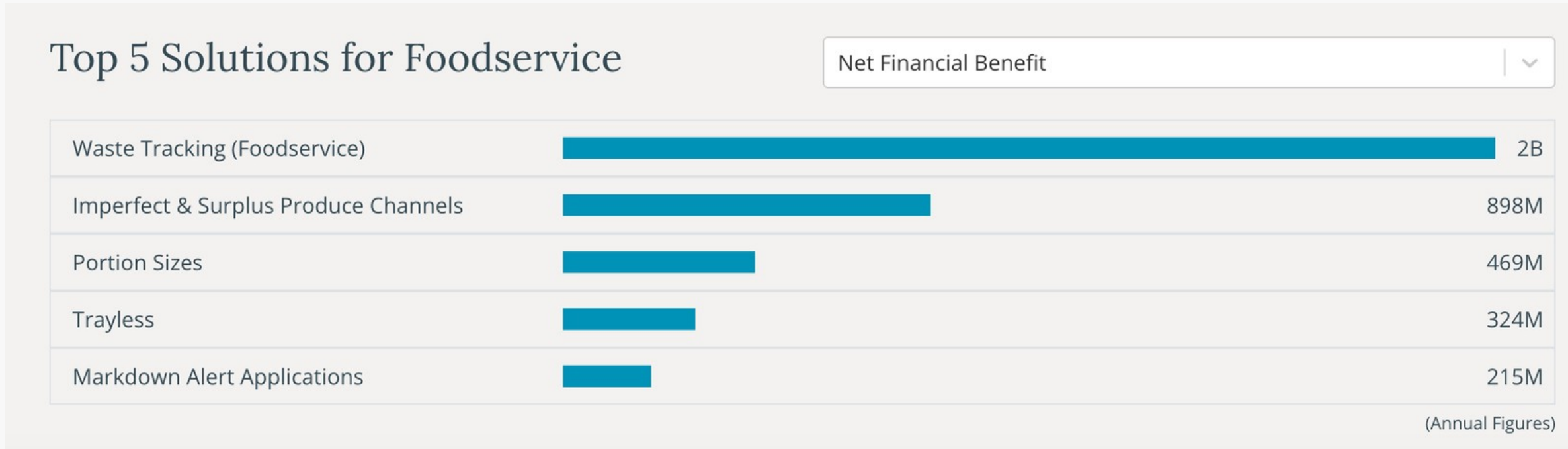
- 76% of sites recouped their investment within the first year and 89% of sites recouped their investment within 2 years of implementing the food waste program
- The average benefit-cost ratio for food waste reduction was 7:1 over 3 years (\$1 -> \$7 benefit)
- Retention of staff through deeper engagement & business reputation - 86% of customers want sustainability
- 5kg of food “waste” in a bin = \$20 in purchasing cost and ~ \$60-80 in resale value



Sources: [Champions 12.3](#), [Food Made Good HK survey](#)

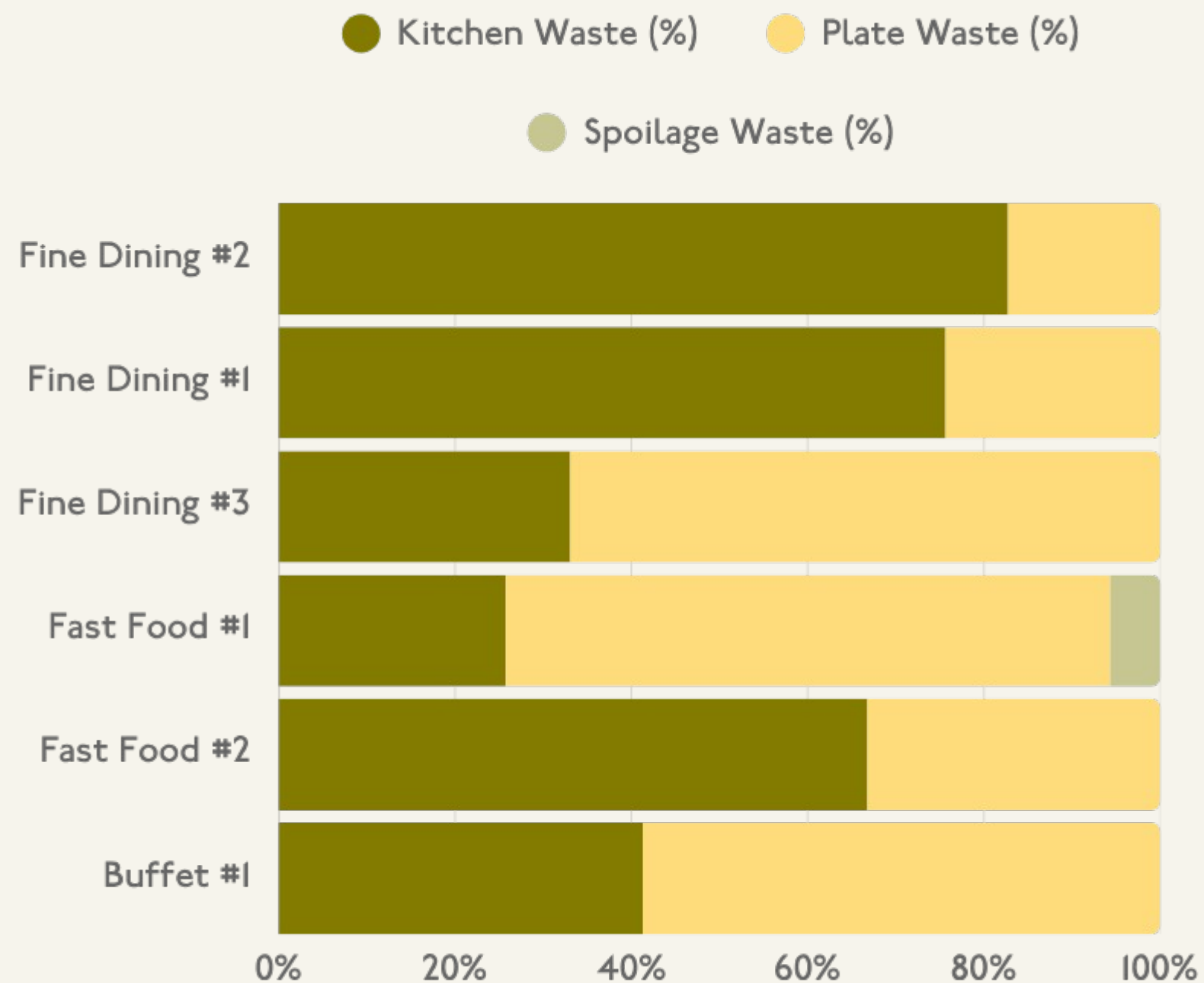
[Vojtech Vegh \(Chef & Author\)](#); [Surplus: The Food Waste Guide for Chefs](#)

FOOD WASTE SOLUTIONS BY VALUE





WHO WASTES THE MOST



Source: GREEN Hospitality; Data collected from 10 F&B outlets in HK during a research project in 2023

Type of outlet	Average food waste (kg/month)	Average food waste (kg/guest/year)
Fast food	1,263.8	111.1
À la carte	717.8	78.8
Fine Dining	832.2	103.5
Bar	1,069.6	137
Buffet	2,833	190.1
Coffee shop	58.9	5

Source: GREEN Hospitality; Data collected from 25 F&B outlets in HK during a research project in 2021

PRODUCE YIELD



- “Yield” - the usable part of the ingredients
 - High yield: can be used in whole/be repurposed, versatile by nature
 - Higher yield = lower waste
- Ideas on how to utilise the unused parts
 - Pickling and fermentations (turnips/radishes)
 - Making soups or juices
 - Drying/baking

PRODUCE YIELD RANKING TOOL

5	Ingredient is entirely edible and versatile.
4	Ingredient is entirely edible and versatile, the part(s) that is/are typically discarded could be used, but may not add value to a dish.
3	Ingredient has part(s) that are NOT edible and are challenging to repurpose, but what is edible is versatile.
2	Ingredient has part(s) that are NOT edible and challenging to repurpose, and the edible part(s) are not versatile.
1	Ingredient is mostly INEDIBLE and challenging to repurpose.



Clockwise:

- Cooked apple
- Roasted apple
- Apple core vinegar
- Oxidized apple slices
- Pickled apple
- Dehydrated apple skins
- Apple leather
- Toasted apple seeds
- Apple skin powder
- Apple puree
- Apple juice reduction

Center:

Fresh apple

CASE STUDY: PENICILLIN BAR



penicillin_bar
PENICILLIN Hong Kong

penicillin_bar 🍓🍷 ONE PENICILLIN, ONE TREE 🍷🍓

Drink: ONE PENICILLIN, ONE TREE
waste white chocolate whisky, strawberry brine,
coconut kefir

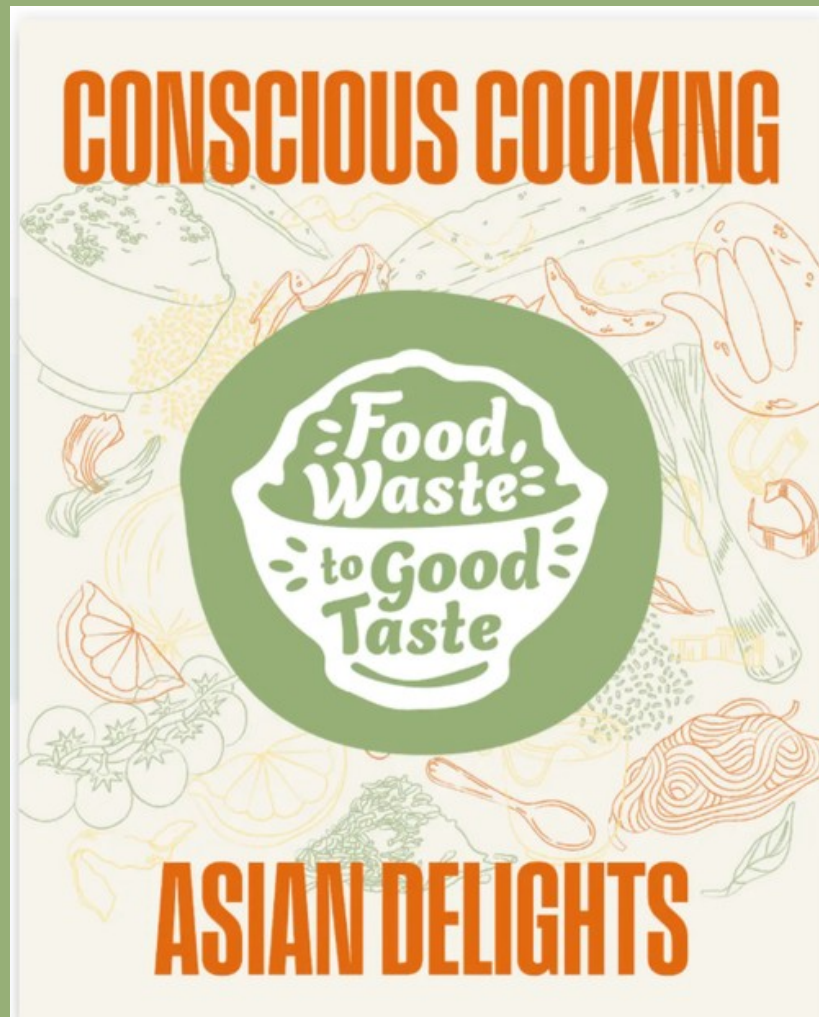
Methods: Shaken
Garnish: waste papaya seed leather

The 'One Penicillin, One Tree' project, whereby a new tree is planted in the Kalimantan rainforest area in Borneo for every one of this cocktails purchased. Penicillin bar partnered with @ecospirits.global ecoSPIRITS and Green Step Group @greenstepsgroup

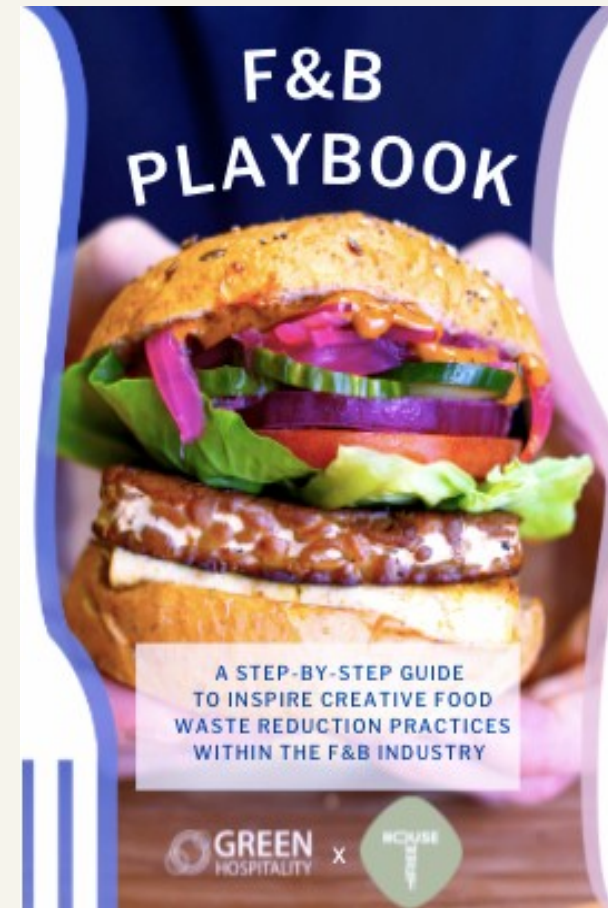
A complex and silky cocktail with a blend of sweet, sour, and tangy flavors coming from waste white chocolate whisky, invigorating strawberry brine, and velvety coconut kefir

You'll discover a symphony of flavors that unfold on the palate, from the rich, indulgent notes of the white chocolate-

1,064 likes
31 January



- **Conscious Cooking - Asian Delights:** Cookbook with recipes utilising most commonly waste foods in commercial kitchen developed by 9 prominent chefs



- **F&B Playbook:** Practical measures to reduce food waste, sorted by production stages from menu design to employee and customer engagement + case studies



- **Waste Deep:** in-depth research with 20 hotels and individual F&Bs on food waste and packaging waste



KEEP IN TOUCH



General Newsletter



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