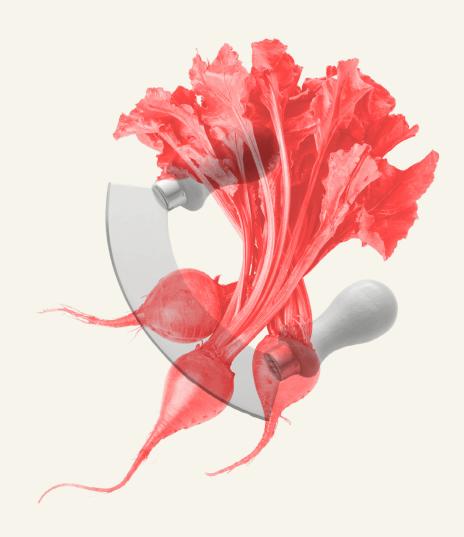


The Why Waste? Cookbook



VOL. 1 ZERO-WASTE RECIPES TO DELIGHT AND INSPIRE

Introduction

According to the United Nations Environment Program, over one billion tonnes of food is wasted every year, contributing to up to 10% of global greenhouse gas emissions.

Chefs have the power to change perceptions around food waste and show that the food we throw away can be used to create delicious meals, not only helping the environment but also helping to tackle hunger.

This is the basis of the *Why Waste*? series, produced by *Fine Dining Lovers* in collaboration with chef **Massimo Bottura** of the three-Michelin-starred *Osteria Francescana* restaurant in Modena, Italy and the *Food for Soul* non-profit, which works to transform surplus food into meals for the needy.



The second season of Why Waste? sees Bottura challenge his world-renowned chef friends **César Troisgros**, **Dominique Crenn** and **Sat Bains** to get creative with food waste, devising new dishes from vegetable scraps, overripe fruit and stale bread.

In this cookbook, you'll find all the recipes from *Why Waste? Season 2* alongside recipes from the young chefs of the *S.Pellegrino Young Chef Academy*, who were set the task of creating recipes from leftover ingredients for the 'Why Waste? Challenge'. The Academy seeks to nurture the next generation of game-changing culinary talent, with sustainability a key pillar of its manifesto.

We hope you enjoy cooking these recipes given to you by the best chefs of today and tomorrow, because together, we can help end food waste, one plate at a time.



Old Bread and Tomato Mille Feuille Dominique Crenn

Apulian–Style Sea Bream Andrea Miacola

<u>Yesterday's Bread with Scallop Roe</u> <u>Taramasalata</u> Sat Bains

<u>Toothfish Cheeks Confit with</u> <u>Cauliflower Stems Cream</u> George Spandos

The Carrot That Wanted to Be a Pasta César Troisgros

<u>*Tuscany Attitude*</u> Gabrio Dei

Contents

Fermented Rice and Watermelon Rind Crêpe Sanjay Thakur

<u>Watermelon and Lettuce</u> Franklin Silva

Tutti Frutti Ice Cream Sat Bains

Frozen Ripe Peach Smoothie Dominique Crenn

Raspberry Cushion

César Troisgros



Almost a third of the bread produced globally every year gets wasted – 240 million slices. Instead of seeing waste, see opportunity with this Italian-inspired recipe from **Dominique Crenn**, the US's first three-Michelin-starred female chef, from *Atelier Crenn* and *Petit Crenn* in San Francisco.

A glossy vegan mayonnaise, toasted bread, fresh tomatoes and breadcrumbs, are turned into an elegant and delicious mille-feuille. "Bread is gold. Don't ever throw out stale bread, use it and make something delicious," says Crenn.



Old Bread and Tomato Mille Feuille

Ingredients

SERVES 4

Crumble

Shallots, 1 each Garlic cloves, 2 each 50g breadcrumbs Fleur de sel to taste Espelette pepper to taste

Infused soy milk

Stale bread slices, 1 each Tomato cores, 1 each 250g soy milk, unsweetened Espelette pepper to taste Salt to taste

Vegan mayonnaise

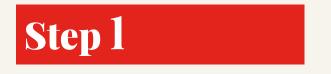
40g Dijon mustard 130g infused soy milk 5g basil, chopped Grapeseed oil Olive oil

Ingredients

Sungold tomato

Ripe cherry tomatoes, 1 each 10g shirodashi Esp

10g olive oil 10g lemon juice Salt to taste Espelette pepper to taste



For the crumble

Slice the garlic and shallot with a mandoline, then deep-fry them until golden.

Mix the bread crumbs with the deep-fried garlic and shallot (chopped).

Season with the fleur de sel and Espelette pepper.

For the infused soy milk

Toast the sourdough over hot coals.

Cook and dry out the tomato, then add the toasted bread. Pour over the milk, bring to a boil then let it infuse for a few minutes.

Pass through a chinois and reserve.

Step 3

For the vegan mayonnaise

Emulsify the mustard and soy milk with the oil (half and half) until the mayonnaise is thick, add the chopped basil.

For the Sungold tomato

Blanch the tomatoes for 30 seconds in boiling water, then shock them in iced water.

Put them to marinate in the remaining ingredients.

Step 5

To assemble

Place the tomatoes on the first slice of bread, pipe the mayonnaise on the top of the tomatoes. Add the crumble before covering with another slice of toasted bread.

Finish with some fresh basil leaves.





Leftover potato skins, cheese rinds and sea bream bones are given a new lease of life in a classic Apulian–style sea bream dish.



Apulian-Style Sea Bream

Ingredients

SERVES 8

1 sea bream 500g potatoes 1 garlic clove Cheese rinds 35g fresh parsley Extra virgin olive oil Salt

Start by scaling the fish, and removing the contents of its belly.

With a knife, remove the wings of the fish and the head, so it is easier to fillet.

Fillet the fish with a sharp knife, leaving the freshest and most compact flesh.

Use tweezers to remove the thorns in the central part of the fillets.

Step 2

For the Apulian-style sea bream sauce using trimmings

Start with the potato skins, they can be really tasty. Bake the skins in the oven at $170^{\circ}C/338^{\circ}F$, until golden and set aside when ready.

To make the Apulian sauce, we need the cheese rinds and the sea bream.

Use all the cheese trimmings you have in the fridge, the crusts elevate the cheese flavour and give a lovely crispiness to the dish.

Bake them at the same temperature until the cheese crusts are golden and dry, this will ensure the stock will be clean and clear. Set aside when ready.



Seasoning and assembly

Chop the parsley and garlic finely, and season the fillets.

Slice the potato and boil in water for a few minutes until soft. We do this because sea bream fillets cook faster without bones, so by pre-cooking the potato in water, the fish can be cooked quickly so the fillets stay juicier.

Lay down the first layer of boiled potato slices.

Put the sea bream fillets on top, one over the other, with garlic and parsley in between.

Cover with more boiled potato slices, grate over some caciocavallo cheese, add some cured olives, and some stock made with all the fish bones and trimmings (head and tail).

Bake at $180^{\circ}C/356^{\circ}F$ for 20 minutes.

Step 4

Leave outside the oven to rest for 10 minutes so the fish soaks up all the flavour from the sauce.

Step 5

Final touch

The final touch is to add freshness with a small aromatic salad. Use the leaves to wipe up the sauce left in the pot, and arrange them on the side of the dish.

To complete the plate, finish with a drizzle of good, fresh extra virgin olive oil.



This recipe is by **Sat Bains**, one of the UK's leading chefs, known throughout the world for his endless creativity and no-nonsense approach to fine dining.

"Any ingredient has the potential to be at the top end," says Bains. Here he uses up stale bread with an elegant spin befitting his two-Michelin-star restaurant, *Sat Bains with Rooms*, in Nottingham, England.

Turning stale bread into light and crunchy deep-fried crackers topped with a smoky umami scallop roe taramasalata, he makes the perfect snack, proving that bread really is gold.



<u>Yesterday's Bread</u> with Scallop Roe Taramasalata

Ingredients

SERVES 4

Sourdough tuile

500g water 250g breadcrumbs 10g salt

Taramasalata

200g scallop roe 40g white bread 20g milk 1 Egg 2 garlic cloves, peeled 10g tabasco 30g lemon juice 400g sunflower oil 100g olive oil

Sourdough tuile

Toast the bread and process into breadcrumbs.

Bring the water to a boil and add the toasted breadcrumbs and salt.

Cook on a medium heat until a thick porridge consistency is achieved (usually around 30 minutes).

Spread the mixture thinly on a silpat, and dry in an oven for 12 hours at 65° C/149°F (make sure the mix is dry and brittle).

Break into required shape.

Bring a pan of oil up to 220°C/428°F and fry the crisps for 10 seconds, they will puff up straight away, so be careful of splash-backs from the oil.

Remove from the oil and drain on kitchen paper.

Reserve until needed.

For the taramasalata

Smoke the scallop roe for 1 hour.

Soak the bread in the milk and set aside for 10 minutes.

Combine the smoked scallop roe, soaked bread, egg and garlic in a food processor and blend until a smooth paste is achieved.

Gradually add the olive oil followed by the sunflower oil.

Finish by adding the tabasco and lemon juice.

Reserve until needed.

For the dried scallop roe

Clean the roe and dry in an oven at $80^{\circ}C/176^{\circ}F$ for 24 hours.

Reserve in an airtight container until needed.

To assemble

Place the taramasalata in a piping bag.

Pipe it onto the fried crisps and gently stack up.

Grate over the dried scallop roe and serve.





Fishheads, cauliflower stems and lemon peel are re-imagined in this elegant and delicious zero-waste dish.



Toothfish Cheeks Confit with Cauliflower Stems Cream

Ingredients

SERVES 4

Fish cheeks

300g fish cheeks, toothfish or other fish 2 garlic cloves Olive oil Salt Madagascar pepper

Emulsion sauce

1 fish head 40g salt Preserved lemon skins

Cauliflower cream

200g cauliflower stems and leftovers 50g heavy cream (optional) 1 red onion 10g butter Salt Madagascar pepper

Plating

Tagete oil Fleur De Sel

For the fish cheeks

Fillet the cheeks from the head of the fish and clean away the remaining blood or tissues. Place the cheeks in a pot with peppercorns and garlic, then cover with olive oil.

Bring the oil to simmering at 60° C/140°F for 10–12 minutes depending on the size of the cheeks.

Carefully take out the cheeks and preserve the oil.

Step 2

For the emulsion sauce

Gently cook the fish heads in the confit oil for 30 minutes. Pass through a fine sieve.

For the sauce, emulsify the confit oil and add some finely chopped preserved lemon skins.

Keep in a warm place.

For the cauliflower cream

Slice the onion and the cauliflower stems and leftovers. Roast all in a pot with some butter until golden brown.

Add cream for texture if desired, and season with salt and pepper.

Cook for 10–15 minutes and mix with an electric blender to a smooth cream.



To assemble

Add a spoonful of cauliflower cream to the middle of a bowl. Cover with the emulsion sauce. Grill the cheeks on an open fire or with a blowtorch, and place them gently on top.

Finish with some drops of tagete oil and fleur de sel.



Almost half of the vegetables produced globally are wasted. This recipe from **César Troisgros**, the fourth–generation chef of the legendary Troisgros family, is an ingenious way to use carrot trimmings to make a crunchy, interesting 'pasta' salad dish with saltiness, sweetness and umami.

Elegant and earthy with citrus, and the spiciness of harissa, this is a simple way to give a second life to your carrot trimmings and elevate them to Michelin-star level.



The Carrot That Wanted to Be a Pasta

Ingredients

SERVES 4

500g carrots, peelings and trimmings 2 fresh garlic cloves 20g harissa 2 sage sprigs 1 lemon Olive oil 1l clarified butter

Heat up the clarified butter to 130° C/266°F, and fry the carrot peelings until golden and crispy. Drain and dry immediately.

Step 2

Slice the garlic, fry in the same clarified butter and drain immediately.

Step 3

Take the sage leaves, and fry until crispy. Drain immediately.

Step 4

Plate the carrots, seasoned with harissa, lemon, olive oil, garlic chips and sage.

Serve immediately.





Stale bread and vegetable trimmings get a second life in these Italian-inspired croquettes.



Tuscany Attitude

Ingredients

SERVES 4

Pappa al pomodoro

200g stale bread, cubed 300g tomatoes, hearts and seeds 50ml extra virgin olive oil 4 garlic cloves Parsley stems 1 tsp dried oregano Sundried tomato peels Salt to taste Caster sugar to taste

Lagane pasta in broth

Vegetable trimmings – peels and scraps of potatoes, pumpkin, carrots, onion, jerusalem artichoke, celeriac, parsley stems, black cabbage, celery 1 tsp double concentrate tomato paste Parmigiano cheese rinds

Ingredients

3 eggs 120g breadcrumbs 150ml milk Butter to taste 15g salt every 1300ml of broth

Fish croquettes 'Livorno-style'

Fish trimmings – heads and carcasses 1l milk 285g 00 flour 190g butter Salt to taste Garlic Parsley White wine Seed oil for frying Breadcrumbs for breading

Step 1

For the pappa al pomodoro

Cook the tomato hearts and seeds, with a tablespoon of extra virgin olive oil, for 15 minutes.

Add the cubed stale bread and simmer for 10 minutes.

Turn off the heat and add a clove of garlic, parsley stems and extra virgin olive oil.

Puree and then add the dried oregano: regulate flavour and acidity with a little bit of salt and sugar.

Keep warm.



Chop the tomato skins and fry them.



For the aromatic vegetable broth

Toast the vegetable trimmings in the oven at 180° C/356°F until they are golden brown, then dip them into ice.

Bring everything to a boil, adding a teaspoon of tomato concentrate and the cheese rinds, and cook for 30 minutes.

Filter, reserving the cheese rinds, and regulate the flavour: for every 1300ml of broth add 15g of salt or 10ml of soy sauce.

Cut the cheese rinds into cubes.

For the lagane

Mix the breadcrumbs with the eggs and the milk, adding just a little bit of salt.

You want to obtain a kind of crêpe with the help of a lightly buttered pan, cover it with a wet cloth.

Cut them into lozenges and keep warm.

Step 5

For the fish croquettes

Gently boil the fish carcasses for 15 minutes, then separate the pulp from the bones, keeping both aside: you need about 300-350g of fish pulp.

Boil the milk.

In the meantime, toast the flour in the butter in another saucepan, then gradually add the boiling milk, stirring. Add the fish pulp and simmer for 10 minutes, seasoning with salt: spread onto a steel pan and cover with clingfilm and leave in the fridge overnight to stabilise.

Use your hands to form 'fishballs', toss them in breadcrumbs, and keep them refrigerated until use.

Step 6

For the 'Livorno-style' marinara sauce

Immerse the previously stripped bones in water and ice, and bring to the boil with a glass of white wine, garlic, parsley stalks, and double-concentrate tomato paste.

Reduce to a third of the initial volume, pass through a colander and reduce further on the heat, until a thick and tasty sauce is obtained.

Season with salt and keep warm.

To assemble

Fry the croquettes in seed oil at $175^{\circ}C/347^{\circ}F$ for about 3 minutes, until golden brown, then drain on kitchen paper.

Serve the pappa al pomodoro lukewarm, finishing with fried tomato skins, the lagane in the hot vegetable broth, cheese rind cubes and the fish croquettes in marinara sauce.





Watermelon scraps as you've never seen them before: fermented rice and watermelon rind crêpe stuffed with spiced watermelon rind, pickled rind and watermelon skin chutney. A creative recipe with different textures and flavours.



Fermented Rice and Watermelon Rind Crêpe

Ingredients

SERVES 2

Crêpe

100g watermelon rind 100g raw rice 80g cooked rice 1 green chilli 15g clarified butter 10g ginger

Crêpe stuffing

150g watermelon rind, without skin 2g turmeric powder 2g coriander powder 2g garam masala 2g mango powder 2g cumin seeds 15g clarified butter 2g chilli powder 2g cumin powder 1g dried lemon powder Salt to taste

Ingredients

Pickled rind

60g watermelon rind 25g vinegar 15g salt 5g toasted coriander seeds

Watermelon skin chutney

70g watermelon skin 25ml white vinegar 40g caster sugar 15g raisins 15g date paste 5g fennel seeds 5g salt 3g dried lemon powder

Step 1

For the crêpe

Soak raw rice overnight. After 24 hours of soaking, blend it with all other ingredients until a smooth batter and season accordingly. Let it ferment at room temperature for 24 hours.

Heat a pan and add clarified butter. Pour the batter in and let it cook to reach an even golden colour. Flip, cook lightly on the other side and set aside.

For the crêpe stuffing

Dice the rind into small, even-sized cubes. Heat up the pan, add the clarified butter, and then all the dry spices.

Add the rind, cover, and cook on medium heat until tender. Add lightly toasted cumin seeds and cover again. Once ready, keep it aside for later use.



For the pickled rind

Cut the rind in any desired shape. Let it sit in pickling liquid for a minimum of 12 hours.

For the watermelon skin chutney

Cook skin in boiling water for 30 minutes, chill and dice into small pieces. Add vinegar and sugar to the pot and let the sugar dissolve.

Add the date paste, raisins, fennel seeds, and dry lemon powder seasoning and let it cook for 1 hour.

Step 5

To assemble

Stuff the crêpe with watermelon rind stuffing. Top it up with a few drizzles of the watermelon skin chutney.

Fold it and serve hot. Arrange pickled rind and chutney accordingly.





The whole watermelon, including its skin, is given a new lease of life with lettuce in this refreshing recipe.



Watermelon and Lettuce

Ingredients

SERVES 8

Dehydrated watermelon

¹⁄₂ watermelon, peeled and sliced

Watermelon broth

½ watermelon, roughly
chopped into small pieces
100g caster sugar
5cm ginger, peeled 20g
mint

Candied watermelon skin

400g watermelon skin, peeled and diced 1.2l water 100ml white wine vinegar 200ml water 250g caster sugar 1 cinnamon stick 4 cloves 1 star anise

Ingredients

Lettuce granita

Garnish

1 lettuce, fresh 500ml water 150g caster sugar 200ml water 5 gelatin sheets Microgreens – acidic small leaves Sweet flowers



For the dehydrated watermelon

Place the sliced watermelon on a rack, then place the rack over a baking tray.

Place the tray in the oven for at least 3 hours at 100° C/212°F. When the watermelon looks like raw meat, it's done. Set aside.

Step 2

For the watermelon broth

Mix all the ingredients in a container and place in the fridge overnight. Next, blend the ingredients with a hand blender. Pass through a fine mesh and keep in the fridge.



For the candied watermelon skin

Combine 1l of water and 100ml of white wine vinegar in a pan and add the diced watermelon skin. Cook over low heat for 1 hour and 15 minutes.

Then, drain the liquid and put the watermelon skin back in the pot with the remaining ingredients, and cook for another 45 minutes on low heat.

Once cooked, put the watermelon, with the liquid, in a container and keep it in the fridge.

For the lettuce granita

Blend the lettuce with 500ml of water and pass through a fine mesh to obtain lettuce juice. Set aside.

Hydrate the gelatin sheets in cold water and set them aside.

Add 150g of sugar to 200ml of water in a pan and make a syrup, heating until it reaches $117^{\circ}C/243^{\circ}F$.

Use a little syrup to dissolve the hydrated and squeezed gelatin sheets.

Mix the remaining syrup and the dissolved gelatin with the lettuce juice.

Put in a container and leave to freeze for at least 12 hours.

To assemble

Dice the dehydrated watermelon and place in the centre of the plate.

Place some pieces of the candied watermelon skin over the dehydrated watermelon.

Scrape the granita with a fork and plate next to the dehydrated watermelon.

Finish with the watermelon broth.

Garnish with acidic microgreens and sweet flowers.



Almost half of the fruit produced globally is wasted. This recipe by **Sat Bains** uses up waste vegetable trimmings, which are candied and dehydrated and then added to soft serve ice-cream. It's a riff on the 'tutti frutti' flavour, served in a cone.

The recipe takes some time and the method here has been simplified to make it easier to do at home. But the result is an unexpected and delicious way to use vegetable scraps that would grace the tables of the chef's own restaurant as well as your dinner table.



Tutti Frutti Ice Cream

Ingredients

SERVES 4

Candied vegetable peelings

500g vegetable trimmings – depending on season, this can be pretty much anything, including beetroot, parsnip, peppers, carrots, celery, fennel, etc. 500g caster sugar 500g water

For the soft serve ice cream

1l milk 200g caster sugar 250g heavy cream 1⁄2 tsp salt 80g milk powder 1 tsp vanilla extract 1kg dry ice

Ingredients

Vegetable flour

200g vegetable trimmings

Waffle cone

85g egg whites 25g caster sugar 25g brown sugar 25g honey 28g sunflower oil 10g water 1g salt 1g baking soda 85g vegetable flour

Vegetable syrup

1kg beetroot shavings 100g caster sugar Citric acid to taste

Step 1

For the candied vegetable peelings

Place all the ingredients into a pressure cooker.

Cook for 1 hour, then leave to rest and cool down without dispersing the heat.

Remove from the syrup carefully and place into an oven.

Dry for 12 hours at 60° C/140 $^{\circ}$ F.

Cut into desired shape and reserve until needed.

For the ice cream

Combine the cream, milk, sugar, salt, milk powder and vanilla extract in a blender.

Blend for 1 minute, until smooth.

Take the dry ice and crush until powdered, either in a freezer bag or large tea towel. Wear kitchen gloves to protect your hands. Slowly add the dry ice to the ice cream mixture while churning slowly in a stand mixer. Add the dry ice one tbsp at a time while mixing, over about five minutes. The mixture will slowly begin to look more like ice cream.

Fold in the 'tutti frutti' candied vegetable peelings.

This ice cream is best served straight away.

For the vegetable flour

Dry vegetable scraps for 12 hours at 60° C/140°F.

Blend to a fine powder.



For the waffle cone

(Feel free to purchase ice cream cones if you're stuck for time.)

Combine egg whites, sugar, brown sugar, honey, oil, water, salt, and baking soda.

Mix vigorously until a smooth batter is achieved.

Sift in the dried vegetable 'flour' and whisk until very well combined.

Let the batter stand for 10 minutes.

Cook waffle batter in a waffle machine. Once cooked, roll the warm waffle into cones and allow to harden in a cool area.



For the vegetable syrup

Juice the beetroot trimmings and strain through a chinois into a pan with the sugar.

Place over medium heat and reduce to a thick consistency.

Season with the citric acid, then cool and place in a squeezy bottle.

Reserve until needed.

To serve

Place the ice cream in a piping bag.

Pipe into the ice cream cone.

Drizzle over the vegetable syrup and serve.



Fruit is one of the most wasted ingredients on the planet, and the average American throws out \$520 worth of fruit every single year.

"No one should ever waste overripe fruit," says **Dominique Crenn**. "Leftover fruit is the opportunity to do something else amazing with it."

With that in mind, Crenn shares her recipe for a fun frozen smoothie – one with a difference, as this smoothie harnesses the flavour of overripe peaches harvested from her farm.



Frozen Ripe Peach Smoothie

Ingredients

SERVES 4

Lemon verbena almond milk

400g almond milk 5g lemon verbena

Smoothie

400g infused almond milk 10g blue agave syrup 200g ripe peach 200g coconut whipping cream

For the lemon verbena almond milk

Bring the milk to a simmer, then add the lemon verbena. Let it infuse for 4 minutes.

Pass through a chinois and let it cool down.



For the smoothie

Blend all the elements in a blender, then strain.



To finish

Put the smoothie in an ISI siphon.

Pre-freeze the mould before putting the espuma in it.



As a child, Troisgros' grandmother used to make this recipe using overripe raspberries, making ice cubes with the fruit, and adding yoghurt and cream. It's a simple yet delicious recipe that reminds him of his childhood. Even at three-Michelin-star *Maison Troisgros*, they sometimes forget about fruit and have to use it up in some way.

This is a simple yet elegant way to use up raspberries (or any other forest fruit) that you can do at home.



Raspberry Cushion

Ingredients

SERVES 4

250g overripe raspberries 125ml yoghurt 10cl heavy cream 100g caster sugar 75g egg whites

Take 200g of raspberries, add the yoghurt and 5cl of cream, mix with a fork, and balance with sugar to taste.

Fill ice cube moulds and place in the freezer.



Take a bowl, add sugar and egg whites, place in a bain-marie and heat to $60^{\circ}C/140^{\circ}F$.

Then mix with a mixer, at low speed, until completely whipped and cold.

Step 3

Spread the mixture on non-stick paper and dry for 4 hours.

Place the rest of the raspberries to dry, then blend to make a powder.

Step 5

Whip some heavy cream to make a Chantilly.

Step 6

Take out the cubes from the freezer and remove them from the moulds. Add a little scoop of whipped cream to each one.

Step 7

When the meringue is dry, fold the ice cubes inside, under a heat lamp or open oven.

Try to shape them like a pillow.

Put on a plate, finish with the raspberry powder and wait 5 minutes before serving, so the cubes are not too cold.





DISCOVER MORE **zero-waste ideas** on FINEDININGLOVERS.COM

