

euRRRRope!

Reduce, Replace, Reuse, Recycle

Issue number 7

24.1.2020



Picture by: Ivan Radic - *“Plastic waste on the ground”*. (2019)

Made by:

Nellamaria Tuimala, Liisa Uljas (Finland)

Beatriz Colares (Portugal)

Lisa Weinbach (Sweden)

Nadine Latta (The Netherlands)

Muovimuuvit = plastic moves

means practical actions which will have even more products recycled. The ambition is to get million finnish to join the plastic recycle circle by 2020.

It has been estimated that 25-40% of plastic is used in different packages and ¼ in building. Specially in shop industry and in building it's creating huge amounts of plastic waste which has been hard to recycle because of how dirty they are. EU waste directive demand that in 2025 from all the plastic packages 50% should be recycled and in 2030 55%. At the moment 27% of plastic packages are recycled in Finland.

“Now day we burn too much plastic which is with mixed waste” Petri Salermo said. For exempel from community waste still almost half of it are still unsorted mixed waste. Among it it's estimated to have even 200 000 tons of plastic.

At the moment L&T collects users glad wrap in Turku, Hämeenlinna, Tuusula, Lappeenranta, Mikkeli, Savonlinna, Kitee, Oulu, Kokkola and Vaasa.

L&T investoi moderniin muovin kierrätysteknologiaan 26.9.2018

<https://www.lt.fi/fi/media/tiedotteet/l-ja-t-investoi-moderniin-muovin-kierratysteknologiaan>



Personal answer

I think I recycle my plastics very well and I reuse my plastic bottles by washing them and filling them up with water till I return them to the store. I could stop buying water bottles and start carrying one around.

- When I buy stuff I try to buy the product that has the least plastic for example minced meat created a new package that has 30% less plastic than the old one.
- I didn't find microplastic from my face gel but I'm not sure do I have them in some of my other products.
- I always recycle my plastic bottles and I try to recycle also the other plastics I use.
- I don't usually buy bad quality products made of plastic

Recycling in Taiwan

Liisa Uljas

In 1980s Taiwan was known as a really polluted island. It's economy has grown really much and all kind of consumption had increased, and at the same time also the amount of waste has increased. About 30% of this waste ended up in nature. Because of this there was a lot of problems like rats in Taiwan.

Nowadays Taiwan is on the top of the recycling. To reach this Taiwan has done a lot of things. It has decided about new strict rules that forbid many single-use plastic products like straws. Also littering is forbidden and you are forced to pay big fines if you do that. In some parts of the country there is some security cameras that watch that nobody throw garbage into the wild.

Taiwan has also removed all the rubbish bin in public places so that people was forced to carry their own waste to home and take care of them themselves. As a result of this the people don't want to buy single-use plastics anymore, because is a lot of easier to not to use single-use plastic than to carry it home. People has also become more aware about their plastic waste, so it is easier to decrease it.

In Taiwan recycling is free but to not to sort the waste is not. Waste disposal fee is included in the price of specific trash bags in which people has to put their mixed waste. All the other types of waste -like bio waste, metal and glass - can pe putted in free pags, so the smaller you sort your waste, the more you have mixed waste and the bigger are the fees.

Even if Taiwan has developed really much, it still want to get better. In 2030 Taiwan wants to be totally free of single-use plastic.

sources:

<https://inhabitat.com/taiwan-introduces-one-of-the-worlds-most-comprehensive-plastic-bans/>
24.1.2020

Personal answers:

Do I buy products wrapped in a lot of plastic? Is there a better alternative?

I do use some products that are wrapped in a lot of plastic but when there is an alternative that includes less plastic or that is wrapped in some other material, i usually choose it.

Are there microplastics in the hygiene products and cosmetics that I use?

Could I stop using them or replace them with products free from microplastics?

My toilet soap is totally free from microplastics but my shampoo includes them so I should find another shampoo to use. Some of my friends and family members have recommended a piece of soap and i would like to try it.

Do I recycle my plastics waste? (Plastic packaging material)?

I mostly recycle my plastic waste when I am at home and at school, because there are recycling bins in there, but when I am

travelling or when I eat at restaurants etc. I don't usually recycle that well because it is more difficult.

I do not buy that much bad quality products made of plastic but I think I should not buy any.

Do I buy bad quality products made of plastic? Could I replace them with more long-lasting products?

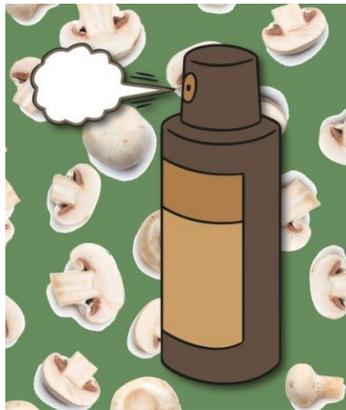
“Spraysafe”

Beatriz Colares

According to a study published in the newspaper *Science Advances* in 2017, since 1950 (when plastic was first introduced) about 8.3 billion tons of the material was produced, while only 9% of that amount was recycled. The remaining part was accumulated in landfills or thrown into nature. With this huge problem in mind, a group of researchers from the Mountain Research Center of the Polytechnic Institute of Bragança, in Portugal created SpraySafe – an edible food conservation method, 100% natural.

The plant extracts play the main role here: they have an antioxidant and preservative capacity, namely antimicrobial, to avoid oxidation processes and the development of microorganisms, maintaining the initial characteristics of the food product. The only thing needed is to spray the food.

“SpraySafe” formulation was developed based on several years of experience of the Mountain Research Center research group in the study of plants and identification of



potential antioxidant and/or antimicrobial compounds.

There were several months of 'trial and error' until it reached the formulation that now can be applied in ham, and prepared to be now studied in mushrooms and cheese.

In practical terms, this product has the ability to reduce food oxidation, thanks to the

antioxidant compounds present in the plant extract that integrates the spray (due to professional matters, the name of the plant isn't revealed by the team).

The product also has an antimicrobial capacity (it reduces the microbial growth of fungi, yeasts and bacteria), along with impermeability - after the application of SpraySafe, the layer that is created reduces dehydration, to avoid changes to the flavours and aromas of food, as it usually does, avoiding the need to pack the food with plastic.

And that is how we are, step by step, revolutionizing the world.

Websites:

“SpraySafe põe fim ao plástico”, 2019,
<https://datnews.pt/spraysafe-poe-fim-ao-plastico/>

“Investigadores portugueses desenvolvem spray que pode substituir o plástico”, 2019, Mónica Bozinoski,
<https://www.gqportugal.pt/spray-portugues-conservante-alimentos>

Personal questions:

Is there a personal challenge I should take on?

In my opinion everyone needs to be challenged somehow, once is through challenge that we push ourselves up to our limits. Regarding this theme, there is always something we could do to have a more ecological way of living. Starting with reducing the use of plastic or recycling and ending up with planting trees, there is always something we can do. In my personal case, my main challenge could be, for instance, reducing the use of plastic.

Do I buy products wrapped in a lot of plastic? Is there a better alternative?

Actually almost every snack brand wraps its products in plastic, that is why I can say I actually buy lots of “plastic wrapped” products. A better alternative would be to wrap, for instance, cookies or bread in paper bags.

Are there microplastics in the hygiene products and cosmetics that I use? Could I stop using them or replace them with products free from microplastics?

After checking I realized that none of the hygiene products I use have microplastics in them, which is really good. Although, if they had microplastics in them, I think it would be easy to replace them as there are lots of hygiene brands on the market nowadays.

Do I recycle my plastic waste (plastic packaging material)?

Yes I do.

Do I buy bad quality products made of plastic? Could I replace them with more long-lasting products?

Most of the “plastic wrapped” food I buy is wrapped in very thin and non resistant plastic. Even though it is not the best thing, they will, sooner or later, be thrown into the recycling bin so I think, as they are food wraps, and I personally buy lots of food, i would have to throw it away as well, so I think it wouldn't make a big difference though.

The west coast → The plastic coast

Lisa Weinbach

Littering and streams in the Atlantic transform the west coast in Sweden to a dump. In the coast there are lots of plastics like, ropes, rubbish, disposables and water bottles. At the coast it's floating in 5 bathtubs with plastic per hour. Individuals, companies, entrepreneurs and organisations works to clean up the beaches with the aim to make them plastic free. The animals are affected negative for example, birds die if they have been eating plastic. During 2018 they have picked up 280 tons of plastic on the west coast. Then they have been taking the plastic to the recycling stations. Even if you throw plastic in the nature, around 80% ends up in the ocean. At the same time as we see this problems in Sweden the consumption of plastic in the world increases. Around 5-13 millions ton of rubbish ends up in our oceans every year.

How to make a change:

- Everyone is welcome to clean up the beaches. There are voluntary organisations that coordinates cleaning up the beaches.
- We need to decrease our plastic consumption. For example, say no to plastic when you are shopping, take with you your own take away products to cafées or restaurants. Change your plastic products to another materials.
- Recycle plastic if it's not possible to use it again.
- Stop using disposable products.

Personal Questions:



How can I reduce my use of plastics or recycle it better? Is there a personal challenge I should take on?

- Do I buy products wrapped in a lot of plastic? Is there a better alternative?
- Are there microplastics in the hygiene products and cosmetics that I use? Could I stop using them or replace them with products free from microplastics?
- Do I recycle my plastics waste? (Plastic packaging material)?
- Do I buy bad quality products made of plastic? Could I replace them with more long-lasting products?

Personal Answers:

To reduce my use of plastic I can for example not buy plastic bags in the grocery stores. When I buy food, I bring my one cotton bag or a reusable plastic bag so I don't need to buy a new plastic bag every time I shop.

This makes my plastic consumption decrease a lot because the grocery stores are a big reason why the plastic consumption are so big.

If i buy fruits you often take a plastic bag for every kind of fruits you buy, but the fruits don't need to be in a plastic bag so you can just put them into your cotton bag. I would not use plastic bottles or buy sparkling water in a bottle.

I would instead fill glass or metal bottles with tap water. I could also make my own carbonated water at home with a sodastream and tap it up in bottles.

When I'm at a café I can bring my own reusable cup or mug so I don't need to buy a plastic mug that I only can use on time. Avoid all kind of plastics that you only can use one time and then you need to throw it. Say always no to Straws because you use them one time and then throw them. Instead you can buy metal or glass Straws that you can wash and reuse.

I'm pretty good at recycling but I can always be better. It's very important that you don't throw plastics with other materials. You need to sort your rubbish. You can not throw away the plastics away in the nature. A large amount of the plastics ends up in the ocean and that's bad for all the animals and plants. You always need to recycle and it's important that all people become aware of their plastic consumption.

If we take a look at my hygiene products we can see that my shampoo and conditioner are vegan. I use a brand called Maria Nila and they are 100% vegan. When I read the ingredients on the bottles I can't see any microplastics. My deodorant I use is from a brand called Indy Beauty. Indy beauty is a 100% vegan brand and the deodorant I use is called, aluminum-free 24h fresh deodorant.

Bibliography:

Aftonbladet: Swedish newspaper
<https://plastkusten.story.aftonbladet.se/cha-pter/plastkusten/>

Environmental blog, Hellberg, Anders (2013).
<https://supermiljobloggen.se/nyheter/sa-ka-n-du-minska-din-onodiga-plastanvandning-11-tips-fran-plastriot/>

Environmental organisation, Östman, Magnus (2017).
https://www.naturochmiljo.fi/vad_vi_gor/miljo_och_livsstil/article-28656-61776-minska-din-plastanvandning

Picture: Geraint Rowland, All children are artists. (2015)
[Link](#)

Västkuststiftelsen:
<http://renkust.se/>

The Great Bubble Barrier

Nadine Latta

The Great Bubble Barrier is a young and fast-growing Dutch start-up located in the north of Amsterdam. Philip Ehrhorn is the co-inventor of the company.

What do they do?

The Great Bubble Barrier addresses the problem of plastic pollution in our oceans, by focusing on: our canals, rivers and channels. They create a bubble screen by pumping air through a tube with holes in it, which is located on the bottom of the waterway. The Bubble Barrier creates an upwards stream, which brings the plastic garbage to the surface of the water. The Bubble Barrier is placed diagonally in the waterway, so that the stream guides the plastic to the catchment system at the riverside.

Ships and fish can pass The Barrier, but plastic will be stopped.

Why is it such a problem for the environment?

Plastic waste is being dumped in our waterways, and this brings a great harm to the environment. Aquatic animals also get tangled in the plastic waste and microplastics are bad for the health of all organisms. The ships that come by suffer damage because of the plastic. And that's why they created The Great Bubble Barrier.



Other benefits of the Bubble Barrier:

- Makes smart use of the natural current of a river.
- Guides plastic to the side of rivers and canals.
- Stops plastic on its way to the ocean.
- Is based on existing technology.
- Is an innovative concept.
- Increases the oxygen within the water.
- Does not need changes in infrastructure or policies.
- Is easy scalable.

Their goal is to eventually place Bubble Barriers in urban and industrial areas, which are known to have a high rate of plastic litter.

Personal questions

- **Do I buy products wrapped in a lot of plastic? Is there a better alternative?** Personally I don't buy plastic packages myself, but my parents do because they do all the groceries. I think there is always a better alternative, ofcourse. Like paper or glass packages or something else.
- **Are there microplastics in the hygiene products and cosmetics that I use? Could I stop using them or replace them with products free from microplastics?** I can't find any microplastics in my shampoo or showergel. But, the app cosmEthics says that my vasaline lipbalm contains bad stuff.

- **Do I recycle my plastic waste (plastic packaging material)?**

I don't recycle plastic myself, but I bring it to a place where they recycle plastic

- **Do I buy bad quality products made of plastic? Could I replace them with more long-lasting products**

I don't really think that I buy much bad quality products. Because my stuff does not get broken really fast, But maybe an umbrella, because I always break them.

Bibliography:

<https://thegreatbubblebarrier.com/>

<https://www.flickr.com/>