



Beat the Receipt

Ditch the paper,
save the planet



IT'S TIME TO BEAT THE RECEIPT

Reach your hand into your coat pocket and you'll probably find several crumpled up receipts. These tiny slips of paper are ubiquitous: we get them every time we buy something, but most of us simply shove them in our bags, pockets, or bins without ever looking at them.

But paper receipts are a hidden environmental problem. Every year in the UK alone we print 11.2 billion paper receipts at a cost of hundreds of thousands of trees, billions of litres of water and thousands of tonnes of waste.

Plus, most paper receipts can't be recycled. They end up in landfills up and down our country, emitting dangerous greenhouse gases as they decompose and creating unnecessary risks to human and animal lives.

Receipts are incredibly important - we rely on them to protect ourselves as consumers, for business expensing, and to keep track of our spending. But as consumers push businesses to be more sustainable, it is becoming increasingly clear that paper receipts are not only an unnecessary drain on our natural resources, but that they no longer fit into our increasingly digital lives.



Global paper consumption is increasing year-on-year, and in a world where we only have 11 years to limit our greenhouse gas emissions and halt the progress of climate change, it's time for each of us to examine the impact of our daily choices.

As a nation, we're starting to make changes to our shopping habits to become more sustainable, but there's still work to be done. We need to continue to replace outdated, wasteful technologies with innovative solutions that benefits consumers and retailers alike.

It's time for us to take a stand and ditch the paper receipt - together, this small change will have a huge impact.

Let's beat the receipt.

THE ANATOMY OF A RECEIPT

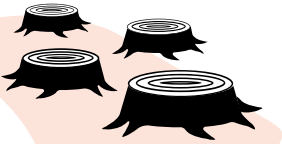
Do you really know what that tiny receipt in your pocket is made of?

More than 11.2 billion receipts printed in the UK each year



28,000 tonnes of CO₂

200,000 trees cut down



10,640 tonnes of paper waste



more than 50% contain BPA

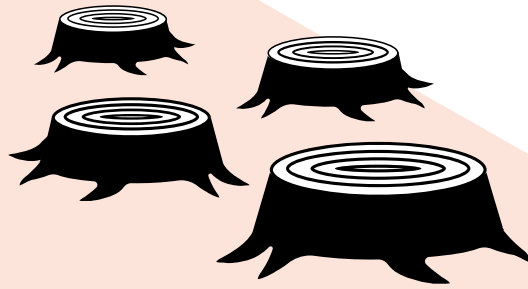


1,600,000,000 litres of water



TREES

Every year around 200,000 trees are destroyed in order to supply the UK with our paper receipts [1]. For context, that's more trees than are in all of London's eight Royal Parks combined [2]. Trees are vital to our planet's health: they give us oxygen, trap dust and pollution from the atmosphere, and help stabilise our natural environments. But most importantly, they help us to combat global warming by trapping excess carbon in their wood. If we left the trees we use for receipts in the ground, they'd remove over 4,000 tonnes of carbon dioxide from our environment every year [3].

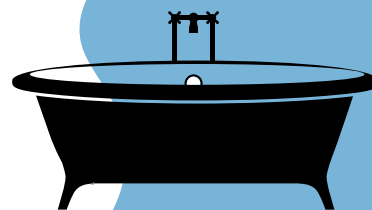


WATER

It's estimated that 1.6 billion litres of water are used to produce the thermal paper used to print the UK's receipts every year - that's enough drinking water for almost 1.5 million people for an entire year [8]. But it's not just the water consumption that's problematic: studies show that BPA from receipts is also leaching into our waterways during the recycling process, causing problems in the normal reproductive development of fish, reptiles and birds [9].

CARBON

A recent study has shown that a single paper receipt emits around 2.5g of carbon during its lifetime - from production, to transport, to landfill [4]. With 11.2bn receipts printed each year in the UK, that's a whopping 28,000 tonnes of CO₂e entering our atmosphere every year. [5] That's the same level of emissions as flying from London to Sydney over 10,000 times or burning 30 million pounds of coal [6]. It would take almost 8,000 hectares of parkland a year to remove this carbon from the atmosphere [7]. That's more than 1,100 football pitches



CHEMICALS

It's estimated that at least half of all receipts printed in Europe contain toxic chemicals called bisphenol A (BPA) or bisphenol S (BPS) [10]. These are the same chemicals that are found in single-use plastics and make receipts almost impossible to recycle because these chemicals contaminate other recycled products during the process [11]. When we touch receipts, the chemical coating is absorbed into our bodies in seconds and studies have suggested it may act as an endocrine disruptor, causing developmental and reproductive issues for both humans and aquatic life [12]. It's estimated that over 120 tonnes of BPA is used in the production of the UK's receipts each year [13].



WASTE

Over 90% of receipts are lost, damaged, or thrown away by consumers, creating more than 10,000 tonnes of solid waste [14]. In 2018, biodegradable waste like paper made up over one-quarter of UK's landfills - this kind of waste is extremely damaging to the environment because it releases a potent greenhouse gas called methane as it decomposes [15]. Attempts to recycle thermal receipts rather than binning them is also extremely problematic - thermal paper recycling has been identified as a major source of BPA contamination in the creation of recycled paper products like toilet paper, and is a major source of BPA release to surface waters [16].

TAKE ACTION



As an individual, there are a number of ways that you can get involved with our campaign and help us to beat the receipt:

Say no to paper receipts at the till! This is the single most important action you can take - every receipt not printed helps to keep trees in the ground and chemicals out of our environment

Let your favourite retailers know about our campaign and educate them about the problems with paper receipts

Help us spread the word by sharing this report with your friends, family, and wider networks



As a retailer, you have an opportunity to be an industry leader by providing a sustainable shopping experience for your customers - as well as saving them time at the till and cutting your operating costs!

Rather than printing receipts automatically, switch your tills to optional printing instead. This means you'll only be printing receipts for customers who really need them.

There are also a number of digital receipt alternatives available in the UK, including email receipts or digital receipts that are sent straight to your customers banking apps.



FURTHER INFORMATION

[1] It is estimated that it takes 16.9 trees to produce 1 tonne of paper (1 tonne of base paper uses 2.8 U.S. short tons of wood, which is about 16.9 trees according to the Environmental Paper Network. A single receipt weighs 1.05g on average (calculated as 9 inches in length and 3.125 inches wide, weighing 58g/m² according to research done by the Carbon Trust), so 11.2bn receipts weigh approximately 11,760 tonnes. This equates to 198,744 trees.

[2] There are around 170,000 trees across all eight of London's Royal Parks.

[3] According to the European Environmental Agency, over a year a grown tree on average removes around 22kg CO₂e from the atmosphere.

[4] Per a 2019 study commissioned by Flux to the Carbon Trust.

[5] Calculated using the Environmental Protection Agency's greenhouse gas calculator.

[6] 28,000 tonnes of CO₂e would require 1,272,727 trees to remove it from the atmosphere (one tree removes appx. 22kg CO₂e).

[7] According to the Environmental Paper Network, 11,760 tonnes of base paper uses 354,000,000 gallons of water. If each person drank the recommended 3 litres of water per day for a year, that equates to 1,461,187 people.

[8] In 2018, Flux conducted a UK-wide survey through Censuswide, looking at the awareness and habits of British consumers when it comes to the use of paper receipts. However, 90% of people say that when they do need to use paper receipts, they're usually already lost, faded or binned, and 75% of receipts are thrown away

[9] You can read more about the leaching behaviour of BPA [here](#) and BPA's endocrine-disrupting capabilities [here](#).

[10] The European Chemicals Agency recently implemented a restriction on using BPA in receipts due its adverse health effects. Studies show that many suppliers are simply replacing BPA with BPS, which is recognised to have similarly adverse health effects.

[11] See footnote 9 above.

[12] See footnote 9 above.

FURTHER INFORMATION

[13] An average thermal receipt is estimated to contain at least 60micrograms of BPA per square cm.
<https://www.pca.state.mn.us/green-chemistry/bpa-thermal-paper>

[14] In 2018, Flux conducted a UK-wide survey through Censuswide, looking at the awareness and habits of British consumers when it comes to the use of paper receipts. However, 90% of people say that when they do need to use paper receipts, they're usually already lost, faded or binned, and 75% of receipts are thrown away unused.

[15] More information about the UK's biodegradable municipal waste can be found here.

[16] More information about BPA contamination during the recycling process can be found here.

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