This month we discover how our festive refuse, from ribbon and crackers to turkey and batteries, is renewed, recycled and reused.

AS CHRISTMAS has become ever more commercialised and most households have consumed ever more food, drink, presents and other stuff, so too have we produced more waste and found ourselves putting ever larger bin bags and recycling bins in the kitchen.

In this issue we investigate what becomes of all that rubbish. Where does it go, why does it vary so much from region to region, and in what ways could it be better recycled, reused, recycled or repurposed? We look at how all that rubbish is collected, moved, sorted and disposed of – preferably with some benefit along the way such as generating some power. Mark Harris starts by looking at the scale of the problem in the UK and elsewhere, and how it could be reduced in the first place. Should we all have artificial Christmas trees, or real ones? Find out on page 38.

How many boxes, bins or bags do you have to sort your rubbish into? Four containers is the average in the UK. Some councils ask residents to stuff all their rubbish into a few bags – black bin bags for landfill and a sack for all the recyclables. But that means they have to be sorted later, which all takes time, money and energy. Forty councils go to the other extreme, supplying nine different bins and sacks that’s better for the councils and refuse contractors, but more troublesome for the residents. The residents of Newcastle under Lyme have to sort into no less than nine containers – which must be a record for the UK, unless one of our readers lives anywhere that requires more.

In this issue we delve into three bins in three features. On page 34 we sort through the green bin of recyclables – glass, plastics, paper, cardboard and so on. Where does it all go now and what will happen to it in the future?

UK households throw away 80 per cent more food at Christmas than the rest of the year. We look inside the brown bin on page 38 to find out what becomes of the 4.4 million apples and half a million rashers of bacon that we throw away every day.

And what happens to the rest: all those ribbons and useless Christmas cracker contents, and the toys that will be broken by Boxing Day? That all goes into black bin bags, which go to landfill. The UK is burying less than it did ten years ago – 43 per cent of its rubbish rather than 79 per cent – but at the rate it’s going it will run out of space by 2018. Find out what can be done about the black bag problem on page 42.

In our focus on waste we also investigate the Olympic waste technology (page 46), waste data (page 48) and how industry will or won’t meet the new European targets for recycling batteries.

Also in this issue: the technology of ‘Bladerunner’ (page 80); the next big thing in wafers for making chips (page 76); and what ‘Bladerunner’ (page 80); the next big thing in wafers for making chips (page 80); and what...