

# BiO-based packaging ready to go



What are the challenges of bringing bioplastics into everyday consumer packaging? Barry Mansfield asks Sainsbury's print and packaging manager, **Stuart Lendrum**.

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Stuart Lendrum is driving Sainsbury's bioplastic packaging initiative, which the company began around five years ago, Now, the supermarket firm is working with a number of suppliers and, in its organic range, has achieved a recyclable/compostable packaging rate of 80%. What lessons can the Sainsbury's experience teach the rest of the retail sector?

## What first made you look into bioplastics as a viable alternative to traditional materials?

Everything we do sits within our overall brand standards, and feedback from customers suggests that packaging plays an important role in their decision-making process. Our aim as a business is to reduce the amount of packaging we use, and to make that packaging either home-compostable or recyclable.

For us, an important aspect of bioplastics – at least in this stage of the industry's development – is to emphasise the importance of home-compostable material, as opposed to commercially compostable materials.

It's easy to define something as recyclable. But the key is whether the customer can take it home and recycle it. Over the last few years the bioplastics industry has changed dramatically, in terms of the technical properties of what's on offer, the commercial aspects of what's on offer, and also the supply aspects. It can be quite hard for certain suppliers to deal with a big retailer such as ourselves, because of the scale of what we do. The bioplastics



Sainsbury's initially introduced bioplastics to its SO organic produce.

industry, when contrasted with the traditional plastics industry, is still very much in its infancy. But we see the opportunities for improvement and the potential benefits as being huge.

## What's your assessment of the industry?

At the moment, the companies who are doing well at bioplastics are the companies who've been involved in it for a long time. We see perhaps four main players in bioplastics. As a retailer we are keen to work directly with bioplastics manufacturers, but also with converters. There are big challenges with the conversion of bioplastics. It's only through collaboration and working with everybody in the chain that we can bring these products to the marketplace.

The other critical factor is the willingness to work with converters and manufacturers to make sure we fully understand the technical properties of the materials. Quite simply, they are different from traditional packaging materials. We have to find the best fit for them in our business, which is really important. We also want to give direct feedback to the manufacturers and converters about the opportunities for material development.

## Do you think consumers are now more switched on to the environmental benefits of bioplastics?

Yes, but not under the terminology of bioplastics. Consumers are more likely to talk about compostable packaging. The trouble is there's a lot of material out there that could be classed as home-compostable, but there's no European standard on home-compostability. To really drive the use of commercially compostable materials like PLA, there needs to be a method for local authorities to collect, recognise



and identify these materials and processes.

**What challenges have arisen from the use of bioplastics?**

In reality bioplastics look just like traditional plastics, particularly PLA, which is virtually indistinguishable from PT or OPP. There is a challenge for retailers and converters in how to make these materials readily identifiable. If we're going to really drive composting, it needs to be done both in the home and at a local authority level. We have one other challenge with PLA. Until now there has been no certified non-GM version of PLA available. Sainsbury's won't use something that promotes GM as an industry. We simply won't use PLA, but other retailers have no problem in doing so. If people use PLA in a bottle, for example, then that's a real challenge for the recycling industry, because it is a contaminant. All our bioplastics are home-compostable.

We work with an Italian company, Novamont, which supplies us with a maize-based plastic. We also work with Innovia Films, which manufactures a cellulose-based plastic.

**What are your ambitions for the use of green packaging at Sainsbury's stores?**

Last September we committed to rolling out the use of compostable materials across the organic produce area. 80% of our packaging components are now either home-compostable or recyclable. Our aim is to make it to 100%. Shoppers need to be able to see the item, make an evaluation and choose. Visibility

is important. We did a lot of trial work and a lot of survey work, indicating to our customers that we wanted to make a move into compostable packaging. We decided to consult them because, unfortunately, some of the bioplastics materials can be cloudy, so you're not necessarily going to see the product as well. We wanted to gauge how customers felt about this. Based on the feedback, we decided to go ahead and we're now using it to package organic apples, potatoes, carrots and bananas.

Rolling out across the organic produce division was a big first step for us. Obviously, we want to go further, but there are multiple challenges, both technical and commercial. The industry is growing with us. The bioplastics community as a whole should feel confident in pushing ahead and doing the right development work. Collaboration will be the key.

**How do you see the company's use of bioplastics changing in the future?**

We believe that the compostable industry is going through massive change in everything it does, from the development of new materials to the development of processes to make current materials more efficiently. We've been in this for four years. We're well and truly in it, and not for the short term. We've invested a huge amount of money to roll out bioplastics – I'm not able to reveal the exact figure, but it's a lot, believe me! However, no retailer should expect its customers to pay extra in order to fund the introduction of bioplastics. It's something we bear the cost of in our business.

Other retailers, including Morrisons and Marks & Spencer, have also embraced green packaging. What's important for us, though, is that our customers are able to identify the materials themselves. Our organic produce and bags have a printed logo on the film to make it clear that it is packaged with compostable material.

It's a delicate balance, because you want to give your customers more information, but at the same time you don't want to overload them. If you take a look around any

Sainsbury's store, you can see the difference with what we do. We pride ourselves on our ability to give customers the low-down on every single item. It's transparent, uncomplicated and laid out clearly for all to see. We aspire to make life easier, and this will be the foundation for all our future efforts. **pci**

**The competition**



**Tesco's** new tray for bakery products will be made from

60–80% recycled plastic, and will divert at least 210 tonnes of plastic going into landfill each year. 20% of Tesco's Organics range is now in fully home-compostable packaging, with a further 60% in degradable packaging.

Source: [www.tesco.com](http://www.tesco.com)

Compostable packaging has been introduced to **Morrisons'** Organic fresh produce range, saving 27 tonnes of plastic packaging and 4.5 tonnes of moulded fibre from going to landfill. Trays are made from sugar cane fibre, flow wrap film is made from wood pulp and bags are produced using



GM-free corn starch. These materials naturally break down in a compost heap over a period of six to 24 months.

Source: Morrisons CSR Report, 2007

**M&S** delivers around 70% of its food in re-usable plastic trays, saving at least 30,000 tonnes of packaging a year. By 2012 the company aims to send no waste to landfill from stores, offices and warehouses in the UK and Republic of Ireland. This includes all the construction waste from building activities.

Source: M&S, How We Do Business, 2007



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