

distribution centre



Performance: Transport

Performance

Transport

Goal: Increase the efficiency of transporting our products, and address employee and customer travel, with the aim of reducing CO₂ emissions whilst achieving customer satisfaction and business growth.

The Group's main transport impact is from the transport of products for sale in store. Road transport is the backbone of the business and the majority of this is between depot and store. Increasingly, in the UK, products are transported by Sainsbury's for suppliers where efficiencies can be generated. This involves the combustion of fossil fuels resulting in various emissions, including CO₂.

We recognise the need to reduce our transport impacts on air quality and global warming, to continually improve the efficiency of the supply chain thereby reducing emissions including CO₂. Ways of achieving this include reducing the number of kilometres travelled per product sold, increasing the vehicle fill and reducing the emissions per kilometre through engine efficiency, alternative fuels and alternative modes of transport.

Transport Programme

Sainsbury's Supermarkets initiates the majority of product transportation in the Group. The challenge is to operate the Group's transport systems efficiently and to pursue ways to cost effectively reduce its environmental impact whilst the business continues to increase the amount sold.

Reducing km/product delivered

- Sainsbury's Supermarkets has established a National Transport Service Centre (NTSC) to optimise the effectiveness of its transport operations. This is leading to greater efficiency and effectiveness enabling Sainsbury's Supermarkets to make substantial cost savings and reduce vehicle usage and kilometres travelled.
- The NTSC presents opportunities for reductions in total lorry distance through the better planning of vehicle movements whilst optimising lorry fill. In this respect, where it is beneficial it organises collections of products from suppliers using Sainsbury's own fleet, thus reducing the number of vehicles on the roads. In a typical week some 8-900 such collections may take place.

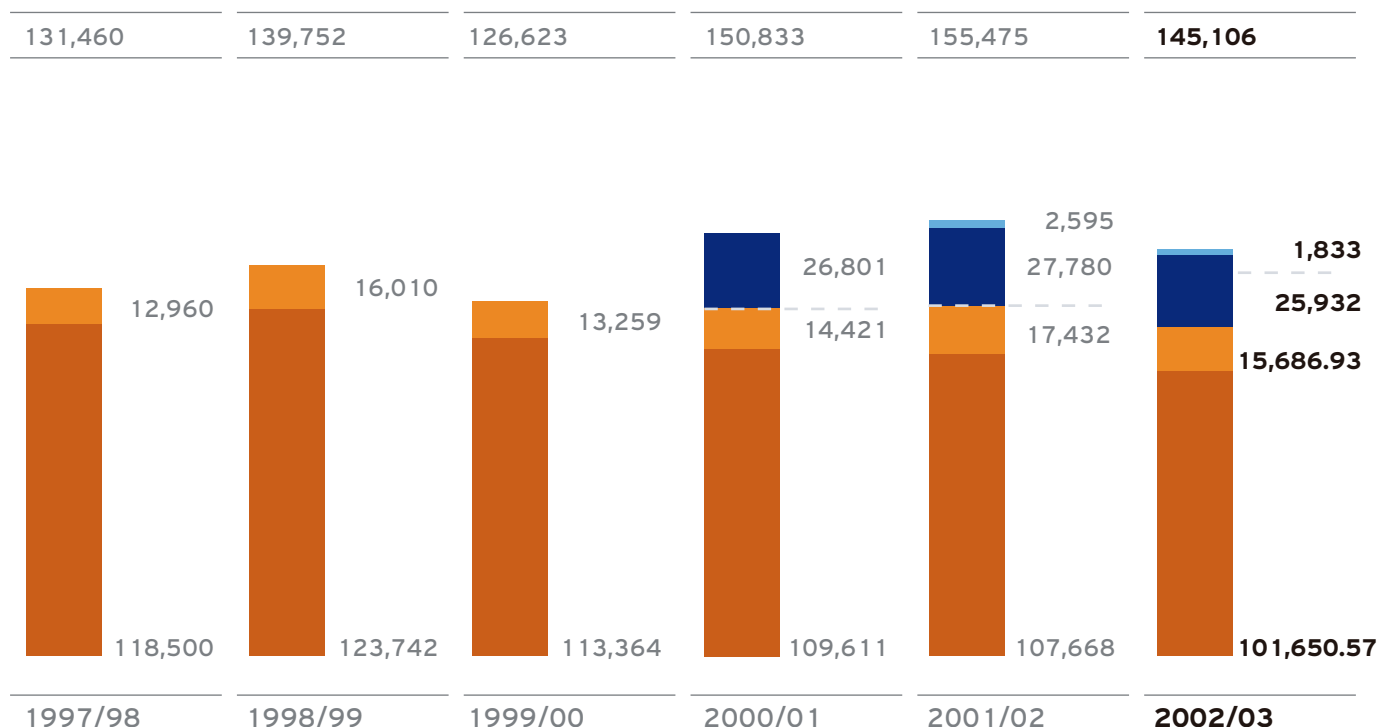
Reducing emissions/km

- CNG has been trialled in Sainsbury's Supermarkets lorries. Unfortunately, it cannot be operated reliably currently, and Sainsbury's has asked manufacturers and fleet providers to meet this reliability challenge.
- We conducted a trial on biodiesel using 20 vehicles. Despite some concerns from the fleet vehicle owners, the trial produced no adverse comments on vehicle running or maintenance and consideration is being given to moving onto a larger trial as well as using used cooking oil within the biodiesel mix.
- Rail freight has been used but poor reliability and service levels currently prevent this. The company continues to take every opportunity to raise the issue of rail infrastructure with Government and other groups.
- The lorry fleet is gradually being renewed, and the opportunity is being taken to use more efficient engines.

Performance

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Carbon dioxide generated from Sainsbury's Supermarkets and Shaw's Transport (Total tonnes CO₂)



- Shaw's HGV deliveries
- Shaw's refrigeration (reefer) trucks
- Sainsbury's HGV deliveries
- Sainsbury's refrigeration units & depot vehicles

Notes to Graph

Sainsbury's Supermarkets data

- For 2000/01 onwards improvements have been made to data collection for CO₂ figures from Sainsbury's Supermarkets' Heavy Goods Vehicles. The bulk of data are taken from actual fuel usage, and accounts data of distance travelled although extrapolations have been made for any missing data. In previous years CO₂ was calculated from litres derived from distance travelled, mpg and estimates.
- Conversion factors 1997/98 and 1998/99:
 - HGVs: Standard diesel 2.82kg CO₂/litre [Source: Freight Transport Association].
 - HGVs: Sainsbury's Ultra Low Sulphur City Diesel 2.57kg CO₂/litre [Source: Greenergy].
- Other years conversion factors from the DETR Environment Reporting Guidelines (1999):
 - Diesel (including Ultra Low Sulphur) 2.68kg CO₂/litre.
- CO₂ figures for Sainsbury's Supermarkets HGV fleet include Sainsbury's Supermarkets owned and contractor fleets in distribution systems operating mainly between depot and store.

- Company car data have been removed from these charts for all years. This has been done as company cars represented around 6.7% of CO₂ emissions in 1999/2000 and our main targets cover HGVs only.

Shaw's data

- For 2001/02 data refer to the period 1 March 2001 to 28 February 2002.
- CO₂ emissions for 2000/01 relate to the period 1 January to 31 December 2000, include emissions from refrigeration (reefer) vehicles, but exclude deliveries to Grand Union stores. For US data purposes, 1 ton equals 2000 lbs.
- Conversion factors used are DETR Environmental Reporting Guidelines 1999 (see above), as Shaw's uses low-sulphur diesel.
- Shaw's data are derived from their distribution software which collects fuel usage and efficiency data. Contracted miles are based on estimated mileage and fuel consumption.

Performance

Transport

Overall Performance

Sainsbury's Supermarkets Performance

Again this year, we have delivered significant improvements in our supply chain, both in routing, in flexibility of delivery and in vehicle fill. We have been able to reduce the number of vehicles we put on the road, whilst still delivering the goods to our stores. We have therefore achieved a reduction in mileage travelled of 3.9% whilst delivering an extra 2.8% to our stores. This has resulted in a reduction in the CO₂ emitted by our vehicles of 6.2%.

During the year we continued to fit continuous regenerative traps to our vehicles exhausts and now 10% of the fleet is so fitted. This pollution reducing technology reduces the emissions of carbon monoxide by 98%, particulates by 95%, and hydrocarbons by 87% as well as making useful reductions to NO_x and CO₂.

Shaw's Performance

We have managed to reduce CO₂ emissions by 8.6% during the year, simply by doing things more efficiently. We have seen reductions in mileage travelled and the introduction of new equipment within the supply chain, which has improved fuel consumption. The reduction in mileage has been helped by repositioning drivers following the closure of the East Bridgewater warehouse, the move of cross-dock facilities between depots and further measures designed to improve vehicle loading.

Case study: Transport

Reducing CO₂ emissions



Reducing CO₂ Emissions from Sainsbury's Transport Fleet

Reducing CO₂ emissions is another area where Sainsbury's is hoping to make progress in the future. Sainsbury's is always exploring new ways of achieving this.

Awareness among Sainsbury's stakeholders of global warming and the implications of climate change is continually growing. It is their concerns that have kept reduction in CO₂ emissions from our transport programme as a priority for Sainsbury's. In 2002/2003 we have achieved a reduction in mileage travelled of 3.9% while delivering an extra 2.8% to our stores. This has resulted in a reduction of 6.2% in the amount of CO₂ emitted by our vehicles. Key in achieving our objectives has been to optimise the effectiveness of our transport fleet, be it those making food deliveries to store or Sainsbury's colleagues making their way to work.

The renewal of the fleet has given us the opportunity to use more energy efficient engines but other activity is being looked into to make further reductions in CO₂ emissions.

We conducted a trial with 20 trucks using biodiesel. The fuel was a 5% blend of biodiesel, which uses virgin blend rape seed oil and linseed oil. The trial was specifically monitoring performance and driver acceptance. With driver feedback positive and performance on par with standard diesel, the trial was judged to be successful. Unfortunately the fuel has not been adopted because there were commercial barriers. It is hoped that duty might be reduced on the fuel to make it a commercially viable proposition but this has not happened yet.

Sainsbury's have also looked at using gas-powered vehicles. Aside from the environmental benefits such as reduced NO_x, SO_x and CO₂ emissions, the fuels could also help the business to be more effective. To minimize the risk of disturbance to neighbours, Sainsbury's lorries can currently only make deliveries during specific times of the day resulting in large number of lorries transporting goods across the UK to stores during this short window of time. Gas-powered vehicles could help spread out delivery times simply because they are much quieter. Current delivery restrictions could be relaxed enabling Sainsbury's to use fewer vehicles over a longer time period. This would be beneficial in a number of ways; reducing emissions, congestion on the roads and disturbance.

Sainsbury's colleagues are also doing their bit for the environment, by thinking more carefully about how they travel to work. Sainsbury's Green Travel plans are now introduced into every new store and also those that have been extended or significantly refurbished to encourage staff to switch from their cars to alternative transport such as the bus, train or bike. Increased bicycle parking, showers and lockers, improved pedestrian access and better bus services are all now features of a modern store.

Since the introduction of the first Green Travel plan in 2000 at Watchmoor Park store in Camberley, Surrey the number of colleagues using cars has reduced despite the challenges of staff turnover and the demands of shift patterns at the busy store. Sainsbury's now has Green Travel Plans in 40 stores and as well as continuing to extend the reach of the initiative among colleagues is looking at promoting green travel to its customers too.