

## RESOURCE EFFICIENCY AT AN ORGANIC DAIRY PRODUCTS COMPANY

This Case Study demonstrates the cost and environmental benefits that Yeo Valley, a dairy product manufacturer, achieved by introducing a number of resource efficiency measures. The benefits to Yeo Valley include:

- 433,600 road miles saved per year, worth £715,440
- 477 tonnes of waste diverted from landfill from one site in 2007, saving over £36,000
- 7,500 m<sup>3</sup> of water saved in 2007
- A significant reduction in annual carbon emissions





# BACKGROUND

Yeo Valley has always been aware of the impacts its operations have on the environment and understands the role of resource efficiency in reducing these effects, while making cost savings. However, to help it improve resource efficiency further, the company sought advice from Envirowise and other business support organisations. Yeo Valley has won several awards for its investment in resource efficiency measures and has achieved ISO 14001 certification at its Blagdon and Cannington dairies.

## MANAGEMENT SUPPORT

All staff are trained in environmental issues, particularly during induction, and two-year refresher training courses are delivered to managers. The Environmental Manager reports monthly to the Senior Management Team on waste issues and how the use of water, fuel and electricity relates to production.

## RESOURCE EFFICIENCY INITIATIVES

### Packaging

Previously, Yeo Valley Organic yogurt was packed in card pots made from non-recycled material coated with a polyethylene film, making them neither recyclable nor compostable. In 2001, it launched a new two-part packaging design made from thin polypropylene plastic supported by recycled cardboard. The cardboard is uncoated and unbleached, enabling it to be recycled. The company is looking for an alternative to the inner polypropylene plastic, which is harder to recycle. The clip-on lids on larger pots are made of recycled plastic. These changes provide greater recycling and composting opportunities for customers.

In 2007, the company used 97 million two-part pots and found it to be a cost-neutral solution compared with the previous packaging.

The company's new shelf-ready packaging trays are made from recycled PET (RPET) and allow 38% more product to be placed on pallets. Annually, this saves about 570 lorry trips between the dairies and the cold store, saving about 22,800 road miles worth £37,620\*. The RPET tray design also allows more efficient airflow through the product, which reduces by 15% the time taken to cool the product.

## Waste minimisation

To minimise the wastage of valuable raw materials, Yeo Valley uses 'smart planning' to procure only what is required. As a result, the net loss from input to output is below 7%, but on-going waste minimisation initiatives are yielding further savings.

Food residue is collected from the pasteurising tanks, spill trays and from the wash-down process, and is sent for animal feed in compliance with the Animal By-Product Regulations. This has helped to reduce the amount of waste sent to landfill by 95%.

Packaging is one of the company's main waste streams. Any large, undamaged cardboard boxes are sent for re-use (eg at a removals company), while small or damaged boxes are compacted and sent for recycling. Plastic waste is also compacted and sent for recycling. From the Blagdon dairy alone, 477 tonnes of waste were diverted from landfill in 2007, saving over £36,000.



To reduce the amount of stretch-wrap used for pallet wrapping, Yeo Valley invested in a machine that pre-stretches the wrap up to three times its original length. This saves an estimated 3,950 rolls per year and the machine paid for itself within 12 months. It has also avoided 24 tonnes of waste creation per year for customers.



### Water minimisation

Yeo Valley discovered that nearly 30% of staff thought the water they used was free. Since then, the company has taken part in the Envirowise Big Splash programme to raise staff awareness and has implemented a range of water saving measures, including:

- During the wash-down process, staff are encouraged to collect water from the machines and to control run-off using squeegee mops instead of continuous hosing.
- The diameter of hoses has been decreased to reduce the water output.
- The dairy requires hand washing throughout the majority of the site. Infrared sensors have been fitted to turn the taps on and off automatically, and to limit the amount of water used.



These initiatives saved 7,500 m<sup>3</sup> of water in 2007.

The company has installed a water recycling system in the homogeniser units to capture and re-use about 2 m<sup>3</sup> of water per hour. The system is expected to save 15,000 m<sup>3</sup> per year.

### Taking responsibility

The organic milk for Yeo Valley Organic's products comes from a regional organic milk suppliers' cooperative.

Organic fruit is sourced from mainland Europe, and has always been transported by road to provide a low carbon footprint. The company is investigating sourcing fruit from UK farms to further reduce its carbon footprint.

The source of most of the yogurt pots has changed from Switzerland to Ireland, thus reducing transport costs and carbon footprint.

As yogurt has a short shelf life, the company has signed up with a charity, which allows yogurt that will not make it to the shops to be given to disadvantaged people across the UK. Since April 2007, it has sent 2,700 kg of product per month.

### Carbon footprint

Yeo Valley significantly reduced its carbon emissions in 2007 through various means including reducing vehicle mileage, investing in energy saving equipment, converting its warehouse and office facilities to green electricity, awareness raising and staff training.

Over the last six years, the company has built a fleet of double-decker trailers, each capable of carrying 52 pallets instead of the original 26. The number of road journeys has almost halved, avoiding over 410,800 road miles per year and saving £677,820\*.



\*Based on 2007 operating costs of £1.65/mile (Freight Transport Association Manager's Guide to Distribution Costs).



## YEO VALLEY

Roger and Mary Mead, founders of Yeo Valley, began making yogurt from their dairy herd in 1974. In 1993, they started producing organic yogurt. Now, the company employs about 1,300 people at its three dairies in Blagdon, Newton Abbot and Cannington in the West of England. The company makes a range of products, including fat-free to full-fat yogurts, plain and fruit-flavoured yogurts, ice cream, desserts, cheese and milk.



## COMMENTS FROM YEO VALLEY

The methods we apply to achieve resource efficiency are mostly just good common sense. We apply effective control of our operational activities and have invested in facilities to minimise our environmental impact. As a leading organic brand our consumers expect it of us and as an independent rural business it just feels right to us, too.



### **“THE METHODS WE APPLY TO ACHIEVE RESOURCE EFFICIENCY ARE MOSTLY JUST GOOD COMMON SENSE.”**

Nigel Pritchard, Environmental Manager,  
Yeo Valley Farms (Production) Ltd

#### **Host Company:**

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## USEFUL PUBLICATIONS FROM ENVIROWISE

(EN740) - *Benchmarking water use in dairies*

(GG707) - *Measuring to manage: a 'how-to' guide*

(EN665) - *Understanding water and wastewater bills*

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