

Reducing water use



FDF members are committed to making significant reductions in water use to help reduce stress on the nation's water supplies

The challenge

The nation's water resources are increasingly coming under stress for various reasons. They include: wastage due to ailing supplier infrastructure; absence of a national water grid; increasing demand; and factors such as climate change which can give rise to erratic rainfall patterns. The impact can adversely affect local wildlife habitats and water quality. Tackling water stress is therefore a growing environmental priority. Industry, water suppliers and consumers all have a part to play.

The food and drink manufacturing industry is a significant user of water. It is an essential ingredient in many food and drink products. It is also used in food and drink preparation, production and cleaning processes. However, the sector can help to conserve water to alleviate water stress providing food safety and hygiene is not compromised.

FDF's ambition

FDF will show leadership by raising the profile of water as a precious resource and developing a structured programme of water conservation for FDF members.

FDF is therefore committed to developing a high level 'Courtauld-type' Commitment¹ with Envirowise, which we will launch early in 2008.

FDF is committed to using the Commitment to measure the collective contribution that FDF members make towards an industry-wide absolute target² to reduce water use, outside of that embedded in products themselves, by 20% by 2020 against a 2007 baseline. FDF supports this industry-wide goal.

Delivering our ambition

FDF is working closely with Envirowise, the Government's expert body, to develop and launch an FDF/ Envirowise Commitment on water efficiency best practice, including monitoring and annual reporting by signatories. FDF will publish the aggregated results annually.

FDF will also work closely with other partners to achieve our water efficiency ambitions.

¹The Courtauld Commitment was launched in March 2005. Under it, Waste & Resources Action Programme, in partnership with industry, aims to design out growth packaging reaching households by 2008 and to deliver absolute reductions in the packaging reaching households (340,000 tonnes) by 2010.

²Proposed in the context of the Food Industry Sustainability Strategy published by Defra in 2006.

Case studies

FDF members are committed to making significant reductions in water use to help reduce stress on the nation's water supplies. Here are two examples of current best practice – showing what is possible by work which has been undertaken or is now underway in this area.

Walkers

Walkers, the potato processing company, reduced its water consumption by around 50% at its Leicester sites in Bursom and Leycroft saving around 700 million litres per year.

Achieving this required the development of a comprehensive understanding of water use at each of the sites. Reflecting the philosophy that if you do not measure it you cannot manage it, Walkers installed around 30 water meters at the sites. This enabled the company to develop a two pronged strategy to drive down water usage.

First the company developed a range of engineering solutions. For example, recycling water from the starch recovery programme, for use in potato fluming and washing, enabled 400 million litres of water to be saved each year.

Second, it worked to change the attitude and behaviour of factory staff to make them passionate about water conservation. Water use is now measured and reported by shift to show variations in performance between each of the teams that work them. Leak busters and water champions are assigned to each shift. The best performing teams are rewarded and recognised by the company for their contribution towards sustainability.

Overall, the strategy has led to water consumption falling from 17.67 to 9.24 litres per kilogram of potatoes processed in Bursom and 13.65 to 6.38 litres per kilogram in Leycroft.

Cadbury Trebor Bassett

Cadbury Trebor Bassett is committed to reducing water use and is saving about 15% per year at its cocoa processing site at Chirk, North Wales, equivalent to approximately 17 million litres per annum.

The site uses water for a variety of reasons, including generating steam for process heat, running cooling towers and cleaning. As part of the site environmental agenda, Cadbury Trebor Bassett invested around £2m in an onsite wastewater treatment plant to clean up effluent arising from the manufacturing process.

Waste water from the factory is passed through a number of different treatment stages. The primary stages include removing suspended solid material by dissolved air flotation and using submerged biological filters to remove biodegradable material. The final stage involves using a combination of microfiltration and reverse osmosis membranes to turn the effluent into high quality clean water.

The quality of the treated water is such that the company is able to re-use it for certain 'grey water' applications (e.g. to feed boilers to raise steam) located outside of the main factory building away from all ingredients and product.

As a result of its investment, Cadbury Trebor Bassett has been able to reduce demand for water usage at the site by about 15% per year resulting in a saving in water costs of around £10,000 per annum.

To build on this success, the company is currently exploring other opportunities outside of the main factory building such as use in the site's cooling towers.