

Lowaters Nursery - Pioneering environmental management in horticulture



Key facts

Name: Lowaters Nursery	Turnover: £1.6m
Sector: Plant propagation	Location: Hampshire
Number of employees: 24	Year of ISO 14001 certification: 2008
	Period to implement EMS: 12 months

Key successes

- Annual energy savings of 591,458¹ kWh after 4 years
- Major infrastructure improvement: reservoir and run-off collection systems installed which supply all irrigation water
- Annual operational cost savings of £41,000¹
- Reduced waste to landfill by 82%¹ in 4 years
- Pioneer of sustainability within horticulture

Green fingers turn to green business:

Lowaters Nursery (Lowaters) is a small company that grows and nurtures a wide variety of plants for garden centres. The company's strong link with nature gives it a moral responsibility to protect the environment. It is this responsibility which drove Lowaters to reduce its impact on the environment and promote sustainability.

Lowaters used funded consultancy support to help develop an environmental management system (EMS) and decided that ISO 14001 certification was the best way to demonstrate the company's environmental commitment. Lowaters was not daunted by the external auditing which comes with ISO 14001 certification as the company already encouraged its clients to come and inspect the business.

Saving energy – solar is the future:

Before implementing the EMS, Lowaters was using large amounts of oil and electricity to provide heat and power. By focusing on energy reduction in the EMS, Lowaters was able to reduce annual overall energy use by 68%, or 591,458 kWh per £m of turnover. In 2012, Lowaters will source 35% to 45% of the nursery's annual electricity usage from a new solar photovoltaic system. Not only will this project reduce Lowaters' carbon footprint and reliance on fossil fuel-generated energy by up to 50,000 kWh per year, but it will save around £3,500 on its annual energy bill and generate additional revenue through the Feed-In-Tariffs scheme.

Self sustaining irrigation of plants:

A significant environmental aspect of Lowaters' operations is the volume of water required to irrigate the plants in glass houses. The company therefore focused on water reduction and delivered improvements in water efficiency. More recently Lowaters researched the most efficient irrigation methods and changed from manual, less accurate methods to an intelligent automated control watering system.

In addition, instead of relying on mains water, Lowaters has installed a large reservoir to collect rainfall and a runoff system which together supply all the irrigation water demands for the nursery.



Reservoir for plant irrigation

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Irrigation water recycling system

What a waste:

Growing and distributing plants produces a lot of waste, notably: plastic pots, cardboard and plastic film packaging. Lowaters wanted to reduce the levels of waste sent to landfill and introduced an on-site baler system where all waste streams are segregated, compacted, baled and recycled. Since commencing EMS implementation, Lowaters has reduced the annual volume of waste sent to landfill from the site by 82%¹ and now manages waste more responsibly. The office and staff room also recycle paper, cans and glass waste.

Cost savings:

The above successes, plus further EMS-driven actions including reducing the use of raw materials such as peat, have led to significant cost savings of over £41,000¹ per year. Obtaining ISO 14001 certification has also opened up opportunities for revenue generation and has led to increased new business sales valuing approximately £58,000 per year.

Communication is key:

By keeping employees regularly informed of the proposed changes and inviting involvement at each stage of EMS implementation, the company's staff demonstrated real enthusiasm for the company's environmental improvements.

Unforeseen benefits:

The EMS has given Lowaters a common goal to focus on: providing staff with practical, visible channels to promote and demonstrate their own ethics and values. The positive cultural changes and the improved working environment resulting from the EMS have given Lowaters a new way to tackle problems.

Lowaters promotes sustainable practices to the wider industry:

Never the shy and retiring wallflower, Lowaters has opened its doors to other nurseries and other regional businesses to share its story and environmental initiatives. The company's aim is to not only raise Lowaters' profile, but also to encourage others to improve their own environmental performance.



¹ Savings figures normalised per £m of turnover to take changes in business volumes into account. Lowaters has increased turnover over the study period, which makes the savings figures even more impressive.