

Case Study Greenvale AP - water efficiency identified as a major production goal



“ Apart from the obvious saving of water, water efficiency has also enabled us to reduce energy consumption and consistently produce better product...”

Rob Phillips, Group Project Manager, Greenvale AP



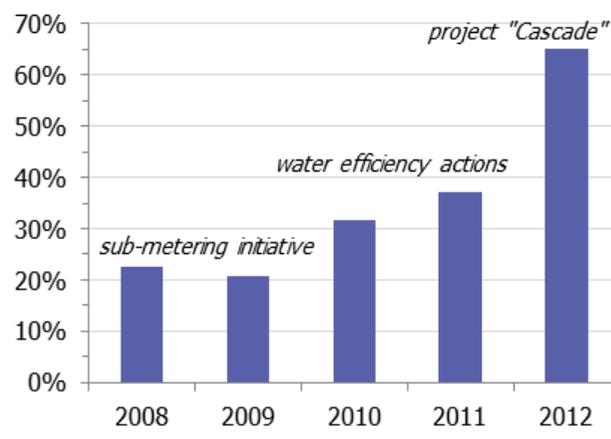
Established over 40 years ago, Greenvale AP is now one of the UK's leading suppliers of fresh potatoes.

The business breeds and develops new potato varieties, grows seed and ware potatoes, washes, selects and packs fresh potatoes for the retail, wholesale and food service sectors.

Fresh potato packing and processing is a water intensive industry and Greenvale AP recognises the true operational costs associated with this. Through the company's environmental strategy (green 15) they have set a number of targets: reduce water use by 50%; CO₂ emissions by 20%; and eliminate landfill waste by the end 2015.

Initially, efforts were made to install water sub-metering to identify where and how much water was being used. This alone led to a reduction in water consumption of over 20% (between 2009 and 2011). Their continued focus on water led Greenvale to develop and pioneer an award winning water recycling and treatment system called "Cascade" which has significantly reduced water consumption further.

Floods Ferry: Reduction in water use (% reduction compared to 2007 baseline)



The process collects used water and treats it (filtered, purified, disinfected and chilled) so that it can be re-used. The system also recovers the sand and soil from the water so that it can be re-used and sold on, so that almost everything is recycled – eliminating costly sludge disposal costs.

The system was initially installed at Greenvale's Tern Hill site in Shropshire in 2009. Based on its success, a second Cascade system was recently installed at the Floods Ferry site, Cambridgeshire, at a cost £1.7 million. With this, Greenvale AP is on target to reduce its water usage by 100 million litres a year across all its UK sites.

But apart from significantly reducing water use, there have been other benefits:

- energy costs to chill the water have been reduced by up to 50 per cent; and
- using constantly recycled clean, chilled water, reduces the risk of bacterial cross-contamination and as such improves product quality. This increases the shelf life and also improves the appearance of the 300,000 tonnes of potatoes processed each year at the two sites.

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