

‘Growing room for significant energy savings’.

Kirton Farm Nurseries alters its lighting regime for growing plants indoors and saves over £2,000 in the process.



Based near Winchester, and recently celebrating over 25 years in business, Kirton Farm Nurseries Ltd is a wholesale nursery supplying herbaceous perennials and herbs to garden centres, multiples, growers and landscapers. It is steadily increasing focus on being bringing environmental ‘sustainability’ to the forefront of its products and operations.

After Plato Sustain discussions on ‘interesting’ meter reading stories, Kirton Farm Nurseries started monitoring their meter readings on a daily basis and invested in an ‘eco-eye’ smart meter reader. They noticed most of their energy was spent running the plant growth rooms and the micro-propagation laboratory. However, the amount of power used when no-one was working surprised them, and needed to be investigated further and hopefully improved.

After discussions with air conditioning suppliers about the use of ‘air-con units’, they identified a change in lighting schedules that would make more use of the heat produced by the lighting system and allow the heating & cooling to run more efficiently. The growing plants are now lit at night rather than in the day, so the heat generated at night results in less heating in winter, less cooling in summer. In addition, because the temperature differentiation between the outside air and the air-

con units is greater with this schedule, the units run more efficiently too.

This would have had some impact on energy use but this was made greater when they tried to change the lighting time clocks; they discovered that one of the clocks had broken and was stuck on. This meant that some of the lights were on continuously 24hrs a day, rather than 14. This hadn't been noticed because there was no one on site when the lights turned off. Overall, initial meter readings suggest that the company will save an average of over 2,000 kWh per month, with a corresponding reduction of around 12 tonnes of CO₂ emissions, and bring a financial saving of over £2,500 per annum.

Managing Director, Derek Taylor says, 'Having thought we would be unable to make significant savings, it is surprisingly exciting to make such a simple improvement and reap such useful rewards. Had we not been looking quite so closely at the meter readings we may never have spotted this opportunity'.