

Lanoyce Horticultural Nurseries Near Saltash



Cornish horticultural nursery goes green with wood chip

Lanoyce Horticultural Nurseries, based near Saltash in Cornwall, has joined a growing number of businesses that have seen the compelling financial advantages of wood fuel for heating.

Lanoyce Horticultural Nurseries grow cut-flowers in glasshouses, mainly for UK supermarkets. With help from the South West Bioheat programme (co-ordinated by Regen SW) the nursery installed a 500kW woodchip boiler in 2008 to replace oil-fired boilers. Savings of around 685 tonnes of CO₂ and a reduction in heating costs of over £45,000 are estimated annually.

A new building was constructed on site to house the boiler, accumulator tank and the wood chip fuel store. Another building was also constructed that is able to receive large lorry deliveries of local wood fuel which are then seasoned and chipped ready for the boiler.



The boiler had to be very robust as the system was designed to operate continuously. The Binder boiler selected is ideal for this kind of application. The system was installed with a large accumulator tank, which avoids boiler cycling (the boiler rapidly switching on and off during low heat loads). This design optimises performance of the boiler (even under low heat load conditions) and maximises the financial benefit of the system.

Feedback from the nursery has been overwhelmingly positive and their supermarket customers are also benefiting from a 'greener' supply chain. The fuel mainly comes from local woodlands that are managed to increase biodiversity. Beyond the benefits of carbon savings, the sale of wood chip fuel provides a stable, long term income to the rural economy, helping us to better manage and protect our fragile natural resources rather than depending on fossil fuels from outside the UK.

Overall, the new heating installation has helped Lanoyce Horticultural Nurseries to deliver improved produce more competitively and helped the environment.



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| Name of project | Lanoyce Horticultural Nurseries biomass project |
| Location | Near Saltash |
| Boiler type | Binder Boiler |
| Maximum rated output | 500kW |
| Maximum Moisture | 35% |
| Wood fuel specification | Wood chip |
| Maximum particle size | G50 |
| Commissioned | November 2008 |

Key features:

- The highly automated and robust Binder biomass boiler
- One 60,000 litre accumulator tank to enable the boiler to maintain a high efficiency
- Electric ignition burner to automatically start combustion
- High velocity air cleaning system to ensure efficient, long-term heat transfer across the heat exchanger
- Cyclone to remove particulate emissions from the flue
- A robust 5.5 metre rotary agitator to automatically move the wood chip to the boiler auger
- The design ensures minimal intervention by onsite operatives and allows continuous operation

