

Energy saving and water efficiency at Beech Hill Farm

Beech Hill Farm is an organically run 20-acre smallholding set in the Sussex High Weald AONB. In addition to livestock rearing, flower and vegetable production, diversifications include the letting of accommodation and studio space.

Beech Hill Farm uses a large volume of water for flower and vegetable production, watering livestock and cleaning the yard. Fleece production is a key activity and each fleece needs to be rinsed with up to 180 litres of water. To reduce water costs, Beech Hill Farm has installed a rainwater harvesting system to cover the majority of its water requirements. The £3,000 cost of the installation was assisted by a £1,000 Green Action Award from East Sussex betre. The rainwater harvesting system is anticipated to provide approximately 500m³ of water throughout the year. This represents an ongoing annual cost saving of up to £467 over mains water use. In addition, the farm have placed bricks in all five toilet cisterns to reduce their flush volumes, saving approximately 11m³ of mains water each year, a cost saving of approximately £10.

A solar water heating system has been installed at Beech Hill Farm providing hot water for the main building during the summer months and preheating water for a conventional oil-fired heater in cooler months. Beech Hill Farm's oil consumption has halved from £1,400 per annum to approximately £700 per annum as a result of installing the solar water heating system. The associated CO₂ emissions have also halved. CO₂ neutral wood burners are used to heat the main building, using wood from Beech Hill Farm. High specification insulation has been added to the main building's roof and walls. Draught proofing, double-glazing and secondary glazing have been installed and energy efficient light bulbs have been fitted throughout Beech Hill Farm's buildings. Cutting heat loss by improving insulation and draught proofing reduces the amount of fuel required to heat a building and replacing all of the light bulbs with energy efficient models saves approximately £287 p.a. on electricity bills, in addition to time saved by not having to change bulbs as often. The lower energy consumption of the new bulbs reduces CO₂ emissions by around 2.5 tonnes per annum.

Summary of savings:

Action	Annual saving (£)
Rainwater harvesting	467
Reduce WC flush volumes	10
Install solar heating system	700
Install energy efficient bulbs	287
Total savings	1,464

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