

## Summerleaze House, East Knoyle

Organic farm with wood chip boiler, straw bale bedroom, and recycled plastic bottle “podecos”.



### Key features

- Woodchip boiler
- Straw bale building
- Lime and leca earth floor
- Hemp and lime wall.
- Plastic bottle “podecos”
- Solar PV
- Solar thermal hot water heating

### The Story

Summerleaze House, set in the beautiful South West Wiltshire countryside, is the home of Tim and Trish Bolton. As well as their organic farm and [gallery](#) (open for Green Doors), it is a showcase for the talents of their son, Jules, who studied Sustainable Architecture at the Centre for Alternative Technology. [Jules specialises in building](#) with natural, energy efficient materials, such as straw, hemp and earth, and has worked as far afield as Nepal. At Summerleaze, he has built an extra straw bale bedroom for the holiday cottage, and invented the “podecos” summer house, inspired by the need to find a use for plastic bottles.

### The Home

#### The [straw bale building](#)

This is built on recycled tyre foundations, using bales from an organic farmer in the North of the county, who has built his own straw bale house, so understands the requirements: the right quality and type of straw is important. The building is cool in summer and warm in winter, with windows facing South to make the most of the heat of the sun. The end wall is made of [hemp](#) and lime, with 80mm woodfibre insulation. The hemp is animal bedding from nearby [Mole Valley Farmers](#), while the lime comes from [Rose of Jericho](#) in Dorset. The woodfibre insulation was bought from [EcoMerchant](#) (online sales but display stand at the [National Self Build Centre](#) in Swindon). There is 300mm of Warmcell (recycled newspaper) insulation in the loft. The floor is lime and [leca](#) (expanded clay aggregate), with an earth finish, highlighted with hand-mixed natural paint.



## Heating, hot water and electricity generation



A woodchip boiler, produced by the Austrian manufacturer [ETA](#) and installed by [FairEnergy](#), heats the two houses and the gallery. The wood is produced on the farm and is processed by a visiting chipper once a year. There are plans to develop an area of coppice, so that the farm is self-sufficient in the long-term.

A solar thermal installation on the roof of the main house provides hot water, while there are two solar PV arrays on outbuildings to generate electricity.

## The [Podecos](#)

This is a garden room or summerhouse, built to Jules' own innovative design. The foundations are recycled car tyres, while the walls are built of plastic bottles with earth render inside and lime render outside. A perfect example of "upcycling"!



## Energy saving

Details of the cost of heating with woodchip will be available during the Green Doors Weekend.

## More information

<http://ecosbuildings.com/projects/summerleaze-strawbale/summerleaze-straw-bale/>

<http://www.podecos.co.uk/>