

Hemp could be key to zero-carbon houses

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Hemp, a plant from the cannabis family, could be used to build carbon-neutral homes of the future to help combat climate change and boost the rural economy, say researchers at the University of Bath.

A consortium, led by the BRE Centre for Innovative Construction Materials based at the University, has embarked on a unique housing project to develop the use of hemp-lime construction materials in the UK.

Hemp-lime is a lightweight composite building material made of fibres from the fast growing plant, bound together using a lime-based adhesive. The hemp plant stores carbon during its growth and this, combined with the low carbon footprint of [lime](#) and its very efficient insulating properties, gives the material a ‘better than zero carbon’ footprint.

Professor Pete Walker, Director of the BRE Centre for Innovative Construction Materials, explained: “We will be looking at the feasibility of using hemp-lime in place of traditional materials, so that they can be used widely in the building industry.

“We will be measuring the properties of lime-hemp materials, such as their strength and durability, as well as the [energy efficiency](#) of buildings made of these materials.

“Using renewable crops to make building materials makes real sense - it only takes an area the size of a rugby pitch four months to grow enough hemp to build a typical three bedroom house.

“Growing crops such as hemp can also provide economic and social benefits to rural economies through new agricultural markets for farmers and associated industries.”

Provided by University of Bath

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