

CONSERVATION RESEARCH: **Traditional wheat straw for thatching**

THATCHING STRAW

Wheat straw has been used for thatching roofs in England for many centuries. During the second half of the 20th century, plant breeders developed varieties of wheat with larger ears, which contain more grain, and shorter stems, which means that the crop is less likely to be damaged by heavy rain in summer storms. Although this is good for maximising grain yield, it is bad for thatching because good thatching straw should have a long stem.



Contrast between a historic long-stemmed and short modern wheat

By the late 20th century, with pressure to increase grain yield, fewer farmers were growing these long-stemmed wheat varieties. This has reduced the choice of varieties available for thatching and made it harder for some thatchers to get good-quality thatching straw.

RESEARCH

In 2012, **The National Thatching Straw Growers Association** started a long-term project, funded by **Historic England**, which aims to learn more about growing traditional long-stemmed wheats, understand how the different wheat varieties perform when used for thatch, and improve commercial supply of good quality UK-grown thatching wheat.



Phase 1

The first phase of work, completed in 2015, involved growing five different wheat varieties: *Squareheads Master 3/4*, *Yeoman*, *New Harvester*, *Maris Wootton* and *Maris Huntsman*.

The wheat was grown under three regimes with different levels of nitrogen fertiliser: residual nitrogen, low-input nitrogen and high-input nitrogen.



Image of trial plots grown in phase 1

This means that there are 15 different types of straw, based on wheat variety and growing regime combinations.

The final report for Phase 1 can be found by scanning the QR code or at;
historicengland.org.uk/research/results/reports/69-2016



Right: Photo of an authentic long straw (wheat) thatched roof, Suffolk farmhouse taken in 1890, now sadly demolished.

Frame 1																								Frame 2						Frame 3						Frame 4						Frame 5						Frame 6						Frame 7						Frame 8		
150mm						150mm						150mm			400mm			400mm						400mm						300mm						300mm						300mm																				
L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R	L	H	R																								
SHM 13/4	SHM 13/4	SHM 13/4	Widgeon	Widgeon	Widgeon	Yeoman	Yeoman	Yeoman	New Harvester	New Harvester	New Harvester	Huntsman	Huntsman	Huntsman	New Harvester	New Harvester	New Harvester	Yeoman	Yeoman	Yeoman	Huntsman	Huntsman	Huntsman	Widgeon	Widgeon	Widgeon	SHM 13/4	SHM 13/4	SHM 13/4	Yeoman	Yeoman	Yeoman	Huntsman	Huntsman	Huntsman	Widgeon	Widgeon	Widgeon	SHM 13/4	SHM 13/4	SHM 13/4	New Harvester	New Harvester	New Harvester																		

Image showing thatch details superimposed on photo of roof at Hulver Farm

Phase 2 East Anglia Pilot Project

All the wheat harvested was drum threshed for the purpose of providing traditional long-straw for thatch.

This can be recognised by the mix of wheat heads and cut butt ends seen on the thatch surface.

Each of the 15 types of straw produced in Phase 1 was used to

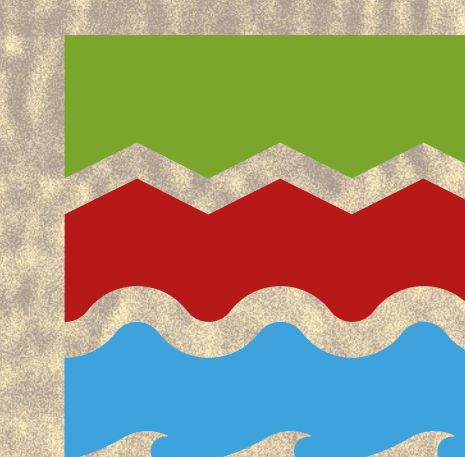
thatch vertical strips of the roof in front of you. Three different thatching specifications, based on the depth of the thatch coat and method of fixing, were used for each straw type. So, there are 45 different thatch combinations on each slope of the roof, making 90 trial panels in total. This roof was put in place at Hulver Farm in 2017.

The temperature and moisture content within each thatched panel are monitored in different seasons throughout the year and the condition of the thatch is recorded. Monitoring will continue for 25 years.



Image showing the team taking measurements with a moisture probe

This data will help us to better understand the effect of wheat variety, growing regime and thatching specification on the durability of roofs thatched with straw. **The National Thatching Straw Growers Association** and **Historic England** will use this information to encourage and support production of the best traditional thatching wheat varieties.



Funded by
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