



'GREEN' Grain Project collaborative supply-chain research



**The Scotch Whisky Association
United Kingdom**

2005 > 2010

#ResourceEfficiency

#SustainableAgriculture



Objective

Find the best wheat varieties for Scotch whisky production while reducing energy use and emission of Nitrogen.

Description

The project studied the genetics, physiology and agronomy of wheat to produce a new wheat type with a high energy grain suited to both distilling and livestock feeding with low Nitrogen fertilizer requirements.

Partners

Scotch Whisky Research Institute

UK Government

Scottish crop research institute

ADAS

FOSS

Wessex grain

Syngenta

Green Spirit Fuels

Nottingham University

HGCA

Grampian Country Foods

Results

Key learnings:

1. It is possible to use currently available wheat varieties, with no need for novel developments, to produce a variety needing 40% less Nitrogen application.
2. A reduction in fertiliser use limits the potential for run-off into water courses and high nitrate levels in groundwater. This would result in a reduction in greenhouse gas emissions of 33%. This represents the large amounts of energy required to make and transport fertilisers which make a significant contribution to the carbon footprint of the wheat supply chain.
3. The benefits would be financial as well as environmental, with improved alcohol yields and lower input costs.

Website

<http://www.scotch-whisky.org.uk/news-publications/publications/documents/case-study-green-grain>

Downloads

Photo gallery



Documents

[green_case_study.pdf](#) (pdf - 0.12 Mo)