

Long-term experiments as a platform for monitoring bread wheat quality

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Introduction

Winter wheat and spring wheat both have the potential for producing grain of bread wheat quality.

The two crops may respond differently to a previous use of green manure and to the general soil organic matter content.

Materials and Methods

Straw incorporation:

- Straw removed
- 4 t chopped straw ha⁻¹ yr⁻¹
- 8 t chopped straw ha⁻¹ yr⁻¹
- 12 t chopped straw ha⁻¹ yr⁻¹

Green manure:

- Ryegrass
- Grass-clover
- None

Time of tillage:

- Autumn (winter wheat in 2007/08)
- Spring (spring wheat in 2008)

N application:

- 143 kg NH₄-N in pig slurry (winter wheat)
- 90 kg NH₄-N in pig slurry (spring wheat)

Analyses:

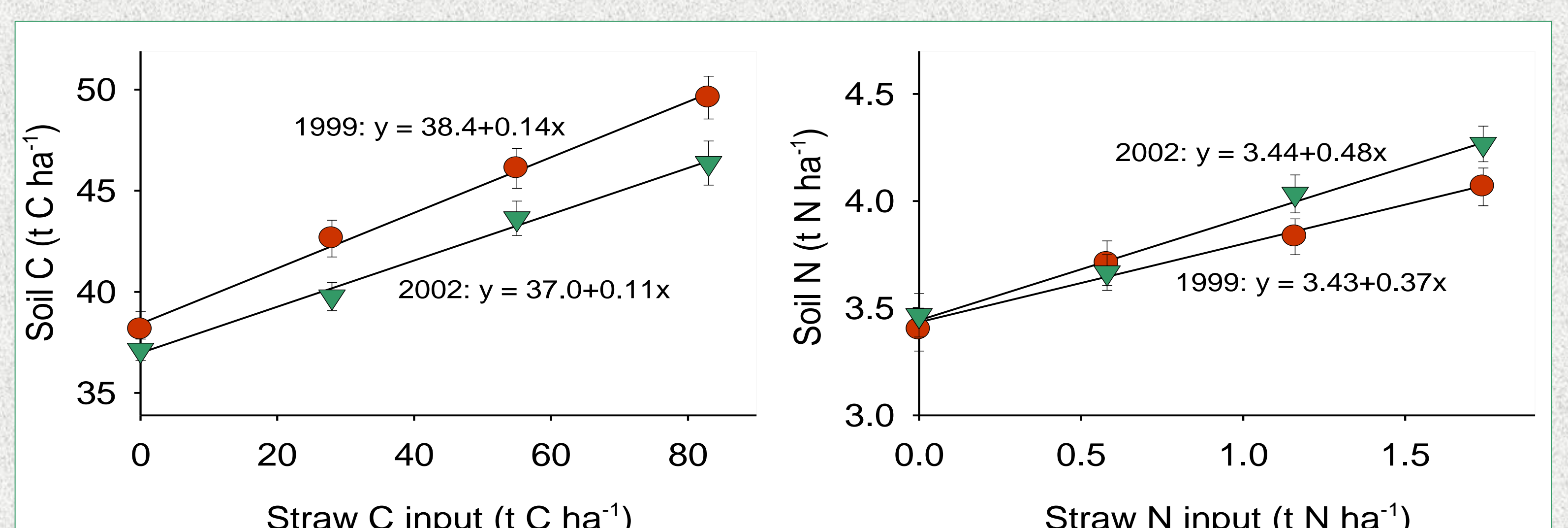
- Protein content
- Baking quality
- *Fusarium* contamination

Partners

ISARA, ESA, INRA in France; FiBL and ART in Switzerland; BOKU in Austria and INRAN in Italy.

Objective

The overall objective of this transnational project is to identify agronomic and food processing technologies that enhance the baking quality and the nutritional value of organic wheat and reduce mycotoxin contamination.



Thomsen and Christensen, 2004



More information

www.coreorganic.org and <http://agtec.coreportal.org>

Thomsen, I.K. & Christensen, B.T. 2004. Yields of wheat and soil carbon and nitrogen contents following long-term incorporation of barley straw and ryegrass catch crops. *Soil Use & Management* 20, 432-438. *Soil Use & Management* 20, 432-438.

Photos: Niels Peter Pedersen