



National Agronomy Centre

# STAR Project

(Sustainability Trial for Arable Rotations)

The project started in 2005 and is fully replicated on large plots using farm scale equipment.

The research:

- examines different cultivation systems for sustainable arable production.
- evaluates different rotation systems and how they interact with the required cultivations and inputs.



National Agronomy Centre

# STAR Project

## Further information

For further information on the STAR Project please go to the NIAB website ([www.niab.com](http://www.niab.com)) alternatively email [nac@niab.com](mailto:nac@niab.com) or call 01953 713200.

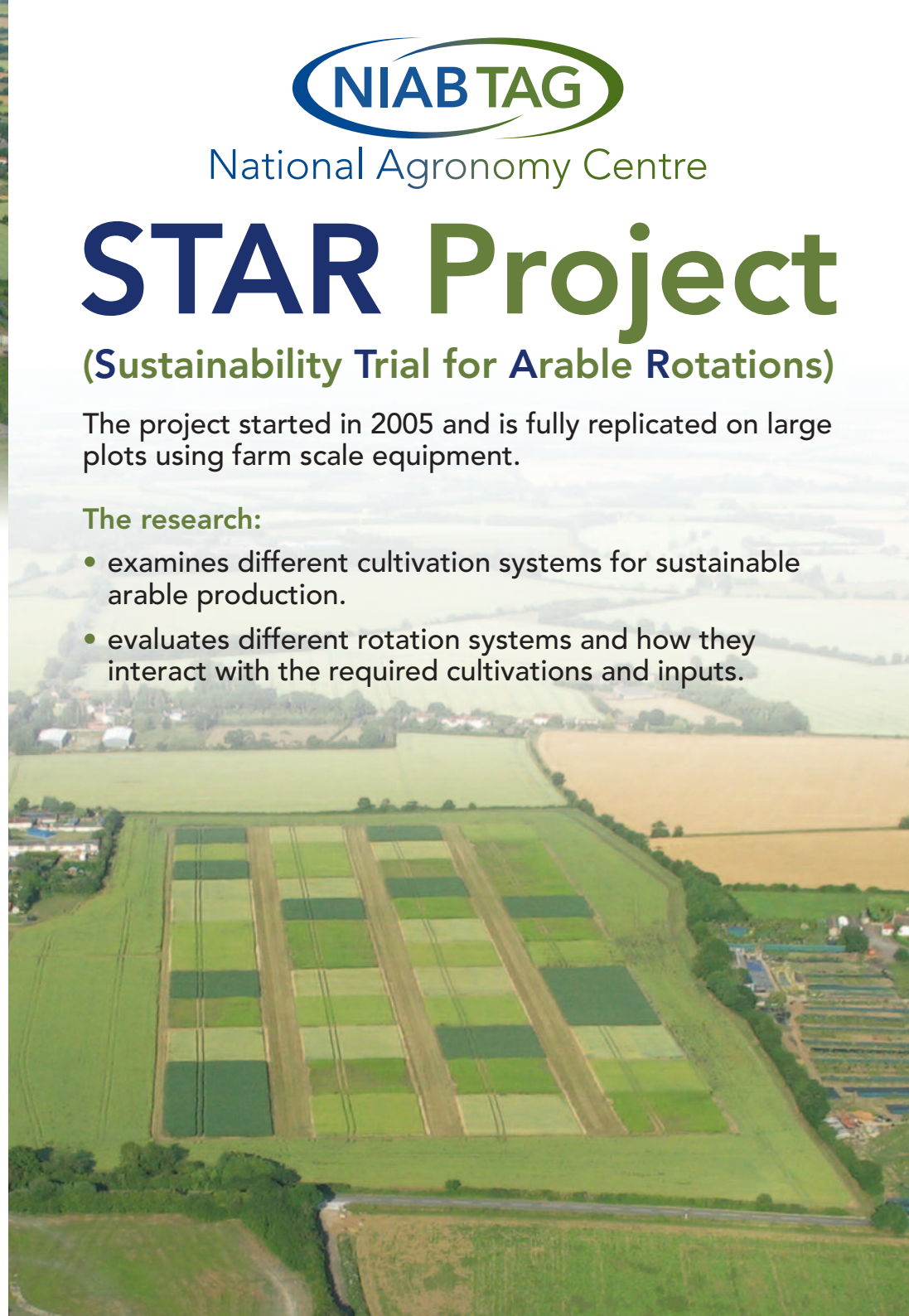
## The STAR Project is

managed by NIAB TAG in conjunction with an independent advisory group and supported by The Felix Thornley Cobbold Trust and The Chadacre Agricultural Trust.

STAR contributes to a range of other projects including the HGCA (AHDB) funded Soils Platforms Project.



Chadacre  
Agricultural Trust



The STAR Project is located in Suffolk on a clay loam soil. The research uses a fully replicated factorial design and is undertaken on large plots (36m x 36m) using farm scale equipment and techniques.

## ROTATIONS

### Winter Cropping

(winter wheat with winter break crops)

### Spring Cropping

(winter wheat with spring break crops)

### Continuous Wheat

### Alternate Fallow

## ESTABLISHMENT

### Annual Plough

**Deep Non-Inversion Tillage**  
(targeting 20-25 cm)

**Shallow Non-Inversion Tillage**  
(targeting ca. 10 cm)

**Managed Approach**  
(guided by field assessment)

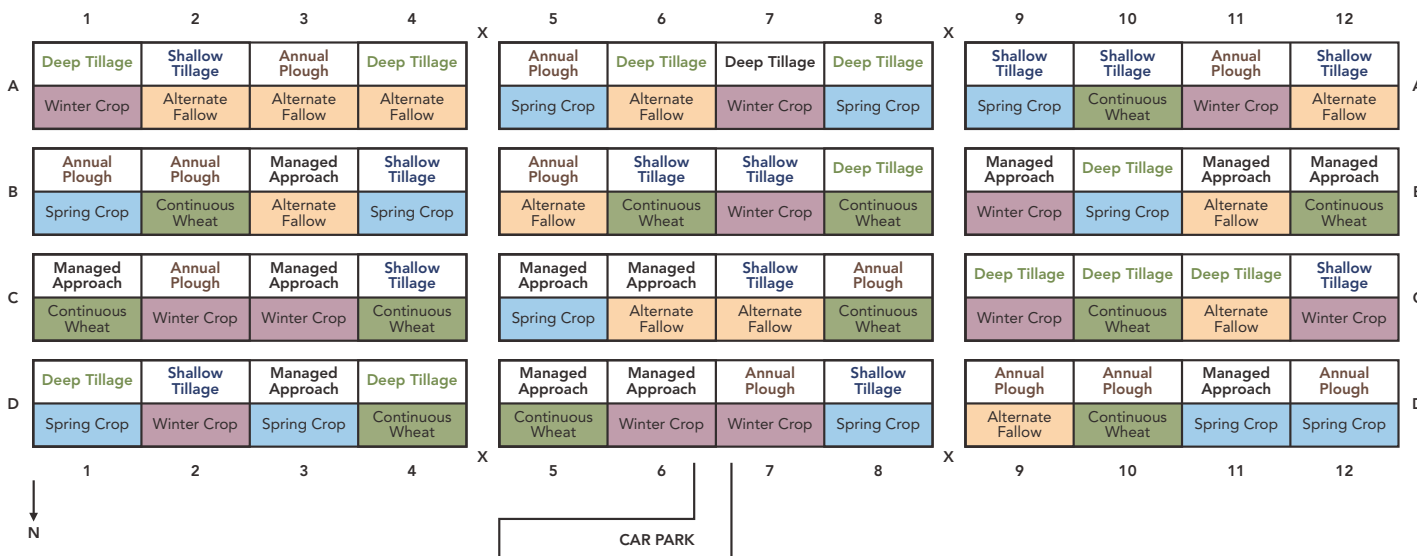


## STAR Project Cropping Plan

	Cropping								
Rotation	2006 (Year 1)	2007 (Year 2)	2008 (Year 3)	2009 (Year 4)	2010 (Year 5)	2011 (Year 6)	2012 (Year 7)	2013 (Year 8)	2014 (Year 9)
Winter Cropping	Winter OSR	Wheat	Winter Beans	Wheat	Winter OSR	Wheat	Winter Beans	Wheat	Winter OSR
Spring Cropping	Spring Beans	Wheat	Spring Oats	Wheat	Spring Beans	Wheat	Spring Linseed	Wheat	Spring Oats
Continuous Wheat	Wheat	Wheat	Wheat	Wheat	Wheat	Wheat	Wheat	Wheat	Wheat
Alternate Fallow	Fallow	Wheat	Fallow	Wheat	Fallow	Wheat	Fallow	Wheat	Fallow

FOUR ROTATIONS X FOUR CULTIVATION SYSTEMS X THREE REPLICATES

## STAR Project Tillage/Cropping Plan



## STAR Project overview

- The STAR project is a long term rotational systems study examining the interaction between four different rotations and four different cultivation methods.
- The impact of rotation and cultivation on weed burden, soil condition and mycotoxin risks are becoming increasingly apparent as the study progresses.
- With regard to cultivation system the highest margins are associated with a managed approach.
- With regard to rotation the highest margins are associated with winter cropping systems.
- Changes in gross margin ranking are being seen as the study progresses.