



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.



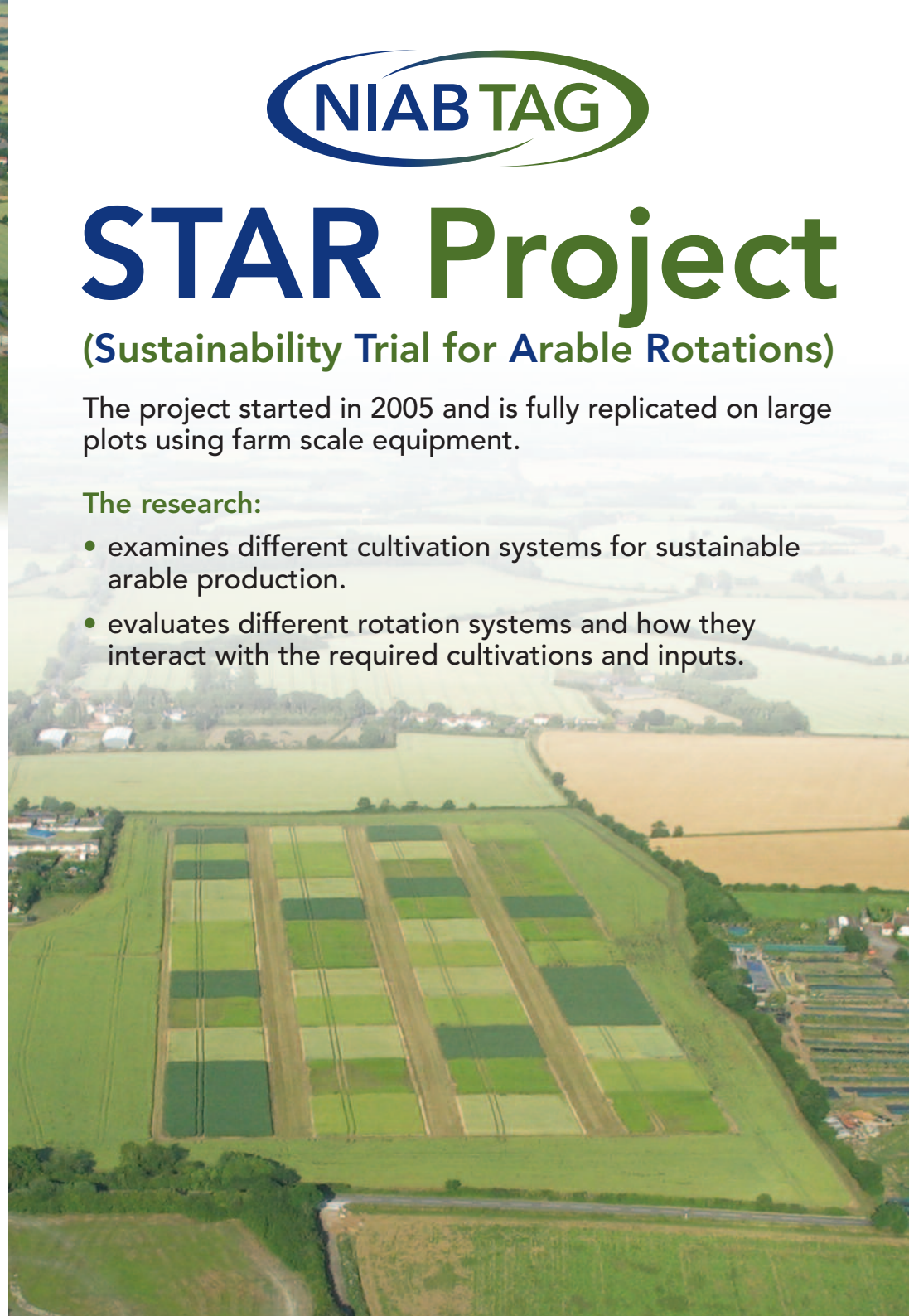
STAR Project

Further information

For further information on the New Farming Systems Project please go to the NIAB website (www.niab.com) or email info@niab.com.

The STAR Project is

managed by NIAB TAG in conjunction with an independent advisory group and supported by The Felix Thornley Cobbold Trust and historically The 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)

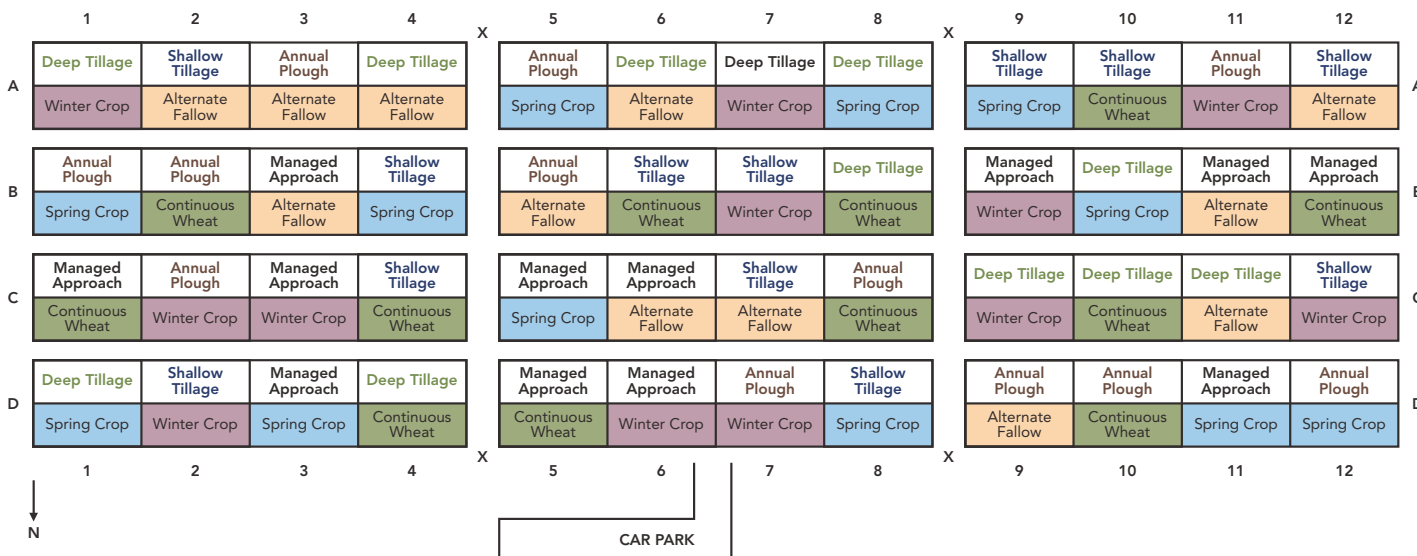


FOUR ROTATIONS X FOUR CULTIVATION SYSTEMS X THREE REPLICATES

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) | 2015 (Year 10) | 2016 (Year 11) | 2017 (Year 12) |
| Winter Cropping | Winter OSR | Wheat | Winter Beans | Wheat | Winter OSR | Wheat | Winter Beans | Wheat | Winter OSR | Wheat | Winter Beans | Wheat |
| Spring Cropping | Spring Beans | Wheat | Spring Oats | Wheat | Spring Beans | Wheat | Spring Linseed | Wheat | Spring Oats | Wheat | Spring Beans | Wheat |
| Continuous Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat | Wheat |
| Alternate Fallow | Fallow | Wheat | Fallow | Wheat | Fallow | Wheat | Fallow | Wheat | Fallow | Wheat | Fallow | Wheat |

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.
- Differences in crop performance over time and gross margin ranking order between systems are being seen as the study progresses.