

Chelmsford Monitor Farm meeting report

Meeting 2: Crop establishment and drill choice

Speaker: Guy Shelby (Farmer), Simon Cowell (Farmer), Jeff Claydon (Claydon Drills Ltd.), Harry Henderson (AHDB)

Date: 10 November 2017

Location: Galleywood Heritage Centre, Chelmsford CM2 8T

For more information, visit: cereals.ahdb.org.uk/chelmsford



Meeting summary – key messages

- Look for versatility in a drill – the ability to work in different soil types and to drill different crops
- When trialling drills, take it to the best and toughest parts of the farm, to see how it will work in a range of conditions
- Think about the size of drill you need, based on the expected work rate per 10 hour day. At 10kph = 70% field efficiency for grain only, 60% field efficiency for grain and fertiliser. For example, a 6m drill = 42ha/d for grain and 35ha/d for grain and fertiliser.
- Consider drill capacity and weight of tractor – a low draft drill requires 20hp/meter at 50kg/hp and a high draft drill requires 50hp/meter at 50kg/hp

Establishment methods – Guy Shelby

Guy Shelby, who farms 550ha of all rented land in Benningholme, North Yorkshire, decided to look into different establishment methods, due to high establishment and diesel costs on the farm and the high use of wearing metal, as well as damage to the soil. Having looked at different drills, they went with a strip tillage system and a Mzuri drill.

- Think about trash flow and other requirements, such as starter fertiliser
- Slug control is an important consideration – use of stubble rake to dessicate slug eggs
- The farm now chops all straw apart from barley
- Have found that soils are improving, less compaction, more worms and have an increased ability to hold water
- Establishment costs: OSR = £60–80/ha; Wheat = £80–180/ha, whereas conventional was £160–250/ha
- Cut fuel use by 40% and use less man hours per hectare
- Have been able to increase contracting – one pass system. Extra income allows the farm to spread the cost of the machine over a larger area



Cultivation strategies

Guy Shelby's strategy

- After OSR lightly cultivate, then use stubble rake to take out slugs and volunteers
- Lightly cultivate before 2nd wheats and winter barley to incorporate huge amounts of chopped straw
- Drill straight into stubbles for most other crops
- Flat lift when and where necessary, dig a hole first!

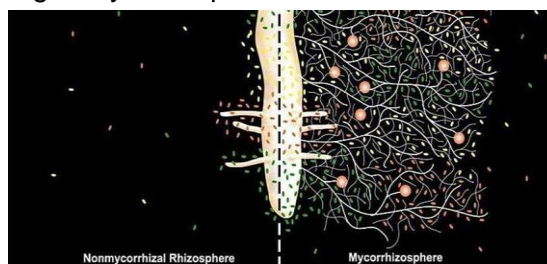
Simon Cowell's strategy

- In the autumn for OSR, second cereals and cover crops, either bale the straw or leave the straw standing, use a stripper header and cut high
- In the spring for peas, linseed or lucerne, cut very short and ensure a fine chop, rake twice and hopefully the worms will take the straw down
- For winter or spring beans – doesn't matter what you do

Biological farming

Simon Cowell emphasised the importance of biological farming. Ways to improve this on-farm include:

- Inoculation with good soil biology through addition of compost
- Increasing mycorrhizae
- Completing your own soil biology tests to know what you have in your soil
- Addition of carbon to nitrogen
- A reduction in cultivation and inputs



Drill try-out

Christy and Hew Willett have tried seven different drills on the farm this autumn. Establishment counts, costs and establishment methods were compared during and after the Monitor Farm meeting. [Read Christy's blog to find out more](#) about the details of the drills that have been trialled, watch them at work and keep updated with progress through the year.



Future options

Mechanical weed control could become more important in the future. An inter-row hoe may be an option to reduce weed competition and weed seed return, whilst controlling resistant weeds.



Claydon TerraBlade Inter-row Hoe

Find out more

[An introduction to soil biology](#)

[Understanding soil biology](#)

[Machinery cost calculator](#)

[Webinar: Machinery for farming](#)

[Discs vs tines at Newport Monitor Farm](#)

[Discs vs tines video](#)

For more AHDB blogs, visit cereals-blog.ahdb.org.uk



Next meeting

Date: 15 December 2017

Topic: Benchmarking and crop marketing ([register to attend](#))

Time: 09:00

Location: Galleywood Heritage Centre, Chelmsford CM2 8TR

For more information contact: Teresa Meadows

E: Teresa.Meadows@ahdb.org.uk

M: 07387 015465

[@CerealsEA](#)

To find out more about Farmbench, AHDB's benchmarking tool, contact: Holly Howsam

E: Holly.Howsam@ahdb.org.uk

M: 07767 001543

While the Agriculture and Horticulture Development Board seeks to ensure that the information contained within this document is accurate at the time of printing, no warranty is given in respect thereof and, to the maximum extent permitted by law, the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document. Reference herein to trade names and proprietary products without stating that they are protected does not imply that they may be regarded as unprotected and thus free for general use. No endorsement of named products is intended, nor is any criticism implied of other alternative, but unnamed products.

AHDB Cereals & Oilseeds is part of the Agriculture and Horticulture Development Board (AHDB)

© Agriculture and Horticulture Development Board 2017