

## Cardiff Monitor Farm

27 April 2016

**Soil health; establishment choices and CTF**

For more information, visit [cereals.ahdb.org.uk/Cardiff](http://cereals.ahdb.org.uk/Cardiff)



### Meeting summary

- Visit to cultivation demonstration field with soils expert Chris Duller where four establishment techniques were adopted:
  - Sumo
  - Topdown
  - Plough
  - Direct Drill
- Julian Gold (Wantage Monitor Farmer) – experiences in introducing controlled traffic farming



### Soil health with Chris Duller– Key discussion points

Everyone has different soils and conditions – all cultivations and choice of machine come with issues – you need to recognise the issues and tackle them with the right bit of kit and the right aftercare

**There is no right or wrong machine. Soil conditions at establishment and timings are paramount – don't forget the long term issues of each machine option in terms of weed control, pest numbers, soil structure and soil organic matter and biology.**



Try a couple of strips. Dig your holes and check soil conditions are what you want from top profile down to subsoil. If they are not, question whether you are using the correct equipment, or come back when soil conditions are right

### Plough

Suitable for trash burial and weed control – can give issues with plough pan/layering of trash though or can bury nutrients too deep. The secondary cultivations are just as vital – avoid overworking the top

### Direct drill

Good for soil structure and building on soil organic matters and worm numbers. Caution required with soil compaction restricting yields. Beware of slugs.

### Top down

Great for completely mixing a soil – beware that it can affect the soil structure and lead to slumping – particularly silty soils low in organic matter. Not very good for building worm numbers and organic matter

### Sumo

Need to make sure the legs are doing the job of breaking any compaction (soil moisture levels critical to get good shatter) – may need a secondary to ensure that a good seed bed.

## Controlled traffic farming with Julian Gold– Key points



- Changed to CTF in 2012 with the aim to run the farm in a profitable but sustainable manner without degrading soil.
- **Operates a 10/30 system: all of the field operations are on 10m centres, spraying and fertilising are on 30m tramlines.**
- 10m cultivator drill running at a shallow depth to lightly incorporate chopped straw, kill slugs and chit up grass weeds and volunteers. The stale seedbed is then rolled and subsequent growth sprayed off before drilling.
- **Improvements in soil conditions can be seen and savings in establishment costs made. Worm numbers are up; soil structure and lack of compaction are noticeably improved.**
- In dry conditions, the shallow cultivations and direct drilling loose less moisture. In wet conditions, we do not destroy our soils.
- Only 20% of the farm is trafficked, a change that has saved him £10/ha in fuel and about half an hour per hectare in labour.

## Next meeting

### **Cardiff Monitor Farm Summer Meeting**

**1 June 2016 6:30pm**

**Six Bells Inn, Penmark, Vale of Glamorgan, CF62 3BP**

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