Crop Nutrition Clubs

Required information

Before harvest, please download, complete and return the Excel form available here with trial information, to enable timely analysis of the trial results. Please also complete this short survey on trial development and farmer engagement.

Information about trials can also be shared/discussed on https://farmpep.net/group/301

Recording treatment placement

Various mobile apps are available to give latitude/longitude coordinates of your current location, e.g. 'GPS Coordinates'. The issue is the accuracy of mobile GPS, which can be several metres out. For this reason, please record the GPS coordinates of **both** ends of **all** relevant wheelings.

Walk around the headland wheeling of the relevant part of the field, recording the GPS coordinates (**latitude/longitude**) of **each end** of each wheeling. Record the wheeling positions just far enough in from where they meet the headland wheeling that they are straight (see example pic).

Record latitude and longitude to **5 decimal places.**

Latitude	Longitude	Treatment
50.12345	-1.23456	Farm standard
		Test treatment
		Test treatment
		etc

Best positions to log wheeling GPS

Grain sample analysis

Grain samples from each treatment should be collected at harvest to send for analysis, ideally of all nutrients (N, P, K, S, Mg, Ca, Fe, Mn, Zn, Cu, B and Mo). Where treatments are replicated within the field, it would be even better if separate samples can be collected from each tramline.

Ideally, each farm should be entered in YEN Nutrition prior to harvest, at a cost of £250. This includes analysis of six "fields", but can be used to analyse six samples from the trial. If there are more than six treatments, additional treatments can be added for £40 each. Once the entry forms are completed, sample bags and instructions will be supplied by post ready for harvest. Alternatively, samples can be analysed using the NRM Grain Check service.

Please forward the results to Susie.roques@adas.co.uk in whatever format they arrive from the labs.

Good harvest practice

The trial should be harvested with a yield mapping combine and the map sent to ADAS for 'Agronomics' analysis. The quality of the yield data is crucial for the trial, so to maximise the quality of the data, please:

- **CALIBRATE** the combine according to the manufacturer's instructions and ensure the yield mapping function is working correctly.
- Keep **HARVEST DIRECTION** closely in line with the tramlines. Headlands can be cut separately, but for the body of the field transverse or even slightly oblique harvesting is unfortunately not acceptable.
- Harvest **FULL HEADER WIDTHS** wherever possible.
- Harvest **WITHIN ONE TREATMENT** area where possible, i.e. avoid having the header spanning two treatment areas.
- Harvest the whole field with the **SAME COMBINE** and on the **SAME DAY**

For example, with 30m tramlines and a 9m combine header, three full swaths can be cut from each tramline, then the 3m strips of crop left at treatment boundaries can be cleared up last – see illustration below.
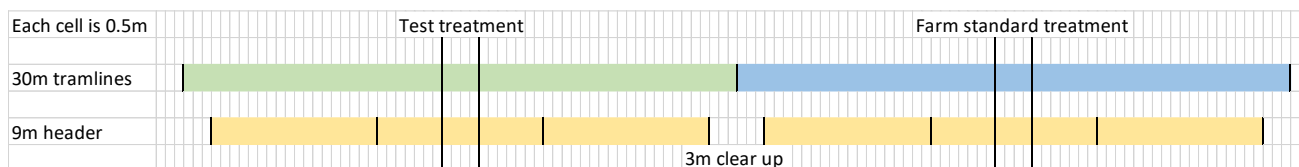
Yield map data transfer

If you use the **Claas Telematics** or **myjohndeere.com** websites and are willing, you can send Susie (susie.roques@adas.co.uk) your username and password before harvest, or send an invitation to connect using her own account, then she will download the raw data directly without bothering you at harvest.

Alternatively, instructions are provided below for most combine makes and for Gatekeeper. If the data files are too large to email, a file sharing website such as www.mailbigfile.com should be used.

Gatekeeper: Go to your field in the farm, for the current year. Double-click on the green box labelled 'yield'. Click on the 'fields' tab at the bottom of the screen. Click the 'edit plots' button then the data should be displayed. A window will then appear with a drop-down menu at the top of the screen (called 'completion'), giving a list of all of the files for that field. You then need to save and send each of these files in turn. To do this, click the little bird icon; this gives the saving options screen (a pop-up box titled 'Publish Grid Contents'). Choose 'Comma-separated [.csv]' and 'Save to file', then give the file a name and navigate to the location you want to store it using the button with the little dots.

New Holland and **Case**: Take the USB stick or SD card from the combine. Copy all the files (.cn1 folders) to a computer. Create a zip file (right-click on the folder, select 'Send to', then choose 'Compressed zip folder').

John Deere: Take the USB stick or SD card from the combine. Copy all the yield files to onto a computer as you see them (probably called GS3_2630) when you open the card on your computer, not just the RCD folder, as the folder structure is important. Create a zip file (right click on the folder, select 'Send to', then left click on 'Compressed zip folder').

Claas Agrocom: Put card from combine into card reader. Open Agrocom, press read button at bottom of screen, select card letter from drop down list, press finish to import files. Repeat if you have more than one card. Then go to menu bar (top of the screen), select Extras, Backup, Partial Backup, select the trial field. Select browse, save the file on the desktop and in the filename box give it an appropriate name. Then press 'Backup' and wait for the progress bar (series of light blue lines) at the bottom of the screen. You may get a pop up message saying this is complete.

ADAS can also handle other data formats including **shapefiles** (.shp), files from **Trimble** yield monitors (usually file types .bin and .xml), and Case .yld files.