



# Nutrient Benchmarking Report 2022

NAME & ADDRESS:

Anonymous, Example Farm, Street, Town, County  
YEN Nutrition Membership ID: YN00000

Date lab results received by ADAS:

Date ADAS benchmark reported: 08 March 2023

Further information can be found on the YEN Nutrition website: [www.yen.adas.co.uk/projects/yen-nutrition](http://www.yen.adas.co.uk/projects/yen-nutrition)

Please make any further enquiries to: [yen@adas.co.uk](mailto:yen@adas.co.uk)

**YEN Dynamic Benchmarking** is now available from the YEN member's area: [www.yen.adas.co.uk/dashboard](http://www.yen.adas.co.uk/dashboard)



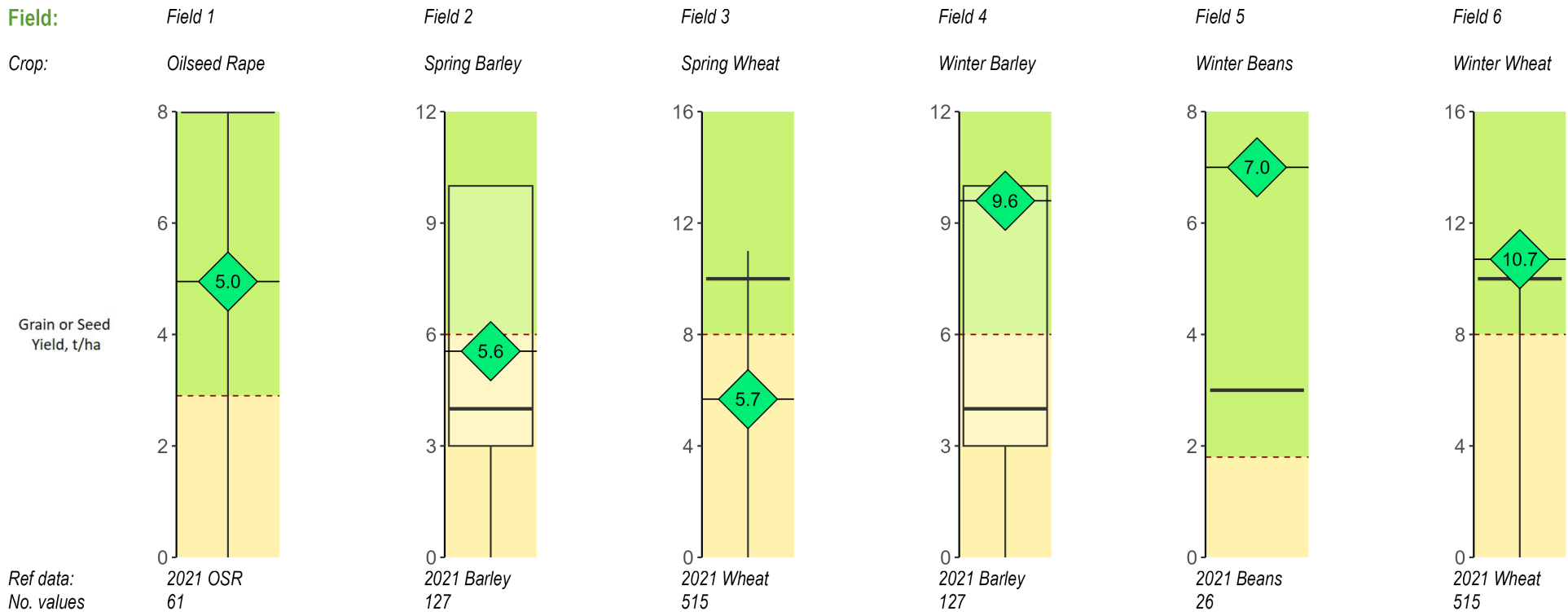


# Your Grain Yields benchmarked... ..

Crops established well for the 2022 growing season; winter was warm, but spring was very dry. Hence conditions for early rooting and good sub-soil nutrient capture were good but capture of nutrients from the topsoil was restricted. The sunny, warm and dry summer gave good yields on moisture-retentive soils, but early senescence and low yields on light or shallow soils. Overall average yields were 7-9% greater than in recent years. Relative performance of crops and their nutrition is therefore best assessed through comparison with other 2022 crops.

The diagrams below benchmark your crop yields against all 2022 yields of similar crops registered for YEN Nutrition in 2022. The reference datasets and their sizes are shown below each diagram. The same reference datasets are used for Grain Nutrient Benchmarking on later pages.

If you'd like to make more specific comparisons (e.g. by region or soil type), you can try using ['Dynamic Benchmarking'](#) on the YEN website.



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# Seasonal Grain Benchmarking explained ...

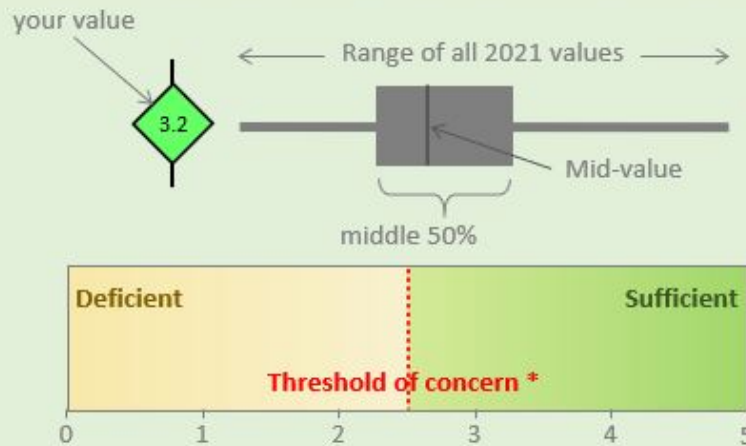


By anonymously sharing your results with others, your crops can be benchmarked against many comparable crops. This should enable you to identify any peculiarities of (i) this season, (ii) your farm and (iii) each field.

For wheat, barley, oats, oilseed rape and beans we benchmark against all 2021 data for the same crop type; for rye and triticale we use wheat, for peas and minor pulses we use beans, and for linseed we use oilseed rape. We use two different charts for benchmarking – Benchmarking Charts show your actual values from each of your fields set against all comparative data from the 2021 growing season, and then Target Charts give a quicker overview of whether any nutrient level (black dot) was low or deficient (i.e. outside the red line).

## Explanation of Benchmarking Charts:

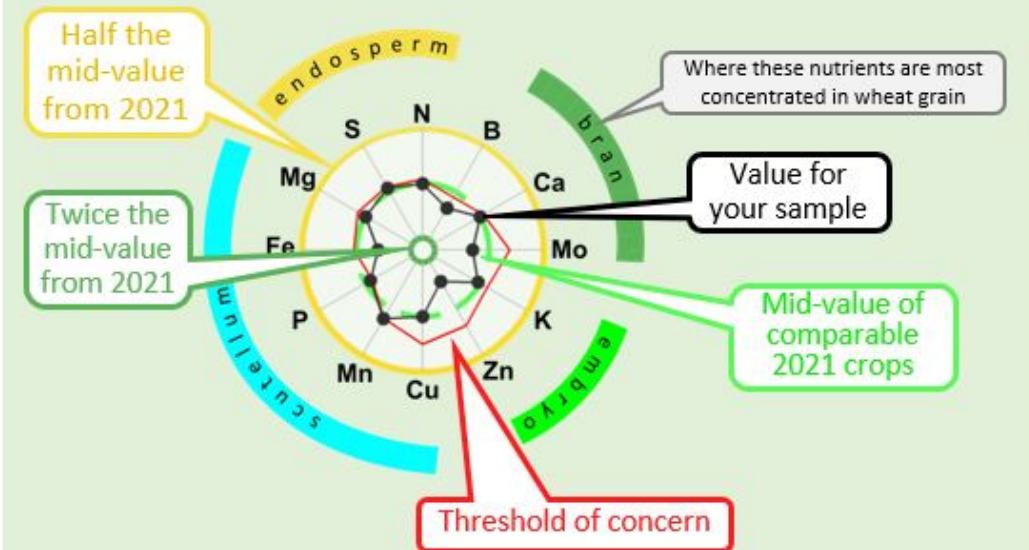
**Benchmarking** (or box & whisker) **charts** are used to compare your measured values to all others of the same crop type harvested in 2021 as below:



\* **Thresholds of concern:** We only know a few critical values, so this year we are using YEN-low values (i.e. low quartiles from all crops of this type entered in all YENs since measurements began in 2016) as 'thresholds of concern' for all nutrients in all crops. We find YEN-low values to be very similar to the critical thresholds we have for N, P, S and Mn in wheat, as well as to less certain critical values of K, Mg, Zn & Cu, so we are using these YEN-low values instead of 'Critical values' for all nutrients in all crop types.

## Explanation of Target Charts:

For a quick overview, Target Charts compare all your nutrients to mid-values from all 2021 crops of the same crop type (explained above). *Your aim should be for all your nutrients (black dots) to be inside their **threshold of concern (red line\*)**. If any nutrient is outside the red line, it is worth investigating factors that might have affected the supply or the capture of this nutrient.*



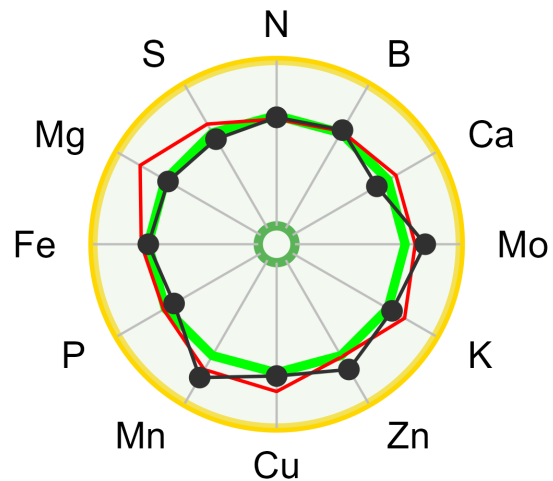


# Grain Nutrient Benchmarks Charts 2021: Anonymous, 2021



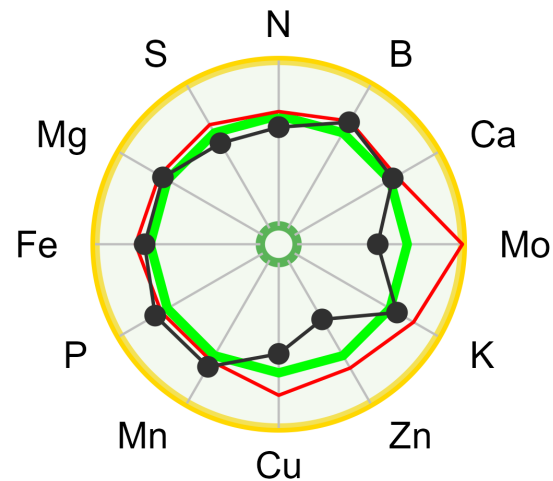
Field 1

Oilseed Rape



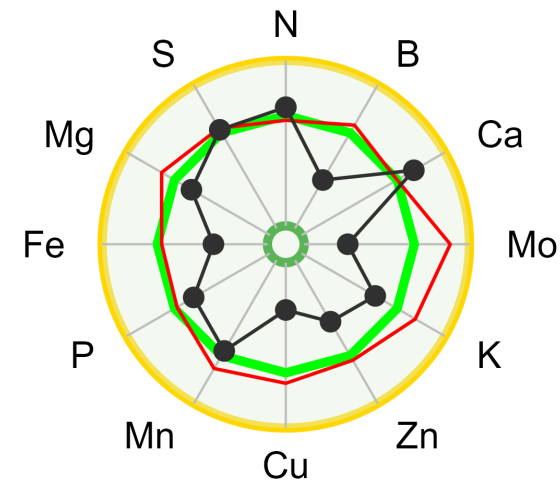
Field 2

Spring Barley



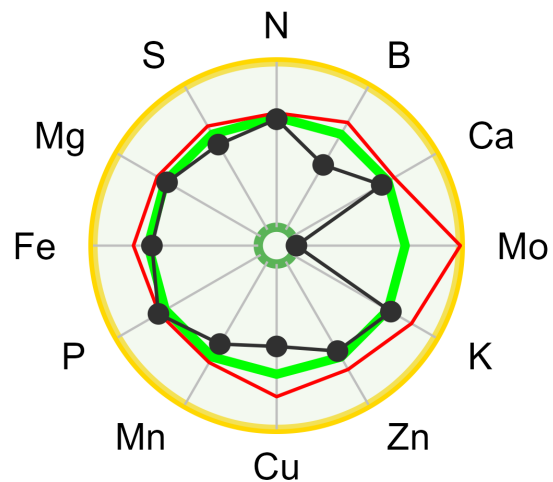
Field 3

Spring Wheat



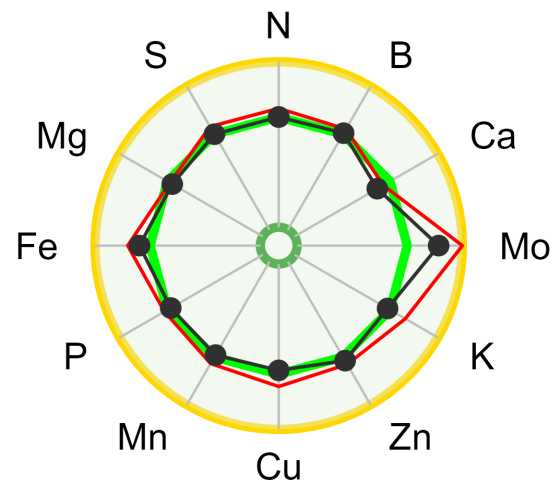
Field 4

Winter Barley



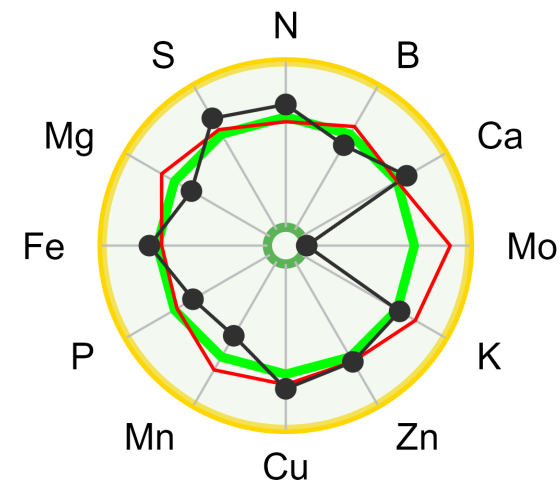
Field 5

Winter Beans



Field 6

Winter Wheat

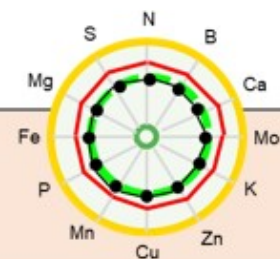


# Interpreting your YEN Nutrition charts ...

1

## ARE ALL NUTRIENTS ON TARGET?

Ideally all your nutrient levels (black dots) exceed YEN-low levels (are within the red line), and are close to this season's norm (the green line)



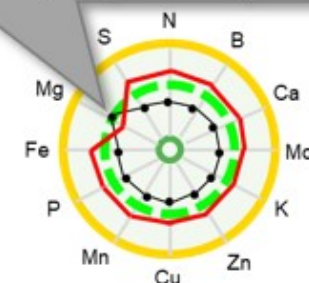
2

## WHICH NUTRIENT(S) ARE COMMONLY LOW THIS YEAR?

If a nutrient is low, but is also generally low on most crops in this year (green line outside red line), this is likely to be a weather effect .. so is not of urgent concern.

Weather may cause abnormal overwinter leaching (mostly of N, S & K), or topsoil dryness in spring affecting most nutrients. NB: Mg is often affected by spring dryness.

One nutrient is commonly low on many crops in this year



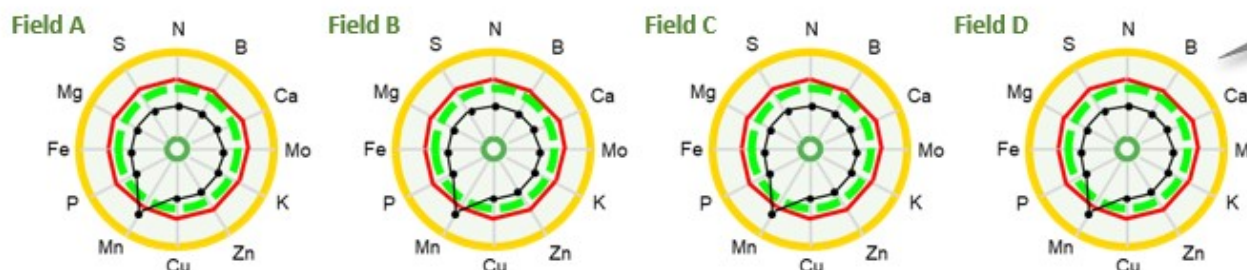
3

## IS A NUTRIENT COMMONLY LOW ON MY FARM?

If a particular nutrient(s) is low on most fields and this repeats over years (black dot outside red & green lines), farm strategy may need to change.

We often see levels to be high or low for particular grain nutrients over all or most fields on a farm ... if repeated over years, this implies a need for a strategic rethink for this nutrient's management.

One nutrient is commonly low on this farm



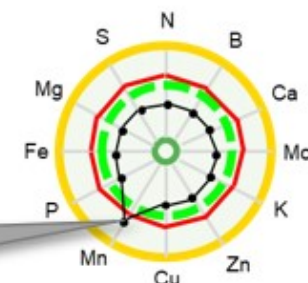
4

## ON THIS FIELD, HOW MANY NUTRIENTS ARE LOW?

If only one or two, supplies may not have met demands. So check soil & leaf levels, and amounts applied, and repeat checks of this nutrient(s) on this field next year.

Most nutrients come from the topsoil ... the subsoil provides most of the crop's moisture, but rarely much nutrition, other than some N.

One nutrient is low here



If several nutrients are low ... check for nutrient uptake problems on this field / in this year e.g. spring dryness or poor topsoil rooting.

NB: Fertilisers, nutrient sprays & manures are not always as efficient as you'd like – maybe next year, test how well this product works?

Many nutrients are low here

