



Nutrition clubs



- Knowing about nutrition
- Harnessing the power of sharing evidence
- Highlighting each farm's nutritional issues
... and resolving solutions
- Nutrition Clubs can sort out nutritional uncertainties ... see overleaf

Rationale:

- Farms will never achieve perfect crop nutrition. Small errors cost little; but the larger errors are common & costly, sometimes in lost production, sometimes in excessive nutrient expenditure. They need sorting!
- Nutrition errors, even quite expensive ones, are largely unseen; and errors accumulate if undetected year-on-year. Analyses are vital: soil tells about availability (3-6 nutrients); leaf tells about early uptake / sufficiencies (all nutrients); grain tells about ultimate uptakes, offtakes & sufficiencies (all nutrients). Straw analysis is usually unnecessary because grain analyses give an adequate indication of straw contents.
- If farms club together, ideally with an advisor, nutritional patterns will become evident within and between farms after two to three seasons of benchmarking all 12 essential nutrients. The patterns will prompt obvious farm by farm adjustments, but also questions, of which some will be testable by the farms.

Context:

- Despite regularly updating RB209 etc., arable crop nutrition has huge uncertainties
- Farms spend £1-2K per field per year on fresh nutrients, and we estimate that nutritional errors last year cost YEN Nutrition members over £3,000 on 25% of fields!
- Yet farms generally spend under £5/field/year on monitoring nutrition! This is inadequate; spending ~£50-£100/field/year would seem more in-line with the uncertainties.
- Soil & leaf analyses cost ~£10/field & ~£30/field; grain analysis (cost ~£30/field) has only just been introduced in 2020 so its uptake and use now need advisory support.
- Grain analyses so far are showing 2-fold variation in P&K offtakes (/tonne) and widespread imprecision with N and deficiencies of P, Mn, etc.
- Fertiliser products have largely unknown efficiencies; but trials often show very poor uptake (e.g. foliar sprays <10%) which are largely unknown by farmers. There is little independent testing.
- AHDB is unlikely to invest further in research on crop nutrition; [its priorities](#) are now elsewhere
- Defra is launching an [Innovation Research and Development Scheme](#) in October 2021 to: “Increase investment in innovation and research and development schemes which bring together researchers, farmers, growers and other agri-food businesses to harness science and deliver practical solutions to address challenges in agriculture”. We need to be ready.
- Farms, if well organised and supported, can do their own testing. ADAS has developed [robust protocols](#) for this. Farms will best operate in groups, to maximise confidence in their results.

Suggested Activities:

- Form ‘YEN Nutrition Clubs’ in 2021 with membership facilitated through [YEN Nutrition](#) webpage.
- Then all interested farms submit grain samples from 6 (or more) fields at harvest 2021 for benchmarking (cost £250 +VAT / farm ... or cheaper if >9 farms in a club)
- Enter field & yield data via website. Then receive individual Field Nutrient Accounts (including offtakes) in September, Benchmarking Reports in November, and Seasonal Summary next March.
- Farms & advisors with results meet as a ‘Nutrition Club’ during winter 2021-2 to interpret and discuss issues, and to propose questions & ideas for tests.
- Farms interested in testing common questions could form FIGs (Farm Innovation Groups), coordinated by ADAS, and (depending on availability of funding) organise tests in 2022.

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