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AHDB

from theory to field

Balancing nutrient management priorities

A time of change for AHDB as well as on farm has led to a major strategic review of RB209, the industry's nutrient management guide. *CPM* reports on findings so far.

By Mike Abram

In the words of Ancient Greek philosopher Plato, everything changes, nothing stands still. And it could be said that's very much the case with nutrient management in farming.

Whether it's more volatile fertiliser markets causing swings in prices, societal pressures to reduce the potential environmental damage from applying nutrients to crops, or the consequences of changing farming methods to more sustainable practices, how to manage nutrition requirements of crops keeps shifting as priorities change.

While the key goal of AHDB's Nutrient Management Guide RB209 remains the same – helping farmers to make the most of organic materials and balancing the benefits of fertiliser use against the economic and environmental costs – these changing priorities are part of the reason why AHDB is constantly revising RB209, the most recent being a major review undertaken in 2024.

AHDB first published RB209 in 2017, which was previously managed and published by DEFRA, with the intention that it'd be kept more up-to-date and published more frequently with guidance covering all the cropping and grass sectors, explains Dr Amanda Bennett, AHDB senior environment manager and project lead on RB209.

That review resulted in the then new-look RB209 split into seven sections to make it easier to use. Since then, the guide has been updated annually, including with changes made as the result of various research projects identified as information gaps (see "Key Updates in RB209 from research projects").

Collaboration

Updating RB209 is coordinated and managed through the Crop Nutrient Management Partnership, says Amanda. "The Partnership consists of a steering group with representation from all four nations, as well as various other bodies. Underneath there are technical working groups – arable, livestock covering grass and forage crops, and in the past a horticultural group," she continues.

"These technical working groups help identify gaps in knowledge and the AHDB is then responsible for leading new independent research to cover those gaps."

Once that work has been completed, the researchers present findings to the relevant sector technical working group where it's reviewed, and a recommendation is passed back to the steering group.

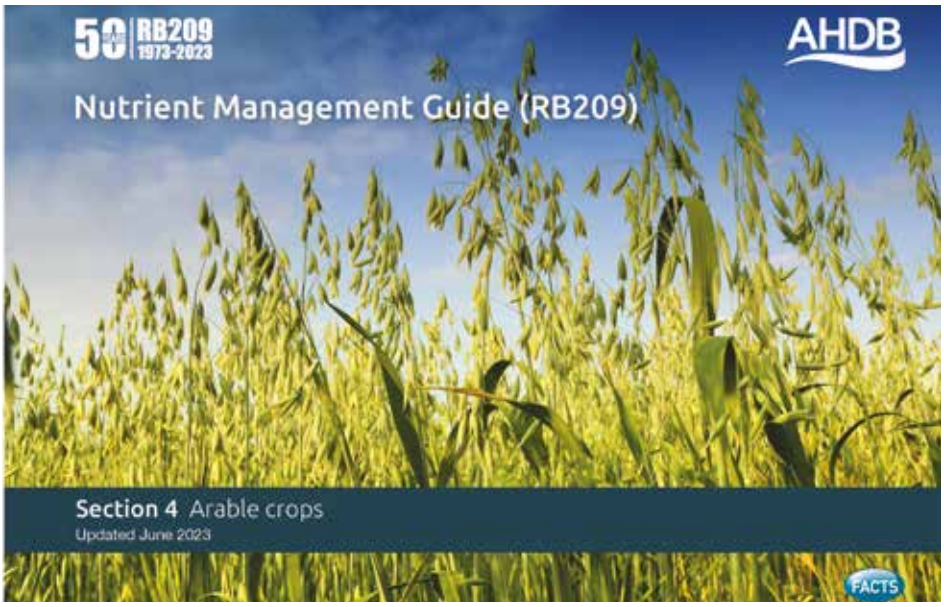
"If changes to RB209 are agreed, then AHDB makes the necessary adjustments in the publication. It's a very robust process," stresses Amanda.

However, with the vote to cease AHDB activities within the potato and horticultural sectors, changes to that structure are required. That, combined with a seven-year period of research and technical updates coming to an end, led AHDB to feel it was the right time for a strategic review of the guide and its technical guidance to ensure it continues to meet levy payers' requirements in a changing farming world.

"There are three main parts to the review," explains Amanda. "The first is looking at the governance of RB209 including the Crop Nutrient Management Partnership."

The second part relates to the scope and use of RB209 by farmers, agronomists and the wider industry, while the third focuses on updating technical content in

There are three main parts to the current review of RB209 with the first looking at the governance of the guide, including the Crop Nutrient Management Partnership, explains AHDB's Amanda Bennett.



The key goal of RB209 has remained the same – to help farmers make the most of organic materials and balance the benefits of fertiliser use against the economic and environmental cost.

the guide. According to Amanda, some changes are required within the Crop Nutrient Management Partnership, not least because of the vote on the future of AHDB Potatoes and Horticulture.

"We require a new way of working with the horticulture and potato sectors, as we no longer collect a levy for those crops," explains Amanda.

The changes mean AHDB will no longer convene a Horticulture Working Group, although Amanda says the Crop Nutrient Management Partnership will continue in its role with a steering group and the other two working groups, albeit with a new list of members.

It's important to find a solution for delivering updates for the potato and horticulture sectors, stresses Dave Bell, a mixed farmer from East Fife and AHDB Cereals and Oilseeds sector council member, who is chairing the RB209 review.

"Many farmers are multi-enterprise and multi-sector," he points out. "If a non-levy collecting crop is in the rotation, nutrient management benefits the other sectors we do collect a levy on. So we're welcoming input from the potato and horticultural sectors and to work with us."

Funding, however, must come from those sectors. "We can't invest our levy on sectors that aren't supported by AHDB," adds Dave.

Until a solution is found, which is more difficult with no single go-to-organisation to speak to, the relevant potato and horticulture sections of RB209 – five, six and seven – won't be updated, confirms Amanda. "However, they'll still be hosted on the AHDB website."

While those conversations are happening in the background, the levy payer-facing part of the review has been sourcing feedback of what users of the guide want to see from it, its scope, and in what format.

Levy payers have had the chance to provide that feedback through three activities during 2024, says Amanda, including questionnaires and targeted stakeholder consultations.

An initial questionnaire, which received 250 responses, asked simply what RB209 did well and what could be improved. This shaped a second survey to delve a little deeper into the initial responses, providing Amanda and the team more nuanced information. "We had 660 responses to the second questionnaire, which we're still analysing," comments Amanda.

Key findings

Initial top-line findings include profitability – rather than either yield or reducing inputs – being the primary driver for using RB209, while the most requested improvements included more information to tailor recommendations for different farming systems, more worked examples in the guide, more photos of nutrient deficiency symptoms, and the development of an app to improve usability.

Perhaps unsurprisingly, guidance on nutrient availability to following crops from cover crops, rather than nutrient requirements for establishing cover crops or how much nutrient is captured, is a priority for growers and agronomists, who made up around 85% of responses to the second survey.

AHDB has been discussing the development of RB209 at events across the country, such as Cereals (pictured).

With more than 80% of respondents using organic manures, the top area requiring more information was around the availability of nutrients from such, followed by the impact of cultivation method on nutrient losses and uptake, summarises Amanda.

"The results are giving us a steer on the areas where we might require more research to underpin any changes, as well as around the presentation and usability of the guide."

Some areas will require careful thought about whether it should be delivered through RB209 though, she points out. "One of the top requests is more information to tailor recommendations. But that's very much an on-farm piece rather than what would potentially be in the guide.

"That response is informing AHDB's programme around nutrient management, but whether it would go in the guide itself is another question." ▶

RB209 knowledge gaps

Survey participants from the recent review were asked for the most important nutrient management knowledge gaps in various categories*. Preliminary analysis has highlighted the following:

- Nutrient use efficiency (environment)
- Nutrients through the rotation (systems)
- Soil type and nutrient availability including cation exchange capacity (nutrient availability)
- Soil analysis and interpretation (analyses to guide decision making)
- Tissue analysis and interpretation (analyses to guide decision making)

*Categories in ()

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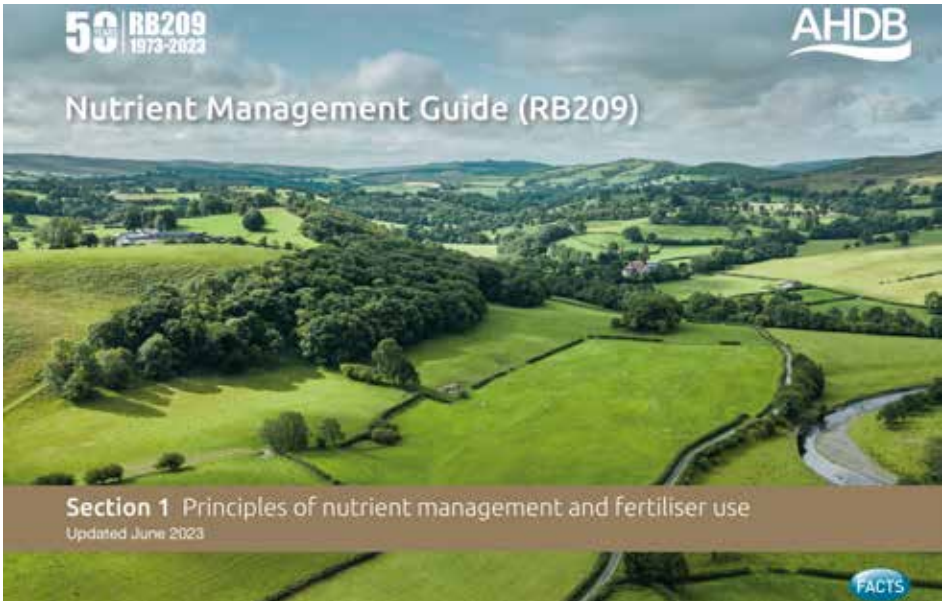

Last year, AHDB celebrated 50 years of RB209.

Cover crops are a case in point, with Amanda noting the core task of RB209 is identifying a crop's nutrient requirement.

"How you supply that has to be tailored to the individual farm situation, and while it'd be nice in future to add information about what level of nutrients are supplied by cover crops or, for example, biostimulants to RB209's soil supply and organic manure information, there are practical challenges in being able to do so," she explains.

For example, it's unlikely, that RB209 will be able to include detailed information about nutrient release from all different types of cover crops or mixes as it's just too complex, continues Amanda.

Although potentially, AHDB could commission research to see if repeatable standard values for cover crop supply of nutrients could be found – as used for organic manures, she suggests. Alternatively, AHDB could signpost to research or other sources of information for further reading.

It's a tough line to tread, adds Dave. "Where do you start and stop? Cover crops are rarely grown as a straight and mixtures have different percentages of different species. It's a minefield – we could use a lot of time and levy payer funds going down a rabbit hole for different mixtures, which then react differently to location, soil type and rainfall.

"There's already a plethora of complementary research projects, such as AHDB's GREAT Soils and other cover crop research that will help users of RB209 towards best applications," he says.

Ultimately, AHDB provides independently funded research in RB209 for levy payers and trained advisers to use but can't give a prescriptive recommendation for every farmer, he stresses. "It'll always require some interpretation from agronomists or FACTS-trained advisers."

Understanding the perspective of those key users of RB209 in more detail have also been sought in more detailed stakeholder consultations with around 50 organisations in the past couple of months, says Amanda.

Qualitative research

"These were one-to-one interviews with more probing questions about RB209. The first 35 were focused on farmers, agronomists and FACTS trainers – people who use RB209 – plus other organisations that have different perspectives around the guide," she adds.

"The last 15 or so were focused on our non-levy crops including potatoes and horticulture, but also BBRO for sugar beet and PGRO for pulses, who we already work with."

One area AHDB is keen to strengthen in the future is farmers' understanding of when they're using information from RB209, following feedback during the 'Shape the Future' levy engagement process about a lack of brand recognition.

For RB209, that can be as simple as not recognising that a FACTS-qualified adviser helping a grower with a recommendation is often using RB209 as an information source or that a third party's nutrient management planning software often has an API link to pull information from the digital version of the guide.

"We have to make sure those APIs recognise our brand as much as possible," stresses Dave. "Historically, AHDB was less concerned about recognition as long as the information gets to the grower and benefits the levy payer. But we have to make sure levy payers know the information they're utilising is funded by their levy."

As a result, AHDB is pushing commercial third parties to incorporate phrasing such as "Powered by AHDB" into their products, adds Amanda. "The review is now looking at the licence agreements we have for the API and renewing those with terms which include a requirement for AHDB branding as part of the agreement."

Ultimately, that'll help AHDB to demonstrate when information is being used that's been generated by levy payer funds, and also help prevent levy payers from being double charged to access the same information, concludes Dave. ■

Research roundup

From Theory to Field is part of AHDB's delivery of knowledge exchange on grower-funded research projects. *CPM* would like to thank AHDB for its support and in providing privileged access to staff and others involved in helping to put these articles together.

For more detail about this project, visit ahdb.org.uk/rb209

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