

AG

IN THIS ISSUE

Don't chase the payment consider rotational implications of SFI options

Difficult year underlines importance of nutrient planning

Challenging potato season could limit MH uptake

Prevent spills to safeguard crop () protection products

Italian ryegrass – the ticking time bomb

News and agronomy advice for arable farmers

Issue 32 | November 2024

Don't chase the payment – consider rotational implications of SFI options

There is no doubt that Sustainable Farming Incentive (SFI) actions can produce benefits such as improved soil structure and biology, increased organic matter and nutrient capture



and retention. However, care needs to be taken when introducing new seed and species mixtures into a rotation to ensure they don't pose a risk to cash crops.

"There are many advantages to growing cover crops, but if not thoroughly planned, unfortunately there can be disadvantages too," warns Kings technical advisor, Anna Ramsay. "It is important to use clean seed from a reliable supplier to avoid inadvertently bringing weeds or pests onto the farm."

> "We are seeing more SFI actions being used as part of the crop rotation, so we need to be aware of the wider impacts on agronomy," points out SFI delivery lead, Hannah Clarke.

> > Continued on next page...

Continued from page 1



"That means being aware of the species that may be included in mixtures used as a break or companion crop."

For instance, legumes like clover and vetch; and brassicas such as radish, mustard and kale, can act as hosts for pests and diseases such as foot rot in

vining peas, or can increase clubroot or nematode risk with other species. As a result, end markets for some crops may impose restrictions on their use elsewhere in the rotation.

"If you are growing beet, potatoes or carrots, then you need to carefully consider the choice of radish, choosing multi-resistant varieties to help reduce beet-cyst nematodes and free-living nematodes," says Hannah.

"Also, different types of radish flower at different times,

and an early flowering species can set seed and become a weed issue, while later flowering types will still be leafy when you want to destroy them."

"Where you have a lot of biomass to destroy, you are normally looking at higher rates of glyphosate, but you might consider glyphosate + 2,4-D," continues Anna.

"If using glyphosate with 2,4-D you will need to ensure you adhere to the following crop planting interval required after application.

"However, some actions such as multi-species spring and summer cover crops (SOH2 and SOH3) prevent you destroying them more than two weeks before drilling the following cash crop, so you need to involve your agronomist from the outset."



Think about management requirements

Timing is a key consideration in choosing the right action for other reasons too. For example, if CAHL2 winter bird food mixes are not established before 30 June, they have to be in place for two winters rather than one.

"We need to be aware of the wider impacts on agronomy."

She also points out that herbicides used in the previous cash crop could influence establishment of environmental crops.

Other treatments used on preceding crops can also limit your options. Hannah adds that growers using sugar beet seed treated with neonicotinoids cannot legally grow flowering crops for 32 months.

"As a result, we have made a specific mix which contains species that are permitted, but it limits options to mostly cereals and some brassicas." Winter cover crops can also act as a green bridge for pests, so thorough destruction five-to-six weeks prior to spring drilling is essential. The species choice will affect which plants are most attractive to pests such as peachpotato aphid or slugs. The ability to control grassweeds may also be a consideration for growers with a high black-grass burden.

"Think about what's best for your rotation and your farm."

"There is absolutely room for these SFI actions on farm, but you need to make sure you are not sacrificing yield in your main crops. You need to consider the implications of the actions. Think about what's best for your rotation and your farm; look beyond the payment. Getting the correct advice is critical."



Difficult year underlines importance of nutrient planning



exacerbated issues around nutrient availability in both soils and crops. Frontier's fertiliser business development manager, Finley Hawkins, reviews the challenges seen by many growers and explores what they mean in terms of nutrient planning for 2025.

The difficulties of last season

"Looking back to early spring 2024, Frontier's trial sites showed that many soils had lower than expected soil nitrogen supply (SNS) indices, later confirmed by soil mineral nitrogen analysis results from SOYL," says Finley. "This flagged a need to review nitrogen rates for the 2024 season, particularly where poorly established crops needed to catch up."

In many cases, these low soil nitrogen levels were caused by nutrient losses because of excess overwinter rainfall in the autumn and winter. Poor crop establishment in autumn in particular restricted rooting capacity, ultimately impacting the ability of crops to capture available nutrient. Fertiliser applications have also reduced over recent years, likely due to a combination of high prices and perhaps a general drive to reduce inputs. Finley continues: "During the spring, we also saw sulphur deficiencies appear in all crops rather than just those that would typically demand it. This showed that sulphur had also been lost from soils in a similar way to nitrogen, so it's important to include it in a nutritional review this year too."

Finley stresses that if you are considering adjusting nitrogen rates due to the season, you should also be doing the same for sulphur. More specifically, if you are variably applying nitrogen, make sure sulphur isn't negatively affected.

Lessons from the season

"Despite the challenging conditions, in some areas there were sufficient windows in the spring for nutrient applications to meet crop demand and help mitigate shortages," he says.

For example, on milling crops some growers increased nitrogen rates to compensate for a reduced soil nitrogen supply, particularly the final dose of nitrogen and timing it was applied. Some opted to double up on the protein application, with inputs made via soil and foliar where grain contracts allowed.

While this approach appears to have been successful in some regions, several samples only just met the specification or significantly missed it even with the additional input, emphasising just how short of nitrogen some crops really were. "It also highlighted the impact of poor root systems and that many crops struggled to take up a lot of applied nutrients," adds Finley.

If anything, the challenges of the last season have underlined the importance of a versatile approach. Finley continues, "It's never wise to over apply nutrients and risk negative impacts on the environment or the bottom line, but it's a difficult balance to strike when wheat is struggling to meet milling spec or crops are under performing with yield."

Evaluate application programmes for 2025

As it stands, many growers could be starting the 2024/25 season with nitrogen-depleted soils where crops have exhausted the available supply. On the other hand, where there was poor uptake and nutrient utilisation, there could be more nitrogen in the soil than usual, although very wet conditions in some regions this autumn will have reduced this.

"This means it's vital to assess planned nitrogen rates for crop 2025. Reviewing historic applications and offtake is more important than ever," says Finley. "Ask yourself: does your planned nitrogen rate for the coming crop reflect what you plan to achieve?"

Continued on next page...



Continued from page 3

Calculating nitrogen use efficiency (NUE) from in-field grain analysis and application data can provide an indication of how appropriate previous nitrogen rates were, with the insights helping to guide spring nutrition strategies.

Finley adds: "The 2023/24 season has been a reminder of the importance of good crop establishment and early root growth to ensure subsequent nutrient uptake is maximised.

"Additionally, we know soil, drainage, and nutrient levels vary across the whole farm and within individual fields, so the use of soil mapping and variable rate nitrogen applications can really help to optimise NUE and make better use of applied nitrogen over the coming season.

"The past year has emphasised the importance of looking at your overall nutrition strategy and being prepared to adapt and amend based on the season as it develops."

Prevent spills to safeguard crop protection products



Water companies across the UK continue to detect plant protection products (PPPs) during routine analysis of rural water supplies, particularly herbicides such as propyzamide.

Dr Paul Fogg

"The area of oilseed rape has more than halved, but water companies

A state of the second s

still have issues with propyzamide," comments Frontier crop production technical lead, Dr Paul Fogg.



"The fundamentals of using residual herbicides in the autumn haven't changed, but some peak detections now occur at other times of the year, suggesting point-source pollution and other crops are also an issue.

"It's in everyone's interest to protect the PPPs that we currently have by following stewardship recommendations," he adds.

That means that risks which can be managed relatively easily, such as preventing spills during filling and handling, should be a priority. "We can do something about these areas, as well as rinsing and cleaning down, for example by using catch trays," Paul continues.

"In addition, Frontier and manufacturers are working on closed transfer systems (CTS), particularly for high volume products."

There are a range of CTS pack options available, with the number of products in CTS packaging continuing to grow every year. As well as helping to protect the environment, CTS also offers other significant benefits in terms of removing manual handling, improving productivity and reducing single-use plastic packaging.

www.frontierag.co.uk/cts



Challenging potato season could limit MH uptake



Despite wet soils and cool temperatures creating difficult planting conditions, many potato crops in the UK have performed above expectations, although early senescence and variable tuber sizes mean harvesting and storage could still create challenges.

"Later-planted crops that benefited from improved soil conditions and weather have produced higher numbers of better-sized tubers," observes crop production specialist, Dr Reuben Morris.

"It has also taken skill to get nitrogen rates right for each variety in each field, with under-application resulting in short-lived canopies, limited bulking, and reduced yields. Affected crops are short of larger baker and processing fractions."



One positive is that no EU43 blight strains with resistance to CAA/OSBPI fungicides have been detected in Great Britain, although blight was easy to find in many crops come July.

"Initially, Zorvec Endavia (oxathiapiprolin + benthiavalicarb), and later Zorvec Entecta (oxathiapiprolin + amisulbrom) worked well, enabling agronomists to manage established blight despite irregular spray windows," adds Reuben.

He also comments that the switch to Zorvec Entecta will be helpful if EU43 appears in GB in 2025.

"As a company, we have supported the introduction of Privest (potassium phosphonate + ametoctradin) from BASF due to its new combination of modes of action which will help manage the development of EU43 resistances," he continues.

"It performed well in our slots in SRUC's blight trials at Auchincruive, and Privest has performed well in a difficult season, helping maintain blight control programmes when product availability was under pressure."

Looking ahead, while existing on-farm stocks of mancozeb can be used next year, the most important legacy of the loss of its multi-site anti-resistance activity will probably be in the control of Alternaria blights.

"These blights are at higher risk of becoming resistant to the fungicides such as strobilurins and SDHIs that we will have to rely on after 2025," Reuben warns.

With many canopies starting to senesce at desiccation, skin set is good although there may have been reduced uptake of maleic hydrazide (MH) for sprout control.



"Frontier's potato storage specialists now have years of experience with 1,4Sight (DMN)," he adds.

"This new sprout suppressant has been widely adopted for longer term storage of processing crops, and its high efficacy will be needed in crops with sub-optimal uptake of MH.

"Very different weather into October meant crops in the west and Midlands were coming into store wet and muddy, while those in the East were often drier and cleaner. On the positive side, tubers coming into store cooler than in 2023 makes crop stabilisation easier, helping managers to maximise outputs into 2025."

www.frontierag.co.uk/contracting-services

The second

You can hear more from our experts at our winter events: www.frontierag.co.uk/events

Italian ryegrass - the ticking time bomb



Italian ryegrass (Lolium multiforum) is an increasingly serious grassweed threat across the country. Frontier agronomist, Tim Whitaker, who recently attended an internal workshop on the issue, shares his thoughts.

The latest data from the NIAB-Bayer grassweed survey, presented by John Cussans of ADAS, shows almost a

quarter of farms now report issues with Italian ryegrass (IR), compared to just over 10 percent in 2000.

Unless the industry works together, IR has the potential to become a bigger problem than black-grass, due to its more competitive biology, higher tiller numbers, and the fact one plant can produce 5,000 seeds. Like brome, IR holds onto its seed at harvest, making it easily spread with straw.

"Traditional black-grass IPM techniques are less effective for IR, which makes resistance issues with a number of herbicides a concern," stresses Tim. "We must tackle populations now to avoid sleepwalking into an even bigger problem."

Around 10 percent of IR is no longer controlled by flufenacet, with only 70 percent of the population still susceptible. In addition, almost half the population shows resistance to ALS-inhibitor herbicides or pinoxaden. The situation becomes increasingly complicated with IR populations that exhibit total or partial resistance to more than one active or mode of action.

"The key is to test populations and choose the right herbicide," stresses Tim. "It is better to spend money understanding the type of IR you have and use products like aclonifen and cinmethylin." He also warns against the overuse of glyphosate: "Glyphosate isn't impacted by cross-resistance to other herbicides, but resistance is a very real risk, so if you're not achieving control, don't repeat applications and follow WRAG guidelines."

Most IR will germinate around October, so late planting and creating stale seedbeds (possibly with mechanical controls, including ploughing), can help, but some IR will continue to germinate throughout the season, meaning that stale seedbeds alone may not be enough.

"Spring cropping has a role to play, but the crop is less competitive and herbicides have to work," warns Tim. "Thick crop establishment is essential to prevent light penetration that could lead to weed germination."

For help visit www.frontierag.co.uk/compliance



frontier

BASIS

Claim BASIS points

Readers of AGRONOMY can claim two CP points per membership year. To claim for 2024/25, use BASIS code CP/133355/2425/G.

Frontier has a UK-wide team of 130 BASIS qualified agronomists, including 44 Diploma holders and 70 experts on the environmental register, supporting growers with fully integrated agronomy advice on all aspects of profitable and sustainable crop production.

Find more technical news and advice from Frontier's experts at www.frontierag.co.uk/blog

FrontierAgriculture

X @frontierag

in Frontier-Agriculture

