

Blight – what could be next?

Potato growers are all too familiar with the threat of late blight and its various genotype guises. In the second of BASF's Real Results Roundtables, CPM hosts an open discussion to explore where the disease could be heading and how a new tool could help.

By Janine Adamson

The challenges which continue to inflict themselves upon potato growers don't appear to be close to resolution anytime soon. Whether it's new resistant blight strains on the continent, seed shortages or simply the weather, there are many factors which can't be easily controlled.

However, the humble potato remains an integral crop from both a UK grower and consumer perspective.

For this Roundtable, CPM brings together James Hutton Institute potato pathologist, Dr David Cooke; SAC Consulting senior

potato consultant, Kyran Maloney; and BASF agronomy manager, Aliona Jones to explore what's often coined the most impactful challenge of all — potato late blight.

The current UK potato crop

The Roundtable began with agreement from all that the wet weather has been the number one hinderance for the past six months. "As a result, some of last season's tubers are still in the ground which provides an excellent source of primary inoculum for late blight and early infection," warned David. "I spoke to an agronomist in the South East recently and he explained that they'd just finished harvesting and were about to start planting — around two weeks apart. That's almost unheard of."

In response, Aliona said some of the growers she'd spoken to lately, particularly in the East Midlands and Yorkshire regions, had no choice but to give up. "Crops which haven't been lifted will sadly have to stay there," she commented.

David added that for potatoes which have been successfully harvested, the quality of seed crops has been poor, resulting in an overall UK shortage. "There's a concern that because growers are short on seed, they may have to scrimp on quality, or import when they wouldn't have imported before," he explained. ▶

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► Blight update

Growers will be acutely aware that the blight pressure in 2023 was high, which meant the Fight Against Blight (FAB) initiative undertook a lot of sampling, said David. "We were very concerned about the new genotype (EU_43_A1) coming in from the continent.

"But despite the increase in sampling, we didn't find EU_43_A1 which has to be a positive message. Nonetheless, there still remains a lot of 36_A2 (comprising 52% of blight populations), particularly in England and Wales. In Scotland, 6_A1 dominates (32% of blight populations) with some 37_A2 which is the lineage with resistance to fluazinam."

David explained that since EU_43_A1 was first reported at British Potato in Harrogate in November 2023, there have been two findings of the genotype in Ireland. "Of course the concern is when you find one isolate, it's pretty certain that it won't be the only one.

"Plus, we were expecting it to come from Denmark/the East and it could well have



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snuck into early crops from the West. It'll certainly be concerning for growers and economists alike," he said. David pointed out that monitoring for EU_43_A1 will continue through the FAB project.

Although the UK is yet to experience this particular genotype, David highlighted the increasing risk of a second new strain which is related to EU_43_A1 – EU_46_A1, which has been found in the Netherlands and North West Germany. "This lineage is where resistance to the carboxylic acid amides (CAA) group of fungicides has been found including oxathiapiprolin. This is a real concern because of its novel resistance," he said.

In response, Aliona explained that fungicide resistance isn't just high on the agenda for product manufacturers such as BASF, it's a shared concern. "When attending technical grower meetings, of which I can undertake around 30 in a season, resistance is always the primary topic. Thanks to monitoring schemes and knowledge exchange from research institutes, it remains high on the agenda for all," she said.

Product revocations

Conversations quickly shifted to the recent news about mancozeb. In January, the Health and Safety Executive (HSE) announced that the active doesn't meet approval criteria and therefore it proposes to withdraw it from use.

And although it's still available for applications in the current season, Kyran said a future without mancozeb is a concerning one. "If you consider the pesticide usage data for Scotland or England, you realise it's relied upon as the backbone of late blight control.

"I think it's the fact it's a multi-site and has a useful role to play in programmes, but equally it's an important partner product which protects other active ingredients," he said.

"To formulate a programme without it and comply with FRAG (Fungicide Resistance Action Group) guidelines, you can do it but it's quite complicated, even more so for long-season ware crops."

David echoed Kyran's sentiment: "It's speculation, but of course one can ponder the issues that are arising in mainland Europe following the revocation of mancozeb a few years ago. Has the loss of the multi-site encouraged or resulted in the breakdowns we're seeing?

"It's remarkable, even 6-7 years ago we'd have only been discussing blight resistance to metalaxyl, but now there

are problems with fluazinam, CAAs and oxathiapiprolin all coming up — the trend is concerning. You can't help but wonder if it's related?"

David explained that for Danish potato growers, many believe recent fungicide resistance problems have been due to the country's pesticide legislations. "It's probably what kicked off the original CAA resistance within Denmark — a lack of product choice and the way they were using them. That's certainly the case for Revus/mandipropamid — used in blocks and in high disease pressure.

"This meant a product failure followed by severe disease pressure and then firefighting with other products, it's exactly against the advice which all manufacturers provide on best practice."

David referred to the numbers — that blight generates 20,000 sporangia per cm² of active lesion, per day. "If you multiply that up for 10ha with 1% disease cover there's countless spores, each with a potential point at which mutation and selection pressure can happen. So the bigger the population of the pathogen, combined with strong selection pressure from product use, it's done as science would predict."

In response, Kyran reminded growers to observe local circumstances. "Consider crop variety and its resistance rating, and what the growth stage of the crop is because the actives all have different properties and are effective at certain stages.

"But having mancozeb in there is important, so keep using it while you can. Although good resistance management is possible without it, it's just hard."

Resistance management

Furthermore, Kyran highlighted scientific evidence regarding how to reduce the frequency of resistance strength in the population. "We know that mixing, so actives from different FRAG groups with different modes of action, is a good way to protect them; as is alternating sprays.

"Next time there's a blight spray, using chemistry from a different FRAG group is a very effective way to try and guard against resistance, alongside making good use of cultivar resistance — the two protect one another. It's about an integrated strategy, which is perhaps something we've not had enough focus on in the past," he said.

Kyran also raised the importance of monitoring and keeping an eye out for Hutton Criteria periods and localised FAB reports. "And not to neglect the weather forecast and whether you can actually

travel with a sprayer or not. Those factors all help to optimise spray timings.”

David added the importance of growth stage monitoring. “If crops are growing quickly into rapid stem extension, extra care is required at that stage,” he said.

Fungicide options

From a BASF perspective, Aliona said that ametoctradin remains a key active ingredient in the company’s late blight control portfolio. For example, Enervin SC (ametoctradin), which she says is a good ‘mixer’.

“There’s also Percos/Zampro DM (ametoctradin+ dimethomorph) which has the added benefit of tuber blight control.

“But the shiny new toy is Privest (ametoctradin+ potassium phosphonates) which is a timely arrival with various advantages, mainly that it contains two unique modes of action that have no known resistance issues. The product itself has a low resistance rating too,” she said. “Also, the formulation has good rainfastness and UV resistance which means it offers a lot.”

David agreed that the launch of Privest is welcomed. “Having a range of actives in different combinations as well as straights gives growers more flexibility because they have to consider mixing.

“It’s a positive message — we’re still fortunate that there is a range of actives — even fluazinam continues to have a role. It’s not all doom and gloom and this product fits well with that profile.”

To that end, Kyran stressed the importance of not immediately shelving products even if resistance issues start to appear. “A prerequisite for that is having a good understanding of how to manage

resistance — having a diverse armoury, which Privest will help with, and also keeping abreast of monitoring.

“If you don’t know what’s happening with the population, you’re relying on control failures to tell you there’s a problem and then it’s too late,” he said.

But importantly, he says his team are excited about the potential from the actives in Privest and the role they can play in programmes. “I think it’ll take a few seasons for growers and agronomists to get their head exactly around the best way to use them, but from what we’ve seen in trials, the product is great.”

Other thoughts

The group agreed that the Roundtable would do a disservice to the topic if it didn’t discuss wider blight management strategies.

According to Kyran, blight can’t be successfully managed without chemistry, but relying on it solely will create problems as seen on the continent. “More could be made from tailoring blight control programmes to cultivar resistance. I’d like to see a more nuanced approach because there is diversity in varietal breeding.

“There are also other aspects such as groundkeeper management and striving to remove primary sources of inoculum. All too often you see waste potato dumps with uncontrolled growth,” he stressed.

David added that this also loops back to seed issues. “When it comes to managing primary inoculum, buying as high quality seed, as is affordable, is important. I’d also echo thoughts on volunteer control and potato dump management.”

To close the Roundtable, Aliona commented that it’s often about going back to the basics, even with the launch of



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attractive new chemistry. “In every crop, we support integrated pest management and best practice.

“New products don’t come to market frequently, so losing them to resistance issues is false economy. We have to protect both BASF’s and everyone else’s products for the future,” she concluded. ■



BASF will continue to support the Fight Against Blight initiative this coming season.



The Roundtable discussed how more could be made from tailoring blight control programmes to cultivar resistance.

Real Results Roundtable

BASF’s Real Results Circle is a UK-wide agricultural network now in its eighth year. The initiative is focused on bringing together growers, industry experts and BASF to create a more resilient farming system that’s sustainable for farm business profit, for the people we feed and for the planet we live on.

Real Results Roundtable is a new initiative which explores related topics, such as resilient disease control, environmental stewardship and return on investment. Roundtables centre around Real Results Circle farmers and associated experts from the wider industry.

By coming together to openly discuss and

therefore face challenges as one, we can find out what really works and help to shape the future of UK agriculture.

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