

British

SERVING THE INDUSTRY FOR MORE THAN 30 YEARS

POTATO

JULY/AUGUST 2024

REVIEW



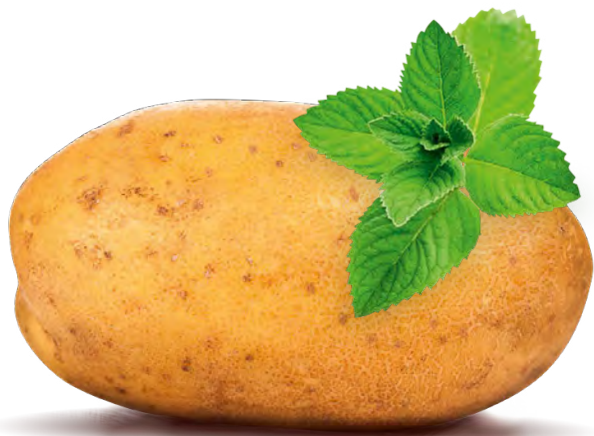
OLIE-H APPROVAL HERALDS A BRIGHTER FUTURE FOR GROWERS

SPROUT SUPPRESSANT PROGRAMMES SPOTLIGHTED AT STORAGE OPEN DAY



BLIGHT UPDATES | HARVEST | PREPPING | FERTILISATION | MACHINERY | AGTECH

Why bioX-m®?



The only completely natural product.

Stand-alone.

Truly sustainable.

Excellent efficacy.

Sequesters carbon during growth.

Flexibility of timing.

Minimal weight loss in store.

Curative and preventative.

No MRL.

One day withholding period.

No persistent residues on crops or in stores.

Approved for use on organic crops.

May be used in multi-use stores.

The logical choice.

Technical Manual



Peter Hall

peter@junopp.com

07973 172 722

Nick Tapp

nick@junopp.com

07775 785 748

MAPP 16021

www.junopp.com

Editor's letter

CAN you believe the July issue is out already and we're already more than half way through the year?

It's a welcome relief to finally have the sunshine we've craved and hopefully a chance to wave goodbye to those water-logged fields, spoiled crops and delayed harvests.

The Food and Agriculture Organisation of the United Nations organised a new annual event, International Potato Day, and is endeavouring to use this to draw more attention to the role potatoes play in food security and nutrition, while raising public awareness of their diverse growing methods globally and the efforts put in by all those employed in the sector. While still in its infancy, we're hoping it will help to raise the profile of the British potato industry and that more people will join in future events.

Seven proposed projects have been outlined for the residual potato levy funds remaining following the wind-down of the AHDB Potatoes, and, following the conclusion of the WTO consultation process, the withdrawal timelines for mancozeb have been confirmed.

These are also detailed in our news section.

Andrew Goodinson offers key insights on desiccation and haulm destruction strategies for this year's potato crops, sharing some of his recent experiences.

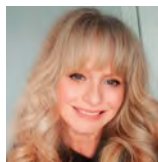
Trials by the Potato Partnership have identified measures that improve control of the pests and diseases that threaten the economic viability of the sector, and Bayer scientists have drawn on recent lab findings to give advice on crop protection in the final weeks of the season.

Read more about these on p14 and 19.

We have large sections on blight and fertilisation in this issue, with a number of findings and experts' advice to share with you, while in our storage section we share Mark Stalham Potato Consultancy's examination of previously carried-out studies and field trials to test assumptions on maleic hydrazide (MH). We also share feedback from Agronomist Simon Faulkner, who advised those who attended the recent GB Potatoes Spot Storage open day on MH practices.

Caythorpe Trials Day is fast approaching, so be sure to check out some of the breeders' previews, while also catching up with the latest features, agtech and machinery updates.

Finally, you'll have noticed the QR code at the bottom of this page. This is the chance to update all the news and information you receive from the British Potato team to be sure you're getting relevant updates. If you don't receive our free weekly e-newsletter, would like to continue receiving British Potato Review, or would like to know more about next year's awards and show, just scan to update your preferences.



Stephanie Cornwall
Editor

04 News updates

12 Preparng for harvest

16 Potato partnership trials update

18 Sogflation

19 Blight lab work

22 Professional profile

25 GB potatoes update

26 Blight insights

32 Storage



36 Fertilisation

42 Caythorpe trials preview



44 Herbicides

45 Pesticides

46 Legislation

48 International

53 Machinery

55 Agtech

58 Appointments

60 Events



Update your subscription preferences here

Let us know if you'd like to subscribe or continue receiving a copy of our bi-monthly British Potato magazine, weekly news e-letter bulletins and be kept up to date with show and awards news. **Just scan the QR code to update your preferences →**



British POTATO REVIEW

July/August 2024

Editor

Stephanie Cornwall 01778 395055
stephanie.cornwall@warnersgroup.co.uk

Multimedia Sales Executive

Theresa Geeson 01778 392046
theresag@warnersgroup.co.uk

Publisher

Juliet Loisselle 01778 391067
julietl@warnersgroup.co.uk

Design

Dean Cole
deanc@warnersgroup.co.uk

Subscriptions

01778 392464
subscriptions@warnersgroup.co.uk

Subscriptions & advertising copy

Potato Review, Warners Group Publications,
The Maltings, West Street, Bourne, PE10 9PH

www.potatoreview.com

ISSN 0961-7655

© AREMI Ltd 2018

The publishers are not necessarily in agreement with opinions expressed in this journal. No responsibility can be accepted for statements made by contributors or advertisers.

POTATO REVIEW is published by:
Warners Group Publications,
The Maltings, West Street, Bourne, PE10 9PH

Printed by Warners (Midlands) Plc
Manor Lane, Bourne, Lincs. PE10 9PH



This publication is printed by Warners Midlands PLC
Telephone: **01778 391000**



Global recognition of all things potato

THE first International Potato Day took place recently, a new annual event which pays homage to the crop, its diverse farming systems globally, its contribution to food security and nutrition, and those employed in the sector.

The Food and Agriculture Organisation of the United Nations organised the event, sharing case histories and the efforts of those in the industry on a newly-established website page, while encouraging anyone involved in the supply of potatoes to draw attention to the date and organise celebratory events, as well as sharing on social media and website posts.

The theme of the event was 'Harvesting diversity, feeding hope', in recognition of the many varieties now offered by breeders, today's diverse production systems, culinary preferences and industrial applications. Peru suggested the event to the UN in July last year.

Events and campaigns all over the world highlighted the contributions of potatoes in improving food security and nutrition and livelihoods, and examined the constraints to optimising the benefits from the crop's value.

Regarded as an opportunity to build on the International Year of the Potato observed in 2008, the event highlighted the importance

of the crop in combating hunger and poverty and addressing environmental threats to agrifood systems.

The roles of small-scale family growers, a significant proportion of whom are women, in safeguarding the wide spectrum of the crop's diversity, was also recognised, while the cultural and culinary dimensions of the crop's cultivation and consumption were celebrated.

The FAO shared little-known facts such as the 12,000-hectare potato park in the Andes near Cusco, Peru, being one of the few conservation initiatives in which local communities are managing and protecting their potato genetic resources and traditional knowledge of cultivation, plant protection and breeding. Another fact it sought to raise consumer awareness on is that many consumers are unaware that potato starch is being creatively used as a sustainable alternative to traditional plastics, with materials based on potato proteins and starch being used for various packaging such as food containers and medicine capsules.

Kyle Greer, head chef at Belfast's Europa Hotel, is pictured celebrating all things potato with Gayla Greening and Sonja Brigman from Kansas in the United States.

Crisps brand showcases RNLI heroes

CRISPS brand Burts is introducing limited-edition packs to celebrate the 200th anniversary of the Royal National Lifeboat Institution (RNLI).

The takeover packs will be available throughout July and August on the two most popular Burts flavours: Lightly Sea Salted and Sea Salt & Malt Vinegar 150g and 40g packs. It has also also launched a limited-edition Prawn Cocktail flavour, with the pack being co-designed by the RNLI.

The Plymouth-based company sources its potatoes from local growers including New Rydon Farm in Somerset and five Cornish growers Hay Farm, Treleathick Farm,

Spaltenridden Farm, Colwith Farm and Trenowth Farm. It has supported the charity by raising £220K since forming a partnership with it in 2021.

Head of Sales Claire Wade said: "It's a charity that's close to our hearts, as well as those in the local community."

She said the limited-edition packs were aimed at raising awareness about the charity's work and would highlight some of the RNLI 'heroes'.

RNLI Partnerships Manager Anna Jones said the charity was grateful to the manufacturer for its ongoing support. "The limited edition packs are a great way to recognise our 200th

birthday and highlight the important work RNLI lifesavers do keeping people safe in and around the water," she said.



Olie-H Emergence Approval granted for seed potatoes

AN emergency approval has been granted for paraffin oil product Olie-H in seed potato crops, offering growers a proven management tool for non-persistent aphid-vector viruses.

Non-persistently transmitted potyviruses, sometimes called mosaic viruses, have been the most problematic of viral diseases affecting British potato production for many years and currently, the dominant species is potato virus Y (PVY).

PVY is most damaging in ware crops grown from infected seed (secondary infection), depending on the variety affected plants can lack vigour, producing smaller and sometimes misshapen or cracked tubers.

When aphids probe the leaves of plants infected with PVY, they can pick up the virus on their stylet (or mouthparts) and transmit the disease very quickly – within minutes or even seconds of probing an uninfected plant.

This in contrast to persistent viruses like potato leaf roll virus (PLRV), which take much longer for an aphid to acquire and become infectious, so aphids that colonise potato crops – such as the peach-potato aphid – are key to its transmission.

Non potato colonising aphids like the grain aphid and willow-carrot aphid, as well

as colonising aphids, can spread PVY very quickly as they move through potato crops.

This wider range of vectors and speed of transmission make it very difficult to manage, and key vector species have developed resistance to pyrethroid insecticides (including to their rapid 'knock-down' action), so it has only become trickier in recent years.

Applying mineral oils as adjuvants is a way growers can manage PVY. These work by coating the crop's leaves with a thin film, which disrupts the acquisition and transmission of virus by the aphid's stylet.

UK Potato Crop Manager at Certis Belchim, Caroline Williams, said that until now mineral oil products have only been permitted from emergence up to tuber initiation (BBCH 40) in seed potato crops.

This led to Horticulture Crop Protection (HCP), Seed Potato Organisation (SPO), SAC Consulting and VCS Potatoes applying for an Emergency Authorisation (EA) for the company's paraffin oil product Olie-H for use from tuber initiation onwards.

"The application has been successful and seed growers will benefit from the proven efficacy of oils for the entire growing season in 2024, helping suppress non-persistent virus levels in seed stocks," said Caroline.

UK Potato Crop Manager at Certis Belchim, Caroline Williams.



"We recommend that Olie-H is always applied to a dry leaf and growers avoid applying it in the heat of the day. It's also best used as part of a virus control programme containing translaminar insecticides like Teppeki and InSyst."

VCS Potatoes Agronomist Graham Tomalin, who oversees seed potato crops across East Anglia where PVY is a significant threat, welcomed the news of the successful application.

"It's been an excellent team effort to gather all the evidence on the risk posed by PVY in British seed production and make a case for the emergency approval," he said. "Olie-H is a useful addition to integrated pest management (IPM) strategies, with a broad range of measures key to lowering virus levels and maintaining good seed potato health."



Celebrating the chippy trade

NATIONAL Fish and Chip Day took place last month, recognising the efforts of British potato growers as well as fishermen, chip shops and restaurants.

The awareness-raising event has grown exponentially since its inception in 2015, recognising the historical significance of fish and chips during WWI, WWII, and particularly on D-Day.

Its organiser, The National Edible Oil Distributors' Association (NEODA), is a non-profit organisation established in 1947 committed to supporting the industry.

Chip shops and restaurants throughout the country joined the event with special offers, social media campaigns, collaborations, charity initiatives, educational activities, and other celebratory activities.

Stolen funds reclaimed and increased turnover expected

POTATO breeder HZPC has reclaimed a large amount of money formerly stolen by cyber criminals and is now on track to increase its annual turnover.

British Potato Review reported earlier this year that cybercriminals had targeted the group in September, stealing a large, undisclosed amount of money. The group has now managed to reclaim this money from a blocked account where it had been held after notifying authorities and a subsequent forensic investigation, details of which cannot be disclosed.

Royal HZPC Group expects to achieve a similar result for the financial year 2023 / 2024 (July - June) as in the previous financial year, with an expected increase in financial turnover of 4%.

The group had already reported low European yields in its February quarterly report. However, the potato breeding company managed to sell more top-of-seed potatoes than was expected a quarter ago therefore its European operations are expected to show better results. In other regions there were setbacks, partly because high potato yields led to oversupply.

Group CEO Gerard Backx said: 'We expect the total tonnage we sell and/or which is sold by licensees, to increase by 5% compared to the previous year. We will probably be within 1% of reaching the million tonne milestone.'

AHDB recommends residual potato levy funds to be used for industry projects

MINISTERS are to be asked by the Agriculture and Horticulture Development Board (AHDB) to consider using residual potato levy funds to support seven industry projects through a grant to GB Potatoes.

The recommendation has been made by AHDB's board following the wind-down of levy payer activities within the sector and is supported by various potato membership organisations. Any AHDB grant is subject to Ministerial approval.

The seven proposed projects are:

1. Potato Blight Project – addressing the significant threat of potato blight, by monitoring genetic changes and fungicide sensitivity.
2. Aphid Monitoring Project – supports national aphid monitoring, providing industry-wide data for decision-making.
3. Management Tools to tackle Viruses Project – this project proposes joining Horticulture Crop Protection (HCP) on behalf of the seed sector in order to access essential functions for sustaining high-grade seed production.

4. Reputational Management Project – safeguarding the industry's reputation through strategic monitoring, proactive crisis management, centralised coordination, influencer engagement, and media outreach.
5. Bridging Information Gap Project – provision of transparent and reliable data on potato cultivation, varieties, and national yield.
6. CIPC Residue Monitoring Project – to support the industry providing data to the Chemical Regulation Division (CRD) to assess chlorpropham (CIPC) residues in stores. Failure to submit data risks rendering stores with a CIPC history unusable.
7. Updating Nutrient Management (RB209) Project – with the industry always looking to move forward and adopt new practices there is a need to ensure revision of fertiliser recommendations reflect current technologies.

Letters of support for the proposal have been received from the National Farmers Union (NFU), NFU Scotland, NFU Cymru, the

British Potato Trade Association, the Fresh Potato Supplier Association and the Potato Processor's Association.

Following the sale of the AHDB Potatoes' Sutton Bridge Experimental Unit, AHDB holds circa £1.8m of potato reserves, £400k of which needs to be set aside to cover any potential residual liabilities.

The grant is proposed to be tapered over three to five years, reducing each year as GB Potatoes increases its flow of voluntary industry funding. If approved, it will comprise £1.372m over the first three years.

The grant for years four and five could total £426,200, but this would be dependent on a successful review and the availability of sufficient potato funds from the residual liabilities set aside.

The next steps will be to submit a grant proposal and AHDB board recommendation to Ministers for their consideration.

AHDB Chief Executive Graham Wilkinson said: "In reaching its recommendation to the minister, the board carefully considered a range of options for potato sector funds.

A SUCCESSFUL HARVEST STARTS IN SPRING

Unpredictable weather patterns and increased rainfall means planting seasons are getting shorter. Couple this with an increased demand to be more efficient and it might be time to increase your planting capacity.

With our extensive range of bed formers, tillers, planters, and destoners, you'll be equipped to tackle any field with confidence and precision. At GRIMME, we understand the importance of reliable equipment in achieving planting success. That's why we're proud to offer the widest selection of spring equipment in the root crop sector from a single manufacturer. Whether you're preparing the soil, removing stones or planting tubers, our equipment will optimise efficiency and maximize yields.

BUT THAT'S NOT ALL! To make your investment even more appealing, we offer flexible finance options to suit your budget, alongside comprehensive tailored service and warranty packages, ensuring peace of mind and protection against unexpected costs.

Don't let anything stand in the way of your planting success. Trust GRIMME to provide you with the tools and support you need to get the maximum potential return from your crop.

The GB Potatoes proposals have wide written support from all the main industry membership trade organisations and also meet the AHDB Board’s legal obligation to use levy funds to benefit the sector.

“Grant funding would guarantee support in key areas of industry need over the next few years and give the industry the best chance to develop a self-sustaining voluntary funding model into the future.”

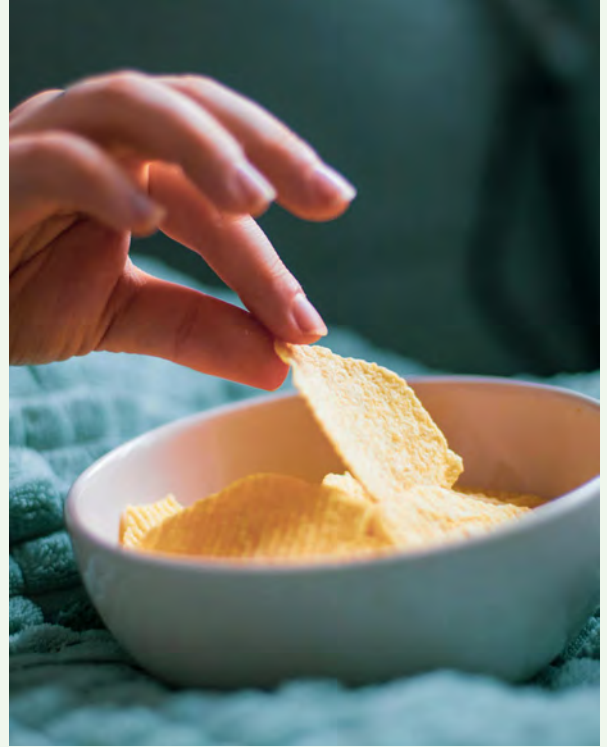
GB Potatoes Chief Executive Scott Walker said: “Recent years have witnessed a marked downturn in both seed and ware potato production owing to escalating costs and the substantial risks undertaken by growers. In response to these challenges, GB Potatoes has been established with the aim of promoting cooperation throughout the potato supply chain.

“Our proposed initiatives are designed to confront industry obstacles, nurturing resilience and are for the benefit of the entire supply chain. To provide oversight, on project implementation, monitoring, and evaluation, we will establish an industry advisory committee comprising industry stakeholders to work with GB Potatoes to ensure that all growers benefit from the residual levy funds.”

Organic crisps market to grow almost 6% per year

THE global organic crisps market will see an annual growth rate of 5.87% between now and 2028, according to forecasts by market research company TechNavio.

Increased demand for healthy food and lower-calorie crisps, as well as greater prominence of private label brands, will lead to the global increase, the analyst states in a recent report.



DON'T FORGET ABOUT OUR EARLY ORDER DISCOUNT AND PRICE FREEZE! THIS APPLIES TO ALL NEW MACHINES ORDERED BEFORE THE END OF JULY 2024 AND DELIVERED IN 2025.

Mancozeb timelines confirmed

FOLLOWING the conclusion of the WTO consultation process, the withdrawal timelines for mancozeb have been confirmed.

The Health and Safety Executive (HSE) extended the expiry date for the active substance by one month to May 31st, 2024, to account for delays in the WTO process. Industry and grower representatives continue to lobby to maintain the use of this vital active ingredient.

Fungicide manufacturer UPL, which has provided a product containing the active for the benefit of potato growers over many years, says it will explore all possible avenues in support of mancozeb's registration in Great Britain.

UPL's Potato Technical Lead for the UK and Ireland, Geoff Hailstone, stressed that the confirmed expiry dates for products containing mancozeb have also been extended by one month from those proposed earlier. The sale and supply of any plant protection product containing mancozeb will end on November 30th, 2024, and the storage, disposal, and use of any plant protection product containing mancozeb will end on November 30th, 2025.

"Grower representatives, the potato industry, and UPL continue to make significant efforts to defend the use of mancozeb," said Geoff. "The loss of this active ingredient would leave the industry without a vital tool for disease control and fungicide resistance management.

"Nautile DG (cymoxanil + mancozeb) and Manzate 75 WG (mancozeb) continue to be available throughout the sell-out period. I would encourage growers and advisors to speak with their suppliers to let them know what they expect to need. This information greatly helps with our supply planning."

The loss of mancozeb would be a blow to growers with the threat of strains resistant to CAA and OSBPI fungicides arriving from the continent. Mancozeb will be a key tool this season as growers confront the challenge of maintaining blight control against a backdrop of high infection levels last year across Northern Europe. Concerns remain regarding the potential importation of seed infected with the new resistant strains.

Geoff advises potato growers to continue to adhere to the general FRAC guidance and to always mix products with different modes of action in the same application and alternate mixes in the program.

"Without mancozeb, products like Proxanil (cymoxanil + propamocarb) would become even more critical. The two actives in Proxanil have no reported resistance issues; they are both from different chemistry groups and are the only members of those groups.

"Cymoxanil is known to be one of the few actives with kickback activity and has a very low risk of developing resistance. It could be particularly useful in countering



blight appearing very early in the season from infected seed. Propamocarb is the only active with strong anti-sporulant activity across all known strains, has good movement in the plant and is the only active in the carbamate resistance group.

"When tank-mixed with a protectant fungicide such as cyazofamid, Proxanil strengthens the activity and gives excellent resistance management," he said.



Potato packaging for deodorant brand

A SUSTAINABLE deodorant brand has been launched with poly potato packaging.

Eco-brand Ben & Anna has launched the deodorant cream. Its packaging is made from potato starch, paper, and natural fibres, which is fully compostable and will start to decompose after a few weeks. The brand claims it is a 'world first'.

King Charles to carry on supporting trials on sustainable potato growing

KING Charles has confirmed that he will remain patron of the Soil Association, which has been campaigning for sustainable food and farming since 1946, and whose associated trials have helped British potato growers.

A long-standing supporter of organic and nature-friendly growing, King Charles has supported the charity since first becoming patron as Prince of Wales in 1999.

Research trials organised by the charity's Innovative Farmers network have helped British potato growers to test sustainable solutions on farm. These trials are funded by the former Prince of Wales Charitable Fund since it was launched 12

years ago and this support is continuing via the King Charles III Charitable Fund.

Soil Association Chief Executive Helen Browning said: "His Prince of Wales Charitable Fund has supported more than 120 farmer-led research trials with our Innovative Farmers network – but his support goes far beyond financial generosity.

"He follows the work of pioneering farmers with avid fascination and takes inspiration from them.."

Speaking at a 10-year anniversary event for Innovative Farmers held in 2022, the former Prince of Wales said he was "very proud" to have been able to support Innovative Farmers.

British Owned



British Made

CS1

Highest Quality Seaweed Extracts

CS2

+NPK

proven heat protection for your yield

Fastest Growing UK Heat Protection Product



info@thecropsmith.uk
07891 582 886

See Trials @
www.thecropsmith.uk



Haith

HANDLING SOLUTIONS YOU CAN TRUST

From single machines to complete turnkey solutions the potato industry trust Haith to handle it.



IN-TAKE



BOX TIPPLERS



WASHERS & DESTONERS



POLISHERS



GRADERS



OPTICAL SORTERS



IN-FIELD



TURNKEY SOLUTIONS

INNOVATION COMBINED

+44 (0) 1302 831911

sales@haith.co.uk

www.haith.co.uk



GRIMME Strategic Partner



A helping hand for Alito

British supplier has embarked on a project to establish potato growing and education in Uganda region.

UK potato supplier Branston has donated £10,000 to an agricultural training college and provided on-the-ground support in Alito, Uganda.

The college teaches farming skills to local people so they can grow their own Irish potatoes, which is a crop not previously grown at the college or widely in the region.

Each student will be given five kilos of the Irish potato variety to take home when they graduate this summer after the first crop is grown, and Branston is providing both financial and agronomist support for the first planting, helping to support food security in Uganda.

Branston is aiming to dig 2,000 cubic metre water storage lagoons to allow for water irrigation, which will be needed if the rains during the wet season continue to be erratic. Several trials are also being carried out on a one-acre test site to provide a teaching plot for the college students and staff to learn about varying levels of fertiliser, planting densities and potato varieties.

Branston is one of the UK's leading suppliers of potatoes for leading UK retailers and wholesalers, as well as providing seed for potato growers. It has sites in Lincoln, Scotland and the South West, with Lincoln also being the home of its award-winning prepared foods factory.

Interim Project Manager at Branston, Ian Arnold, recently visited Alito to oversee the land preparation and planting. He said: "This is a fantastic project and a great opportunity for us to give back to the

local community at Alito and improve food security. Having access to affordable and nutritious food is crucial throughout the world, so we're delighted to be contributing to food security in Uganda.

"The college has mainly been training under 25s and their creativity has been brilliant, but the project is also focused on upskilling women in particular, and even provides a creche for those with young children to be able to access education while their children are cared for," he said. "We've committed to providing three years of training with the college, so we're eager to continue to help support and educate the Alito community over the next few years."

More than 100 staff and students participated in the planning on Ian's visit. The majority of the potatoes planted by them were Rwangume, a variety developed specifically to be grown in Africa, but the

"It's a rewarding volunteering opportunity for people to learn more about how our work can help communities, and is an investment both professionally and personally."

team is also assessing two more common European varieties, Arizona and Markies, to see how they fare in a hot climate.

Ian added: "We're hoping to get more of the Branston team out to Alito to oversee the training in action for themselves over the next few years. It's a rewarding volunteering opportunity for people to learn more about how our work can help communities, and is an investment both professionally and personally."





Gozai®

A great finish needs a great start.

Make a great start to your harvest with Gozai, proven over many seasons, varieties and locations. Whether you're starting your potato crop's haulm removal with a flail and/or spray, Gozai helps burn down the foliage, detach the stolon and aid skin set. Plus, you can combine foliar and tuber blight control with a Ranman Top and Gozai tank-mix.

GOZAI®



Certis Belchim
GROWING TOGETHER

Use plant protection products safely. Always read the label and product information before use. For further information with regard to the warning phrases and symbols refer to the product label. Gozai® MAPP 20168 contains pyraflufen-ethyl and is a registered trademark of Certis Belchim BV. Ranman® Top MAPP 20353 contains cyazofamid and is a registered trademark of Ishihara Sangyo Kaisha, Ltd., Japan. Contact Certis Belchim on 0845 373 0305, e-mail infoUK@certisbelchim.com or visit www.certisbelchim.co.uk. © Certis Belchim 2024

Preparing for harvest

Andrew Goodinson offers key insights on desiccation and haulm destruction strategies for this year's potato crops, sharing some of his recent experiences.

GIVEN the importance of an effective kill, making the right choice of haulm destruction method, whether chemical or mechanical, or a sequence, is key.

Flailing followed by a PPO-inhibiting herbicide as a desiccant 48 hours afterwards may no longer be the quickest way of stopping a potato crop in its tracks, Andrew says.

This is because innovations such as haulm pulling machines and electric weeders are being trialled across Europe as the industry moves towards reduced use of chemicals.

"These may turn out to stimulate a faster skinset than desiccants and/or topping," said Andrew. "However, we do not yet know how well these procedures will work on seed crops which are not naturally senescing."

Last year, he visited the Netherlands to look at a tractor-mounted haulm pulling machine.

"On the front was a topper, which left 20cm stalks, and the device on the back guides the haulm between rubber discs which grip and

Based in Herefordshire, Agronomist and Potato Specialist Andrew Goodinson has been working for Hutchinsons for 17 years and looks after nearly 8000 ha of farmland, including the Welsh borders, south Shropshire and Worcester. Most of the potato crops he looks after are destined for the crisping or processing markets.



raise the haulm," he explains. "Two metal plates are strategically placed so they move across the top of the ridge to keep it in place so the tubers do not come to the surface."

The challenge is that for this innovative machinery to work effectively, the potato plants need upright haulms, yet breeding programmes are focused on market-driven characteristics rather than agronomic benefits, he said.

Electric haulm destroyers are also being put through their paces to assess their potential efficacy in desiccating potato crops as an alternative to chemical desiccation in ware and seed potatoes.

"These work by spraying the crop with a conductive fluid from a sprayer on the front of the tractor to increase conductivity, and then applying an electrical charge of 5,000 volts from the back," said Andrew. "This wilts the green leaf area and instigates senescence."

Late season nutrition

During the growing season Andrew recommends tissue tests to monitor the crop's nutritional status. Nonetheless, as it comes to tuber bulking, there are some crops that can benefit from a feed to help the tubers reach their maximum potential, he adds.



During the growing season Andrew recommends tissue tests to monitor the crop's nutritional status.

“If you are working to a tight time schedule, and waiting for better weather is not an option, flailing is better than spraying.”

“If you choose this strategy, it is really important to apply it between tuber initiation and bulking, because once the plant starts to senesce, the nutrients and energy are going down to the tuber rather than being retained by the haulm.

“Generally speaking, by this time, the tubers should have sufficient nutrients, but there are often hot, dry spells in July, stressing the crop and reducing potential yield. Applications of seaweed products and some biostimulants can alleviate the effects of such stress, and are often more effective than late-season nutrient applications.

“Nonetheless, the combination of biostimulants and nutrition keep the haulm greener for longer, optimising harvest potential.”

Coping with the timing decision dilemma

Decisions to terminate the crop can be decided by the crop reaching its optimum size (or specification demanded by customers), time of year and the need to get the crop into store in good condition.

First, decide your harvesting date, and then count back three – or even four – weeks, he advises, adding that some varieties, particularly indeterminate ones, can take even longer.

“Success hinges on planning, timing, correct choice of your method of haulm destruction and environmental conditions at the time. The idea is to decide exactly when we want to stop the tubers bulking and stimulate skinset.



“Haulm destruction strategies are best devised before planting, deciding on aspects such as nitrogen management, whether the crop is destined to be a seed or ware, determinacy and, for ware and processing crops, expected storage time.”

Desiccation is best done at the start of senescence, he says, adding that seed crops need to be terminated earlier so tuber size is optimal. However, there can be a risk that early flailing can shock the crop and can give rise to vascular browning.

“If possible, apply a desiccant to slow the crop down and make an artificial start to senescence, rather than going in to flail a green crop that is still growing vigorously,” he advises.

“Desiccation works best when the crop is already senescing, so some growers have been reducing N applications so the crop starts to senesce naturally.” For example, when devising nutrition strategies for seed crops, applying 100-110kg/ha/N rather than the 185-200kg/ha/N for ware. →



“Skinset is crucial to helping the crop cope with adverse harvesting conditions, so delaying raises the risk of losses.”

Andrew emphasises the importance of leaving enough time between desiccation and lifting date, to get the best quality crop out of the ground.

“Good skin set reduces the risk of losses and rejections from bruising, as well as minimising susceptibility to mechanical damage which provides a pathway for bacteria and fungi to enter the crop.

“It also gives more time for the stolon to become detached from the tuber, reducing damage and making for more efficient lifting.”

He adds that growers keep seed crops in the ground for as little as possible, because it results in a lower physiological age, as well as reducing skin disease and minimising the risk of aphids landing on the crop and vectoring virus.

Reflecting on the wet harvest of 2023, he notes that if growers are worried about the damage that will be done at lifting, early desiccation can help the ground dry by increasing the airflow and light onto the ridges.

Varietal determinacy also plays a key role because of its influence on haulm size, vigour and bulk, making such varieties more difficult to stop, notes Andrew, adding that later-

maturing indeterminate varieties can be more difficult to flail effectively to an even length, because the haulm has often dropped down into the valley of the ridge.

Storage requirements are a critical element. Crops destined for long-term storage, such as processing varieties, need to go into store in the best conditions possible.

“We have to remember that a store is not a hospital, and potatoes never come out in a better state than they went in,” said Andrew.

Conventional desiccation strategies

There are a number of different strategies, including applying a desiccant spray to the haulm before flailing, or going in straight with a flail and then finishing off with a desiccant (or two, if necessary).

When desiccating, Andrew observes that the actives Carfentrazone-ethyl and Pyraflufen-ethyl can be used in various combinations to effect good haulm control.

He also reminds growers to be aware that both have a maximum seasonal limit of 1.6l/

ha, and ensure that they maintain the relevant harvest intervals. (Carfentrazone-ethyl has a seven-day harvest interval, while for Pyraflufen-ethyl it is 14 days.)

Water rates need to be at least 300l, otherwise efficacy is severely reduced, so cutting back to increase speed of application is a false economy.

Moving on to talk about nozzles, he notes that while both flat fan and forward-back nozzles can work well, but he prefers the Defy nozzle, or, now, the new Syngenta 3D90 nozzle.

“The weather at this time has a big impact, and haulm destruction is always better in sunny conditions rather than when it is cloudy and damp, so if the weather is poor is often better to wait.”

Because of the impact of the sun's rays, spraying should preferably be done between mid-morning and late afternoon on a sunny day.

“If you are working to a tight time schedule, and waiting for better weather is not an option, flailing is better than spraying,” Andrew said, but added that growers should not flail when blight or blackleg are present as this encourages disease spread.

Achieving an effective spray and flail haulm destruction

Before flailing, the crop should first be opened up with a desiccant and left for seven days before going in with the topper, Andrew said.

“Ensuring attention to detail when setting up the topper is key to a good result; blades need to be sharp and the flail should be set to cut between 15 and 20cm above the ridge top. It is not easy to get the right length because it depends to a certain extent on variations in senescence, and wider toppers can be more difficult to manage because of land contour differences.

“If you go too fast, you do not create the vacuum which pulls the haulm up and this results in less effective flailing.”

“It is always possible to tell when there has been insufficient attention to detail by the way the haulm dies,” he said.

If the crop is indeterminate with a lush canopy before flailing, a further desiccant may be needed, he adds, noting that this can be between 24 and 48 hours later so the haulm at the top of the ridge has time to dry off.

After flailing, Andrew always recommends applying a blight spray with tuber blight

activity, and in seed crops the addition of an insecticide can reduce the risk of aphids vectoring virus into the crop.

Skinset or total yield: What's the bottom line?

If nematicides were applied before planting, Andrew reminds growers that the harvest interval needs to be complied with, but other than that, deciding when to stop the crop remains an area for much discussion between grower, agronomist and processor.

“Is it better to hold on for another week and perhaps get another 2t/ha, but leave yourself open to higher rates of rejection from bruising, and, in stored crops, more rots if the weather at lifting turns wet?”

“Skinset is crucial to helping the crop cope with adverse harvesting conditions, so delaying raises the risk of losses. Moreover, you have no yield until the crop has been lifted and gone into store, and the revenue collected from selling the crop is the most important factor.

“You have to ask yourself, is it worth the risk of holding back?” **PR**

How do PPOs work

Desiccants such as Spotlight Plus, Albis and Gozai are protoporphyrin oxidase (PPO) inhibitors, explains Andrew. They block the PPO enzyme and stop production of chlorophyll by disrupting cell membranes, raising ethylene production in the plant and causing it to become chlorotic, then desiccated and necrotic, before dying.

The application of a PPO also builds up the plant hormone abscisic acid (ABA) which causes the separation of the haulm from the tuber.

Vegniek's DiscMaster offers precision haulm pulling as an alternative to PPO inhibitor application.



The key to successful potato desiccation is rapid kill of all green material above ground, reducing the risk of late-season virus transmission and foliar disease development.



New solutions to old problems

Trials by the Potato Partnership have identified measures that improve control of the pests and diseases that threaten the economic viability of the sector.

A WARMING climate and the loss of plant protection products seen as essential to delivering quality produce have amplified the pest and disease threats facing growers. Overcoming these production challenges has been the focus of trials by the Potato Partnership.

The Potato Partnership, a collaboration between James Foskett Farms, growers and staff of East Suffolk Produce, CUPGRA, Agrii and independent agronomist Graham Tomalin, was created with the intention of finding new solutions to old problems.

Nick Winmill, Agrii Potato Technical Manager and R&D Manager for potatoes, oversees the trials programme.

He said: “We have been fortunate to have several as-yet unapproved products in trials, but our focus has not been to consider them in isolation, as we might have in the past, but see them alongside other measures in

the context of the situation to give a truly integrated assessment.”

The immediate focus is the challenge of managing wireworm, potato cyst nematodes (PCN) and aphid-borne virus and the threats to metribuzin, mancozeb and fosthiazate, but it has a programme of activity that will carry it through to the next decade if it can retain the support needed to deliver it, Nick said.

The partnership has shared the findings from trials investigating better control of late blight, aphid-borne viruses and PCN with *British Potato Review*.

Potato cyst nematodes

For two years, trials have sought to consider how best to raise the performance of Velum Prime (fluopyram). On its own, it has delivered 50-60% of the yield protection afforded by Nemathorin (fosthiazate), but this has been improved when considered as part of an integrated plan.

In trials in 2022 (100% *Globodera rostochiensis*) and 2023 (100% *G. pallida*), Velum Prime in sequence with half-rate Nemathorin delivered marketable yields comparable with that of full-rate Nemathorin.

“All treatments, however, delivered a post-crop population increase which confirms the accepted opinion that varietal resistance is the best means of controlling populations for the long-term. Unfortunately, commercially accepted varieties that exhibit resistance to both *G. pallida* and *G. rostochiensis* remain elusive,” said Nick.

Late blight

Biostimulants, especially those that combine growth stimulants with micronutrients, are widely seen as a necessary adjunct to cultivar resistance in the battle to protect crops from the threat of pest and disease. The products were not considered in isolation, but

“We have shown that oils can reduce virus transmission as part of an integrated management programme.”

incorporated into a commercial programme that also featured several as yet unapproved products to assess potential contribution to integrated disease management.

The 2023 trial, which took place at the Eurofins site near Derby, produced useful learnings on several levels, some of which can be implemented by growers immediately while others will be valuable if and when the development products gain regulatory authorisation.

“The first observation is that the addition of Innocul8, a targeted peptide containing manganese, zinc and sulphur, in combination with Crusade, a drift retardant, stimulated the plant’s hypersensitive response. By stimulating the plants natural defence mechanism, the severity of symptoms observed was lower compared with untreated plots,” Nick said.

“The addition of a coded product containing potassium phosphonates, further reduced disease symptoms – coming close to that of the standard fungicide programme.

“The performance of potassium phosphonates is especially encouraging. This suggests there is life after mancozeb and while it does not offer Alternaria control, it is systemic with a degree of curative performance and multi-site activity. This is a big positive for control and product stewardship.”

Also included was 621, a coded product containing a new active substance belonging to the OSBPI mode of action group. Although yet to receive regulatory approval, its performance suggests it will have a place in a balanced programme.

“621 performed impressively. In these trials it was partnered with potassium phosphonates and Crusade. It significantly outperformed the standard programme,” Nick said.

Aphids and virus

The use of mineral oils and companion crops proved most successful in reducing the incidence of Potato Virus Y (PVY) in 2023 trials using Lanorma at a site in Suffolk.

Although the intention was to consider both non-persistent viruses, such as PVY and others, and persistent viruses such as Potato Leaf Roll Viruses (PLRV), only variants of PVY were detected at significant levels. This is something Nick attributes to the use of quality seed of known provenance and diligent use of systemic insecticides supported by the use of a yellow-water trap at the trial site.

“The application of mineral oil at weekly intervals from emergence up to tuber

initiation gave a significant reduction in PVY levels while the use of oats as a companion crop produced a similar result. We see that alternative techniques such as companion crops and straw mulches are useful measures in protecting crops, especially against PVY and its variants. These measures, however, are less effective against the spread of leaf roll viruses because of the aphid species involved and their persistent nature,” Nick said.

Although neither mineral oil nor companion crops will provide the full control needed, they are valuable means of protecting crops during the early season. Companion crops cleanse virus from the stylet of incoming non-colonising aphids but must be ‘green’ by the time the potato crop emerges to be attractive. Mineral oils work by lining the inside of the stylet, preventing the virus from being transmitted as the aphid feeds.

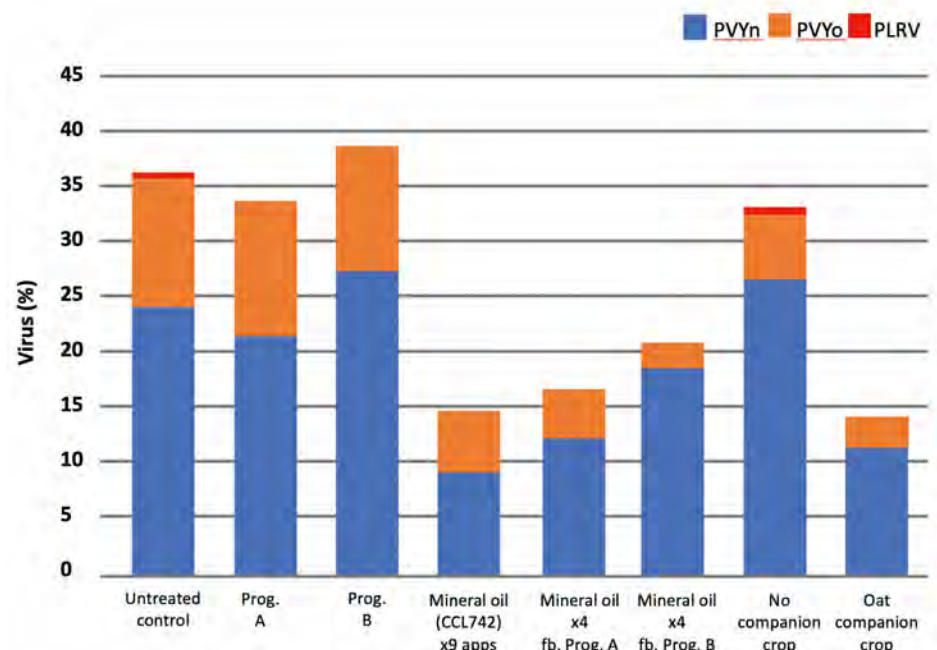
In addition to two yet-to-be-authorised insecticide products (featured in Programmes A and B) was a mineral oil from De Sangosse (CCL742) that is approved as a PPP in other regions. Weekly applications of CCL742 gave the greatest control of PVY of all treatments while the use of oats as a companion crop delivered similar control (see chart).

“We see that mineral oil in combination with companion crops or purge strips are likely to be the basis of virus control efforts, especially for PVY and other non-persistent viruses. We can build on this result, but will need other forms



of control, especially resistant varieties and effective insecticides, to achieve the control needed of all types of aphid-borne virus if crops are to be commercially viable,” Nick said.

“We have shown that oils can reduce virus transmission as part of an integrated management programme. The data generated by us and others will help to support applications to have these registered as plant protection products which will expand the control opportunities available to growers.” PR



Sogflation: The global effect on growing

Supply chain flexibility will be needed according to analysts.

POTATOES are at the forefront of what is being dubbed international 'sogflation', according to a recent Bloomberg report.

With just one planting and one harvest per year, the conditions have to be just right. But in autumn 2023, poor weather forced harvesting to stop in Europe after just three weeks, as sodden soil meant growers could not get crops out of the ground.

North-Western Europe Potato Growers, a market exchange platform for the potato supply chain, estimates that 650,000 metric tons did not make it to market in that region, with many potatoes succumbing to rot in anaerobic conditions, and has warned about a 20% decrease in seed availability for 2024.

What growers were able to retrieve was compromised in quality, meaning their potential storage times were reduced. Sellers rushed to move limited stock and prices are rising as packers and processors compete to obtain the stock.

Europeans are one of the biggest consumers of potatoes per capita, accounting for about 90kg (198lb) on average a year.

Planting of the new crop was delayed thanks to waterlogged soil and rain, suggesting that sogflation would bite all year.

English white potato prices were up 81% year-over-year, an all-time high, according to Mintec, a commodity price data company. Market players expect further price increases before the new crop arrives in 2024.

Last month, the *Daily Mail* reported that supermarkets in the UK were shrinking potato pack sizes from 2.5kg to 2kg without any increase in price, which it said was equivalent to a secret cost hike to shoppers of around 25% per kilo. National Farmers Union Vice President Rachel Hallos said: "While farmers are bearing the brunt of it now, consumers may well see the effects through the year."

In October, in addition to the package of support offered through the Farming Recovery Fund, Defra introduced temporary adjustments and easements within the Sustainable Farming Incentive (SFI), the SFI Pilot, Countryside Stewardship (CS) and Environmental Stewardship (ES) to support growers and land managers dealing with the impacts of severe weather in England.

Those temporary adjustments will be reviewed on July 31st.

In Europe, the Netherlands and Belgium, two key regions that grow processing potatoes for fries, were the worst affected, with Dutch processing potato prices at their



highest level recorded for April, at €370 (US\$398) per metric ton.

Harry Campbell, a commodity market analyst at Mintec, says that as consecutive years of bad weather stack up, it is increasingly hard to recover from a poor season, while in some locations, growers lurch from dealing with drought to flooding.

Facing a lot of risk and uncertainty, commodity purchasers are contracting more – agreeing on a price and amount in advance of the harvest – to reduce their exposure to volatile price swings, as well as increasing the numbers of growers or countries they're sourcing from, he said.

He said supply chains will need to be more flexible, and ultimately more complex, to keep food supplies secure at a time when one supplier could be facing floods and another a serious drought. **PR**

‘Complex mixing could drive up costs’

Scientist draws on recent lab findings to give advice on crop protection in the final weeks of the season.



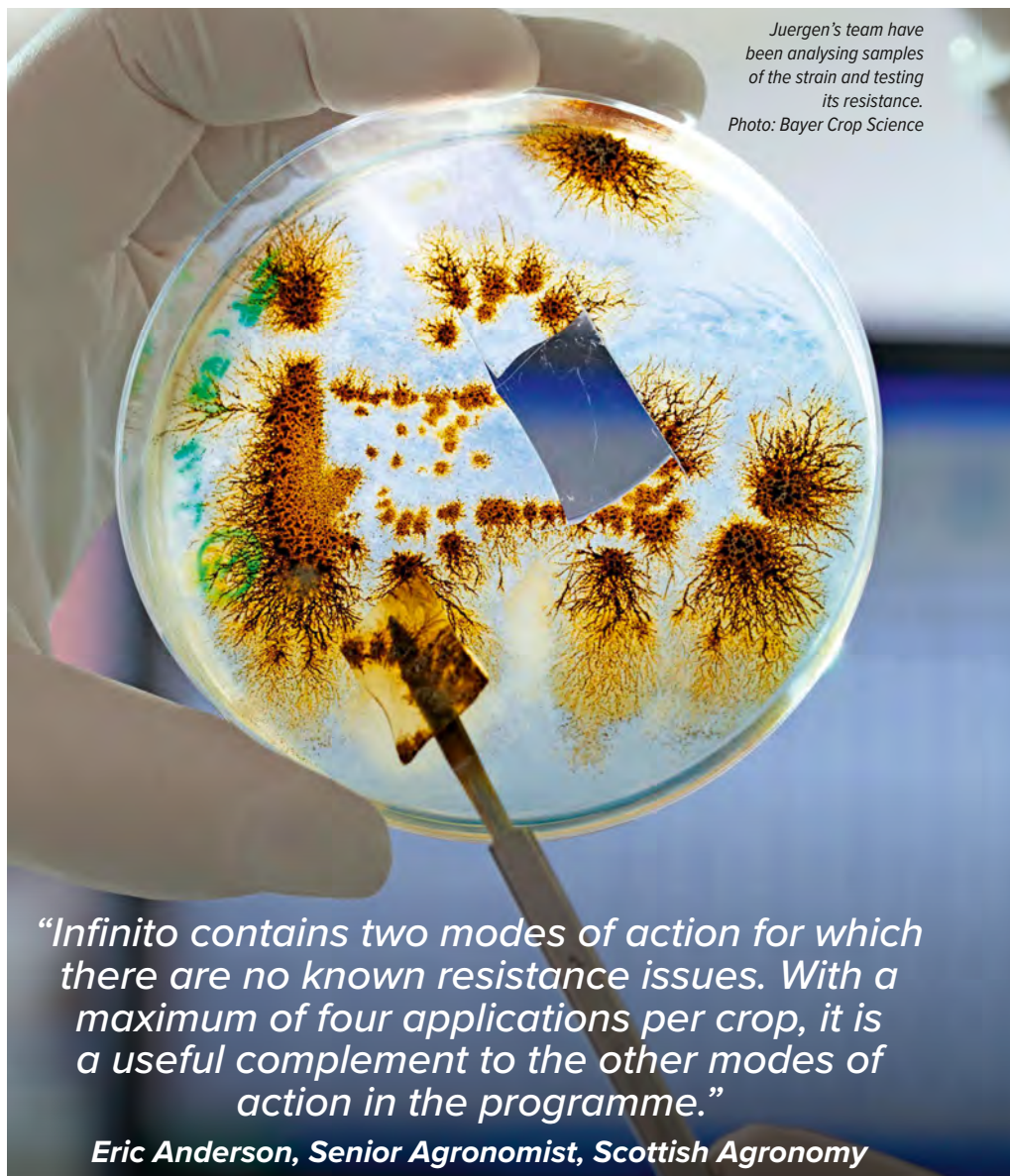
Scottish Agronomy Senior Agronomist Eric Anderson said the development of multiple resistance within a single lineage presents significant challenges.

ENSURING crops remain suitably protected from an aggressive strain of late blight (*Phytophthora infestans*) recently found in the UK has the potential to increase overall fungicide spend through the need for more complex mixes this season, a scientist has warned.

Laboratory Leader for resistance research at Bayer, Dr Juergen Derpmann, has described EU_43_A1, confirmed in an isolate taken from a field in Lincolnshire in 2023, as “a serious development with the potential for far-reaching damage”.

The sample was collected during routine monitoring by the OSBPI working group of the Fungicide Resistance Action Committee (FRAC) outside the scope of the Europe-wide Fight Against Blight programme. First detected in Denmark in 2018, it has shown the capacity to evolve.

By 2023, EU_43_A1 isolates had accumulated CAA (Carboxylic Acid Amides) resistance in addition to that of OSBPI (oxysterol binding protein) and spread to dominate populations in Belgium, north-west Germany and the Netherlands. As a result of more proactive resistance management, the frequency of cases detected in Denmark has fallen, but further cases have since been confirmed in France, Poland, Latvia, Lithuania and Norway as well as the UK.



Juergen's team have been analysing samples of the strain and testing its resistance.
Photo: Bayer Crop Science

“Infinito contains two modes of action for which there are no known resistance issues. With a maximum of four applications per crop, it is a useful complement to the other modes of action in the programme.”

Eric Anderson, Senior Agronomist, Scottish Agronomy

Juergen, whose team have been analysing samples of the strain and testing its resistance, said one positive development is that propamocarb and fluopicolide, the active substances in Infinito, remain unaffected.

“The greatest concern is the spread of *Phytophthora* sub-population characterised according to EuroBlight as EU_43_A1-type and its subsequent evolution, possibly resulting in a sub-population called EU_46_A1,” he said.

It has been shown that fungicide sensitivity has changed over time within the EU_43_A1 sub-population. It is more diverse and less of a clonal sub-population as we have seen with other *Phytophthora* sub-populations. In 2021,

CAA-sensitive isolates of the EU_43_A1-type were detected in the Netherlands, whereas in 2022 all Dutch isolates analysed at Bayer were resistant to CAAs.

Concerning development

In 2023, all Dutch isolates of the EU_43_A1-type analysed at Bayer were resistant to CAAs and a large part was additionally resistant to OSBPIs. It is estimated that 99% of the EU_43_A1 sub-population in the Netherlands was resistant to CAA fungicides in 2023. Furthermore, the sub-population EU_46_A1 arose in 2023, which is fully resistant to OSBPIs and shows a reduced sensitivity or up to full resistance to CAAs. →

“This is a concerning development. We have double resistance within not only one but two sub-populations, which spread quickly from 2022 to 2023. This presents significant challenges for resistance management,” Juergen said. →

There are multiple scenarios where, unbeknown to the grower, crops could be left exposed. If CAA and OSBPI modes of action are applied in combination without a partner belonging to another mode of action group, or sequentially without being separated by a fungicide belonging to another group, or if either CAA or OSBPI fungicides are applied with a partner conferring less than seven-days protection (such as observed with cymoxanil), then these crops will be inadequately protected.

OSBPI resistance has so far been found in four *Phytophthora* sub-population characterised according to EuroBlight. Beside the previously mentioned EU_43_A1 and EU_46_A1 sub-populations, also continental EU_36_A1-type isolates have a full resistance to OSBPI fungicides while there are by EuroBlight as-yet-unnamed strains also fully resistant to this mode of action group. Therefore, using the EuroBlight characterisation cannot predict presence of the independent mutation(s) in the *osbp*-gene causing OSBPI resistance, Juergen said.

“We see that all isolates of as-yet-unnamed, EU_36_A1, EU_43_A1 and EU_46_A1 sub-populations with mutation(s) in the *osbp*-gene cannot be controlled with the full dose-rate of oxathiapiprolin in greenhouse experiments,” Juergen said. The Fungicide Resistance Action Committee (FRAC) has responded with revised guidelines concerning OSBPI fungicides in a bid to limit the spread of these strains and ensure crops are suitably protected.

Protecting crops in 2024

For 2024 the basic advice is to base fungicide programmes on modes of action which are not affected by resistance while alternating



between products belonging to different mode of action groups. Also, do not use mixtures of CAA and OSBPI fungicides and avoid using them as alternating partners. Lastly, aim not start with a CAA or OSBPI fungicide to reduce selection pressure leading to the emergence of those double-resistant strains at the beginning of the season.

Scottish Agronomy Senior Agronomist Eric Anderson said the development of multiple resistance within a single lineage presents significant challenges.

“We face a crop protection predicament. In EU_43_A1 we have the first case of multiple resistance and in continental EU_36_A2 and EU_46_A1, we have oxathiapiprolin resistance. Both pose significant protection difficulties. CAA fungicides typically make up roughly half of most programmes while oxathiapiprolin is the basis for protecting new growth,” he said.

Although yet to be detected by Fight Against Blight monitoring, Eric believes it would be prudent to work on the assumption

that it is already established. “The industry needs to work on the hypothesis that EU_43_A1, and possibly EU_46_A1, are present in the UK. If EU_43_A1 hasn’t arrived as airborne spores, then it almost certainly will have on infected seed from the Netherlands,” he adds.

The implications of this development will be felt most acutely in the early part of the season, especially during rapid canopy. Overcoming this dilemma will involve due consideration and a regard for maximum applications and the potential for maximum residue limits to be exceeded.

“Fortunately, there are other actives with good performance that we can use more diligently,” Eric said.

His basic advice is to tank-mix all Zorvec products with mancozeb as a minimum to protect the efficacy of oxathiapiprolin. Responsible resistance management should be extended to other single site mode of action products too.

“We also need to protect cyazofamid, as in Ranman Top, and amisulbrom, as in Shinkon, both of which are QiI fungicides. These too have single site modes of action and should be mixed with mancozeb or alternatively, Enervin SC (ametoctradin),” he said.

Fortunately, there is no need to mix Infinito as the two active substances it contains belong to different mode of action groups.

“Infinito contains two modes of action for which there are no known resistance issues. With a maximum of four applications per crop, it is a useful complement to the other modes of action in the programme,” said Eric.

“Infinito remains a valued anti-sporulant for use in alternation with Ranman Top when the risk of tuber blight becomes a concern, but it also has a valuable role to play in delivering a balanced programme that follows best practice,” Eric said. **PR**





Whatever the blight pressure, you can rely on Ranman Top.

Keep using Ranman Top to maintain your protection against foliar and tuber blight. With no known resistance to any current or potential blight strain, it's proven, robust and reliable. It's also a great tank mix partner.

In fact, Ranman Top is the perfect all-rounder: great value throughout, highly capable when disease pressure rises.

Choose the UK's leading potato fungicide. Visit www.certisbelchim.co.uk/ranmantop

RANMAN® TOP



Certis Belchim
GROWING TOGETHER



“We have to get the basics right”

Wilson’s Country Managing Director, **Lewis Cunningham**, has fully embraced International Potato Day campaign, while highlighting where better industry focus is needed.

MORE joined-up thinking is needed to make sustainability in Northern Ireland’s potato sector a priority while the need to improve public perception has taken a step in the right direction, according to the MD at Wilson’s Country, a major supplier in the country.

Wilson’s Country Managing Director, Lewis Cunningham, believes securing higher levels of sustainability across the entire agricultural sector, including potatoes, should be a priority, but said there needs to be more streamlining in how this is achieved.

“We have to get the basics right and this means coming up with a single carbon footprint model and calculator that fits all farm scenario across the UK and Ireland. We don’t have this at the moment. As a result, growers are receiving mixed messages where these critically important matters are concerned,” he said.

Wilson’s Country recently joined in the International Potato Day campaign, taking advantage of the date to highlight the benefits offered by the vegetable and what goes into its production.

He said planting of this year’s main season potato crops in Ireland is nearing completion

“The recent spell of good weather has helped the cause of growers. Across the island of Ireland, the vast majority of crops are now in the ground. Early indications are that the acreages planted out are slightly up, year-on-year,” said Lewis.

June is always a very busy month for the country’s potato producers and New season Comber will be widely available in the shops in coming weeks. Lewis said these crops have benefitted from the upturn in the weather.

“After that it’s a case of getting on with the main crop harvest. The first set-skin potatoes of the year, mainly Piper and Osprey, will be coming out of the Carlingford area of County Louth at the end of July and early August,” he said. “Once we get in to September, the first of the main crops grown in Northern Ireland will be ready for digging. Obviously, all of this is totally weather dependent.”

He said market scenarios are currently mixed. “Retail pack sales remain very strong.

However, in contrast, sales of potatoes into the catering sector are faltering at the present time. This trend reflects the impact created by the continuing cost-of-living crisis,” said Lewis.

“Consumers are happy to treat themselves at home, hence the strength in retail potato sales. However, it remains a concern that many

restaurants across Northern Ireland no longer open during the early days of the week at all.

“This reality has impacted on the catering sector across the board.”

The International Potato Day initiative, developed by the United Nations’ Food and Agriculture Organisation (FAO), will be an annual event and Lewis said it’s high time the benefits of the humble vegetable are given more public recognition.

“The potato is the world’s most versatile vegetable, grown in 159 countries. It takes less water to grow a crop of potatoes than is the case with any comparable, staple food crop, including rice and pasta,” he said. “Rice required 1,111L of water to produce one kilo or rice. The comparable figure for potatoes is 200L. These are UNESCO figures.”

He added: “More must be done to market and promote the nutritional value of potatoes here in Northern Ireland. From a nutrition delivery and versatility perspective, they cannot be matched.

“Potatoes can be boiled, roasted, chipped. In fact, they can be cooked in every possible way. Potatoes can also be included in starters, main courses and desserts.

“In reality, the humble spud is a nugget of gold within the world of human nutrition.” **PR**



AgVantage UK Ltd
 Poplar Farm
 Coates, Peterborough, PE7 2DU

☎ 01733 215921
 🌐 www.agvantage.co.uk
 ✉ info@agvantage.co.uk

Proud importer of Dewulf potato and vegetable equipment



Soil Cultivation



Planting



Harvesting



Grading



Storage

dewulf
enjoy growing

FAZOR®

A PLANT GROWTH REGULATOR FOR THE CONTROL OF SPROUTING IN POTATOES AND ONIONS.
 Maleic hydrazide 600g/kg

SUPPRESSING SPROUTS FOR OVER 35 YEARS

- Effective sprouting control in potatoes and onions
- Improved quality of marketable crop
- Foliar application
- Reduces potato volunteers



www.upl-ltd.com/uk

UPL Europe Ltd, Engine Rooms, 1st Floor, Birchwood Park, Warrington, Cheshire WA3 6YN
 T: +44 (0) 1925 819999 E: info.uk@upl-ltd.com



Map no 19605. FAZOR is a water soluble granule containing maleic hydrazide, for the control of sprouting in potatoes and onions. Use plant protection products safely. Always read the label and product information before use. Pay attention to risk indications and follow the safety precautions on the label. FAZOR is a registered trademark of UPL. © UPL Europe Ltd 2024.



Irrigation systems



Pump units: designed for economically optimal feeding



Booms: best possible irrigation quality, uniform precipitation distribution

BAUER is a leader in irrigation technology and Number 1 on the world market.

A BAUER Group company



FOR A GREEN WORLD

www.bauer-at.com

Contact
Adrian Tindall
Tel: 07708 919597
Email: a.tindall@bauer-at.com

- SAVE THE DATE -



CAYTHORPE POTATO BREEDERS DEMO DAYS



28TH & 29TH AUGUST 2024

WEDS 9AM-4PM | THURS 9AM-2PM

Heath Lane, Caythorpe, Grantham, NG32 3HE

what3words //campsites.detection.dollars



POTATO DAYS^{DLG}

UNITED KINGDOM

4-5 SEPT 2024

NOCTON, LINCOLN UK

For more info and FREE registration.
www.potato-days.uk

BY FARMERS
FOR
FARMERS

Event partners:



Dyson farming



dewulf
enjoy growing



MADE BY



DAVID
HARRISON



BAG IT. WEIGH IT. STITCH IT.

Bagging and weighing machines from 10 to 25kg ▶ pre-pack unit ▶ sealing systems with medium/heavy duty stitchers and a range of options including ▶ sack presenters and placers ▶ powered in-feed belt ▶ conveyors.



Exclusive agents for:



THE SACK FILLING &
ROBOT PALLETISING
COMPANY
LIMITED

T: 01353 740666 • E: sales@davidharrisons.com • W: davidharrisons.com

‘As nature catches up with the present, election could pave the way for the future’

Scott Walker, CEO of GB Potatoes, believes the potato industry has strong messages to send to the future UK government.

The incredible potato industry never ceases to impress. Despite the challenging winter and spring we’ve experienced, it is remarkable to see how much has been planted.

The substantial investment in machinery and skilled people to navigate the tricky conditions and capitalise on every weather window has been enormous, yet worthwhile. The resilience and adaptability demonstrated by the industry is truly commendable.

Nature has a way of catching up, and this year, the crops are emerging quickly. However, predicting the growing conditions from now until harvest remains uncertain. There are numerous variables at play, including weather patterns and pest pressures.

Nevertheless, let’s be optimistic, and hope that we have favourable conditions over the next few months to ensure a successful harvest. The dedication and hard work of everyone involved in the potato industry are evident, and with a bit of luck, their efforts will yield a great quality crop this season.

As the UK gears up for another election, the agricultural sector, including the potato industry, watches closely. Elections bring the promise of change and the potential for new policies that could significantly impact the potato industry, a vital part of the UK’s agricultural landscape. The upcoming UK election holds significant implications for us, influencing everything from agricultural

policies and environmental regulations to trade agreements and labour availability. While the exact impact will depend on the election’s outcome and subsequent policy decisions, the potato industry must remain adaptable to navigate the changes ahead.

With more talk than ever in recent months about food security and the economic opportunities of food production in the UK, it will be up to us to demonstrate to whoever makes up the next Government that potato production is critical to the UK and offers opportunities for growth. If the Government implements policies that aid rather than hinder our production efforts, the potato industry can thrive and contribute significantly to the nation’s food security and economy.

This election represents an opportunity for advocating for the support and recognition our industry needs to flourish in the future.

Seed Consultation Group

Acknowledging the essential role seed potatoes play as the foundation of new crop production and the importance of their quality for a healthy harvest, we have established our Seed Consultation Group to address the unique challenges and priorities of the seed potato sector. This group will develop and propose initiatives for GB Potatoes’ seed agenda. In line with the collaborative ethos of GB Potatoes, the group will work with partners to address these challenges collectively. It is evident that tackling these issues requires a united effort, and by bringing together all key stakeholders in the industry, we maximise our chances of success.

We are nearing the start of beginning the projects that will utilise the AHDB residual levy funds to the benefit of the industry. We have initiated the planning process for these projects, pending final approval and the signing of the grant application with AHDB. It is essential to ensure that these projects do not abruptly stop once the levy funding runs out.

For instance, a national aphid monitoring program that provides industry-wide data



for decision-making will be just as crucial in five years as it is today. Therefore, from the first year of the projects, we need to develop a self-sustaining voluntary funding model for the future. We will gradually reduce the percentage of residual levy funding throughout the project’s duration while progressively increasing industry contributions.

This approach will ultimately enable the initiatives to become self-sustaining. We plan to replace the residual levy funds with GB Potatoes funds. Hence, it is important to continue growing our membership. If you haven’t joined us already, I believe now is the time – anyone wanting to join can simply type “GB Potatoes” into their web browser and click “Join Us”. [PR](#)

GB Potatoes is looking to shape the future of the potato industry and ensure its resilience and prosperity through a collective voice. If you are interested in making a difference to the potato industry please get in touch to become a member or for further information: info@gb-potatoes.co.uk / www.gb-potatoes.co.uk



The high incidence of late blight in crops led to approximately 11,000ha of potatoes not being lifted in NW Europe and the UK has a track record of importing late blight in some way, experts say. Photo: Rasbak, CC BY-SA 3.0, via Wikimedia Commons

Leading the fightback

With the emergence of fungicide-resistant late blight strains in Europe, *Potato Review* joined a UPL-organised expert webinar on how growers and agronomists put together blight programmes this season.

WHILE two new strains of late blight, EU_43_A1 and EU_46_A1, didn't reach the UK's shores last season, they were wreaking havoc with blight control across the channel, especially in the Netherlands.

As widely documented, their impact is likely to be seen in UK blight programmes this season, especially if their presence is confirmed in the country.

That's because both strains can carry mutations that impact the efficacy of Carboxylic Acid Amides (CAA) and oxysterol binding protein homologue inhibition (OSBPI) fungicides. CAA fungicides include active substances such as mandipropamid, bentiavalicarb and dimethomorph, while the only OSBPI fungicide currently registered in the UK is based on oxathiapiprolin.

The discovery has led to updated Fungicide Resistance Action Committee (FRAC) guidelines for both fungicide groups, noted Eric Anderson, Senior Agronomist for Scottish Agronomy.

OSBPI fungicides should now not be used consecutively, and no more than three applications per season if more than 10 blight fungicide treatments are to be used. If 6-10 sprays are targeted through the season, then the guidance says only two OSBPI sprays



Dr David Cooke, Senior Research Development Scientist at the James Hutton Institute.



Geoff Hailstone, Potato Technical Lead for the UK and Ireland.



Eric Anderson, Senior Agronomist for Scottish Agronomy.

should be used, and only one if five or fewer sprays will be used.

Corteva has gone further with its guidance, recommending applying Zorvec in strict alternation with effective chemistry with a different mode of action other than CAA fungicides. It also suggests that Zorvec sprays should not exceed 20% of the total number of sprays and that only two sprays per crop should be applied if the expected programme is fewer than 15 sprays, which is tougher guidance than FRAC's.

In addition, Corteva says the spray interval after a Zorvec application should not exceed seven days to the following non-Zorvec treatment, and recommends tank mixing Zorvec products with mancozeb, Eric said.

He added that FRAC guidelines for CAA fungicides recommend using them preventatively in up to six applications, provided it makes up no more than 50% of the spray programme.

"They should also always be applied at the recommended rate and in a mixture with a different mode of action effective against late blight. Alternation of fungicides with a different mode of action is also recommended."

The UK's Fungicide Resistance Action Group (FRAG) follows these recommendations but recommends a strict alternation strategy: Switching to different modes of action at every application from the previous one and using a mixture, for as many applications as possible, that contains at least one active ingredient effective against all late blight strains confirmed in the UK.

If resistant strains are reported in the UK, mixtures containing affected modes of action should be applied in strict alternation, it adds.

To complicate programmes further, FRAC guidelines for QiI fungicides, such as cyazofamid (Ranman Top) and amisulbrom, say to apply no more than three sprays from this group consecutively and that it shouldn't make up more than 50% of the intended spray programme, Eric said.

"Corteva is launching Zorvec Entecta, which contains both oxathiapiprolin and amisulbrom, which will further restrict applications of Ranman Top, and highlights that you need a mixing partner with cyazofamid and amisulbrom products, as they are also single modes of action."

Dr Steven Kildea, Senior Research Officer for Irish advisory service Teagasc, agreed that protecting blight active ingredients by mixing and alternating as much as possible is critical.

"But you have to be careful about consecutive sprays, especially with QiIs not going over 50% of the overall programme," he said.

Devising a blight programme for this season requires careful thought about using products according to their functional groups, Eric says. Blight fungicides fit into one or more groups, including anti-sporulants, protectants, translaminars, those with curative and systemic properties, or those giving tuber blight control.

Thinking about how to use all of those in a programme to best effect while wrapping it around an anti-resistance strategy is far from easy, he stressed.

Steven warned that it's not all about the new resistant strains, either. "Other blight strains will need controlling while not putting them under increased pressure of developing resistance," he said.

That could see a returning role for fluazinam as a mix partner. In Denmark, where EU43 was first detected, the use of fluazinam as a core, instead of CAA fungicides, helped last year while the Dutch were having such problems with blight control, says Dr David Cooke, senior research development scientist at the James Hutton Institute.

"But we do have to be concerned about EU_37_A2, which has shown resistance to fluazinam, although the frequency of that genotype in 2023 was low and localised, so that approach is possible."

Steven believes Irish growers, who no longer have access to mancozeb-containing products, may well be using this approach this season. Planting in Ireland is two to three weeks behind this year, so crops will emerge into warmer weather, rapidly growing fields, and potential immediate blight pressure, he says.

With the risk of CAA-resistant blight strains in Ireland, he's trying to avoid CAA fungicides as much as possible. "We're looking at a

Proxanil (propamocarb + cymoxanil) + Shirilan (fluazinam) mix for those initial sprays."

In the UK, mancozeb, while still approved (see "Dates confirmed for mancozeb withdrawal"), will remain a crucial part of blight programmes, including at the start, Eric says. "It's a multisite with no known resistance and will quash any blight present at the beginning of the season, helping to reduce amplification of any resistant strains present."

The only true anti-sporulant active remaining is propamocarb, he says, which, in addition to being in Proxanil, is also one of the actives in Infinito (propamocarb + fluopicolide).

"You could lead with Infinito, or a Proxanil plus Enervin (ametoctradin) would be a strong, if expensive, mix when we don't have mancozeb available."

Mancozeb is the only true multisite fungicide approved for use in potatoes in the UK. It cannot be replaced with any similar products, and it will be a big loss for potato growers when it is no longer approved for use, Eric said.

"As a multisite, it greatly reduces the threat of any resistance or shift in efficacy. Not only has that meant the effectiveness of mancozeb hasn't declined over time, but it has protected the single-site mode of action products with which it is mixed.

"It's also at a much lower cost compared with most other single site mode of action products, so growers have been comfortable using it as an anti-resistance strategy and mixing it with other products," Eric said.

Its role in controlling early blight or *Alternaria solani* will also be missed. "You get quite a lot of bang for your buck with mancozeb controlling *Alternaria*, and there is a huge shift in sensitivity in *Alternaria* [in SDHI and QiI fungicides], of which we

don't have a strong understanding, so an anti-resistance strategy for *Alternaria* will be important going forward."

Steven suggests that in Ireland, mancozeb has been primarily replaced by existing good protectant, systemic, and curative products.

"All other products will come back into play, as they will all act as a mix partner, as now everything has to protect each other."

With that need to protect each active, each one in the mix also needs to control the blight strains that are present, he said, adding that it has to provide that activity for seven days so it is able to protect the second component of the mix because otherwise you're going to leave one active exposed more than the other.

That will likely mean rates of at least 80% of the recommended rate will be required, said Steven.

Mixing and alternation inevitably will have a cost impact, Eric stressed. "The likely cost of a late blight programme in 2024 will be in the region of £440/ha with each spray timing ranging from £30-£40/ha," he said, pointing out that this accounts for less than 6% of the total growing costs of a potato crop.

"Once you've decided to plant your potato crop, you have to protect that investment." →



Solanaceae weeds, particularly hairy nightshade and sticky nightshade are an increasing threat.



In future, growers will need extra help to understand how to best use the fungicides available to them, Eric said. “For the past 20 years, we’ve used genotyping of blight strains to unlock changes in blight diversity and used that to understand which fungicides would be effective.

“But we have more complex scenarios in Europe where single genotypes can have multiple resistance profiles to individual modes of action. So we need science to not only look at genotypes but also unlock the DNA mutations to give a rapid answer to which fungicides are likely to be effective in the current season,” Eric said.

Awareness of inoculum sources vital

Being aware of where inoculum sources might arise remains crucial. Steven points out that the blight population increases through asexual reproduction, primarily in the UK and Ireland, which means it relies on overwintering on a host.

“That means we know to a large extent where it will come from, and it is really important to manage those sources,” he stresses.

As well as the obvious outgrade piles, potato dumps, and poor-quality seed, other perhaps slightly less obvious sources include groundkeepers, particularly in adjacent fields to this year’s crops, and potentially fields that weren’t harvested last year, Steven says.

Other potential sources include fields where it is difficult to apply the perfect spray, around poles, and in odd-shaped corners.

“It’s easier to avoid those by not planting them rather than trying to manage it in-season, but it’s something to be aware of.”

David adds that another increasing threat is Solanaceae weeds, particularly hairy nightshade and sticky nightshade. “We’re seeing more of these wild Solanums, and the pathogen can certainly infect and develop on them.”

How did the new blight strains arise?

David reports that EU43 first appeared in Denmark in 2018 before spreading into the Netherlands by 2022.

“That was when we became even more concerned because it had not only established within what was normally a diverse sexual population in Denmark, but this clone was obviously quite fit.”

Even more worryingly, researchers at Aarhus University were concerned that this strain was showing resistance to CAA fungicides and that its spread could be related to selection pressure.

But despite advice to growers across Belgium and the Netherlands that this strain was present and the risk of CAA resistance, the combination of severe blight pressure in June



Alternation of fungicides with a different mode of action is recommended to keep back late blight. Photo: Eric Anderson.

that was perhaps under-detected or forecast by decision support tools and an extraordinarily wet July led to blight control failing, David says.

“Some growers, despite the knowledge available, applied a couple of Revus (mandipropamid) sprays to start with, which is probably the worst-case scenario, and when blight was not controlled effectively, was followed up by an oxathiapiprolin treatment (Zorvec).

“Unfortunately, that product was combined in some cases with a CAA fungicide, so you’re putting all the exposure to one active ingredient [in oxathiapiprolin], which is a single mode of action.

“The pathogen produces billions of spores, and every generation, it is mutating. Indeed, it mutated to overcome that active ingredient as well.

“It’s led to a dramatic increase in the frequency of EU43 in those areas, plus the emergence of another related lineage in EU46 in northeast Netherlands and into Germany.”

In total, the high incidence of late blight in crops led to approximately 11,000ha of potatoes not being lifted in NW Europe, Eric adds.

“If a similar worst-case scenario played out in the UK and there was a 10% yield loss across the total cropped area from poor blight control, it would equate to a loss of £138m. That’s a similar value to potatoes exported from the UK in 2022, so it would have a significant effect on GB crop utilisation.”

How can you minimise risk from imported Dutch seed crops?

While blight spores spreading on the wind across the channel is one way the new fungicide-resistant strains could reach the UK, it’s not the only one with imported infected seed from the Netherlands or other European countries also a potential threat.

Even using certified seed with its permitted maximum 0.5% threshold for late blight could lead to 1-2 primary foci per hectare in fields, Eric calculates.

“Last year, around 10,000t of Dutch seed, primarily of Agria and other similar processing varieties, was imported under a direct marketing agreement to England, so there is a real risk of bringing latent infections into the UK, which could include either EU43 or EU46.

“We have to remember that all blight strains in the UK originated first elsewhere in Europe, so there is a strong track record of importing late blight in some way.”

Tracking the genotypes of blight in 2024 is going to be vital to inform management decisions. David Cooke encourages those in the industry to join the Fight Against Blight monitoring by emailing fab@hutton.ac.uk, becoming a blight scout and submitting samples to the James Hutton Institute in Dundee.

Dates confirmed for mancozeb withdrawal

FOLLOWING the conclusion of the WTO consultation process, the withdrawal timelines for mancozeb have been confirmed. The Health and Safety Executive (HSE) has extended the expiry date for the active substance by one month to May 31st, 2024, to account for delays in the WTO process.

Geoff Hailstone, Potato Technical Lead for the UK and Ireland, says the confirmed expiry dates for products containing mancozeb have also been extended by one month from those proposed earlier. The sale and supply of any plant protection product containing mancozeb will end on November 30th 2024, and the storage, disposal, and use of any plant protection product containing mancozeb will end on November 30th, 2025.

Industry and grower representatives continue to lobby to maintain the use of this vital active ingredient, and UPL says it will explore all possible avenues in support of mancozeb’s registration in Great Britain. **PR**



Industry consortium furthers blight research

Further funding sourced for Fight Against Blight scheme

FURTHER funding has been secured for a UK project looking into potato blight protection.

The James Hutton Institute has sourced further funding from a consortium of key industry partners to maintain its ongoing monitoring and testing work as part of the Fight Against Blight (FAB) scheme.

The FAB scheme was first launched in 2006, using the monitoring of *Phytophthora infestans* populations via a nationwide network of agronomists, growers, and industry representatives (the FAB Scouts). This network annually submits up to 1,500 field samples from suspected late blight outbreaks throughout Britain. The work led by Dr David Cooke and Dr Alison Lees from The James Hutton Institute includes both the annual sampling of late blight outbreaks, the characterisation of pathogen populations, as well as fungicide sensitivity testing on active ingredients prioritised by the industry.

David said: "The continuation of FAB is great news for growers and the sector more widely, and also for the longer-term research effort that supports this area.

"With concerns about resistance to CAA and OSBPI fungicides in new genotypes reported on the continent last year, the early detection of any new arrivals to GB crops is going to be crucial to building effective IPM programs for 2024 potato crops."

Late blight has already been reported in Jersey and in Kent in this year, and the wet winter conditions and unharvested crops have created additional sources and avenues for the disease. Furthermore, the discovery of genotype EU43 (A novel *Phytophthora infestans* genotype that is threatening potato

production owing to its resistance to a key fungicide) in Ireland in 2023 has also added concern about potential inoculum sources spreading from the west into early GB crops.

Crucially, it is the testing of these outbreaks which allows for the rapid in-season identification of genotypes. This, in combination with an end of season report, ensures the potato industry is kept well-informed on emerging threats, as well as best-practice for late blight management.

Dr Jonathan Snape, Director of James Hutton Limited, stressed the importance of industry leaders coming together to help in the continued fight against potato blight across the UK.

He said: "Without the essential contributions from this cross-sector consortium it would simply not be possible to continue the nationwide monitoring of emerging genotypes at a time when it is needed most.

"As such, we thank the following organisations for their sponsorship and continued support of Fight Against Blight: Certis Belchim, UPL Ltd, BASF, Bayer, Corteva, Syngenta, Albert Bartlett, Agrovista, Frontier, Hutchinsons, GB Potatoes, McCain, Scottish Agronomy, The Seed Potato Organisation, Agrico, Branston, SAC Consulting and Agrii."

Ed Bingham, Global Crop Manager at Certis Belchim, was delighted to see the company continue to support this "invaluable" resource as a platinum sponsor.

He said: "Certis-Belchim is extremely pleased at being a platinum sponsor again for the FAB project.

"This service provides growers and stakeholders with the opportunity to quickly understand any new late blight



Ed Bingham



Antonia Walker

strains that are present, which in turn help to fine-tune strategies in the field. When faced with such uncertainty on resistance and regulatory pressures, this resource is invaluable to the industry."

Antonia Walker of UPL Ltd, the scheme's other platinum sponsor added: "The biggest threats facing the UK potato industry are in production and market volatility, however it also all hangs in the balance when it comes to effective blight control.

"With the continuing evolution of new late blight strains, weakening chemistry, and the continued loss of other vital active substances, we at UPL are very clear in our mission in continuing to support the dedicated team at James Hutton Institute and the Fight Against Blight Project. Without it, there would be no industry."

Registered FAB Scouts will have already received their sampling packs and the FAB website is live at <https://blight.hutton.ac.uk/> where people can access a record of all outbreaks since 2017. **PR**

Anyone interested in becoming a scout or key sponsor, should contact fab@hutton.ac.uk.

‘Clear vision needed amongst added complications’

Regulations surrounding active ingredients may confuse growers says agronomist.

THE rules and regulations surrounding the use of alternative active ingredients and their application intervals within blight protection programmes aren't entirely straightforward and are further complicated by confirmed cases of resistance to some key actives on the continent, according to ProCam Agronomist, Harry James.

“For example, instead of being able to apply three consecutive applications of CAA (carboxylic acid amide) fungicides, the latest FRAC (Fungicide Resistance Action Committee) guidance is that these should now be limited to a maximum of two consecutive applications,” he said.

“That’s a sensible recommendation based on the loss of efficacy of this group of fungicides on the continent, with crop protection manufacturers such as Syngenta going a step further by advocating the use of mandipropamid in alternation with fungicides with a different mode of action.”

Resistance to oxathapiprolin (Zorvec) has also been confirmed in some parts of northern continental Europe, including the Netherlands, Belgium and Germany, with the post-Zorvec application interval being reduced from 10 days to seven as a result. It must also be used in alternation with a non-CAA chemistry.

“This will make it more labour intensive and time consuming to keep crops clean, especially as this key active no longer provides a curative effect. Instead, it can only be relied on to deliver preventative activity which means sprays will need to be applied on time every time in order for crops to remain protected.”

To avoid any confusion that the new rules might introduce, and to ensure they don't fall foul to the same resistance woes that their European counterparts are already dealing with, UK potato growers should seek professional advice from their agronomist to help them devise a suitable blight programme for this season and beyond, Harry said.

He also stressed that although fungicide resistance hasn't yet been confirmed in UK crops, the risk remains high and is further escalated by the shortfall in British seed potatoes which means there's a risk of resistant strains being introduced by imported seed stock.

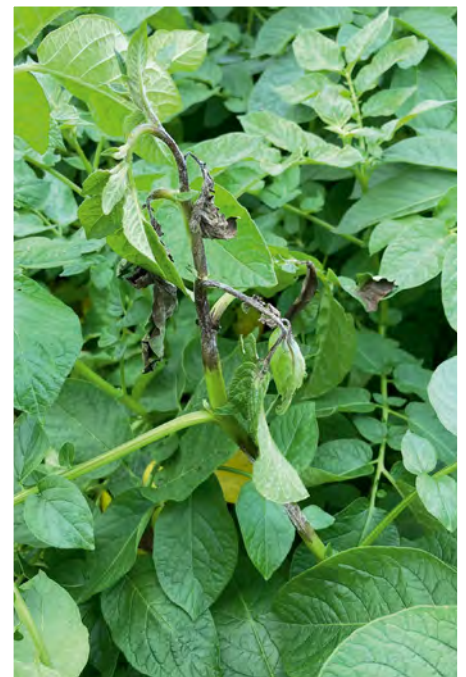


“The high incidence of foliar and tuber blight in continental seed crops means there’s a very real risk of resistance affecting British crops,” said Harry. “For that reason, anti-resistance strategies – alternating modes of action and limiting the exposure of any single active – must be followed from the outset.

“Keeping a close eye on resistance updates throughout the season will be essential, as will taking professional advice to devise a suitable spray programme, not least because the ever-changing legislative position and evolving resistance situation will make keeping abreast of the latest rules that are much more complex.

“But, with careful planning, growers and their agronomists should still be able to achieve good levels of blight control and stay ahead of the threat of resistance.

“It must be stressed, however, that the key to reliable control will be to adapt programmes according to weather conditions and to use forecasting tools to determine when the threat of blight is at its highest. Cultural controls, such as selecting varieties with better natural blight resistance, and taking extra care to remove volunteer potatoes from dumps and other



crops in the rotation should also be factored into the equation.

“Nothing, however, will beat getting into the field and putting boots on the ground to assess the crop, the severity of disease pressure and if a blight infection has occurred.”

New blight fungicide with built in resistance management

Technical Manager, Andy Cunningham, says the integrated Evagio Forte formulation of two powerful actives, from two different fungicide groups, adds a valuable anti-resistance strategy and maintains the overall efficacy of the blight programme.



Healthy blight free leaves drive high yields and clean tubers.



SYNGENTA has launched a new blight fungicide for the 2024 season, Evagio Forte, which integrates the most effective CAA foliar blight active ingredient, mandipropamid, with amisulbrom in an easy-to-use optimised formulation.

Syngenta Technical Manager, Andy Cunningham, says the integrated Evagio Forte formulation of two powerful actives, from two different fungicide groups, adds a valuable anti-resistance strategy and maintains the overall efficacy of the blight programme.

Andy said registration trials have proven the formulation of Evagio Forte delivered effective blight control at reduced overall active loading of the mandipropamid and amisulbrom combination, compared to the rates recommended for the two individual components.

“That is important for agronomists looking to minimise overall fungicide active application in the blight programme, especially when using mixes of solo products to tackle resistance concerns,” Andy said. “Without the evidence of such specific efficacy trials, it is always recommended to use the full rate of any blight fungicide, even when used in mix with another product.”

Andy said the combination of mandipropamid and amisulbrom can be used from first flowering and could prove especially useful from canopy complete through to the end of the season, to keep foliage clear of infection and reduce risk of tuber blight.

“Evagio Forte is highly active against blight spore germination as a preventative application. Fast uptake into the leaf tissue assures good translaminar movement and local systemic activity that inhibits disease mycelial growth during the application period,” he said.

He recommended spray application timing and intervals are best indicated by Syngenta Blightcast forecasts of weather conditions conducive to blight, coupled with knowledge of any local disease incidence that will significantly increase risk of infection.

Growers and agronomists can use three Evagio Forte applications in their blight programme at a rate of 0.6 l/ha, subject to FRAC guidelines on the total number of CAA treatments. For optimum resistance management, it should always be alternated with a blight application containing actives from a different fungicide mode of action group.

While there is no recorded UK incidence of the EU_43 blight strain, where some isolates in the EU have shown reduced sensitivity to the CAA group of active ingredients, including mandipropamid, Andy has added his voice to those warning that growers and agronomists must remain vigilant.

“It is crucial to take a precautionary approach, utilising more blight spray mixes and alternating chemistry modes of action, to minimise the risk of any issues developing,” he said. “Evagio Forte provides an important additional option to bolster that approach.” **PR**

TONG

THE COMPLETE HANDLING SOLUTION FROM FIELD TO PACK



- > Loading & Cleaning
- > Grading & Sorting
- > Washing & Processing
- > Tipping & Filling > Optical Sorting



www.tongengineering.com

e: sales@tongengineering.com

t: +44 (0)1790 752771

TONG SWIFTLIFT

EXTENDING HANDLING INNOVATION



High quality elevators and conveyors for all applications

Manufactured by
Terry Johnson Ltd
Now part of the Tong
Engineering Group Ltd

e: sales@tongswiflift.com

t: +44 (0)1406 422286



STORAGE

“Our work last year showed that within 36 hours, the crop can translocate enough MH to get good sprout control, and by seven days, it’s over.”

Dr Mark Stalham,
independent consultant

Mark pointed out that bigger tubers have higher MH concentration levels than smaller ones.
Photo: Pexels

Maximising sprout control

New research conducted by **Dr Mark Stalham** has identified vital steps growers can take to get the maximum dormancy from maleic hydrazide applications this season.

MARK Stalham Potato Consultancy has conducted an extensive literature review, re-examining previously carried-out studies and initiating field trials to test previous assumptions on maleic hydrazide (MH).

CUPGRA and UPL sponsored the research, which has been conducted across the 2020, 2021, 2022, and 2023 seasons.

MH has existed since the 1960s and is marketed by UPL with the brand name Fazor. Until the loss of CIPC, MH was predominantly used for volunteer control, with a helpful effect on sprouting, Mark said. In the era of CIPC, there was less pressure on MH applications because CIPC was so cost-effective.

He adds that in-store sprout control has become more complicated and costly since CIPC was revoked, resulting in a greater emphasis on correctly applying MH to crops.

“If you get it right, you can save on in-store product applications,” Mark said. “Over the last three years, we have been trying to give recommendations by repeating old work to prove it is still correct and doing new trials to add to our knowledge.”



Geoff Hailstone, Potato Technical Lead, UPL.

Get the timing right according to your variety

The ideal spray window begins five weeks before the onset of senescence. The uptake rate decreases significantly three weeks before the rapid phase of senescence begins, which Mark says will make getting the desired MH levels challenging.

“We are looking for 12-14 parts per million (ppm) of MH in tubers, but we know that 6 ppm can control sprouting. There will be a variation of MH levels in tubers across a plant. What we need is for every tuber to be at least 6 ppm.



Potato consultant Dr Mark Stalham.

“The window is a lot closer to desiccation than many growers think. The later you go, the less effect MH will have on yield.

“Work we did last year showed that applying MH five weeks before senescence produced lower yields than three weeks, albeit not statistically significant,” said Mark.

He cautions that all of the varieties in the trials were longer-season processing varieties for McCains in groups three and four on the determinacy scale. The ideal spray window for determinate varieties probably narrows to three to four weeks before the onset of crop senescence.

Apply MH in the evening and by itself

Mark said that to get MH translocated into the leaf, it needs to remain in a soluble solution for as long as possible. A fine spray dries within minutes if applied at midday.

“We need to apply it at the time when the canopy retains most of its humidity, which is as late as possible in the day. Leaving it overnight gives it more chance of being translocated.

“Many potato agronomists have a view that MH takes a long time to get into the plant. Our work last year showed that within 36 hours, the crop can translocate enough MH to get good sprout control, and by seven days, it’s over,” said Mark.

Mark recommends treating fields specifically for sprout control rather than tank-mixing MH with blight sprays.

“It is about focusing on what is an expensive problem to control if you have to do it in-store, with a relatively cheap product applied in the field at the right time,” he said.

For scenarios where the weather is highly changeable, Mark investigated splitting the MH into two doses at half rate. He found that this did not impact overall MH levels in tubers where conditions for both applications were good 48 hours after each.

“I see no harm in doing it. However, it is another dedicated pass through the field at an odd time of day,” Mark said.

Grade out tubers smaller than 45 mm

Mark pointed out that bigger tubers have higher MH concentration levels than smaller ones and are the first to initiate, usually on stems with a bigger diameter.

A bigger diameter stem leads to a wider diameter stolon, meaning a more significant plumbing system. Further up the stem, the largest leaves tend to feed the biggest tubers predominantly. Mark hypothesised that bigger leaves shade other leaves, leading to reduced and more variable MH absorption when it is applied to the canopy.

To get MH translocated into the leaf, it needs to remain in a soluble solution for as long as possible. Photo: Petra from Pixabay



“A product like DMN needs to be applied preventatively so it could be applied before it is necessary.”

Geoff Hailstone, Potato Technical Lead, UPL

“We looked at the size of the tuber versus the MH levels. There isn’t a correlation until you get to very small tubers. Small tubers often have insufficient MH. What happens is they break dormancy because of low MH, forcing you to treat the whole store, even though the bigger tubers may not break dormancy for several weeks,” he said.

There is a significant shift in MH levels at tuber sizes around 35 mm. However, it is a gradient, and there are differences in varieties. Because of this, Mark recommends grading out anything smaller than 45 mm for

main crop potatoes to ensure the greatest consistency in MH levels across a store.

“Getting MH applications right will save growers considerable amounts of in-store sprout control hassle.

“I worked with an agronomy group to measure MH concentrations across two crops, and the one that averaged 14 ppm across four 10-tuber samples got through to April without any other sprout control. When timing and application are done well, you can get six months of storage,” he said.

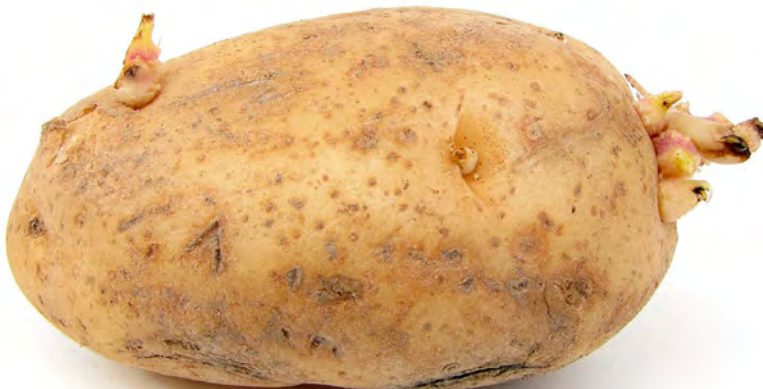
Contact activity on sprouts

PLANNING to begin in-store sprout control programmes with a product that has contact activity on the sprouts, like Argos (orange oil), gets the most out of MH, according to Geoff Hailstone, Potato Technical Lead for UPL.

Argos suppresses sprouting in potato tubers by physically damaging the sprouts. Pure orange oil produces a physical mode of action on contact, drying and disrupting the soft tissues on which it is applied. Even sprouts that the naked eye cannot see are removed.

“By only treating once sprouts are seen in store, Argos’s contact mode of action takes full advantage of the crop’s natural dormancy and the effect of the MH from an application of Fazor,” said Geoff. “A product like DMN needs to be applied preventatively so it could be applied before it is necessary.” **PR**

It’s believed that beginning in-store sprout control programmes with a product that has contact activity on the sprouts will get the most out of MH. Photo: Wikimages



Collecting on-farm data to optimise sprout suppression

Maleic hydrazide products are now the cornerstone of sprout suppressant programmes, attendants at the recent GB Potatoes Spot Storage open day heard.

POTATO growers should consider routine tuber residue testing and collection of use data to optimise results from sprout suppressant maleic hydrazide (MH), Agronomist Simon Faulkner advised those who attended the recent GB Potatoes Spot Storage open day in Lincolnshire.

Contained in products like Crown MH, it has been used in potatoes for many years to delay dormancy break after crops are loaded into store and reduce volunteers in the field.

Since the withdrawal of chlorpropham (CIPC), lack of experience with alternative in-store sprout suppressants has refreshed interest in the foliar applied active substance, according to Simon of SDF Agriculture.

"It's very cost effective, even where you are getting moderate yields of 45-50t/ha, so for long-term storage it's a no-brainer, whichever option you choose later on," said Simon.

Cornerstone product

With MH now the cornerstone of sprout suppressant programmes for long-term storage, the key to getting the most out of it is by ensuring good translocation from foliage to tubers.

Much of the information and advice available to growers is based on historic research and the industry is only just starting to update know-how in today's context.

The amount of MH taken up by tubers is affected by several variables, including variety, crop maturity, application timing and environmental conditions at application, particularly temperature and humidity.

In the UK Crown MH is marketed by Certis Belchim, which has been sponsoring work by SDF Agriculture to look into the impact of these variables and how to manage them for best results.

Last September this involved SDF Agriculture running tests with five growers who had treated their crops with Crown MH to find out how much of it had been translocated down to tubers, by measuring tuber residues in mg/kg.

Individual crops of Elland, Georgina, Jelly, Royal and Tyson were sampled, along with four crops of Maris Piper.

Variable uptake

Presenting the results at the recent GB Potatoes Spot Storage open day in Lincolnshire, Simon said residues ranged from 3.1mg/kg in Royal

to 26mg/kg in one of the Maris Piper crops and over the four crops of Maris Piper the average was 18.25mg/kg.

This provided a useful snap shot of varietal differences in uptake.

The residue figure considered a key target for effective sprout suppression with Crown MH is 12mg/kg, but Dutch experts believe good efficacy can be achieved with 5mg/kg.

Uncertainty leads Simon to call for more work to understand the variable uptake between varieties, which could be down to physiological characteristics like determinacy.

It would also be useful to know if higher MH residue in the tubers means a longer period of dormancy.

"I do think there is an opportunity for growers to do more themselves in this area. By sampling and getting residue testing done, you can see when tubers break dormancy and tease out differences," he explains.

While a cost of £90-100/sample is involved, this can be reduced by sending a greater number of samples, perhaps in collaboration with neighbours or within a grower group.

Simon adds that it would represent a very small investment in a crop that now costs above £10,000/ha to grow and a considerable sum to store.

"To ensure it's a worthwhile investment, you need to gather accurate data and record all the variables that are present at the point the operator applies MH.

"These include time of day, temperature, humidity, state of the crop maturity and whether there was a rain event in the 24 hours after application. That will help us improve management going forward," says Simon.

Critical timing

Critical areas where this data will help inform decisions are application timing and quality.

Getting the product on at the right time, with the right water rate, and in the correct environment all have a significant influence on uptake.

Caroline Williams,
UK Crop Manager for
potatoes, Certis Belchim.



Simon Faulkner, Agronomist,
SDF Agriculture.



Caroline Williams, Certis Belchim's UK Crop Manager for potatoes, said that the company's work over many years has shown that where growers carefully plan and execute application of products like Crown MH, good results follow.

This means treating healthy, stress-free crops three to five weeks before haulm destruction using a water rate of 300-500L/ha to maximise coverage and uptake of the active substance.

The spray solution dries slowly on the leaf, so application on a cool evening when relative humidity is greater than 50% is another important consideration.

Caroline says it can be tricky to get all the parameters right together, so ensuring your spraying operation is as efficient as possible will help make the most of suitable windows.

"With Crown MH's anti-foam liquid formulation, operators can fill the tank faster and fuller than with granular formulations, so there is less time filling.

"It's also available in 600 litre IBCs with a Fastran 850 closed transfer system, so the right amount of product can be sucked straight into the sprayer through its venturi system at about 25L/min, rather than ripping and tipping bags into the induction bowl," she said.

There are also added advantages of almost eliminating operator exposure to the product and the reduction of waste packaging, with the IBCs returned once empty for recycling.

Simon agreed that from an operator efficiency perspective, having Crown MH in IBCs makes sense, although it can depend on each farm's system and size.

"I also like to apply it on its own, rather than in combination with other products. You've got to give it the best chance to work effectively," he said. **PR**




British
POTATO
INDUSTRY
AWARDS



NEW VENUE!

MAJESTIC HOTEL & SPA
Ripon Road, Harrogate, North Yorkshire HG1 2HU

**The British Potato Industry Awards
will be held 19th November 2025**



ALWAYS ON THE FIRST EVENING OF THE BRITISH POTATO INDUSTRY EVENT

ENTER



To Enter or book a table please contact Theresa Geeson
theresag@warnersgroup.co.uk 01778 392046

BOOK



Sponsored by **GRIMME**

Lightning's nitrogen-fixing properties could be used to revolutionise fertiliser production and supply.
Photo: Damien Modolo on Unsplash

Striking it rich

Lightning-based fertiliser technology could support farmers, climate and soil health.

TECHNOLOGY which harnesses lightning's nitrogen-fixing properties could revolutionise fertiliser production and supply, cut carbon emissions and support soil health.

The Agri-Tech Centres in the UK are working with start-up Debye Ltd to trial a system which simulates lightning's ability to capture nitrogen in the form of nitrates when it strikes water.

Debye envisages that modular and containerised systems sited on farms or hubs could give growers on-the-spot or local supply of nitrate-based fertiliser using only air, water and electricity.

The 18-month feasibility R&D project is taking place on lettuce crops in Agri-Tech Centre CHAP's vertical farming facility at Stockbridge, with fellow Centre Agri-EPI providing project management and life-cycle analysis, measuring the product's environmental and economical sustainability at each stage of its development.

Debye could undertake small-scale pilot projects on a farm setting within three years.



The objective is to develop a one-kilowatt proof-of-concept prototype, to quantify and compare crop yields and post-harvest properties for standard nitrogen fertiliser and fertiliser produced by Debye Ltd's machine and to determine its commercial viability.

If the trial is successful, Debye could undertake small-scale pilot projects on a farm setting within three years, subject to funding.

The project is funded by Innovate UK and the Biotechnology and Biological Sciences Research Council's Novel low-emission food production systems: Feasibility studies competition.

The Agri-Tech Centres help innovative start-ups throughout their journey; securing funding, providing access to research facilities to test, demonstrate and validate new ideas to overcome the agri-industry's critical challenges, such as climate change and environmental sustainability.

Debye Ltd's Chief Technical Officer Burak Karadag, who developed the technology, was originally a space engineer, working on satellite propulsion, when he became interested in the properties of lightning.

He said: "Our technology harnesses nature's own elegant solution. Lightning strikes water with such energy that it breaks apart atmospheric nitrogen molecules, creating nitrogen dioxide, which is soluble in water and readily absorbed by plants. Our technology replicates these principles using only air, water and electricity."

He said manufacturers are trying to move to green hydrogen to reduce the fertiliser's carbon footprint, but local, renewably-powered direct nitrogen capture technology



Debye Ltd's Chief Technical Officer Burak Karadag, who developed the technology, was originally a space engineer

could make it a near zero-emission process, locally and securely available with far better soil health outcomes.

"Today's synthetic fertiliser production accounts for 5% of global greenhouse gas emissions, equivalent to half the total emissions produced by the EU27 in 2021. Just imagine if we could remove those emissions! Being a rocket scientist was undeniably exciting, but I was so motivated by the challenge of tackling climate change and enhancing food security through innovation that I was glad to make the career shift to agriculture," he said.

Innovation Network Lead at CHAP, Dr Harry Langford, said: "Fertilisers are critical to secure food production, but economic and environmental concerns are driving a renewed focus on both diversification in practice, towards alternative fertiliser types, and technological innovation, to enhance production and application efficiency. The Agri-Tech Centres are delighted to be working with Debye Ltd to test the feasibility of this exciting technology and help to determine its value proposition. By creating an evidence base for novel technologies, we can help to support adoption and enable a fair transition for UK farmers and growers."

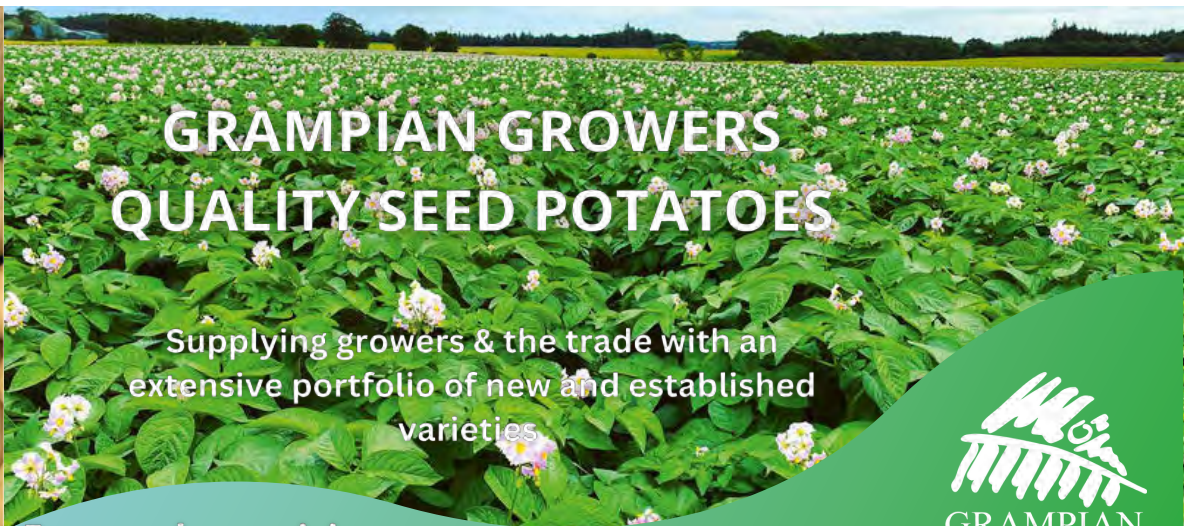
The project 'Decarbonisation and Decentralisation of Synthetic Nitrogen Fertiliser Production' is funded by Innovate UK and the Biotechnology and Biological Sciences Research Council (BBSRC). **PR**

GEMSON
A QUALITY GRAMPIAN GROWERS VARIETY



little
scottish
gems
with a
big
yield

grampiangrowers.co.uk



GRAMPIAN GROWERS QUALITY SEED POTATOES

Supplying growers & the trade with an
extensive portfolio of new and established
varieties.

For seed enquiries:

Dave Ramsay: 07592 009175

grampiangrowers.co.uk



GRAMPIAN
Growers Limited

Logie, Montrose, Angus
DD10 9LD

AGRIMECH®

COMPLETE END OF LINE SOLUTIONS



WWW.AGRIMECH.CO



+44 (0) 1354 638222

**British
POTATO
INDUSTRY
EVENT**

SAVE THE DATE
19TH-20TH NOVEMBER 2025
We would love to see you there!

GRIMME
AGRIMECH®

DOOSAN
Haith

TONG
FMC



New generation of biological seed treatment

UNIUM Bioscience has developed an advanced formulation of endophytes which supports and enhances rhizophagy, the process whereby microbes alternate between an endophytic phase and a free-living soil phase, while enabling crops to fix atmospheric nitrogen (N).

Like its predecessor, TIROS Max acts as a 'back up' power supply, fixing N from the atmosphere throughout the season, enhancing yield where standard N rates are applied, or maintaining yield where N is required.

TIROS Max also better promotes the plant's ability to sequester phosphorus, potassium, zinc and additional microelements

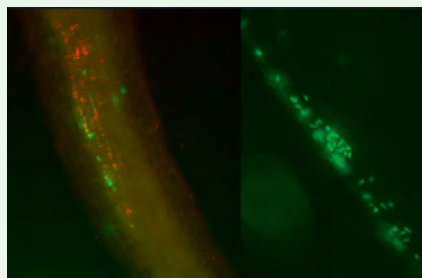
Unium Director John Haywood said: "The new formulation provides a prebiotic, also known as an extender, in powder form rather than a liquid. This delivers 13% more Colony Forming Units (CFUs) per seed by preserving the endophytes during application, as well as supporting and promoting early population growth during germination and establishment."

In the field, TIROS Max treated seed has been shown to accelerate plant establishment and growth ahead of untreated seed, with better root structure and biological interactions. Work carried out by Professor James White at Rutgers University in New Jersey, USA, shows that endophytes are essential for root hair development as well as their role in rhizophagy – where plants effectively 'farm' microbes to help them sequester nutrients from the soil.

Prof White is a firm believer that microbes applied as biostimulant seed treatments can replace some of the microbes lost from seed during its journey from seed producer to farmer. Biologicals can also act as a supplement in soils where microbial communities are depleted.

"Biostimulant microbes placed on or near to the seed can kickstart the rhizophagy cycle. Some treatments contain endophytes which set up a more permanent association provided the consortia selected are adapted to the crop plant and the plant needs that community in its environment."

But rhizophagy isn't the only way plants use microbes, some endophytes will be moved from the root and spread throughout its tissues. "Many plants will put these bacteria



into their leaf hairs (trichomes) where they feed them plant sugars in exchange for the nitrogen these endophytes will fix from atmospheric nitrogen," explains Prof White.

Biological treatments have been historically variable in their effects when applied to seed and the use of an extender in TIROS brought new levels of consistency in performance, delivering the benefits Prof White describes. "The new formulation in TIROS Max now sets the bar even higher. It marks a real advancement in seed treatment technology by supporting the biology to a greater extent, demonstrated by the higher CFUs achieved per seed," he said.

In the field, TIROS Max-treated seed has been shown to accelerate plant establishment and growth ahead of untreated seed, with better root structure and biological interactions. Additionally, trials show it provides benefits equivalent to 30Kg of N per ha.

The dry formulation also offers flexibility at the time of seed treatment. Previously, the minimum quantity that could be treated was a batch of 10 tonnes but it's now possible to treat small seed batches of five or one tonne, giving farmers much more flexibility when treating their own seed through a mobile unit.

'Food security threatened by potassium neglect'

THE UK could be deemed to be one of the perceived potassium-rich countries but although some UK areas may be high in K, or on potassium-releasing clays, data from the British Survey of Fertiliser Practice (BSFP) has identified for some time that potassium inputs are not matching potassium offtake.

This, combined with data from the PAAG soil tests, suggest that growers in the UK cannot afford to take their eye off the ball with potassium management, particularly with potential yield losses, according to the Potassium Development Association (PDA).

Only around 65-70% of the UK's total arable area receives annual potash, which will not be sufficient to maintain soil reserves across the UK.

New research involving researchers at UCL, University of Edinburgh and the UK Centre for Ecology & Hydrology found that more potassium is being removed from agricultural soils than is being added, throughout many regions of the world.

Co-author Professor Mark Maslin (UCL Geography) said: "Potassium is critical to sustaining the crop yields that keep the world fed, and its depletion poses a significant threat to the food security."

The researchers highlight how in April 2022, the price of potash increased 500% above the previous year following a "perfect storm" of factors, including rising fertiliser demand, escalating fuel prices, recovery from the pandemic, a range of government actions around the world, and the Russian invasion of Ukraine. Russia and Belarus together export about 42% of the world's potash supply, but following the Russian invasion of Ukraine in 2022, the UK, US, Canada and the EU imposed import sanctions on the two countries, disrupting global supplies and exacerbating the price spike.

Since the initial price spike, the cost of potash has fallen by about 50%, but remains elevated.

Shropshire potato grower reduces nitrogen reliance

A SHROPSHIRE potato grower has managed to reduce his nitrogen fertiliser use by a fifth on his 800ha farm after undertaking a number of measures.

Using the organic carbon-based fertiliser L-CBF TERRA FED has been an integral part of an overall strategy that has helped John Bubb achieve this on his 800ha farm.

It's part of an ongoing journey to make the farm's practices more sustainable, after recognition that years of using various pesticides, especially soil sterilants and nematicides for potato cyst nematode control, alongside leaving soil bare over winter and intensive cultivation practices had left the farm's soils in poor health.

"We've used pesticides as an insurance policy, with a mentality that even with a small risk we would still use nematicides on our potato land just in case," John says.

"In 2019, we were buying 4.5t of nematicides that cost over £50,000, and our yields weren't getting any better. It was obvious it wasn't going to be sustainable in the long run."

The farm grows 184ha of potatoes for processing by McCain, alongside flowers for drying, wheat and oilseed rape, and a whole raft of changes have been made to how these crops are grown over the past four seasons.

Examples include the adoption of growing multi-species cover crops before potatoes and flowers, growing catch crops between oilseed rape and wheat, and reducing cultivations including before potatoes, where the farm is

involved in an Innovate UK research project helping to develop machinery to reduce tillage intensity in the crop.

One of the very first changes was to include L-CBF TERRA FED to mitigate the impact of either cultivation or liquid fertiliser on soil biology.

"The initial idea was to use it whenever we cultivate, as we couldn't be completely zero-tillage," John explains.

"Every time we cultivate, the soil is oxygenated, which wakes up all the soil microbes. They want to eat something, but we don't want them to use our organic matter, so the point of the molasses is you're putting some carbon in the soil to use. It's a different form of carbon and in a form they like.

"So using L-CBF TERRA FED is helping the soil biology out, and helping us out because they don't consume our organic matter."

In potatoes, the planter is equipped with an in-furrow applicator through which he applies L-CBF TERRA FED mixed with liquid fertiliser along with humic acid. "It's the obvious way to apply it."

The farm uses a strip-till system to plant flowers and oilseed rape, where a small amount of fertiliser is placed, again with added L-CBF TERRA FED and humic acid, while in wheat it's applied in combination with liquid fertiliser during spring applications.

Applying a carbon source with liquid fertiliser has the benefit of softening the effects of the nitrogen fertiliser on both the crop and soil, adds John's agronomist Ed Brown of Hutchinsons.

"There's anecdotal evidence that it reduces scorch, and while I would never rely on it because if it is the right weather to produce scorch, it's not going to reduce scorch by a significant amount, the fact it can potentially help is a good thing.

"It's also a good source of carbon for soil biology. I add humic acid to help reduce ammonia losses. Ammonium is positively charged, while L-CBF TERRA FED and humic acid are negatively charged so obviously opposites attract.

"In that way, it's essentially doing the same job as a urease inhibitor in a much, in my opinion, preferable way as it doesn't interfere with soil biology as the inhibitors do," he says.

Using L-CBF TERRA FED and humic acid isn't the only change John has made to his nutrition programmes. The liquid fertiliser product has changed to 30% nitrogen + sulphur, rather than a 9:5:11 blend, which has helped improve efficiency at planting by reducing the application rate from 1200 L/ha to 400 L/ha.

He also adds boron, calcium, and PC25, a phosphate solubilising bacteria, at planting and uses sap analysis throughout the growing season to better understand the crop's nutrient use and help tailor micronutrient use to keep the crop healthy.

All of those changes, plus the use of clover in cover crops, have contributed to an 18% reduction in 2023 in applied nitrogen compared with the last year of more conventional potato growing in 2019.

Cornish grower parts with tradition

As warmer weather and drier conditions have led to a significant increase in maincrop potato planting in the past month, specialists at Corteva Agriscience are now urging growers to consider the role biologicals could play in their 2024 nitrogen strategy.

Strong results last season were demonstrated by BlueN, Corteva's foliar-applied biostimulant, which captures nitrogen from the air and converts it into ammonium. After many field trials in the UK and across Europe, potato growers experienced their first full year using the biostimulant in 2023.

Cornish potato grower Andrew Thomas saw a 20% increase in yield after applying the product for the first time last year. Andrew grows vegetables at his 24-hectare farm in St Hilary, Cornwall, and admits he wasn't sold on the idea of biological treatments initially.

"I'm probably a bit traditional and set in my ways but I couldn't believe the results," he said.

But after trailing a one-hectare block he noticed a difference in the crop and decided to apply the product across more of the farm. He sprayed some of his main crop of Mozart potatoes, applying BlueN at 333g/ha at the point when the crop was meeting down the rows.

"I sprayed one field but I didn't spray the other because I ran out of time – I wish I had now," he said. "We could see the difference in



the size of the tubers, the quality and the yield.

"Spring last year was quite cold and wet, so the potatoes were looking a bit stressed. After I applied BlueN I couldn't see much difference for a fortnight, but after that I could tell they'd picked up more nitrogen – I could see a difference in the foliage.

"It increased yield by at least 20%, which equated to about 2.5t/ha. I have told many fellow growers about the experience I had because it exceeded all expectations."

The optimal time for application is between growth stages BBCH 25 to 33.

BlueN enters the plant through leaf stomata and moves throughout the plant to photosynthetic cells including the areas of new growth.

"Once the bacteria have established in-between the cells, they start the nitrogen fixing

cycle, delivering ammonium to the plant," says Iuliia Kovalova, Biologicals Field Technical Manager at Corteva. "This means that as the crop grows, the bacteria continuously provide supplemental nitrogen to the plants."

The bacteria also have chromophores that reflect light towards chloroplasts, intensifying photosynthesis and increasing the synthesis of nutrients for use in plant growth.

"Applying correctly and in the right conditions is key to getting successful colonisation which will result in good product performance," Iuliia adds.

"Ensure the crop is not stressed and temperatures are over 10 C (and less than 30 C). BlueN is a living organism, so it has to be used soon after the pack is opened and mixed in the sprayer tank.

Tuber initiation timing to protect against stress



LATE planting and slow emergence of potatoes in cold wet conditions could leave crops more exposed to the effects of stress at the all-important

tuber initiation stage this season, warns Syngenta Technical Manager, Andy Cunningham.

"Research has shown that tuber initiation is one of the key points that potato plants can be impacted by stress," he reported. "That could be further compounded this year if it coincides with the onset of warm weather in late May or early June."

Andy recommended Quantis application when first tuber set is at, or before, small pea size. "This is a critical time for the potato plant's development, as they are particularly sensitive to stress. Weather conditions and

temperatures at this timing will largely dictate how many tubers will be produced, and subsequently supported through to yield.

"Potato growers and agronomists will need to nurse them through with all the tools available, including nutrition, irrigation, blight protection and biostimulants to alleviate stress," he advised.

Crop research at the James Hutton Institute highlighted: "Temperature has a pronounced effect on the formation of potato tubers: When the temperature is too high, potato plants form less or no tubers, which can greatly decrease yields."

Andy pointed out that Quantis has been shown to adapt the hormone pathways that govern the potato plant's response to temperature stress, thereby enabling it to continue function more efficiently and make better use of light and resources for growth.

"Growers should be prepared to always apply Quantis at tuber initiation, ideally at a timing



Potato stolon swelling at onset of initiation.

where it can be tank mixed with a blight spray treatment," said Andy. Quantis is compatible with all Revus and mandipropamid mix blight sprays.

He advised that growers and agronomists continue to track temperatures through the growing season, to allow Quantis applications prior to heat stress as crops develop. Trigger points in potatoes are flagged when leaf temperature exceeds 25°C for more than three hours per day or above 30°C for any length of time.

More than just 'small potatoes'

Value of Scottish potato industry is highlighted as new report looks into markets, historical trends and economic outlook.

AS consumer demand for potatoes has waned over the past 50 years, Scotland's potato industry has slightly bucked the trend and its seed sector has an important role to play in the industry's future, according to the authors of a new report.

The report by researchers at Scotland's Rural College (SRUC) has highlighted a 71% reduction in the demand for fresh potatoes in the UK since the 1970s, with consumers switching to alternatives such as rice and pasta.

More recently, the loss of access to export markets for seed potatoes following Brexit represents another loss of demand, particularly for Scotland where seed production is more important owing to its disease-free growing conditions and associated 'high health' status.

Overall, the report found the potato market was more stable in Scotland than at a UK level, representing nearly a quarter of the overall potato production from farms.

The farm gate production of potatoes in Scotland – including seed and ware potatoes – had a value of around £245 million between 2018-2020. This represented 6% of Scottish agricultural output and 22% of UK potato production.

While the UK is now importing more potato products, including processed products, than it is exporting, it is still a net exporter of seed



New report demonstrates the economic importance of the Scottish seed potato sector

potatoes, of which Scotland accounts for 75% of the area grown in Britain.

Importantly, the contribution of potato production is greater than its farm gate value, with chilled, frozen, dried and cooked processed products representing further economic activity, in addition to the supply chain which has evolved around the industry – including specialised machinery, storage and processing facilities.

Overall, the Scottish potato sector had an on-farm and upstream economic contribution of £507 million output and accounted for 2,880 full-time jobs.

Report author Steven Thomson, Senior Agricultural Economist at SRUC, said: "The work on assessing the economic contribution of the Scottish seed and ware potato sectors is a timely reminder of how complex agri-food supply chains are, and that the integrated potato supply chain operates across the UK and beyond. Scotland has an international reputation for growing high-health seed potatoes, yet the economic contribution of the seed sector was often only reported as the farmgate value.

"This report demonstrates the economic importance of the Scottish seed potato

sector to those growing potatoes for processing and consumption in Scotland, the rest of the UK and internationally. With growing concerns about the impacts of potato cyst nematodes (PCN), and other diseases, this provides evidence of the importance of the sector that can help justify Scottish Government support for research and development, knowledge exchange and wider policy measures for the sector."

Chief Plant Health Officer for Scotland Gerry Saddler welcomed the report and said: "This report highlights the significance of the potato sector to Scotland's rural economy. In particular, it throws a spotlight on how important our seed potato production is for the potato supply chain in the UK but also for many other countries around the world.

"Potato production worldwide is under constant threat from the actions of pests and our changing climate. This report gives a clear indication of what could potentially be lost if the potato sector, working in partnership with the Government, fails to maintain the high production standards built over many years in Scotland."

Providing more options for seed growers

THE Seed Potato Organisation (SPO) now has more than 40 grower members throughout Scotland and is looking to recruit seed growers in the rest of the UK.

The SPO played a major part in securing approval for the paraffin oil product Oliie-H to be approved for use from tuber initiation onwards, to suppress non-persistent virus levels in seed stocks (for more on this see our news section).

SPO Chairman Mike Wilson said the organisation was particularly thankful for the support it received from the Horticulture Crop Protection Ltd (HCP), the organisation set up in the turbulent wake of AHDB Horticulture's closure.

"We are now properly established and working towards issues that affect the seed growers in other parts of the country. The Oli H oil approval was the first step, which will give growers more options for aphid / virus control throughout the UK, especially in warmer higher pressure areas," said Mike.

"The SPO has agreed to sponsor the Fight Against Blight campaign, again being run by the James Hutton Institute. We also are a sponsor of Potatoes in practice and will have a presence there again as usual in August. Scottish Agronomy are doing more trial work for aphid / Virus reduction using straw

mulch and are investigating using dye and other non-insecticide ways to reduce virus numbers in potato crops and we are proud to be a sponsor in a very important cause.

"We are also hosting a reception at the royal highland show on the 21st of June where all UK seed members are invited to attend to discuss issues with seed potatoes and have a bit of networking with growers on what the future has for us.

"That's a quick resume of what's happening but hopefully there will be lots more to report soon," said Mike. **PR**



Breeders share details of new varieties to be unveiled

BREEDERS exhibiting new varieties at the annual Caythorpe Open Days, which will take place on August 28th and 29th near Grantham, have given British Potato Review a sneak preview of some of the items they will have on display.

Grampian Growers will have 16 varieties on display including 10 named, which Claire said are the most advanced varieties out of the GPS program.

Claire Dyce of Grampian Growers said: "Grampian Growers will be exhibiting for the third year at Caythorpe, representing our most progressive GPS varieties, including the promising Bruar and Emmett which has so far shown great success and potential in trials with various companies.

"Last year was a huge success, with the two days seeing a good number of quality visitors from all sectors of the potato industry. These events require a massive amount of input and resources to run smoothly so it is great that all 11 companies come together and contribute to such a great event for the benefit of the UK potato industry."

Highlights include "Bruar" which is a Harmony x Valor cross that has partial pallida and full resistance to RO1 aimed at the fresh market. "Feedback so far with Bruar is that it's got great packing potential with quantities allocated for packers this year," said Claire.

Bruar was added to the national list in September 2023.

“These events require a massive amount of input and resources to run smoothly so it is great that all 11 companies come together and contribute to such a great event for the benefit of the UK potato industry.”

Claire Dyce, Grampian Growers



“Another one to watch is “Emmett” which is a Melody x Gemson cross that certainly shows Gemson tuber numbers. The salad has first class taste, texture and cooking qualities and is resistant to RO1. Pallida resistance is still in trial as Emmett is currently in its first year of national list,” said Claire.

James Todd, Sales Manager at HZPC UK, said his company will be demonstrating the new varieties Cardyma (PCN tolerant processing variety), Invictus (reduced input fresh chipping/ processing variety) and Triple 7 (long term, lower temperature storage crisping variety) alongside existing commercial varieties focusing on varieties that offer sustainable credentials which may help customers meet their regenerative farming and sustainability goals.

A reduced nitrogen rate trial will be alongside the variety demonstration plots to assess and demonstrate the performance of the newer genetics.

Cygnets organisers Simon Taylor and Alistair Redpath said the company will be exhibiting three potential 2024 NL Entries, two crisping and one table variety.

The IPM team will be exhibiting a wide range of varieties in different segments including processing, salad and crisping, with a special focus on its PCN-resistant varieties.

Other breeders expected to be exhibiting include Meijer, Solana, Germicopa, Caledonia, Stet and Cullen Allen. [PR](#)



Storeguard now available to the uk potato industry

A NEW method of maintaining fry colour of potatoes stored in ethylene-applied stores is now available in the UK.



Manufactured by AgroFresh, StoreGuard uses 1-methylcyclopropene (1-MCP) to counter the change in fry colour that can sometimes occur in potatoes stored for processing when ethylene is used as a sprout inhibitor.

Priced on a cost per tonne, StoreGuard is applied early in the storage process, before ethylene treatment begins. Soluble tablets of StoreGuard are introduced to an activator solution in pouches placed in the store and personnel access is allowed 24 hours after treatment.

As well as maintaining fry colour, StoreGuard can also protect the stored crop from the 'shock' of introducing ethylene, reducing transpiration rates, and in turn, weight loss and store fan times.

Biofresh Safestore, which secured the UK marketing rights to StoreGuard in November 2023 following CRD approval, is promoting the approach to UK potato growers and processors based on four years of impressive trial data.

Jeremy Barraclough of Biofresh Safestore said: "Combining SafeGuard with the ethylene-based Safestore system is a highly effective way of both suppressing sprouting and countering the effects on fry colour that some varieties can experience when treated with ethylene. With both SafeGuard and SafeStore, there is no detectable residue on the potatoes, and the data from the commercial trials conducted under an experimental licence in Europe show the benefits of applying 1-MCP."

As well as Europe, Biofresh has conducted trials in the UK, including at Winters Lane Storage, which hosted GB Potatoes' SPOT Store day recently. Simon Faulkner, an independent agronomist and director of SDF Agriculture who has been involved in the commercial trials of StoreGuard over the last three years, was one of the speakers at the event.

"StoreGuard has been shown to protect some processing potato varieties against the potential negative effects that ethylene can have on fry-colours," he said. "Applied before ethylene treatment commences, the benefits of StoreGuard typically last through to April."

"Combined with the careful introduction of ethylene and managing carbon dioxide levels, StoreGuard can help to maintain processing potato quality during storage."



Metribuzin pre-em treatment confirmed safe for Elland

THE list of maincrop potato varieties to which metribuzin can safely be applied as a pre-emergence herbicide treatment has been extended with the addition of Elland.

Tests on several other varieties are also showing promising initial results, with trials ongoing to assess the crop safety of ADAMA's 70% w/w metribuzin product, SHOTPUT™.

"ADAMA UK has spent several years testing a collection of newer potato varieties for metribuzin selection," explains Dr Bill Lankford, ADAMA's Herbicides Technical Specialist.

"As a result, several new varieties have been added to the list of those to which Shotput can be applied at the pre-emergence timing, with Elland (an early maincrop variety from Cygnet PB) the latest to be added."

Several other early and maincrop varieties were also tested in 2023, with initial results indicating that an additional eight varieties (see list below) displayed no commercially unacceptable symptoms of metribuzin sensitivity when pre-emergence applications of Shotput were made at both the 0.75kg/ha and 1.5kg/ha rates on sandy loam or clay loam soils.

"At present, the latter results are provisional, with more trials scheduled to take in due course to validate the findings," said Bill. "So far, the results look very promising, and we are confident that Shotput will soon be approved for growers to use on a wider range of varieties. We look forward to publishing an updated list of Shotput-approved varieties once the necessary testing regime has been concluded."

"So far, the results look very promising, and we are confident that Shotput will soon be approved for growers to use on a wider range of varieties."

New permit paves way to pesticide treatment with drones

APPLYING potato plant protection products from drones has moved a step closer after British regulator HSE-CRD granted an extrapolated trials permit (ETP) for a slug pellet product.

The decision paves the way for an Extension of Authorisation for Minor Use (EAMU) and the first commercial application of a pesticide to food or feed crops in the UK by drone.

The development follows two years' work by Staffordshire-based technology company AutoSpray Systems, which first identified a market for heavy lift drones in UK agriculture in 2019.

That autumn, similar to the one just passed, prolonged rain prevented growers from accessing land to drill seed, or to apply products like slug pellets or pre-emergence herbicides to crops established before it turned wet.

The company's co-founder Andy Sproson said that Civil Aviation Authority (CAA) regulations have not explicitly excluded aerial application from unmanned aerial vehicles (UAVs) for some time.

However, use must be justified and to do this, AutoSpray systems wrote a specific risk assessment which was submitted to the CAA and the case accepted in December 2022.

Another missing piece of the puzzle was a pesticide regulatory framework, and the data to show how the product behaves when applied from UAVs.

Andy said HSE-CRD had been very helpful since he approached the organisation about expanding agricultural drone use, advising on



the necessary information to succeed with the company's permit application.

"Firstly, we had to prove our competency to the CAA. Thankfully, we were able to do so, as the company has CAA Recognised Assessment Entity status. We also needed to outline the benefits of using drones in this way," he said.

These include application to land when ground machinery would damage crops and/or soil structure, cause compaction and increase run-off/pollution risk.

Drones can also be used to target applications when a blanket approach is not appropriate, or larger machinery is not as efficient, like when spraying off patches of grassweed.

"We also required the backing of an existing product authorisation holder, and we now have this with Certis Belchim, which distributes SluXX HP ferric phosphate slug pellets in the UK," said Andy.

With the ETP granted, AutoSpray Systems and Certis Belchim intend to conduct ballistics testing straightaway to demonstrate to regulators that the spreadability of the SluXX HP pellet is as effective as when using conventional applicators.

Once this data is submitted to CRD, an EAMU should be granted soon after and growers with access to a large payload drone – like the XAG P100 Pro imported by AutoSpray Systems – will be able to apply SluXX HP slug pellets from the air.

In work carried out last year, the XAG specialist agricultural drone broadcast cover crop seed into standing cereals at speeds of 30-35kph.

Work rates of 15-20ha an hour is possible with one drone, multiple batteries, a generator, and fast charger. The same will apply to slug pelleting.

"It's the first time a new application method has been made available to growers for many years and offers an option that compliments conventional machinery," said Andy.

He added that AutoSpray Systems has already worked with HSE-CRD and Silsoe Spray Applications Unit to gather spray drift data to show liquid products can be applied safely and effectively with its drones.

This sets up the possibility of further collaboration between the firm and agrochemical manufacturers, which could soon facilitate spraying of pre-emergence herbicides or late blight fungicides from the air with an unmanned aerial system (UAS).

Strategies for wireworm control on back of Canadian studies

CANADIAN researchers have developed management strategies to help growers tackle wireworm without the use of pesticides.

A team at Agriculture and Agri-Food Canada (AAFC) has been studying wireworm behaviour to see how they move around in soil and burrow in the winter. Team leader Christine Noronha said: "Many insecticides we've studied are inefficient at controlling wireworm populations to reduce damage to potatoes and growers have requested more alternative management strategies that help suppress these pests."

Spring ploughing, use of rotational crops and baiting have all been investigated by the team.

Christine said it's advisable not to plant in fields that were in continuous sod for many years. She recommended buckwheat or brown mustard as bio-fumigants, and to plant these at least one or two seasons prior to potato planting. Whether these are harvested or just incorporated back into the soil is down to grower choice.

The researchers discovered that wireworm can travel long distances in search of potato roots. In Canada, the best time to bait is May or June

and from mid-September to mid-October when there is more active foraging.

Wireworms spend winters deep in the soil, where they are better protected from low temperatures and have been proven to survive temperatures of -12 deg C, she added. **PR**

Decision awaited on EU seed movement

A DECISION is still awaited on the European Commission's proposal to overhaul regulations impacting on seed potatoes.

Member states within the EU have yet to reach a joint conclusion before discussions about the final legislation can commence between the European Commission, Parliament and Council which will dictate the future of breeding and trading seed potatoes.

In July 2023, the European Commission proposed a significant overhaul of the regulations governing plant reproductive material (PRM) within the European Union.

This new legislation, if adopted, would have a direct impact on seed potatoes, including how they are produced, registered, and ultimately utilised by European growers.

Currently, EU rules on plant reproductive materials are spread across separate directives. The European Commission's proposed regulation aims to simplify these

rules by consolidating them into a single, unified framework. While the core principles of variety registration and PRM certification remain, the new legislation introduces several key changes relevant to seed potatoes.

One of the primary goals of the new legislation is to strengthen the quality and sustainability of all PRM, including seed potatoes. Registration will continue to require confirmation of a variety's distinctiveness, uniformity, and stability (known as VCU registration). Additionally, the proposal emphasises testing for characteristics that promote a more sustainable agri-food system. This ensures farmers have access to seed potatoes that not only perform well but also contribute to responsible agricultural practices. This will also help farmers identify the right seed potato varieties resistant to certain plant health diseases.

The proposed regulation aims to streamline the regulatory process, making it easier for the industry to adopt new technologies and

production methods. This could lead to the development of innovative seed potato varieties with improved disease resistance, higher yields, or better adaptation to changing climatic conditions, according to the EC.

In April 2024, the European Parliament adopted its position on the Commission's proposal. In its report, it states that this position advocates for measures that benefit growers and encourage biodiversity preservation. This includes allowing growers to exchange limited quantities of any type of PRM with each other. However, some have questioned this approach as it could lead to parallel markets, with one segment having to comply with all regulations while the other enjoys certain flexibility.

The EU Council is still debating the Commission's proposal. Once Member States reach a joint position, all three institutions (Commission, Parliament, Council) can begin trilogue discussions to agree on the final legislation.

New support measures welcomed

A NEW government support package for UK growers has been welcomed by the NFU and Fresh Produce Consortium, who say it will address some key current challenges.

Prime Minister Rishi Sunak unveiled the support package at the UK Farm to Fork Summit, held at Downing Street.

The package includes measures to maintain the annual farming budget at £2.4 billion and introduction of a £427 million grant to boost innovation and productivity.

The Seasonal Worker Visa Route will be expanded to ensure sufficient labour for the horticulture sector, supporting the timely harvest of crops.

NFU President Minette Batters said: "These actions recognise the importance of coordinated action across government to support confidence, investment, and growth in British food."

FPC's Chief Executive Nigel Jenney added: "We are positive about the opportunity to enhance UK fresh produce production and food security. This initiative reinforces the need for a balance of imports to meet the diverse eating habits of our nation."

Last chance to apply for nutrient funding competition

APPLICATIONS for the £15 million Nutrient Management competition, part of the Farming Innovation Programme competition, closes to applicants at 11am on July 24th, although it is anticipated that a second opportunity to apply for funding will be available later this year.

Funding is available to develop solutions which address the challenges related to nutrient management in soils and water associated within potato crop production.

The competition is delivered in partnership with Innovate UK, part of UK Research and Innovation (UKRI).

For further information, contact support@iuk.ukri.org.

Timely reminder on soil testing

ALTHOUGH soil testing became a compulsory requirement when the Farming Rules for Water were established by Defra in 2018, a lack of recent soil testing is one of the top two breaches of the regulations.

A specialist in agricultural compliance and health and safety, CXCS, is reminding growers that, under the Farming Rules for Water, soil tests must be carried out on cultivated land at least every five years.

"The soil tests must include the pH of the soil and the levels of phosphorus, magnesium, and potassium present. Nitrogen levels may be determined by assessment of the soil nitrogen supply, rather than soil sampling and analysis," the specialist states.

"The Environment Agency (EA) is responsible for enforcing the Farming Rules for Water and soil testing information is a vital piece of evidence an EA inspector will want to see during a farm inspection."

The CXCS statement adds: "Many arable fields have a routine soil testing schedule in place, which is usually once every four years," adding: "Apart from the fact that it is a regulatory requirement, soil testing is good for your farming business. By having an accurate picture of the level of nutrients in your soil available, you can plan your use of nutrients more accurately, and only use what you need. This will save you time and money alongside having positive benefits on the environment."

Measures to address labour shortage

IN response to John Shropshire's Independent Review into Labour Shortages in the Food Supply Chain, the UK government has announced a number of measures which it is hoped the British potato industry will benefit from.

This includes extending the seasonal worker visa route for five years until 2029, announcing up to £50 million of funding for new technology to support fully-automated packhouses, and creating a strategy to enhance skills provision and attract domestic workers.

The government has ramped up its support for the use of automation in the sector to reduce the reliance on migrant workers.

A government news announcement states: "This will start with immediate work to fully automate a group of major packhouses in 12 to 18 months, which will improve understanding of the government support needed to make fully automated packhouses universally viable. Information learned from

this will help inform our planned £50 million package of packhouse automation funding, with further details to be announced later this year to cover 2024-25 and 2025-26."

Country Land and Business Association (CLA) President Victoria Vyvyan has said the extension of the seasonal workers visa scheme to 2029 is welcome, as she believes migrant workers are vital for the ongoing viability of the potato sector and other horticultural sectors.

She said greater efforts need to be made attracting people into the industry from the UK workforce. "There are considerable skills gaps and there needs to be more focus in schools and colleges on making it a more attractive career choice and encouraging those from a non-farming background into the industry," she said.

"Increased automation will help fill labour shortages to an extent, but this requires significant investment and the costs may be prohibitive for some businesses. A lack of affordable housing in rural areas goes hand-in-

hand with labour issues, with many workers unable to afford to live in the countryside. The planning system must support small-scale developments, adding small numbers of homes to a large number of villages."

The Food and Drink Federation has previously strongly encouraged the Government to work with industry to address the skills issue, with its own research showing the UK food and drink industry have suffered substantially because of output losses.

FDF Director for Growth Balwinder Dhoot said: "Significant labour shortages have cost businesses £1.4bn over the last year, with companies being forced to leave vacancies unfilled and reduce production – all of which contributes to rising wage bills, higher prices and stifles growth, which is vital for a strong economy.

"Investment is essential if we are to build a sustainable and resilient food supply chain which supports the economy and feeds the nation."

SFI date approaching

THE expanded and improved Sustainable Farming Incentive (SFI) scheme is due to be fully self-service from July 22nd.

Designed in collaboration with the agricultural sector, 20 new options are included to support more sustainable food production. It includes payments for precision farming, agroforestry, a new and expanded offer for upland farmers and more actions for tenants on short-term contracts.

The Welsh Government has announced a new timeline for the rollout of the Sustainable Farming Scheme (SFS) in Wales, with the

transition now due to start in 2026. BPS will continue to be available in 2025, with an announcement to follow on the BPS ceiling.

The expanded Sustainable Farming Incentive offer, published by Defra at the end of May, has been welcomed by the Country Land and Business Association (CLA).

President Victoria Vyvyan said: "The CLA is a long-time supporter of the Environmental Land Management schemes (ELMs), and we welcome this expanded offer with improved choice and payment rates, and its move towards greater simplicity.

"It is unfortunate that not all of the actions will be ready for the July launch. Nonetheless, the new options in SFI 24 will grow the confidence of growers who will receive income for delivering environmental benefit as well as the consumers who will continue to enjoy world-class British food.

"This is ground-breaking policy development and the schemes are growing year-on-year. ELMs is the most environmentally sustainable farming policy in the world. We encourage all farmers to consider how ELMs can work for their businesses."

Imports info hub

THE Food Standards Agency (FSA) has launched an Imports Intelligence Hub (IIH). The purpose of the IIH is to provide useful, assessed, and reliable information accessible to all, on a range of border data and intelligence connected with the import of high-risk food. More information is available at <https://www.food.gov.uk/our-work/imports-intelligence-hub>.

The hub enables downloading of the National Monitoring Plan - Data Analysis Report

Banking group champions grower-focused ESG investment

LLOYDS Banking Group recently held a panel event with Cambridge Judge Business School, focusing on how environmental, social and governance (ESG) investments can support sustainable agriculture, identifying the benefits for UK growers.

The event was part of Cambridge Judge Business School's ESG week.

As the largest lender to British agriculture, Lloyds Banking Group provides practical support for UK growers.

Agriculture Sustainability Director at Lloyds Banking Group, Ben Makowiecki, said: "There is a lack of clear and trustworthy information about ESG options because these concepts

are relatively new and non-regulated, which is currently a barrier."

"For ESG investment to be practical, the approach needs to be tailored to suit different farm business models. This is where Lloyds is working to expand its support and lending options.

The banking group offers a Clean Growth Financing Initiative (CGFI), which offers fee-free lending for farm businesses to implement sustainable projects and purchases that reduce their impact across water, waste, energy, and carbon/greenhouse gas emissions. It also supports the Soil Association Exchange (SAX) programme to help growers transition to greater sustainability.

Production decline of 10%



PERU, the leading potato producer in Latin America, has seen a decline in production in recent years.

Despite annual production increases, the Development Studies Network (REDES), a Peruvian academic organisation, has identified a decline of approximately 10% in 2023, attributing this to climatic challenges and pests such as potato worm, known locally as “papakuro”.

Now ranking 87th globally in productivity per hectare, there is a current push in the country towards adopting better technology, including fertilisers and genetically-improved seeds, to enhance resistance against pests and diseases.

Training for farmers on pest prevention and control is also seen as crucial. Such initiatives aim to improve potato production efficiency across different geographical areas within Peru, addressing both immediate and structural challenges facing the sector.

These issues were highlighted on International Potato Day last week by AméricaEconomía, which has been analysing business, economics and finance news in Latin America since 1986.

In Peru, 64% of potato harvests are carried out in dryland conditions. That is, they are irrigated entirely with natural rainfall and not with technical irrigation systems.

Crops are therefore severely affected when prolonged periods of low rainfall (droughts) occur.

REDES Economist César García said: “In a context affected by the El Niño Coastal Phenomenon and droughts during 2023, potato production fell almost 10% after good results in previous years. This tuber has great relevance in our food industry and also in the economy, generating thousands of jobs. However, to ensure good results, it is necessary to address the problems that directly impact producer families and their income.”

Between 2022 and 2023, Puno was the area that suffered the greatest impact from prolonged droughts. Production increased from 998,000 tons in 2022 to 596,000 in 2023, a figure comparable to 2011 production.

Another aspect that needs to be addressed is its level of productivity, Cesar said, stating that during the 2023 agricultural campaign, more than 320,000 hectares of land were cultivated, reaching an average productivity of 16.9 tons per hectare.

This performance placed Peru as one of the least productive countries per cultivated hectare, ranking 87th worldwide, according to figures from the Food and Agriculture Organization of the United Nations (FAO).

In contrast, countries like Argentina, Brazil or Mexico have a productivity above 30 tons per hectare.

Import duties proposed to regulate prices



SRI Lanka’s Agriculture Minister, Mahinda Amaraweera, has proposed the imposition of import duties on potatoes to regulate market prices and manage import levels.

The aim is to stabilise prices by adjusting tax rates in response to market shortages.

Potato cultivation was initiated in the 1980s under President J R Jayewardena, to help substitute imports and protect local agriculture.

The consideration for new taxes arises amidst a backdrop of economic hardship, with a significant portion of the population affected by a currency crisis in 2022. The poverty rate in Sri Lanka surged, affecting 31% of the population, or an increase of 4 million people. The government is aiming to balance agricultural policy with economic realities.

A helping hand with irrigation



A PROJECT to increase potato crop quality and yield in Columbia is amongst the latest supported by food and snack producer Pepsico in the third year of its Positive Agriculture Outcomes Accelerator programme.

The programme helps local farming communities by investing in things like ag-tech.

The Colombian project involves installing sprinkler irrigation systems that will reduce water use.

Pepsico’s Vice President for Sustainable and Regenerative Agriculture, Margaret Henry, said: Our PAO Accelerator continues to provide a forum for farming communities to bring forth ideas and opportunities and receive the funding needed to get promising innovation off the ground.”

‘Secure future needed for potato trade’



GERMAN Potato Trade Association, DKHV, has emphasised its core concerns for future EU agricultural policy in the run-up to the European Parliament elections.

President Thomas Herkenrath (pictured) said: “It’s about securing the future of the German potato trade and the entire potato industry. The ultimate goal must be to offer companies a stable economic perspective in order to meet the challenges of our time and at the same time continue to promote climate protection and sustainability.”

As an independent business association, the DKHV represents the interests of around 170 members, including potato trading companies, packers, peeling companies, breeders, producers and manufacturers of packaging materials and potato technology.

It is calling for sustainable farming methods to be better promoted, and for an unbureaucratic EU agricultural policy, research funding and the reduction of international trade barriers to help strengthen the potato industry and its competitiveness.

When implementing legislative proposals, the principle of bureaucracy brakes or the one-in-one-out rule should be followed. There should be no additional documentation and reporting obligations, the organisation states, stressing that new bureaucratic regulations and laws require a reliable impact assessment for the entire economic chain.

Politicians must provide greater support for research and development across the entire value chain, including the promotion of modern sorting, cooling and packaging systems as well as the expansion of digitalization in rural areas.

The DKHV is urging policymakers to push for the reduction of phytosanitary trade barriers to exports in their bilateral and multilateral talks with third countries in order to support European companies and said it expects political support in treating EU member states equally with third countries when exporting.

It is also calling for an holistic approach to sustainability and promotion of new potato varieties. When implementing legislative proposals to achieve sustainability goals, social, ecological and economic issues must be given equal consideration, it states. It also demands safeguarding of efficient protective measures in potato cultivation.

Finally, the DKHV is calling on politicians to promote research and development in the areas of sustainable plant protection and fertiliser use. Timely access to modern breeding and cultivation methods must be ensured, it states.



Early start for California harvest

POTATO growers in California have made an early start to harvesting this year.

Supplier Mazzei Franconi Co, which has been working with a number of local growers to bag and supply red, white and yellow non-GMO potatoes since the 1970s, reports a good tonnage coming in with a strong supply, having seen the harvest start on April 29th.

The family-owned company's John Clerou said in a recent interview with Fresh Plaza that it was a far cry from last year, when harvest started mid-May with light yields for the first three to four weeks.

"It wasn't until we got into June that we started having normal yields and normal volume out of the area," he said. "This year is more of a typical year, with good supply in May to ship."

Across the country, storage crop is still coming out of key growing regions including the Pacific Northwest. On new crop, Florida is also harvesting new crop reds and yellows but is close to finishing up on new crop white potatoes.

The region should ship until the middle of July. Meanwhile, a better crop over last year means pricing isn't as strong as it was for the 2023 season. However, it's still in line with other districts and John believes the outlook is good.

New purple sweet potato variety may drive US exports to Europe



EXPORTS of sweet potato from the United States to Europe flourished from the turn of this century, with production increasing massively to meet overseas demand before seeing a decline in 2018.

But a new purple variety could be about to up the trend again, with the UK showing the greatest demand.

Purple sweet potatoes are increasing in popularity. North Carolina State University has developed a new purple variety called Purple Splendor which was commercially harvested for the first time in 2023. The University has worked on the development of this variety for 15 years and since it is patented, farmers can purchase a license, allowing them to grow Purple Splendor.

In 2018 exports started to decrease following Hurricane Florence, which caused significant damage to the sweet potato crop in North Carolina, the largest sweet potato growing state in the nation. Impact on yields and production levels was significant and low production levels caused export prices to increase.

This prompted large European importing countries like the UK and Netherlands to replace US imports with those from other countries such as Egypt where production costs are lower. The US began to lose market share as more and more European countries started cultivating sweet potatoes themselves.

The EU also imposed a temporary 25% tariff on US sweet potatoes from November 2020 until March 2021 and US growers began decreasing their acreage.



'Dull the roar of late blight'

REDUCING late blight risk was the focus of a panel discussion at the Ontario Potato Conference held in Guelph.

With increasing incidents over recent years, Gary Secor, a professor of plant pathology with North Dakota State University, said it was now widely accepted that it could not be completely conquered, but the aim should be to reduce it to 'a dull roar'.

Ontario has no late blight-resistant potato varieties, and even resistant varieties in the United States don't last long because late blight has evolved quickly, he said.

High humidity, rain and high harvest pulp temperatures leading to soft rot and leak played a part in Ontario's 2023 outbreak, but so did volunteers, culls and seed potatoes by providing hosts.

Removing those hosts can disrupt transmission, Gary said.

"Because seed is not washed, it's hard to see those external symptoms. One to three per cent of the time, you can get transmission during the cutting operation. It's enough to start an epidemic," he said, stressing that one lesion can produce up to 10,000 spores.

The US government removed the use of mancozeb after the 2023 growing season and Gary recommended producers develop integrated multi-tactic management protocols before, during and after the season.

"Because seed is not washed, it's hard to see those external symptoms. One to three per cent of the time, you can get transmission during the cutting operation. It's enough to start an epidemic"

Hot, dry weather and ultraviolet light can kill spores or limit leaf presence, but reintroduction of moisture results in a resurgence, the conference was told.

New Brunswick potato growers use spore monitors for late blight three times a week, and share data with neighbouring Maine for

improved disease management. The optical microscopy monitoring of spores provides five to seven days of early disease detection, giving growers sufficient lead time for preventive measures.

Mark VanOostrum, PAg and WD Potato Ltd Supply Manager, said Ontario spore traps failed to report any cases in 2023, despite being near fields with confirmed infection.

"We don't have a provincially-funded late blight monitoring system," he said, adding that growers should share information and eliminate potential avenues for disease spread.

In the absence of resistant varieties, producers should increase scouting, use 100% quarantine measures to control suspect seed, cull piles and volunteers, and manage harvest to prevent late blight development, said Mark.

Fields and bins that were not treated with Orondis or phosphorus acid contributed to later problems in potato storage.



Prices up, supply down



SUPPLY shortages have led to a price surge for potatoes in India. The wholesale market in Vashi has seen a price increase of 25% in recent weeks, with a continuous supply decline, according to a report in the Lokmat Times, a key news source in India.

The situation is not expected to improve until the arrival of new crops at the year's end, as potato production in key states has fallen. The Agriculture Produce Market Committee (APMC) in Vashi, which sources potatoes from Gujarat, Madhya Pradesh, West Bengal, and Uttar Pradesh, has reported a decrease in potato yield.

Adverse weather conditions have led to a 22 to 30% drop in yield per acre in Uttar Pradesh and West Bengal, with the latter, being the second-largest potato-producing state, experiencing a 10% production decrease.

Supply constraints have been exacerbated by farmers' decisions to reduce potato cultivation following overproduction losses last year.

A shift towards garlic cultivation, driven by its price surge, has further impacted potato availability. From March to May, potato prices at APMC Vashi escalated from Rs 10 to Rs 15 per kg, reaching a nearly double price increase over two to three months. The retail market now sees potatoes priced between Rs 35 to Rs 40 per kg.

With production dwindling, a further supply decrease is

anticipated until November, when new crops are expected to stabilize the market. Currently, the market receives around 35 truckloads of potatoes daily from the mentioned states.



Fears for consumers as metals found in tubers



HARMFUL metals found in potato tubers and the soil they are grown in in Bangladesh have raised concerns about public health.

Potatoes are a staple food for many Bangladeshis and the recent study by Bangladesh Agriculture University (BAU) researchers has identified harmful heavy metals like nickel and cadmium in tubers and soil which could pose health risks, including cancer, if consumed in excess. They have the potential to disrupt digestion, damage kidneys and livers and contribute to infertility.

The metals are believed to be entering potatoes through industrial waste, irrigation water, fertilisers and pesticides, contaminating the soil and subsequently the crops, according to the report by Dutch academic publisher Elsevier.

In the study, scientists have identified the presence of a maximum of 2.938 micrograms of nickel and 0.0139 micrograms of cadmium per gram of potato. These two metals are harmful to human health even in small amounts. Researchers collected potatoes and soil samples from potato fields in Muktagacha, Ishwarganj, Phulpur, and Gafargaon areas in the Mymensingh district and researched levels of nine metals like cadmium, nickel, lead, chromium, copper, zinc, iron, cobalt, and manganese.

On average, a person 69.7 grams of potato per day in Bangladesh, according to a 2022 survey by the Bangladesh Bureau of Statistics (BBS) and Department of Agriculture Extension data reveals the country has produced about 1.09 crore tonnes of potatoes in the current financial year.

Among the soil samples used for potato production, researchers found 4.69-19.92 micrograms of lead, 21.27-99.84 micrograms of nickel, 0.04-0.32 micrograms of cadmium, 2.01-10.60 micrograms of cobalt, 44.79-88.61 micrograms chromium, 11.94-30.03 micrograms copper, 53.20-70.42 micrograms zinc, 14541-41,153 micrograms iron, and 562-782.2 micrograms manganese in per gram of soil. That means, the soil also has excessive lead, nickel, and cadmium.

NZ voters opt to keep levy-funded association



THE majority of growers in New Zealand have voted to keep levy-funded industry association.

Every six years growers are required to vote in the Commodity Levy to establish continued support for the funding mechanism of the association, Potatoes New Zealand. The last vote was in 2018 and the 2024 vote took place at the beginning of May.

Following the vote, Potatoes New Zealand stated that it had been given "a strong mandate" by potato growers to work on its behalf for the next six-year potato levy cycle.

The Declaration of Result was provided by the independent Returning Officer, Warwick Lampp, of Electionz.com. Of those who voted, 94.74% of growers supported the proposed levy, equating to 95.83% of gross sales value of the foregone season. Votes were cast by 54.68% of growers eligible to vote in the referendum.

These results compare to the previous levy referendum in 2018 of which 81.69% of voters supported the proposed levy and their gross sales value equated to 88.56% support. Votes were cast by 41.04% of growers eligible to vote in the referendum.

PNZ Chair Paul Olsen said the potato industry has experienced various challenges, including increased regulations and pressure across the whole supply chain, but the future looks promising.

"This great result reflects the work that Potatoes New Zealand has delivered and will continue to deliver for growers. It is especially

pleasing to see that potatoes growers got to have their say to shape the future of the potato industry," he said.

Potatoes New Zealand CEO Kate Truffitt said: "We thank growers and are very pleased with this support they have shown for Potatoes New Zealand to continue to represent and advocate for them. Our organisation is primarily focused on the interests of growers, and ensuring they are receiving maximum benefit from the industry structure. I encourage all growers to continue to contact us to make sure that our organisation is focusing on issues important to them."

Potato growers first voted to establish a potato commodity levy to fund the operation of Potatoes New Zealand in 2012. Since that time, the organisation advocates for growers in national and local Government decision-making, young growers and succession planning for the industry, representation of the industry at an international level and communication to growers on business-critical issues. Potatoes New Zealand will inform the Minister's office and will apply for a new levy order.



HHS & USDA jointly confirm: Potato is NOT a grain



THE United States Department of Health and Human Services (HHS) and Department of Agriculture (USDA) have confirmed that both agencies will keep the potato classified as a vegetable, putting to rest speculation and unrest arising from dietary guidelines proposals.

The secretaries of both associations recently issued an announcement putting to rest speculation. It stated: "Let us assure you that there is no intent and no effort underway to reclassify potatoes as a grain, nor are there analyses singling out potatoes."

Senator Susan Collins, who represents Maine, where potato growing is a thriving industry, said she was pleased that growers and consumers have been reassured.

"The reclassification of potatoes would have sent a false message to the public that USDA and DHHS believe that potatoes are not healthy. The fact is, when prepared properly, the potato is a wonderfully nutritious food that is affordable, easy to transport, has a long storage life, and can be used in a wide array of recipes," she said.

Senator Collins had led a bipartisan March 28th letter with Senator Michael Bennet (D-CO) opposing any reclassification of potatoes as a grain instead of a vegetable, or including recommendations that potatoes and grains are interchangeable as changes to the Dietary Guidelines for Americans (DGAs) are being considered. USDA shares jurisdiction over the DGAs process with DHHS.

Senator Collins has been an unwavering supporter of Maine's potato industry throughout her Senate service. For example, in October of 2011, President Obama's USDA proposed a rule that would have banned white potatoes from the national school breakfast and limited its use in the lunch programs. In response, Senator Collins and Senator Mark Udall introduced an amendment that prohibited the rule. It passed unanimously. Senator Collins continues to secure language annually in the Agriculture appropriation bill that prevents USDA from imposing limitations on potatoes in the school breakfast and lunch program.

Nominations open for Potatoes USA board



NOMINATIONS are open for the Potatoes USA new Board Members for the 2025 term. The board is seeking nominees to fill a total of 33 open seats.

The seats include: Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Hawaii, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Washington, West Virginia, Wyoming, and a Public Member.

Potatoes USA is the nation's potato research and promotion organisation and the central organising force in implementing programs to strengthen potato demand. It provides the industry with ideas, information, tools, and inspiration to achieve common goals.

Tool to help quell myths about potato



POTATOES USA is currently putting together an artificial intelligence tool to combat misinformation on social media.

President Blair Richardson said the system will monitor and track what's happening on social media and enable the organisation to quell misinformation relating to potatoes' effects on health.

It will use research that the Alliance for Potato Research and Education has been investing in for the past 15 years as well as additional research that has not been funded by the industry, to respond to incorrect statements about potatoes.



384 diploid clones now assessed by researchers



FEDERAL scientists in Atlantic Canada who are trying to develop a new breed of potato better equipped to deal with climate change, have now evaluated 384 diploid potato clones for drought tolerance and plant maturity.

Of those, 127 were found to be late-maturing and tolerant to drought conditions while nine were early to moderate-late maturing and drought tolerant.

Bourlaye Fofana, a research scientist at Agriculture and Agri-Food Canada, who is leading the research team in Charlottetown explained that they have examined wild potato varieties native to the South American Andes that show potential to help the development of a more drought-resistant potato for North American markets.

Bourlaye said he's "very excited" about the potential of the research findings.

"Because in our collection we have diploid (potatoes) that are early maturing and this means you can plant it and it can give you an expected yield as early as possible," he said. "We also have some clones that can grow over a longer period of time."

The research is seen as an important first step scientifically. About 50 of the most promising clones are being turned over to the

department's breeding program in Fredericton for further study.

At the Fredericton facility, the potato clones will be evaluated for size and shape along with yield potential and cooking and processing traits.

After that they could be released as potato varieties, or their seeds, plants or plant parts can be used in potato breeding.

Bourlaye said building resilience in crops is becoming increasingly important as conditions grow drier and hotter, even in prime growing areas in Atlantic Canada.

"With climate change the frequency of drought is increasing, especially where water resources are limited," he said. "So we need to be proactive and see how we can adapt our crop and cropping system to meet these new challenges."





Earlies off to good start



APULIAN new potatoes in Southern Italy are off to a good start, with the first quantities becoming available in early May.

Yield has been lower than this time last year, while sale prices are 15-20% higher.

Milella, which specialises in the production and marketing of the potatoes, has been harvesting and selling the yellow-skinned potatoes daily while waiting to start harvesting Alouette (red-skinned) potatoes.

Sales Manager Angelo Milella said the total area invested in the current season is 80 hectares, 75% of which is planted with yellow-skinned potatoes and the rest with red-skinned potatoes. He said he was hoping for an improvement, with a minimum of 30 to 35 tons, compared to the current 20 to 25 tons.

It was hoped that the exceptionally mild winter weather had had a positive impact on the growth and production development of later transplants.

Milella sells 90% of its potatoes to large retail chains.

Hot and spicy crisps launched



SWEDISH snack producer Estrella has launched a new hot and spicy flavour of crisps.

The Creamy Sriracha flavour follows on from a limited-edition product launch in 2021 of Sriracha Mayo, which proved extremely popular with consumers.

This new 2024 flavour is vegan-friendly.



Planting under way for Euro trade show



ORGANISERS of PotatoEurope 2024, the international potato event that will take place on September 11th and 12th in the northern French town of Villers-Saint-Christophe, have completed planting work on the event's demonstration plot.

A total of 22 hectares of the Daisy variety from the French trading house Germicopa were planted by the ARVALIS research institute in North Picardy and the expected yield of 1,200 tons from the plot will go to McCain.

The entire potato chain will get together at the PotatoEurope trade fair which this year takes place in Kain, a Belgian town near Tournai.

McCain expands operations



MCCAIN Foods has unveiled plans to invest €350 million over the next five years in its French potato processing facilities to expand the company's production capacity and support the growth of its operations in France.

The funds will be directed towards McCain's sites in Harnes, Béthune, and Matougues, all located in northern and north-eastern France. These facilities, which collectively employ around 800 people.

CEO Max Koeune said the facilities have reached full production capacity and that McCain Foods is aiming to increase its overall French production capacity by 25%.

French President Emmanuel Macron recently visited the Matougues factory, whose modernisation will account for €25 million of the investment. This facility produces around 650 tonnes of frozen fries per day, with half of the output sold domestically and the other half exported.





Packer's fleet powered by spud waste

IRISH potato packer and processor, Wilson's Country, has been reducing its greenhouse gas (GHG) emission levels by the 4.5 tonnes of carbon dioxide (CO2) equivalent per week, since the beginning of the year.

It has been working in collaboration with Lisburn-based haulage business, McCulla Ireland, which operates a fleet fuelled by "green biogas" for downstream transportation and logistics.

Wilson's Country Managing Director, Lewis Cunningham said the company's outbound goods, destined for customers throughout the island of Ireland are transported in lorries that are fuelled with biogas produced courtesy of McCulla's anaerobic digestion plant.

He said: "This has helped us to reduce our scope 3 GHG emissions by an amount equal to 4.5 tonnes of carbon emitted a week. The environmental impact of this is comparable to planting 625 trees per week, which over one year would be equal to 30,000 trees."

Lewis said the company had recently invested in its own anaerobic digestion plant.

"Fuelled for the most part by potato waste from the business, it is already producing 60% of the electricity that we need on an annual basis," he said.

"This commitment alongside other initiatives on site has helped us to secure a 78% reduction in Scope 1 & 2 emissions from our baseline year, compared to our most recent reporting year."

Used machinery sale aids charity

POTATO PLANTER and harvester manufacturer AVR recently held its second Green Select Day, offering growers and farm managers the opportunity to discover a range of used machines.


The machines were then sold during a live auction, with the proceeds and auction fee being donated to the 'Warmste Week', a Belgian solidarity campaign whose theme this year is 'Together against loneliness'. Within that theme, several charities will be supported.



GREENCROP

Find us online at greencrop.co.uk

UK DEALER
& SERVICE SUPPORT



IRRIGATORS & PUMPS AVAILABLE



Contact: Matthew Hipperson
07881 787997 | matthew@greencrop.co.uk

Say growth, say **Agrico.**

**Specialist breeder and
supplier of high grade
seed potatoes**





Manitou

**High yielding
table variety with
good skin finish
and great flavour.**

For more information on any of our varieties
Call: **01307 840 551**
Email: potatoes@agrico.co.uk
www.agrico.co.uk



[@agrico_uk](https://twitter.com/agrico_uk)

[@AgricoUK](https://facebook.com/agricouk)

[in Agrico UK Ltd](https://linkedin.com/company/agrico-uk)



Auto first for Scotland

SCOTLAND's first autonomous tractor has been unveiled by SoilEssentials, a provider of precision farming solutions.

Developed and manufactured by AgXceed BV in The Netherlands, the AgBot was showcased for the first time on the SoilEssentials stand at the Royal Highland Show in 2022 and has since undergone continuous refinement. A range of three models is now offered, including one-tracked and two-wheeled options.

The three models available are the tracked 5.115T2, 3-wheel 2.055W3 and 4-wheel 2.055W4 with prices starting at £300,000 for a tracked model, depending on specification.

AgXceed has partnered with SoilEssentials, making it service and distribution provider for Scotland and Northern England, to offer the AgBot in Scotland.

Hardware Director at SoilEssentials, Graham Ralston, said: "With its advanced features and capabilities, the AgBot empowers farmers to optimise operations, minimise labour in repetitive, routine field tasks, and maximise yields, ultimately contributing to a more resilient and prosperous agricultural sector."

The AgBot is suitable for soil preparation, seeding, inter-row weeding, mowing and ridging.

The tracked demonstration model is being utilised to showcase its capabilities in both closed one-to-one scenarios and open, wider capacities.

Further demonstrations will be held throughout the UK. Dates will be announced.



Remote support for processors

REMOTE support for sorting systems has been introduced by manufacturer Key Technology.

Service technicians can now connect to optical sorting machines to provide real time monitoring and technical support, with a 24/7 support centre available and delivery of quarterly status reports.

The manufacturer says the new service, RemoteMD, will help to optimise performance and enhance food safety, while reducing service costs and maximising machine uptime. It should also help to plug the skills gap as food processors are finding it more and more difficult to hire and retain technology experts, it added.



New dual tech slicer introduced

A NEW potato slicer featuring dual rotation technology has been introduced by Belgium company FAM STUMABO, which develops industrial machines for cutting, slicing, and dicing potato crisps and chips.

The new Scalibur™'s cutting head and impeller rotate for a controlled and gentle cutting process.

Whereas potatoes were previously pushed against a static knife, the Scalibur features a rotating blade that slices through the potato at a lower speed. This, combined with the independent centrifugal force of the impeller, minimises impact damage to the potato's cell structure. The slicer has powerful dual stainless steel motors (3.7 kW) and variable frequency drives for fine-tuned differential speed adjustments.

It is supplied with a full range of interchangeable cutting heads for flat, crinkle or V-cut slices or sticks in many dimensions.



Remote sensing project using light to simply crop monitoring

AN Aston University photonics expert has received a Royal Society Industry Fellowship grant to help make crop monitoring easier and cheaper with remote sensing technology.

Dr Sergey Sergeyev of Aston Institute of Photonic Technologies (AIPT) has received £174,000 to improve polarimetric LIDAR, a technology that uses light to remotely observe plants.

LiDAR, an acronym for Light Detection and Ranging, involves light sent from a transmitter which is reflected from objects. Devices with this technology can be placed on drones and flown over crop fields to provide real-time information about crop health to help farmers forecast the success of their crops.

Polarimetric synthetic-aperture radars (SARs) and polarimetric LiDARs are the most advanced, cost-effective sensors for crop monitoring. They are often used onboard aircraft and satellites and have been in use for three decades.

However, current polarimetric LIDAR systems have low spatial resolution, a slow measurement speed and use expensive components that limit their cost effectiveness.

Sergey will be working in collaboration with Salford-based digital and AI farming company Fotenix to meet farmers' need for a cost-effective solution to check if their plants are adequately watered and disease-free.

The team will aim to advance recently patented AIPT technology of the polarimetric LIDAR, making it affordable for farmers in the UK and worldwide.

The project, called POLIDAR, will run from 2024 to 2025.

Sergey said: "Aston University's patented technique will be modified by using a laser emitting four time-delayed pulse trains with different states of polarisation. By comparing the input states of polarisation and states of polarisation of light reflected from plants, it will reveal information about the distance to plants and plants' leaf texture, such as water stress and pathogen infection. Unlike state-of-the-art solutions we suggest an all-fibre design with a minimum number of bulk components that reduces the footprint, cost and weight.

He added: "My project's motivation is driven by the global and UK agenda on increased food production, requiring novel remote sensing approaches towards ICT farming.

"As declared at the World Summit on Food Security in 2017, the growth in the world's population requires increased and more efficient agricultural production.

"Remote sensing is an essential tool to systematically address the challenging task of enhanced agricultural efficiency by providing real-time information about crop traits for yield estimation."



Worldwide demand for updated big bag and box filler

THE latest model of Tong's popular UniFill big bag and box filler has seen record demand in the first quarter of 2024 thanks to the introduction of a new HMI control system.

Sales Director Charlie Rich said the UniFill has always been popular machine with UK and export and there had been a 'surge' in demand for the updated machine, which now features easy-to-use HMI touch screen controls that mean filling capabilities can now be easily selected and controlled.

"The introduction of our proven Auto-Touch HMI control systems across our box and bag filling range is bringing enhanced control alongside intelligent diagnostics and safety modules, resulting in exceptionally efficient and high-performance filling solutions," he said.

Charlie said users can quickly change machine set-up, selecting their filling requirements from a wide range of custom-determined bag and box sizes as well as crop types. In addition, when coupled with integrated weigh platforms, the UniFill can be programmed to fill to weight, with the option to add data capture and recording facilities to improve stock control and crop traceability.

The UniFill features two lowering finger-flighted crop conveyors that cradle crop deep into big bags or boxes, ensuring the gentlest handling alongside even filling of both, and Charlie said the company continues to work with potato producers worldwide in its bid to make handling solutions are seamless as possible.

"The demand for our latest UniFill demonstrates an ongoing focus within the industry to maximise efficiency through automation," he said.



Giving nature a helping hand

Peter Skelsey, Research Leader, Information and Computational Sciences, at the James Hutton Institute discusses technology's role in safeguarding the future of Scotland's potatoes.

THE importance of potatoes to Scotland's economy is undeniable, with our seed varieties being world renowned for their premium quality.

The industry north of the border underpins UK potato production, which represents a total value of £4-5 billion across all upstream and downstream sectors.

But the long-term sustainability of this key crop continues to be threatened by a number of factors. This has been highlighted by the increasing levels of potato virus Y (PVY) and potato leaf roll virus (PLRV) being detected across Scotland, UK-wide and Europe.

Both these viral diseases are transmitted by aphids and often result in growth disorders, leaf symptoms, and most worryingly, yield losses. The diseases have been on the rise for a number of reasons, including changing weather patterns and loss of important aphicides. However, the limitation of current management strategies that include accurate predictive models, to support decision-making, continues to cloud the future sustainability of potato yields.

The development of such models could be the key to safeguarding Scotland's potato yields in the future. Research at the James Hutton Institute in Invergowrie analysed datasets provided by SASA on the prevalence of 10 different potato viruses from 65,450 seed potato lots across Scotland between 2009 and 2022. The data-led study used mapping and models to accurately track the instances of potato viruses over the 14-year period, highlighting different patterns of spread in different areas of the country, and revealing the importance of various drivers of outbreaks. While the research concluded that eight of the 10 diseases were relatively insignificant to overall potato crop health, instances of PVY doubled, and PLRV increased eight-fold during the period.

Anonymised mapping work was performed using ArcGIS to track virus incidence rates. This provided the first evidence of spatial and spatiotemporal patterns of virus incidence at the landscape-scale and revealed striking differences in long-term disease outcomes. For example, incidence rates of PVY were consistently high in Angus for over 90% of the study period, whereas they were consistently low over 90% of the study period in production areas around Inverness. In general, the research found that growing locations further north saw lower instances of disease, while growing areas further east were at higher risk of disease breakout.

Machine learning was then used to develop a model to predict the patterns of disease, and this revealed the importance of a number of crop and environmental variables for predicting virus outbreaks, such as crop location (latitude, longitude), surrounding potato crop density, and temperature variables.

Further funding awarded

The success of the research has led to a further funding award from The Plant Health Centre to develop new national warning systems for PVY and PLRV using state-of-the-art machine learning techniques. This new project began in April and will run until January 2025.

The new project will build upon the previous research and harness machine learning technology to further unlock the power held within this rich source of data, in order to develop national-scale and localised models that can accurately predict PVY and PLRV risk. Machine learning is an ever-changing and always-learning tool, utilising increasingly diverse datasets to build a constantly refined model. The models developed at Hutton will provide decision support tools for the

*Peter Skelsey,
Research Leader,
Information and
Computational
Sciences, at the
James Hutton
Institute.*



potato industry, giving growers the chance to adequately prepare for and minimise the negative effects of disease outbreak.

However, and arguably most consequentially, the application of these models could have a huge impact on farmers and growers by highlighting practices that encourage disease spread, leading to improving production techniques. The collaborative nature of this research and objectives are aligned with Scottish Government/SASA and stakeholders from the Scottish Aphid-Borne Virus Working Group, who are aiming to improve seed and ware potato health.

The data also has the potential to influence policymakers and future policy through the implementation of additional evidence-based control measures going forward for the benefit of the industry.

Despite a range of challenges, Scotland's potatoes remain in a strong place. Our seed potatoes are famous for their excellent quality and while rises in disease rates have been notable, the overall disease severity levels remain very low.

However, the future is less clear for this beloved crop. By embracing technology, our industry can allay its fears and use ever-improving models to minimise the damage of disease and better implement effective farming methods that get the most out of the humble spud. **PR**

Harvest system secures Scottish supplier

MACHINE-learning driven crop insights tool HarvestEye, which can help potato growers, packers and processors, has secured a distributorship in Scotland, teaming with agricultural and machinery supplier Agricar.

Falling ahead of harvesting season, Agricar will be responsible for the distributorship of the HarvestEye 2.0 and HarvestEye Handheld systems.

The technology, which fits to harvesting or grading equipment, delivers visibility on the size, shape and mapping variability of potatoes via an online portal and daily reports. It can deliver fast crop measurement to a high degree of accuracy in challenging conditions, including low evening sun.

General Manager at HarvestEye, Harry Tinson, said: "As a premier supplier with vast experience on the needs and challenges facing Scottish farmers, Agricar is the ideal distributor to help scale our operation in Scotland. The relationship will provide the visibility and ease of access to our units to support growers with their potato precision harvesting requirements."

HarvestEye's accompanying handheld version, launched earlier this year, uses the power and data insight of the system to allow customers to count and size crops during pre-harvest test digs through the tablet device.

Agricar Director Derek Johnston said: "At Agricar we see HarvestEye as an ideal long-term partner. The fact that we specialise in potato machinery and GPS products makes it a perfect fit to our product offering. HarvestEye is a relatively new product in the marketplace but we feel that it can offer added value to the potato grower by giving the customer more accurate information earlier during harvest. This information can in turn be shared with the buyer or packhouses to help speed up and streamline the whole process."



New AI system piloted

BAYER is piloting an expert GenAI system to benefit growers and agronomists.

The company has been using proprietary agronomic data to train a large language model (LLM) with years of internal data, insights from thousands of trials within its testing network, and experience from Bayer agronomists around the world.

The intuitive system responds to natural language and can generate expert information within seconds. Validated by agronomists, the pilot is already unlocking productivity for Bayer teams in the United States.

Developed in collaboration with Microsoft as leading technology partner and Ernst & Young (EY) as an industry partner, Bayer is exploring ways to integrate the GenAI system into its digital offerings, and the company anticipates broad opportunities for collaboration with other agricultural offerings and partners.

Designed as a global capability, Bayer says the tool will benefit millions of smallholder farmers in the future by giving easy access to agronomic advice and product information.

Amanda McClerren, CIO and Head of Digital Transformation & Information Technology for Bayer's Crop Science Division, said: "We'll continue to use traditional AI to develop better products, and we're also committed to harnessing new GenAI technology in a thoughtful way that augments and supports knowledgeable experts across the industry."



Potato agronomy forecasts now available in myField

SYNGENTA's support tools BlightCast and Quantis Heat Stress Alert have now been coupled into one convenient and easy to use digital platform, myField.

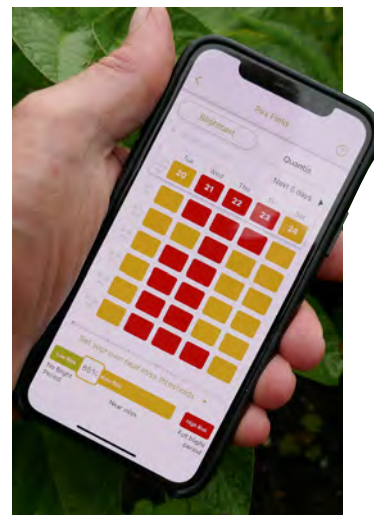
Incorporating the advice into the one myField app means growers and agronomists can receive localised warnings of potato agronomy issues on a field-by-field basis across a wide geographical area, along with other personalised weather and agronomy data.

The single app replaces the previous web-based versions of BlightCast and the Quantis Heat Stress Alert.

BlightCast gives growers and agronomists more than two weeks advance warning of conditions conducive to disease infection and development, to fine tune blight protection strategies, while Quantis Heat Stress Alert notifies when temperature events are forecast to trigger set parameters when potato crops suffer.

MyField users can map individual fields in the app to give pinpoint accuracy of all information services. When any individual field is selected in Potato Tools, MyField will instantly show its current status for BlightCast and Quantis Heat Stress, along with the option to view up to a 15-day forecast.

It retains the simple visual colour coding for low (green), medium (amber) and high (red) risk, along with the option for email notification when set thresholds are reached. **PR**





New Sales Manager for Ireland

OMEX Agriculture has appointed Luke Thornton as Sales Manager, Ireland to help build on the success of the company's liquid fertiliser campaign, which has seen rapid growth in the country over the past two years.

Luke's primary role will be to support and educate growers and distributors on the benefits of liquid nitrogen fertiliser and liquid NPKS fertiliser.

Luke is from an arable farming background and hails from South Kildare. He spent four years working as an agronomist and liquid fertiliser specialist for a Leinster-based agricultural merchant.

Specialist agtech knowledge

CULTURA Connect, a recruitment firm specialising in the food and agriculture industries, has appointed Rob Bentham as a Managing Recruitment Consultant.

With more than 15 years of experience in senior-level recruitment, Rob has extensive expertise within the agtech sector.



Budding engineering apprentices sought

MANUFACTURER of custom-built vegetable handling solutions, Tong Engineering, is on the lookout for fabricator, sheet metal worker, engineering fitter, and engineering machinist apprentices.


Applicants for the Tong apprenticeship scheme will have the opportunity to learn from experienced professionals, work on real projects, and contribute to the development of engineering solutions for the handling of potatoes, destined for growers and producers in the UK and worldwide. They will be based at the company's manufacturing facility in Spilsby, Lincolnshire.

Process Improvement Manager Jim Worley said: "We are proud to say that several of our engineers started as apprentices at Tong, including some of our management team."

For more information, visit www.tongengineering.com/careers.

Europatat elects new Vice-President

EUROPEAN Potato Trade Association, Europatat, has elected a new Board to lead the association for the coming year and welcomed Vlastimil Rasocho as its Vice-president. Vlastimil Rasocho represents the Czech Potato Association (CBS) and has been a member of the Advisory Committee of Europatat since 2022. He replaces outgoing Vice-President Domenico Citterio (Fruitimprese, Italy), who has on Europatat's Board for the past eight years. Tigran Richter (NORIKA, Germany) will continue as President and Heero Gramsma (Luonnosta Holland) as Treasurer.

If you have made a recent appointment or would like to tell us about someone in a new role, please contact the editor at stephaniecornwall@warnersgroup.co.uk 



POTATO SACKS

East Riding Sacks Limited

The UK's leading manufacturer of high quality paper sacks

**Full Colour Designs, Quality Papers,
Fast Deliveries, Competitive Prices**



East Riding Sacks Limited.

Full Sutton Industrial Estate,
Stamford Bridge,
York YO41 1HS

Tel: +44 (0) 1759 371366
Email: sales@eastridingsacks.co.uk
www.eastridingsacks.com



Now it's time for ethylene gas

Restrain offers a unique and innovative solution to get the most out of the stem growth of your seed potatoes or suppress your sprout growth without residue at a fair price!

Sprout control: Restrain technology effectively inhibits the growth of sprouts on potatoes by utilizing a continuous very low concentration of ethylene gas. This natural and chemical-free approach ensures that potatoes stay fresh and marketable for longer periods.

Efficacy: Ethylene inhibits sprouts, maintains quality and has similar weight losses compared to chemical sprout inhibitors.

Great value: the best alternative to replace CIPC.

Flexibility: As there is no harvest interval for Restrain ethylene growers, distributors and factories optimise supply chain flexibility throughout the year.

Sustainable solution: Restrain technology offers an ultra low carbon footprint and residue free alternative for sprout control.

Easy implementation: Restrain's hassle free technology is easy to implement, making it suitable for both small and large-scale potato stores.

Energy savings: The Restrain CO2 extractors control CO2 levels and reduce the running times of the main fans.

Contact us directly via
Dan.Hewitt@restrain.io
or visit restrain.io for more information.

Restrain

Designed for specialists BY SPECIALISTS



Energy management

- Maximal use of the power supply
- Optimal utilisation of self-generated energy
- Consistent product quality
- Completely integrated in Vision Control



FARM ELECTRONICS

→ THINKING AHEAD

FARMELEC.CO.UK

L EVANS AND SON (HEREFORD) LTD

2018 GRIMME GT170S HARVESTER
DOUBLE M/SEP, 10+8MM SEGMENTS, WHEEL DRIVE
WINDROWER
£85,000

2013 GRIMME GT170S HARVESTER
DOUBLE M/SEP, 10+8MM SEGMENTS, WHEEL DRIVE
WINDROWER. V.G.C
£65,000

2013 GRIMME GT170S HARVESTER
DOUBLE M/SEP, 10+8MM SEGMENTS, WHEEL DRIVE
WINDROWER
£55,000

2012 GRIMME GT170S HARVESTER
RS/M/SEP, HYDRAULIC WEB DRIVE, WINDROWER
£40,000

VIEW OUR WEBSITE

L EVANS & SON (HEREFORD) LTD

Crown House
Canon Pyon
Hereford
HR4 8PE

www.len-evans.com

01432 830722

sales@len-evans.com

National Farm Management Conference

THE National Farm Management Conference will return to the QEII Centre in London on November 7th.

Run by the Institute of Agricultural Management (IAgrM), this year's conference will explore intelligent management for the future, covering innovations in intelligent farm systems and how people management and a range of new technical and business skills, including automation and artificial intelligence (AI), remain vital to success.

The one-day event will feature a range of speakers from across the industry and include an opening session from Máximo Torero, Chief Economist at the UN Food and Agriculture Organisation (FAO).

He will set the global scene with a view on commodity prices, input costs and outline the challenges of scarcity of supply and cost inflation.

John Shropshire, Chair of G's, one Europe's leading vertically integrated fresh produce businesses, will relate these issues to the management of his own business, and Andrew McLay, from Innovate UK, will look at future innovation opportunities and challenges in the agribusiness sector.

The first session will discuss people – specifically leadership in agriculture and personnel of the future, with expert insight from speakers from Harper Adams University, the Gangmasters and Labour Abuse Authority, Morrisons and Forces Farming.

Led by Lincolnshire farmer and Agreea partner, Thomas Gent will then chair a session looking at the role of automation within future agricultural management. Jack Bobo, from Nottingham University, will join the session alongside Ed Ford from

Dyson Farming and Matt Percy, Vice-President of Business Innovation with a specific focus on AI from John Deere in the USA.

To finish the day, delegates will hear from two farms on how they are leveraging high quality people with automation and innovation.



Sixth annual Arable Scotland



BALRUDDERY Farm in Dundee was preparing visitors for the sixth annual Arable Scotland event on July 2nd as British Potato Review prepared to go to press.

The all-day field event organised by the James Hutton Institute and AHDB was set to explore innovative practices for sustainable and resilient farming, with workshops, working machinery demonstrations, research and industry exhibits, as well as a series of seminars chaired by David Webster, Chief Executive of LEAF (Linking Environment And Farming) to encourage discussion about the future of arable farming.

Research Leader in Agroecology at the James Hutton Institute, Dr Alison Karley, said: "Our farming future is entering a new era, with a variety of factors changing the outlook of the arable sector. Agriculture is already having to cope with climatic shifts, while at the same time trying to reduce its environmental impact, its contributions to further climate change, and still turning a profit.

"Arable Scotland offers a unique platform in Scotland for knowledge exchange and inspiration, between farmers, agronomists, suppliers, processors and scientists - encouraging the adoption of practices that enhance sustainability and resilience in farming."

Show gears up for 10th anniversary

MIDLANDS Machinery Show, which will take place on November 20th and 21st, celebrates its 10th anniversary at the Newark Showground this year.

There are expected to be around 200 exhibitors, with 150 stands already booked. Agricultural businesses to showcase their latest range of tractors, machinery, services and technology to farmers, machinery operators, contractors and landowners.

Organised by agricultural charity, the Newark and Notts Agricultural Society (NNAS), the show will feature a discussion about what impact the result of the general election is likely to have over the next five years and the National Farmers' Union will host an environment conference on the first day of the show.

The safe operation of machinery, both in the field and on the road, will be covered by experts from LANTRA, Western Power and Lincolnshire Police.

Harvester and methane-powered tractor to be demonstrated

A FOUR-ROW self-propelled potato harvester and a methane-powered tractor will be demonstrated at the Great Yorkshire Show, taking place from July 9th to 12th.

The machinery displays by GRIMME and Russells are amongst several attractions at the event, which will take place at the Great Yorkshire Showground in Harrogate.

Harvesting, handling and loading demonstrations

LINCOLNSHIRE-based Dyson Farming is hosting an event in September where harvesting, handling and loading will be demonstrated.

Trial plots have now been prepared for the event where new technologies in weed reduction, crop protection and inputs and irrigation systems will be demonstrated.

The event, organised by the German Agricultural Society (DLG) will take place on September 4th and 5th at Nocton.

Fresh produce celebration

THE Fresh Produce Consortium's annual Fresh awards take place at the Marriott Grosvenor Hotel in London on September 27th.

BRADLEY REFRIGERATION

A Sub Zero Holdings Company

Over 60 years serving the agricultural industry with energy efficient crop cooling solutions. Including supply, installation, maintenance and repair of all types of refrigeration.



T: 0114 553 7785
E: agriculture@bradleyref.com
www.bradley-refrigeration.com

Agri Web



- Rubber grading screens
- Rubber web covers
- Sample riddles
- Perforated washer belts

Tel: +44 (0)28 91 275913
Fax: +44 (0)28 91 275563
Web: www.agri-web.co.uk
E-mail: info@agri-web.co.uk

Broadwater Machinery Ltd



K54 – Europe's best selling agri box rotator for any handler



K80 forward tippler gentle & quick box tipping. Very adaptable & easy to operate

BOX ROTATORS & FORWARD TIPPLERS

01728 723221 or 07747 030738
E: broadwatermach@yahoo.co.uk
W: www.broadwaterltd.com

ROTATING AHEAD IN THE FIELD

BAKER SEEDS

Quality Seed Potatoes

Independent Producers & Suppliers of UK, Imported New & Established Varieties

Including: Agria, Babylon, Camel, Charlotte, Edison, Electra, Estima, King Edward, Lanorma, Manitou, Marfona, Markies, Maris Peer, Maris Piper, Melody, Miranda, Nectar, Orchestra, Panther, Ramos, Sagitta, Saxon & Wilja.

T: 01366 388598 M: 07836 650105
E: baker.seeds@btconnect.com

Weekly industry news updates straight to your inbox

Just tick the relevant box and sign up for free



ADVERTISING OPPORTUNITIES ALSO AVAILABLE ON REQUEST



www.britishpotato.com - subscribe

WELVENT CROP STORAGE SPECIALISTS

Bespoke systems designed and built to suit your crop storage needs:

- Box Potato Stores
- Glycol Refrigeration
- Ambient Systems
- Louvres or Flaps
- Ventilation Ducts
- Servicing



- Bulk Potato Stores
- Fans
- Tunnels
- Inverter Panels
- Fan Houses
- Automatic Controllers



WELVENT LTD
Whisby Way, Whisby Road
Lincoln LN6 3LQ

T 01522 693008
F 01522 500429
E enquiries@welvent.com

www.welvent.com

AGRIWELD

BOX ROTATORS
 6 MODELS FOR ALL APPLICATIONS
 0.5 - 4 TONNE CAPACITY
 2 YEAR WARRANTY

01377 259140
 sales@agriweld.co.uk
 www.agriweld.co.uk

**TO ADVERTISE
 PLEASE CALL
 THERESA ON
 01778 392046**

theresag@warnersgroup.co.uk

KEEP UP TO DATE WITH THE LATEST INDUSTRY NEWS



British POTATO REVIEW

FOLLOW THE LINK OR SCAN THE QR CODE

www.britishpotato.co.uk

SPRAY FOAM INSULATION
 Specialists in agricultural buildings. Over 50 years combined experience in the spray foam industry. For a competitive quotation and free site survey.

CONTACT R&S INSULATION LTD
 07538255518
 07818073625
 www.sprayinsulationcompany.co.uk

BOX ROTATORS FORWARD TIPPLERS
 Largest range on the UK market. Controlled and gentle handling for low box and produce damage. Machines are interchangeable between forklifts and telehandlers. For all year round operation. Whatever your requirement, a machine to meet your needs

Broadwater Machinery
 Phone 01728 723221
 or 07747 030738
 broadwatermach@yahoo.co.uk
 www.broadwaterltd.com

POTATOES WANTED
 W & J Brooks Ltd, potato packers of Leicester, are looking for best, bold washing quality potatoes that are box stored. Excellent prices, promptly paid. Collection ex-farm by our own transport.

Call Bill Brooks on
 0116 2448388

SPRAY FOAM INSULATION POTATO AND ONION STORE SPECIALISTS

- UK market leaders
- Unbeatable quality & price
- Stop condensation

Also farmhouses and barn conversions, 'change of use' buildings (e.g. workshops)

WEBSTERS INSULATION LTD
 Tel: 01405 812682
 Fax: 01405 817201
 info@webstersinsulation.com
 www.webstersinsulation.com

Helping to build a better planet...

Potato Review is printed by our sister company Warners Midlands Plc who have some excellent eco credentials. We here at Potato Review, like many of our readers, are concerned about the future of our planet, so we'd like to share a few facts about our printer:

- The in-house printing facility reuses or recycles more than 99.98% of materials used on site.
- Our paper comes from sustainable European forests that have been growing by over 1,500 football pitches in size every single day.
- We are certified to ISO 14001, an internationally recognised level of environmental quality.
- We are proud to be doing our bit to cut our reliance on single use plastics by mailing out using fully compostable bioplastic packaging produced from potato starch. It's one small step towards reducing the environmental impact of our industry while also helping to promote an alternative market outlet for the crop.

So next time you open your copy of Potato Review you can be sure that we are working as hard as possible to minimise any environmental impact.

New and updated standards launched

GLOBAL regenerative agriculture programme, regenagri® has launched several new standards to enhance sustainability and traceability of food produced regeneratively and add quantifiable criteria behind regenerative claims.

The Content Standard sets requirements for the content of regeneratively-grown products from farm to final product. The main changes to this standard include new requirements for transaction certificates and additional traceability systems in addition to transaction certificates and due diligence. The long-term goal of this voluntary standard is to increase regenerative agriculture production.

The Chain of Custody (CoC) Standard is applicable to food products and their supply chains and has been updated to require a minimum of 80% regenagri certified content. This standard also includes traceability assurance, regulatory requirements and segregation throughout the supply chain.

The Insetting Standard allows licensed organisations to inset impact generated at farm level. The impact claims can be made within the same supply chain and in accordance with the requirements of the standard.



The new regenagri Claims Requirements Overview provides guidance on making marketing, product, commitment and impact claims linked to regenagri certified farms and products.

Analysis tool used by Clarksons Farm

OMEX SAP analysis, which is part of the company's sustainable farming system, has been included in the latest hit series Clarksons Farm as part of its commitment to regenerative agriculture.

Clarksons Farm utilised SAP analysis to understand what nutritional deficiencies one of the farm's regenerative agriculture wheat crop was struggling with. The data from this report allowed Clarksons Farm to supply the crop with the correct level of nutrition.

Regenerative agriculture bases its principles on crop health and promoting soil health. OMEX Agriculture developed SAP Analysis as a management tool that accurately analyses 17 key nutrient levels that are actively available for growth.

The agronomist-supported SAP report provides comments on crop nutrition options that aim to help farmers make the most

effective agronomic decisions on farm. This scientific data plays a key role in regenerative agriculture practices and continues to provide farmers with accurate data to make sustainable input applications.

"SAP Analysis continues to grow in popularity as agrochemicals in our armoury are reducing, so farmers are turning to nutrition to increase plant health to aid healthy and high yielding crops," OMEX's National Agronomy Manager, Scott Baker, said.

"Agronomic decisions should always be science-led and we're able to provide farmers with accurate information to make informed crop nutrition decisions."



Team Sprayers manufactures 20,000th sprayer

TEAM Sprayers has manufactured and sold its 20,000th sprayer.

The Club 800 sprayer, a tractor-mounted ground care sprayer, destined for Tractor Services CL Ltd in Jersey, made its way out of the Ely-based factory in May, 43 years after the company was established.

Team Sprayers was established in 1981 by Robert (Bob) Hubbard following the closure of Dorman Sprayers. Seven of Dorman's employees transferred across to Team bringing a combination of skills and knowledge, which were an essential starting block for the newly founded company. Leveraging their skills and knowledge, Team has worked hard to become a respected market leader in the production and manufacturing of its range of sprayers and applicators.

Managing Director Danny Hubbard said, "We are incredibly proud to have manufactured and delivered our 20,000th sprayer. It is testament to both our sprayers' build and our service quality that we have secured enough orders in the last 43 years to have reached such a great number and we would like to thank each and every customer for supporting us."





Knowledge grows

Take Control of Potato Health



From root to tip, from tuber to chip

Yara has the perfect product to make sure you get the best from your crop this season

- **Essential nutrition** – every nutrient in every granule, apply YaraMila ACTYVA S for a consistent, even spread and maximum yield
- **Tuber initiation** - for high quality, better skin finish and help reduce IRS use YaraLiva TROPICOTE
- **Tuber building** - a large, healthy canopy means big, strong tubers use YaraVita MAGPHOS K plus BIOTRAC



For more information call Tom Decamp on 07831 282096
tom.decamp@yara.com www.yara.co.uk