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Clarkson's Farm leads the charge**



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The government confirmed on 7 May that it will launch a £5 million Investor Partnerships programme....



Farmers to access £50m grants for new tech to boost productivity

Farmers will benefit from a new £50m grant programme aimed at improving access to innovative technology designed to enhance productivity and profitability.

The England-only grants aim to support the adoption of various cutting-edge technologies to enable farmers to cut costs while improving efficiency and sustainability.

They will cover the cost of technology from seed-planting robots and pesticide spreaders, to slurry separator systems that lower dependency on expensive fertilisers.

A core element of Defra's funding is the £46.7 million Farming Equipment and Technology Fund (FETF), which will provide grants of up to £25,000 each.

These grants will support

farmers in purchasing day-to-day equipment designed to boost productivity, manage slurry, and improve animal health and welfare.

In addition to the FETF, the government confirmed on 7 May that it will launch a £5 million Investor Partnerships programme.

This initiative will combine public grant funding with private



Photo: Defra

investment, aiming to bring cutting-edge tech to market more quickly and give farmers access to new innovations.

A successful pilot programme has already demonstrated the potential benefits of the grants, including reducing reliance on seasonal labour through the introduction of high-yield broccoli harvesters.

Another project saw the

acceleration of crop growth without the need for chemicals by employing new seed cleaning technologies.

Farming minister Daniel Zeichner said: "These grants will help provide our farmers with the equipment necessary to adapt, compete, and grow no matter what challenges lie ahead.

"Equipment and technology help

drive farming forward, and we will work with investors to fund more resilient, sustainable farms, boosting profitability, productivity and food security."

Today's announcement builds on previous funding, including £45.6 million announced last month to support the development of new inventions and technologies.



Invasive species alone are estimated to cost the UK economy £4 billion annually...

£10m boost to genomic surveillance to combat costly disease threats

The UK's fight against devastating pests and diseases has been reinforced with £10m in new funding to support cutting-edge surveillance projects using genomic technology.

Defra's new funding will use genome sequencing to track and identify pathogens affecting animals, plants and aquatic life – enabling rapid response to disease outbreaks such as bird flu.

Unveiled on Thursday (8 May), the investment will back the Genomics for Animal and Plant Disease Consortium (GAP-DC), led by the Animal and Plant Health Agency (APHA). Genome sequencing, which decodes the full genetic makeup of organisms including viruses and bacteria, can provide detailed insight into how diseases spread and mutate.

When bird flu is detected in

poultry, for example, this technology enables scientists to pinpoint the virus strain and trace its route of transmission, aiding containment efforts.

The economic stakes are high: invasive species alone are estimated to cost the UK economy £4 billion annually, while plant diseases such as ash dieback are predicted to incur losses of £15bn in the coming decades.



Avian influenza has already cost the poultry meat industry over £100m in just two years

Livestock outbreaks, including avian influenza, have already cost the poultry meat industry over £100 million in just two years.

APHA interim chief executive, Dr Jenny Stewart warned that disease presented a significant risk to farmers, global trade and human health.

She said: "This vital funding and collaboration with world leading

experts will help APHA identify and tackle disease risk more effectively.

"This research will lead to significantly advanced surveillance capabilities to protect UK borders from new and existing threats."

The research, conducted in partnership with seven expert institutions, will aim to improve the speed and precision of

pathogen detection at UK borders.

It will also respond to both emerging and established disease outbreaks, as well as explore spillover events—where diseases jump from wildlife to humans or domestic animals.

The funding, provided by Defra and UK Research and Innovation (UKRI), will support surveillance work over the next two years.

Animal health is more important than ever, with Johne's disease costing farmers tens of millions around the UK each year...



New AI-driven test targets 'silent killer' in UK cattle

A pioneering new diagnostic approach could revolutionise the fight against Johne's disease - dubbed the 'silent killer' for its ability to spread undetected through herds.

Scientists have made promising strides using microRNA (miRNA) profiling combined with artificial intelligence to identify the disease earlier and more accurately.

Their work, a collaboration between MI:RNA Diagnostics and Scotland's Rural College (SRUC), may lead to improved herd health, lower farm losses, and reduced environmental impact.

Johne's, a chronic inflammatory condition primarily affecting cattle and sheep, costs UK farmers an estimated £200 per cow annually and drains around £10m from the agricultural economy each year.

Prevalence rates of up to 50% within herds have been reported, yet the disease often goes undiagnosed due to the presence of symptom-free carriers.

"Animal health is more important than ever, with Johne's disease costing farmers tens of millions around the UK each year," said Eve Hanks, founder of MI:RNA Diagnostics.



Johne's disease costs UK farmers an estimated £200 per cow annually

"Biomarker science combined with our AI-powered modelling means that we can significantly improve animal health, reduce financial strain on farmers, while also reducing greenhouse gas output as a result.

"We believe miRNAs can assist with progressing future diagnostic testing and understanding diseases more effectively."

Current diagnostic methods have limited sensitivity, making it difficult to detect the disease early enough for effective intervention.

However, miRNAs—small molecules that regulate gene expression—can offer a stable, easily detectable biomarker for infections.

Studies have shown changes in miRNA levels during early stages

of *Mycobacterium avium* subspecies paratuberculosis (MAP), the bacteria responsible for Johne's.

The MI:RNA Diagnostics study analysed miRNA expression in infected and healthy cattle samples.

Using machine learning techniques, researchers developed a predictive model that shows potential for distinguishing diseased animals with improved accuracy.

Although the study was small in scale, researchers say the results are encouraging and pave the way for further trials to validate the method and enhance its precision.

SRUC has been at the forefront of Johne's control via the Premium Cattle Health Scheme for over 25 years.

Prof Spiridoula Athanasiadou, of SRUC, said: "We value our ongoing collaboration with MI:RNA Diagnostics, which has generated data that demonstrates potential for added benefits of the new tool.

"Upscaling is important for wider implementation and further development."

Agriculture continues to hold the unenviable title of the UK's most dangerous industry...

New life-saving first aid app to support farmers in crisis



A ground-breaking emergency response app that could mean the difference between life and death for injured farmers is set to soon launch.

Charity RABI has unveiled plans for FarmersAid is designed to equip farmers with critical, real-time trauma guidance in the aftermath of serious on-farm accidents.

At the heart of the new programme is a free app offering step-by-step instructions for managing life-threatening injuries—such as crush incidents, falls from height, and severe bleeding.

The app will guide users through essential first-response actions during the vital minutes before emergency services arrive.

Alicia Chivers, chief executive of

RABI said: "It's unacceptable that too many farming families are devastated by what are often preventable tragedies, with lives being lost due to a lack of understanding on how to administer immediate critical care at the scene.

According to the latest figures, agriculture continues to hold the unenviable title of the UK's most dangerous industry.



On average, 31 people lose their lives on British farms each year, according to industry figures

Despite employing just 1% of the workforce, it is responsible for approximately 20% of all workplace fatalities.

On average, 31 people lose their lives on British farms each year, with thousands more sustaining serious, life-altering injuries.

Ms Chiver said: "Unfortunately, serious accidents do still sadly occur and we believe FarmersAid will be a powerful, practical tool

that could make the difference between life and death"

The app has been developed in collaboration with leading experts in rural emergency medicine, including Professor Cathy Jackson and Professor Stuart Maitland-Knibb.

It is designed to address the so-called 'platinum ten minutes'—the critical window where swift bystander

intervention can significantly improve survival rates.

"Emergency services often face delays reaching rural farms. This means the first few minutes are absolutely critical," said Professor Maitland-Knibb, a consultant with Helicopter Emergency Medical Services (HEMS).

"That's where FarmersAid can help. It has the power to save countless lives in our farming communities."

In addition to the app, FarmersAid will feature on-farm trauma kits, first aid training pilots, mental wellbeing referrals, and education outreach initiatives aimed at embedding critical care awareness in the sector.

The programme will launch with a national roadshow and awareness campaign throughout 2026, including giveaways, printed materials, and outreach at major agricultural events.

Jeremy Clarkson, known more for mayhem than management, tests the tech to the test in the latest season of his Amazon Prime

A close-up photograph of a Highland cow with thick, shaggy brown fur and a single prominent curved horn. The cow is wearing a black GPS collar around its neck and a yellow identification tag on its ear. The background is a clear blue sky.

Virtual fencing gains ground as Clarkson's Farm leads the charge

Virtual fencing has hit the mainstream and is reshaping how farmers manage livestock, with the technology in the spotlight in the latest series of Clarkson's Farm.

Seen in action on goats at Diddly Squat Farm, the technology replaces traditional physical fences with GPS-enabled collars and a smartphone app.

This allows farmers to set and

adjust virtual boundaries, monitor animal movements, and remotely manage grazing plans.

The system is now gaining widespread traction across the UK as a sustainable and efficient tool for modern livestock farming.

Jeremy Clarkson, known more for mayhem than management, put the tech to the test in the latest season of his Amazon Prime hit.

Using the technology developed by company Nofence allowed him to deploy goats in hard-to-reach, overgrown parts of his Oxfordshire farm to tackle dense bramble thickets.

"When they were fully compliant, I could release them to do the job I bought them for in the first place, which was to clear the brambles in all the inaccessible parts of the farm," Clarkson said. "In 5 minutes one bramble bush



Virtual fencing is reshaping how British farmers approach livestock management (Photo: Nofence)

is really in trouble. That's fantastic."

The system uses audio cues that increase in pitch as an animal nears a virtual boundary, followed by a mild electric pulse — significantly gentler than traditional electric fencing — only if the animal continues.

With most livestock adapting quickly, around 96% of boundary interactions are resolved with sound alone.

While Clarkson's goats have introduced the concept to a mainstream audience, farmers across the UK have been adopting the technology.

Proponents of it say it helps them to lower labour costs, improve animal welfare, and make better use of land once too difficult or costly to graze.

In Pewsey, Wiltshire, cattle farmer James Waight turned to

it to improve oversight and reduce workload. "It means that we can keep really good tabs on the health and welfare of the cows," he explained.

"A cattle bovine's instinct is to be a herd and if there's an animal sort of straying or flagging away from the herd it's quite a good early indication that its health is an issue."

In the uplands of Wales, sheep and cattle farmer Hywel Morgan is running his second year of university-backed trials using Nofence.

"The sheep responded really well and adapted quickly — it's impressive," he said. "I've gained around 200 extra acres for conservation grazing, thanks to the flexibility it offers."

Founded in Norway in 2011 by goat farmer Oscar Hovde, Nofence is the world's first commercial virtual fencing system for livestock.

from 2027, electronic identification (EID) using low frequency technology will become mandatory for all new-born calves.



Mandatory EID tags to transform cattle disease control in England

The government is set to revolutionise cattle farming with mandatory electronic ID for all newborn calves from 2027, in a bid to boost disease control and trade.

From summer 2026, new regulations will be introduced to simplify cattle identification, registration, and movement reporting.

Most notably, from 2027, electronic

identification (EID) using low frequency (LF) technology will become mandatory for all new-born calves.

This technology allows animals to be scanned during movements, replacing the current system of visual checks and manual data entry.

The government's move to electronic cattle traceability aims to strengthen the UK's

ability to prevent and respond to animal disease outbreaks.

Alongside EID, Defra will launch a new cattle movement reporting system designed to make compliance easier for farmers, markets, abattoirs, and regulators.

In addition, livestock farmers in England can now apply for free annual vet visits on their farms, providing disease checks, biosecurity advice, and tailored



Sweeping changes to cattle identification and traceability have been announced for England

animal health & welfare guidance.

UK Chief Veterinary Officer Dr Christine Middlemiss explained that electronic identification was a "game-changer" for disease traceability.

She said: "It allows for faster, more accurate tracking of cattle movements, which is crucial in responding to outbreaks and maintaining our high biosecurity standards.

"This shift puts England in step with best global practice and today's early confirmation will provide the livestock industry the clarity it needs to begin preparing now."

Biosecurity Minister Baroness Hayman added that it was a significant milestone in modernising how the industry managed cattle health, welfare and traceability.

"These reforms strike the right balance in supporting farmers with clearer, simpler rules while helping the sector strengthen its productivity, resilience and global competitiveness."

The changes follow the government's 2023 Cattle Identification Consultation, which showed strong industry backing for the reforms.

“The move towards mandatory bovine EID is positive and we recognise the role of low-frequency tags...”



NFU backs livestock tagging reform but slams tech setback

The NFU has welcomed new government plans to modernise livestock traceability — but warned that sticking to outdated tag technology risks missing a major opportunity for farming.

The reforms, announced earlier this week by Defra, are due to take effect from summer 2026 and include a major overhaul of the cattle identification,

registration and reporting process.

This will see the Cattle Tracing System replaced by the new Livestock Information Service (LIS) and, from 2027, the introduction of mandatory low frequency (LF) EID ear tags for all newborn calves. LF tech is already in use for sheep tagging.

Defra argues that the switch to electronic tagging will improve

farm safety, reduce reporting errors, and strengthen the UK's ability to respond to animal disease outbreaks.

However, the NFU has consistently advocated for Ultra-High Frequency (UHF) technology, citing its greater range, ability to read multiple animals simultaneously, and benefits for on-farm management.



The union advocates for ultra-high frequency (UHF) technology, citing its greater range

"We welcome the government's investment in a new multi-species livestock traceability service," said David Barton, NFU livestock board chair.

"It's encouraging to have a clearer timeline for the introduction of bovine electronic ID for new registrations, but the system must be simple to use and incentivise digital reporting from the outset."

The NFU stressed the importance of integrating sheep and goats into the same multi-species platform as soon as possible.

Defra must also work closely with the industry to ensure the LIS continues to evolve to support better decision-making, animal welfare, and productivity.

While the union acknowledged the move towards EID for cattle

as a step in the right direction, Mr Barton expressed concern over the exclusion of UHF.

He said: "The move towards mandatory bovine EID is positive and we recognise the role of low-frequency tags, but it's disappointing UHF technology hasn't been mentioned.

"I strongly believe that UHF offers real potential to improve on-farm management and farmer health and safety. Keepers should be able to use it voluntarily in the primary tag to negate the need for a third management tag."

Defra stated that it will take a "more proportionate approach to enforcement", allowing livestock keepers to correct issues before further action is taken.

Biosecurity Minister Baroness Hayman said the new rules would "strike the right balance in supporting farmers with clearer, simpler rules while helping the sector strengthen its productivity, resilience and global competitiveness."

The Defra-funded project is led by the British On-Farm Innovation Network (BOFIN)...

Farmers harness AI to outsmart slugs in groundbreaking project

Farmers are gearing up this autumn to target slug hotspots with cutting-edge AI-powered maps, marking a major leap forward in the fight against these destructive pests.

Farmers taking part in a major research initiative are preparing to apply patch treatments against slugs, using advanced risk prediction maps to guide their efforts.

Collaborating closely with scientists and innovators, they are making significant progress in managing these troublesome pests.

The work is part of SLIMERS – Strategies Leading to Improved Management and Enhanced Resilience against Slugs – a three-year, £2.6m research programme involving over 100 farms.

The Defra-funded project is led by the British On-Farm Innovation Network (BOFIN), which hopes to develop cost-effective forecasting and precision treatment tools such as AI-powered autonomous slug monitoring, biological control methods, and investigating 'slug resistant' wheat varieties.

As the project enters its third and final year, researchers at Harper Adams University, who



The work is part of SLIMERS – a three-year, £2.6m research programme involving over 100 farms

are also taking part in SLIMERS, have developed a reliable model to predict slug hotspots in fields.

Using data gathered from farmers' slug monitoring over the previous two years, alongside detailed soil mapping and testing, the model identifies areas with a high probability of slug presence.

The next phase involves the team of 'Slug Sleuth' farmers

testing the model by applying slug pellets selectively, rather than blanket spraying. The data collected will be used to further refine the model.

Professor Keith Walters, lead researcher at Harper Adams, said: "We've known for some time that slugs gather in patches, but before SLIMERS we didn't fully understand the specific factors causing this or how to reliably locate those patches.

"Thanks to the data collected by the Slug Sleuths, we now have that understanding. We are using our predictive model to create detailed risk maps for their fields.

"In 2025-26, we are asking them to treat only the predicted slug hotspots to fine-tune the models and bring precision pest management closer to reality."

Agri-tech firms and organisations, including the UK Agri-Tech

“By harnessing AI and multi-spectral imaging, we are making progress towards in-field detection and identification of slugs.”



Centre, Fotenix, and Farmscan Ag, are developing AI-based slug detection and precision biological control using nematodes.

Charles Veys, CEO of Fotenix, explained: “Our role is to build AI-powered slug detection, right there in the field. But first, we’ve got to train the AI, and that means putting slugs in the crosshairs.”

Dr Kerry McDonald-Howard, research associate at the UK

Agri-Tech Centre, has been collecting data using Fotenix’s AI-driven multi-spectral imaging cameras, both in the lab and on farms, to identify the precise spectral signature of slugs.

Since slugs typically emerge after dark, this has involved late-night fieldwork. She said: “By harnessing AI and multi-spectral imaging, we are making significant progress towards in-field detection and identification of slugs.

“The next step is to combine this technology with precision application, enabling targeted biological control with nematodes for greater accuracy and efficiency.

“Through SLIMERS, we are translating advanced research into practical tools that could transform and future-proof slug management for UK farmers.”

Meanwhile, Farmscan Ag is



Mr Hayward discovered significant variation in slug presence even within a few metres and between different days...

developing a precision spray system with an exceptionally narrow spray width, designed to be mounted on an autonomous farm vehicle. The 20 farmers participating as Slug Sleuths have found the slug activity data invaluable. East Yorkshire farmer Adam Hayward said: "I don't feel like we're ever truly on top of slugs, and I couldn't see a long-term solution.

"There must be a better way to

control slugs, which is exactly what this project is trying to develop."

Paid for their efforts monitoring slug traps weekly and recording data via a smartphone app, Mr Hayward discovered significant variation in slug presence even within a few metres and between different days.

"It quickly became clear to me that spreading pellets across the whole field isn't the way to go," he added.

Tom Allen-Stevens, managing director of BOFIN and project lead, said that with increasing pressure on chemical controls, finding sustainable, environmentally friendly solutions has never been more important.

"What's remarkable is that soon we will have a service to offer all UK farmers that reduces reliance and spending on pellets to control one of arable farming's biggest pests."

The monitoring will also assess the impact of landscape features such as wildflower margins...



British Sugar launches high-tech drive to protect pollinators

British Sugar is set to roll out high-tech sensors to track pollinators in real time and transform on-farm biodiversity, as part of a pilot running until 2027.

The project, the first of its kind for the UK sugar beet industry, will see 27 acoustic sensors installed across a large farming estate in North Norfolk.

These cutting-edge devices,

developed by AgriSound, will collect real-time data on bee and insect activity over a two-year period, providing insights into the health of local pollinator populations.

At the heart of the initiative is AgriSound's Polly technology – a scalable and automated system that uses acoustic monitoring to detect and analyse insect movement.

The data collected will be shared with grower Ali Cargill, British Sugar, and other project stakeholders, helping to shape decisions around land use and biodiversity management.

The monitoring will also assess the impact of landscape features such as wildflower margins, hedgerows, and water sources on pollinator activity over time.

British Sugar hopes the findings



Acoustic monitoring devices will be installed on farms to track bee activity in real time

will offer insights into how sugar beet rotation, which plays a major role in the farming systems of the East of England, East Midlands, and Yorkshire, interacts with pollinator health.

Charlie Curtis, agricultural sustainability manager at British Sugar, said: "This project presents a significant leap forward in our long-term ambition to enhance biodiversity across our agricultural operations.

"We have been looking to adapt our practices to become more sustainable and supportive of biodiversity in the UK and partnering with AgriSound seemed like a natural choice for us.

"By better understanding pollinator activity, we can make more informed decisions about land use, pesticide management, and where to create nature-friendly habitats."

The aim of the project is to identify which bee species are present on the farm and understand how they interact with both crops and surrounding wildflower margins — establishing a clear baseline of activity that can be enhanced and built on each year.

Casey Woodward, founder and CEO of AgriSound, highlighted the value of real-time data in driving environmental progress.

"British Sugar's leadership in piloting real-time pollinator monitoring will provide invaluable information to support data-driven decision making by farmers in how to manage their land to protect pollinators and biodiversity.

"It is vital that more businesses and producers look to monitor the pollinator activity at their sites, to enhance the protection of our ecosystems across the UK."

The 10-year strategy names agri-tech and precision breeding as core areas of focus...



Industrial Strategy: Farming secures spot as agri-tech given core focus

Agri-tech has officially been recognised within the government's newly unveiled Industrial Strategy, in a major victory for the UK farming sector.

The 10-year strategy names agri-tech and precision breeding as core areas of focus – a move that promises greater opportunities for farmers to drive productivity.

Released on Monday 23 June, the strategy outlines a series of policy initiatives, including reducing energy costs and expediting drug approvals.

Crucially, it signals the government's intent to prioritise growth in the fastest-expanding third of the economy.

The creative industries, life sciences, clean energy, defence, financial services and

professional services have also been named core areas of focus.

Now, with agri-tech included, the farming sector is poised to play an even larger role in delivering economic value, jobs and environmental progress.

As part of the plans, the government will allocate £200m for the Farming Innovation Programme (FIP) between now and 2030, offering



Agri-tech and precision breeding have been named as core areas of focus for future UK growth

targeted funding to drive innovation in agriculture.

In addition, a new Agri-Tech Export Accelerator Programme will help high-growth agri-tech businesses identify the best international markets for their products.

Announcing what the Industrial Strategy means for agriculture, Farming Minister Daniel Zeichner said: "Driving

innovation and growth in agri-tech is a win-win for the nation.

"Not only can we create jobs, strengthen economic resilience and ensure food security is maintained, we can boost the profits of farmers and growers through innovation."

Industry groups lobbied intensively for agriculture's inclusion in the strategy, engaging with key departments

such as the Department for Business and Trade (DBT) to ensure the sector is not overlooked.

NFU Deputy President David Exwood welcomed the move, saying: "Since winning the election almost a year ago, the government has repeatedly said it wants to deliver growth.

"As the backbone of the food and drink industry – the UK's largest manufacturing sector – farming is in a great position to contribute to this.

"With the right investment, farming has the potential to be a key driver in future growth and that's why we have been pushing hard for it to be included in the Industrial Strategy."

Mr Exwood also said the NFU's Blueprints for Growth offer concrete proposals to help government achieve its objectives and would be submitted as part of the next steps.

He added: "This focus on agri-tech should help farming businesses become more productive, sustainable and resilient, and ultimately deliver even more for the British people and the government's growth ambition."

A third prototype is also scheduled for field trials later this summer...



AI-powered robots begin picking strawberries in £1m automation project

A new generation of strawberry-picking robots is being trialled on a farm in Essex as part of a £1 million initiative aimed at addressing labour shortages in UK agriculture.

The project, led by the University of Essex and funded by Defra, is currently testing second-generation robotic pickers at Wilkin and Sons' vertical strawberry farm in Tiptree.

The initiative marks a significant advancement in the development of automated solutions for horticultural labour challenges.

The latest robot design is significantly smaller and more cost-effective than its predecessor, while maintaining high levels of performance.

Equipped with artificial intelligence and machine

learning, the robot is capable of identifying ripe strawberries, picking them with precision, and packaging them in a matter of seconds.

A third prototype is also scheduled for field trials later this summer.

Dr Vishwanathan Mohan, from the university and the project's lead researcher, said: "The focus has always been on speed,



A third prototype is scheduled for field trials later this summer

precision, and the cost to build a commercially viable product.

"This season we will, for the first time, begin trialling second- and third-generation robots. At the same time, we plan to deploy the robots to harvest other crop types and labour-intensive tasks to demonstrate their versatility."

The second-generation model has been developed at a cost of approximately £20,000—around

one-fifth the cost of the first prototype trialled last year.

This reduction has been achieved through the reuse of the core 'vision-action-decision-making' software developed during earlier stages of the project.

Looking ahead, the team aims to produce five strawberry-picking robots by 2027, with each iteration becoming increasingly

compact and economically viable.

Dr Mohan added: "The ambition is to bring the cost of an outdoor rover for AgriTech applications to the same price as a laptop. We want to make cutting-edge agri-robotics accessible to everyone around the world."

The project has also led to the creation of an AgriTech spin-out company, Versatile RobotX, co-founded by Dr Mohan.

The start-up will focus on commercialising the university's research and accelerating the adoption of autonomous technologies in farming.

The AI was trained using nearly 39,000 images from across the UK...

Game-changing AI gives curlews a fighting chance in Wales



A cutting-edge AI system is giving curlews a fighting chance, transforming how landowners and conservationists detect and protect one of the UK's fastest-declining bird species.

Researchers have developed and tested a new real-time object detection model - called YOLOV10 - which uses AI to accurately identify curlews, their chicks, and 25 other species,

including foxes, deer, and rabbits.

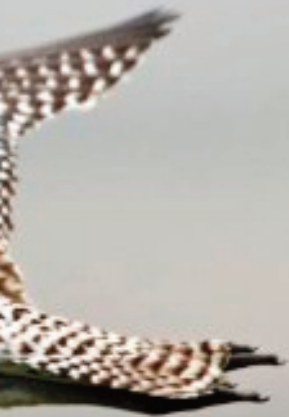
The AI was trained using nearly 39,000 images from across the UK, combining a pre-existing conservation image database with fieldwork-specific photography to ensure high recognition accuracy under real-world conditions.

The system, developed by Game & Wildlife Conservation Trust (GWCT) and Liverpool John Moores

University, was deployed at 11 monitoring sites across Wales during the 2024 nesting season.

Using mobile networks, AI-enabled cameras transmitted 1,072 images, which were processed instantly and made viewable via a smartphone app.

The system proved capable of distinguishing curlew chicks - despite their excellent camouflage - and filtered out



The AI was trained using nearly 39,000 images from across the UK

empty images triggered by vegetation movement.

It identified curlew correctly more than 90% of the time, with no false positives recorded.

Traditional methods of curlew monitoring have involved manual inspection of thousands of trail camera images - a process that is both labour-intensive and slow. This often delayed urgent conservation measures.

Katie Appleby, Curlew and People Officer for GWCT Wales and co-author of the study, called the new system a "game changer":

"Curlew is one of the fastest declining bird species in Wales, and as a breeding population it is predicted it will be extinct by 2033 if this trend continues.

"Where historically with traditional trail cameras each image would need to be sifted

through manually, we are now able to see in real time what is happening and spot the chicks when they hatch, which is very exciting.

"This allows me to focus time more effectively across the site and better support the birds."

The AI model was further enhanced through a technique known as data augmentation, which trains it to recognise animals under varying lighting, angles and conditions by adjusting image brightness and orientation.

GWCT Project Officer James Warrington said the technology is already opening up broader possibilities: "This new AI tool has allowed the team to integrate the technology in other areas of our work in Wales.

"It has created opportunities for communities, and public engagement through 'citizen scientists', to set up cameras in local environments such as gardens, land and workplaces."

This inclusive approach helps build both the AI system's image database and public awareness of biodiversity loss and species protection.

Due to ongoing conflict and travel restrictions, this trip marked the first visit to the UK for Claydon's National Territory Manager for Ukraine



Ukrainian farmers head to Suffolk to explore cutting-edge crop tech

Faced with mounting challenges at home, Ukrainian farmers have come to Suffolk to seek fresh ideas from local farmers in boosting crop production.

The delegation of Ukrainian farm owners, managers and agronomists visited Claydon, an agricultural machinery manufacturer in Suffolk, to learn more about new approaches to crop establishment.

The group, representing agribusinesses farming close to one million hectares across Ukraine - including individual companies managing up to 350,000 hectares - spent four days touring the factory and visiting local farms.

Among the visitors was Volodymyr Husiev, of Technotorg LLC, Claydon's sole distributor in Ukraine. Technotorg is Ukraine's largest agricultural machinery

sales company, with around 25,000 customers spread across 23 regions.

Due to ongoing conflict and travel restrictions, this trip marked the first visit to the UK for Claydon's National Territory Manager for Ukraine and Kazakhstan, Anatoliy Penzin, who has worked remotely since his appointment in 2020.

Mr Penzin, who speaks Ukrainian,



The group represents agribusinesses farming close to one million hectares across Ukraine

Russian, and English, collaborates with Technotorg to promote new crop establishment techniques among Ukrainian farmers.

Simon Revell, export sales manager at Claydon, noted that organising the visit took several months because of Ukraine's travel restrictions.

"The onerous travel restrictions which apply in Ukraine meant

that this visit took months to organise but was highly successful," he said.

"Farmers and supply chain businesses there face significant challenges but are keen to learn more about new developments in crop establishment and production technologies."

Since Claydon began selling machinery in Ukraine in 2017, an increasing number of farmers

there have adopted its approach, finding it helps improve the security and sustainability of their operations.

Mr Revell added: "Like their counterparts throughout the world, they are also having to deal with the agronomic and fiscal impact of increasingly unpredictable weather patterns and more stringent environmental legislation, together with greater economic pressures due to rising input costs and static commodity prices."

Ukraine's temperate climate features year-round rainfall and sufficient sunshine, with average temperatures ranging from about 7 to 9°C annually.

Summers tend to be warm, between 18 and 22°C, while winters hover between -4.8 and 2°C. Rainfall is heaviest in June and July.

Cropin, the world's largest AI platform for agriculture, will begin initial studies in Denmark...

AI-driven potato pilot takes root in UK to power regenerative farming

A UK pilot will utilise AI to help European potato growers cut carbon, boost yields, and restore soil health - all while meeting the demand for regenerative farming.

The €700,000 (£615,000) project will put AI-driven precision farming to the test, helping UK and European potato growers hit sustainability targets without sacrificing yield or quality.

The project - known as *FIRST Potato - Field Intelligence for Regenerative Agriculture and Sustainability in Potato Farming* - aims to speed up the adoption of regenerative agricultural practices.

Cropin, the world's largest AI platform for agriculture, will begin initial studies in Denmark and launch pilot trials with potato processors in both Germany and the UK.

Its AI system integrates crop-specific intelligence with real-time field data collected from sensors, satellite imagery, weather stations and Internet of Things (IoT) devices.

This technology provides predictive analytics and daily, plot-specific recommendations tailored to each farm's unique soil and microclimate conditions.

The system optimises irrigation,



The UK will serve as a trial site for the Europe-wide potato initiative

input use, and residue management to support effective regenerative practices that improve soil health, reduce environmental impact, and enhance yields - making regenerative farming both profitable and scalable.

Partnering with Aarhus University in Denmark, a recognised leader in sustainable agriculture research, Cropin will scientifically

validate the platform's performance and environmental benefits on pilot farms.

"As regenerative agriculture gains momentum, the absence of verifiable, measurable outcomes poses a real challenge to meaningful, scalable impact," said Krishna Kumar, CEO of Cropin.

"Without robust digital systems, farmers struggle to consistently

uphold regenerative principles. Through AI, data intelligence, and real-time decision-support, we are bridging this critical gap, bringing precision, accountability, and scale to regenerative agriculture."

Potato processors focus on sourcing tubers with high solid content to improve product quality, such as chips and fries, while regenerative farming supports corporate sustainability goals.

Although these practices can initially reduce yields, Cropin's precision technology helps farmers optimise inputs to maintain yields and quality while restoring soil health and boosting climate resilience.

This deployment aims to generate collective benefits across the agri-food ecosystem - increasing grower profitability, helping brands meet sustainability targets, and protecting the environment.

Ms Kumar concluded: "With FIRST Potato, our goal is to help farmers adopt climate-smart practices that are both profitable and scientifically validated."



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