

Moa Technology secures Â£900,000 Defra Funding to develop new blackgrass herbicides

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Oxford-based crop protection company targets one of England's most costly arable weeds as herbicide resistance leaves farmers with fewer effective options



Moa Technology has secured more than Â£900,000 in non-dilutive funding from the UK Department for Environment, Food & Rural Affairs (Defra) to accelerate the development of new herbicides for controlling blackgrass, one of the most persistent and costly weed problems facing English arable farmers. The funding comes through the Farming Innovation Investor Partnership (FIIP), delivered by Innovate UK in partnership with Defra. It will support Moa's advanced blackgrass control programmes as the company works to move several new herbicide candidates closer to commercialisation.

The government funding has been matched by nearly Â£2 million from Oxford Science Enterprises, taking the combined investment behind the programmes to almost Â£3 million. For farmers, the timing is significant. Blackgrass has become increasingly difficult to control as populations resistant to existing herbicides have spread across parts of the UK. The weed competes aggressively with cereal crops, reducing yields while forcing farmers to spend more on crop protection and other control measures.

Rothamsted Research estimates that blackgrass already costs UK agriculture hundreds of millions of pounds each year through lost production and higher input costs. If herbicide resistance continues to spread without effective new control options, annual losses could reach Â£1 billion. The problem is not simply the presence of blackgrass. It is the shrinking number of tools farmers can rely on to control it.

Novel herbicide modes of action are widely regarded as an important part of the response to resistance. Yet no new herbicide mode of action has become available to English farmers in the past 35 years, according to Moa. That gap has created a difficult situation for cereal growers. Once weeds develop resistance to commonly used herbicides, farmers have fewer chemical options and must increasingly rely on combinations of cultural practices, crop rotations and existing chemistry to keep populations under control.

Moa is attempting to address that problem by developing herbicides that work in different ways from existing products. The company was founded in 2017 as a spinout from the University of Oxford and has built its discovery platform around identifying previously unexplored herbicidal modes of action. It says several candidates have already demonstrated consistent performance over five seasons of field trials in England and international locations.

One of the company's most advanced programmes is a post-emergence herbicide that has shown strong activity against English blackgrass in cereal crops during both glasshouse and field trials. The distinction between pre-emergence and post-emergence control is important for growers. A post-emergence product can be applied after weeds have emerged, potentially giving farmers another opportunity to control blackgrass during the growing season.

The new Defra funding will allow Moa to accelerate development of its most advanced programmes and build a portfolio of potential products rather than relying on a single herbicide candidate. The objective is to produce new tools that can combine effective blackgrass control with safety, affordability and a practical fit within modern farming systems. Farming Minister Stephen Morgan said the government recognised the scale of the challenge facing arable farmers.

"Blackgrass is one of the toughest challenges facing our arable farmers, reducing yields and making it harder to grow crops," Morgan said. He said government support for Moa's work formed part of a wider effort to increase investment in agricultural innovation, with farming innovation funding rising to £123 million this year. "By investing in innovation and backing the brilliant researchers and businesses developing solutions for farmers, we're helping to build a more productive, sustainable and resilient farming sector for the future," Morgan said.

For Moa, the award provides public backing at a point when its research is moving from discovery towards the expensive stages of development required to establish whether new herbicide candidates can ultimately reach farmers. Dr Virginia Corless, Chief Executive Officer of Moa Technology, said the funding would accelerate development of novel herbicides and give English farmers new options for tackling blackgrass.

"Winning this funding award from the Farming Innovation Investor Partnership enables us to accelerate the development of novel herbicides which offer English farmers genuine hope in the fight to control blackgrass," Corless said. The company's development pipeline is also attracting private-sector support. Oxford Science Enterprises has committed nearly £2 million to match the Defra funding, while Moa recently raised £22.2 million in a Series C financing round to support its next stage of growth.

The combination of public funding, private investment and partnerships with agricultural companies reflects the scale of investment required to bring a genuinely new crop protection product to market. Moa already has four research and development partnerships with major agriculture and crop protection companies in the United States, Europe and Australia. Those relationships could provide potential routes to broader development, regulatory approval and eventual commercial distribution if the company's leading herbicide programmes continue to perform.

The company's research operations are based in Oxford and North Yorkshire, keeping its development work close to the UK farming conditions where blackgrass is a major problem. The focus on blackgrass also gives Moa a clearly defined commercial problem to solve. Unlike some crop protection markets where farmers have multiple products and modes of action available, blackgrass control in England has become increasingly constrained by resistance.

That makes a genuinely new mode of action potentially valuable. However, moving from field performance to a commercially available herbicide remains a long process. Candidates must pass further efficacy testing, safety assessments, manufacturing development and regulatory review before they can be sold to growers.

The Defra award is therefore an important step, rather than the final stage. For English farmers, the potential payoff is considerable. A new herbicide mode of action could add another layer to integrated blackgrass management and help slow the erosion of existing chemistry by reducing reliance on the same herbicide groups. It could also give farmers more flexibility when managing fields where resistant blackgrass has become difficult to control.

The economics are equally important. Blackgrass does not simply reduce the yield of the crop it competes with. It can increase the cost of production by forcing growers to invest more heavily in weed control, alter rotations or take heavily infested fields out of cereal production altogether.

As resistance spreads, those costs can compound. Moa's work is therefore aimed at a problem that sits at the intersection of farm productivity, crop protection and agricultural economics. The company's challenge now is to turn its field results into products that can withstand the demands of commercial agriculture. The Defra and Oxford Science Enterprises funding gives Moa additional resources to move its leading candidates through that process. Its recent Series C financing provides another source of capital as the company expands its pipeline and partnerships.

If the programmes continue to deliver the performance seen in trials so far, Moa could become one of the companies helping to reopen the pipeline of new herbicide chemistry for British agriculture. For farmers dealing with resistant blackgrass, that pipeline cannot move quickly enough. After decades without a new herbicide mode of action reaching English fields, the prospect of another effective tool could have an impact far beyond a single product.