Syngenta

In the

United Kingdom

Foreword

Mike Hollands
President, Syngenta UK

Welcome to our first Syngenta UK report. This report forms a narrative of our collective operations in the UK, bringing together the breadth of our capability across all eight of our world-class sites and the 2000+ employees working in the UK.

Although formed as a global company only 23 years ago, Syngenta has a long history in the UK, some of our sites dating back more than a century. Our capabilities lie in both Crop Protection solutions and Seeds, supporting a wider, industry leading, global operation in both areas. What makes the UK unique, both within Syngenta and the wider industry, is that every element of a powerful end-to-end agribusiness capability is represented, from research and development through to manufacturing and sales. This is rare and significant.

This extraordinary capability is enabled by our incredible people and culture. Our culture is collaborative; it values diversity and authenticity and is highly motivated around our purpose of helping farmers prosper through our commitment to sustainable innovation. Every employee adds real value in delivering that purpose and in making Syngenta UK a great place to work.

With so many of the UK's best crop protection and seed breeding scientists and experts leading the way, we have a significant and impactful role in helping to shape the future of UK agriculture.

By embracing digital and thinking more innovatively about application, we work with farmers to ensure they are successful with their yields and minimise environmental impact.

Since the UK's departure from the European Union, we have a role to play in working with UK government to transform future agriculture and establish a science-based regulatory system that is more enabling of innovation in agriculture. British farmers could gain access to new advances in science and technology to produce more affordable, sustainable and nutritious food.

As you will see from this report, Syngenta UK makes a significant contribution to global farmers and the global food supply and we are proud to be transforming the future of agriculture.

Syngenta Group is a leading agricultural innovation and technology company harnessing the diversity of our teams and expertise in more than 100 countries to deliver a broad range of products and services that benefit farmers, society and our planet.

This report will focus on Syngenta Crop Protection and Syngenta Seeds businesses in the UK, which sit within the wider global Syngenta Group structure.

Syngenta Group

syngenta Crop Protection

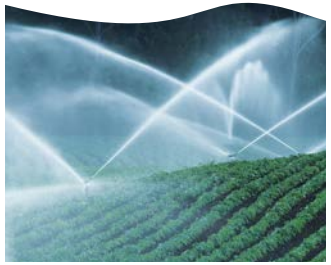
- Weed Control
- Disease Control
- Insect Control
- Seed Treatment
- Professional Solutions
- Biologicals
- Digital Solutions

syngenta Seeds

- Seeds
- Traits
- Corn & Soybean
- Vegetables
- Diverse Field Crops
- Flowers

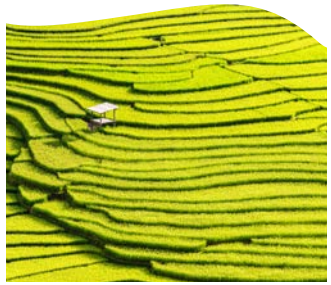
ADAMA

- Weed Control
- Disease Control
- Insect Control
- Consumer & Professional Solutions
- Ingredients & Intermediates



Syngenta Group China

- Crop Protection
- Seeds
- Crop Nutrition
- Ingredients & Intermediates
- Former Services
- Digitial Agricultural Solutions



Our Global Challenge

Our Global Challenge

*Climate change is making farming **INCREASINGLY UNPREDICTABLE***

*We need to feed a **FAST-GROWING** population with the same amount of land and resources*

*Consumers' habits and demands are changing and farmers must meet new **REGULATORY STANDARDS***

*The pace of change is increasing with farmers adopting sustainable farming practices to **PROTECT OUR ENVIRONMENT***

*Whist addressing all these challenges, farming needs to be **FINANCIALLY SUSTAINABLE***

*Every 24 hours, there are **200,000 MORE PEOPLE** to feed*

*In the next 50 years, the world will need **MORE FOOD** than in the last 10,000 years*

*Only 12 percent of the world's **LAND** can be used for farming*

*Agriculture, forestry and other land use causes 23 percent of **GREENHOUSE GAS EMISSIONS***

Farming has never been more challenging

From the moment a seed is planted through to harvest, crops need to survive threats from weeds, insects, and diseases, as well as increasingly challenging and unpredictable weather patterns. As our climate changes, droughts, floods and extremes of temperature make food production ever more complex.

Against this backdrop, farmers also face growing expectations from society. Crops must not only meet increasingly high quality standards but also be produced in a way that reduces waste and on-farm carbon emissions, is less resource-intensive and as part of a system that improves biodiversity.

A new way of farming, where innovation meets tradition

A major transition towards more environmentally sustainable farming systems is underway and Regenerative Agriculture farming practices provide a beneficial solution.

Regenerative farming practices

Minimise soil disturbance
Adopt no-till or reduced-till techniques

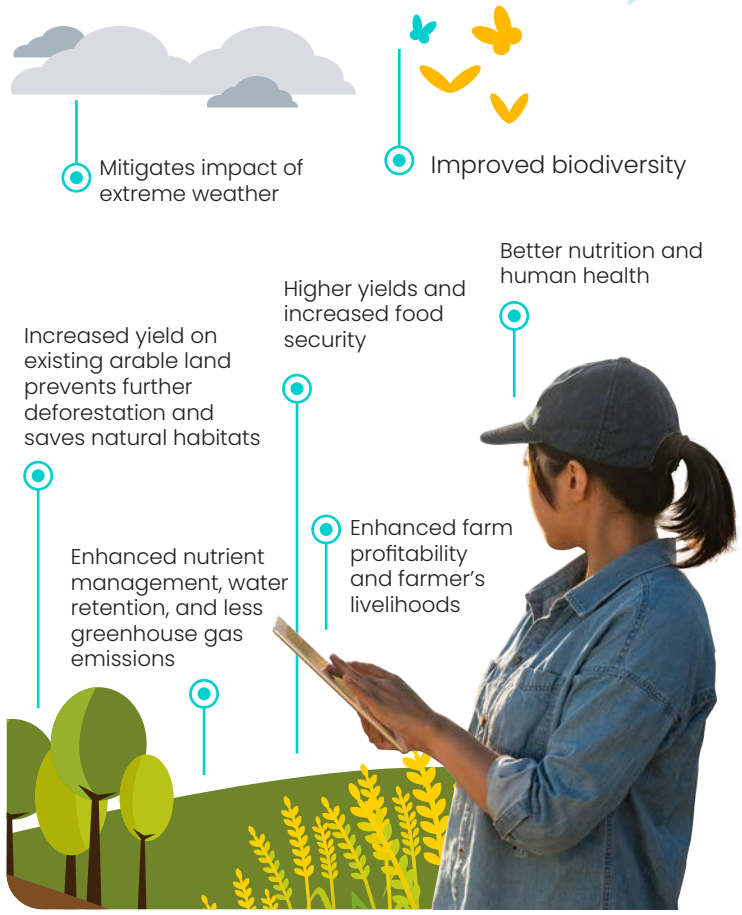
Plants in the ground year-round
Plant cover crops between cash crops to prevent soil erosion and increase carbon inputs

Diversify crops in time and space
Expand crops in rotation and adopt intercropping

Precision application of biological and chemical inputs
Data-enabled precision placement of seeds, crop protection and crop nutrition

Integrate livestock when possible
Crop residues and cover crop grazing, manure and compost inputs

What are the benefits?



What is Syngenta's contribution?

- Science and Research to quantify environmental, agronomic, and economic outcomes
- Technical advice and training to growers
- Elite crop varieties with sustainability traits for climate resilience
- New value chain partnerships to create premium markets for regenerative products
- Biological technologies that enhance crop and soil health
- Access to digital tools to unlock the potential of precision agriculture
- Support access to finance for the transition to regenerative agricultural practices
- Safe and quality crop protection products

Our UK End-to-End Capability

End-to-End Seeds and Crop Protection capability bringing innovative solutions to solve difficult problems

We strive every day to transform agriculture through tailor-made solutions for the benefit of farmers, society and our planet – making us the world's most local agricultural technology and innovation partner.

Syngenta's UK operations represent a powerful end-to-end agribusiness capability supporting farmers at global and local level.

We play a vital role in bringing ground-breaking products to a global market and help farmers across the world produce nutritious, affordable food safely and sustainably.

Research and Development (R&D)

The UK is home to Syngenta's largest crop protection R&D site worldwide which is also the largest commercial research facility in the UK dedicated to agricultural technology research. Additionally, our seeds research sites are pioneering the R&D of new seeds varieties that are enabling farmers globally. **More on page 11**

Production

From R&D centres globally, our products can be scaled for mass production in the UK. Our seeds production sites begin the process of multiplication to deliver to farmers globally and our world-class active ingredient manufacturing capability enables us to, cost-effectively, deliver large volumes of critically important crop protection products for farmers all over the world. **More on page 22**

Supply and Distribution

Syngenta's global and European planning, logistics and procurement operations are based in the UK. The supply team coordinate the movement of all of Syngenta's raw materials globally, and onward distribution to ensure vital and time-critical products are available to farmers when they need them. Our products are sold to distributors who sell directly to farmers globally. **More on page 29**

Sales & Customer partnership

Our UK commercial team markets and sells globally produced Syngenta products to the UK and Ireland market. They manage the relationship and orders with distributors and work directly with agronomists and farmers to support them in how best to use the products on farm. Including the use of digital solutions and precision application solutions. **More on page 30**
Insights from these customer interactions are shared back to R&D.

Research and Development

We are innovating and collaborating to deliver world-leading breakthroughs in agricultural research.

Our research and development meets the challenges of growers by providing crop protection and seeds innovations that are sustainable and safe for people and the environment. Our research is designed to improve the way crops are grown and protected so that everyone, from consumers and farmers, to the environment and society as a whole, benefits.

Innovation driven by passion for farmers

We research into many areas – from controlling insects to plant breeding. All of our research helps farmers grow crops successfully year after year, whether we are developing products to protect crops or improving seeds to make crops more resilient.

Whether we design a new seed variety, breakthrough 'blockbuster' molecule or develop an active ingredient for a specific purpose, our product development is driven by scientific insights gained by working closely with farmers in the field. We include safety and sustainability criteria from the very beginning.

Innovating for the future

Improving seeds and protecting crops means investing significantly in R&D. We don't find solutions by chance. For example, it takes 8 to 10 years to reach a commercial launch of a new crop protection product from discovering a new active ingredient.

Pests and diseases are a constantly evolving threat, and the changing environment makes it even harder for farmers to grow their crops. So we're accelerating the pace of our innovation, developing new approaches and using state-of-the-art technology to meet these challenges.

Crop Protection R&D

Our Jealott's Hill International Research Centre is home to unique levels of expertise within the Syngenta Crop Protection R&D network – a network that comprises 119 sites around the world.

Jealott's Hill is our largest R&D site globally and the only site with end-to-end R&D capabilities. As such, Jealott's Hill collaborates with other Syngenta sites and external research bodies around the world, delivering across all major research areas, from Crop Protection Discovery, Biologicals Research, Weed Control Research, Seeds Research, Bioperformance Enhancement and Product Safety Research. Its multidisciplinary scientific expertise includes Biological Sciences, Chemistry and Engineering, Data Sciences and Modelling and Human and Environmental Sciences, making it a critical collaboration partner in multiple international R&D projects every year.

Collaboration at its core

All science is collaborative, from evaluating new technologies to conducting fundamental research. In the UK, we have a large number of external collaborations with universities and scientific organisations, and have significantly more R&D collaborations based in the UK than in any other country worldwide. This includes active collaborations with leading UK research universities, such as Cambridge, Warwick, Oxford, Imperial College, Exeter and the John Innes Centre.

Jutta Boehmer, Head of Bioscience, Crop Protection Research

"Jealott's Hill benefits greatly from being based in the UK. With an excellent science base, access to several world leading academic institutes on our doorstep, a strong talent pool and government support for scientific agricultural and food production research, this environment means our scientists can fulfil their global remit and support our global R&D strategy."

It takes time, effort, and expertise to bring a crop protection product to market. We screen compounds at scale (around 100,000 a year) to then select a small number of leads, with highest potential, for subsequent optimisation. From there it takes 8-10 years, 1000's of newly designed compounds and iterative testing cycles until we identify the single candidate and develop it into an effective tool for farming and food production.

Criteria for a successful molecule includes good field performance, safe for environmental and human health, cost-effective, and a range of other characteristics. We continuously refresh our approach, embedding breakthroughs in digital, natural sciences and engineering to navigate this complex, multi-parameter optimisation challenge towards a successful product.

Miniaturised screening tests provided by Research Biology enable project teams to decide next steps

Promising chemicals are tested under controlled conditions simulating agronomic situations all over the world

Global field trials are conducted to confirm robust product performance and safe use

Vegetables

Sugar Cane

Diverse Field Crops

Rice

Cereals

Corn

Professional Solutions

Soybean

CP R&D Strategic Crops

Delivering in six key areas of grower need

1. Yield and quality
2. Weed control
3. Disease control
4. Insect control
5. Nematode control
6. Abiotic stress

Case Study

ADEPIDYN™ technology- a new superpower from Syngenta

This new powerful SDHI fungicide is proven to deliver unrivalled protection both inside and outside the leaf. Our scientists developed a fungicide that increases crop yields and helps growers lower their usage rates by offering long-lasting control and rain fastness, meaning fewer applications and avoiding resprays or rescue sprays. This fungicide is the result of 14 years of extensive, rigorous research by Syngenta's global team of dedicated scientists.

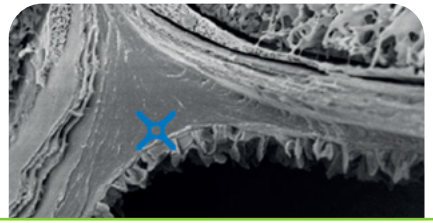
Jealott's Hill Scientists in Biokinetics and Microscopy provided significant contributions to the R&D process that delivered this ground-breaking innovation.

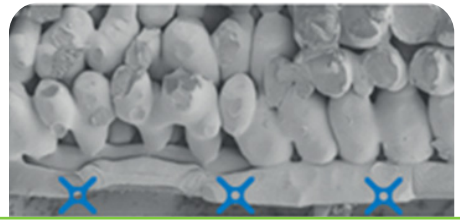
Giovambattista Depietra, Principal Scientist

"Microscopy provided key data in different areas of research during the development of ADEPIDYN™. We supported our process chemists as they improved the synthesis of ADEPIDYN™ and our formulation chemists to understand how new formulations behave."

Dave Stafford, Principal Scientist

"Within biokinetics we have investigated all aspects of the movement of ADEPIDYN™ from the moment it lands on the leaf surface until the moment it reaches its target site within the fungal cell. Our results reveal an ideal combination of uptake, movement, persistence and potency that help explain its superpower and stamina in the field."





ADEPIDYN™ technology designed for maximum efficacy

We now have a product that provides a step-change in performance against several key diseases and pathogens like Septoria, Powdery Mildew and Venturia (apple scab) as well as offering effective control of dangerous mycotxins in cereals and some vegetables.

Case Study

PLINAZOLIN® technology

PLINAZOLIN® technology - setting a new standard in innovative insect control

PLINAZOLIN® technology delivers a new standard of performance, particularly against pests for which existing products can no longer provide effective control. It provides an effective solution in resistance management strategies and replaces older, less effective chemistries. The sunlight stability and rainfastness properties of PLINAZOLIN® technology allow for longer spray intervals and fewer applications aimed at improving crop productivity and quality.

Jealott's Hill Scientists were instrumental in its discovery and development journey, including through mode of action research, product safety studies and formulation development.

Clair Stuart, Group Leader, Formulation Development

"Our role was to develop a range of products to meet our global customers' diverse needs and maximise the performance of PLINAZOLIN® technology in the field. We had to overcome technical challenges formulating the Active Ingredient by using novel co-formulants and processes and employ predictive and automation approaches, resulting in seven patent-protected formulations to date."

Andrew Crossthwaite, Insecticide Bioscience Group Leader

"PLINAZOLIN® technology is set to revolutionise crop protection. At Jealott's Hill we identified how PLINAZOLIN® technology works, why it is active against resistant insects in the field."

Biologicals R&D

We are entering a new era of R&D and our scientists are at the forefront. Biologicals have the potential to offer new modes of action and mitigate challenges with chemical use. Our Biologicals R&D team based at Jealott's Hill are investigating microbial technologies and their uses. This includes discovering microbial biocontrols and biologicals, developing bioprocesses to cultivate and purify them and producing protein materials essential for R&D.

Biologicals - innovative and complementary solutions

Biologicals are products of natural origin. They provide new, innovative and complementary solutions that can help manage resistance, protect soil health and promote plant growth effectively and sustainably. There are three types of biological products: biocontrols, biostimulants and biofertilisers

- Biocontrols are products based on naturally occurring materials that are used for biotic stress management in controlling fungal and bacterial diseases, arthropod pests, nematodes and weeds.

- Biostimulants are used to treat seeds, soil or plants to stimulate their natural processes. They can increase a plant's normal growth capacity but they have no direct effect on plant diseases, pests etc. Instead they increase, for example, crop nutrient uptake, promote crop quality, or strengthen existing defence mechanisms against abiotic stress.

- Biofertilisers are microbial based products that are used for fixing Nitrogen, phosphorus solubilisation, improving nutrient availability and uptake, and promoting plant growth and soil heath.

Seeds R&D in the UK

Genetics are fundamental to agriculture. Farmers are passionate about the crops they grow and actively seek to deepen their understanding of the varieties in which they invest. Our Seeds Development Stations are dedicated to delivering a robust pipeline of competitive new cereal varieties and trialling new vegetable varieties destined for farms in the UK and Europe.

Market Stainton in Lincolnshire, and Whittlesford in Cambridgeshire cover around 270 hectares of leased farmland with a combined team of 46 highly skilled breeders and triallists.

Producing a new cereal crop variety typically takes more than eight years (other crops, such as sunflowers or vegetables, can be shorter). At the discovery stage, our breeders start by creating tens of thousands of candidate germplasms by crossing two varieties with desired attributes for the market. Through a process of growing these in nurseries to produce the first seeds, our breeders then test yields, and the end use potential while further multiplying and purifying seed. At the end of the breeding programme, we have just one or two new varieties ready for launch.

- Our trials team delivers 19,000 yield plots every year to test yielding varieties against the market-leading material.
- Along with yield assessment, we also conduct 'sowing density' and 'fertiliser application rate' trials to help farmers understand how to optimise the performance of their investment in our seeds.

Alec Farrington, UK Station Manager, Market Stainton and Whittlesford

"Our development teams work with the whole end-to-end seeds capability to deliver value for growers. Cereals breeding is particularly tricky. Unlike, for example, sunflowers or corn, where a newly-crossed plant can produce around 100 seeds, cereals only produce around 35. So the process is much slower."

Case Study

Hybrid Barley, HYVIDO

Hybrid varieties are a Syngenta specialisation globally. They offer growers around the world an opportunity to improve yields sustainably. Our breeders have pioneered the development of market-leading hybrid varieties of barley for the UK and European markets. The advantages of hybrid varieties include:

- **Improved vigour (heterosis)** – higher and more stable yield of consistent quality
- **Improved rooting** – greater volume of biomass below soil level enabling the crop to adapt to stress environments, such as drought, heat and flood
- **Nitrogen use efficiency** – superior rooting across different environments enables plants to maximise both nutrient use from the soil and uptake above soil

Hybrid Barley can produce much higher yields of exceptional quality for end users as a result of a phenomenon known as 'hybrid vigour'. This ensures our varieties consistently produce flag leaves up to three times larger and roots up to 70 percent longer than conventional varieties. Such features mean plants have an enhanced ability to find more nutrients and moisture in the soil, enabling them to tolerate stress.

Ensuring our products are safe both for humans and the environment

Crop protection is one of the world's most highly regulated industries. To gain and maintain registration, our products must be shown to be safe for workers, the environment, crops and consumers.

Our Product Safety team plays a critical role throughout the entire life cycle of a product. From evaluating and assessing new molecules to the ongoing stewardship and assessment of our products that are already in use in the market.

Product Safety generates knowledge underpinned by scientific evidence to ensure our products and technologies are safe for humans and the environment. Through robust studies, the team generates data and risk assessments that are vital for the registration and re-registration of products across the Syngenta global portfolio - ensuring that Syngenta meets the requirements of regulatory authorities in the UK, EU and worldwide.

The team is at the front end of novel approaches, in areas such as Predictive Toxicology Modelling and new regulatory science approaches. The goal is to accelerate the progression of our research portfolio.

Production and Supply

Our world-class production and supply capability in the UK is vital to ensuring farmers globally receive our innovative, scientific solutions at the time they need it most.

Seeds Production:

Once our R&D team have bred the seed variety and tested and developed the best treatment methods for it, 500 tonnes of pure seed is given to our production team for multiplication with the recommended process. We then provide seeds at scale to reliable partners in the seed trade around the world for them for continue production and deliver to the end customer.

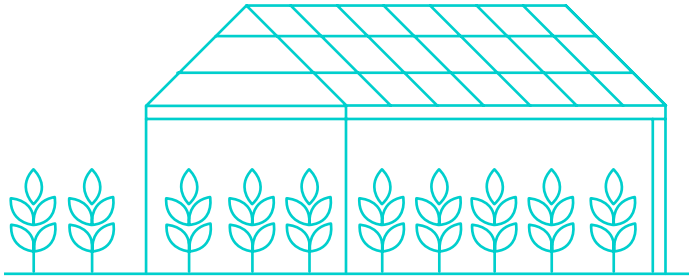
Crop Protection Production:

Every crop protection product starts with an Active Ingredient (AI). Our chemists and scientists in the Production and Supply teams work closely with those in R&D to understand how a breakthrough AI can be formulated and turned into full-scale manufacturing to generate commercial value for the business. Our UK manufacturing capability enables us to cost-effectively manufacture pure AI in a globally competitive market, for onward distribution into formulation and pack sites. We also have the formulation and pack capability based in the UK for some of our UK and global products.

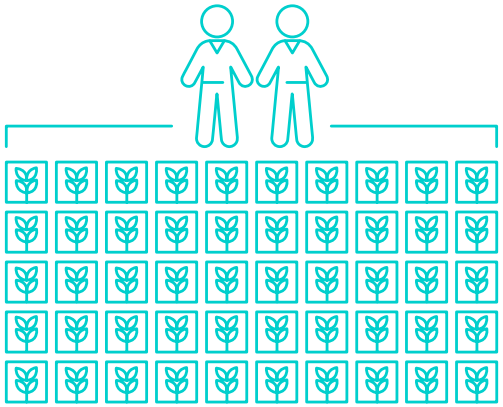
Seeds Production

After years of selection and registration, conducted by R&D, the seed varieties can then be produced at a larger, commercial scale. To do this our team work closely with a network of growers in the UK for field production (multiplication). We manage the coordination and control of the wider production and maintain certification and quality by completing crop inspections and improving crop purity. Our Belmont site, where we perform seeds multiplication in-house, is dedicated to the production (field and processing) of high quality and early generation seeds such as trials seeds and parental seeds. We also manage a network of external partners for cleaning, treating, packing & storing the seeds for us ahead of sales.

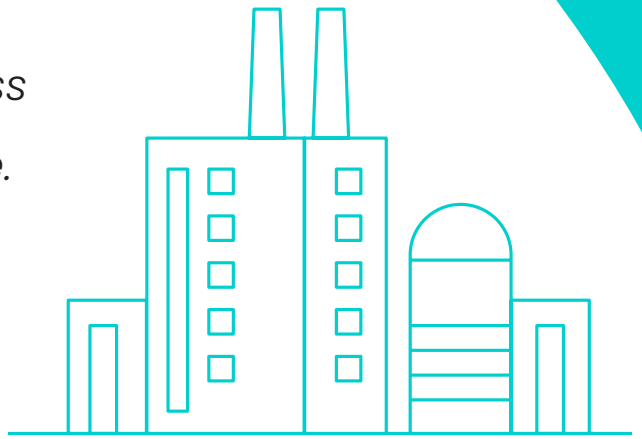
By utilising our expertise and stewardship when sourcing and managing third party growers we maintain a supply that is highly reliable and cost effective.



40 *Conventional varieties across*
50 *Hectares at our Belmont site.*



Management of ***50*** *growers covering* ***3040*** *hectares of production in 2022.*



Management of ***9*** *processing locations for cleaning, treating, and packing.*

Crop Protection Active Ingredient Manufacturing

Innovating to meet high global demand for crop protection products

Our two Active Ingredient (AI) manufacturing centres in Grangemouth and Huddersfield have a long history of manufacturing dating back to 1916. Since then, teams of highly skilled manufacturing professionals have pursued continuous improvement paths to introduce new products as well as improve manufacturing efficiency to provide a globally competitive solution. Across the two sites are 10 individual manufacturing plants and we collaborate extensively with our other manufacturing centres worldwide, playing important roles in manufacturing our products at various stages of development.

The AIs manufactured in the UK are fundamental for the production of world-leading fungicides, herbicides and insecticide products supplied to farmers throughout the world. 97 percent of products manufactured in the UK are exported and currently represent approximately $3bn in sales for Syngenta, adding a significant amount to the export value of the UK chemical sector.

Active Ingredient Manufacturing

- The health and safety or our employees, local community and product users are at the heart of everything we do.
- We handle raw materials and intermediate products at scale to manufacture Active Ingredients for our Crop Protection products.
- We excel at operational excellence and are working hard to ensure that we maximise every opportunity for efficiency gains.
- We provide a strong focus on compliance to meet all legal requirements and internal standards. AI Manufacture optimises processes and energy usage, to maximise yield and efficiency, minimising waste of every type, to make us a safe, reliable and cost-effective producer of active ingredients.

Pete Waddington, Huddersfield Site Manager

"We are a well-established site that is trusted by our local community and entrusted by Syngenta with delivering globally significant strategic projects. Our agile culture makes us incredibly resourceful, adaptable and swift to respond to changing circumstances."

Case Study

PLINAZOLIN® technology

PLINAZOLIN® technology

In 2022, Huddersfield was selected for a prestigious project to complete the final chemical stage in the manufacture of PLINAZOLIN® technology – a brand new blockbuster product.

The manufacturing of PLINAZOLIN® technology is highly complex, requiring more than 20 separate chemical stages.

As a result, it has the longest supply chain of any Syngenta product in the company's history

A series of innovations delivered by our site in order to produce PLINAZOLIN® technology means that in 2023, production of the product will reach more than 200 tonnes annually with a long-term ambition, with further improvements, to significantly increase this as it's widely expected to be a blockbuster global product.

Case Study

Azoxystrobin

Azoxystrobin

Azoxystrobin is an important AI in Syngenta fungicides such as AMISTAR®. Its broad spectrum makes it an important tool for farmers of a wide range of crops around the world. Product demand last year was high and continues to grow. In January 2022, our Grangemouth plant in Scotland set out to improve its Azoxystrobin manufacturing capacity. Renowned for its ability to innovate to deliver large volumes of product cost-effectively, the team turned to process optimisation. The project used a complex combination of agile approaches and diagnostic tools to identify bottlenecks. In just nine months, a site team of five experts delivered nine percent more capacity – rising to 12 percent by the end of the year. A total of 90 improvement initiatives, rising to 110 by the end of 2022, delivered well beyond the initial target of three percent capacity increase.

Andrew Tomb, Grangemouth Site Manager

"Grangemouth is well known for delivering innovations and cost efficiencies for Syngenta globally."

Crop Protection Formulation, Fill and Pack

Of our 10 plants across the two manufacturing sites, one of them in Grangemouth, is a dedicated formulation, fill and pack (FF&P) site. Active ingredient is sent to the FF&P plant where it is formulated into a variety of different products for global use. The formulation of the product is determined by regulations enforced in the country it is being sent to. One active ingredient can be formulated into a number of different products used worldwide. After formulation, it is packaged into containers and labelled.

Our FF&P site can deliver quality at scale in a cost-effective way thanks to a continued approach to manufacturing excellence. Mechanical and digital automation is used to increase capacity whilst maintaining quality, and packaging robots are used to upscale production. This enables us to compete with manufacturing capability globally.

The safety and stewardship of our products is of utmost importance. All our products are labelled with a unique serial number that can be tracked by our global supply team.

Supply Chain and Operations

Given recent global supply chain volatility, our agile approach along with exceptionally talented people have been vital to ensuring growers have access to the right product at the right time. Syngenta's supply chain operation, based in Manchester, is responsible for regional and global supply operations, including procurement of raw materials and packaging, managing supply chain demand and planning the production stage with either our UK manufacturing sites or third parties. Professional teams are involved in critical end-to-end supply operations.

Manchester collaborates extensively with our manufacturing sites in the UK along with global supply functions worldwide.

Manchester Business Operations along with professional supply chain roles make significant contributions to the success of our UK operation.

- Professional business process experts manage and support fit-for-purpose and efficient processes worldwide
- Expert Internal Auditors provide auditing services worldwide for Syngenta Group
- Within the Global Supply Centre of Expertise, the team work with production and supply functions worldwide providing process expertise, continuous improvement and professional change and transformation resources
- The Capability Development team provides training in supply chain qualifications, project management, leadership development, and graduate programs

Sales and Customer Partnership

Supporting UK agriculture

Whilst Syngenta UK's overall focus is to solve global agricultural challenges, our commercial operation is dedicated to supporting UK and Irish farmers.

Every region of the globe has its own unique challenges when it comes to climate change and soil health and our team support farmers in the UK to address their specific challenges. There are also regulatory differences from country to country, and since the UK left the European Union there is an opportunity to transform the development of a science-based regulatory framework. We work alongside UK farmers and advocate for a more enabling system that will keep UK farming - which is vital to UK economy - financially sustainable whilst maintaining the high-quality standards that enable UK farming to compete on a global stage.

With our extensive and world-leading research capability, we can deliver a scientific evidence-based roadmap for growers as well as provide the tools and technologies to help them achieve their sustainability, food production and profitability goals. From having an in-depth understanding of Syngenta global products and how best to use them, to researching cropping systems to make sustainable farming economically viable, and conducting long-term projects to understand on-farm pollinator habitats and soil health.

Source NFU and UK Government

4 Million

Jobs in food and farming in the UK

8.9 Million

Hectares of utilised agricultural area in England in 2022

3.7 Million

Hectares of arable crops, England 2022

£120 Billion

Value of UK food and farming

71%

Total arable crop area in England planted with cereals, England 2022

69%

Total land area of England utilised for agriculture in 2022

61%

Of the nation's food is produced by British farms

Our products and services that are transforming UK agriculture

Chemical Crop Protection products

Fungicides, insecticides and herbicides designed to improve yield.

Seeds

Our seed breeders provide cereal varieties that maximise yield and quality whilst providing resistance to pests and diseases.

Precision application technology

The goal of precision application is to optimise the use of inputs to minimise environmental impact whilst ensuring that plants receive the right support in the right place, at the right time and in the right way.

Stewardship

Promoting and training farmers on safe and responsible use of products and working to minimise their impact on the environment.

Biological products

Biological products offer complimentary new technologies to support plant and soil health, and are becoming an increasingly important part of the grower toolbox.

Flowers

High-quality flower seeds, seedlings, and cuttings that are developed through advanced breeding techniques.

Digital tools

Designed to help farmers optimise their operations, increase efficiency, and make data-driven decisions.

Knowledge and expertise sharing and Partnership

We undertake many long-term collaborations and partnerships with customers and other organisations to support agricultural development in the UK.

Long-term partnering with our customers and with British Farmers

The UK commercial team manage our relationship with distribution partners who sell our products to growers. Our approach has always been to keep growers at the heart of what we do and establish long-term partnerships.

We share the farmer's view that agriculture is a long-term, multi-generational commitment. Our UK business is guided by three Customer Experience Principles when working with any of our customers. These core principles were identified by UK farmers themselves when asked what they value about Syngenta UK:

- Consultative – the team invites customer feedback to inform the choices it makes; works with customers to solve their challenges; considers customers' goals when setting their own; and innovates where it will create a better future for all
- Expertise – the team challenges itself on behalf of customers' expectations; values knowledge to inform decision-making; and strives to differentiate in everything the team does
- Long-term relationships – the team stays close to its customers whatever is happening; explains what we do and why; keeps customer content relevant to make their choices easier

Our dedicated team speak directly to farmers, agronomists and other market influencers on a regular basis to understand their challenges. One of the advantages of being part of a powerful end-to-end agribusiness in the UK is the access that our sales force has to world-leading scientific expertise and R&D facilities. These include a network of demonstration and field trial sites across the UK, where we can evaluate solutions for the specific issues faced by farmers.

Jonathan Halstead, Head of Syngenta CP Northwest Europe, says:

"UK agriculture is transforming and the commercial teams are proud to partner with our customers and farmers as together we help shape the future of farming."

Syngenta Seeds in the UK

As a grower-centred organisation, our primary focus is on delivering key wins for our customers, and for them the most important component is the seed. Genetics are fundamental to agriculture. Our UK farmers are passionate about the crops they grow and actively seek to deepen their understanding of the varieties in which they invest.

At Syngenta Seeds, our market-leading cereal seed varieties include brands such as:

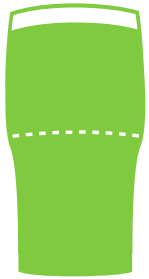
GRAHAM – a high-yielding feed variety of winter wheat

LAUREATE – the highest yielding spring barley variety in the UK, of unrivalled quality

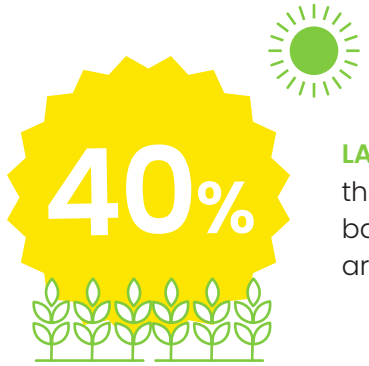
SY KINGSBARN – a feed variety of **Hyvido® hybrid barley** with consistently high regional yields and grain quality

CRAFT – the leading winter malting barley with full approval for brewing

With more than 25 years in the industry globally, our Syngenta Seeds UK team has established a formidable market leadership position in the cereals industry.



Today, **LAUREATE** is used to brew more than **50% OF GUINNESS**



LAUREATE'S share of the UK spring malting barley segment is around 40 percent

THE WORLD'S FIRST HYBRID BARLEY VARIETY,

COLOSSUS by Syngenta was launched in the UK in 2003

HYVIDO'S market share in winter feed barley is around 32 percent

Leslie Sharp, Business Area Head UK and Ireland, Syngenta Seeds

"Our North Star is to win the hearts of our customers through innovative solutions and a best-in-class customer experience. Genetics are fundamental but we also help drive increased farm productivity by providing agronomic expertise and sustainable farming recommendations."

Case Study

Demonstrating how sustainable agriculture can deliver value to the grower

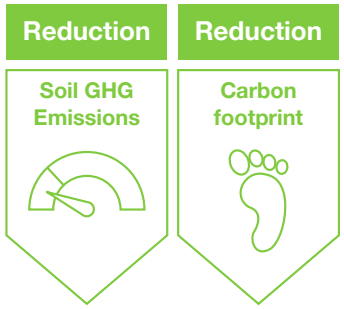
A five-year Syngenta study to help guide and support UK farmers towards implementing a more sustainable cropping system

In 2017, we began a study to assess conservation agriculture principles when moving towards a more sustainable cropping system. Our objective was to ensure adoption can be quicker and more reliable for growers and the wider agricultural industry. The findings now provide a valuable, evidence-based guide for farmers. We partnered with two farms, situated in the Midlands and Kent, with heavy and light soils. We trialled a range of sustainable and conventional cereals cropping systems, comparing minimum tillage and direct drilling to conventional plough-based systems. The project measured 80,000 data points, from profitability to complexity and from sustainability to productivity.

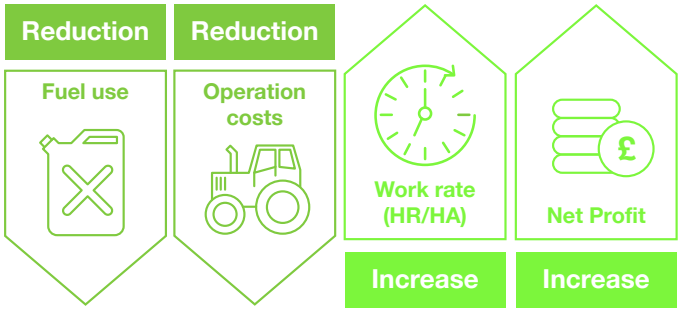
Our Findings

Biodiversity benefits

Carbon benefits



Business benefits



For more information visit our website:
https://www.syngenta.co.uk/stewardship/conservation-agriculture

Operation Pollinator

Improving habitats for pollinators on 170,000 hectares of UK farmland

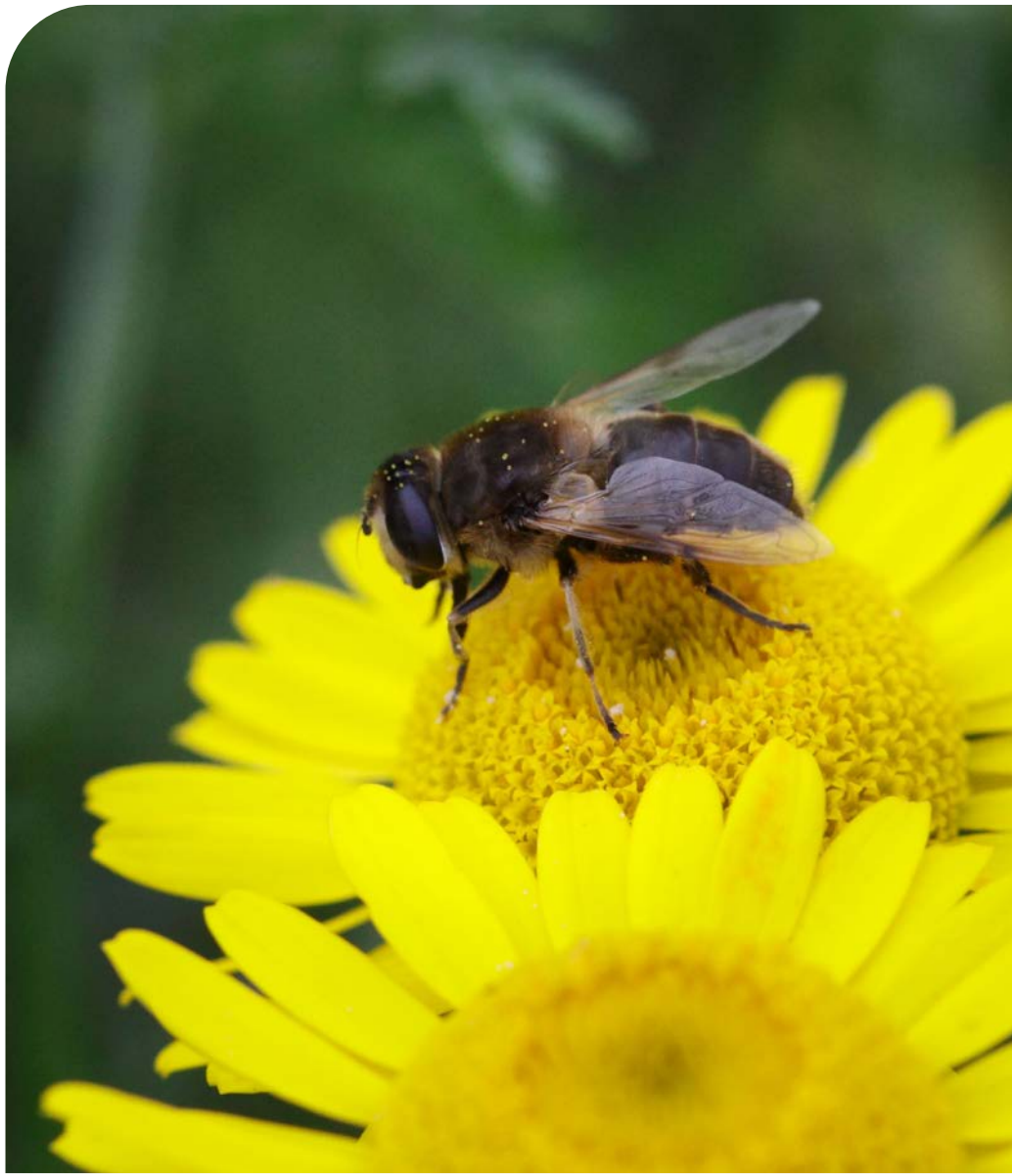
Agriculture depends on pollinators. In fact, more than 80 percent of European crop types are directly dependent on insects for pollination. Yet the UK's wild pollinator populations (including bumblebees, hoverflies and butterflies) decreased by a third from 1980 to 2013, according to studies.

Our Operation Pollinator programme started in the UK over 20 years ago with the aim of improving habitats for pollinating insects through targeted and tailored seed mixtures, as well as science-based advice. Supported by a large number of universities, beekeepers, farmers, research institutes, policy makers, NGOs, food producers and retailers, the programme has set out ways for commercial farming to restore pollinator habitats.

The scale of habitats created by farmers within Operation Pollinator has now reached **170,000 hectares.**

The project has also generated large volumes of monitoring data, from pollinator and other insect populations to farmland birds and 'red list' species, as well as data on the benefits of such habitats for soil health, water protection and sustainable pest management.

Operation Pollinator is now established globally and expanded to look at 'multifunctional' benefits from managed field margins, such as providing food for birds, habitats for earthworms and beetles, and reducing run-off and erosion.



Championing and improving accurate application

Innovation in crop protection application delivers sustainability improvements

Inaccurate application can mean that farmers do not get the best performance from the product and increase the risk of harm to the environment. Accurate application plays a huge role in getting the right product to the right place at the right time. This gives a better return on investment, increased yields, improved resistance management. It also delivers significant sustainability benefits by preventing drift and reducing waste. Launched in 2022, Syngenta's revolutionary **3D Ninety** nozzle reduces spray drift by **90 percent** and is pioneering the area of **precision application technology** to improve sustainability in UK farming.

When combining this approach with digital technology we can make further improvements. The **Syngenta Spray Assist** app for example, helps sprayer operators select the most appropriate application techniques on-the-go. It is simple to use and combines live local weather data to analyse the factors that influence accurate application and potential risk of spray drift. The app also suggests techniques to mitigate risks or alter practices. It covers **16 different crop types,** more than 45 application timings and more than 600 different nozzle types.

Safe handling with easyconnect

Ensuring the safety of our farmers is vital. Syngenta has joined forces with other industry leaders to improve the way farm products are handled by promoting the use of **Closed Transfer System Technology,** which prevents spillage. From 2023, our liquid products in the UK are being equipped with the easyconnect cap, to give farmers the widest range available in a Closed Transfer System.

Environmental Sustainability

Manufacturing sustainability – Our Ambition

We recognise that our sites have a significant role within the Syngenta Group and the UK Government's sustainability targets.

Our UK Manufacturing sites are in the process of creating a sustainability roadmap for 2030. We are developing specific projects that are driven by continuous improvement guidelines to help create a step change in activity. These projects will not be quick-fixes and will take time to evaluate and implement. They are very complex and involve everything from improving our infrastructure to changing the process chemistry of how active ingredients are made.

We are committed to environmental sustainability and are creating tangible actions to improve our operational environmental sustainability

Our UK Sustainability Culture

We are developing a sustainability culture where everyone has a part to play

Increased our recycling rates and introduced new signage, saving waste from landfill at all our UK sites.

Supported local charity projects such as donating plants and volunteering at local conservation projects.

The Greenspace project at Whittlesford aims to transform the site by planting trees, plants and wildflowers to attract insects and encourage biodiversity.

Our Jealott's Hill site has introduced a zero-waste café, which reduces the use of single-use plastic and has partnered with organisations to recycle cooking oil and redistribute leftover food.

One hundred percent of the electricity we use comes from renewable sources.

Implemented policies to work towards all our company vehicles being electric or renewable.

Our People & Communities

Our people

We believe our strength is in our people. We have approximately 2000 employees across eight UK sites, from over 38 different nationalities and in a variety of technical and support function roles. Due to business growth, we've seen headcount increase by approximately 12 percent in the last four years. This has created a balance of people with shorter tenures bringing new thinking and challenging the norm and those with long service - of up to 50 years- bringing a solid foundation of specialist expertise in the industry. Like many organisations, we face the challenge and opportunity presented by having a multi-generational workforce. This has enabled us to think differently about how we attract and retain employees and has brought invaluable diversity of thought to Syngenta.

Innovation and creativity are crucial in any business and for that to thrive we must create a workplace that enables our people to perform at their best. We are committed to providing opportunities for our employees to continuously develop, where they feel empowered to make a difference in an environment that is respectful, inclusive, and supportive of individual wellbeing.

Learning and development

With the majority of roles being highly skilled, a culture of continuous learning and development is vital to ensuring our talent pool is able to harness the advanced skills required to perform their roles and develop rich and rewarding career paths.

Investing in the next generation of talent

Securing our business for the future means we must invest in the next generation of talent. Across Syngenta UK, we have several initiatives in place to support early careers in the industry. We provide work experience and summer placements for local university students and support apprentices, graduates and PhD students through programmes and sponsorships.

Case Study

Huddersfield Apprenticeships

Our Huddersfield Manufacturing Centre aims to build a sustainable workforce through its multi-award winning Apprenticeship Programme. In 2023, Huddersfield recruited eight apprentices with 25 currently in the programme. In total, 88 apprentices have been recruited within Engineering, Business Administration, Science Manufacturing, Design, IT and Laboratory Science. The programme boasts a 94 percent retention rate.

Bradley Hart, Science Manufacturing Apprentice, Huddersfield Manufacturing Centre

"I enjoy learning something new every day, meeting lots of different people that are happy to share their knowledge and experience with me to develop me to become a qualified technician."

Case Study

Grangemouth Chartered Engineering Programme

Our Grangemouth team supports mechanical and chemical engineers who are working towards Chartered Engineer (CEng) status through our Mechanical and Chemical Engineering Chartership Programmes. Throughout this they are provided significant work experience to develop as professional engineers.

Cledwyn Viegas, Graduate Mechanical Engineer, Grangemouth Manufacturing Centre

"The IMechE Chartership MPDS Programme allowed me to self-evaluate the work I carried out over each quarter and outline ways that I could improve going forward into the next quarter. The additional benefit of having a mentor guide you throughout your first four years in industry allows you to ask questions freely, almost like a buddy system in school. I'd recommend anyone who wants to expand their knowledge within the company they work in, to enrol in this programme as it builds your character not only in terms of engineering but in all aspects of the business from Finance to Research and Development."

Diversity & Inclusion (D&I)

To deliver on our ambitions, we believe our people must reflect the diversity of the communities we serve. We understand that for diversity to thrive, we must create an inclusive environment where people can be themselves at work.

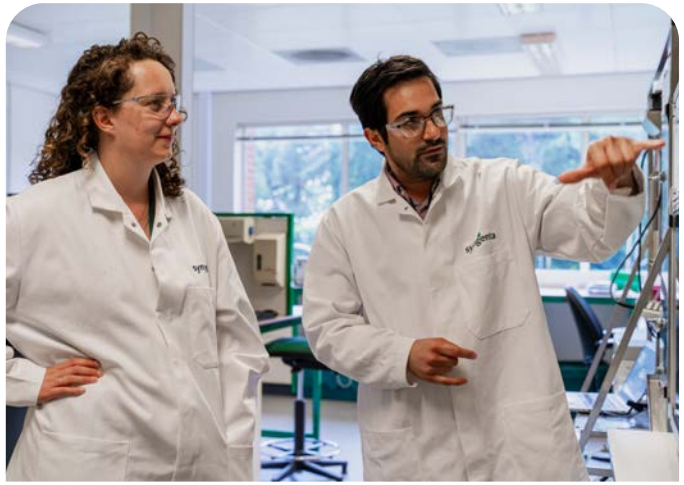
Across our UK sites, D&I Champions make ongoing efforts to foster an inclusive culture that embraces differences and where people feel a sense of belonging. The Champions have established common-interest groups with the purpose of providing a support network and valuable insights to enable us as a company to become more inclusive. The Women@Syngenta, Neurodiversity, LGBT+ and the Disability Networks have helped to drive decisions on policies and process and have created a busy calendar of events to spark important conversations and foster a culture of learning.

Inclusive and supportive policies and process

We are committed to providing inclusive policies and working practices. Our Menopause and Hormonal Health policy was launched in 2022 and we also increased support to new and existing working parents through updated family-friendly policies. These include hybrid working guidance – encouraging employees to find a balance between site and home working – and a new offering for shared parental leave to offer better gender equality for parents.

At Jealott's Hill we have reviewed our processes for recruiting people with disabilities and neurodiverse conditions, to ensure we are taking an inclusive approach. As such, Jealott's Hill was named a Disability Confident Committed employer by the UK Government. This award acknowledges a commitment to hiring people with disabilities and thinking differently about how it recruits, trains and retains people with disabilities.

Our goal in this area is to influence greater change and create a movement internally to become a leader in this field as we seek to develop a workplace that thrives on difference by making it our strength.



Case Study

Diversity in our Industry: Broadening Horizons

We are proud to be one of nine other companies in the UK who are part of the Royal Society of Chemistry's Broadening Horizons Programme to support chemists from under-represented backgrounds launch their careers. Following a launch event in September 2022, attended by more than 100 students from around the UK, we created a programme of site visits and work experience at our Jealott's Hill Research Centre to offer first-hand experience of science careers and opportunities to these students.

Gender Balance

Addressing gender imbalance in the industries in which we work has long been a commitment for Syngenta UK. Women continue to be under-represented in manufacturing and STEM industries and we are committed to improving this for future generations.

In the most recent gender pay gap data from 2022, Syngenta UK recorded a mean gender pay gap of 6.5 percent and a median gender pay gap of 7.1 percent. These figures are marginally better than the UK average gender pay gap. Our goal is to make even greater improvements over time.

Women in manufacturing

Engineers, laboratory scientists, plant workers, project managers – women contribute at many levels within Syngenta Crop Protection's manufacturing sites. Yet just 15 percent of the talent pool is female. To actively recruit, develop and retain talented women in manufacturing, technology and engineering, Syngenta UK launched Women in Manufacturing (WiM) in September 2022.

WiM training covers a range of topics, from how to take steps to empower female employees, to raising awareness of the importance of increasing female visibility as a way of recruiting and retaining talent. WiM is led by a cross-functional team of women driving the call for a more balanced workforce in this critical Syngenta UK function.

Women in Science

Biologists, chemists, geneticists, biochemists, environmental modellers – all make a vital scientific contribution to R&D here at Syngenta UK. Our long-held ambition has been to attract diverse talent to ensure the future generation in our industry is well represented. We continue to work with local schools to promote STEM careers and have been working with local schools to encourage students from disadvantaged backgrounds to consider scientific careers.

In 2020, 17 percent of senior roles in science were occupied by women, while in 2021 this grew to 27 percent. In 2022, this climbed again to 31 percent.

Syngenta UK is working towards improving diversity, in all its forms, across our workforce, providing equal opportunities at all levels.

Employee Wellbeing

We are committed to supporting the wellbeing of our employees through financial, mental and physical benefits and support that help employees to lead healthier and happier lives.

We provide **financial wellbeing** support including training to help employees develop their skills and plan for their financial future and continually review our compensation and reward to ensure it's fair and competitive.

85 percent of employees have joined our private health care scheme. This benefit provides **physical wellbeing** ensuring that employees have access to medical treatment when they need it. This includes Doctor@Hand, a virtual doctor service that enables employees to consult with a doctor from the comfort of their own home. We also offer gym memberships and onsite health appointments to check for indicators such as weight and blood pressure.

Our accredited Mental Health First Aiders (MHFAs), are employee volunteers trained to spot colleagues who may be experiencing poor **mental wellbeing** at work and provide support and comfort on a totally confidential basis. MHFAs also actively encourage mental health discussions to help remove the stigma, promote positive mental health practices, and enhance workplace awareness of the assistance available to them. Levels of enthusiasm to support colleagues with mental health challenges means that we now have 74 accredited MHFAs across six sites. We have a UK wide mental health forum with representatives from each site that meet throughout the year to discuss how we can best support Mental Health and how to keep the conversation going. Employees can also access our Employee Assistance Program (EAP) and attend webinars, which provide guidance on a range of mental health issues, and benefit from access to the THRIVE app, which employees can download to access meditation and cognitive therapy resources.

Health and wellbeing

In 2023, we partnered with Peppy, a digital health app that connects people to human health experts. This service is available to all of our people and their partners, and is focused on specific health areas, including the menopause, fertility, pregnancy and early parenthood.

We also enhanced our private medical cover in 2023, providing specialist Mental Health support for all members and Neurodiversity Assessment and Support Services for adults and children over the age of seven.

Supporting our local communities

We are proud that in the UK, as in other markets around the world where we operate, our employees contribute actively to the communities where they live and work.

To celebrate their centenary in 2019, our Grangemouth site donated to Strathcarron Hospice to enable two of their patient suites to be upgraded.

Our Huddersfield site and its employees are active in the local community through their Employees Community Gift Scheme, which is match-funded by Syngenta. Benefactors include Kirkwood Hospice (employees raised money through a Midnight Memory Walk), The Welcome Centre Food Bank and The Lawrence Batley Theatre, as well as grassroots community groups across the district.

On Scottish Exam Results Day, younger employees at our Grangemouth plant in Scotland pledged their support to the #NoWrongPath campaign. The focus of #NoWrongPath is to raise awareness among young people receiving their academic results that results are not necessarily the only key to unlocking future success.

Competing in 5-a-side football tournament that supports the Manchester site's partner charity, Lifeshare.

By playing football for 24 hours, Jealott's Hill employees raised £2,000 for the @ me2Club charity for children who face exclusion through additional needs.

Employees at our Fulbourn site held a Macmillan Coffee Morning in September to raise money for the cancer charity.

Our employees actively engage with STEM outreach, including careers fairs, mock interview events and local science festivals.

UK Leadership Team

Mike Hollands

Head of Global Supply
President Syngenta UK

Andy Johnson

Head of Finance
Operations UK & Ireland
Site Manager, Guildford

Shirley McCulloch

Legal Counsel for UK &
Ireland & Digital Agriculture

Marion Matthewman

Head of Production and
Supply Centre of Expertise
Site Manager, Manchester

Julie Holdsworth

Head of UK Human
Resources

Jonathan Halstead

Head of Syngenta CP
Northwest Europe
Managing Director,
Syngenta UK Ltd

Andrew Tomb

Site Manager,
Grangemouth

Jim Reay

Head of Crop Protection
Development Capability
Development

Jutta Boehmer

Head of Crop Protection
Research Bioscience

Leslie Sharp

Head of Seeds UK & Ireland

Pete Waddington

Site Manager, Huddersfield

Luke Gibbs

Head of Corporate
Affairs UK & Ireland

Huddersfield Manufacturing Centre

Crop Protection Active Ingredient Manufacturing

Number of employees : 450

Grangemouth Manufacturing Centre

Crop Protection Active Ingredient Manufacturing Formulation, Pack and Fill

Number of employees : 350

Market Stainton

Seed Breeding Research and Development - Barley

Number of employees : 25

Fulbourn

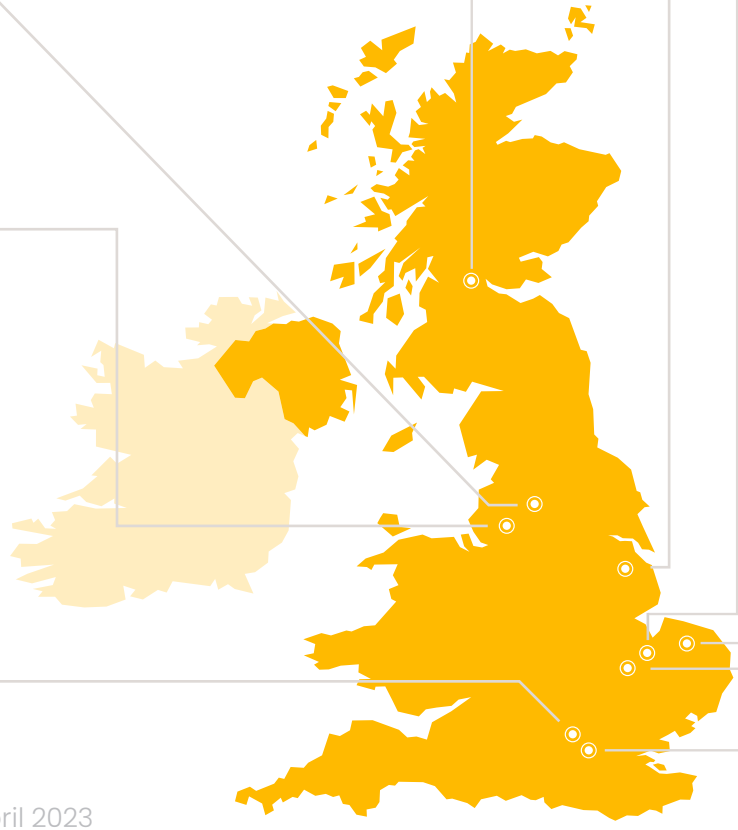
Commercial operations for Crop Protection, Seeds, Flowers and Syngenta Professional Solutions

Number of employees : 146

Manchester

Global supply, Procurement, Support Functions

Number of employees : 241



Floranova

Sale, production and breeding of ornamental flower and vegetable seeds.

Number of employees : 60

Jealott's Hill International Research Centre

Crop Protection Research and Development, Seeds Research, Support Functions

Number of employees : 862

Whittlesford

Seed Breeding Research and Development – Wheat

Number of employees : 23

Guildford

Support Functions

Number of employees : 33

Employee numbers are correct as at April 2023

For more information please visit
Syngenta.com
Contact: general.enquiries@syngenta.com

syngenta