

**UNIVERSITY
OF WARWICK**



SCHOOL OF LIFE SCIENCES INNOVATION CAMPUS

Warwick Crop Centre

**Bringing science, policy, and practice
together to build a better future for
food and farming.**



Warwick Crop Centre

Crop science has been conducted at Wellesbourne for more than 70 years with a focus on supporting and collaborating with the horticulture and fresh produce industries to promote competitive and sustainable farming.

Part of the University of Warwick's School of Life Sciences, researchers at the Crop Centre advance resilient and sustainable agriculture through science that works from the ground up. Our research spans innovative crop production, plant health genetics and agri-tech, all designed to support the future of food and farming. From controlled environments to field-scale trials, we turn scientific insight into practical solutions that growers, land managers, and industry can trust.

By connecting plant science with real-world challenges, Warwick's scientists are helping the sector respond to disease threats, environmental pressures, labour shortages and the need for more efficient use of resources.



Warwick Agri-Tech

Warwick Agri-Tech brings together the engineering expertise of Warwick Manufacturing Group (WMG) with the School of Life Science's world-leading expertise in applied agriculture.

Established to bridge the gap between cutting-edge research and real-world farming challenges, Warwick Agri-Tech combines expertise across engineering, plant science, computer science, automation, artificial intelligence, robotics, data analytics, and crop production to accelerate innovation for the agriculture and horticulture sectors.

Working closely with growers, technology developers, policymakers, and industry,

Warwick Agri-Tech develops and tests practical solutions to some of the sector's biggest challenges, including labour shortages, crop health, sustainability, climate resilience, resource efficiency, and food security. By combining advanced technologies with deep agricultural knowledge, the team helps de-risk innovation, supporting businesses to develop, validate, commercialise, and scale new products and services.

Together with the Warwick Crop Centre's research farm facilities and specialist laboratories, Warwick Agri-Tech provides a unique environment where new technologies can be developed, trialled and demonstrated under real-world conditions. The result is a powerful partnership that is helping shape the future of sustainable food production in the UK and beyond.

Our Expertise

The breadth of expertise at Warwick Crop Centre makes it a valuable source of independent scientific insight for journalists, policymakers and industry stakeholders.

Researchers can contribute expert commentary on topics ranging from food security, crop diseases and soil health to sustainable farming, agricultural innovation and climate resilience. Combining academic rigour with practical experience of commercial production systems, they help translate complex research science into clear, accessible analysis for varied audiences.

- **Crop genetic improvement:** novel crop traits, collaborative pre-breeding research
- **Crop physiology:** nutrition and development
- **Soil health:** microbial interactions and microbiome
- **Plant pests and pathogens:** biology, epidemiology, monitoring, forecasting and diagnostics, integrated pest and disease management
- **Low-carbon farming and land use management:** delivery of ecosystem services, nutrient and water use efficiency
- **Bee and pollinator health:** honeybee genomics, biological control

Media and External Communications team

The media team will be happy to connect you with the right researcher for your enquiry.

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linktr.ee/CropCentreMediaDay





Robin Allaby

Professor Robin Allaby is a plant geneticist and archaeogenomics researcher who uses ancient DNA to understand evolution of domestic crops. Robin's ecological forensics service offers DNA species testing.

Can comment on: crop domestication, ancient DNA, crop genetics, food security, agricultural history, biodiversity, and climate resilience in food production.

r.g.allaby@warwick.ac.uk



Charlotte Allender

Dr Charlotte Allender is a plant geneticist and manager of the UK Vegetable Genebank. Her research focuses on conserving and exploiting genetic diversity to develop vegetable crops with improved resilience, productivity and resistance to future environmental challenges.

Can comment on: seed banks, crop diversity, food security, heritage vegetable varieties, vegetable breeding, and climate-resilient crops.

charlotte.allender@warwick.ac.uk



Guy Barker

Professor Guy Barker is a crop geneticist and lead of the DEFRA-funded Vegetable Genetic Improvement Network (VeGIN). He uses genomics to identify traits that can improve vegetable crop performance, resilience, nutritional quality and sustainability.

Can comment on: crop breeding, vegetable genetics, food security, sustainable agriculture, yield improvement, future vegetable varieties and plant genomics.

guy.barker@warwick.ac.uk



Gary Bending

Professor Gary Bending is an environmental microbiologist researching how soil and root-associated microbes influence nutrient cycling, soil function and crop performance.

Can comment on: soil microbiomes, soil health, nutrient cycling, regenerative agriculture, soil carbon, crop resilience, and pesticide impacts on soils.

gary.bending@warwick.ac.uk



Dave Chandler

Dr Dave Chandler is an agricultural entomologist who develops biological pest control methods to reduce reliance on conventional pesticides; he also researches pollinator health. Dave co-founded Warwick Agri-Tech.

Can comment on: biological control, Integrated Pest Management (IPM), pesticide alternatives, sustainable crop protection, bee and pollinator health, and pollinator decline.

dave.chandler@warwick.ac.uk



Lauren Chappell

Dr Lauren Chappell's research is centred on crop improvement, plant pathology and pre-breeding. She leads research on the VeGIN project delivering novel genetics linked to key sustainability traits alongside precision breeding pipelines to the horticulture sector.

Can comment on: plant breeding, crop diversity, horticultural pests and pathogens, pest and disease resistance, precision breeding, agri-tech solutions, and Integrated Pest and Disease Management (IPM/IDM).

lauren.chappell@warwick.ac.uk



John Clarkson

Professor John Clarkson is a plant pathologist researching fungal diseases of vegetable and horticultural crops. His focus includes understanding plant pathogen biology and diversity as well as developing management approaches such as diagnostics, plant resistance and biological control to reduce crop losses.

Can comment on: crop diseases, fungal pathogens, disease diagnostics, diseases of vegetable crops such as brassica, lettuce, onion and carrot, hop diseases, crop losses, and sustainable disease management.

john.clarkson@warwick.ac.uk





Rosemary Collier

Professor Rosemary Collier is an applied entomologist who develops sustainable pest management strategies for vegetable crops and helps growers respond to emerging pest threats. She runs the Warwick Crop Centre Policy Unit with Prof Napier.

Can comment on: vegetable crop pests, pesticide reduction, Integrated Pest Management (IPM), diamondback moth, pest forecasting, and climate-related pest pressures.

rosemary.collier@warwick.ac.uk



Alicia Feledziak

Alicia Feledziak is Business Development Manager for Warwick Agri-Tech, where she leads strategic industry engagement. A co-founder of Warwick Agri-Tech, she has a background in engineering and technology development and works to accelerate innovation and technology adoption across agriculture and horticulture.

Can comment on: agricultural robotics, AI in farming, precision agriculture, agri-tech commercialisation, technology adoption, innovation funding, industry-academia collaboration, grower challenges, and future farming technologies.

alicia.feledziak@warwick.ac.uk



Miriam Gifford

Professor Miriam Gifford is a plant scientist researching legume symbiosis with soil-dwelling rhizobia bacteria (nodulation), how the plant clock regulates nodulation, and mechanisms that affect environmental resilience of plants. Miriam is the head of Warwick's School of Life Sciences.

Can comment on: nitrogen use efficiency, root systems, crop resilience, legumes, how the environment affects plants.

m.l.gifford@warwick.ac.uk



Erin Gorsich

Dr Erin Gorsich is a disease ecologist who uses epidemiological models to understand how environmental change affects the spread of pests and diseases in agricultural and natural ecosystems. Her research helps improve disease forecasting and outbreak preparedness.

Can comment on: disease forecasting, biosecurity, emerging pests and diseases, outbreak risk, climate change impacts on disease spread, and disease surveillance.

erin.gorsich@warwick.ac.uk



Murray Grant

Professor Murray Grant is a molecular plant pathologist researching the mechanisms that underpin plant immunity with a focus on plant disease resistance, systemic immunity and suppression of plant defences.

Can comment on: food security, plant health, crop resilience, plant immune systems and precision breeding.

m.grant@warwick.ac.uk



Eric Holub

Professor Eric Holub is a geneticist who has been applying his expertise to improving the UK food system, focusing on the resilience of important food crops like beans and tomatoes.

Can comment on: meal-tech innovation, genetic crop improvement, sustainable crop protection, and the farm-gut health axis.

eric.holub@warwick.ac.uk



Andrew Jukes

Andrew Jukes manages field-scale crop trials that evaluate new technologies, crop protection products and agronomic approaches under commercial growing conditions.

Can comment on: field trials, vegetable crop production and pest monitoring, pest damage identification, bio-stimulants, insect rearing, insecticide residues, and capsaicinoids in chillis.

andrew.jukes@warwick.ac.uk



Ryan Mushinski

Dr Ryan Mushinski is a soil biogeochemist researching the microbial processes that control reactive nitrogen gas emissions, fertiliser efficiency and greenhouse gas emissions from soils.

Can comment on: atmospheric nitrogen and air quality, nitrogen use efficiency, fertiliser management, nutrient cycling, greenhouse gas emissions, soil microbiology, soil health, and sustainable crop production.

ryan.mushinski@warwick.ac.uk



Richard Napier

Professor Richard Napier is a plant biochemist by training. He has a wide interest in promoting all aspects of science and innovation associated with the horticulture sector. He runs the Warwick Crop Centre Policy Unit with Prof Collier.

Can comment on: horticultural policy and advocacy, plant biotechnology, sustainable food production, crop innovation, agri-tech, nanoplastics and plants.

richard.napier@warwick.ac.uk



Stephen Parnell

Dr Stephen Parnell is a plant disease epidemiologist who uses mathematical and computer models to understand how plant pests and diseases spread, and how outbreaks can be detected and controlled.

Can comment on: ash dieback, plant biosecurity, invasive pests and pathogens, phytosanitary systems, disease surveillance, and plant health risks linked to climate change and global trade.

stephen.parnell@warwick.ac.uk



Megan Purchase

Dr Megan Purchase is a soil biogeochemist who investigates how soil microbial processes produce and emit reactive nitrogen gases, using experimental and molecular approaches to understand their mechanisms and improve predictions of emissions under changing environmental conditions.

Can comment on: soil nitrogen cycling, nitrogen use efficiency, soil microbiology, atmospheric nitrogen, soil health, sustainable crop production.

megan.purchase@warwick.ac.uk



Mojgan Rabiey

Dr Mojgan Rabiey is a plant pathologist researching biological control technologies for bacterial diseases of crops and trees. Her work uses bacteriophages and beneficial microbes to improve disease control, reducing dependence on conventional crop protection products.

Can comment on: bacterial crop diseases, phage biocontrol, biological crop protection, plant microbiomes, sustainable disease management, tree health, and next-generation alternatives to pesticides.

mojgan.rabiey@warwick.ac.uk



Jacqueline Stroud

Dr Jacqueline Stroud is a soil scientist with a particular interest in earthworm biology and ecology. She researches how soil health affects crop productivity, sustainability and resilience in farming systems.

Can comment on: earthworm biology and ecology, bioacoustic monitoring, soil health, regenerative agriculture, soil biodiversity, sustainable farming, and improving crop performance.

jacqueline.stroud@warwick.ac.uk



Graham Teakle

Dr Graham Teakle is a plant geneticist who works on a diverse range of crop traits, including plant-pest/pathogen interactions. He focuses on vegetable brassicas, oilseed rape, lettuce, onions, and carrots. Graham's research delivers to the Defra VeGIN - Vegetable Genetic Improvement Network - and OREGIN - Oilseed Rape Genetic Improvement Network.

Can comment on: crop genetics and breeding, disease resistance, climate-resilient crops, vegetable production, and food security.

graham.teakle@warwick.ac.uk



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