CABI in review 24

Contents

Links to open access materials

Cover image: © CABI.

23.2m
farmers reached through the CABI-led PlantwisePlus programme in 2024

190
staff publications published in 2024

Over 16m
records published on CABI Digital Library (cumulative)

Foreword from the Chair

As we look back on 2024, I am proud to share CABI's accomplishments and progress. The past year has been one of growth, innovation and partnership, reinforcing our commitment to improving people's lives worldwide.

During 2024, geopolitical tensions grew, and resources were diverted away from development assistance. These trends have escalated dramatically in the early months of 2025. Against this backdrop, CABI continued to collaborate with its Member Countries to apply science and evidence to the major global challenges addressed by the Sustainable Development Goals.

We have remained strongly focused on facilitating technical co-operation and knowledge exchange between Member Countries. Over the past year, we advanced the implementation of our Medium Term Strategy (MTS) for 2023-2025. Working in partnership, we made good progress, meeting most of the 2024 targets and seeing significant increases in impact on many individual indicators compared with 2023.

We were delighted to receive an application to join CABI from the Central African Republic, which was approved by a membership vote at the end of 2024. An in-country approval process will now lead to formal accession. Dialogue continues with other potential new members, underscoring the continuing attraction of CABI membership.

CABI's work attracted global attention, with over 1,300 items of online and broadcast media coverage in 2024 and an estimated reach of over 142 million. *SciDev.Net* content was seen or heard 385 million times, with 160 million views of our podcast episodes. *SciDev.Net* also delivered science communication training to 1,445 registrants from 78 countries, including 35 CABI Member Countries.

Turning to operational matters, we finalized an agreement with Imperial College to move our UK Centre to their Silwood Park campus in 2025. This move will give us newly renovated infrastructure embedded within one of the world's top universities and facilitate wider contacts between Imperial College and CABI, to the benefit of Member Countries.

It is always rewarding to witness recognition of our staff for outstanding efforts. In 2024, we were delighted to see CABI scientist Dora Shimbwambwa featured in Bill Gates' Heroes in the Field, which honours individuals who have made extraordinary contributions to international development.

We achieved another year of strong results in our annual staff survey, with an engagement score of 81%. We also made substantial progress in system and infrastructure upgrades. We continued to meet our obligations to our legacy UK pension scheme, submitting an updated recovery plan to the UK pension regulator.

Our Board has continued to evolve with the addition of Leonard Kimutai, appointed as CFO, and Gary Ernest who joins as a Non-Executive Director and Chair of the Audit and Risk Committee. In 2025, CABI's Executive Council elected Her Excellency Dr Fatou Bensouda as the Executive Council Chair. She joins the CABI Board as an ex officio member, succeeding His Excellency Vishnu Dhanpaul, whom we thank for his contribution to CABI's governance.

Looking ahead, we remain committed to delivering impact and value for our stakeholders. We extend our sincere gratitude to our Member Countries, partners and staff for their dedication to our mission and success.

Her Excellency Chileshe Kapwepwe, Chair

© CABI.

Foreword from the CEO

As we close another year, I am pleased to share the progress we have made towards our strategic goals in 2024. We have run an expanding portfolio of impact-oriented programmes and projects aligned with our MTS and Member Country needs. We have increased the scope and reach of our knowledge sharing activties. And we have procured a record £75m of further support for future work.

Our flagship global food security programme, PlantwisePlus, went from strength to strength in 2024. Last year saw the programme transition to its scale-out phase, which will operate across at least 27 countries and take the cumulative reach of the programme to around 75 million people. Major funding came from the Netherlands' Directorate-General for International Cooperation (DGIS), UK International Development, the Swiss Agency for Development and Cooperation (SDC) and the European Commission. Significant new support was separately received from the Netherlands' Embassy to scale PlantwisePlus in Burundi.

Pesticide risk reduction has been a long-standing focus for CABI. We conduct extensive work in this area under PlantwisePlus and other projects, incorporating action at many levels, from work with individual farmers through to national policy and regulation and international co-ordination. Building on this track record, we began work during the year to design an expanded CABI offering in pesticide risk reduction. This will be a major agenda item in our 2025 Regional Consultation meetings with Member Countries. During 2024 we also added to our broader work on Sanitary and Phytosanitary measures and capacities, notably through the winning of a large EU-funded project in Uganda.

AI was a defining trend of 2024. CABI demonstrated the capabilities of our internally developed AI chatbot (EVA) in projects including PlantwisePlus, the Juno Evidence Alliance and the Gates Foundation-funded Generative AI for Agriculture (GAIA) initiative. These projects enabled us to refine EVA's output quality and expand its applications, resulting in a successful paid pilot engagement with the Warwick Crop Centre. We also established a comprehensive AI governance framework, encompassing a detailed AI Policy and a dedicated AI Permissions Taskforce to ensure responsible AI development and deployment at CABI.

Last year saw CABI expand its effort to provide high-quality evidence to policymakers by advancing initiatives such as the Juno Evidence Alliance and the Global Burden of Crop Loss. Both attracted support from UK International Development and the Gates Foundation. Juno published and contributed to 11 evidence syntheses, spanning subjects from sustainable agriculture to One Health.

CABI Digital Library, our platform for knowledge and information products, achieved a record-breaking 58 million page views and 20 million unique users, up 48% and 85%, respectively, over 2023. 22 million page views came from 47 CABI Member Countries. We published 78 new books, the most ever, and acquired an aquaculture book list from 5m Publishing. We launched the Aquaculture & Fisheries Collection, covering subjects from diseases and culture techniques to aquatic food security and fisheries management. 2024 also saw the launch of our four new, commodity-specific channels on the CABI Compendium (coffee, cotton, maize and rice). We increased the number of CABI Cases products to eight and introduced seven new courses on the CABI Academy, our digital learning resource. Learners from 30 Member Countries were awarded over 3,600 certificates.

We published 86 open-access journal articles from 19 Member Countries in CABI journals. We signed a contract with the International Society for Horticultural Science to publish the European Journal of Horticultural Science. Our strong output of original research continued, with 190 publications across relevant scientific and social scientific disciplines.

Reflecting the continued expansion of CABI's international development and knowledge sharing activities, our revenues rose modestly in 2024. We made significant investments to expand our projects, services and product range, and to improve our efficiency as an organization. Nevertheless, we recorded a small surplus for the year.

Looking ahead, key priorities for 2025 are to deliver on the third-year targets for our MTS and on individual Country Action Plans. We will engage extensively with Member Countries, especially through the planned series of Regional Consultation Meetings. At these we will explore how we can work even more closely with Members, seek a mandate to refresh our MTS and extend it to 2028, and work with countries to develop concrete plans in the area of pesticide risk reduction.

Dr Daniel Elger, CEO

Daniel Elger. © Fergus Burnett for CABI.

2024 NEWS HIGHLIGHTS

addressing global challenges

JANUARY

NEWS

African smallholder farmers benefit from reduced crop losses and higher incomes from a novel pest alert service

CABI serves up learning lunch for the Gates Foundation on benefits of a FAIR Process Framework

CABI makes progress to sustainably tackle invasive pests and weeds as part of EUR €6 million ADOPT-IPM project

FEBRUARY

NEWS

Farming Innovation Programme award to explore vital role of soil microbiomes and move towards more sustainable agriculture in the UK

CABI science award winners to help increase livelihoods, food security, and empowerment for women in Africa

Revolutionizing crop protection in Pakistan: registration guidance approved to promote sustainable biopesticides

MARCH

NEWS

Role of African women and young people in agricultural service provision investigated in new CABI-led study

CABI visit to Malaysia and Singapore served to strengthen partnerships for enhanced food security in region

CABI-led study reveals "considerable farmer knowledge" on different aspects of antibiotics risk

APRIL

NEWS

CABI publishes first guide to the naturalized and invasive plants of the Caribbean

Crop success celebrated in Zambia after farmers plant virus-free cassava cuttings

Team of global experts to develop beneficial nematode-based biocontrol solution to fall armyworm

MAY

NEWS

CABI-led review of Soil Information Systems highlighted at the Africa Fertilizer and Soil Health Summit

Panel discussion explores space-enabled technologies for innovation in agriculture

Natural Enemies Field Reservoirs play critical role in management of papaya mealybug, CABI study reveals

JUNE

NEWS

Senior Chinese delegation visit to Switzerland strengthens collaboration between joint labs for crop pest research

CABI wins FAO Partnership Award 2024 in recognition of efforts towards sustainable development

Partnerships promoted in research workshop to mark 20 years of collaboration between NIBIO and China

JULY

NEWS

CABI awarded £1.25 million capital grant from the Wolfson Foundation towards relocation of its UK research facilities

Most climate-vulnerable countries with highest hunger rates significantly under-represented in agrifood research

CABI and partners step up fight against devastating papaya mealybug on more farms in Kenya

AUGUST

NEWS

CABI-led research recommends public-private partnership approach to open access to high-quality niche markets

CABI supports the Plant Health Strategy and the Implementation Plan for Africa 2022-2036

CABI and IICA sign formal agreement to collaborate more on sustainable agricultural development

SEPTEMBER

NEWS

Pesticide residue concerns highlighted by fruit and vegetable consumers in five countries, new study reveals

CABI launches framework for sustainable national soil information systems at Africa Food Systems Forum

CABI's expertise in sustainable pest management highlighted at 9th International Agriculture Congress

OCTOBER

NEWS

CABI acquires aquaculture books list from 5m Books

Inaugural Africa Plant Health Systems Forum highlights strength of partnerships for sustainable food security

Biological control generates 'desirable outcomes' within all One Health dimensions, new CABI-led research reveals

NOVEMBER

NEWS

CABI highlights support for just and inclusive transition to sustainable food systems at COP29

Biodiversity event celebrates 75 years of partnership between CABI and Canada for biological control research

Meet CABI's fall armyworm researcher Dora Shimbwambwa, one of Bill Gates's 'Heroes in the Field'

DECEMBER

NEWS

CABI attends presidential round table to highlight help for Burundi's smallholder farmers to increase food security

Sustainable land management practice successfully 'uproots' invasive *Prosopis juliflora* in East Africa

Scientists 'turn up the heat' on understanding coffee wilt disease which threatens our favourite daily brew

Working in partnership to solve problems worldwide

Answers are found when individuals and organizations, countries and regions, work together to solve problems and build sustainable solutions. We are dedicated to collaborating in the global effort to achieve the Sustainable Development Goals (SDGs).

Engagement with our Member Countries took many forms last year, from bilateral interactions and leadership visits to participation in global events. Throughout the year, CABI joined key international and regional meetings relevant to our mission. Notably, these included the climate and biodiversity COP meetings, the World One Health Congress and the Africa Food Systems Forum. Together with the International Organisation for Biological Control, the Inter-American Institute for Cooperation on Agriculture and national partners, we also organized the third International Congress of Biological Control in Costa Rica. In addition, CABI convened the first Africa Plant Health Systems Forum featuring attendance from key partners.

Multi-level, multi-stakeholder approaches are critical to our mission. In 2024, our collaboration with partners in the UK-CGIAR Centre continued to form an important part of our work. We worked with global, national and local partners to further the development of our Landscapes Initiative, which applies the highly participatory approach of integrated landscape management (ILM).

A highlight of the year, we were delighted to be recognized with the FAO Partnership Award for effective collaborations that contribute to sustainable development around the world. We were also excited to win a Silver Data and Marketing Association Award in the sustainability category for our Ukulima True campaign in Kenya promoting pesticide risk reduction.

Towards the end of 2024, we started to prepare for the three Regional Consultation Meetings of Member Countries taking place in 2025. We thank Member Countries for their continuing partnership and financial support. We will continue to forge new relations and strengthen existing collaborations with organizations working on aligned goals.

Benoit Gnonlonfin, Sanitary and Phytosanitary (SPS), Global Program Lead, CABI, speaking at the Africa Food System Forum in Rwanda in September 2024. © AFSF.

CABI at the Africa Food Systems Forum in Rwanda in September 2024. © AFSF.

OUR STORIES

With over 870 new plant doctors trained in 11 countries, and the PlantwisePlus Knowledge Bank attracting a record 1.8 million visits, PlantwisePlus is delivering impact at scale. © CABI.

PlantwisePlus – delivering smart solutions for sustainable farming

In 2024, PlantwisePlus made strides to strengthen plant health systems in 27 countries. The programme directly reached 4.3 million smallholder farmers with plant health advice, increasing yields for 1.3 million and incomes for 1.1 million. With over 870 new plant doctors trained in 11 countries, and the PlantwisePlus Knowledge Bank attracting a record 1.8 million visits, the programme delivered impact at scale. Over 1,100 agri-service providers also received training in business and technical skills. Most were under 35 years old and 445 were women.

The programme developed pest response plans for six countries, incorporating climate and gender-responsive approaches. Pest risk assessments were broadened, with pest risk registers established in five countries. Horizon scanning and pest risk analysis in PlantwisePlus countries have resulted in actionable national plans. Pest Risk Information Service (PRISE) alerts, reaching over 900,000 farmers in Kenya alone, led to decreased pesticide use and increased yields and incomes. Moreover, PlantwisePlus addressed gender disparities in pest management, reaching thousands of women farmers.

Noteworthy biocontrol successes included management of papaya mealybug in Kenya and Uganda, significantly reducing pesticide use. Biocontrol mass-rearing facilities in Pakistan are also now transitioning from external to local support, embedding sustainability in national systems.

In Uganda, over 600 agro-input dealers were trained in pesticide risk reduction, with surveys showing evidence of behavioural change. The award-winning Ukulima True campaign in Kenya was scaled, encouraging sustainable pest management. Both countries established youth and women-led agri-businesses. Pakistan endorsed gender-sensitive advisory approaches, empowering local communities. The programme also played a key role in supporting the development of Kenya's National Pesticide Residue Monitoring Programme, focusing on export value chains.

CABI CENTRES
Global

DONORS
Directorate-General for International Cooperation (DGIS), Netherlands
European Commission Directorate General for International Partnerships (INTPA)
UK International Development from the UK government
Swiss Agency for Development and Cooperation (SDC)

PARTNERS
We gratefully acknowledge the support of our national and international partners who make the global implementation of PlantwisePlus possible

Reducing pesticide risks: Advancing safer and sustainable farming practices

Agriculture forms the backbone of many national economies, supporting the livelihoods of millions. However, global challenges, including climate change, are accelerating the spread of crop pests and diseases. Increasingly, they drive smallholder farmers to rely on pesticides.

Smallholder farmers use pesticides to avoid severe pest damage, which can lead to devastating crop losses, sometimes wiping out entire livelihoods. In their effort to manage these risks, misuse of pesticides can occur. This endangers consumers, the environment, and even the users themselves. Sustainable and nature-based solutions can offer a safer path forward.

Reducing the risks posed by pesticides

Across Africa and Asia, CABI is working with partners to reduce pesticide risks and support the introduction of lower-risk plant protection products such as biopesticides.

The CABI-led PlantwisePlus programme is committed to this goal. In **Uganda**, the programme is working closely with government authorities, taking innovative steps to leverage the power of thousands of agro-dealers. These input specialists are well-positioned to share plant protection advice with smallholders. Through certification and training, CABI is enhancing the skills of the country's agro-dealers. Once trained in sustainable approaches, they share their knowledge with smallholders, boosting safer pesticide handling, protection and storage, and use of pesticide alternatives.

In **Kenya**, the award-winning PlantwisePlus campaign, Ukulima True, has reduced pesticide risk. The campaign is influencing smallholder farmers' behaviour around pesticide use, fostering safer practices. With the farmer at the centre, the campaign's social and behaviour-change strategy focuses on five interconnected groups. It has developed different communication strategies for each group. It then shares knowledge about lower-risk practices and products with each one and incentivizes them to change.

In **Pakistan**, CABI has been working with the government to introduce biopesticide registration guidance. The country's regulations have previously focused on registering chemical pesticides. However, the aim is to integrate more sustainable and environmentally friendly approaches into pest management, which includes biopesticides. The government held consultations with a broad range of stakeholders. It then approved biopesticide registration guidance developed by CABI and its partners in January 2024. The guidance will help revolutionize crop protection in Pakistan.

Delivering impact on pesticide risk reduction

Agro-dealer training has reaped rewards in **Uganda**. By August 2024, 623 agro-dealers had received training. Moreover, a total of 487 had earned certificates to operate as agro-dealers. Through knowledge sharing, these input experts are now improving farmer safety. Agro-dealers have reported how farmers have stopped eating while spraying and no longer transport pesticides with food. Some agro-dealers no longer sell the most hazardous products and have started to promote lower-risk alternatives. They have also reported how farmers have increased their use of Personal Protective Equipment (PPE).

The Ukulima True campaign in **Kenya** has been a great success. Its early stages saw a 26% rise in farmers engaging in risk reduction behaviours such as pest monitoring, PPE use and sprayer calibration. In 2024, the campaign collaborated with local partners, scaling up across parts of Nakuru, Nyandarua and Trans Nzoia counties, amplifying the campaign's reach. Young people were trained as spray service providers, reducing pesticide risks and boosting agri-entrepreneurship and incomes in their communities. The campaign recently won a silver DMA award in sustainability.

Pakistan's newly approved biopesticide registration guidance is set to be a game-changer. Its adoption legislates into action a sustainable approach to managing crop pests and diseases. Over time, it will grow and strengthen the country's biopesticide market.

CABI CENTRES
Global

DONORS
Directorate-General for International Cooperation (DGIS), Netherlands
European Commission Directorate General for International Partnerships (INTPA)
UK International Development from the UK government
Swiss Agency for Development and Cooperation (SDC)

PARTNERS
We gratefully acknowledge the support of our national and international partners who make the global implementation of PlantwisePlus possible

In Pakistan, international biocontrol manufacturers are being encouraged to register their biopesticides to help tackle the pests and diseases affecting the country's major crops. © CABI.

Biocontrol around the world: Using natural solutions to control crop pests

Across the globe, from Africa to Asia and the Americas, invasive crop pests threaten food security and smallholder livelihoods.

In Kenya, for example, papaya mealybug causes yield losses of 53–100%. In some instances, it forces farmers to abandon papaya, or pawpaw, farming altogether. Papaya mealybug can be found in many parts of the world, impacting farmers across tropical and subtropical regions.

In the Philippines, fall armyworm attacks rice, destroying up to 100% of crops and threatening the food security of millions of farming households. This devastating pest has spread across many regions globally. For example, first discovered in Africa in 2016, it now endangers maize production in nearly every country on the continent with losses that cost the economy billions.

In Jamaica, St Lucia, and Antigua and Barbuda, sweet potato weevil can cause yield losses of up to 80%. It is the most destructive sweet potato pest in the region and can be found across South America as well as parts of Asia.

Around the world, farmers rely on pesticides to control invasive species. However, chemical pest control can be harmful to the environment and human health. Sustainable management approaches like biological control (biocontrol) are beneficial. Biocontrol is the use of beneficial or natural enemies to reduce the density of pest species below an economic threshold.

Controlling fall armyworm with sustainable IPM in the Philippines

In the Philippines, CABI is leading an integrated pest management (IPM) project to sustainably manage fall armyworm. This initiative builds on extensive fall armyworm research conducted on maize in Africa. Scientists are now helping the Philippine authorities to develop preparedness strategies and limit the impact of fall armyworm on rice production. CABI has also identified natural enemies that can be used against the pest, including the parasitic wasp *Eiphosoma laphygmae*.

Boosting sweet potato production with biocontrol in the Caribbean

In the Caribbean, CABI is supporting a project to control sweet potato weevil in Jamaica, St Lucia, and Antigua and Barbuda. The work will use environmentally friendly biocontrol as part of an IPM strategy. Scientists are currently searching for isolates of native fungi in the Caribbean that can control the weevil and be developed into a natural pesticide (a biopesticide).

Tackling papaya mealybug with beneficial wasps in Kenya

In Kenya, together with local partners, the CABI-led PlantwisePlus programme is tackling papaya mealybug using a natural enemy – a parasitic wasp called *Acerophagus papayae*. The wasps are mass-reared in a local facility and then released on selected farms. Smallholder farmers are then supplied wasp eggs at no cost, which are distributed around farms. To give the wasps the best

Rice seedlings with larva and pupa of fall armyworm. © Philippine Rice Research Institute.

chance of survival as they establish and spread to neighbouring farms, smallholders are encouraged to stop using chemical pesticides as these inputs kill the wasps and other important natural enemies. This environmentally friendly biocontrol agent is now helping to reduce papaya mealybug numbers and boost papaya yields. Farmers who once abandoned papaya are growing it again thanks to biocontrol.

The impact of biocontrol

Biocontrol is an effective and environmentally friendly way of controlling pests. Within two years of its first release in Kenya, for example, the parasitic wasp caused up to 75% mortality of the papaya mealybug. In the farms in which wasps were released, average papaya harvests almost doubled. As a result of higher papaya yields, the average income of smallholders working on these farms increased by around 20%. The wasps have also quickly spread and have been discovered over 150 km away from their release point. They now benefit farms around the wider area.

The tiny wasp is bringing hope and resilience to farmers in Kenya. Alfred Bolo says, “Insect wasps are my army in the fight to protect my pawpaw.” Omar Mwandaro sees a brighter future: “I believe that my children’s education will be guaranteed, and my life will be transformed compared to how I previously lived.”

PLANTWISEPLUS IN KENYA

CABI CENTRES
CABI in Kenya

DONORS
Directorate-General for International Cooperation (DGIS), Netherlands
European Commission Directorate General for International Partnerships (INTPA)
UK International Development from the UK government
Swiss Agency for Development and Cooperation (SDC)

PARTNERS
We gratefully acknowledge the support of our national and international partners who make the global implementation of PlantwisePlus possible

PROJECT IN THE PHILIPPINES

CABI CENTRE
CABI in Malaysia

DONORS
Department of Agriculture, Philippines
Bureau of Agricultural Research, Philippines

PARTNER
Philippine Rice Research Institute

PROJECT IN THE CARIBBEAN

CABI CENTRE
CABI in the UK

DONOR
Food and Agriculture Organization of the United Nations (FAO)

PARTNER
Inter-American Institute for Cooperation on Agriculture (IICA)

Empowering women farmers to address climate change

Climate change poses significant threats to the food security and livelihoods of women farmers. There are an estimated 215 million women smallholders globally who produce nearly one-third of the world's food. However, women face greater climate risks than men: 80% of climate-displaced people are women and girls, and many are from rural communities. Limited access to resources, education and assets worsens inequality. Prioritizing women in development efforts is crucial for climate resilience.

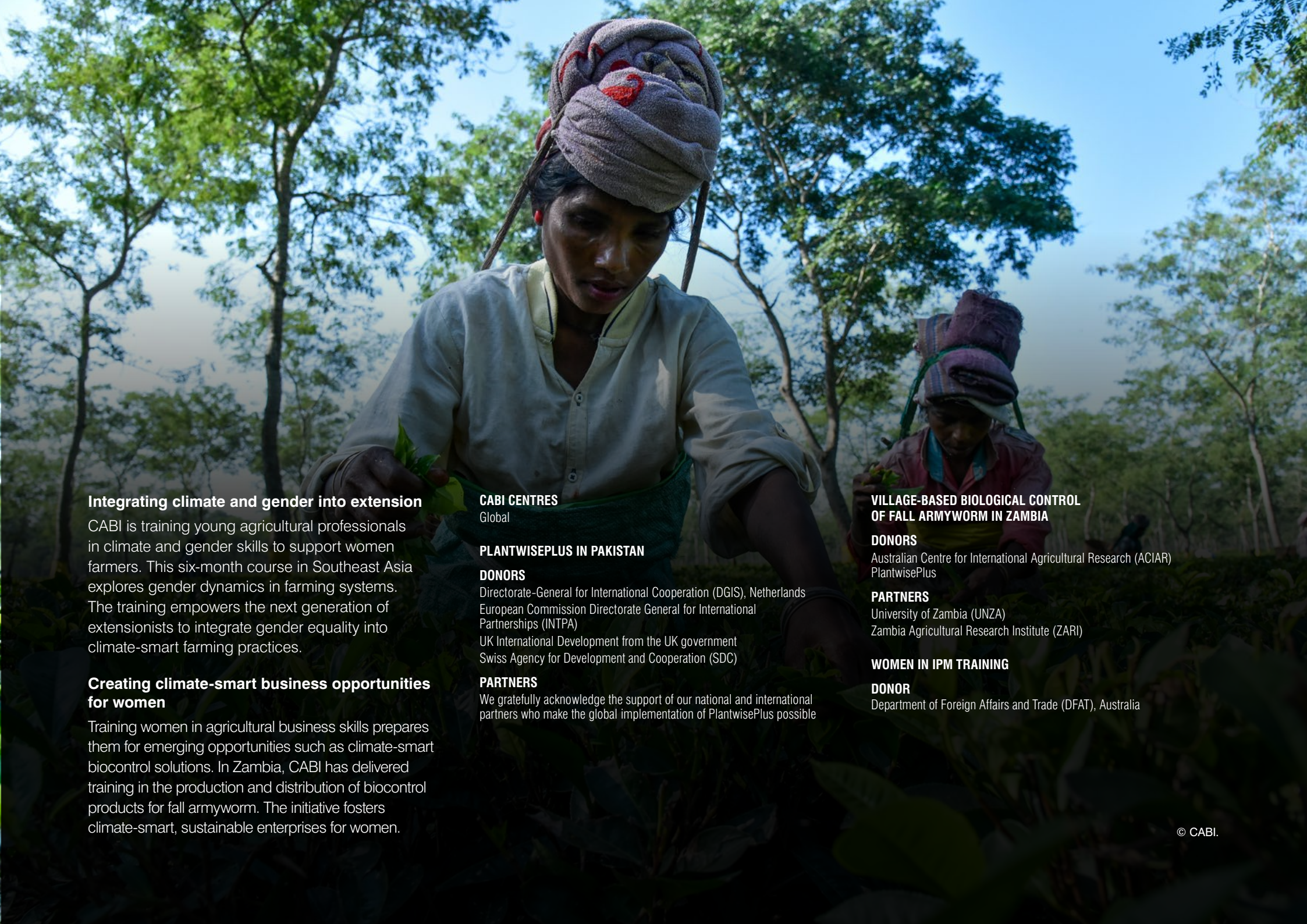
Overcoming gender norms in the agricultural sector

Social norms limit women's access to agricultural knowledge. In Pakistan, PlantwisePlus has created women-only plant clinics. Led by female plant doctors, the clinics enable women to access vital plant health advice and learn skills for climate-smart farming approaches, helping them to build resilience.

Boosting women's access to nature-based pest control

Women often rely on low-cost, time-consuming pest control methods. As the climate warms, and pests spread, they will need more effective pest management approaches. In Zambia, CABI is trialling pest solutions that foster more efficient early-season applications, minimizing the need for pest management later in the season, helping women to save time.

An estimated 215 million women smallholders globally produce nearly one-third of the world's food. © Thomas Cristofoletti for CABI.



Integrating climate and gender into extension

CABI is training young agricultural professionals in climate and gender skills to support women farmers. This six-month course in Southeast Asia explores gender dynamics in farming systems. The training empowers the next generation of extensionists to integrate gender equality into climate-smart farming practices.

Creating climate-smart business opportunities for women

Training women in agricultural business skills prepares them for emerging opportunities such as climate-smart biocontrol solutions. In Zambia, CABI has delivered training in the production and distribution of biocontrol products for fall armyworm. The initiative fosters climate-smart, sustainable enterprises for women.

CABI CENTRES
Global

PLANTWISEPLUS IN PAKISTAN

DONORS
Directorate-General for International Cooperation (DGIS), Netherlands
European Commission Directorate General for International Partnerships (INTPA)
UK International Development from the UK government
Swiss Agency for Development and Cooperation (SDC)

PARTNERS
We gratefully acknowledge the support of our national and international partners who make the global implementation of PlantwisePlus possible

VILLAGE-BASED BIOLOGICAL CONTROL OF FALL ARMYWORM IN ZAMBIA

DONORS
Australian Centre for International Agricultural Research (ACIAR)
PlantwisePlus

PARTNERS
University of Zambia (UNZA)
Zambia Agricultural Research Institute (ZARI)

WOMEN IN IPM TRAINING

DONOR
Department of Foreign Affairs and Trade (DFAT), Australia

Zambian smallholders ‘root out’ **cassava brown streak disease**

Cassava is a critical crop for Zambia. As a valuable food source, it feeds 30% of the population. It even once featured on the nation’s five Kwacha note, symbolizing its economic importance. However, this staple crop is under threat. Since 2018, cassava brown streak disease (CBSD) has caused severe yield losses. It is threatening smallholder livelihoods and food security across the country. It also disrupts diverse industries that rely on cassava starch such as biofuels, brewing, confectionery and mining.

In 2022, CABI, in partnership with Zambia’s Ministry of Agriculture, launched a campaign to combat CBSD. Through PlantwisePlus, the work focused on raising awareness about the disease, culminating in the provision of disease-free cassava cuttings to smallholders. The initiative shared knowledge about the prevention and identification of CBSD using regular scouting. It also brought attention to the critical role that gender inclusivity and sustainability play in cassava seed systems. Since women often work in the fields, empowering them with disease identification and management skills accelerates disease detection.

By 2023, 516 smallholders had received clean cassava cuttings. Moreover, Zambia’s national seed controller had appointed over a dozen ‘lead farmers’ as certified cutting growers. By 2024, 70% of the smallholders reported strong crop performance. Moreover, seed certification of 14 growers boosted the supply of virus-free cuttings. The clean cassava fields expanded. In addition, the campaign fostered new business ventures for women and young people.

Companies like Itabwa Investments now plan to engage another 2,000 farmers to sustain the supply of clean cuttings. The work has also helped to reduce instances of other viruses such as cassava mosaic disease. Above all, the campaign slowed the spread of CBSD. Not only has it reduced cassava losses. It has also safeguarded smallholder incomes and livelihoods.

CABI CENTRES

CABI in Africa

DONORS

Directorate-General for International Cooperation (DGIS), Netherlands
European Commission Directorate General for International Partnerships (INTPA)
UK International Development from the UK government
Swiss Agency for Development and Cooperation (SDC)

PARTNERS

We gratefully acknowledge the support of our national and international partners who make the global implementation of PlantwisePlus possible

Farmer tending her healthy cassava plants. © istockphoto.

Empowering decisions with **data-driven insights**

Climate emergencies. Food shortages. Malnutrition. The world's most pressing challenges demand urgent action. Yet despite this, governments are not systematically using evidence to shape the kind of effective decision- and policymaking that can address these global problems.

Evidence-based decision-making is critical. Scientifically informed strategies can guide efforts to improve lives worldwide, from smallholders' incomes to rural women's empowerment. With robust data, we can improve decisions that govern everything from crop protection to pandemic preparedness. We need a collaborative, science-driven approach.

As the Global Commission on Evidence to Address Societal Challenges highlights, "Decision-makers too often rely on inefficient (and sometimes harmful) informal feedback systems." This leads to "poor decisions" that can harm citizens and waste resources. Solutions must be grounded in sound science to create lasting, sustainable impact.

In collaboration with partners, CABI's programmes and projects are helping to turn this vision into a reality.

The **Juno Evidence Alliance** is a global platform that uses artificial intelligence and rigorous research methods to synthesize knowledge, creating unbiased evidence and improving decision-making.

The CABI-led **Global Burden of Crop Loss** programme provides an evidence-based picture of how, where and why crop losses occur. The data will equip decision-makers with the insights they need to take data-driven action to prevent crop loss.

The **One Health Hub** identifies gaps in One Health knowledge, synthesizes evidence, and facilitates dialogue about the evidence and the implications for cross-sectoral action, to help decision-makers address global human, animal, plant and ecosystem health.

CABI CENTRES
CABI in Kenya, India, Malaysia, Switzerland and the UK

DONORS
UK International Development from the UK government
Gates Foundation

Science-driven decisions improve lives – from crop protection to women's empowerment. © Binh Dnag for CABI.

Harnessing soil data for smarter agriculture in Africa

Soil data is a valuable resource for developing evidence-based agricultural policies that ultimately support farmers. When shared across government departments, soil data can support a wide range of decisions. However, a lack of formal data-sharing can hinder effective collaboration. National Soil Information Systems (SISs) fundamentally address this challenge, enabling more coordinated and impactful action.

SISs enable decision-makers to gain a comprehensive understanding of soil conditions. From fertilizer use and soil erosion to watershed management, they help them to better address critical agricultural issues. SISs support wider landscape-level and policy-level decision-making. In 2024, CABI developed a framework to help nations build more effective SISs. Created by CABI and ISRIC World Soil Information, the framework is a central part of the Soil Information Systems Review, a project funded by the Gates Foundation.

CABI has conducted SIS workshops in Ghana, Kenya and Zambia, leading to the development of national roadmaps for SISs, and Ghana has recently committed to building a national SIS based on CABI's approach. Beyond individual nations, CABI is driving the development of SISs across Africa. We are partnered with FARA, ISRIC and the FAO, and together, have formed a new international coalition. This partnership will support the African Union with SISs at both national and continental levels.

Our goal is to drive collaboration and data-driven decisions. In 2024, we supported the Gates Foundation with the development of the FAIR Process Framework to make data findable, accessible, interoperable and reusable across their investments. This has helped to improve efficiency and return on investment across large projects. Invited by the government of Ethiopia, we also supported their approach to data governance, helping to develop the landmark digital agriculture roadmap, guiding the country's future digital strategy and policy for soil, agronomy and agriculture more widely.

CABI CENTRES
CABI in Africa and the UK

DONOR
Gates Foundation

PARTNER
ISRIC

National Soil Information Systems (SIS) enable more coordinated and impactful soil data sharing. © Treyz Kapture for CABI.

Restoring resilient landscapes:
Combating prosopis for people and wildlife

Prosopis juliflora is one of the world's most threatening non-native tree species. It was introduced to Eastern Africa in the 1970s. Its rapid spread has degraded ecosystems. In Tanzania's Lake Natron Basin, the prosopis invasion has forced pastoralists from grazing land, threatening their food security and livelihoods. In Kenya's Lake Bogoria National Reserve, prosopis has also overrun vital flamingo habitats, leading to the death of numerous birds. The lake hosts three million birds, including the largest lesser flamingo population in the world.

CABI has taken action with partners to manage the spread of prosopis. The work builds on the Woody Weeds projects and the Integrated Landscape Management (ILM) approach, the core of the new CABI Landscapes Initiative. The aim is to combat prosopis and other invasive species through collaborative action.

Safeguarding pastoralist livelihoods

In Tanzania, awareness-raising initiatives and training have helped pastoralists impacted by prosopis. The project has provided community members with knowledge and skills on herbicide use and tools to remove prosopis trees.

Members of two communities around Lake Natron have successfully managed the spread of prosopis. Together, they have removed trees on more than 20 hectares of communal land. The work is a classic example of ILM in action. The project has both increased access to land and restored essential grazing pastures.

Protecting wildlife habitats

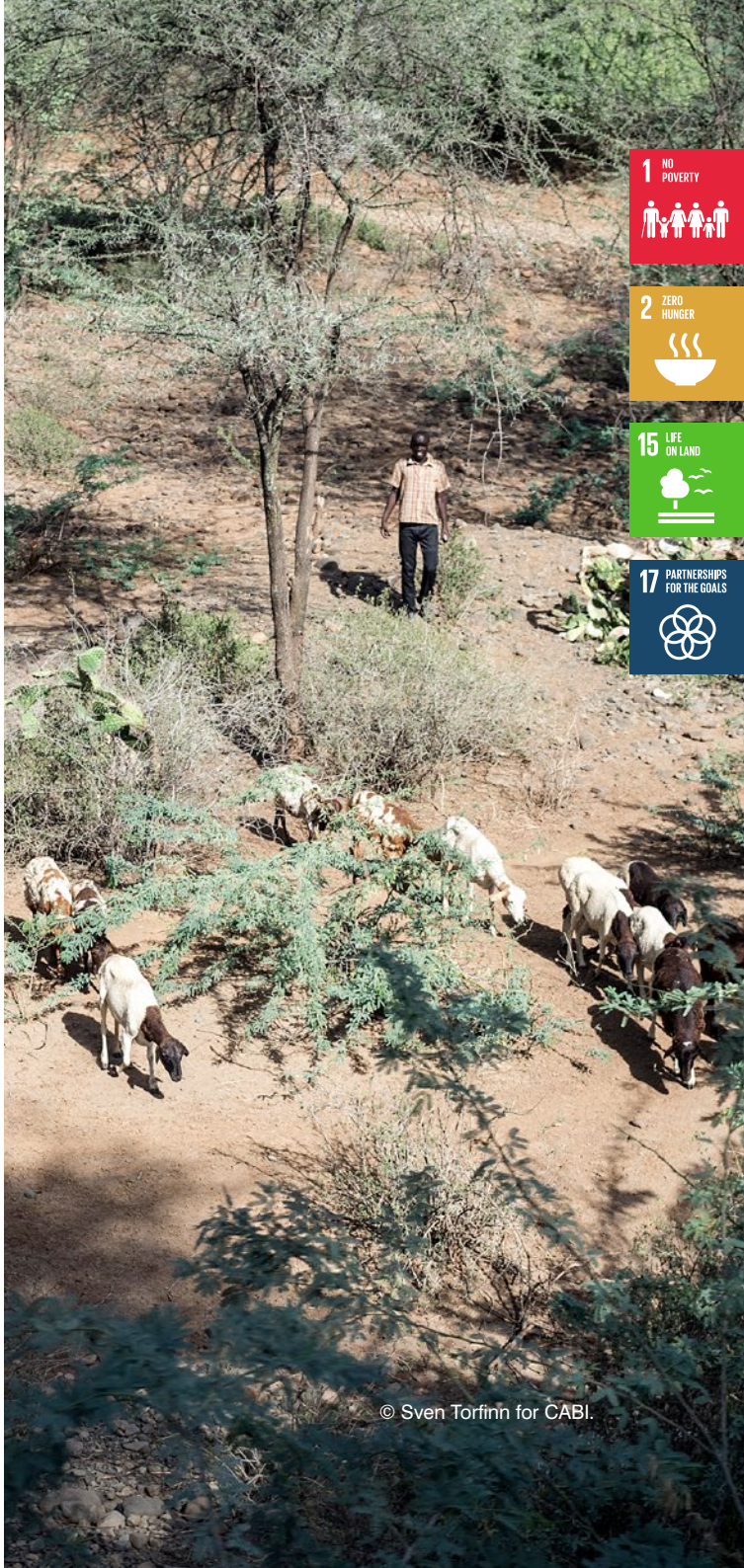
In several counties in Kenya, CABI has brought together diverse stakeholders – from land users to policy-makers. Across sectors, they have united in groups, leading to the successful management of prosopis.

Throughout Lake Bogoria National Reserve, prosopis trees have been removed from the protected area. The groups have partnered with local communities. Together, they have burnt or manually cleared prosopis rootstocks. By focusing on the lake's shoreline, this carefully coordinated effort is protecting lesser flamingo habitats and re-opening wildlife corridors invaded by prosopis. This protects local biodiversity from the negative impacts of invasive species.

CABI CENTRES
CABI in Africa and Switzerland

DONORS
Darwin Initiative
Swiss Agency for Development and Cooperation (SDC)

PARTNERS
Centre for Development and Environment of the University of Bern (CDE)
Centre for Training and Integrated Research in ASAL Development (CETRAD)
Community Research and Development Services (CORDS)
Farmbetter
Kenya Forestry Research Institute (KEFRI)
Tanzania Forestry Research Institute (TAFORI)
Tanzania Natural Resource Forum (TNRF)
Tanzania Wildlife Management Authority (TAWA)
University of Nairobi



CABI Digital Library: Record-breaking growth after full migration

Last year saw record-breaking user growth as we completed the full migration of our flagship databases, CAB Abstracts and Global Health, to CABI Digital Library. The final steps took place in January 2024, adding over 15m records to complete the transfer of our databases, Subject Collections and database subsets. This integration enables customers to access all subscribed and open content seamlessly on one centralized platform.

We are delighted with the outcome. CABI Digital Library usage increased exponentially throughout 2024, well beyond our initial targets for the year.

85% increase in users to 20.4m

48% increase in page views to 58m

74% increase in content searches

50% increase in full text downloads

(All increases are based on 2023 figures)

Expanding knowledge: CABI's new resources and innovations in 2024

New knowledge resources launched in 2024 continued to grow our offering to researchers, students and professionals.

Last year, we launched four new commodity channels on CABI Compendium: cotton, maize, rice and coffee. The channels provide in-depth scientific data and research on pests and diseases affecting these valuable commodity crops.

We also launched two new CABI Cases: Global Health and Soil Science. This growing collection of educational, practical case studies supports study, research and practice. The additions boost our offering in two critical areas: human health and soil science.

New to our resources is protocolRxiv. This open access repository is a fully searchable database for protocols of systematic reviews and other types of evidence synthesis. It covers the applied life sciences, including agriculture, climate adaptation, public health and more.

We also published the fifth edition of the flagship textbook Introduction to Animal and Veterinary Anatomy and Physiology. This bestselling title continues to provide students with a comprehensive description of veterinary anatomy and physiology, this time with augmented reality animations and an online 'test-yourself' CABI Academy course.

First society journal partnership: International Society for Horticultural Science

In 2024, CABI and the International Society for Horticultural Science (ISHS) announced a publishing partnership. ISHS is the world's leading independent organization of horticulturists.

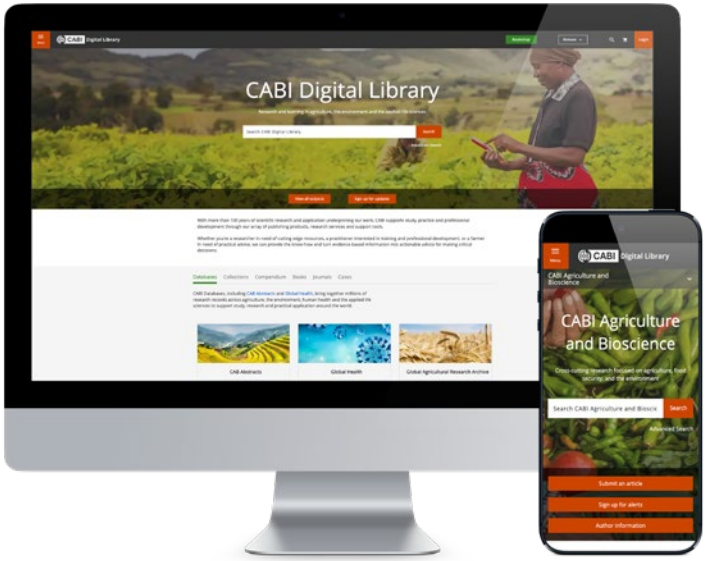
From 1 January 2025, the *European Journal of Horticultural Science* (eJHS) is published by CABI on behalf of the ISHS. eJHS is an international, open access journal, publishing cross-disciplinary research in global horticulture. It is the official journal of the ISHS and available on the CABI Digital Library.

CABI Agriculture and Bioscience moves to CABI Digital Library

Last year, we successfully transferred *CABI Agriculture and Bioscience* to CABI Digital Library. The journal was previously published by BioMed Central (BMC) on behalf of CABI.

CABI acquires aquaculture books list from 5m Books

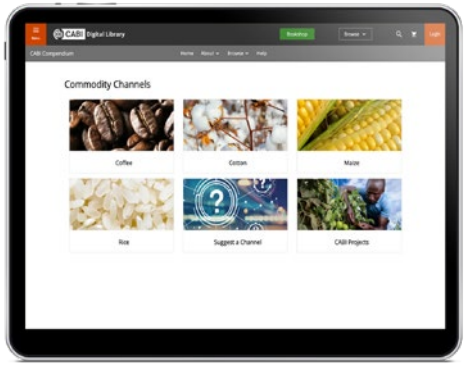
In 2024, CABI acquired an 18-title aquaculture booklist from publisher 5m Books covering everything from fish farming practices to sea life pathology. Another 14 titles are in the pipeline. Aquaculture is one of the fastest-growing food sectors. Now available on CABI Digital Library, these high-quality books will complement CABI's mission of improving food security.

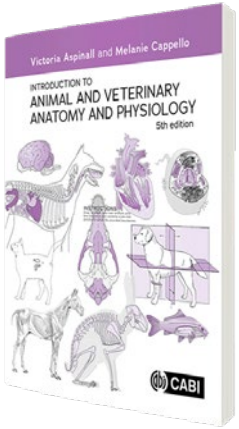


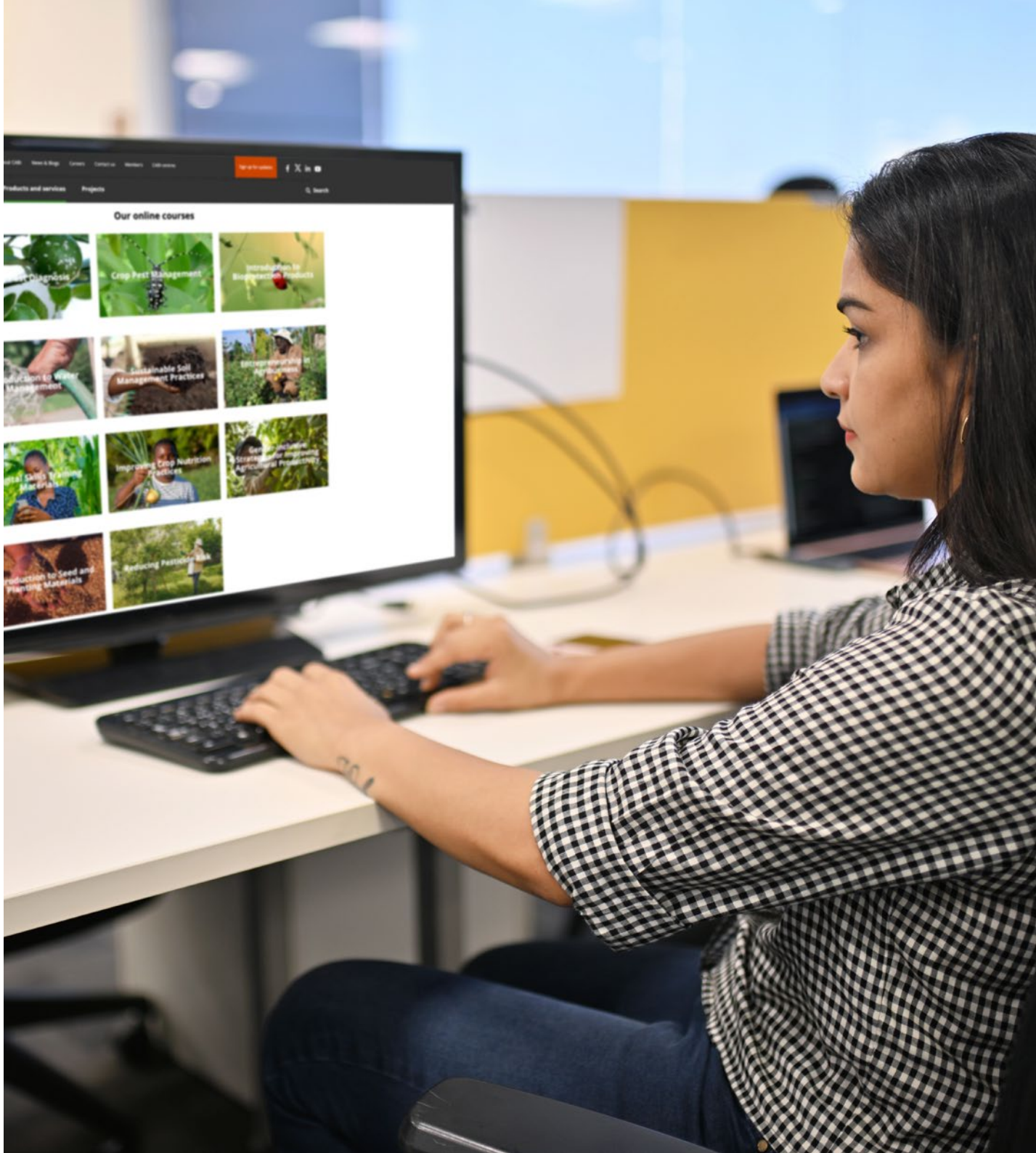
CABI Academy launches 7 new online courses

Expanding on our range of online training materials, we launched seven new courses on CABI Academy in 2024. This open access resource brings together CABI's expertise in crop health, agricultural advisory services and digital development to create a range of courses and certifications that build capacity and strengthen the advice available to farmers.

1. Introduction to Water Management
2. Sustainable Soil Management Practices
3. Entrepreneurship in Agribusiness
4. Digital Skills Training Materials
5. Improving Crop Nutrition Practices
6. Gender-Inclusive Strategies for Improving Agricultural Productivity
7. Introduction to Seed and Planting Materials







Amplifying African research through strategic science communication

Through its independent news platform, *SciDev.Net*, CABI places science at the forefront of global development, delivering reliable and authoritative news, views and analysis to professionals, policymakers, researchers and the media.

In 2024, *SciDev.Net* launched its Spark podcast, exploring the role of science in conflict zones through powerful storytelling and expert perspectives. Each episode highlights practical solutions and sparks hope amidst adversity, revealing how innovation and local knowledge intersect with real-world crises. Featuring voices from individuals, innovators and scientists across the Middle East and North Africa, the podcast has tackled themes such as rebuilding education in war-torn zones, securing food and water in blockaded areas and addressing the mental health toll of conflict. In every story, science emerges as a vital tool for resilience, recovery and change.

As a key initiative last year, *SciDev.Net*'s partnership with the Science Granting Councils Initiative (SGCI) made bold strides, advancing research, innovation and science communication across 17 African countries. This multi-faceted support programme significantly enhanced the visibility and impact of council-funded research across the continent. With an estimated reach of 10 million listeners, a total of 18 science podcasts communicated scientific knowledge to policymakers and the public alike.

The SGCI Footprints newsletter also spotlighted key breakthroughs in African science – from renewable energy solutions to desert locust control – through compelling 'stories of change'. A strong focus on capacity building led to a science communication training series, empowering over 100 researchers and council staff from 22 countries to communicate their findings effectively. Strategic branding initiatives further helped to position SGCI as a prominent leader in Africa's research landscape with targeted campaigns engaging over 93,000 communicators, policymakers and researchers.

DONORS
EurekAlert (AAAS)
International Development Research Centre (IDRC)
Swedish International Development Cooperation Agency (Sida)

Placing science at the forefront of global development. © istockphoto.

A year of scientific discovery

As a science-driven organization, we bring together research, publishing, independent journalism and digital innovation to share evidence-based agricultural solutions with farmers and those who support them around the world. Our aim is to increase the reach, application and impact of science in agriculture and the environment.

In 2024, CABI produced 190 publications, 137 of which were published in peer-reviewed journals and 98 of which were published in journals with an impact factor greater than two. Of the 137 publications, 122 were open access.

Here are highlights from our 2024 studies.

Last year, a CABI study explored business models for engaging women and youth in agricultural services. It found that while no model is a 'fix-all', some approaches can boost incomes and skills. The most effective models are typically local, market-driven and focus on creating value.

A review of the CABI-led Pest Risk Information Service (PRISE) highlighted the project's significant impact. It showed how smallholders in four African countries successfully reduced crop losses and increased their incomes by acting on mobile pest alerts generated through PRISE's satellite data.

A 2024 CABI study found that sustainable land management (SLM) practices have helped farmers in East Africa effectively control invasive *Prosopis juliflora*. Despite the high upfront costs of uprooting the plant, the results illustrated that SLM delivers clear long-term benefits.

CABI scientists found that pesticide residues on fruits and vegetables are the most commonly cited food safety concern among consumers. This 2024 five-country study underscored the urgent need to manage pesticide risks that undermine consumer demand for nutritious foods.

Climate change-induced invasive crop pests remain a major bottleneck to agricultural productivity and food security in South Sudan, according to CABI-led research published last year. Strengthening the country's plant health systems is vital for climate-resilient agriculture.

THANK YOU

CABI's ability to improve lives worldwide is made possible by the generous contributions of the many Member Countries, donors and partners we work with. For this, we want to say a big thank you.

Your ongoing support has enabled us to help…

Ministry of Foreign Affairs of the Netherlands

UK International Development
Partnership | Progress | Prosperity

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

USDA

Gates Foundation

The Wolfson Foundation

USAID
FROM THE AMERICAN PEOPLE

defra
Department for Environment Food and Rural Affairs

Australian Government
Australian Centre for International Agricultural Research

ADB

CRODA Foundation

Ministry of Agriculture and Rural Affairs (MARA)
People's Republic of China

LEVERHULME TRUST

better cotton™

Governance

CABI Board

The Governing Board oversees CABI's programmes and guides management on operational and strategic issues.

EMT

CABI's Executive Management Team (EMT) is responsible for managing the organization's core business operations.

Review Conference

CABI's high-level governing body is the Review Conference of Member Countries, which reviews CABI's work programmes and determines its broad policies and strategies.

Executive Council

Representatives from each Member Country meet to monitor CABI's affairs and implement Review Conference resolutions.

Liaison Officers

Each Member Country has at least one Liaison Officer. Their role is to provide a crucial link between their country and CABI.

CABI Board

Her Excellency Ms Chileshe Kapwepwe, Chair

Her Excellency Dr Fatou Bensouda (appointed Mar 2025)

Mr Christoph Chesher

Mr Gary Ernest (appointed Jul 2024)

Ms Simi Kamal

Ms Ann Tutwiler

Ms Marcy Vigoda

His Excellency Vishnu Dhanpaul (stepped down Mar 2025)

Mr Akhter Mateen (stepped down Aug 2024)

Mr Roger Horton (Chair, stepped down Mar 2024)

EMT

Dr Daniel Elger, CEO

Mr Leonard Kimutai, CFO (joined May 2024)

Ms Linda Copsey

Dr Ulrich Kuhlmann

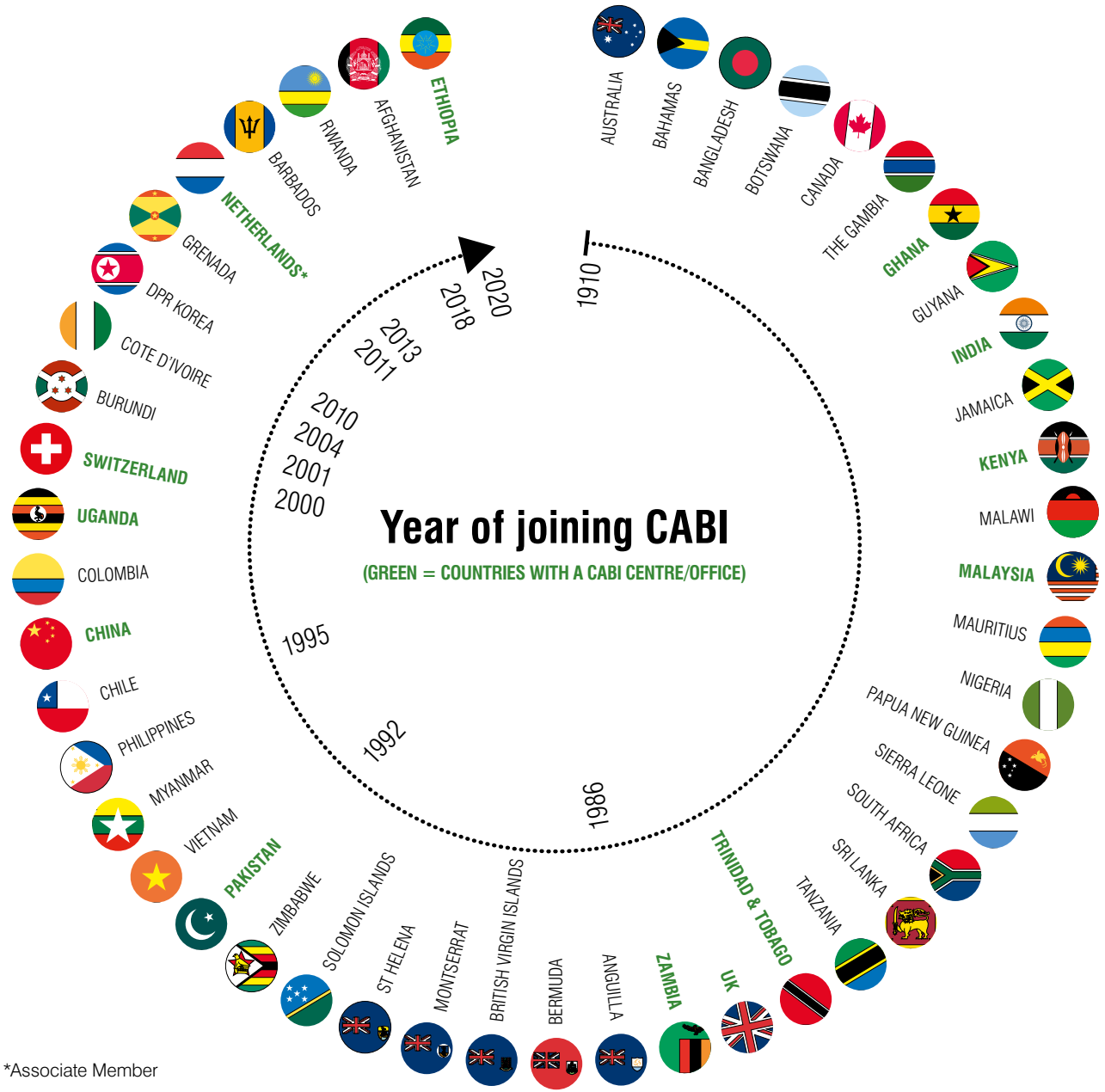
Mr Neil MacIntosh

Ms Carol McNamara

Dr Dennis Rangi

Dr Andy Robinson

Mr Rob Sloley (CFO, stepped down Jun 2024)



*Associate Member

CABI's global role

CABI is an inter-governmental, not-for-profit organization governed through a UN-registered treaty-level agreement. We work with countries that represent over half of the world's population, or over four billion people. Many of these people are smallholder farmers, and much of our work focuses on them.

Each of our **48 Member Countries** has an equal role in the organization's governance, policies and strategic direction. Our membership structure enables us to deliver products, projects and programmes that complement and strengthen the existing national capabilities of our Member Countries and beyond. This helps us to deliver on our mission to improve people's lives worldwide.

Since its beginnings as an entomological committee in 1910, our organization has grown to the Commonwealth Agricultural Bureaux in 1947, to CAB International in 1987, to its present structure today. The diagram shows when Members have joined throughout our long journey.

Financials

In 2024, revenue growth of 3% resulted in a total income of £44m and maintained income above £40m for the second year in a row. This was on the back of a strong 16% growth in 2023. As a result, CABI was again able to generate a modest operating surplus, reporting a figure of £20k after significant investments in people and infrastructure. The surplus did not achieve internal budget expectations due to lower-than-expected revenue growth and was smaller than the surplus in the previous year.

The growth in CABI's income was driven principally by an increase in project implementation (around 2%), while Publishing sales remained stable. CABITAX recovery and Member Country contributions accounted for a combined 1% in growth.

Total costs increased in 2024. This was due in large part to the significant growth in project related direct costs.

In 2024, at £12.0m, the other comprehensive surplus was driven by a reduction in the net liability on the UK defined benefit pension. This reduction in the liability was driven principally by an increase in UK bond yields. This followed an increase of £3.7m in the liability in 2023.

The end of year total cash balance, at £9m, increased over the year (from £7m in 2023) boosted by £1.5m held on behalf of the UK-CGIAR Centre. Cash remained relatively healthy throughout the year.

Statement of comprehensive income

for the year ended 31 December 2024

	2024	2023
	£'000	£'000
Income		
Sales and project income	39,342	38,558
Member Country contributions	2,693	2,528
CABITAX recovery	1,867	1,588
Miscellaneous income	121	116
	44,023	42,790
Expenditure		
Staff costs	(11,684)	(10,943)
Direct project costs	(24,444)	(24,023)
Production	(3,596)	(3,235)
Facilities and maintenance	(1,716)	(1,720)
Sales and distribution	(262)	(350)
Travel	(766)	(555)
Depreciation and leasehold amortisation	(724)	(713)
Impairment loss	0	(37)
Consultants and freelancers	(507)	(573)
Restructuring costs	0	(36)
Expected credit losses from Member Country contributions	(242)	(377)
Associated company loss	0	4
Profit on foreign currency exchange	98	155
Other costs	(348)	(348)
	(44,191)	(42,751)
Operating surplus/(deficit) before interest	**(168)**	**39**
Interest receivable	188	268
	188	268
Operating surplus/(deficit) for the year before exceptional items	**20**	**307**
Other comprehensive surplus/(deficit) items that may be subsequently reclassified to operating surplus/(deficit)		
Cash flow hedges	0	172
Movement between funds	0	(250)
Other (losses)/gains on defined benefit pension scheme	12,021	(3,642)
	12,021	**(3,720)**
Total comprehensive surplus/(deficit) for the year	**12,041**	**(3,413)**

Statement of financial position

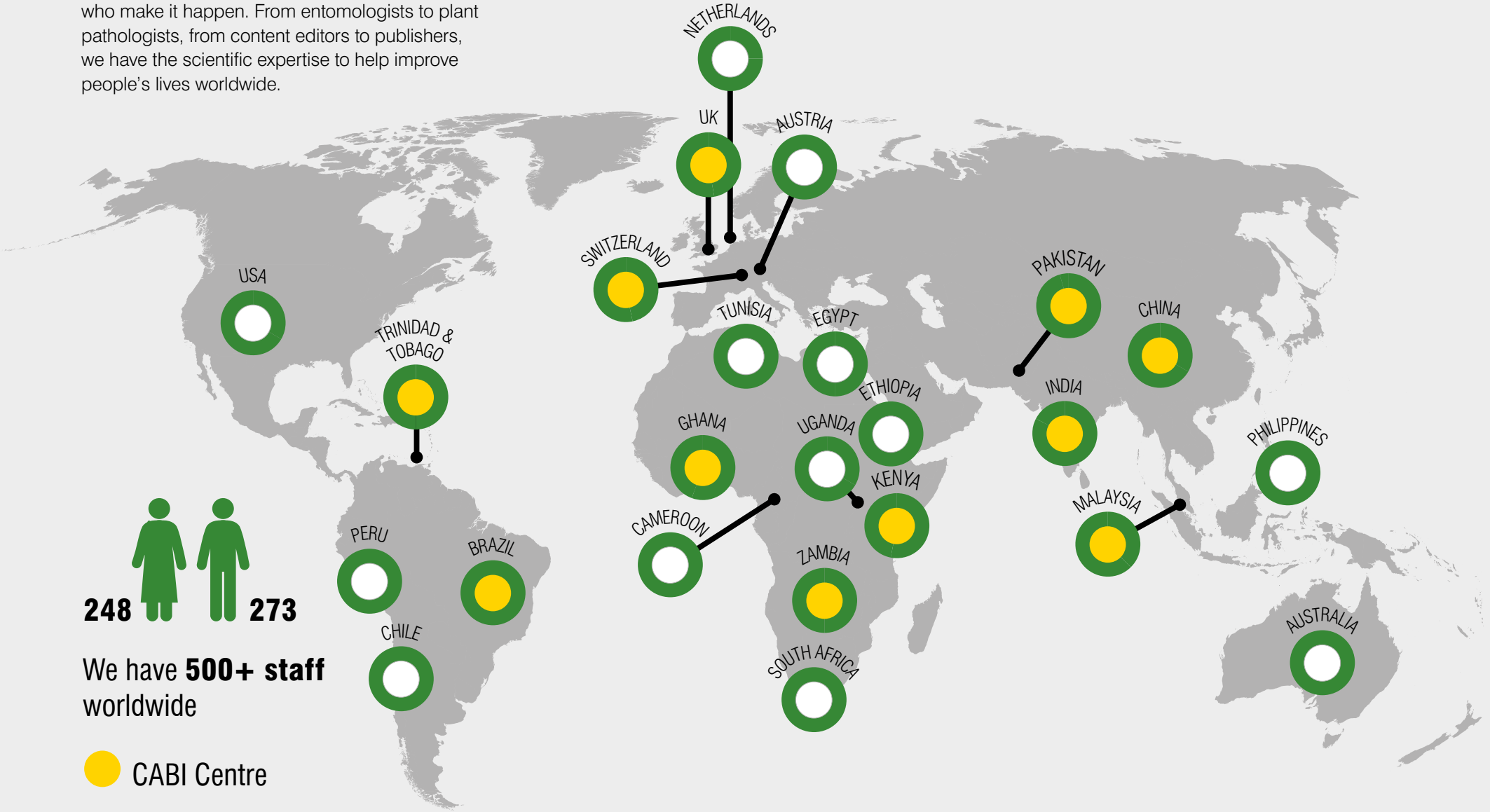
for the year ended 31 December 2024

	2024 £'000	2023 £'000
Assets		
Non-current assets		
Land and buildings	10,125	9,740
Plant and equipment	1,575	1,397
Intangibles	1,146	603
Intangibles – goodwill	113	113
Investments accounted for using the equity method	633	635
	13,592	12,488
Current assets		
Inventories		
– books	316	323
– projects	2,928	2,920
Contract receivables, net of provisions:		
– sales receivables	2,043	1,692
– sums owing by project sponsors	907	448
Amounts receivable from Member Countries	113	84
Other financial assets:		
– derivative financial asset	41	41
– cash and cash equivalents	9,017	7,024
Property held for sale	4,910	5,210
Other receivables	1,109	1,382
	21,384	19,124
Total assets	**34,976**	**31,612**
Equity and liabilities		
Equity		
Revaluation reserve	(3,145)	(3,145)
Cash flow hedges	(41)	(41)
Designated fund	0	(100)
Investment fund	0	(250)
Accumulated deficit	49,139	61,180
Total equity	45,953	57,644
Liabilities		
Non-current liabilities		
Post-employment benefits	(65,761)	(77,782)
Lease liabilities	(11)	(29)
	(65,772)	(77,811)
Current liabilities		
Sales income received in advance	(3,764)	(2,994)
Member contributions in advance	(514)	(683)
Sums held on behalf of project sponsors	(6,612)	(3,880)
UKCGIAR Collaboration	(1,460)	0
Trade and other payables:		
– trade payables	(1,524)	(1,628)
– other payables	(1,283)	(2,260)
Other financial liabilities:		
– derivative financial liability	0	0
	(15,157)	(11,445)
Total liabilities	(80,929)	(89,256)
Total equity and liabilities	**(34,976)**	**(31,612)**

Trichogramma rearing facility in Pakistan. © CABI.

CABI Staff

At the heart of CABI's successes are the experts who make it happen. From entomologists to plant pathologists, from content editors to publishers, we have the scientific expertise to help improve people's lives worldwide.



© iStockphoto.

Staff publications

Available open access

CABI authors in bold; corresponding authors (where named) underlined.

Books, proceedings and manuals (3)

O'D. Bourke, D., Fanjul, L. and **Rendell-Dunn, A.J.** (2024) *Spanish–English Horticultural Dictionary – Revised Edition*. CAB International, Wallingford, UK, 160 pp. https://doi.org/10.1079/9781800628496.0000

Witt, A., Kamwendo, J. and Mwafongo, E. (2024) *Guide to the Naturalized and Invasive Plants of Malawi*. CAB International, Wallingford, UK, vi + 364 pp. https://www.cabidigitallibrary.org/doi/10.1079/9781800622258.0000

Witt, A., Picker, M. and Swinnerton, K. (2024) *Guide to the Alien and Invasive Animals of the Caribbean*. CAB International, Wallingford, vi + 395 pp. https://www.cabidigitallibrary.org/doi/book/10.1079/9781800627598.0000

Peer-reviewed papers (137)

Abbas, S., **Fazlullah**, Asghar, A. and Sabir, M. (2024) Comparative efficacy of various dosages of kurtuma (*Citrullus colocynthis*) and akk (*Calotropis gigantea*) as bio-pesticides for pink bollworm (*Pectinophora gossypiella*) control in cotton crops under arid conditions. *Pakistan Journal of Biotechnology* 21(2), 561–564. https://doi.org/10.34016/pjbt.2024.21.02.865

Adhikari, D., **Pandit, V.**, Bhatta, M., Sharma, D.R. and Baral, S. (2024) Plant clinic in Nepal: an overview. *Acta Agraria Debreceniensis* 1, 5–10. https://doi.org/10.34101/actaagrar/1/13643

Adhikari, D., Thapa, R.B., Joshi, S.L., Du, J.J. and **Pandit, V.** (2024) Area-wide control program of Chinese citrus fly, *Bactrocera minax* in Nepal. *Indian Citriculture* 2(1), 1–10. https://iscindia.org.in/issue.php?fn=Indian-CitricultureV-2-I-1.pdf

Akiri, M., **Mbugua, F.**, **Njunge, R.**, **Agwanda, C.**, **Gurmessa, N.E.**, **Phiri, N.A.**, Musebe, R., Kalisa, J.P., Uzayisenga, B., **Kansiime, M.K.** and **Karanja, D.** (2024) Intervention options for enhancing smallholder compliance with regulatory and market standards for high-value fruits and vegetables in Rwanda and Zambia. *Sustainability* 16(14), 6243, 21 pp. https://doi.org/10.3390/su16146243

Ali, R.K. and **Cock, M.J.W.** (2024) The life history of *Quadrus tetrastigma* (Sepp) (Lepidoptera, Hesperiidae, Pyrginae) in Trinidad, West Indies. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 137–140. https://ttfnc.org/livingworld/index.php/lwj/article/view/ali_et_al_2024b

Ali, R.K., Maharaj, T.P., Arneaud, L.L., Baksh-Comeau, Y.S., **Yeap, Y.T.** and **Cock, M.J.W.** (2024) Partial life history of *Lophocampa walkeri* (Rothschild) (Lepidoptera, Erebidae, Arctiinae) in Trinidad, West Indies. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 119–122. https://ttfnc.org/livingworld/index.php/lwj/article/view/ali_et_al_2024/note

Amanor, G.T., Acheampong, M.A., **Luke, B.**, **Smith, D.**, **Ryan, M.**, **Kermode, A.**, Morris, J., Cornelius, E.W., Eziah, V.Y., Fening, K.O., **Clottey, V.A.**, Naretto Rangel, D.E., Tyson, C. and Mikaelyan, A. (2024) Viability and virulence of freeze-dried *Beauveria bassiana*, *Metarhizium acridum*, and *Hirsutella thompsonii* isolates under non-refrigerated conditions in Ghana. *Biocontrol Science and Technology* 34(3), 296–315. https://doi.org/10.1080/09583157.2024.2332337

Antoniou, A., Abergel, M., Akrivou, A., **Beale, T.**, **Day, R.**, Fielder, H., Larenaudie, M., MacLeod, A., Rosace, M.C., Sarakatsani, E., Stinziano, J.R., **Szyniszewska, A.M.**, Suffert, M. and Tramontini, S. (2024) Horizon scanning: tools to identify emerging threats to plant health in a changing world. *EPPO Bulletin* 54(Suppl. 1), 73–88. https://doi.org/10.1111/epp.12988

Ariza-Salamanca, J.A., Navarro-Cerrillo, R.M[a]., **Crozier, J.**, Stirling, C., Mancini, A., Blaser-Hart, W. and González-Moreno, P. (2024) Drivers of cocoa yield and growth in young monoculture and agroforestry systems. *Agricultural Systems* 219, 104044, 12 pp. https://doi.org/10.1016/j.agsy.2024.104044

Ayuya, O.I., **Makale, F.**, Gama, P.B.S., Otieno, A.J., Okeny, J., **Mugambi, I.**, Alworah, G.O., Jumason, A.H., **Rware, H.**, Aman, C., Mbaka, Z.S. and **Ochilo, W.N.** (2024) Strengthening plant health systems in South Sudan: addressing challenges and enhancing system efficiency and sustainability. *CABI Agriculture and Bioscience* 5, 85, 14 pp. https://doi.org/10.1186/s43170-024-00292-5

Bai, Y.N., Tian, X.Y., Yang, K.B., Song, L.D., Zhang, S.Z., Liu, Z.D., **Zhang, F.**, Shi, S.S. and **Zhang, J.P.** (2024) 猕猴桃园中6种植被生境节肢动物群落结构特征分析[Characteristics of arthropod community structure in six different vegetation habitats in kiwifruit orchard]. *Chinese Journal of Hebei Normal University* (Natural Science) 48 (3), 281–293. https://doi.org/10.13763/j.cnki.jhebnu.nse.202404007 [In Chinese with English abstract, free access to students and scientists in China].

Barroso, F.R.G., **Seier, M.K.**, **Williams, F.**, Costa, R.C., Araújo, F.S. and Mantovani, W. (2024) Socioeconomic and environmental impacts in the carnaúba production chain by invasions of devil's claw (*Cryptostegia madagascariensis*). *Revista Brasileira de Geografia Física* 17(2), 1412–1433. https://doi.org/10.26848/rbgf.v17.2.p1412-1433

Bateman, M., **Day, R.**, **Migiro, L.**, **Agboyi, L.K.**, **Gurmessa, N.E.**, **Romney, D.**, **Boafo, H.A.**, Doughty, K., Ward, A. and Stewart, M. (2024) Strengthening emergency pest prevention, preparedness and response: the potential role of the private sector. *Outlook on Agriculture* 53(3), 216–225. https://doi.org/10.1177/00307270241279097

Batool, R., Gou, X., Dong, H., Long, X., Umer, M.J., **Rwomushana, I.**, Ali, A., Attia, K.A., Guo, J. and Wang, Z. (2024) Endophytic fungi-mediated defense signaling in maize: unraveling the role of WRKY36 in regulating immunity against *Spodoptera frugiperda*. *Physiologia Plantarum* 176(2), e14243. https://doi.org/10.1111/ppl.14243

Bonilla, J.D., Coombes, A., **Romney, D.** and Winters, P.C. (2024) Changing the logic in agricultural extension: evidence from a demand-driven extension programme in Kenya. *Journal of Development Effectiveness* 16(1), 118–141. https://doi.org/10.1080/19439342.2023.2181848

Braczkowski, A.R., Elliot, N., Rwetsiba, A., **Mudumba, T.**, Gopalaswamy, A.M. and 35 co-authors including Gibson, L. (2024) Insights into large carnivore populations in Uganda: a participatory survey of lions, leopards, and hyenas using spatial capture–recapture. *Global Ecology and Conservation* 56, e03312, 15 pp. https://doi.org/10.1016/j.gecco.2024.e03312

Bradshaw, C.D., Hemming, D.L., Mona, T., Thurston, W., **Seier, M.K.**, Hodson, D.P., Smith, J.W., Eyre, D., Liu, T.-G., **Taylor, B.**, Davie, J.C.S., Urhausen, S., Crocker, T., Millington, S.C., Hort, M.C., **Zhang, F.**, Li, H. and Gilligan, C.A. (2024)

Transmission pathways for the stem rust pathogen into Central and East Asia and the role of the alternate host, barberry. *Environmental Research Letters* 19(11), 114097, 16 pp. https://doi.org/10.1088/1748-9326/ad7ee3

Bueno, A.F., Sutil, W.P., Cingolani, M.F. and **Colmenarez, Y.C.** (2024) Using egg parasitoids to manage caterpillars in soybean and maize: benefits, challenges, and major recommendations. *Insects* 15(11), 869, 15 pp. https://doi.org/10.3390/insects15110869

Bueno, A.F., Sutil, W.P., Roswadoski, L. and **Colmenarez, Y.C.** (2024) Augmentative biological control of stink bugs on soybean: the Brazilian scenario. *CABI Agriculture and Bioscience* 5, 58, 10 pp. https://doi.org/10.1186/s43170-024-00264-9

Bunny, S.M., **Umar, A.**, **Bhatti, H.S.** and **Honey, S.F.** (2024) Aflatoxin risk in the era of climatic change – a comprehensive review. CABI Agriculture and Bioscience 5, 105, 13 pp. https://doi.org/10.1186/s43170-024-00305-3

Castillo, M.L., **Schaffner, U.**, Mbaabu, P.R., Shiferaw, H., van Wilgen, B.W., Eckert, S., Choge, S., Münzbergová, Z. and Le Roux, J.J. (2024) Following in the footsteps of invasion: comparisons of founder and invasive genotypes of two independent invasions reveal site-specific demographic processes and no influence by landscape attributes on dispersal. *NeoBiota* 93, 263–291. https://doi.org/10.3897/neobiota.93.117457

Chen, M., Yin, C., Lin, T., Liu, H., Wang, Z., Jiang, P., **Ali, S.**, Tang, Q. and Jin, X. (2024) Integration of unmanned aerial vehicle spectral and textural features for accurate above-ground biomass estimation in cotton. *Agronomy* 14(6), 1313, 18 pp. https://doi.org/10.3390/agronomy14061313

Cheng, Y., Liu, L., **Li, H.**, Yang, X. and Shang, S. (2024) Understanding the feeding behavior and identifying the plant parts preferences of fall armyworm on peanut seedlings. *Agronomy* 14(10), 2432, 9 pp. https://doi.org/10.3390/agronomy14102432

Chikowore, G., **Weyl, P.S.R.** and Martin, G.D. (2024) First record of *Robinia hispida* L. (Fabaceae) in South Africa. *Biological Invasions* 26, 3981–3987. https://doi.org/10.1007/s10530-024-03425-z

Cock, M.J.W. (2024) Tuft moths (Lepidoptera, Nolidae) of Trinidad & Tobago. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 1–33. https://ttfnc.org/livingworld/index.php/lwj/article/view/cock2024a/article

Cock, M.J.W., Mejias, C., Deacon, A.E., Deo, R.N., Kelly, M. and Pandey, D.R.W. (2024) More than 100 new records of moths and butterflies (Lepidoptera) from Tobago, West Indies, with a new synonym in Crambidae. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 52–100. https://ttfnc.org/livingworld/index.php/lwj/article/view/cock_et_al_2024a/article

Colmenarez, Y.C. and Vasquez, C. (2024) Benefits associated with the implementation of biological control programmes in Latin America. *BioControl* 69(3), 303–320. https://doi.org/10.1007/s10526-024-10260-7

Costa, M.M., Sandoval-Denis, M., Moreira, G.M., Kandemir, H., **Kermode, A.**, **Buddie, A.G.**, **Ryan, M.J.**, Becker, Y., Yurkov, A., Maier, W., Groenewald, J.Z., Pfenning, L.H. and Crous, P.W. (2024) Known from trees and the tropics: new insights into the *Fusarium lateritium* species complex. *Studies in Mycology* 109, 403–450. https://doi.org/10.3114/sim.2024.109.06

Dai, X., Lin, Q., Liu, Y., Wang, R., Su, L., Yin, Z., Zhao, S., **Zhang, F.**, Chen, H., Zheng, L., Zhai, Y. and Zhang, L. (2024) Precise control and prevention methods for whitefly in greenhouse vegetables. *Agronomy* 14(5), 989, 11 pp. https://doi.org/10.3390/agronomy14050989

Damba, O.T., Ageyo, C.O., Kizito, F., Mponela, P., Yeboah, S., **Clottey, V.A.**, **Oppong-Mensah, B.A.**, Bayala, J., Obeng Adomaa, F., Dalaa, M.A., Martey, F., Huyer, S., Zougmore, R., Tepa-Yotto, G. and Tamò, M. (2024) Constructing a Climate-Smart readiness index for smallholder farmers: the case of prioritized bundles of climate information services and climate smart agriculture in Ghana. Climate Services 34, 100453, 12 pp. https://doi.org/10.1016/j.cliser.2024.100453

Day, C., **Murphy, S.T.**, Styles, J., **Taylor, B.**, **Beale, T.**, **Holland, W.**, **Williams, F.**, Shaw, A., **Finegold, C.**, **Oronje, M.**, **Oppong-Mensah, B.**, **Phiri, N.**, **Lowry, A.**, **Finch, E.A.**, Mahony, J., **Wood, S.**, **Durocher-Granger, L.**, **Chacha, D.**, Maczey, N., Gonzalez-Moreno, P., Thomas, S.E., Beeken, J., Lewis, J., Lopez Saldana, G., Duah, S., Bundi, M., Wasilwa, L., Amata, R., Musila, R., Mutisya, D., Gitonga, C.K., Kalama, P., Nyasani, J.O., Matimelo, M., Mgomba, H., Gaitu, C., Ocloo, C., Adjei-Mensah, I., Ohene-Mensah, G., Nboyine, J.A. and Susuwele, B. (2024) Forecasting the population development of within-season insect crop pests in sub-Saharan Africa: the Pest Risk Information Service. *Journal of Integrated Pest Management* 15(1), 7, 16 pp. https://doi.org/10.1093/jipm/pmad026

De Clerck-Floate, R.A., **Toševski, I.** and Floate, K.D. (2024) An update on the identity of Longitarsus (Coleoptera: Chrysomelidae) species introduced or relocated in Canada for the biological control of tansy ragwort (Asteraceae). *The Canadian Entomologist* 156, e30, 12 pp. https://doi.org/10.4039/tce.2024.18

Deo, R.N. and **Cock, M.J.W.** (2024) Fruit baits at night attract unusual erebid moths (Lepidoptera) in Trinidad, West Indies, with two taxonomic changes in Erebidae, Herminiinae. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 42–51. https://ttfnc.org/livingworld/index.php/lwj/article/view/deo_cock_2024/article

Deo, R.N. Maharaj, T.P. and **Cock, M.J.W.** (2024) Theope spp. butterflies (Lepidoptera, Riodinidae) mating at night. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 133–134. https://ttfnc.org/livingworld/index.php/lwj/article/view/deo_et_al_2024b

Dhileepan, K., King, A.M., Taylor, D.B.J., **Pollard, K.M.** and **Seier, M.K.** (2024) Biological control of cat's claw creeper (*Dolichandra unguis-cati*; Bignoniaceae): current status and future prospects. *Annals of Applied Biology* 185(2), 132–145. https://doi.org/10.1111/aab.12930

Douglas, K.O., Francis, D. and **Ramnanan, N.** (2024) A landscape analysis and one health approach to an invasive species pathway: pet and aquaria trade in the eastern Caribbean. *One Health* 19, 100942, 10 pp. https://doi.org/10.1016/j.onehlt.2024.100942

Durocher-Granger, L., Wu, G.-M., **Finch, E.A.**, **Lowry, A.**, **Yeap, Y.T.**, **Bonnin, J.M.**, **Offord, L.**, **Kenis, M.** and Dicke, M. (2024) Preliminary results on effects of planting dates and maize growth stages on fall armyworm density and parasitoid occurrence in Zambia. *CABI Agriculture and Bioscience* 5, 52. https://doi.org/10.1186/s43170-024-00258-7

Eleftheriadou, N., Kavallieratos, N.G., Malesios, C., **Seehausen, M.L.**, **Kenis, M.**, Lefoe, G., Lubanga, U. and Avtzis, D.N. (2024) Assessing the prey specificity of *Neoleucopis* spp. against *Marchalina hellenica*. *Sustainability* **16(7)**, 2756, 13 pp. https://doi.org/10.3390/su16072756

Erenler, H.E., Gillman, M.P. and **Cock, M.J.W.** (2024) Rapid assessment of the composition and species richness of Tobago butterfly assemblages. *Caribbean Journal of Science* 54(1), 156–173. https://doi.org/10.18475/cjos.v54i1.a19

Eschen, R., Kaaya, O.E., Kilawe, C.J., Malila, B.P., Mbwambo, J.R., **Mwihomeke, M.S.** and **Nunda, W.** (2024) Adoption of a sustainable land management practice for invasive *Prosopis juliflora* in East Africa. *CABI Agriculture and Bioscience* 5, 113, 14 pp. https://doi.org/10.1186/s43170-024-00315-1

Fallet, P., Bazagwira, D., Ruzzante, L., Ingabire, G., Levivier, S., Bustos-Segura, C., Kajuga, J., **Toepfer, S.** and Turlings, T.C.J. (2024) Entomopathogenic nematodes as an effective and sustainable alternative to control the fall armyworm in Africa. *PNAS Nexus* 3(4), pgae122, 8 pp. https://doi.org/10.1093/pnasnexus/pgae122

Farooq, M., **Nawaz, A.**, Rehman, A., Ullah, A., Wakeel, A., ur Rehman, H., Nawaz, A., Siddique, K.H.M. and Frei, M. (2024) Conservation agriculture effects on ecosystem health and sustainability – a review of rice–wheat cropping system. *Science of the Total Environment* 957, 177535, 17 pp. https://doi.org/10.1016/j.scitotenv.2024.177535

Fening, K.O., Okyere, S.O., Forchibe, E.E., Layodé, B.F.R., Richmond, T.E., **Agboyi, L.K.B.A.**, Afreh-Nuamah, K. and Wamonje, F.O. (2024) First report of *Leucinodes africensis* and *Leucinodes laisalis* on *Solanum aethiopicum* and *Solanum melongena* in farmer's fields in southern Ghana. *Bulletin of Entomological Research* 114(3), 359–373. https://doi.org/10.1017/S0007485324000154

Fielder, H., **Beale, T.**, Jeger, M.J., **Oliver, G.**, Parnell, S., Szyniszewska, A.M., Taylor, P. and Cunniffe, N.J. (2024) A synoptic review of plant disease epidemics and outbreaks published in 2022. *Phytopathology* 114(8), 1717–1732. https://doi.org/10.1094/PHYTO-01-24-0042-RVW

Finch, E.A., **Li, H.**, Cornelius, A., Styles, J., **Beeken, J.**, Cheng, Y., Wang, G., Qiu, G. and **Luke, B.** (2024) An updated and validated model for predicting the performance of a biological control agent for the oriental migratory locust. *Pest Management Science* 80(2), 442–451. https://doi.org/10.1002/ps.7775

Finch, E.A., Wyckhuys, K.A.G. and **Rwomushana, I.** (2024) Potential distribution of *Acerophagus papayae*, a parasitoid of the papaya mealybug (*Paracoccus marginatus*), across Africa. *Biological Control* 198, 105628, 10 pp. https://doi.org/10.1016/j.biocontrol.2024.105628

Franić, I., Cleary, M., Aday Kaya, A.G., Bragança, H., Brodal, G., Cech, T.L., Chandelier, A., Doğmuş-Lehtijärvi, T., **Eschen, R.**, Lehtijärvi, A., Ormsby, M., Prospero, S., Schwanda, K., Sikora, K., Szmidla, H., Talgø, V., Tkaczyk, M.,

Vettraino, A.M. and Perez-Sierra, A. (2024) The biosecurity risks of international forest tree seed movements. *Current Forestry Reports* 10(2), 89–102. https://doi.org/10.1007/s40725-023-00211-3

Gadhi, M.A., **Nazir, T.**, Majeed, M.Z., Jatoi, G.H., Jie, R. and **Qiu, D.** (2024) In-vitro and in-vivo assessment of biological control potential of nematode symbiont *Xenorhabdus nematophila* against *Pseudomonas syringae*, the causative agent of angular leaf spot of cucumber. *Journal of Phytopathology* 172(4), e13351, 8 pp. https://doi.org/10.1111/jph.13351

Ganou, S.F., Sankara, F., **Agboyi, L.K.**, Dao, A.N.C., Dabire, R., Nebie, K., Zida, I., Wangrawa, D. and Somda, I. (2024) Contribution des parasitoïdes dans la lutte contre *Spodoptera frugiperda* (J. E. Smith) (Lepidoptera: Noctuidae) en Afrique de l'Ouest: cas de *Chelonus bifoveolatus* et *Coccygidium luteum* (synthèse bibliographique) [Contribution of parasitoids to the control of *Spodoptera frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae) in West Africa: the case of *Chelonus bifoveolatus* and *Coccygidium luteum* (bibliographic synthesis)]. *International Journal of Biological and Chemical Sciences* 18(1), 279–288. https://doi.org/10.4314/ijbcs.v18i1.23

Ganou, S.F., Sankara, F., Dao, A.N.C., Wangrawa, D.W., Zida, I., **Agboyi, L.K.**, Nebie, K., Dabire, R. and Somda, I. (2024) Farmers' knowledge of biological control for sustainable management of fall armyworm in Western Burkina Faso. *Journal of Entomology and Zoology Studies* 12(6), 195–203. https://doi.org/10.22271/j.ento.2024.v12.i6c.9430

Gosik, R. and **Toševski, I.** (2024) First record of *Gymnetron tibiellum* Desbrochers des Loges, 1900 (Coleoptera, Curculionidae, Mecinini) from Poland. *Polish Journal of Entomology* 93(1), 10–16. https://doi.org/10.5604/01.3001.0054.5167

Gosik, R., Caldara, R., **Toševski, I.** and Skuhrovec, J. (2024) Description of immature stages of *Rhinusa* species (Coleoptera, Curculionidae, Mecinini) with a focus on diagnostic morphological characters at the species and genus levels. *ZooKeys* 1195, 1–94. https://doi.org/10.3897/zookeys.1195.112328

Gul, A., Shah, S.H.J., **Faris, S.**, Qazi, J., Qazi, A. and Dey, S.K. (2024) An analysis of morphological and genetic diversity of mango fruit flies in Pakistan. *PLoS ONE* 19(7), e0304472, 16 pp. https://doi.org/10.1371/journal.pone.0304472

Guo, J., Shi, J., Han, H., **Rwomushana, I.**, Ali, A., Myint, Y. and Wang, Z. (2024) Competitive interactions between invasive fall armyworm and Asian corn borer at intraspecific and interspecific level on the same feeding guild. *Insect Science* 31(4), 1313–1325. https://doi.org/10.1111/1744-7917.13300

Haider, M.W., Nafees, M., Iqbal, R., Ali, S., **Asad, H.U.**, Azeem, F., Gaafar, A.R.Z., Elshikh, M.S., Rizwana, H., Elsalahy, H.H., Elshamly, A. and Mohammed, K.A.S. (2024) Rejuvenating potato growth and yield in challenging semiarid and saline sandy Cholistan: harnessing PGPB-coated N and P application strategies. *BMC Plant Biology* 24, 386, 15 pp. https://doi.org/10.1186/s12870-024-05056-x

Häner, N., **Fenijn, F.** and **Haye, T.** (2024) Does intraspecific variation in *Trissolcus japonicus* affect its response to non-target hosts? *BioControl* 69(5), 563–573. https://doi.org/10.1007/s10526-024-10256-3

Harms, N.E., Purcell, M., Hong, S.-h., **Stutz, S.**, Zhang, J., Harlow, M., Liu, C. and Tippery, N.P. (2024) Native and invaded-range surveys provide mixed support for enemy-release of *Nymphoides peltata* in the invaded range. *Aquatic Botany* 195, 103803, 10 pp. https://doi.org/10.1016/j.aquabot.2024.103803

Hassall, K.L., Alonso Chávez, V., Sint, H., Helps, J.C., Abidrabo, P., Okao-Okuja, G., Eboulem, R.G., Amoakon, W.J.-L., Otron, D.H. and **Szyniszewska, A.** (2024) Validating a cassava production spatial disaggregation model in sub-Saharan Africa. *PLoS ONE* 19(11), e0312734, 19 pp. https://doi.org/10.1371/journal.pone.0312734

Haye, T., Moraglio, S.T., Tortorici, F., Marazzi, C., Gariepy, T.D. and Tavella, L. (2024) Does the fundamental host range of *Trissolcus japonicus* match its realized host range in Europe? *Journal of Pest Science* 97(1), 299–321. https://doi.org/10.1007/s10340-023-01638-0

Hinz, H.L., Cabrera Walsh, G., Paterson, I., Paynter, Q., Schwarzländer, M., Smith, M. and **Weyl, P.** (2024) Enhancing pre-release studies for weed biocontrol agents: a review of existing and emerging tools. *Biological Control* 198, 105607, 13 pp. https://doi.org/10.1016/j.biocontrol.2024.105607

Hopper, K.R., Wang, X., **Kenis, M.**, **Seehausen, M.L.**, Abram, P.K., Daane, K.M., Buffington, M.L., Hoelmer, K.A., Kingham, B.F., Shevchenko, O. and Bernberg, E. (2024) Genome divergence and reproductive incompatibility among populations of *Ganaspis near brasiliensis*. *G3 Genes|Genomes|Genetics* **14(7)**, jkae090, 13 pp. https://doi.org/10.1093/g3journal/jkae090

Horrocks, K.J., **Seehausen, M.L.**, Down, R.E., Audsley, N., Maggini, R. and Collatz, J. (2024) Assessing the feasibility of pre-emptive biological control against the emerald ash borer, *Agrilus planipennis*, an imminent biosecurity threat to Europe. *Biological Control* 198, 105641, 15 pp. https://doi.org/10.1016/j.biocontrol.2024.105641

Horrocks, K.J., **Zhang, J.**, **Haye, T.**, **Seehausen, M.L.**, Maggini, R., Xian, X., Chen, J., Nugnes, F., Collatz, J., Gruber, A. and Gariepy, T.D. (2024) Biology, impact, management and potential distribution of *Aromia bungii*, a major threat to fruit crops around the world. *Journal of Pest Science* 97(4), 1725–1747. https://doi.org/10.1007/s10340-024-01767-0

Huelsen, V., **Khonje, M.G.** and Qaim, M. (2024) Market food environments and child nutrition. *Food Policy* 128, 102704, 12 pp. https://doi.org/10.1016/j.foodpol.2024.102704

Hulme, M., **Yeap, Y.T.**, Morrall, J. and **Cock, M.J.W.** (2024) An inter-species mating of *Melanis* spp. (Lepidoptera, Riodinidae). *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 135–136. https://ttfnc.org/livingworld/index.php/lwj/article/view/hulme_et_al

Idemudia, I., Okwae Fening, K., **Agboyi, L.K.**, Wilson, D., **Clottey, V.A.**, Beseh, P. and Aigbedion-Atalor, P.O. (2024) First report of the predatory potential and functional response of the red flower assassin bug *Rhynocoris segmentarius* (Germar), a natural enemy of *Spodoptera frugiperda* (J.E. Smith). *Biological Control* 191, 105465, 10 pp. https://doi.org/10.1016/j.biocontrol.2024.105465

Iqbal, S., Ashfaq, M., Rao, M.J., Khan, K.S., **Malik, A.H.**, Mehmood, M.A., Fawaz, M.S., Abbas, A., Shakeel, M.T., Naqvi, S.A.H., Alrefaei, A.F. and Duan, M. (2024) *Trichoderma viride*: an eco-friendly biocontrol solution against soil-borne pathogens in vegetables under different soil conditions. *Horticulturae* 10(12), 1277, 20 pp. https://doi.org/10.3390/horticulturae10121277

Jin, Z., Xian, X., Zhao, H., Li, M., Guo, J., Yang, N., Wan, F., **Toepfer, S.** and Liu, W. (2024) Better preparedness for invasive crop pests in changing climate: assessing the risk of western corn rootworm (Coleoptera: Chrysomelidae) colonization in global maize growing regions and future spread dynamics. *New Plant Protection* 1(1), e12, 18 pp. https://doi.org/10.1002/npp2.12

Jomantas, S., **Wood, A.**, Munthali, N., **Ochilo, W.**, **Thakur, M.**, **Romney, D.** and **Kadzamira, M.** (2024) Looking at human healthcare to improve agricultural service delivery: the case of online chatgroups. CABI One Health 3(1), 10 pp. https://doi.org/10.1079/cabionehealth.2024.0008

Kadzamira, M., **Chege, F.**, **Suntharalingam, C.**, **Bundi, M.**, **Likoko, L.**, **Magero, D.**, **Romney, D.**, **Kansiime, M.** and Mulema, J. (2024) African women and young people as agriculture service providers – business models, benefits, gaps and opportunities. *CABI Agriculture and Bioscience* 5, 24, 14 pp. https://doi.org/10.1186/s43170-024-00229-y

Kansiime, M.K., **Makale, F.**, **Chacha, D.**, **Nunda, W.**, **Karanja, D.** and **Durocher-Granger, L.** (2024) Area-wide pest management and prospects for fall armyworm control on smallholder farms in Africa: a review. *Sustainable Environment* 10(1), 2345464, 15 pp. https://doi.org/10.1080/27658511.2024.2345464

Kenis, M., Eisenring, M., Gossner, M. and **Seehausen, M.L.** (2024) Parasitoids of *Agrilus* spp. in Europe: anticipating the arrival of *Agrilus planipennis*. *Biological Control* 199, 105655, 5 pp. https://doi.org/10.1016/j.biocontrol.2024.105655

Kenis, M., **Zhong, Y.**, **Fontes, J.**, **Kenis, J.**, Herz, A. and **Babendreier, D.** (2024) Pre-emptive augmentative biological control of *Spodoptera frugiperda* in Europe using *Trichogramma* spp. *CABI Agriculture and Bioscience* 5, 96, 8 pp. https://doi.org/10.1186/s43170-024-00296-1

Khonje, M.G. and Qaim, M. (2024) Animal-sourced foods improve child nutrition in Africa. *Proceedings of the National Academy of Sciences USA* 121(50), e2319009121, 8 pp. https://doi.org/10.1073/pnas.2319009121

Kim, S., Choi, J.B., Hwang, H.-S., **Kenis, M.**, **Seehausen, M.L.**, Park, I., Choi, J.-K., Lee, K.-Y., Sharkey, M.J. and Kang, I. (2024) A new species of *Braunsia* (Hymenoptera, Braconidae, Agathidinae), a natural enemy of *Cydalima perspectalis* (Lepidoptera, Crambidae) from South Korea: species description and notes on its biology. *Journal of Hymenoptera Research* 97, 915–936. https://doi.org/10.3897/jhr.97.135728

Klötzli, J., Suter, M., Beaumont, D., Kolmanič, A., Leskovšek, R., **Schaffner, U.**, Storkey, J. and Lüscher, A. (2024) Key management practices to reduce the risk of the occurrence of *Rumex obtusifolius* in productive grasslands. *Weed Research* 64(1), 76–88. https://doi.org/10.1111/wre.12608

Koka, E.G., Chitiki, A.K., Selemani, I.S., **Schaffner, U.** and Kilawe, C.J. (2024) Effects of deferred grazing regime on rangeland productivity and health: a case study of Simanjiro District in Northern Tanzania. *Rangeland Ecology and Management* 94, 119–126. https://doi.org/10.1016/j.rama.2024.02.004

Kriticos, D., **Szyniszewska, A.**, Bradshaw, C., Li, C., Verykouki, E., Yonow, T. and Duffy, C. (2024) Modelling tools for including climate change in pest risk assessments. *EPPO Bulletin* 54(Suppl. 1), 38–51. https://doi.org/10.1111/epp.12994

Kurose, D., **Seier, M.K.** and **Evans, H.C.** (2024) Exploiting exotic pathogens as mycoherbicides against invasive alien weeds: Japanese knotweed as a case study. *Pest Management Science* 80(1), 87–91. https://doi.org/10.1002/ps.7510

Lin, L., Xie, M., Zhong, Y., Zhang, G., **Zhang, F.** and Chen, H. (2024) Demographic analysis of the biological parameters of *Spodoptera frugiperda* after sublethal exposure to insecticides. *Crop Protection* 180,106647, 9 pp. https://doi.org/10.1016/j.cropro.2024.106647

Makale, F., Muvea, A.M., **Mugambi, I.**, **Chacha, D.**, **Finch, E.A.** and **Rwomushana, I.** (2024) Current and potential distribution of the invasive apple snail, *Pomacea canaliculata* in Eastern Africa: evidence from delimiting surveys and modelling studies. *CABI Agriculture and Bioscience* 5, 92, 13 pp. https://doi.org/10.1186/s43170-024-00301-7

McTavish, M.J., Jones, I.M., **Häfliger, P.**, Smith, S.M. and Bourchier, R.S. (2024) Field tests of egg and larval release methods of biological control agents (*Archanara neurica*, *Lenisa geminipuncta*) for introduced *Phragmites australis australis* (Cav.) Trin. ex Steud. *Biological Control* 188,105414, 9 pp. https://doi.org/10.1016/j.biocontrol.2023.105414

Mehdi, M.A., Ramzan, M., Abbas, D., **Fazlullah,** Shahid, R., Siddique, A.B. and Asghar, N. (2024) Perception of mango farmers on the status of *Conogethes punctiferalis*. I*ndian Journal of Entomology*, e24690, 4 pp. https://doi.org/10.55446/IJE.2024.1690

Mogeni, I.H. and **Bitange, N.** (2024) Abundance, diversity and distribution of soil nematodes in Kangaita and Weru tea catchments of Kirinyaga and Tharaka Nithi counties, Kenya. *African Journal of Food, Agriculture, Nutrition and Development* 24(2), 25525–25536. https://doi.org/10.18697/ajfand.127.23950

Mulema, J., **Phiri, S.**, Bbebe, N., Chandipo, R., Chijikwa, M., Chimutingiza, H., Kachapulula, P., Kankuma Mwanda, F., Matimelo, M., Mazimba-Sikazwe, E., Mfune, S., Mkulama, M., Moonga, M., Mphande, W., Mufwaya, M., Mulenga, R., Mweemba, B., Ndalamei Mabote, D., Nkunika, P., Nthenga, I., Tembo, M., **Chowa, J.**, **Odunga, S.**, **Opisa, S.**, **Kasoma, C.**, **Charles, L.**, **Makale, F.**, **Rwomushana, I.** and **Phiri, N.A.** (2024) Rapid risk assessment of plant pathogenic bacteria and protists likely to threaten agriculture, biodiversity and forestry in Zambia. *NeoBiota* 91, 145–178. https://doi.org/10.3897/neobiota.91.113801

Müller-Schärer, H., Sun, Y. and **Schaffner, U.** (2024) When a plant invader meets its old enemy abroad: what can be learnt from accidental introductions of biological control agents. *Pest Management Science* 80(1), 19–27. https://doi.org/10.1002/ps.7390

Mutegi, J., Adolwa, I., Kiwia, A., Njoroge, S., Gitonga, A., Muthamia, J., Nchanji, E., Mairura, F., Majumdar, K., Zingore, S., Oberthur, T., Kiremu, M. and **Kansiime, M.** (2024) Agricultural production and food security implications of Covid-19 disruption on small-scale farmer households: lessons from Kenya. *World Development* 173, 106405, 17 pp. https://doi.org/10.1016/j.worlddev.2023.106405

Naderi, R., **Ali, K.**, **Rehman, A.**, Rasmann, S. and **Weyl, P.** (2024) Estimating the impact on maize production by the weed *Parthenium hysterophorus* in Pakistan. *CABI Agriculture and Bioscience* 5, 14, 6 pp. https://doi.org/10.1186/s43170-024-00217-2

Najar-Rodriguez, A.J., Lacorazza, S., Klaiber, J., Avila, G.A., **Zhang, J.**, Ma, C.-S. and Ma, G. (2024) Long-term effects of elevated CO2 on the nutrition provided to parasitoids by their herbivorous hosts. *Physiological Entomology* 49(3), 244–252. https://doi.org/10.1111/phen.12441

Ninsin, K.D., Souza, P.G.C., Amaro, G.C., Aidoo, O.F., Barry, E.J.D.V., da Silva, R.S., Osei-Owusu, J., Dofuor, A.K., Ablormeti, F.K., Heve, W.K., Edusei, G., **Agboyi, L.K.**, Beseh, P., **Boafo, H.A.**, Borgemeister, C. and Sétamou, M. (2024) Risk of spread of the Asian citrus psyllid *Diaphorina citri* Kuwayama (Hemiptera: Liviidae) in Ghana. *Bulletin of Entomological Research* 114(3), 327–346. https://doi.org/10.1017/S0007485324000105

Novoa, A., Vimercati, G., Brundu, G., Richardson, D.M., **Schaffner, U.**, Brunori, A., Campagnaro, T., Canavan, S., Celesti-Grapow, L., Dechoum, M., Dehnen-Schmutz, K., Dufour-Dror, J.-M., Essl, F., Flory, S.L., Jäger, H., Joshi, J., Karmann, M., Langdon, B., Lapin, K., Le Roux, J., Lozano, V., Masiero, M., Meyerson, L.A., Nuñez, M.A., Pauchard, A., Pergl, J., Porté, A.J., Pyšek, P., Pyšková, J.,

Rodriquez, J., Shackleton, R.T., Silva, J.S., Sitzia, T., Verbrugge, L., Vítková, M., Weldesemaet, Y.T., Westergren, M. and Wilson, J.R.U. (2024) Stakeholders' views on the global guidelines for the sustainable use of non-native trees. *People and Nature* 6(4), 1640–1654. https://doi.org/10.1002/pan3.10670

Opisa, S., **Makale, F.**, Nyasani, J.O., Muvea, A., Kabole, M., **Chacha, D.**, **Agboyi, L.K.**, Asudi, G.O., **Rehman, A.**, **Luke, B.** and **Rwomushana, I.** (2024) Prospects of classical biological control of papaya mealybug in Kenya: performance of its exotic parasitoid, *Acerophagus papayae*, under laboratory and field conditions. *Crop Protection* 175, 106476, 7 pp. https://doi.org/10.1016/j.cropro.2023.106476

Othim, S.T.O., **Opisa, S.**, **Rwomushana, I.** and **Luke, B.** (2024) Unleashing nature's defenders: farmer-managed natural enemies field reservoirs (NEFRs) enhance management of the invasive papaya mealybug (*Paracoccus marginatus*) in coastal Kenya. *Biological Control* 193, 105528, 10 pp. https://doi.org/10.1016/j.biocontrol.2024.105528

Panta, S., Schwarzländer, M., **Weyl, P.S.R.**, **Hinz, H.L.**, Winston, R.L., Eigenbrode, S.D., Harmon, B.L., Bacher, S. and Paynter, Q. (2024) Traits of insect herbivores and target weeds associated with greater biological weed control establishment and impact. *BioControl* 69(3), 221–236. https://doi.org/10.1007/s10526-024-10245-6

Park, I., Schwarzländer, M., Eigenbrode, S.D., Harmon, B.L., **Hinz, H.L.** and **Schaffner, U.** (2024) Non-destructive environmental safety assessment of threatened and endangered plants in weed biological control. *PeerJ* 12, e16813, 17 pp. https://doi.org/10.7717/peerj.16813

Peck, L.D., Llewellyn, T., Bennetot, B., O'Donnell, S., Nowell, R.W., **Ryan, M.J.**, **Flood, J.**, Rodríguez de la Vega, R.C., Ropars, J., Giraud, T., Spanu, P.D. and Barraclough, T.G. (2024) Horizontal transfers between fungal *Fusarium* species contributed to successive outbreaks of coffee wilt disease. *PLoS Biology* 22(12), e3002480, 36 pp. https://doi.org/10.1371/journal.pbio.3002480

Pereira, C.M., Bautz, K.R., Rodríguez, M.C.H., Saavedra-Tobar, L.M., Kapeua-Ndacnou, M., Belachew-Bekele, K., Elliot, S.L., **Evans, H.C.** and Barreto, R.W. (2024) *Cordyceps cateniannulata*: an endophyte of coffee, a parasite of coffee leaf rust and a pathogen of coffee pests. *Fungal Biology* 128(5), 1917–1932. https://doi.org/10.1016/j.funbio.2024.05.004

Pereira, C.M., Sarmiento, S.S., Colmán, A.A., Belachew-Bekele, K., **Evans, H.C.** and Barreto, R.W. (2024) Mycodiversity in a micro-habitat: twelve *Cladosporium* species, including four new taxa, isolated from uredinia of coffee leaf rust, *Hemileia vastatrix*. *Fungal Systematics and Evolution* 14, 9–33. https://doi.org/10.3114/fuse.2024.14.02

Pérez-Granados, C., Lenzner, B., Golivets, M., Saul, W.-C., Jeschke, J.M., Essl, F., Peterson, G.D., Rutting, L., Latombe, G., Adriaens, T., Aldridge, D.C., Bacher, S., Bernardo-Madrid, R., Brotons, L., Díaz, F., Gallardo, B., Genovesi, P., **González-Moreno, P.**, Kühn, I., Kutleša, P., Leung, B., Liu, C., Pagitz, K., Pastor, T., Pauchard, A., Rabitsch, W., Robertson, P., Roy, H.E., Seebens, H., Solarz, W., Starfinger, U., Tanner, R., Vilà, M. and Roura-Pascual, N. (2024) European scenarios for future biological invasions. *People and Nature* 6(1), 245–259. https://doi.org/10.1002/pan3.10567

Pessina, A., **Humair, L.**, Naderi, R., Röder, G., **Seehausen, M.L.**, Rasmann, S. and **Weyl, P.** (2024) Investigating the host finding behaviour of the weevil *Phytobius vestitus* for the biological control of the invasive aquatic weed *Myriophyllum aquaticum*. *Biological Control* 192, 105509, 8 pp. https://doi.org/10.1016/j.biocontrol.2024.105509

Pocock, M.J.O., Adriaens, T., Bertolino, S., **Eschen, R.**, Essl, F., Hulme, P.E., Jeschke, J.M., Roy, H.E., Teixeira, H. and de Groot, M. (2024) Citizen science is a vital partnership for invasive alien species management and research. *iScience* 27(1), 16 pp. https://doi.org/10.1016/j.isci.2023.108623

Prieto, J.M., **Barker, A.M.**, **Schaffner, U.**, Quetin-Leclercq, J., Braca, A. and Boevé, J.-L. (2024) Furostanol saponins and ecdysteroids from plants of the genus *Helleborus* as phagostimulants and predator deterrents for larvae of two *Monophadnus* sawfly species. *Plants* 13(16), 2230, 19 pp. https://doi.org/10.3390/plants13162230

Ravasi, D., Schnyder, M., Guidi, V., **Haye, T.**, Parrondo Monton, D. and Flacio, E. (2024) Exploring emerging challenges: survey on phlebotomine sand flies and *Leishmania infantum* at the northern endemic border in Europe. *Pathogens* 13(12), 1074, 17 pp. https://doi.org/10.3390/pathogens13121074

Rosace, M.C., Björklund, N., Boberg, J., Bradshaw, C.D., Camac, J., Damus, M., Kompas, T., Li, C., MacLeod, A., Maggini, R., Rossi, E., **Szyniszewska, A.M.**, Tuomola, J. and Gardi, C. (2024) Including climate change in pest risk assessment: current practices and perspectives for future implementation. *EPPO Bulletin* 54(Suppl. 1), 52–72. https://doi.org/10.1111/epp.12989

Rware, H., **Kansiime, M.K.**, **Mugambi, I.**, **Makale, F.**, Davis, I., Buke, W., **Danielsen, S.**, **Karanja, D.**, **Chacha, D.**, Byskov, M. and Hyams, K. (2024) Examining antibiotic use in Kenya: farmers' knowledge and practices in addressing antibiotic resistance. *CABI Agriculture and Bioscience* 5, 21, 15 pp. https://doi.org/10.1186/s43170-024-00223-4

Ryan, M.J., **Peck, L.D.**, **Smith, D.**, **Flood, J.** and Barraclough, T.G. (2024) Culture collections as a source of historic strains for genomic studies in plant pathology. *Journal of Plant Pathology* 106, 357–362. https://doi.org/10.1007/s42161-022-01217-9

Schaffner, U., Heimpel, G.E., Mills, N.J., Muriithi, B.W., Thomas, M.B., GC, Yubak D. and Wyckhuys, K.A.G. (2024) Biological control for One Health. *Science of The Total Environment* 951, 175800, 13 pp. https://doi.org/10.1016/j.scitotenv.2024.175800

Seehausen, M.L., Rimmer, A., Wiesner, A., **Kenis, M.**, Scott-Dupree, C. and Smith, S.M. (2024) Modelling potential distribution of the invasive box tree moth across Asia, Europe, and North America. *PLoS ONE* 19(4), e0302259, 19 pp. https://doi.org/10.1371/journal.pone.0302259

Sher, A., **Nawaz, A.**, Ul-Allah, S., Sattar, A., Ijaz, M., Qayyum, A. and Manaf, A. (2024) Foliar application of 5-aminolevulinic acid improves the salt tolerance in sunflower (*Helianthus annuus* L.) by enhancing the morphological attributes and antioxidant defense mechanism. *Acta Physiologiae Plantarum* 46, 24, 7 pp. https://doi.org/10.1007/s11738-024-03647-7

Sisay, K., Bekele, K., Haji, J. and **Schaffner, U.** (2024) Rural households' demand status for mitigation of *Prosopis juliflora* (Sw.) DC invasion and its determinant factors in Ethiopia: empirical evidence from Afar National Regional State. *The Scientific World Journal* 2024, 5521245, 15 pp. https://doi.org/10.1155/2024/5521245

Sivapragasam, A., Myint, T. and Yin, N.N. (2024) An integrated pest management approach against insect pests in summer and monsoon rice in Myanmar. *Journal of Applied Zoological Researches* 35(1), 1–18.

Smith, A., **Gonzalez Smith, D.T.**, Ogunwale, A., Bhugra, D., Buadze, A., Ventriglio, A. and Liebrenz (2024) Geopsychiatry, the United Nations' Sustainable Development Goals, and geopolitical challenges for global mental health. *International Journal of Social Psychiatry* 70(4), 631–635. https://doi.org/10.1177/00207640231219169

Solis, M.A., **Cock, M.J.W.**, Janzen, D.H. and Hallwachs, W. (2024) New World *Orphanostigma* Guenée, 1854, including a new species from Costa Rica (Lepidoptera: Crambidae: Spilomelinae). *Zootaxa* 5471(3), 383–390. https://doi.org/10.11646/zootaxa.5471.3.8

Stahl, J.M., Wang, X., Abram, P.K., Biondi, A., Buffington, M.L., Hoelmer, K.A., **Kenis, M.**, Lisi, F., Rossi-Stacconi, M.V., **Seehausen, M.L.**, Vossen, A., Wong, W.H.L. and Daane, K.M. (2024) *Ganaspis kimorum* (Hymenoptera: Figitidae), a promising parasitoid for biological control of *Drosophila suzukii* (Diptera: Drosophilidae). *Journal of Integrated Pest Management* 15(1), 44, 11 pp. https://doi.org/10.1093/jipm/pmae036

Subedi, B., Schwarzländer, M., Eigenbrode, S.D., Harmon, B.L. and **Weyl, P.** (2024) Studies on the host selection of a weed biological control candidate facilitate pre-release environmental safety assessments. *BioControl* 69(3), 361–373. https://doi.org/10.1007/s10526-024-10255-4

Szyniszewska, A.M., Akrivou, A., Björklund, N., Boberg, J., Bradshaw, C., Damus, M., Gardi, C., Hanea, A., Kriticos, J., Maggini, R., Musolin, D.L. and MacLeod, A. (2024) Beyond the present: how climate change is relevant to pest risk analysis. *EPPO Bulletin* 54(Suppl. 1), 20–37. https://doi.org/10.1111/epp.12986

Szyniszewska, A.M., Bieszczak, H., Kozyra, K., Papadopoulos, N.T., De Meyer, M., Nowosad, J., Ota, N. and Kriticos, D.J. (2024) Evidence that recent climatic changes have expanded the potential geographical range of the Mediterranean fruit fly. Scientific Reports 14, 2515, 13 pp. https://doi.org/10.1038/s41598-024-52861-3

Szyniszewska, A.M., Simpkins, K.M., Thomas, L., **Beale, T.**, Milne, A.E., Brown, M.E., **Taylor, B**., **Oliver, G.**, Bebber, D.P., Woolman, T., **Mahmood, S.**, **Murphy, C.**, Huntington, B. and **Finegold, C.** (2024) How the Global Burden of Animal Diseases links to the Global Burden of Crop Loss: a food systems perspective. *Revue Scientifique et Technique [Scientific and Technical Review]* 43, 177–188. https://doi.org/10.20506/rst.43.3530

Tambo, J.A. and Liverpool-Tasie, L.S.O. (2024) Are farm input subsidies a disincentive for integrated pest management adoption? Evidence from Zambia. *Journal of Agricultural Economics* 75(2), 740–763. https://doi.org/10.1111/1477-9552.12582

Tambo, J.A., **Holmes, K.**, **Aliamo, C.**, **Mbugua, F.**, **Alokit, C.**, Muzira, F., Byamugisha, A. and Mwambu, P. (2024) Agro-input dealers' perspectives on the design of a certification scheme for pesticide risk reduction. *Pest Management Science* 80(12), 6298–6309. https://doi.org/10.1002/ps.8359

Tambo, J.A., **Holmes, K.A.**, **Aliamo, C.**, **Mbugua, F.**, **Alokit, C.**, Muzira, F., Byamugisha, A. and Mwambu, P. (2024) The role of agro-input dealer certification in promoting sustainable pest control: insights from Uganda. *International Journal of Agricultural Sustainability* 22 (1), 2299181, 15 pp. https://doi.org/10.1080/14735903.2023.2299181

Tambo, J.A., **Kansiime, M.K.**, **Alaganthiran, J.R.**, **Danish, M., Duah, S.A.**, **Faisal, S.**, **Khonje, M.G.**, **Mbugua, F.** and **Rajendran, G.** (2024) Consumer pesticide concerns and the choice of fruit and vegetable markets in five low- and middle-income countries. *Global Food Security* 42, 100801, 10 pp. https://doi.org/10.1016/j.gfs.2024.100801

Tarigan, S.I., Kiss, J., György, T., Doan, N.P.Y. and **Toepfer, S.** (2024) Effects of microbial biostimulants on maize and its pest, the western corn rootworm, *Diabrotica virgifera virgifera*. *Agronomy* 14(10), 2239, 18 pp. https://doi.org/10.3390/agronomy14102239

Tay, W.T., Marshall, S.D.G., Popa-Baez, A.D., Dulla, G.F.J., Blas, A.L., Sambiran, J.W., Hosang, M., Millado, J.B.H., Melzer, M., Rane, R.V., Hogarty, T., Cho, D.Y.-C., Alouw, J.C., **Faheem, M.** and Hoffmann, B.D. (2024) Alternative DNA markers to detect Guam-specific CRB-G (Clade I) *Oryctes rhinoceros* (Coleoptera: Scarabaeidae) indicate that the beetle did not disperse from Guam to the Solomon Islands or Palau. *Diversity* 16(10), 634, 12 pp. https://doi.org/10.3390/d16100634

Toepfer, S., Toth, S., Zupan, T., Bogataj, U., Žnidaršič, N., Ladanyi, M. and Sabotič, J. (2024) *Diabrotica v. virgifera* seems not affected by entomotoxic protease inhibitors from higher fungi. *Insects* 15(1), 60, 25 pp. https://doi.org/10.3390/insects15010060

Ullah, F., **Rehman, A**., **Rashid, K**., Joshi, R.C. and Saeed, M. (2024) First report of *Tetrastichus howardi* (Olliff) and *Chelonus formosanus* Sonan as parasitoids of fall armyworm, *Spodoptera frugiperda* (J.E. Smith), in Pakistan. *Journal of Biological Control* 38(3), 359–262. https://doi.org/10.18311/jbc/2024/45293

Valdez, E.M., **Joshi, R.C.**, Rillon, G.S., Dela Cruz, K.B., Donayre, D.K.M., Martin, E.C., Sandoval, F.R., Quilang, E.J.P., **Faheem, M.** and **Annamalai, S.** (2024) Novel records of parasitoids targeting fall armyworm, *Spodoptera frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae), in rice–corn-based cropping systems in the Philippines. *Journal of Biological Control* 38(1), 82–86. https://doi.org/10.18311/jbc/2024/36513

Winston, R.L., Schwarzländer, M., **Hinz, H.L.** and Pratt, P.D. (2024) Prioritizing weeds for biological control development in the western USA: adaptation of the Biological Control Target Selection system. *BioControl* 69(3), 335–351. https://doi.org/10.1007/s10526-024-10243-8

Winston, R.L., Schwarzländer, M., **Hinz, H.L.**, Rushton, J. and Pratt, P.D. (2024) Prioritizing weeds for biological control development in the western USA: results from the adaptation of the biological control target selection system. *Biological Control* 198, 105634, 10 pp. https://doi.org/10.1016/j.biocontrol.2024.105634

Wyckhuys, K.A.G., Akutse, K.S., Amalin, D.M., Araj, S.-E., Barrera, G., Beltran, M.J.B., Ben Fekih, I., Calatayud, P.-A., Cicero, L., Cokola, M.C., **Colmenarez, Y.C.**, Dessauvages, K., Dubois, T., **Durocher-Granger, L.**, Espinel, C., Fallet, P., Fernández-Triana, J.L., Francis, F., Gómez, J., Haddi, K., Harrison, R.D., Haseeb, M., Iwanicki, N.S.A., Jaber, L.R., Khamis, F.M., Legaspi, J.C., Lomeli-Flores, R.J., Lopes, R.B., Lyu, B., Montoya-Lerma, J., Montecalvo, M.P., Polaszek, A., Nguyen, T.D., Nurkomar, I., O'Hara, J.E., Perier, J.D., Ramírez-Romero, R., Sánchez-García, F.J., Robinson-Baker, A.M., Silveira, L.C., Simeon, L., Solter, L.F., Santos-Amaya, O.F., Talamas, E.J., de Souza Tavares, W., Trabanino, R., Turlings, T.C.J., Valicente, F.H., Vásquez, C., Wang, Z., Wengrat, A.P.G.S., Zang, L.-S., Zhang, W., Zimba, K.J., Wu, K., Elkahky, M. and Hadi, B.A.R. (2024) Global scientific progress and shortfalls in biological control of the fall armyworm *Spodoptera frugiperda*. *Biological Control* 191, 105460, 27 pp. https://doi.org/10.1016/j.biocontrol.2024.105460

Wyckhuys, K.A.G., Akutse, K.S., Amalin, D.M., Araj, S.-E., Barrera, G., Beltran, M.J.B., Ben Fekih, I., Calatayud, P.-A., Cicero, L., Cokola, M.C., **Colmenarez, Y.C.**, Dessauvages, K., Dubois, T., **Durocher-Granger, L.**, Espinel, C., Fernández-Triana, J.L., Francis, F., Gómez, J., Haddi, K., Harrison, R.D., Haseeb, M., Iwanicki, N.S.A., Jaber, L.R., Khamis, F.M., Legaspi, J.C., Lomeli-Flores, R.J., Lopes, R.B., Lyu, B., Montoya-Lerma, J., Nguyen, T.D., Nurkomar, I., Perier, J.D., Pozsgai, G., Ramírez-Romero, R., Robinson-Baker, A.S., Sanchez-Garcia, F.J., Silveira, L.C., Simeon, L., Solter, L.F., Santos-Amaya, O.F., de Souza Tavares, W., Trabanino, R., Vásquez, C., Wang, Z., Wengrat, A.P.G.S., Zang, L.-S., Zhang, W., Zimba, K.J., Wu, K. and Elkahky, M. (2024) Functional structure of the natural enemy community of the fall armyworm, *Spodoptera frugiperda* in the Americas. *Biological Control* 198, 105640, 13 pp. https://doi.org/10.1016/j.biocontrol.2024.105640

Wyckhuys, K.A.G., Gu, B., Ben Fekih, I., Finger, R., **Kenis, M.**, Lu, Y., Subramanian, S., Tang, F.H.M., Weber, D.C., Zhang, W. and Hadi, B.A.R. (2024) Restoring functional integrity of the global production ecosystem through biological control. *Journal of Environmental Management* 370, 122446, 16 pp. https://doi.org/10.1016/j.jenvman.2024.122446

Xian, X., Qi, Y., Zhao, H., Cao, J., Jia, T., Yang, N., Wan, F., **Weyl, P.** and Liu, W.-x. (2024) Temperature extremes nip invasive macrophyte *Cabomba caroliniana* A. Gray in the bud: potential geographic distributions and risk assessment based on future climate change and anthropogenic influences. *Frontiers in Plant Science* 15, 1393663, 10 pp. https://doi.org/10.3389/fpls.2024.1393663

Yaméogo, I.S., Latévi, K., Ouattara, D., **Agboyi, L.K.**, Dabiré, R.A., Zallé, S., **Kenis, M.**, Gnankiné, O. and Nacro, S. (2024) Level of damage and yield losses associated with the fall armyworm (*Spodoptera frugiperda*) on maize (*Zea mays*), millet (*Pennisetum glaucum*) and sorghum (*Sorghum bicolor*) on station in Burkina Faso. *Crop Protection* 182, 106743, 9 pp. https://doi.org/10.1016/j.cropro.2024.106743

Zhang, J.-P., Avila, G., Ma, G., **Mi, Q.-Q.**, Najar-Rodriguez, A., **Chen, J.-H**., Ma, C.-S. and **Zhang, F.** (2024) Designing and testing novel artificial shelter traps to mass-trap overwintering brown marmorated stink bugs: a proof-of-concept study in Northwestern China. *CABI Agriculture and Bioscience* 5, 19, 8 pp. https://doi.org/10.1186/s43170-024-00219-0

Zhao, H., Yi, S., Zhang, Y., Yang, N., Guo, J., **Li, H.**, Xian, X. and Liu, W. (2024) Estimating the optimal control areas of two classical biocontrol agents against the fall armyworm based on hotspot matching analysis. *Agriculture* 14(12), 2276, 13 pp. https://doi.org/10.3390/agriculture14122276

Zhong, Y., Tang, R., Lin, L., Zhao, W., Wei, S., **Zhang, F.**, Uddin, Md.K., Xie, M. and Chen, H. (2024) RpedOBP1 plays key roles in aggregation pheromones reception of the *Riptortus pedestris*. *Pesticide Biochemistry and Physiology* 204, 106073. https://doi.org/10.1016/j.pestbp.2024.106073

Book chapters and proceedings papers (36)

Bashir, M.H. and **Honey, S.F.** (2024) Chapter 3 – Postharvest losses as a factor of food insecurity: the case of fruit and vegetables in Pakistan. In: Bashir, M.K., Schilizzi, S.G.M. and Ali, G. (eds) *Food Security in the Developing World*. Wiley, Hoboken, New Jersey, pp. 25–43. https://doi.org/10.1002/9781119265214.ch3

Cortat, G., McClay, A.S., **Toševski, I.**, De Clerck-Floate, R.A. and Gaskin, J.F. (2024) Chapter 50 – *Convolvulus arvensis* L., Field Bindweed / Liseron des champs (Convolvulaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 465–473. https://doi.org/10.1079/9781800623279.0050

Day, M.D., **Witt, A.B.R.** and Winston, R.L. (2024) Chapter 8 – Use of arthropods for ecologically based weed management in agriculture. In: Korres, N.E., Travlos, I.S. and Gitsopoulos, T.K. (eds) *Ecologically-Based Weed Management: Concepts, Challenges, and Limitations*. Wiley, Hoboken, New Jersey, pp. 119–138. https://doi.org/10.1002/9781119709763.ch8

De Clerck-Floate, R.A. and **Weyl, P.S.R.** (2024) Chapter 51 – *Elaeagnus angustifolia* L., Russian Olive / Olivier de Bohême (Elaeagnaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 474–481. https://doi.org/10.1079/9781800623279.0051

De Clerck-Floate, R.A., **Cortat, G.**, Turner, S.C. and Moffat, C.E. (2024) Chapter 58 – *Pilosella* spp., Hawkweeds / Piloselles (Asteraceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 543–558. https://doi.org/10.1079/9781800623279.0058

De Clerck-Floate, R.A., McClay, A.S., Turner, S.C., Blatt, S.E. and **Toševski, I.** (2024) Chapter 55 – *Linaria dalmatica* (L.) Miller, Dalmatian Toadflax / Linaire à feuilles larges and *Linaria vulgaris* Miller, Yellow Toadflax / Linaire vulgaire (Plantaginaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 505–524. https://doi.org/10.1079/9781800623279.0055

Dhileepan, K., English, B.H., Shi, B., Florentine, S.K., Kurose, D., Taylor, D.B.J., **Seier, M.K.**, Tan, Y.P. and Shivas, R.G. (2024) A rust pathogen affecting the invasive Navua sedge (*Cyperus aromaticus*) in Australia – a fortuitous biocontrol agent? In: *23rd Australasian Weeds Conference. Breaking the Cycle: Towards Sustainable Weed Management. Conference Proceedings*, 25–29 August 2024, Brisbane, Queensland, Australia. Council of Australasian Weed Societies (CAWS) and Invasive Species Queensland (ISQ), pp. 176–180. Available at: https://acrobat.adobe.com/id/urn:aaid:sc:AP:24e14be0-0ebf-450d-8433-5b3c7fd07a45?viewer%21megaVerb=group-discover

Evans, H.C. and Boddy, L. (2024) Animal slayers, saviours and socialists. In: Coleman, M. (ed.) *The Fascinating World of Fungi*. Royal Botanic Garden Edinburgh, Edinburgh, UK, pp. 85–109.

Franklin, M.T., Abram, P.K., **Haye, T.**, Sherwood, J. and Gerbrandt, E.M. (2024) Chapter 12 – *Anthonomus rubi* Herbst, Strawberry Blossom Weevil / Anthonome du fraisier (Coleoptera: Curculionidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 126–130. https://doi.org/10.1079/9781800623279.0012

Gariepy, T.D., Abram, P.K., Légaré, J.-P., Brodeur, J. and **Haye, T.** (2024) Chapter 25 – *Halyomorpha halys* Stål, Brown Marmorated Stink Bug / Punaise marbrée (Hemiptera: Pentatomidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 243–250. https://doi.org/10.1079/9781800623279.0025

Gariepy, T.D., Mason, P.G., **Haye, T.**, Miall, J.H., Labrie, G., Cárcamo, H.A., Bouchard, P. and Gibson, G.A.P. (2024) Chapter 16 – *Ceutorhynchus obstrictus* (Marsham), Cabbage Seedpod Weevil / Charançon de la graine du chou (Coleoptera: Curculionidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 163–172. https://doi.org/10.1079/9781800623279.0016

Gradish, A.E., Mori, B.A., Abram, P.K., **Haye, T.**, Boquel, S. and Hallett, R.H. (2024) Chapter 18 – *Contarinia nasturtii* (Kieffer), Swede Midge / Cécidomyie du chou-fleur and *Contarinia brassicola* Sinclair, Canola Flower Midge / Cécidomyie des fleurs du canola (Diptera: Cecidomyiidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 179–186. https://doi.org/10.1079/9781800623279.0018

Haider, M.W., Nafees, M., Valipour, M., **Asad, H.U.** and Marc, R.A. (2024) Chapter 8 – Ultraviolet (UV) Light Technology for Postharvest Fruits and Vegetables. In: Ali, S., Mir, S.A., Dar, B.N. and Ejaz, S. (eds) *Sustainable Postharvest Technologies for Fruits and Vegetables*. CRC Press, Boca Raton, USA, 12 pp. https://doi.org/10.1201/9781003370376

Haye, T., Gariepy, T., Brauner, A., Blatt, S., Cossentine, J. and Mason, P. (2024) Chapter 20 – *Dasineura mali* (Kieffer), Apple Leaf-curling Midge / Cécidomyie du pommier (Diptera: Cecidomyiidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 194–200. https://doi.org/10.1079/9781800623279.0020

Humair, L.F.I., Ensing, D.J. and **Weyl, P.S.R.** (2024) Chapter 56 – *Myriophyllum aquaticum* (Vellozo) Verdcourt, Parrot's Feather / Myriophylle aquatique (Haloragaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 525–531. https://doi.org/10.1079/9781800623279.0056

Li, J., Gong, G., Zhuang, Q., Long, Y., Cui, Y., **Zhang, J.**, Chen, Z., Ding, Y. and Xiao, F. (2024) 猕猴桃病虫害防治 [Kiwifruit pests and disease control]. In: Wang, R.C., Liu, Z.D. and Xu, X.B. (eds) 猕猴桃学 [*Kiwi Science*]. China Agriculture Press, Beijing, pp. 322–349 [In Chinese].

Johns, R.C., Kirichenko, N., Edwards, S., Grauby, S., Hughes, C., Beltrando, K., Morin, B., Owens, E., Sweeney, J., Van Rooyen, K. and **Kenis, M.** (2024) Chapter 32 – *Orchestes fagi* (L.), Beech Leaf-mining Weevil / Charançon du hêtre (Coleoptera: Curculionidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 292–296. https://doi.org/10.1079/9781800623279.0032

Marshall, V., **Weyl, P.S.R.**, Bourchier, R.S., Moffat, C.E. and Ensing, D.J. (2024) Chapter 59 – *Rhaponticum repens* (L.) Hidalgo, Russian Knapweed / Centaurée de Russie (Asteraceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 559–568. https://doi.org/10.1079/9781800623279.0059

Mason, P.G., Abram, P.K., Noronha, C., Dixon, P.L., Parsons, C.K., Fernández-Triana, J.L., Bennett, A.M.R., Gibson, G.A.P. and **Haye, T.** (2024) Chapter 36 – *Plutella xylostella* (L.), Diamondback Moth / Fausse-teigne des crucifères (Lepidoptera: Plutellidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 330–342. https://doi.org/10.1079/9781800623279.0036

Mason, P.G., Miall, J.H., Brauner, A.M., Fernández-Triana, J.L., Bennett, A.M.R., Gibson, G.A.P. and **Haye, T.** (2024) Chapter 7 – Acrolepiopsis assectella (Zeller), Leek Moth / Teigne du poireau (Lepidoptera: Acrolepiidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 71–78. https://doi.org/10.1079/9781800623279.0007

McTavish, M.J., **Häfliger, P.**, Smith, S.M. and Bourchier, R.S. (2024) Chapter 57 – *Phragmites australis* subsp. *australis* (Cavanilles) Trinius ex Steudel, European Common Reed / Roseau commun (Poaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 532–542. https://doi.org/10.1079/9781800623279.0057

McTavish, M.J., Katovich, E.J., Becker, R.L., **Cortat, G.**, Smith, S.M. and Bourchier, R.S. (2024) Chapter 47 – *Alliaria petiolata* (M. Bieberstein) Cavara & Grande, Garlic Mustard / Alliaire officinale (Brassicaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 428–436. https://doi.org/10.1079/9781800623279.0047

Miall, J.H., Mason, P.G., Brauner, A.M., **Haye, T.** and Cappuccino, N. (2024) Chapter 28 – *Lilioceris lilii* (Scopoli), Lily Leaf Beetle / Criocère du lys (Coleoptera: Chrysomelidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 263–267. https://doi.org/10.1079/9781800623279.0028

Nagpal, A., **Mugambi, I.**, Musker, R., **Parr, M.** and **Allan, M.** (2024) Agriculture. In: Walker, S. and Perini, F. (eds) *The State of Open Data, 2nd Edition: New Horizons*. Data for Development Network and International Development Research Centre, Cape Town, Nairobi, and Ottawa. https://www.d4d.net/state-of-open-data/chapters/sectors/agriculture/v2/ [free to read online]

Nawaz, A., Rehman, A. and Farooq, M. (2024) Chapter 1 – Introduction to crop production. In: Hussain, M., Ahmad, S. and Farooq, M. (eds) *Principles of Field Crop Production*. Pakistan Agricultural Scientists Forum Publications, Islamabad, pp. 3–27.

Nelson, T.D., **Haye, T.**, Richardson, T., MacDonald, J.L., Judd, G.J.R. and Moffat, C.E. (2024) Chapter 42 – *Synanthedon myopaeformis* (Borkhausen), Apple Clearwing Moth / Sésie du pommier (Lepidoptera: Sesiidae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 385–393. https://doi.org/10.1079/9781800623279.0042

Rabitsch, W., Werenkraut, V., **Kenis, M.**, Roques, A. and Roy, H.E. (2024) Chapter Six – Invasive alien insects and insect decline. In: Rodríguez, J., Pyšek, P. and Novoa, A. (eds) *Biological Invasions and Global Insect Decline*. Academic Press/Elsevier, Oxford, pp. 143–171. https://doi.org/10.1016/B978-0-323-99918-2.00006-9

Rehman, A.U., Nadeem, F., Hassan, T., **Nawaz, A.** and Hussain, M. (2024) Chapter 12 – Oilseeds. In: Hussain, M., Ahmad, S. and Farooq, M. (eds) *Principles of Field Crop Production*. Pakistan Agricultural Scientists Forum Publications, Islamabad, pp. 212–267.

Sivapragasam, A., Myint, T., Yin, N.N. and **Loke, W.H.** (2024) A pilot 'green' initiative with integrated pest management (IPM) for a cauliflower-based crop system in Myanmar. In: Srinivasan, R. (ed.) *Proceedings, IX International Conference on Management of the Diamondback Moth and other Crucifer Insect Pests*. World Vegetable Center, Taiwan, pp. 53–60.

Stutz, S., McClay, A.S. and De Clerck-Floate, R.A. (2024) Chapter 54 – *Leucanthemum vulgare* Lamarck, Oxeye Daisy / Marguerite blanche (Asteraceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 498–504. https://doi.org/10.1079/9781800623279.0054

Stutz, S., McClay, A.S. and De Clerck-Floate, R.A. (2024) Chapter 60 – *Tanacetum vulgare* L., Common Tansy / Tanaisie commune (Asteraceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 569–574. https://doi.org/10.1079/9781800623279.0060

Tariq, M., Zeeshan, S., Chaudhary, M.H., Raza, A., Abid, K., Khadija-tul-Kubra, Malik, M., **Umar, A.**, Naseer, S. and Zafar, M.A. (2024) Chapter 36 – Alternate source of micro minerals for enhanced production of animals. In: Abbas, R.Z., Akhtar, T., Asrar, R., Khan, A.M.A. and Saeed, Z. (eds) *Complementary and Alternative Medicine: Feed Additives*. Unique Scientific Publishers, Faisalabad, Pakistan, pp. 301–307 https://doi.org/10.47278/book.CAM/2024.325

Toepfer, S., Yan, X. and Vandenbossche, B. (2024) Chapter 14 – Applications of entomopathogenic nematodes for insect pest control in corn. In: Shapiro-Ilan, D.I. and Lewis, E.E. (eds) *Entomopathogenic Nematodes as Biological Control Agents*. CAB International, Wallingford, UK, pp. 236–254. https://doi.org/10.1079/9781800620322.0014

Vadamalai, G., Adkar-Purushothama, C.R., **Thanarajoo, S.S.**, Iftikhar, Y., Shruthi, B., Sreenivasa Marikunte Yanjarappa and Sano, T. (2024) Chapter 5 – Viroids diseases and its distribution in Asia. In: Adkar-Purushothama, C.R., Sano, T., Perreault, J.-P., Sreenivasa Marikunte Yanjarappa, Di Serio, F. and Daròs, J.-A. (eds) *Fundamentals of Viroid Biology*. Academic Press, pp. 85–107. https://doi.org/10.1016/B978-0-323-99688-4.00004-3

Weyl, P.S.R., Bourchier, R.S., **Hinz, H.L.**, Littlefield, J.L. and Schwarzländer, M. (2024) Chapter 53 – *Lepidium draba* L., *L. chalepense* L. and *L. appelianum* Al-Shehbaz, Hoary Cresses / Passerage drave, Cranson rampant and Cranson velu (Brassicaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 492–497. https://doi.org/10.1079/9781800623279.0053

Williams, H.E., Marini, F., **Weyl, P.S.R.**, Cristofaro, M., Hinz, H.L. and Moffat, C.E. (2024) Chapter 46 – *Ailanthus altissima* (Miller) Swingle, Tree of Heaven / Ailante glanduleux (Simaroubaceae). In: Vankosky, M.A. and Martel, V. (eds) *Biological Control Programmes in Canada*, 2013–2023. CAB International, Wallingford, UK, pp. 419–427. https://doi.org/10.1079/9781800623279.0046

Case studies, study briefs, working papers and publications that were not peer-reviewed (14)

Ahmed, Md.S., **Chaudhary, M.**, **Kadzamira, M.A.T.J.**, **Ishii-Adajar, H.**, Ullah, M.S. and Ogunmodede, A. (2024) Strengthening the system for invasive species preparedness and management: Bangladesh. *CABI Working Paper* 33, 25 pp. https://doi.org/10.1079/CABICOMM-62-8179

Bueno, A.F., Plauter Sutil, W., **Colmenarez, Y.C.** and Cruz, J.V.S. (2024) Uso de parasitoides do ovos no manejo de lagartas em soja e milho [Use of egg parasitoids in the management of caterpillars in soybean and maize]. *Comunicado Técnico – Embrapa Soja*, No.110, 15 pp. Available at: http://www.infoteca.cnptia.embrapa.br/infoteca/handle/doc/1163027 [In Portugese].

Cannon, P.F. and **Minter, D.W.** (2024) Fungicolous and other *Hypocreales* [*Battarrina inclusa*, *Clonostachys ralfsii*, *Cordyceps bifusispora*, *Cosmospora arxii*, *C. stilbosporae*, *Dialonectria diatrypellicola*, *D. diatrypicola*, *D. quaternatae*, *Flammocladiella decora*, *Fusicolla ossicola*]. *Descriptions of Fungi and Bacteria* 240(Nos 2371–2380), 46 pp. https://www.cabidigitallibrary.org/journal/dfb

Constantine, K.L., **Makale, F.**, **Mugambi, I.**, **Chacha, D.**, **Rware, H.**, Muvea, A., Kipngetich, V.K., **Tambo, J.**, **Ogunmodede, A.**, **Djeddour, D.**, **Pratt, C.F.**, **Rwomushana, I.** and **Williams, F.** (2024) Assessment of the socio-economic impacts associated with the arrival of apple snail (*Pomacea canaliculata*) in Mwea Irrigation Scheme, Kenya. *Plant Health Cases*. CAB International, Wallingford, UK, 11 pp. https://doi.org/10.1079/planthealthcases.2024.0002

Duah, S., **Ogunmodede, A.M.** and **Kadzamira, M.A.T.J.** (2024) Entrepreneurship in times of crises – how access to finance impacts on business operations. *Rural* 21 58(3), 32–34. https://www.rural21.com/fileadmin/user_upload/rural2024_03_S32-34.pdf

Eschen, R., Bekele, K., Jumanne, Y., Kibet, S., **Makale, F.**, Mbwambo, J.R., Megersa, B., Mijay, M., Moyo, F., Munishi, L., **Mwihomeke, M.**, **Nunda, W.**, Nyangito, M., **Witt, A.** and **Schaffner, U.** (2024) Experimental *Prosopis juliflora* management practices and grassland restoration in three Eastern African countries. *Plant Health Cases*. CAB International, Wallingford, UK, 14 pp. https://doi.org/10.1079/planthealthcases.2024.0009

Flood, J. (2024) 8.4 Vascular streak dieback (VSD) – update. In: End, M.J., Daymond, A.J. and Hadley, P. (eds) *Technical Guidelines for the Safe Movement of Cacao Germplasm*. Revised from the FAO/IPGRI Technical Guidelines No. 20 (Fifth Update 2024). Global Cacao Genetic Resources Network (CacaoNet), Bioversity International, Rome, pp. 63–74. https://www.cacaonet.org/information-resources/publications-and-reports/publication/technical-guidelines-for-the-safe-movement-of-cacao-germplasm-2

Minter, D.W. (2024) *Microsporidia* infecting *Crustacea* [*Abelspora portucalensis*, *Ameson atlanticum*, *A. earli*, *A. metacarcini*, *A. michaelis*, *A. portunus*, *Areospora rohanae*, *Enterospora canceri*, *Hepatospora eriocheir*, *Nadelospora canceri*]. *Descriptions of Fungi and Bacteria* 239(Nos 2361–2370), 40 pp. https://www.cabidigitallibrary.org/journal/dfb

Nyamekye, H., **Davis, T.** and **Duah, S.** (2024) Changes in women's access to extension services in Ghana: the impact of a behaviour change campaign. *CABI Study Brief 48: Impact*. https://doi.org/10.1079/CABICOMM-62-8178

Opisa, S. and **Constantine, K.** (2024) Biocontrol for papaya mealybug: lessons learned from Kenya. *CABI Study Brief 47: Impact*, 10 pp. https://doi.org/10.1079/CABICOMM-62-8176

Pratt, C.F., **Constantine, K.** and **Wood, S.V.** (2024) Assessing the economic value of biocontrol of the invasive aquatic fern *Azolla filiculoides* in Great Britain by the weevil, *Stenopelmus rufinasus*. *Plant Health Cases*. CAB International, Wallingford, UK, 15 pp. https://doi.org/10.1079/planthealthcases.2024.0005

Sivapragasam, A. (2024) Invasive alien pests and biosecurity in an unpredictable and pandemic environment [Editorial]. *The Planter* 100(1183), 617–619.

Yorou, N.S., Dramani, R. and **Minter, D.W.** (2024) African Agaricomycetes [*Amanita annulatovaginata*, *A. subviscoa*, *Candolleomyces tuberculatus*, *Chlorophyllum palaeotropicum*, *Ganoderma enigmaticum*, *Lactifluus gymnocarpoides*, *L. gymnocarpus*, *Phlebopus sudanicus*, *Russula sankarae*]. *Descriptions of Fungi and Bacteria* 241(Nos 2381–2390), 50 pp. https://www.cabidigitallibrary.org/journal/dfb

Yorou, N.S., Dramani, R. and **Minter, D.W.** (2024) Endangered African ectomycorrhizal basidiomycetes [*Afrocantharellus platyphyllus*, *Amanita congolensis*, *A. masasiensis*, *A. pulverulenta*, *A. strobilaceovolvata*, *A. xanthogala*, *Cantharellus congolensis*, *C. guineensis*, *C. solidus*, *Lactifluus foetens*]. *Descriptions of Fungi and Bacteria* 238(Nos 2351–2360), 52 pp. https://www.cabidigitallibrary.org/journal/dfb

Contact us

Africa

Ghana

CABI, CSIR Campus
No. 6 Agostino Neto Road
Airport Residential Area
P. O. Box CT 8630, Cantonments
Accra, Ghana

T: +233 (0)302 797 202
E: westafrica@cabi.org

Kenya

CABI, Canary Bird
673 Limuru Road, Muthaiga
PO Box 633-00621
Nairobi, Kenya

T: +254 (0)20 2271000/ 20
E: africa@cabi.org

Zambia

CABI, 5834 Mwange Close
Kalundu
P.O. Box 37589
Lusaka, Zambia

T: +260 967 619 665
E: southernafrica@cabi.org

Americas

Brazil

CABI, Avenida Universitária
3780, Bairro Altos do Paraíso
Botucatu-SP,
18610-034, Brazil

T: +55 (14) 3880 7670
E: y.colmenarez@cabi.org

Trinidad & Tobago

CABI, 59 Gordon Street
Curepe, St. Augustine
Tunapuna 331323
Trinidad and Tobago

T: +1 868 6457628
E: n.ramnanan@cabi.org

USA

CABI, 6 Liberty Square #2775
Boston, MA 02109, USA

T: +1 (617) 682 9015
E: h.jansen@cabi.org

Asia

China

CABI, Beijing Representative Office
Internal Post Box 85
Chinese Academy of Agricultural Sciences
12 Zhongguancun Nandajie
Beijing 100081, China

T: +86 (0)10 82105692
E: china@cabi.org

India

CABI, 2nd Floor, CG Block
NASC Complex, DP Shastri Marg
Opp. Todapur Village, PUSA
New Delhi – 110012, India

T: +91 (0)11 25841906
E: india@cabi.org

Malaysia

CABI, Building A19
MARDI, 43400 Serdang
Selangor, Malaysia

T: +60 (0)3 8943 2921
T: +60 (0)3 8943 3641
E: cabisea@cabi.org

Pakistan

CABI, Opposite 1-A
Data Gunj Baksh Road
Satellite Town, PO Box 8
Rawalpindi, Pakistan

T: +92 51 9292062
T: +92 51 8434979
E: cabi.cwa@cabi.org

Europe

Netherlands

CABI, Landgoed Leusderend 32
3832 RC Leusden
The Netherlands

T: +31 (0)33 4321031
E: netherlands@cabi.org

Switzerland

CABI, Rue des Grillons 1
CH-2800 Delémont
Switzerland

T: +41 (0)32 4214870
E: europe-CH@cabi.org

UK

CABI, Nosworthy Way
Wallingford, Oxfordshire
OX10 8DE, UK

T: +44 (0)1491 832111
E: corporate@cabi.org

CABI, Silwood Park
Buckhurst Road, Ascot
Berkshire, SL5 7PY, UK

T: +44 (0)1491 829080
E: cabieurope-uk@cabi.org
E: microbialservices@cabi.org

CR-AR-07-24