



PlantwisePlus Digital Tools for Agriculture Advisory

AFRICA

By Kevin Muraguri

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About CABI

CABI is an international not-for-profit organization that improves people's lives by providing information and applying scientific expertise to solve problems in agriculture and the environment

What we do

We help farmers grow more and lose less of what they produce, combating threats to agriculture and the environment from pests and diseases and improving access to scientific knowledge

Our areas of focus



**Food & nutrition
security**



**Climate change
& biodiversity**



**Gender
& youth**



**Economic
development**

PlantwisePlus (2021-2030): Goal



75 million smallholder farmers
in **27** low- and middle-income
countries producing **more food**
using **safer** and **sustainable**
crop production practices,
thereby improving **food**
security and **rural livelihoods**.

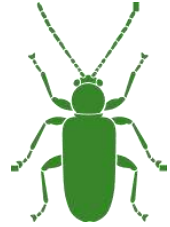


Sustainable crop production

PlantwisePlus will achieve this vision by supporting countries to **predict, prevent, and prepare** for plant health threats in the face of a changing climate.

This ensures that smallholder farmers reduce their crop losses and **produce** more and safer food through sustainable crop production practices.

Impact pathways



Pest preparedness

Coordinating and strengthening systems for detection and response to pest outbreaks



Pesticide risk reduction

Increasing awareness of, access to, and use of affordable integrated pest management solutions



Farmer advisory

Enhancing knowledge and uptake of integrated pest management practices through responsive digital advisory tools

THEORY OF CHANGE



Farmer advisory

CHALLENGE

Smallholder farmers lack reliable information about **pest threats**, are unaware of **pesticide risks** and have limited access to advice on **lower-risk crop production practices**



IF

Agri-service providers are supported to improve their advisory capabilities on IPM through digital and non-digital approaches, and to pursue related income generating opportunities

THEN

More smallholder farmers will adopt sustainable, crop production practices, producing more food

BECAUSE

Agri-service providers will have better knowledge about IPM, and, through new business opportunities, will be empowered to support more farmers

VISION

Smallholder farmers are empowered to manage evolving plant health threats, increase their incomes, improve food security and safety, and reduce biodiversity loss



Barbados
Bolivia
Costa Rica
Grenada
Jamaica
Nicaragua
Peru
Trinidad & Tobago

 PlantwisePlus focus countries

 PlantwisePlus core countries

 * PlantwisePlus affiliate project countries

Burundi*
Ethiopia
Ghana
Kenya
Malawi
Namibia*
Rwanda
South Sudan
Uganda
Zambia

Afghanistan
Bangladesh
China*
Nepal
India
Pakistan
Papua New Guinea
Sri Lanka
Thailand
Vietnam

PlantwisePlus digital tools

PlantwisePlus provides gender-equitable digital advisory tools and eLearning resources. These tools equip those who support smallholder farmers with the knowledge and resources they need to manage plant health problems effectively and sustainably.

This supports the PlantwisePlus goal of smallholder farmers producing more food using safer and sustainable crop production practices, thereby improving food security and rural livelihoods.





Who are they for?

The PlantwisePlus digital advisory tools are tried and trusted digital tools. They provide easy access to information on plant health, crop protection, and other decision-support. They are designed for a range of users, including:

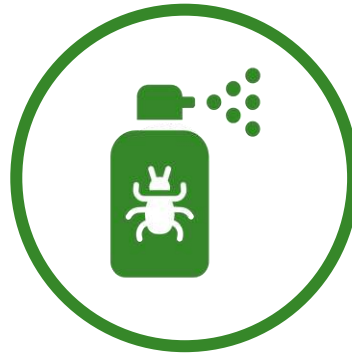
- Agricultural extension workers
- Plant protection officers
- Farmers
- Students
- Advisors
- Agro-input dealers
- Researchers
- ...and more

PlantwisePlus digital tools



Digital learning

- CABI Academy
- Skills for Agriculture



Crop protection support

- CABI BioProtection Portal
- Crop Sprayer app



Crop protection support

- PlantwisePlus Knowledge Bank
- PlantwisePlus Factsheets app

PlantwisePlus Knowledge Bank

Global and country-specific information on crop health and pest management, to support timely action against crop pests and diseases.



15,000+ pieces of content, including, Pest Management Decision Guides, Factsheets for Farmers, species pages, photo sheets, manuals and video factsheets.

Features

- Pest alerts
- Crop Pest Diagnostic Simulator
- Diagnostic tool
- 100+ languages

Plantwiseplusknowledgebank.org

PlantwisePlus Knowledge Bank



The PlantwisePlus Knowledge Bank helps address the problem of **crop losses** caused by pests and diseases by providing **reliable, up-to-date, and region-specific agricultural information** to farmers, extension workers, and researchers.

By working closely with national partners to collect, analyse and disseminate pest data, it supports the detection and management of pest threats and improves access to and adoption of recommended practices.



Total users: **1,944,440**



New users: **1,639,736**








Sessions: **2,586,105**



Av engagement time: **1m 36s**

Data from 01/10/2022 – 31/12/2024

Content types

Technical factsheets	Factsheets for Farmers	Pest Management Decision Guides	Photo guides	External factsheets
				
<p>In-depth, technical information on:</p> <ul style="list-style-type: none"> • Symptoms • Distribution • Control practices 	<p>Management materials with information on crop pests/disease and their control</p>	<p>Practical recommendations on cultural control (green list) and chemical information (yellow list)</p>	<p>Visual guides to support pest or disease identification</p>	<p>Varied crop health content from non-PlantwisePlus sources.</p>

Who is the content for?

Academics, farmer advisors, extension officers, farmers, researchers, students



PlantwisePlus Knowledge Bank

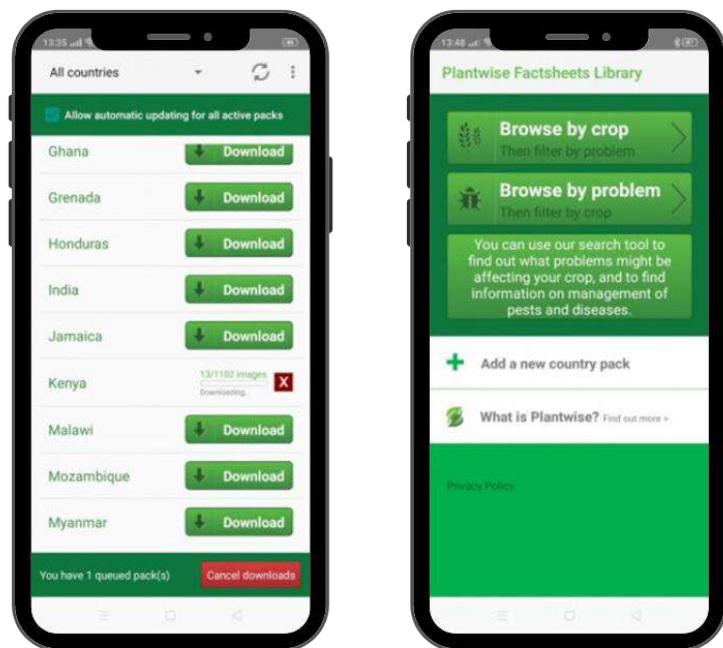
“As a plant doctor with an active plant clinic, CABI’s PlantwisePlus Knowledge Bank gives me instant access to diverse resources online which help me to make the correct diagnosis of crop pests and diseases. I’m therefore able to provide farmers with responses which are effective to their problems.”

Florence Malemba, Plant Doctor, Kenya



PlantwisePlus Factsheets

A free app with country and crop-specific PlantwisePlus factsheets. Download up-to-date pest and disease management information for offline access on mobile devices.



Features

- Country-specific information packs - Over 35 countries
- Browse by both crop and problem
- Information on prevention, monitoring and control
- Country specific content available in local languages

Download for [Android](#) and [Apple iOS](#)



PlantwisePlus Factsheets

The PlantwisePlus Factsheets Library App helps address the problem of crop losses due to pests and diseases by providing farmers, agricultural extension workers, and plant health professionals with easy access to **practical plant health information**. It offers **offline access** to a vast collection of pest and disease management factsheets, which contain **locally relevant, actionable advice** on how to diagnose and control various crop threats.



Total users: **32,218**



New users: **26,151**



Sessions: **145,646**



Engaged sessions: **99,030**



Av engagement time: **15m
14s**

Data from 01/10/2022 – 31/01/2024



PlantwisePlus Factsheets

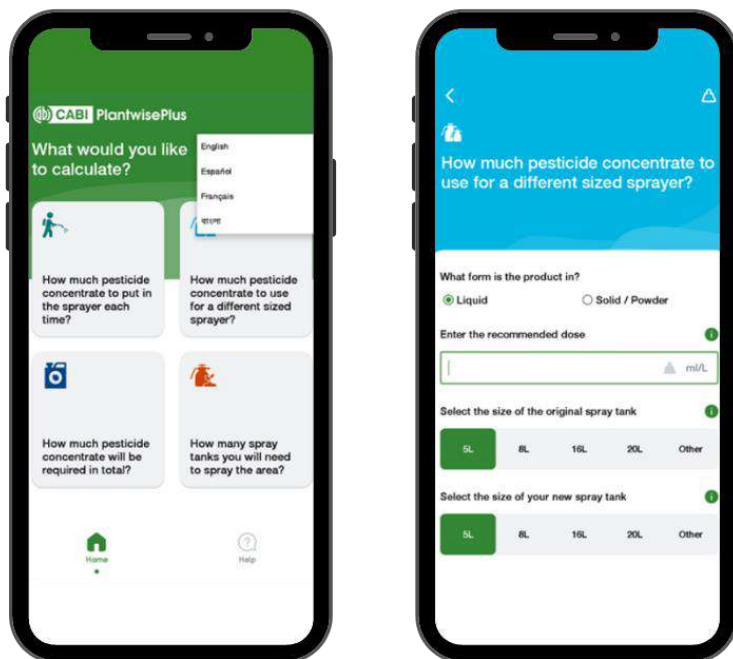
“The CABI Digital Tool has been beneficial to me in my daily extension work. The PlantwisePlus Factsheets app is time and cost effective. It makes it easier to access information and knowledge about plant health. I have acquired knowledge in variety of crops and how to manage various pests and diseases.”

Faustina Kyeremeh, Agricultural Extension Officer, Ghana



Crop Sprayer App

A free **Android app** that enables users to calculate **how much plant protection product to use** based on user-inputted values when treating their crops.



Benefits

- Calculate how much plant protection product to put in different sized sprayers
- Calculate how many spray tanks are needed to spray an area
- Calculate total amount of plant protection product required
- Languages: 15 languages available, including Bengali, French, English, Kiswahili and Spanish

Download from [Google Play Store](#)



Crop Sprayer app

“I use the Crop Sprayer App for measurements and calibration. The products we have here might be labelled, but some are manufactured elsewhere, so the app comes in handy. When I get to a farm, I now know how much to apply. It has made me not misuse the farmer resources, and the crops don’t become resistant”

Solomon Kariuki, Spray Service Provider, Nakuru County, Kenya



Crop Sprayer app

The Crop Sprayer App helps address the problem of **inefficient and unsafe pesticide application** by assisting farmers and agricultural workers in **calculating the correct pesticide dosage** and spray settings.



Total users: **95,747**



New users: **93,972**



Sessions: **207,245**



Engaged sessions: **136,171**



Av engagement time: **1m 25s**

Data from 01/01/2023 – 31/01/2024 

CABI Academy

CABI's digital learning platform provides online, interactive courses that address agricultural challenges faced by people around the world.



The CABI Academy strengthens agricultural advisory services by equipping users with the necessary skills and knowledge to provide the best possible advice to farmers, helping them to maximise their yield potential and grow their businesses.

The CABI Academy's target audience is agricultural students, extension workers, agro-input dealers and farmers/growers.

academy.cabi.org

CABI Academy

The CABI Academy helps address the problem of limited access to high-quality agricultural training and knowledge, particularly for extension workers, and plant health professionals. It provides interactive, science-based learning resources to improve skills in pest and disease management, sustainable agriculture, and food security.



APP



WEB



OFFLINE



Total users: **75,676**



New users: **73,030**



Sessions: **324,474**



Engaged sessions: **208,025**



Av engagement time: **8m 25s**

Data from 01/03/2021 – 31/01/2024



CABI Academy

“I am very grateful to the Cabi for the courses on CABI Academy. I took a course on gender mainstreaming and aside getting a certificate, I now know how to handle gender issues when training farmers. I’m currently taking the course on entrepreneurship in agriculture to be able to turn agriculture into a business.”

Mary Mueni, Digital tools champion & CABI Academy student, Kenya

Programmes: 10-12 hours

The CABI Academy programmes provide in-depth learning. The learning materials are split over multiple modules and take over ten hours to complete. They are free in PlantwisePlus countries.



Crop Pest Diagnosis

This course strengthens skills for identifying new and emerging crop threats, symptom identification, and causes of biotic and abiotic plant health problems.



Crop Pest Management

This course covers applying Integrated Pest Management (IPM) principles to pest and disease management in real-world scenarios.

Short courses: 4-8 hours



Introduction to BioProtection Products

Learn about BioProtection products and how they work in the field, including what farmers need to know before, during and after choosing BioProtection products.



Introduction to Water Management

This course is about efficient and productive water management in and for agriculture.



Sustainable Soil Management Practices

This course strengthens advisory skills in the identification of soil health issues and the application of relevant and sustainable soil management practices.



Improving Crop Nutrition Practices

This course provides information and practice activities to increase skills and knowledge on improving crop nutrition practices.



Entrepreneurship in Agribusiness

This course provides guidance on how to start and maintain an agribusiness.



Gender-Inclusive Strategies for Improving Agricultural Productivity

This course provides learners with the knowledge and practical tools to support their skills in delivering gender-inclusive agricultural advisory services.



Introduction to Seed and Planting Materials

This course covers seed and planting materials and their importance in producing healthy crops.



Reducing Pesticide Risks

COMING SOON

Training materials

These resources are designed for facilitators conducting face-to-face training.



Digital Skills Training Materials

Training materials for facilitators to use for building/strengthening digital skills in their community.



Maize Farming in Rwanda

A set of materials for trainers supporting maize farmers in Rwanda, and open to all.



Why study with CABI Academy?

Accessible: Study online or download our platform's mobile app for use offline

Flexible: Suitable for step-by-step self-study or “dipping-in” to support your teaching or learning needs

Interactive: Courses feature activities such as quizzes, polls, and discussions to enhance your learning experience

Certification: Receive a CABI Academy certificate when you successfully complete a course

“A very informative and well-structured course that covers many important aspects regarding bioprotection products and their use.”

Cristiana Virginia PETRE PhD, Biologist
Introduction to Bioprotection Products course participant



Skills for Agriculture

The Skills for Agriculture Framework defines and matches skills, knowledge, and competencies with relevant training materials for those working at all levels within the agriculture sector.

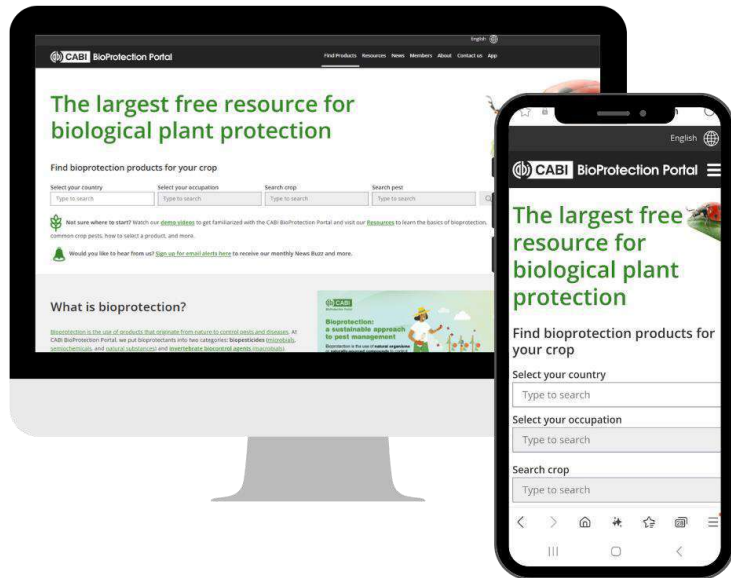
Who is the framework for?

- **Students/Workers:** Plan your career
- **Employers:** Measure your team's skills
- **Educators:** Identify gaps in your provision

[agricultureskills.org](https://agriculturekills.org)

CABI BioProtection Portal

Free tool to help growers and advisors identify, source and apply bioprotection products against pests.



Users can search for registered bioprotection products in their country and explore the resources area for information and self-study courses on biological control and IPM.

Features

- Live in >40 countries
- >4,000 registered products in database
- Available in local languages
- Download the app for offline access

[BioProtectionPortal.com](https://www.biotprotectionportal.com)

CABI BioProtection Portal

The CABI BioProtection Portal helps address the problem of limited access to safe and sustainable alternatives to chemical pesticides by providing farmers, agronomists, and agricultural advisors with information on biological control products.

The CABI BioProtection Portal combines practical information on bioprotection products and direct connections to manufacturers so that users can easily see what products are available in their country and how to source, store, and apply them effectively.



Total users: **329,512**



Engaged sessions: **272,792**



Total searches: **55,166**



Total products views: **74,936**

Data from 01/01/2024 – 31/12/2024



CABI BioProtection Portal

“My work focuses on the registration of bioproducts, so the information on the Portal is highly relevant for developing effective registration strategies. I value CABI's educational resources to help me advance.”

Jaswinder Kaur, BC Institute of Agrologists (BCIA) Professional Agrologist, Canada

Principles of Digital Development



CABI follows these principles:

Start with users Design for real people's needs

Use what exists Build on what's already working

Make it scalable Plan for future growth

Think long-term Ensure it lasts over time

Use data wisely Learn and improve with data

Be open Share knowledge and tools

Reuse and improve Adapt good ideas

Keep it safe Protect people's data and privacy

Work together Collaborate for greater impact



CABI is an international intergovernmental organisation, and we gratefully acknowledge the core financial support from our member countries (and lead agencies) including:



Ministry of Agriculture and
Rural Affairs,
People's Republic of China



Agriculture and
Agri-Food Canada



Ministry of Foreign Affairs of the
Netherlands



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC