

SUSTAINABLE PESTICIDE MANAGEMENT FRAMEWORK (SPMF)





Foreword



With a warming planet, tackling pollution, protecting biodiversity, and boosting food security are complex challenges that are all interlinked. They must be addressed in a horizontal, holistic, and inclusive manner. The SPMF embodies such an approach.

> **Emily Rees** President and CEO CropLife International



As a global advocate for the plant science industry, CropLife International champions innovative technologies that enable farmers to sustainably increase productivity while managing the critical challenges facing our climate and the environment.



Back in 2021, CropLife International launched our flagship program, the Sustainable Pesticide Management Framework (SPMF), together with our members, BASF Agricultural Solutions, Bayer Crop Science, Corteva Agriscience, FMC Corporation, Sumitomo Chemicals, and Syngenta AG.

The SPMF is rooted in our industry's foundational commitment to the International Code of Conduct on Pesticide Management to ensure existing crop protection tools are used responsibly and efficiently. At the same time, it paves the way for the adoption of new technologies to support the demand for more sustainable alternatives and practices such as Integrated Pest Management (IPM).

As global temperatures rise, we see a dramatic increase in invasive pest and diseases, which in combination with water scarcity challenges overall crop productivity. The impact is particularly severe for low and middle-income countries in tropical climates. Farmers need access to tools and technologies to adapt and deal with these escalating threats.

The recently adopted Global Framework for Chemicals called on countries and stakeholders to jointly strengthen their efforts in chemical management. At the meeting where the framework was finalized, I shared that with a warming planet, tackling pollution, protecting biodiversity, and boosting food security are complex challenges that are all interlinked. They must be addressed in a horizontal, holistic, and inclusive manner.

The SPMF embodies such an approach. In this Annual Report, you will read about many initiatives that have been pursued in collaborations beyond the agricultural sector, including health, environment, technology and trade. As a result, we have been able to achieve tangible and coordinated outcomes towards responsible pesticide management.

It is incredible how far the program has come in just under three years. During this short period of time, SPMF has launched in seven of our nine program countries across three continents. In our first-wave countries, Kenya and Morocco, we have trained over 300,000 farmers on IPM and safe pesticide use. This is a significant addition to the 10 million farmers we train every year on average through our CropLife stewardship activities. Furthermore, many initiatives under the SPMF have also become a comparable best practice reference for non-SPMF countries in the region to leverage and adopt.

My personal thanks go to our many partners who have supported CropLife in the implementation of the SPMF closely over the last few years and to the governments that have encouraged the progression of the initiative. They have our continued commitment moving forward as we applaud their incredible achievements to date.

Emily Rees President and CEO CropLife International

About SPMF

CropLife International launched its flagship commitment, the Sustainable Pesticide Management Framework (SPMF) program in 2021, with the aim of accelerating the implementation of the **International Code of Conduct on Pesticide Management**¹ (The Code). It does this by integrating regulatory and stewardship best practices through capacity-building, technical cooperation, information sharing and supply chain integration.

CropLife International members are committing over \$13 million in funding in 9 low- and middle-income countries in Africa, Asia and Latin America over a 5year period. The program is already underway in Kenya, Morocco, Thailand and Vietnam.



>\$13 million in funding in 9 low- and middle-income countries

A Sustainable Approach to Pesticide Management



Pesticides are essential tools for farmers for crop yield resilience, especially in the face of the increasing pest pressure and diversification arising from climate change. However, they must be managed responsibly so that the benefits are achieved without adverse effects on human health and the environment. The Code lays the foundation for this and underpins our framework.

The Code (Article 7.5) provides guidance on how specific pesticides with properties classified as highly hazardous should be addressed, stating that where risk management cannot secure their safe use and safer alternatives are available, they should be removed from the market.

The spirit of the policy laid out by the Code was also recently adopted by the Global Framework on Chemicals, which makes a specific reference to Highly Hazardous Pesticides (HHPs)² in Target A7.

The Global Framework for Chemicals (2023)

Target A7: By 2035, stakeholders have taken effective measures to phase out HHPs in agriculture where the risks have not been managed and where safer and affordable alternatives are available; and to promote transition to and make available those alternatives.

CropLife International and its members are committed to support such transitions, while also recognizing that transitions take time.

Three pillars of SPMF

The SPMF sets out an integrated approach to manage this transition, taking action to accelerate innovations while ensuring that the transition period is sustainable. It does this by building better governance and infrastructures for systematic risk assessment and mitigation.

Reduce Reliance on HHPs & Demonstrate Change	Increas Innovati
Establishment of transparent and systematic risk management measures	An enabling env for new innov enhance the farr
 Regulations that incorporate science- based risk assessment principles and mandatory risk mitigation measures to 	Regulatory a existing and r chemical and r innovations
 Enhance incident reporting systems and 	Adoption of s agriculture to as drones an smart practice
capabilities (e.g. poison control centres) for risk monitoring	System innov drives operat efficiency in p
Controls for anti-	management

 Controls for anticounterfeit and illegal trade

We cannot do this alone

The SPMF is an ambitious long-term program and partners are vital to support the transformation of our agricultural and food systems.

CropLife International seeks to raise awareness of the opportunities the SPMF provides to national and global stakeholders, in line with multi-stakeholder approach of the Code and the Global Framework for Chemicals.

1.<u>https://www.fao.org/3/I3604E/i3604e.pdf</u> 2.Definition of HHPs, FAO/ WHO Guidelines on HHPs, Page 6: <u>https://www.fao.org/3/I3604E/i3604e.pdf</u>



vironment vations to mer toolbox

access for new non-chemical

smart cools such nd climateces

System innovation that drives operational efficiency in pesticide management, such as data traceability



Risk reduction of pesticides through good stewardship practices throughout their life-cycle

- Public-private partnerships to scale farmer stewardship outreach
- Licensing and certification schemes for applicators and retailers
- Container management systems for waste management and circularity
- Responsible supply chain processes including for illegal trade and obsolete stock prevention

2023 Highlights

Global expansion

SPMF was launched in Kenya, its flagship country in 2021. By 2023, SPMF had become operational in Asia and planning began in Latin America, making SPMF a program of global reach.

Each country program runs for a period of five years.



Chile

Country highlights in 2023

Kenya

A draft of the **new pesticide law** incorporates global best practices

National **poison control centre** relaunched with improved response and reporting capabilities

Industry-wide empty pesticide container management scheme established with 310 collection sites to date

Morocco

New pesticide decree passed, incorporating global best practices

Pilot for container management in Souss Massa region completed with 40 tons collected

2,500 farmer leaders trained on responsible pesticide use with another 100,000 farmers reached through mass media

Thailand

Egypt

Kenya

Morocco

A full curriculum of **risk assessment regulatory** workshops launched for 2023-2025

Additional stewardship guidelines on **drones in pesticide application** for specific crop uses underway

Climate action integrated into stewardship trainings specifically for sustainable rice production

Vietnam

Thailand

Vietnam

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MOU signed with Vietnam's Ministry of Agriculture and Rural Development to jointly implement SPMF in Vietnam

First-ever workshop held in Vietnam to begin work on amending regulations for **biological pesticides**

SPMF Kenya

The challenge of climate change is very serious in Kenya. In 2019, we faced locust attack for the first time in 70 years. Pest species are evolving and are different from what we have seen before.

Dr. Collins Marangu Director of Plant Protection and Food Safety Directorate, Ministry of Agriculture







Agriculture as an economic driver

Agriculture is a cornerstone of Kenya's economy, contributing **30%** of its Gross Domestic Product (GDP).

Hunger crisis

Over **4.4 million** Kenyans face a high level of Acute Food Insecurity (IPC AFI Phase 3), as severe droughts impact food production and prices.

Rise in invasive species

Farmers are learning to control an increasing number of new invasive species that further impact both economic growth and the hunger crisis.



Some HHPs have essential uses, for example in locust control. This remains one of the most devastating pests for countries in East Africa.

While the UN Food and Agriculture Organization (FAO) is making progress to shift towards more preventive control of desert locusts to avoid emergency actions relying on HHPs, this requires time, research and farmer training.

The organisation concluded: "Going forward, biopesticides have an important role to play in strategies that monitor such risky weather events and start preventive treatment in the early stages of an outbreak. This would go a long way to avoiding the kinds of large-scale crises the Horn of Africa is experiencing today and safeguard the food security of millions of people."¹

SPMF aims to provide integrated solutions that support an accelerated and sustainable transition away from HHPs.

Achievements in Kenya



Reduce Reliance on HHPs & Demonstrate Change



Environmental and dietary risk assessment workshop for Kenyan regulators

Strengthening legislation

In 2023, the legal draft of the new Pest Control Products (PCP) Bill was finalized, concluding two years of comprehensive reviews with Kenyan regulators. The new law will replace a 40 yearold act, and incorporate regulatory principles in line with the International Code of Conduct on Pesticide Management. It includes riskassessment, national requirements for risk mitigation and globally harmonized labelling guidelines. We now continue to support capacity-enhancement workshops with countylevel stakeholders to guide its implementation.



Joint regulatory workshop with Kenyan and South Sudan government officials. SPMF promotes regional sharing beyond its program countries

Improving capabilities for risk assessment

A government steering committee for product review was established, including involving regulators. This in turn enhanced capabilities for proper risk evaluation. To date, the committee has reviewed eight active ingredients.

Two baseline pesticide residue studies covering eight major agriculture counties on three key crops have also been completed, to further support regulators in evidence-based risk assessments.

Incident response and risk monitoring

In September 2023, the Jomo Kenyatta National Hospital Poison Information Control Center was relaunched with a digitized database, updated safety and treatment information and a hotline to ensure timely treatment of reported pesticide poisoning cases. Awareness campaigns raised the profile of the hotline among farmers.

SPMF has helped us to make safety and treatment information more accessible in real-time to help patients who call us. We are also able to store information on these cases and build up a database to use for decision-making moving forward.

Fighting illegal trade

As of 2023, over 456,000 customs officers, agrodealers and farmers have been trained, and a large-scale public awareness campaign on combating illegal and counterfeit trade was launched. Uganda and Tanzania also participated in these trainings, increasing cross-border cooperation.

In late 2023, two major interceptions were made at Kenyan customs, which were attributed to the training the officers received through the SPMF programme.

The phasing out HHPs can have the effect of attracting illegal traffic, which in turn creates health risks for farmers, environment and crops. The fight against illegal trade is crucial in creating a sustainable transition away from HHPs.

Dr. Alfred Birich Director of Pharmaceutical Services, Kenyatta National Hospital





Training workshop for customs officers at Malaba border on combatting counterfeit pesticides products

Achievements in Kenya



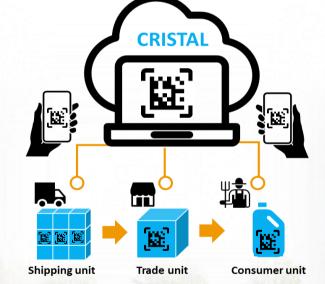
Increase Innovation

Public sector digital transformation

A digital registration system for pesticides is in its pilot stages and the Ministry of Agriculture has already integrated this system in the government's digital citizen platform to prepare for implementation. This will enhance data transparency and streamline processes for registration reviews, accelerating innovation in Kenya.

Piloting data traceability technologies

In 2023, we began working with pesticide regulators to design a pilot data traceability system (CRISTAL), a technology designed by the agrochemical industry which has been implemented in several countries globally. CRISTAL supports better visibility of pesticides from production through to distribution. The pilot is expected to be executed in 2024.



Accelerating market access for biological pesticides

Fast-track and waiver provisions for biological pesticides have been included in the final draft of the new pesticide bill, following consultations with the industry on international best practices. This will enable the acceleration of farmer access to a broader range of pest control tools that supports Integrated Pest Management (IPM).

Driving adoption of drones for pesticide application

Responding to the global trend of adopting drones for pesticide application, we initiated two webinars, inviting international experts to share best practice regulation. In September, the first-ever farmer field day for drones in Kenya was organized to drive awareness on the use of the new technology.

> Today, we need new technologies and approaches for Kenya's agriculture. We are happy that the industry is keeping up with such technologies. For example, the industry supported us in using drones for pesticide application and we are now looking into developing new regulations for using drones in spraying pesticides.

> > **Dr. Collins Marangu** Director of Plant Protection and Food Safety Directorate, Ministry of Agriculture



Inaugural farmer field day on drones for pesticide application in Kenya





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Achievements in Kenya



Responsible & Effective Use

Professionalizing the industry

Over 400 farmer leaders have been trained as certified Spray Service Providers (SSPs), licensed professionals with full training on good stewardship practices. These SSPs are contracted by farmers in their communities to conduct pesticides spraying. To date, our SSPs are connected to over 3,900 farmers and producer groups, strengthening the eco-system of professionals trained to handle pesticides.



First batch of trained SSPs under SPMF in Nyandarua county

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Peer to peer education is key in farmer training. When farmers see that farms sprayed by SSPs have better pest control and crop yields, they are motivated to engage them to spray their fields. When they see these SSPs wearing PPE, they also follow suit.

it. Benson Ngigi p Manager, CropLife Kenya/ Aak-GROW



Modernizing stewardship outreach

In September 2023, the first e-learning module on Integrated Pest Management (IPM) was completed and uploaded into our new e-learning system followed by the first awareness-raising campaigns on utilizing this platform rolled out in Q4. These digital formats not only allow us to reach more farmers but have been designed to support better learning and retention through methods such as animations and interactive quizzes.

Over 200,000 farmers have been trained on good agricultural practices since SPMF began in Kenya



Farmers from Kabare Coffee Farmers Society, Kirinyaga County undergoing training on responsible use

Establishing a nationwide hazardous waste management system

HAPROK, Kenya's first hazardous waste Producer Responsibility Organization (PRO) has been formed, in line with Kenya's development of Extended Producer Responsibility (EPR) Law for waste management. Under the law, the PRO serves as a centralized agency, funded by various producers to carry out collection and disposal services. To date, we have 86 members in the HAPROK network and have safely collected and disposed of 36 tons of empty pesticide containers.

We have been working with CropLife Kenya for a long time now and so with the upcoming EPR law in Kenya, we are not doing something new but upscaling what we are already doing. CropLife Kenya has helped us to establish a system of safe container collection which was previously disorganized.

> **Dr. Ayub Macharia** Director of Environmental Education and Awareness Creation, National Environment Management Authority



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SPMF Morocco

While our farmers have a remarkable ability to adapt to change, they also need the right tools to do so. At CropLife, we are convinced that this can be achieved through the use of innovative solutions in the agricultural field, as well as cooperation between the public and private sectors.

> Samira Amellal CEO, CropLife Africa Middle East







The fight against climate change

Morocco's arid climate makes it highly susceptible to climate change and persistent water shortages, crucial for its agriculture and export economy. 2022 was especially dire for the agricultural economy which contracted by **13%** due to severe droughts.

Spikes in food prices

The food shortages have not only hampered economic growth but have driven food price inflation to an unprecedented **20%** for its domestic market in 2023.

Food insecurity

Soaring food prices is putting pressure on the country's food system, where **32%** of the population is food insecure (UN FAO report, 2022¹).

Generation Green 2020-2030

In 2020, the King of Morocco launched a new strategy to further develop the agricultural sector and improve the social and economic status of farmers, aiming to address both immediate needs and long-term sustainability.

SPMF collaborates closely with the government of the Kingdom of Morocco in supporting technology transfer to transform the country's food system.

Achievements in Morocco



Reduce Reliance on HHPs & Demonstrate Change

New pesticide law passed

In June 2023, the new Decree 2-22-855 was successfully passed, completing the existing Pesticide Law 34/18. The new decree incorporates risk assessment approaches and makes risk mitigation measures such as the wearing of Personal Protective Equipment and Good Agricultural Practices (GAP) standards mandatory.

Stepping up the fight against illegal trade

Following several dialogues with the national food security office, we succeeded in moving the issue of illicit trade up the national agenda, securing the support of regulators to develop an integrated plan beyond our farmer training activities in order to step up the fight against illicit trade in 2024.

The priority of the Ministry is to ensure food security while at the same time tackling the green transition and addressing climate change.

> **Redouane Arrach** Secretary General, Ministry of Agriculture



Managing risk through evidence-based approaches

In 2023, we succeeded in strengthening the functions of the national poison control center in several respects: upgrading pesticide analysis methods, digitizing pesticide data and information and harmonizing data collection standards. Better data is key to providing swift medical care while making risk assessment and mitigation more effective.

The Morocco poison control center not only collects and validates data but uses this data to develop risk mitigation activities including regulatory action, risk communication and healthcare strategies.

The survey among 800 farmers is now completed and will help us design more targeted stewardship training programs to farmers.



Researchers of Moroccan Poison Control Center

We reached out to almost 800 farmers to enquire about how they act, what their attitudes and behaviours are, as well as their views towards pesticides in general. This will allow us to implement awareness raising strategies for farmers.

> Dr. Naima Rhalem President of the Moroccan Health Association Environment and Toxicological Vigilance



Participants at analysis of blood samples to investigate the health impact from pesticide use



Achievements in Morocco



Increase Innovation

Public sector digital transformation

A digitized pesticide registration system for pesticides is now near completion. This will enhance data transparency and streamline processes for registration reviews, accelerating the availability of newer chemical pesticides in supporting transitions away from HHPs.

Innovative learning and training methods

In September 2023, our farmer e-learning system went live. 60 farmers participated in our first two modules on Integrated Pest Management and Safe Use of Pesticides. With the completion of further modules, we expect to expand participation on a wider-scale in 2024. The modules are available in both French and Arabic.

Modernizing the farmer toolbox

In discussion with the government to support Morocco's agricultural modernization policy, drones for pesticide application and gene-editing technologies were identified as high potential solutions to pursue under SPMF. We are working with national research institutes to conduct research and field trials that will inform the development for new regulations to support the adoption and safe use of these innovations.



Drone conference



Public-private partnerships for scale

In 2023, we saw significant progress in scaling up our stewardship efforts. Our partnership with the agricultural extension office has led to more systematic training, increased coverage and continuity, and leveraged funding. Through this effort, we have trained 2500 farmers, with an additional 100,000 farmers reached via radio and social media.



Distribution of PPE kits

Establishing a pilot system for empty pesticide container management

In 2023, we successfully implemented a pilot empty pesticide container management system with waste management partners -AgroTech and GeoCycle - in Souss Massa, a major agricultural exporting region. This was accompanied by farmer trainings on container collection and safe disposal. The pilot collected 40 tons for incineration with a target of reaching 120 tons of empty containers and will now be adapted to build the foundations of a nationwide scheme.



to secure solid foundations for our agriculture's sustainability.

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Responsible & Effective Use



Farmer trainings on GAP

Driving nationwide PPE adoption

We launched a nationwide PPE campaign, distributing over 3,100 PPEs this year. These PPEs have been adapted to suit Moroccan climate conditions, to meet revised safety standards, and are cost-efficient to produce.



Training on safe disposal of empty pesticide containers in June 2023

Thami Ben Halima Director of AgroTech Association



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SPMF Thailand

Through the support of Thai Agricultural Innovation Trade Association (TAITA), we have been able to provide knowledge to farmers in many provinces, something that we cannot rely solely on government budgets and resources to do alone.

Worawit Sudcharittamjariyangkun

Expert of Application Technology Research Group, Plant Protection and Research Division, Department of Agriculture



90% of Thai farmers are in debt

90% of Thai farmer households today are in debt. Thailand's tropical monsoon climate also poses severe challenges for farmers. Annual floods not only threaten crop yields but also lead to increased pest problems and a cycle of debt for farmers.

Protecting farmer livelihoods

The government aims to **triple** the income of farmers in **four years** with market linkages and innovation as its twin engines for growth.



Thailand's sustainable rice challenge

As the nation's staple food and leading agricultural export, rice is central to Thailand's economy, rural livelihoods, and food security. Thailand is the world's second-largest rice exporter, and the crop is cultivated by half of its 8 million farmers.

Yet rice cultivation also comes with greenhouse gas emissions and intensive water use for irrigation. In order to mitigate against climate change, it is critical for the sector to innovate, adopting sustainable practices to overcome these challenges.

SPMF aims to accelerate innovations and strategies for climate mitigation and adaptation to safeguard and enhance farmer livelihoods.

Achievements in Thailand



Reduce Reliance on HHPs & Demonstrating Change

Strengthening regulator capacity

A full curriculum for risk assessment capacity building has been developed and will be implemented from 2024 through 2025, following several consultations with government and stakeholders in 2023.



Planning meeting with Department of Agriculture to develop curriculum for risk assessment training

Cross collaborations for enhanced incident reporting

A cross-disciplinary working group comprising toxicologists, agriculture and health officials has been established to enhance the services and capabilities of Ramathibodi posion control center for pesticide incident response and reporting.



Formation and first meeting of the incident management working group

The policies and practices informed by risk assessments can help alleviate hardship and build a robust foundation for food production.

Ms. Marisa Senior government expert, Department of Agriculture



Increase Innovation

Progressing drone regulations

In 2023, we made progress in developing regulations for pesticide application by drones, forming specific stewardship guidelines for four main crop groups. Training workshops have been jointly organized with the Department of Agriculture.



Drone training workshop

Through the training activities organized by TAITA, we have gained knowledge in other areas not covered by drone manufacturers, such as laws and regulations regarding drone use.

Mr. Suchon Drone service provider



The climate agenda

In 2023, we extended our existing collaboration with GIZ in the Inclusive Sustainable Rice Landscapes project (ISRL), training 6,000 farmers on sustainable rice production including Integrated Pest Management (IPM) practices.

In November, CropLife Asia hosted the ASEAN Food & Agriculture Road to COP 28 series in Thailand. Themed "Climate Change Adaptation, Food Security and Fostering Sustainable Agriculture", the event sought inputs on climate change mitigation and adaptation for food and agriculture in Southeast Asia.

In December, over 800 government agricultural extension officers were trained on climate-smart strategies for rice cultivation.



ISRL partners include Thai Rice Department, GIZ, UNEP, Olam Agri and CropLife International Credit: ISRL project/GIZ Thailand

Inventive approaches to learning

A successful pilot Virtual Reality (VR) stewardship training among farmers and agriculture governmental officials was organized in Bangkok and Chiang Rai. Based on positive feedback of improved knowledge retention, more VR modules will be developed for future trainings.

encourage them to try out this new training.





VR stewardship training pilot in Chiang Rai, Thailand

chemical exposure. I am going to show this VR technology to my friends and

Pichi Kaeokhammi



SPMF Vietnam

Sustainability in Asian food systems is much more than a buzzword – it's a societal expectation around protecting livelihoods for many in Asia, shifting demands in consumers to know how our food is grown, and protecting food security from the impact of climate change and globalization. The SPMF represents a big step forward in realizing this goal.

> Dr. Tan Sianghee Executive Director, CropLife Asia







Vietnam's economic success story

Vietnam has been a development success story, achieving its middleincome status in 2011. It aims to elevate its status to a high-value economy by 2045.

Innovation to drive its 2050 agriculture vision

Vietnam's vision is to become a global leader in agriculture by 2050 – globally competitive, food secure and environmentally sustainable. The government recognizes that this goal must be enabled by maximizing opportunities in agricultural and digital innovations.

Protecting Vietnam's

Rice Bowl

The lower Mekong delta, famously known as the "Rice **Bowl of Vietnam**" provides fertile environmental conditions for its agriculture and fishing sectors.

However, climate change is an immediate threat which necessitates both climate mitigation and adaptation strategies for sustainable agriculture.

SPMF renews our commitment with the government of Vietnam in supporting its 2050 agricultural vision.

Achievements in Vietnam

A comprehensive public-private partnership

In July 2023, CropLife Vietnam signed an MOU with the Ministry of Agriculture and Rural Development (MARD) to jointly implement SPMF in line with global best practices and Vietnam's national agriculture goals.



CropLife Asia's efforts to empower and inform Vietnamese farmers to use pesticides and plant varieties effectively contributes to MARD's goals and orientations towards improving management efficiency for a safe, transparent, and sustainable food system in Vietnam."

> **Hoang Trung** Vice Minister, Ministry of Agriculture and Rural Development



On 11 January 2024, the Plant Protection Department of MARD and CropLife Vietnam signed a collaboration agreement to implement the first year workplan in line with the strategy and vision committed in the MOU.

support from CropLife Vietnam over the past years in promoting sustainable management and use of pesticides, contributing to enhancing productivity and quality of agricultural products while cultivation areas are decreasing.

Huynh Tan Dat



Reduce Reliance on HHPs & Demonstrate Change

Consultation dialogues to review regulations on pesticide management

In line with the agreed plan to review and revise the laws and regulations on pesticide management over the next three to five years, several dialogues and workshops have been held to review the law and share global best practices.





Vice minister of MARD gives opening remarks at inaugural bio-pesticides workshop



Responsible & Effective Use

Inclusion of waste management in stewardship program

With additional funding from SPMF, a pilot program for container management has been incorporated into CropLife's existing joint stewardship program with the government in Dong Thap province. This will provide important guidance on implementing the new Extended Producer Responsibility (EPR) law.



Joint workshop with USDA-CABI on MRL harmonization

Inaugural biological pesticide workshop

In November 2023, the first bio-pesticide regulatory workshop was held with the viceminister of MARD and over 150 government officials in attendance. The workshop marks the beginning of MARD's work to develop new policies and regulations to promote the adoption of bio-pesticides in Vietnam's agriculture.



Demonstration of container collection under pilot project

