Advancing Sustainable Pest Management at Rainforest Alliance

Juliana Jaramillo and Michelle Deugd
Regenerative Agriculture team

September 2025

OUR VISION IS A WORLD WHERE PEOPLE

RAINFOREST ALLIANCE

AND NATURE THRIVE IN HARMONY

Our global reach

TODAY

7.5+ million

farmers and workers on certified farms

5.7+ million

hectares of certified farmland

7,600

company partners

42,000+

products carry the Rainforest Alliance seal

109

active programs

62

countries with certified farms and projects

61

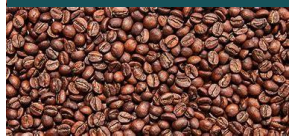
coalitions and platforms allied with

Among the largest farm-to-consumer standards in the world

Commodities in Scope

Rainforest Alliance certified commodities

Coffee



Tea

Cocoa

Bananas

Spices

Fruits & Veggies

Flowers

Coconut

Nuts

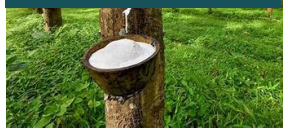
Non-RA certified commodities but present in our landscapes (impact programs work)

Palm

Soy

Timber

Rubber



Pulp & Paper

Dairy

IPM and reduced pesticide strategy

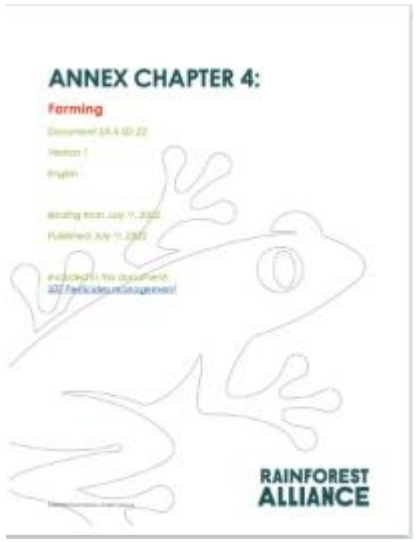
Resilient and productive farms: reduced use of pesticide, higher biodiversity conservation

Farmers lack resources and information

- Gather insights from farmers and learn from their experiences
- Identify local pest control needs in different regions

- Tailor solutions to farming context
- Make training more practical and relevant
- Help farmers access the right advice and tools

In the certification program

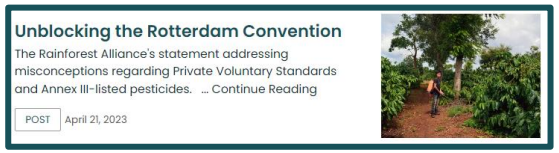


List of Prohibited Pesticides based on FAO/WHO's HHPs classification	- Based on FAO/WHO classification of Highly Hazardous Pesticides - The list includes**160 active ingredients** - These substances cannot be used within the certified area
Risk Mitigation List developed with IPM Prime (OSU IPPC) and updated based on a scientific paper with risk mitigation requirements.	- May be applied **exclusively in the context of IPM**, and when the risk mitigation measures to protect people and the environment are fully implemented - The list includes**169 active ingredients**
List of Obsolete Pesticides	- Pesticides that no longer formally registered, produced or that are widely banned, **BUT** some still accessible - All these substances are **prohibited, 24 active ingredients**
Exceptional use policy	- Under **exceptional circumstances**, exceptions can be granted for the use of pesticides included on the Prohibited List. - Exceptions can be granted for **specific crop/pest and geographical scope** (country or part of the country)

SA-S-SD-22-V1.1-Annex-Chapter-4-Farming.pdf

Strategic Pathways for Safer Pest Control

IPM knowledge bank	Collaboration with CABI. And our own knowledge bank on pesticide use per crop and country
Tailored IPM solutions	Some notable examples in melon in Guatemala and coffee in Nicaragua. We leverage our extensive database on producers' needs per sector and country, and combined with experts' knowledge and the Homologa® database, we can map alternatives
Training and capacity building	Several online and in person resources on IPM implementation or proper pesticide use
IPM advocacy work	



Integrating Pesticide Risk Reduction Across Our Programs

IMPACT PROGRAMS

- Landscape and community projects, many of them on sustainable or regenerative agriculture with **focal topic IPM and reduced pesticide** use
- Technical support and capacity building

STRATEGY SUPPORT

- Supply chain risk assessment for non- certified supply.
- Recommended field projects to help reduce identified risk.
- **Focus topic IPM and reduced pesticide use**

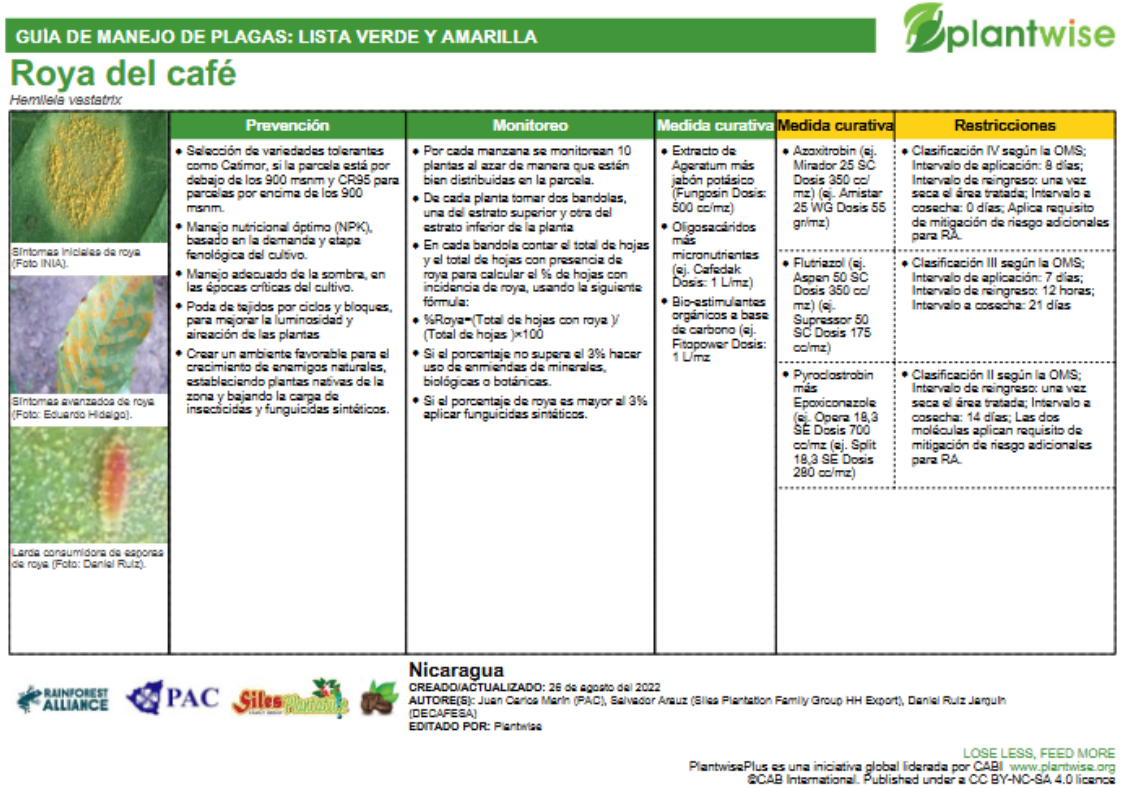
CERTIFICATION SOLUTIONS

- Sustainable Agriculture Standard – Farm requirements (**Chapter 4, IPM, Agrochemicals Managemen**t)
- **Annex chapter 4** – Pesticides Management

CABI Rainforest Alliance collaboration

Pest Management Decision Guides created with Rainforest Alliance.

CABI and the Rainforest Alliance pledge working towards more sustainable agriculture - CABI.org



GUIA DE MANEJO DE PLAGAS: LISTA VERDE Y AMARILLA

plantwise

Roya del café

Hemileia vastatrix

Síntomas iniciales de roya (Foto INIA).

Síntomas avanzados de roya (Foto: Eduardo Hidalgo).

Larda consumidora de esporas de roya (Foto: Daniel Ruiz).

Prevención	Monitoreo	Medida curativa	Medida curativa	Restricciones
• Selección de variedades tolerantes como Catimor, si la parcela está por debajo de los 900 msnm y CR95 para parcelas por encima de los 900 msnm. • Manejo nutricional óptimo (NPK), basado en la demanda y etapa fenológica del cultivo. • Manejo adecuado de la sombra, en las épocas críticas del cultivo. • Poda de tejidos por ciclos y bloques, para mejorar la luminosidad y aireación de las plantas • Crear un ambiente favorable para el crecimiento de enemigos naturales, estableciendo plantas nativas de la zona y bajando la carga de insecticidas y funguicidas sintéticos.	• Por cada manzana se monitorean 10 plantas al azar de manera que estén bien distribuidas en la parcela. • De cada planta tomar dos bandolas, una del estrato superior y otra del estrato inferior de la planta • En cada bandola contar el total de hojas y el total de hojas con presencia de roya para calcular el % de hojas con incidencia de roya, usando la siguiente fórmula: • %Roya=(Total de hojas con roya)/ (Total de hojas)×100 • Si el porcentaje no supera el 3% hacer uso de enmiendas de minerales, biológicas o botánicas. • Si el porcentaje de roya es mayor al 3% aplicar funguicidas sintéticos.	• Extracto de Ageratum más jabón potásico (Fungosin Dosis: 500 cc/mz) • Oligosacáridos más micronutrientes (ej. Cafedak Dosis: 1 L/mz) • Bio-estimulantes orgánicos a base de carbono (ej. Fitopower Dosis: 1 L/mz	• Azoxitrobin (ej. Mirador 25 SC Dosis 350 cc/mz) (ej. Amistar 25 WG Dosis 55 gr/mz) • Flutriazol (ej. Aspen 50 SC Dosis 350 cc/mz) (ej. Supressor 50 SC Dosis 175 cc/mz) • Pyroclostrobin más Epoxiconazole (ej. Opera 18,3 SE Dosis 700 cc/mz (ej. Split 18,3 SE Dosis 280 cc/mz)	• Clasificación IV según la OMS; Intervalo de aplicación: 8 días; Intervalo de reingreso: una vez seca el área tratada; Intervalo a cosecha: 0 días; Aplica requisito de mitigación de riesgo adicionales para RA. • Clasificación III según la OMS; Intervalo de aplicación: 7 días; Intervalo de reingreso: 12 horas; Intervalo a cosecha: 21 días • Clasificación II según la OMS; Intervalo de reingreso: una vez seca el área tratada; Intervalo a cosecha: 14 días; Las dos moléculas aplican requisito de mitigación de riesgo adicionales para RA.

Nicaragua

CREADO/ACTUALIZADO: 26 de agosto del 2022
AUTORE(S): Juan Carlos Marín (PAC), Salvador Arauz (Silos Plantation Family Group HH Export), Daniel Ruiz Jarquín (DECAFESA)
EDITADO POR: Plantwise

LOSE LESS, FEED MORE
PlantwisePlus es una iniciativa global liderada por CABI www.plantwise.org

Molecules with exception by country/region

Challenges: example from the field - Costa Rica

The use of Mancozeb in banana in Costa Rica

Sector agricultura demanda mayor agilidad en el registro de nuevas moléculas de agroquímicos - El Observador CR

- **Mancozeb** is a fungicide used to control black sigatoka in banana. As RA we cannot yet require 100% prohibition of this very toxic product.
- **Regulatory & policy barriers in Costa Rica** have led to fragmented policies on bio inputs and registration processes. This has inhibited the registration of new molecules for agrochemical uses since various year.
- **The lack of access to new products** puts Costa Rica in competitive disadvantage and affects exportations due new MRL and approved substances by the EU.
- Banana products are used that have been used for 50 years. New products would require lower doses and less applications, which would have a positive effect on the environment and people.

Reducing toxic pesticides through collaboration

Corbana and Rainforest Alliance implement testing plots in banana plantations to identify less toxic, economically feasible and effective herbicides. Objective: aiming for drastically reduced use of glufosinate-ammonium

Results of field testing 5 alternative approaches:

1. *Most effective and persistent application: Glifosato+ Carfentrazone or Diquat.*
2. *For emergency situations: glufosinate- ammonium has the quickest and most effective results.*

Conclusions:

- *For "normal", recurrent applications less toxic alternatives have proven to be effective.*
- *The use **glufosinate-ammonium** of will only be approved for emergency requests.*

Challenges we often encounter

- **Strong push back** from certain sectors and countries on requirement to **phase out HHPs, and cases of noncompliance**
- Many farmers **don't have the knowledge or resources to make the shift**, and it's often hard to get industry support to stop using harmful pesticides. What really drives change is **tighter regulations in major importing countries**—though this can sometimes create challenges for farmers on the ground
- Few (economic) **incentives** for farmers to reduce pesticide use
- Influence of the **agrochemical industry**, including provision of technical assistance and products including HHPs, can hinder adoption of alternatives
- Resistance to change among stakeholders and gaps in **regulatory enforcement (at producer level country)**
- **Insufficient funding** for testing alternatives, awareness raising and for IPM training

Call to Action: Phasing Out HHPs through coordinated efforts

- Advocate within the EU to strengthen and enforce regulatory frameworks

- Support advocacy in production countries to enable approval of modern, less toxic molecules and bio-control inputs.

- Provide financial support for projects that develop and scale IPM solutions through pilot plots and peer-to-peer training in production countries.

- Build the business case for IPM solutions aligned with Regenerative Agriculture.

External resources

Our **external landing page**
Articles, advocacy and training documents

ORGANIZATIONAL UPDATES

OUR INTEGRATED PEST MANAGEMENT & PESTICIDE APPROACH

Filed Under: Certification | Tagged: Pesticides, Regenerative agriculture
Last updated September 20, 2024

From the **certification program**

SECTION 4.5
INTEGRATED PEST MANAGEMENT (IPM)

GENERAL GUIDANCE DOCUMENT
CROP SPECIFIC GUIDANCE DOCUMENTS

Version 1
Draft 1.0

Date: June 2020

Guidance document

https://www.rainforest-alliance.org/business/wp-content/uploads/2020/12/guidance-h-integrated-pest-management.pdf

RAINFOREST ALLIANCE

ANNEX CHAPTER 4:

Farming

Document SA-S-SD-22

Version 1.1

English

Published on January 31st, 2024

Binding from July 1st, 2024

RAINFOREST ALLIANCE

RAINFOREST
ALLIANCE