

# HIGHLY HAZARDOUS PESTICIDES

**The Rainforest Alliance's Mission to Phase-out their Use—and How Companies can Support**



## THE DANGERS OF HIGHLY HAZARDOUS PESTICIDES IN TROPICAL SUPPLY CHAINS

Pesticide use is a serious threat in tropical agriculture, causing severe damage to human health and the environment. While all pesticides can be dangerous, those that are classified as “highly hazardous” are of particular concern, due to the severe adverse effects they pose to human health in both the short and the long-term. It is estimated that 385 million unintentional acute pesticide poisonings occur each year, with the majority occurring in low- and middle-income countries—where health, safety and environmental regulations are weaker.

In addition, pesticides—particularly highly hazardous pesticides (HHPs)—can infiltrate soil and waterways, jeopardizing biodiversity, and the health of the communities who fish, grow food, and drink from these natural resources. In effect, large scale soil degradation and biodiversity loss are caused by HHP usage, posing a serious threat to the entire ecological system on which food production depends.

## THE RAINFOREST ALLIANCE APPROACH TO PHASING-OUT OF HHPs

The Rainforest Alliance Sustainable Agriculture Standard prohibits the use of HHPs as defined by the FAO and WHO. These are pesticides which are proven to cause cancer, genetic defects, reduce fertility, harm the unborn child, or cause severe or irreversible adverse effects on the environment. The Rainforest Alliance has a technical team that determines whether pesticides should be prohibited, based on both the WHO/FAO definition of HHPs and new evidence of substances causing a high incidence of severe harm. Examples of HHPs that have been prohibited by the Rainforest Alliance include paraquat, for its severe human toxicity, and carbendazim for its mutagenic and reproductive toxicity. For an in-depth overview of all prohibited pesticides see the 2020 Sustainable Agriculture Standard and standard guidance. When new substances are added to Rainforest Alliance's prohibited pesticide list, a phase-out period is allowed to support farmers in finding alternatives.

The Rainforest Alliance also has an [Exceptional Use Policy \(EUP\)](#) for prohibited pesticides. This process identifies regional and crop-specific difficulties in finding feasible alternatives to HHPs and works with farmers to find approaches that are economically and environmentally appropriate. Exceptions for the use of prohibited pesticides are granted only if no efficient, accessible, cost-effective alternatives are available, or if prohibiting the substance in question would put the economic sustainability of the agricultural operation at high risk. Exceptions are always temporary, regional, and crop-specific. When exceptions are granted, we require producers to actively search for less toxic alternatives.

## HELPING FARMERS EMBRACE INTEGRATED PEST MANAGEMENT

Our approach to reducing pesticides goes beyond phasing out highly hazardous pesticides. It includes the implementation of Integrated Pest Management (IPM), a system wherein alternative methods to preventing and controlling pests are considered. We support farmers to implement IPM in various ways, for example by:

- providing an IPM knowledge bank to guide farmers in their journey towards more regenerative agriculture and pest control
- developing tailored IPM solutions in specific sectors and locations
- building capacity and understanding of IPM through the Farmer Field School model, which promotes experimentation, demonstration, and exchange of experiences among farmers
- advocating for companies and governments to support farmers in implementing IPM.

More information can be found in our position paper on [Integrated Pest Management](#) and some information on IPM and pesticides use in our key crops can be found here: [banana](#), [cocoa](#), [coffee](#) and [tea](#).

## LONG-TERM VISION FOR RESILIENT TROPICAL SUPPLY CHAINS

For the Rainforest Alliance, IPM is a vital component of regenerative agriculture that takes a climate-smart and holistic approach to ecosystem management. For more information on the Rainforest Alliance's approach to regenerative agriculture read our [position paper](#).

The Rainforest Alliance's long-term vision on improved pest management does not include pesticide use; ultimately, our agricultural systems need to fully transition to farming practices that strengthen the entire agroecosystem. Several recent reports (IPCC, IPBES and HLPE) state that such a transformation is needed to address the climate, biodiversity, human health, and social crises we face today.

Approaches such as IPM, regenerative agriculture, and agroforestry will enable a reduction in agrochemical use, which helps to mitigate the climate crisis, increase farmers' resilience to climate change, improve livelihoods, and enhance biodiversity. The adoption of these methods is essential to deliver on the Paris Climate Agreement, the UN Sustainable Development Goals, and the post-2020 [Global Biodiversity Framework](#). The latter includes a target to reduce the overall risk of pesticides by at least 50 percent by 2030.

## HOW COMPANIES CAN SUPPORT THE PHASE-OUT OF HHPs IN THEIR SUPPLY CHAINS

The Rainforest Alliance believes that companies have a responsibility to help farmers they source from to reduce the use of HHPs and increase ecosystem resilience. Currently, farmers often lack the financial means and support on the ground to transition away from using HHPs, which limits implementation of safer alternatives to controlling pests. Companies have the opportunity to play a central role in enabling farmers to find and implement alternatives to HHP use, such as IPM.

There are two ways that companies benefit from supporting farmers in their transition away from HHPs. Firstly, in light of mandatory legislation such as the German Supply Chain Act (2023) and the EU's Corporate Sustainability Due Diligence Directive (2024), companies are obliged to identify the most hazardous chemicals in their supply chains and support farmers in limiting risks to human health and local ecosystems. IPM and regenerative agriculture are methods that are proven to work with nature and not against it, with positive impacts on farmers, farming communities, and the environment. Companies can therefore meet these legislative requirements by supporting farmers to implement these approaches.

Secondly, HHPs hamper climate mitigation and adaptation strategies. For mitigation efforts, pesticide production emits large volumes of greenhouse gases, and pesticide use kills soil organisms that are essential for sequestering carbon. Climate adaptation is also negatively impacted by HHP use, as HHPs diminish on-farm biodiversity, reducing the resilience of the agroecosystem.

Companies working in tropical supply chains should support farmers to diversify their farms and strengthen the ecosystem with resilient crops, healthier soils, clean water systems, and increased biodiversity. In effect, companies that support farmers with IPM and regenerative agriculture as viable climate adaptation strategies can bolster the long-term viability of tropical supply chains and support farmer livelihoods.

The Rainforest Alliance is committed to reducing the use of HHPs and working with businesses to ensure that people and nature can thrive in harmony. This can be achieved through:

- (i) supply chain commitments that require IPM implementation and safe pesticide use by farmers and cooperatives
- (ii) implementing best practices from the Rainforest Alliance Sustainable Agriculture Standard including training, payment of premiums, and supporting farmers in reducing their HHP use
- (iii) contributing to shared responsibility in IPM implementation by providing financial incentives or in-kind payments (such as rust-resistant seedlings, insect traps, and biological control agents) to farmers seeking to transition away from pesticide use.

