BANNED HERE. EXPORTED THERE. DEADLY EVERYWHERE.

TRACING CARBENDAZIM FROM BELGIUM TO THE PHILIPPINES





















TRACING CARBENDAZIM FROM BELGIUM TO THE PHILIPPINES

Most of the country's bananas for export come from the southern island of Mindanao where most big banana plantations and small-scale farms are located. To meet foreign demands, the intensification of the banana cropping system has been pushed to optimize production. This has led to increased application of fertilizers to boost crop yield and pesticides to control pests and diseases.

Production of bananas for export is dominated and controlled by transnational agri-corporations that have entered into contract agreements with small-scale banana farmers and cooperatives to produce Cavendish bananas, the only banana variety being exported from the Philippines. These contract agreements have been criticized as grossly unjust because while the company profits continue to rise, the farmers are being pushed further deeper into debt and poverty. These corporations dictate what agricultural inputs, such as agrochemicals, would have to be used to maintain the quality of the produce. Independent growers are pressured to use the same agrochemicals to compete with corporate farms' produce, despite their ill effects on people's health and the environment."

Agriculture has long been the backbone of the Philippine economy being the major source of employment in rural areas with a share of 24.8 percent of the country's total employment. Besides the rising population growth, agricultural production in the country is driven by foreign trade involving food crops such as banana, pineapple, coconut, and mango, among others. Foreign demands for export crops, however, have intensified monocrop cultivation that relies heavily on agrochemicals, both as fertilizers and pesticides. Consumption of chemical fertilizers and pesticides in the Philippines has been increasing over the past few years.

Banana tops the country's fruit crop production. The Philippines is one of the top banana exporters in the world, second only to Ecuador in terms of export volume.^{III}

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THE PRESENCE OF DEADLY PESTICIDES IN THE PHILIPPINES

Research by Unyon ng mga Manggagawa sa Agrikultura (Union of Agricultural Workers) found that agrochemicals have been widely used in banana plantations and farms in Mindanao. Monocropping and extensive use of agrochemicals go together as the former depletes the nutrients in the soil and leads to the fast spread of pests and diseases forcing farmers to use more chemical fertilizers and pesticides to maintain bountiful harvests. The union also documented several cases of pesticide poisoning among plantation workers handling these highly toxic chemicals – from skin diseases, lung ailments, to more serious illnesses such as permanent blindness.^{vi}

But banana production has recently been experiencing a substantial decline due to Covid 19, the spread of pests and diseases, and extreme weather events brought about by climate change. This has particularly affected small-scale banana farmers as they struggle to meet the quality expectations of the import markets further contributing to the pressure to increase their use of chemical pesticides to meet quality standards.

Most of the chemical pesticides used in the Philippines are imported from various countries. Many of the hazardous pesticides that are banned in developed countries are still commonly applied in the Philippines, just like in many other developing countries.

For instance, pesticide companies based within the European Union (EU) export pesticides banned for use within the bloc to countries where there are less strict regulations on the use of pesticides. Invoking the principle of Prior Informed Consent (PIC), these pesticide manufacturers continue to flood developing countries with EU- banned pesticides using such justifications as 1) each country has the sovereign right to decide which pesticides best meet the needs of its farmers, and 2) many pesticides banned in Europe are sold abroad because they have different conditions and agricultural needs.^{vii}

According to the harmonised classification and labelling (ATP17) approved by the European Union, this substance may cause genetic defects, may damage fertility and may damage the unborn child, is very toxic to aquatic life with long lasting effects and may cause an allergic skin reaction. Additionally, the classification provided by companies to ECHA in REACH registrations identifies that this substance may damage fertility or the unborn child.*

A study conducted by the Policy Department for External Relations of the European Parliament raised the issues surrounding the export from the EU Member States to developing countries of some pesticides that have been banned from use within the EU.

1. Carbendazim

One of the non-EU-approved pesticides that have found their way into banana farms and plantations in the Philippines is Carbendazim, an active ingredient in fungicides with wide applications for controlling fungal diseases in agriculture, forestry, and veterinary medicines. ix

Furthermore, Carbendazim has consistently been included in the list of pesticides exceeding the legally permitted maximum residue levels (MRLs) contained in food products sold in the EU that originated from developing countries.xixii

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Its approval was not renewed by the EU in 2014 because of its harmful effects to humans and the environment. Other than health impacts, Carbendazim was also found out to cause the poisoning of bodies of water and aquatic organisms.^{xiiii} The Pesticide Action Network International has classified Carbendazim as a Highly Hazardous Pesticide (HHP).^{xiv}

2. Carbendazim distributors in the Philippines

In the Philippines, Carbendazim is being sold and used widely as a fungicide for various crops such as bananas, mangoes, cucurbits, sugarcane, garden peas (legumes), and okras. Farmers especially use Carbendazim for products intended for export.

Carbendazim is included in the Philippine Fertilizer and Pesticide Authority's (FPA) List of Registered Agricultural Pesticides. On this list are several local agricultural supplies companies that import, distribute, and market Carbendazim-based products coming from different countries such as Belgium, China, India, Canada, and Korea. The local distributors mostly sell the Carbendazim-based products to banana and mango farmers located in the southern parts of the country where these crops are grown. Out of more than twenty registered Carbendazim-based products, three are from Belgium, found under brand names "Goldazim", "Zimcote", and "Bendazid". All three were manufactured by Arysta Lifescience in Belgium. The table below shows the distributors of the three Carbendazim-based products.

It is important to underline that the listed distributors all obtain Carbendazim from Arysta Lifescience, the manufacturer of the active ingredient. UPL acquired Arysta in 2019, making it the fifth-largest crop protection company worldwide.^{xv}

3. Presence of Goldazim and Zimcote in Davao Region, Mindanao

This study found that Goldazim and Zimcote are widely sold in Mindanao (see photos below). Both pesticides are primarily being used by mango and banana fruit growers in the region.



Agway Agricultural Supplies StoreIocated in Bankerohan, Poblacion, Davao City
Agway is the main distributor of Zimcote in the region



BETTER YIELD Agri Trading and Services Located in Poblacion, Arakan, North Cotabato Province

Product	Distributor	Regristration Number	Expiry Date
Goldazim	International Veterinary & Agrochemical, Inc.	088-247-5407	05/20/2022
	Arysta Lifescience Philippines, Inc.	083-267-3964	12/23/2022
	Enviro Cropvet Products, Inc.	282-267-1495	10/20/2023
Zimcote	Agway Chemicals Corporation	075-267-4225	01/17/2024
Bendazid	UPL Philippines, Inc.	562-267-4790	06/16/2024



Source: List of Registered Agricultural Pesticides, FPA

KLEEN VALLEY, Agricultural Supply Located in Poblacion, Nabunturan Davao de Oro













DAVAO PJ FARM SUPPLYLocated in Poblacion,
Nabunturan Davao de Oro

CASE STORIES

Case #1:

FARM OWNER: MARK JOMOL

RESIDENCE: POBLACION, NABUNTURAN, DAVAO DE ORO

FARM LOTS/AREA: TWO FARM LOTS WITH A TOTAL OF 2.5 HA PLANTED WITH CAVENDISH BANANA LOCATED IN BRGY. LIBASAN, NABUNTURAN ABOUT 6 KILOMETERS FROM THE MUNICIPAL CENTER.

Davao de Oro has been known for having vast lands planted with Cavendish variety of bananas which are being exported globally. It is home to big local companies that dominate the banana industry, as well as to small-scale local producers like Mark Jomol and his relatives.

Like the big banana plantations that are dependent on synthetic pesticides and fertilizers, the small banana planters are also extensively using synthetic chemicals (amongst which Carbendazim-based pesticides) to survive the competition of the market.

Mr. Jomol expressed that to produce a good harvest, there is no other way but to spray chemicals on his bananas right from the start of the budding up to the time of harvesting. He said that about two weeks after the banana buds have emerged, they are already being treated with chemicals to prevent pest attacks.



A study conducted to investigate the knowledge, attitude, and practices on pesticides among farmers in the Philippines found that many farmers used chemical pesticides because they did not find alternative ways to protect their crops from pests and resorted immediately to the application of pesticides. The study further found that such practice may stem from the misconception that pesticide use is the best method to kill pests and that the use of pesticides is necessary for producing quality foods.xvi

proper distance from the fruits to avoid the accumulation of pesticide residues. Curiously, Mr. Cainglet who handles the application of the pesticides admitted that he can never bring himself to eat the bananas having been aware of the high volume of pesticides he applied to them.

Other farmers who have been interviewed revealed that the continuous use of Carbendazim brings about pest resistance

Goldazim

On Mr. Jomol's farm, Goldazim is applied as a spray by mixing 1 ml of the pesticide with another chemical in a 14-liter sprayer. Based on the testimony of Mr. Jomol's farmhand, Erickson Cainglet, the mixture has been proven to produce Class A Cavendish bananas. Class A bananas are those that pass the international quality standards. Bananas for export must pass through a strict classification process to ensure that they meet international marketing standards. Those that do not pass the quality standards are discarded and processed as livestock feeds.

Mr. Jomol explained that he applies Goldazim twice a week during the early stage of the budding bananas. Through this practice, one liter of Goldazim applied to his 2.5 ha banana farm usually lasts for about two months.

Mr. Jomol said he planted the bananas during the COVID-19 lockdown. After six months, the bananas started bearing fruits and have continued to bear more fruits thereafter. Since then, he has been harvesting every month.

Mr. Jomol said that on his farm, they have been practicing the careful application of chemicals such as spraying at a

> Mr. Cainglet showing another pesticide, DuPont Lannate, an insecticide which he mixes with Goldazim before spraying on bananas.



which is why they are constrained to use it sparingly and use other fungicides available in the local market.

Lack of safety gear for farmworkers

While the bananas are meticulously being handled on Mr. Jomol's farm, the same could not be said about the condition of farm workers who spray the pesticides. Proper wearing of face masks or other personal protective equipment (PPE) is apparently not being observed. Mr. Jomol admitted that even if he provides masks, his farmhands do not use them and prefer wrapping their shirts around their faces. He added that the workers just wash their bodies thoroughly after spraying.

Regarding the storage of the chemicals, Mr. Jomol said that he keeps the chemicals separately in a storage facility, and he disposes of empty chemical containers by burying them in the ground, a practice that is prohibited

by the Fertilizers and Pesticides Authority (FPA), a technical regulatory agency mandated to assure the public of safe and adequate supply of fertilizer, pesticide, and other agricultural chemicals.

Under FPA's regulation, pesticide dealers are designated as primary collection points of properly rinsed packaging. They are mandated to provide properly sealed drums in a secured area on their premises as temporary holding areas where their clients should bring their rinsed containers.xvii

During the interviews, it was noticed that farm owners and even farmer- applicators themselves are mum about the fungicide's effects on human health and are reluctant to say anything regarding health issues. The responses to questions about the side effects of the chemicals on them and those who are living near the banana plantations are vague and not directly addressed by the interviewees, thus needing further study.

Case #2:

FARM OWNER: EDDIE MAGLUYAN

RESIDENCE: POBLACION, ARAKAN, NORTH

COTABATO

FARM LOTS/AREA: A TOTAL OF 15 HA WITH 7 HA ALLOCATED FOR LAKATAN, A LOCAL BANANA VARIETY, LOCATED IN BARANGAY CABALANTIAN, ARAKAN ABOUT 10-15 KILOMETERS FROM THE MUNICIPAL CENTER.

A native of Arakan Valley, Mr. Magluyan started investing in small-scale banana farming roughly two years ago. According to Mr. Magluyan, he has been using synthetic pesticides to produce premium quality bananas that are visually appealing to local customers.

On his first harvest, Mr. Magluyan tried to market his produce in Manila through direct selling. Having experienced difficulties in dealing with Manila clients, he decided to focus on the local markets in the region instead.

Better results with chemicals

Mr. Magluyan revealed that one of the key factors that helped him thrive in banana production is the extensive use of pesticides. According to him, pesticides have prevented pest infestation on his farm such as the Banana Diamond Leaf Spots, oval to diamond-shaped spots caused by certain fungi species.

Mr. Magluyan uses Goldazim to protect his bananas from pests from the flowering stage up to the harvesting stage. To enhance Goldazim's potency, Mr. Magluyan mixes it with other pesticides such as Poliar and EC41.

He has two regular plantation workers who are tasked to apply pesticides to the bananas and tend to his farm daily. At times, he employs the services of a chemical applicator who uses advanced technologies such as drones in applying pesticides.

Mr. Magluyan lamented that the price of pesticides has tripled over time. Yet, he has to buy the same amount of pesticides to produce the desired number and quality of bananas for the local market.





Mr. Eddie Magluyan, in front of his banana farm in Brgy. Cabalantian, Arakan, North Cotabato

As to the application of the chemicals, Mr. Magluyan said that he can understand the instructions and safety precautions provided by the pesticide label but admitted that many banana producers, like him, are inclined not to follow them and are forced to apply a low dose of pesticides or make an improper pesticide mixture due to economic constraints. A study revealed that most farmers do not care to read the instructions on pesticide containers and follow them.xviii

Chemical handling and safety of farmworkers

The FPA, under the mandate of the Department of Agriculture, has crafted stringent policies and guidelines on the application of pesticides that banana growers must follow. However, there is a different story on the ground.

When asked if DA representatives have come to monitor how he or the other banana producers apply chemicals on their farms or conduct information campaigns regarding the safe and effective use of chemicals, Mr. Magluyan answered in the negative.

As a safety measure, Mr. Magluyan keeps a storage facility where the chemicals are kept while he disposes of chemical containers by burning them away from the populated area.

During the two-year operation of his small banana farm, Mr. Magluyan said that his farm workers have not experienced any adverse health effects from pesticide handling even as he claimed that his workers only use cloth fabric wrapped

around their heads and noses when applying the pesticides.

Based on Mr. Magluyan's testimony, although pesticide brands provide safety guides on the correct handling of pesticides, it appears that many small-scale banana growers undertake their own safety measures in dealing with these chemicals, which at times violate government regulations.

These smallholder farmers are also the least able to cope with pests and diseases and are even more forced to rely on chemical pesticides to produce enough income or at least recoup their expenses. Amid their precarious situation, physical safety or environmental conservation is a distant concern for them.

Such smallholder farmers are among the most difficult to reach in terms of providing training on the safe use of pesticides, as well as alternative methods of crop protection. In terms of behaviour change, in many cases, they are also likely to be the most difficult to convince regarding the long-term advantages of alternative methods, especially given the widespread availability of inexpensive pesticides.xix

Banning pesticides is market-driven

Carbendazim use in the Philippines is unlikely to be banned now or in the near future. In an interview, Eric Divinagracia, FPA Deputy Executive Director for Pesticide, said that Carbendazim has been widely used in banana plantations because of its proven efficacy in treating bananas from pests and diseases not to mention that it is cheaper compared to other fungicides.

Although it has been scientifically proven that Carbendazim is harmful to human health and the environment, for the FPA, the economic impact of banning Carbendazim is the more urgent concern.

"It is actually easy to ban pesticides, but we need to look at the economic impact if we are to ban them especially if those are being used in banana plantations. If we ban the use of Carbendazim, a lot of banana plantations might close, and thousands of workers will lose their jobs. We have to find the right balance while looking for alternatives."

FPA acknowledges that all forms of chemical pesticides are hazardous to human health and the environment, and that the agency's primary responsibility is to monitor the proper application and handling of these pesticides.

"Exposure to chemical pesticides is really the main issue here. In general, all chemical pesticides are toxic. What the FPA has always been telling the farmers is that they should wear the proper personal protective equipment so that they will not be exposed to the harmful effects of pesticides" said Mr. Divinagracia.

The government, though, has placed the responsibility of educating the farmers about the effects and the proper handling of chemicals upon the chemical manufacturers themselves.

"All chemical companies are tasked to conduct farmers' meetings. It is part of the product registration process. They have to engage with farmers to explain the stewardship program of their products," said Mr. Divinagracia who also admitted that pesticide misuse is still common among farmers.

The same study by the Policy Department for External Relations of the European Parliament pointed out that pesticide manufacturers are primarily focused on profits and can sometimes twist public and environmental health arguments for competitive reasons rather than a general concern for human and environmental health. They can and are willing to act as partners to achieve greater levels of safety but cannot be expected to do so on their own.*xx

Another study showed that pesticide misuse and its detrimental consequences have repeatedly been assumed to be farmers' responsibility but the responsibility of pesticide retailers being the farmers' primary source of information in terms of pesticide use has largely been ignored. xxi

Asked about why the Philippines still allows Carbendazim even though it has been banned from many other countries, Mr. Divinagracia stressed that the country has its own policies regarding pesticides and cannot just abide by other countries' decisions. He, however, admitted that the decision to ban certain pesticides is driven by the market citing the case wherein the Philippine government was compelled to ban the use of the insecticide Fitronil when Japan, the top importer of Philippine bananas, rejected banana shipment from the Philippines after it found out that Fitronil's residue on bananas had gone beyond the maximum residue limit.

Growing movement against HHPs

There is a growing movement in the Philippines campaigning for a ban on highly hazardous pesticides (HHP) in the country and other developing countries. Among these organizations are Pesticide Action Network-Asia Pacific (PANAP) and Magsasaka at Siyentipiko para sa Pag-unlad ng Agrikultura (MASIPAG). PANAP is a network of CSOs and institutions working to eliminate the harm caused by pesticides and replace them with agroecology and non-chemical alternatives. It is actively engaged in calling on governments and corporations to take concrete steps toward a progressive ban of HHPs and their substitution with ecosystem-based alternatives. In the words of Sarojeni Rengam, executive director of PANAP:

"High-income countries and regions produce Highly Hazardous Pesticides that have been banned and severely restricted because of human health and environmental harm, and these are exported to developing countries. These pesticides cause massive poisonings of vulnerable groups including peasants, women and children, workers, and indigenous peoples. We would like to see a strong target for all countries to stop the production and exports of substances banned in their own countries or region."xxii

Masipag is a farmer-led network of people's organizations, non-government organizations, and scientists working towards sustainable use and management of biodiversity through farmers' control of genetic and biological resources, agricultural production, and associated knowledge.

Through various campaigns, it encourages farmers to shift from monocropping to diversified and integrated farming systems and from chemical-based farming to agroecological farming practices. It provides technical support and information on critical aspects such as soil fertility management, alternative pest management, cropping systems, diversification, and farm integration.

Masipag is also at the forefront of a campaign to ban Glyphosate in the country. Developed and patented by agrochemical giant, Monsanto (before being acquired by Bayer) Glyphosate is a systemic herbicide used extensively among major crops such as rice, corn, sugarcane, pineapples, coffee, and bananas, among others. The World Health Organization in 2015 classified Glyphosate as "probably carcinogenic to humans" while the European Chemical Agency in 2017 classified it as causing serious eye damage and as toxic to aquatic life. Like Carbendazim, it has also been banned from many other countries. xxiii

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