



# Summary

# **PRESENTATION**

Brazil has 16,800 kilometers of borders, areas in 11 states and bordering 10 countries, through which illegal goods pass which represent astronomical figures and incalculable damage to the health of the population and the environment. Even more relevant than the economic aspect is the aftermath in social liabilities paid by Brazilian society.

The smuggling and embezzlement of goods, including agricultural chemicals, represents a loss of approximately R\$20 billion per year for the industry and domestic revenue. While the bulk of these illegal activities happen initially on the border regions, the negative

balance is paid by society as a whole, since the traffic that crosses the borders reaches Brazil's large urban centers.

Among the proposals of the Institute of Economic and Social Development of Borders (IDESF) is drawing the attention of public agents to the border regions, where there is a growing movement of people and products. For over five years, IDESF has been addressing the most relevant issues related to this area of territory that is so important for national sovereignty.

Studies already conducted by the institution include the publications 'The Cost of Smuggling' and 'The Economic Logic of Smuggling', providing an overview of the illegal entry of goods into the country, with an emphasis on cigarettes, a product largely smuggled from Paraguay.

The Institute's research has also highlighted the realities of the border municipalities. Produced according to official indicators, the 'Diagnosis of Development of Twin Cities in Brazil' provides a radiograph of areas which border neighboring countries in terms of education, health, economy and public safety, demonstrating in numbers that the reality in these regions is much harsher than the national average.

The changing technology that supports virtual information networks also fuels clandestine commerce. In the study 'The Illegal Telecommunications Market', conducted at the

end of 2018, IDESF found, among other irregularities, that 70% of the equipment used to implement internet networks in Brazil enters the country illegally and is therefore not authorized and regulated by Anatel.

Now, the Institute presents the study 'Smuggling of Pesticides in Brazil', a broad survey of the flow and increasing movement of gangs around these products. Agrochemicals, which are substances used to protect crops from pests and are responsible for the increasing rates of production and productivity of Brazilian agriculture, are manufactured and controlled in Brazil.

The fragility of Brazilian borders, however. exposes domestic agriculture to the indiscriminate use of these products, a practice with presumed economic effects, but with harmful consequences that remain unmeasured throughout the nation. The survey conducted in Brazil and neighboring countries was principally concerned with unveiling the logistics of this illegal activity, which is growing dramatically in terms of movement and organization of gangs and calls for a closer scrutiny from the Brazilian authorities on this issue.

With this study, IDESF believes it is meeting the commitment made when it was conceived as an institution, to highlight the reality of border regions and their implications for Brazil as a country. With this study, the Institute wants to demonstrate that it is taking its role seriously in terms of debating problems, seeking solutions and making borders a source of integration and development.

**Luciano Stremel Barros**President of IDESF





### 1. Justification

Brazil is expected to harvest 233.3 million tons of cereals, legumes and oilseeds in the 2018/19 harvest, according to an estimate by the National Supply Company (CONAB). A production 2.5% higher than the last harvest that feeds into the continuous evolution of Brazilian agriculture figures over recent decades and demonstrates the strength of an ever-growing sector that was largely responsible for the country's economic balance in these recessionary years.

Agribusiness exports totaled USD 100.10 billion between December 2017 and November 2018, an increase of 5.2% over the previous period, according to the Agribusiness Trade Balance Bulletin of the Ministry of Agriculture and Livestock (MAPA). Among the factors that underpin development is the massive investment by the industry's large chain in technology, from planting to harvesting.

In this context, pesticides play a key role, which is reflected in the growing production and productivity registered in the field. Currently, Brazil is the second largest agricultural producer in the world, surpassed only by the United States, and is expected to occupy the first position in the next decade. The country is already one of

the largest global agricultural exporters. We are the largest producers of sugar cane, coffee and oranges. We occupy the second position in the world in soybean and tobacco production and we are the third largest in corn production.

The national average yield achieved in maize cultivation, for example, was only 1.4 tons per hectare in the 1972/73 harvest. In the 2018/19 agricultural year, the average estimate for the first crop corn harvest is close to 5.5 tons per hectare, according to Brazilian Grain Crop Monitoring data, from the National Supply Company (CONAB). Growth is approximately 392%.

It was with results like this that Brazil moved from being a food importer, about five decades ago, to one of the largest granaries in the world. The evolution of the harvest shows that domestic agriculture has met the challenge of raising productivity to meet the growing world demand for food, amid the strong pressures against the expansion of cultivated areas.

At international level, discussions about food production converge on the difficult equation between two major needs: raising food production by up to 30% - according to the United Nations (UN) Food and



Agriculture Organization (FAO) for agriculture and food-together with the adoption of environmental balance measures, which prevents the expansion of the planting areas. According to data from NASA, the US space agency, released in December 2017, the percentage of cultivated areas in the country is only 7.5%.

Brazilian agriculture is at the center of this agenda because Brazil plays a leading role. It is estimated that, at the moment, national production feeds about 1.5 billion people. According to the Brazilian Agricultural Research Corporation (EMBRAPA), in addition to supplying its population of almost 210 million people, the national agriculture provides food to more than 150 nations on all continents.

And rising demand from Asian countries makes room for more. The projection of the Ministry of Agriculture and Supply (MAPA) is that by 2030, one third

of the world's agricultural products will be grown in Brazil.

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At a time when Brazilian agriculture stands out as a food supplier to the world, the use of pesticides plays a supporting

role in improving plants and fighting crop pests. These products play a key role in this scenario as their action on crop-destroying pests prevents losses due to weeds, insects and fungi all of which compromise productivity.

In this way, their application allows the expansion of production, helping to meet the growing demand for more food. Pesticides are critical to ensuring the competitiveness of the agricultural sector and cheaper food at the table of millions of people. Without the use of these substances, it is estimated that agricultural production would drop by 50%.

Products approved for use in Brazilian agriculture undergo careful evaluation by the Ministry of Environment (MMA), Ministry of Agriculture and Livestock (MAPA) and the National Health Surveillance Agency (ANVISA), the Ministry of Health (MS) before being released.



But the rigor of the competent agencies cannot prevent unauthorized substances from reaching the fields by illicit means. Specialized gangs, well-designed schemes and lack of producer awareness affect the economy, endanger the health of consumers and endanger the environment.

The effectiveness and safety of pesticides depend on the composition of the active substances and their formulation. Since products with unknown ingredients easily reach Brazilian crops, it is necessary to seek the convergence of action between security agencies and the government to curb the illegal activities affecting the economy, the environment and all of Brazilian society.

Illegal entry and use of these substances entails losses for the country in collecting and creating formal jobs, creates problems regarding food security and public health, and causes environmental damage with incalculable impacts. Another aspect related to the indiscriminate use of unknown substances in crops is the risk of pests developing resistance, a condition that occurs due to inadequate management of the control method.

Illegal activity also carries the risk of compromising Brazilian trade relations, as the main external partners of Brazilian agribusiness - China, the European Union and the USA - are becoming increasingly more discerning in their import rules. Brazil has already faced problems with allegations of the

presence of substances not admitted by the international market, which occurred in 2004, when China alleged that it had found fungicides in soybeans produced in Brazil. And recently, in January 2019, it was Russia's turn to reject Brazilian soybeans because it detected herbicide above the permitted dosage in that country.

Because of its scope and degree of damage in all areas of human life, smuggling of pesticides is an illegal activity that requires more attention from Brazilian authorities. The economic losses it brings are much less impactful compared to its effect on the health of the population and the environment. And it is in order to contribute to the fight against this crime that this study was conducted.

This work on the flow of the illegal agrochemical market was based on information obtained from dozens of interviews with security forces agents, press releases in Brazil and Paraguay, investigations in neighboring countries, and official data from Brazilian authorities. (See Main official sources consulted, p. 37).

# 2. Overall objective

To conduct a study to demonstrate the size of the illegal pesticide market and the criminal actions of smugglers and tax evaders who, with illegal practices, subvert the market by selling smuggled and counterfeit goods.

# 3. Methodology

This study is the result of extensive data collection carried out in official agencies of Brazil and in neighboring countries, interviews with public agents that act directly in the containment of the illicit substances which are the sources of this research, information published in the official press and field research in the Brazilian border areas with the largest flow of smuggled goods, mainly in the states of Rio Grande do Sul, Paraná and Mato Grosso do Sul.



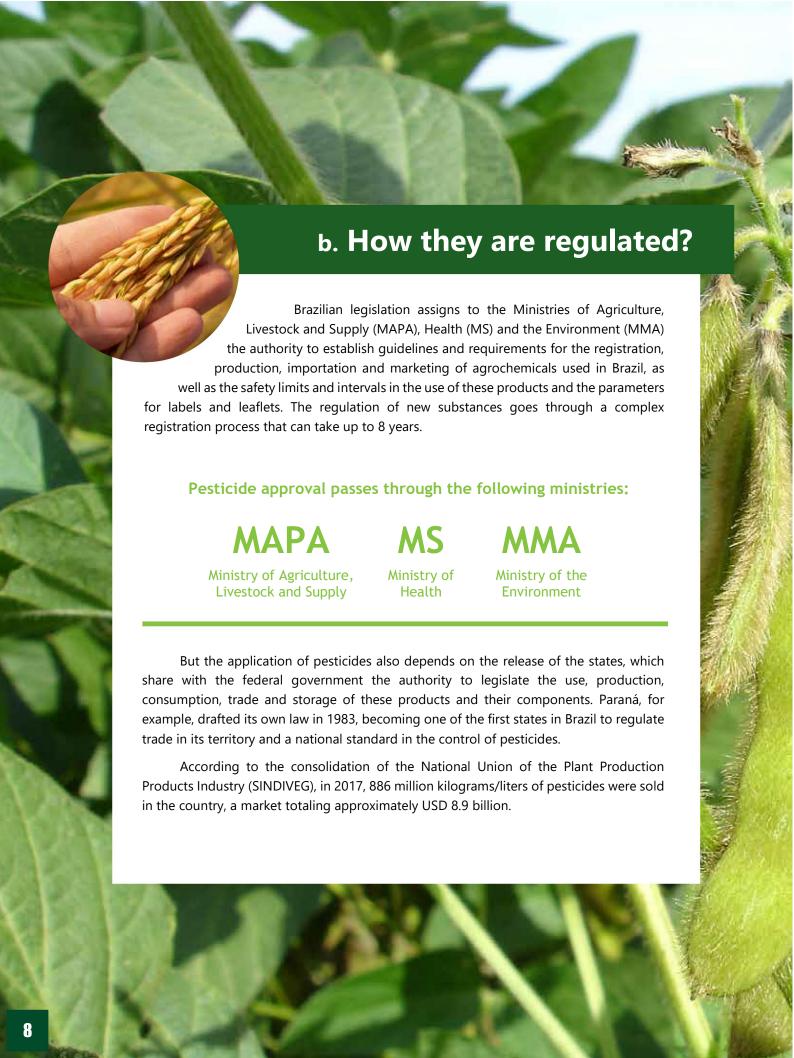
# a. What are they?

Pesticides are chemical or biological substances used in crops to protect the incidence or effect of living organisms such as weeds, insects, fungi, bacteria, mites, mollusks and rodents, which cause damage to food cultivation.

Most of the products released in Brazil are intended for agriculture. According to SINDIVEG (National Union of the Plant Protection Products Industry) data for 2017, herbicides represent 60% of the sale of formulated products, followed by insecticides and fungicides, each with 15% of sales in the country. Acaricides represent 2% and 1% is used in seed treatment. The remaining 7% is employed for other purposes.

Pesticides include substances also used in public health, in the control of diseases and in the conservation of wood. The same active ingredients are also used in the manufacture of household disinfectants and insecticides





# 5. Panorama of illicit activity

In general, smuggling of pesticides is characterized by the prohibited import or export of these products, which depends on the analysis, authorization and registration of competent public agencies. It is a crime to place illegal products on the market under Brazilian law. Smuggling is often confused with evasion,

which is the clandestine entry of permitted goods without paying taxes. Usually the two practices are connected.

The illegal entry of pesticides is not a border problem, but a cross-border problem that has a broader effect than other categories of smuggling. More serious than

the smuggling of cigarettes or alcohol, which directly affect the people who use them, the indiscriminate use of these substances in food cultivation has harmful effects - whose scope is not yet known - on all spheres of Brazilian society.

The illegal activity threatens the economic order, causing significant and

increasing damage to the tax system and the formal economy and affecting job creation (see Economic Impacts on p. 28). Without the approval and surveillance of health agencies and of unknown composition, smuggled pesticides also carry incalculable risks to the environment and public health.

The illegal import has

sophisticated logistics and uses air, sea, river and land routes, connecting several countries (see The Most Common Routes, p. 18). Once on Brazilian soil, the circulation of products quickly branches out along the highways in cargo, passenger and mass transportation vehicles and through cargo transportation companies.

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Often compared to legalized pesticides in the country, smuggled products are not the same because they have а dubious formulation, with unidentified prohibited substances. They also have high concentrations of active ingredients, which causes

environmental damage, degrading natural resources and generating imbalances to ecosystems.

Currently, one of the most widely circulated products in this illegal trade is emamectin benzoate, used to fight Helicoverpa armigera, a caterpillar species common in Brazilian soybean crops. The active ingredient

had provisional and emergency approval for six states until July 2019 and definitive approval for only one trademark in Brazil, at a maximum concentration of 5%.

In Paraguay, the ceiling for the concentration of this active ingredient in pesticides is 10%. However, smuggled

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substances from the neighboring country have a concentration 600% higher than the percentage allowed in Brazil.

This was reflected in a seizure by the

Paraguayan authorities in Puerto de Villeta, Asuncion, in April 2015, when 4.6 tons of benzoate were seized with a concentration of 36%. The cargo was valued at USD 500,000, as calculated by the Paraguayan newspaper ABC Color.

Smuggled substances from Paraguay have a concentration 600% higher than the percentage allowed in Brazil.

Concentration, along with price, makes these substances attractive to producers because it reduces the number of applications in the fields. For this reason, the smuggling and boldness of gangs is growing in proportion to

> the expansion of agricultural areas throughout the country. The latest actions by Brazilian security agents show the use of air routes within the country and of Brazilian ports for the logistics of illegal activities.

> In February 2017, a single seizure by Operation "Pó

da China III", carried out by PF, RF and IBAMA, yielded in Brasilia 19.1 tons of emamectin benzoate introduced via the ports of Navegantes and Itajaí (SC). The product was imported as titanium dioxide and was being sent to the region known as Matopiba, formed by the states of Maranhão, Tocantins, Piauí and Bahia.

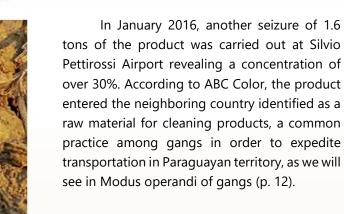
In this last state, it is mainly concentrated in the so-called 'soybean ring', located in western Bahia. All these regions are registering strong growth in agricultural activity. The same operation subsequently made two seizures in the above-mentioned ports and in the port of Francisco do Sul (SC), approximately 50 tons of products, still undergoing expert analysis.

Due to the links in the 'chain' that is being formed, illegal pesticides reach producers with price margins a little less attractive than the value at source, but the high degree of concentration means there is still a financial advantage to the producers who use them. In Paraguay, substances can be purchased for less than 30% of their value in Brazil. The Customs Director of the neighboring country, Nelson Valiente, made statements where he estimates that, on the black market, products can be sold in Brazil for a price 10 times higher.



#### Una carga millonaria para el mercado negro

De acuerdo con datos del sector privado, el valor de los 4.600 kilos de benzoato de emamectina al 36% puede alcanzar tranquilamente los 500.000 dólares en el mercado negro, que es donde actualmente se comercializa este producto, teniendo en cuenta que en toda la región está prohibida su venta a partir de ese rango (36%).



NOTICIAS EDICIÓN IMPRESA

NACIONALES DEPORTES ESPECIACIEDS ESPECIALES

Nelson Valiente, director de Aduanas, encabezó el procedimiento conjuntamente con la fiscala Carmen Gubetich de Cattoni, quienes se constituyeron en el aeropuerto internacional Silvio Pettirossi, hasta donde llegaron las cargas de insecticidas.

Según explicaron, los productos llegaron ya hace días, pero recién hoy se oficializó el decomiso, ya que previamente se realizaron investigaciones y verificaciones que terminaron con la conclusión de que se trata de benzoato de emamectina, con una concentración superior al 30%, un producto de uso prohibido en Paraguay.

Durante el procedimiento, Valiente mencionó que se trata de 1.650 kilos del agroquímico que arribaron al país en dos partidas, procedentes de un vuelo de Panamá. Se trata de productos



In the field, the flow of illegal products is gradually becoming 'natural', which makes it difficult to understand the extent of the effects of these agents. In many

regions, it is impossible to define profiles of producers who use smuggled pesticides and those that do not. This is because part of the crop is sprayed with legal product, which is a purchase used to obtain an invoice that protects the use of illegal pesticides in the next field of the same crop.

In rural properties,

Explicó que se trata de una sustancia de uso agrícola, especialmente en el cultivo de soja, pero que a nivel local está regulada su concentración, ante la peligrosidad para la salud humana.

NOTICIAS EDICIÓN IMPRESA NACIONALES DEPORTES ESPECTÁCULOS

"Normalmente esto viene al Paraguay y luego -si pasa el control aduanero- muchas veces sigue de contrabando rumbo al Brasil", mencionô. Indicô que en el vecino país el producto es más cotizado, pudiendo llegar en el mercado negro a un precio 10 veces mayor al valor oficial. Con respecto a los daños que este producto puede generar en las personas, el alto funcionario se excusó y señaló que no maneja cuestiones técnicas.

Señaló, sin embargo, que la concentración máxima permitida en Paraguay es de solo 10%. "En este caso resultó ser benzoato de emamectina concentración de más del 30%, superior al permitido, lo que lo convierte en un producto de ingreso prohibido", refirió. Sobre los responsables tras este contrabando, mencionó que "de acuerdo a los registros son personas de apellido Sánchez", aunque no pudo brindar mayores precisiones.

In Brazil the substances

can be sold for a price

ten times higher than the value used in Paraguay.

illegal product packaging is not disposed of correctly, creating a risk of contamination of soil and groundwater (see Reverse Logistics, p. 24). The lack of structure of the inspection agents makes it difficult to prove the use of smuggled substances in the fields, which contrasts with the vigilance of the health authorities over the industrial process in legal production.

> Smuggling stems from counterfeiting, with its practice veiled through the 'brokerage system' over the internet and the use of 'legal' technical alternatives to make it difficult to track commercial activities. The counterfeiting system provides the buyer with all the legal brands available on the market at prices well below those used

by the legal sector (see Counterfeiting, p. 26).

In addition to counterfeiting, smuggling is related to a number of other offenses, such as fraud, vehicle theft, criminal misrepresentation, gang formation, money laundering and crime against the tax system and the environment. Illegal activity is also associated with corruption, since, according to security forces, there is no entry of illegal pesticides in the country without corruption of public officials in some sphere.

Article 15 of Act 7,802/89 sets forth a penalty of 2 to 4 years of imprisonment, plus fine, for those who trade, transport and also for those using pesticides not registered in the country. A mild penalty compared to other types of trafficking, but it provides punishment for the final consumer, i.e. the producer. Brazilian law also provides that if there is evidence of use of the smuggled product, the crop shall be

destroyed.

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# 6. Modus operandi of gangs

Illegal pesticides enter

Paraguay identified as

disinfectant, cleaning

product and other

industrial chemicals

The illegal entry of pesticides into the country began in small quantities. In a period estimated up to 2009, the import of illegal pesticides was run by smaller-scale smugglers. The restraint of the security forces inhibited the activity of these agents, but the high profitability of smuggling meant that, from then on, criminal

formations began to work and to develop elaborate logistics for this illegal activity.

The market chain for illegal pesticides is similar to the network established in official trade, structured with agents defined for the sale, bottling, distribution and

transport of products on both sides of the border. Smugglers and counterfeiters often use the same logistics used in drug transport, but the sophistication of agrochemical gangs is becoming more elaborate, using routes involving land, air, river and sea transport. On the ground, the goods are dispatched in various ways: cargo and passenger vehicles, mass transportation, vans, freight companies, etc.

China is among the main suppliers of substances that enter Brazil illegally. Illegal agrochemicals usually cross the oceans by ship, although air transport is also used.

The boats dock in Chile, where the smuggled products come in through

Paraguay and Bolivia, and Uruguay, where they enter Brazil directly through Rio Grande do Sul or stop in Paraguay before arriving in the country. Illegal agrochemicals also land directly at Brazilian ports and even airports (see The Most Common Routes, p. 18).

The illegal pesticide enters Paraguay

identified as a disinfectant, insecticide, herbicide, cleaning supplies and other industrial chemicals such as ferrous sulfate, as shown by Paraguayan Customs clearance on November 29, 2018, an operation worth approximately USD 650,000.

In a seizure made at Silvio Pettirossi Airport in Asuncion in January 2016, the 1.6 tons of agrochemicals were identified as a cleaning product.

Carátula

Although sale of emamectin benzoate is allowed in the neighboring country at low percentages of the active ingredient, false identification on invoices is used to cover up the product's composition or when its concentration is higher than allowed,

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Until 2009, illegal pesticide trade in Brazil was run by smaller-scale smugglers as described in the presentation of the Panorama

of Illegal Activity, p. 9. The same trick is also used by gangs in Brazil. In 2017, Operation "Pó da China III" seized cargo landed at ports of Itajai Navegantes (SC), imported as titanium dioxide and sodium sulfate.

Smugglers and counterfeiters often use the same logistics used for drug transport

In the seizure in 2009, during Operation

"Pureza", the pesticide was retained and the cornmeal, similarly to other actions of this kind, was released by the court and went to supermarket shelves. The same happened with 30 tons of wheat flour seized during Operation "Dose Única" in Maringá in 2010.



NOTICIAS EDICIÓN IMPRESA NACIONALES DEPORTES ESPECTÁCULOS ESPECIAL

#### Incautan 1.650 kilos de químicos tóxicos

Un equipo interinstitucional incautó un total de 1.650 kilos de agroquímicos de uso prohibido en Paraguay por su naturaleza tóxica. Se trata de productos chinos que ingresaron como "materia prima para productos de limpieza".

> From Paraguay, the agrochemical is smuggled into Brazil camouflaged in loads of grain or processed foods, such as flour, or 'disguised' in invoices for legally imported products, such as other types of pesticides, cleaning products, grains, fertilizers, etc.

> The camouflage of illegal pesticides for transportation in Brazil generates a dangerous development: the risk of cargo contamination used to conceal smuggling. Mixed without any food protection, illegal products are retained during seizures, but the cargo used for camouflage is usually released for consumption.

> This is what happened with 22 tons of cornmeal, which hid 1.5 tons of pesticides from Ciudad del Este heading to the city of Luiz Magalhães (BA). With a high Eduardo concentration of the active ingredient, it can be assumed that the direct contact of these products with foodstuffs over several days, being subjected to high temperatures, generates some degree of contamination. The transportation and storage of legal pesticides made in Brazil requires specific care according to current legislation.



A carga estava escondida sob um carregamento de farinha. De acordo com um delegado da Polícia Federal, foi a maior apreensão de agrotóxico irregular do país neste ano

There are situations in which the pesticides are disguised and confused with drugs, a trick of smugglers allied with traffickers to circumvent punishment for the two offenses. In Brasília in February 2017, a joint operation by the Federal Police, Federal Revenue Service and Ibama seized 19.1 tons of illegal agrochemicals in a single load, initially suspected to be cocaine. The product was later identified by its appearance - grainy and darker in color than cocaine - and by its strong odor, indicating a high concentration of ammonia. When seized, the load was estimated at R\$ 24 million.

But the opposite also occurs, such as the seizure of smuggled goods suspected of being a pesticide, in Cascavel (PR), which was confirmed by experts to be cocaine hydrochloride. What is already evident to the security forces is that international drug trafficking is also using smuggled pesticide transactions

to make money for gangs.

To make identification difficult and to disguise odor, smuggled illicit substances, when solid, are normally packed in foil.

The product entered Brazil through Lake Itaipu, a place that has become а popular among smugglers for bringing goods into the region of Foz do Iguaçu, over the Friendship Bridge. Operation "Pulverizador", carried out by PF, pointed out that when agrochemicals entered Paraná, smugglers added cheaper chemicals to increase profitability before sending them to producing states such Mato Grosso (see Counterfeit p. 26)

In the same year, an



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investigation by the Federal Police reached a printing company in Corbelia (PR), which specialized in packaging counterfeit perfume, consumer electronics, cigarettes and other products smuggled from Paraguay. The owner and other employees were caught in the act of counterfeiting.

Criss-crossed by back roads, the agricultural border of the states of Parana, Rio Grande do Sul, and Mato Grosso do Sul facilitates illegal entry, a condition that also generates demand for agrochemicals and fuels 'ant' smuggling, which involves multiple small quantities.

An example of this divided illegality took place on February 5, 2019, when the Federal Highway Police (PRF) seized agrochemicals in the false trunk of a car on BR 277, in the municipality of São Miguel do Iguaçu. The vehicle was carrying

16 pounds of pesticides under the seats and on the dashboard, without label and without invoice. The driver, a 48-year-old Brazilian, told police that he would receive R\$ 500.00 to transport the pesticides to Cascavel (PR).

In negotiations, gangs also trade customstolen tractors in Brazil for smuggled pesticides. From the border states, the load of agrochemicals spreads to other regions, in the wake of the expansion of Brazilian agricultural areas.





Itaipu Lake has become a favorite of smugglers for crossing goods in the region of Foz do Iguaçu

# Paraguayan import operations

Information obtained by IDESF from the records of the National Customs Directorate (DNA) - the body that gathers import information in all Paraguayan customs - since January 2014, indicates that the neighboring country imports a large amount of pest control products for crops such as herbicides, insecticides, fungicides and bactericides. Imported agrochemicals include glyphosate and emamectin benzoate. They also frequently import disinfectant, a description that, as we have seen, is used on illegal pesticide invoices to circumvent enforcement.

Containing data dating back to January 2014, the DNA registries demonstrate the scale of growth in the import of such products, which may also be indicative of the evolution of smuggling in Brazil. In 2014, 188,100 tons of these products were imported by Paraguay, and the following year the import operations jumped to 370,800 tons and, in 2018, they reached 424,300 tons. In five years, the difference was 225%, an evolution that does not reflect the growth of agriculture in the neighboring country.

Even considering that part of this import is destined to Uruguay and Argentina, it is known that the largest consumer market of Paraguayan goods is really Brazil. In 2016, when commenting on the seizure of 1.6 tons of agrochemicals, then Paraguayan Customs Director Nelson Valiente made statements to the press about where the seized goods had been destined to go: "Usually it comes to Paraguay and then - if it goes through customs control - is often smuggled into Brazil," he told ABC Color.



NOTICIAS

**EDICIÓN IMPRESA** 

NACIONALES

DEPORTE

ESPECTÁCULO

**ESPECIALE** 

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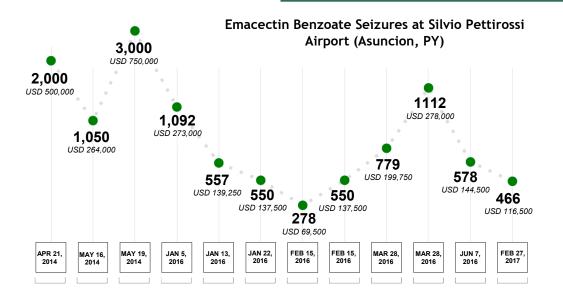
"Normalmente esto viene al Paraguay y luego -si pasa el control aduanero- muchas veces sigue de contrabando rumbo al Brasil", mencionó. Indicó que en el vecino país el producto es más cotizado, pudiendo llegar en el mercado negro a un precio 10 veces mayor al valor oficial. Con respecto a los daños que este producto puede generar en las personas, el alto funcionario se excusó y señaló que no maneja cuestiones técnicas.

Señaló, sin embargo, que la concentración máxima permitida en Paraguay es de solo 10%. "En este caso resultó ser benzoato de emamectina concentración de más del 30%, superior al permitido, lo que lo convierte en un producto de ingreso prohibido", refirió. Sobre los responsables tras este contrabando, mencionó que "de acuerdo a los registros son personas de apellido Sánchez", aunque no pudo brindar mayores precisiones. In terms of monetary amounts, Paraguay's imports of pesticides and the like increased by 216%, from USD 249.3 million to USD 540 million in the same period from 2014 to 2018.

DNA data show the constant import of emamectin benzoate, one of the most smuggled products into Brazil. In five years, Paraguay performed 2,453 import operations, totaling 4,168 tons of the product. China appears as the source of the largest number of import operations (1179), followed by Argentina (602).

# Imports of pesticides and the like by Paraguay (dollar I pesos)





As we have already seen, the agrochemical enters Paraguay in high concentrations and circulates with fraudulent invoices, disguised with the identification of various products. One of the frequent entry points for smugglers in the neighboring country in recent years was Silvio Pettirossi Airport in Asuncion. Customs records from the airport show that from 2014 to 2017, seizures of illegal pesticides entering Paraguay through the airport totaled 12.5 tons and are estimated to exceed USD 3.1 million.

Before arriving in Paraguay, the routes of the agrochemicals are diverse and many of them are not yet identified. The seizure of emamectin benzoate with a concentration of 30%, previously mentioned, identified in the invoice as raw material for cleaning products, came from Panama.



Según explicaron, los productos llegaron ya hace días, pero recién hoy se oficializó el decomiso, ya que previamente se realizaron investigaciones y verificaciones que terminaron con la conclusión de que se trata de benzoato de emamectina, con una concentración superior al 30%, un producto de uso prohibido en Paraguay.

Durante el procedimiento, Valiente mencionó que se trata de 1.650 kilos del agroquímico que arribaron al país en dos partidas, procedentes de un vuelo de Panamá. Se trata de productos de origen chino, importados a nombre de una firma identificada como "World Mundo". Explicó que se trata de una sustancia de uso agrícola, especialmente en el cultivo de soja, pero que a nivel local está regulada su concentración, ante la peligrosidad para la salud humana.

"Normalmente esto viene al Paraguay y luego -si pasa el control aduanero- muchas veces sigue de contrabando rumbo al Brasil", mencionó. Indicó que en el vecino país el producto es más cotizado, pudiendo llegar en el mercado negro a un precio 10 veces mayor al valor oficial. Con respecto a los daños que este producto puede generar en las personas, el alto funcionario se excusó y señaló que no maneja cuestiones técnicas.

It was The pesticide identified in the invoice as ferrous sulfate entered via the Customs of Villeta, through the Seguro Fluvial Port (Safe River Port) (p. 12). It was also through customs that the cargo of 4.6 tons of benzoate, with 36% concentration, valued at USD 500,000 and labelled as 11 tons of glyphosate, another type of pesticide, entered Paraguay.

And in this particular case, a fact was recorded that demonstrates the fragility in the control of entry and exit of these goods in Paraguay. After finding the hidden smuggled goods upon importation, customs, in a dubious act, accepted the request for the return of the illegal agrochemical to China, on the grounds of an alleged shipping "mistake".

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NOTICIAS

DAS EDICIÓN IMPRESA

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NACIONALES DEPORT

ESPECTÁCULOS

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El documento, supuestamente enviado desde China, no tiene indicador alguno que acredite su legalidad. Carece de sello o firma de alguna representación oficial paraguaya y hasta el membrete de la empresa parece montado.

A pesar de estas irregularidades, la Aduana se basó en el documento y en la interpretación de un oficio fiscal, en el que supuestamente se "cerró" la investigación para devolver la carga. Sin embargo, la propia fiscalía, en otro oficio que presentó ante la Aduana el 6 de febrero, aclaró que todo el cargamento sigue retenido y bajo investigación del Ministerio Público.

El Senave, por su parte, se adhirió a la decisión de la Aduana y resolvió la reexportación del producto decomisado.

From 2014 to 2017, seizures of illegal pesticides that entered Paraguay through Silvio Pettirossi Airport totaled 12.5 tons.



Another stop already identified before the goods land on Paraguayan soil is Mexico.





In 2005, the Federal Police (PF) and the Federal Public Prosecution Service (MPF) launched Operation "Caa-Eté" ("native forest" in Guarani), the first major operation to fight illegal pesticides in the country. Covering the states of Rio Grande do Sul, Santa Catarina, Paraná and Goiás, the operation culminated in the arrest of dozens of people and found the smuggling of about 5 illegal tons of these products per month, which is

equivalent to the average monthly movement of R\$ 1.5 million.

Since then, several other operations have been launched with the purpose of breaking up gangs of smugglers and counterfeiters. Many of them served as the basis for this study, as cited in the sources consulted

(p. 37). Cross-checking information from different operations allows us to trace the operational logistics of pesticide smuggling in the country.

#### **LAND**

Most of the smuggled pesticides entering Brazil via Paraguay arrive by ship from the ports of Iquique and Antofogasta in Chile. The products are headed mainly for the Paraguayan border towns of Ciudad del Este, Salto del Guayrá and Pedro Juan Caballero. From there, different routes are established in Brazil.

Until recently, the largest volume crossed at Foz do Iguaçu, which is still a major crossing although the border point, crossing points have been scattered to other border regions in recent years. From Ciudad del Este, the twin city of Foz do Iguaçu, the smuggled goods cross Itaipu Lake in small boats, where they

reach neighboring municipalities such as Santa Helena, Itaipulândia and Santa Terezinha. The

Most of the smuggled pesticides entering Brazil arrive by ship from the ports of Iquique and Antofogasta in Chile.

With an area of 1,350 square kilometers and a geography rich in contours, Lake Itaipu has become the preference of the gangs that traffic through Ciudad del Este over the Friendship Bridge, a link between Paraguay and Foz do Iguacu. Crossing the lake dramatically increases the risk of environmental damage posed by illegal pesticides in the event of the product falling or being thrown into the lake. What is the damage if tons of high concentration agrochemicals contaminate the waters of Itaipu Lake?

Lago
Puerto Adela
Pato Bragado
Pato Bragado
Santa Helena
Itaipul
Itaipulândia
Hernandarias

destination is the secondary areas, farther from the border, in cities such as Cianorte, Cascavel, Ubiratan and Marechal Cândido Rondon, all in Paraná.

To reach these cities that are distribution points, logistics use passenger cars, which are faster and easier to get through unnoticed by inspection

Smuggling logistics have

shown a preference for

passenger cars that are

faster and easier to get

through unnoticed by

enforcement than cargo

vehicles.

than cargo vehicles. For this the smuggled goods are split into 100, 200 kilograms per trip. The products are stored in warehouses, where they are grouped into larger consignments of approximately one ton and packed into legal cargoes as food products.

From the cities of Paraná that are distribution points, the illegal pesticide continues on to municipalities such as Jataí and Goiânia (GO), the soybean ring region (BA), Gurupi, Porto Nacional and Palmas (TO), Balsas (MA), Redenção and other municipalities of southern Pará and southern Piauí.

From Salto Del Guairá, on the Paraguayan side on the border of Parana with Mato Grosso do Sul, the smuggled goods travel to the municipality of Terra Roxa (PR) and then onwards to the region of Maringá (PR), which acts as a warehouse and significant point of distribution for illegal pesticides.

In smaller quantities, up to 200 kilograms, the product is sent to the municipalities of Terra Boa and Itaúna do Sul (PR).

At this stage, transportation is done by intercity bus or cargo carrier, where the smuggled goods are dispatched to the Bahia region, identified as beans and corn or products for pool water treatment, among other descriptions. In the

same small-quantity dispatch system, gangs also use carriers.

Another point of entry in the country is Pedro Juan

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Caballero, a city in Ponta Porã (MS). The entrance through Mato Grosso do Sul occurs along the long stretch between the municipalities of Porto Murtinho and Mundo Novo. The dry border that divides Brazil and Paraguay in this region and the road system characterized by country roads make it difficult to control entry of illegal products.

Along this route, illegal pesticides enter the country in larger loads, in tons, and continue their journey camouflaged in legal grain or other food goods, as shown by the seizures made in the region. Most of the pesticides that reach this border are consumed in the state of Mato Grosso do Sul and neighboring Mato Grosso, major grain producers. But they also supply the state of São Paulo and Goiás and others.

In Goiás, illegal agrochemicals mainly circulate in the southwest of the state, one of the largest soybean, corn and cotton producing and exporting regions in Brazil. The Border Operations Command (COD) of the Goiás Military Police recorded a 27.2% increase in seizures from January to October 2018 over the previous year on the highways linking the cities of Rio Verde, Jataí and Mineiros, municipalities near the border with Mato Grosso do Sul. Goiás is a storage area and passage route to Bahia, Pará and Maranhão.

The most recent land route used by smugglers passes through Bolivia from Santa Cruz de La Sierra to Costa Marques in Rondônia. From there, the smuggled goods head to the municipalities of Laranjeira, Vilhena and Cacoal, in the same state, and to Sapezal, in the north of Mato Grosso. The difficulty of inspection in this region facilitates the logistics of illicit trafficking.

From the south of the country, pesticides arrive through Uruguay, where they enter legally pursuant to the neighboring country's legislation. This port of entry has grown dramatically in recent years. Imported from China, the products arrive by ship to the Florida free zone, in the Montevideo region, where they are packaged and given trademarks.

Entry into Brazil occurs through the border municipalities, from Uruguaiana, Quaraí, Barra do Quaraí, Santana do Livramento, Itaqui, Jaguarão, Aceguá and Chuí. The pesticides enter through this region that initially supplied Rio Grande do Sul and Santa Catarina. Latterly, the smuggled goods have migrated to other states and today reach as far as the states of Goiás, Bahia and Pará.

In this region major Federal Police operations were carried out to curb traffic such as Operation "Caa-Eté" (2005); Operation "Pó da China I" (2009); Operation "Quileros" (2010); Operation "Salamanca" (2012); Operation "Ceifa" (2013); Operation "Pó da China – Redex" (2015) and Operation "Quileros II" (2017).

#### **SEA**

Directly by sea, illegal pesticides have been arriving in the country through the Port of Salvador (BA), where smuggled products identified in the invoices as tiles have already been found, being sent to Juazeiro (BA) and Petrolina (PE), cities which are known for the cultivation of fruit. Also, through the ports of Itajaí and São Francisco do Sul (SC), from where the product goes to the so-called 'soybean ring', in western Bahia. In 2017, the PF seized a cargo of about 20 tons of illegal pesticides unloaded in Itajaí, identified as sodium sulfate. Investigations also point to strong indications of entry through the port of Suape (Pernambuco), port of Santos (São Paulo); Paranaguá (PR) and Rio Grande (RS).

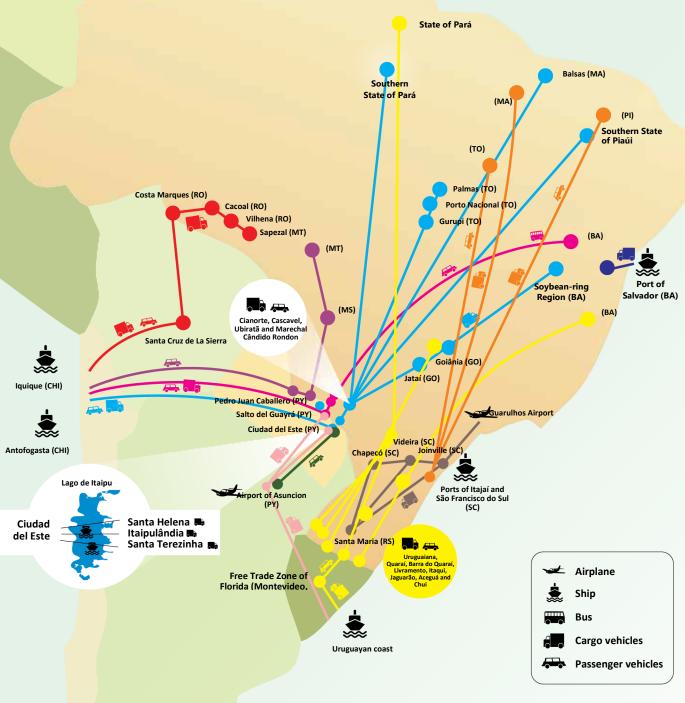
#### **RIVER**

The agrochemicals that arrive on the mainland through Uruguay also travel by waterways to reach Paraguay and from there are sent to Brazil, following the other routes.

#### **AIR**

Operation "Big Apple" (2007) intercepted smuggling of illegal agrochemicals used in apple cultivation and conservation. The product came from China through Guarulhos airport and from there it was taken to Joinville and Videira (SC) and Santa Maria (RS).

### The most common routes in agrochemical smuggling



#### Route 1

Iquique and Antofogasta (CH) > Ciudad del Este > Itaipu Lake > Santa Helena, Itaipulândia and Santa Terezinha > Cianorte, Cascavel, Ubiratan and Marechal Cândido Rondon > Jataí and Goiânia (GO) > Soyben-ring region (BA) > Gurupi, Porto Nacional and Palmas (TO) > Balsas (MA) > Redençao and other municipalities of southern Pará and southern Piauí;

- Iquique and Antofogasta (CH) > Salto Del Guairá (PY) > Terra Roxa Route 2 (PR) > Maringá (PR) > Terra Boa and Itaúna do Sul (PR) > Bahia
- Iquique and Antofogasta (CH) > Pedro Juan Caballero (PY) > Route 3 Porto Murtinho and Mundo Novo > Mato Grosso do Sul > Mato Gross
- Iquique and Antofogasta (CH) > Santa Cruz de La Sierra (BO) > Costa Marques (RO) > Cacoal (RO), Vilhena (RO) and Sapezal (MT)

Uruguayan coast > Free trade zone of Florida, Montevideo (UY) > Route 5 Uruguaiana, Quaraí, Barra do Quaraí, Livramento, Itaqui, Jaguarão, Aceguá and Chuí (RS) > Rio Grande do Sul, Santa Catarina, Goiás, Bahia and Pará

- Route 6 Port of Salvador > Interior of Bahia and region
- Route 7 Tocantins and Piauí
- Guarulhos airport > Chapecó, Joinville and Videria (SC) > Route 8
- Route 9 China > Airport of Panamá City > Airport of Asuncion (PY) > Ciudad

 ${\sf Route\ 10}$  Uruguay > Asuncion (PY) > Ciudad del Este and Salto del Guairá (PY)



The main operations carried out by the Federal Police, in conjunction with other federal and state agencies responsible for the control and inspection of smuggling and counterfeiting, with the purpose of curbing the illicit practice of marketing and manufacturing illegal pesticides in the country:

1) Operation "Caa-Ete" (2005)

Operation Area: RS, SC, GO Seized goods: approximately 5 tons

2) Operation "Campo Verde" (2007)

Operation Area: SC, PR, MS, MT, MG, BA, GO, DF Seized goods: 10 tons

3) Operation "Piratas da Lavoura" (2007)

Operation Area: PR, MT Seized goods: 10 tons

4) Operation "Pó da China I" (2007)

Operation Area: RS, SC, PR Seized goods: 4.5 tons

5) Operation "Ceres" (2007)

Operation Area: PR, MS, GO Seized goods: 13 tons

6) Operation "Zaqueu" (2007)

Operation Area: PR, MS, MT, GO, MG Seized goods: approximately 10 tons

7) Operation "Pureza" (2009)

Operation Area: PR, MS, GO, BA Seized goods: 8.5 tons

8) Operation "Negócio da China" (2009)

Operation Area: BA, PE Seized goods: 660 kilograms

9) Operation "Dose Única" (2010)

Operation Area: PR, BA Seized goods: 6.5 tons

10) Operation "Quileros" (2009)

Operation Area: RS, SC, MT, BA Seized goods: 2.3 tons

11) Operation "Cobra D'Agua" (2009)

Operation Area: PR, SP Seized goods: 80 kg

12) Operation "Láparos" (2011)

Operation Area: SP, MT, MS, MG, RO Seized goods: 6.5 tons 13) Operation "Salamanca" (2012)

Operation Area: RS Seized goods: 5 tons

14) Operation "Boa Safra" (2012)

Operation Area: PR Seized goods: 1.2 tons

15) Operation "Pindorama" (2012)

Operation Area: SP Seized goods: 12,000 liters

16) Operation "Primavera Silenciosa" (2012)

Operation Area: RS, SC Seized goods: approximately

500 kg

17) Operation "São Lourenço" (2012)

Operation Area: MT, MS, SP Seized goods: 1 ton

18) Operation "CEIFA" (2013)

Operation Area: RS, SC Seized goods: 6.6 tons

19) Operation "Pó da China - Redex" (2015)

Operation Area: RS, PA, TO Seized goods: 500 kg

20) Operation "Poison Cachê" (2017)

Operation Area: MT, SP, GO, DF Seized goods: approximately 500 kg

21) Operation "Quileros II" (2017)

Operation Area: RS, SC, MT, BA, PI, TO Seized goods: 13.2 tons

22) Operation "Terra Envenenada"

(2018) Operation Area: PR, MS, MT

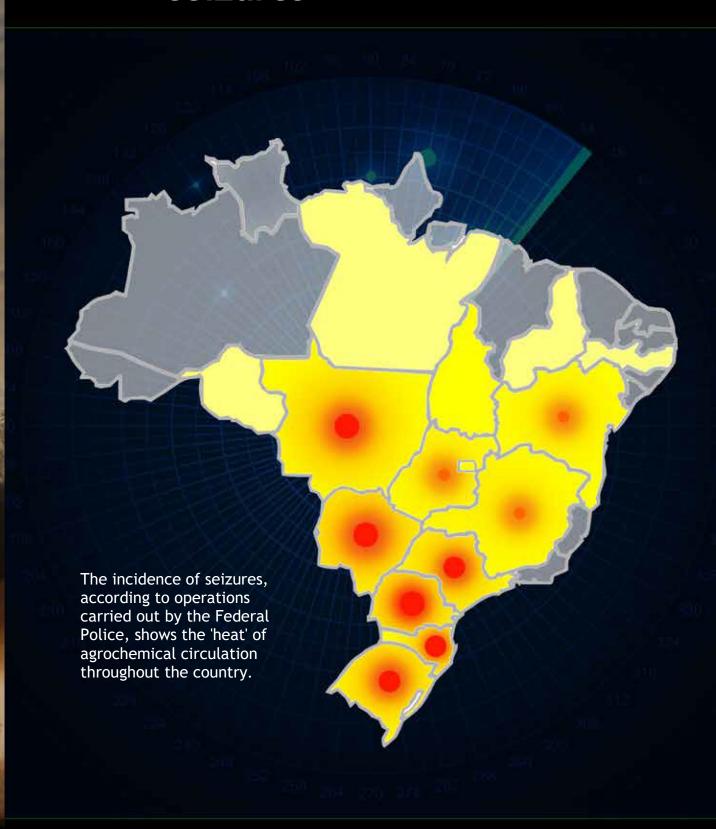
Seized goods: 1 ton

23) Operation "Pente Fino" (2018)

Operation Area: RS, PR, SP Seized goods: 4,000 liters

> Source: Z1 Assessoria e Consultoria de Inteligência Empresarial Ltda [Z1 Business Intelligence Evaluation and Consulting Ltd]

# 10. Heat map: incidence of seizures





The National Solid Waste Policy (PNRS) establishes reverse logistics, characterized by a set of actions for the collection and sustainable disposal of waste, including the empty packaging of pesticides. This is one of the reasons why the legislation that regulates the use of these products in Brazil is considered one of the most advanced in the world because, in addition to the research, production and inspection of these agents, it disposes of them responsibly in terms of the environment and the safety of those who handle them.

The Brazilian agrochemical industry has ensured the collection and recycling of over 90% of empty packaging of legal products sold in the country, in reverse logistics actions carried out since 2002. The National Institute for Empty

Packaging Processing (INPEV), an entity created by manufacturers for this purpose, collected and promoted the correct disposal of 44,700 tons of containers in 2018. This represents 94% of the total

pesticides legally sold in the period, a collection system called Campo Limpo [Clean Field] that is a flagship in the world.

Fundamental to its approach to environmental preservation, reverse logistics is totally ignored in the context of smuggling, where packaging is illegally dumped in the natural environment. The non-environmentally-friendly disposal of illegal pesticide packaging is estimated to

amount to the emission of 19,000 tons of CO2, or the equivalent of 5 months of waste generated in a city of 500,000 people.

Illegal product containers, when dumped illegally in nature or sent to landfill or dumps, contaminate soil as well as surface and ground water. In some cases, the packaging of smuggled products is

reused without discretion, which endangers the health of people and animals.

INPEV collected and promoted the correct disposal of 44,700 tons of containers in 2018 alone.



There are cases

where fragile

packaging breaks and

security forces need

expert help to

handle the event.

The increase in pesticide smuggling creates a problem for the law enforcement agencies, which is growing at the same rate: the proper disposal of seized products. Counterfeit and smuggled goods cannot be treated in the same way as other seizures. Due to the high level of toxicity, agrochemicals require specific storage, transportation and disposal conditions, in particular.

Seized illegal products are becoming a major

problem because, in addition to the lack of structure for proper storage, there is uncertainty about who is legally responsible for the future of the seizures, which frustrates coercive actions and makes the responsibility for the disposal of these substances an issue.

Seized illegal pesticides are stored in ordinary warehouses and, in many cases, still inside the vehicles in which they were detained. Due to the need for specific care in both storage and disposal, the destination of products with unknown toxicity requires extra resources, which is a budget problem for public safety agencies.

There are cases where fragile packaging breaks and, since products cannot simply be dumped down the drain, security forces need expert help to handle the event.

According to SINDIVEG's records, between 2001 and 2016, 1,100 tons of illegal agrochemicals were seized in Brazil. That amount is enough to

spray six million hectares, which would affect the equivalent of 15 billion kilos of food (approx. 33 billion pounds).

However, the composition of these products is variable and does not always correspond to what is indicated by the active principles, bringing changes in the original chemical agents to which

they are compared. A technical report of the Paraná Institute of Technology (TECPAR) on a sample of illegal product seized pointed to the presence of more than 25 different chemicals

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in one product.

Meanwhile, seizures of illegal products are increasing throughout the country. The administration of the Federal Police of Mato Grosso do Sul, for example, estimates that the state has accumulated more than 50 tons of improperly-packaged pesticides that are awaiting

destruction.

Among the legislative measures being considered for curbing the smuggling of agrochemicals is the offender's liability for the costs related to the storage and disposal of products. (see Legislative Proposals, p. 31).

# 13. Counterfeiting

Counterfeiting is a crime that is related to both the smuggling and the theft of pesticide cargoes. To make the active ingredient, counterfeiters mix original products and other products, often from stolen cargo, and also make use of smuggled substances. In both cases, such counterfeit products are not effective in the field.

The production of counterfeit pesticides in the country is concentrated in the interior of São Paulo and Minas Gerais, with branches in states with increased business activities linked to agribusiness.

Operations by the Civil and Federal Police and the Special Action Group to Fight Organized Crime (GAECO) show that counterfeiting companies are concentrated in municipalities such as São José do Rio Preto, Ribeirão Pret, Franca, Igarapava, Mirassol, Batatais, Orindiúva, Bady Bassit, Aramina, Ibirá, Regente Feijó, Miguelópolis, Fernandópolis, Monte Aprazível, Catanduva, Palmares Paulista, Tabapuã and Pindorama, in São Paulo, and Uberaba and Uberlândia, in Minas Gerais.







In these regions, counterfeiters establish a 'production chain' that meets the logistical and operational needs of the illegal business, meeting the demand for supplies, packaging, labels, chemicals and chemical analysis, transportation, and even invoices.

The 'invoice' is a crucial point that makes it very difficult to control and enforce trade in counterfeit pesticides. Counterfeiters start a formal business and register it on specialized agribusiness websites, where they compete with legal products at attractive, below-market prices. Despite being legal in appearance, companies open for this purpose operate for a specific time and are later abandoned, because, despite the issuance of authentic invoices, there is no payment of taxes.

Carried out in the style of the Mercado Livre online market place, the online sales system uses the internet and telephone, setting up 'call centers' which are used to convince the buyer of the 'advantage' of the product. Payment is in most cases made through websites hosted outside the country, which makes it difficult to track and locate counterfeiters.

To ensure the effectiveness of the pesticide, counterfeiters offer the possibility of chemical analysis, indicating legal laboratories. The report passed on to the customer confirms the active principle in the product formulation, but does not attest to its concentration, usually insufficient to ensure effectiveness on the crop.

#### **ONLINE MARKET**

Last November, federal judge Vânia Hack de Almeida, from the 3rd Panel of the Federal Regional Court of the 4th Region, granted an injunction prohibiting the marketing of products containing pesticides on the website Mercado Livre. The decision ratifies an embargo imposed by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) on the e-commerce website.

The judge alleged that the ruling "stems from the use of this provider as a way to circumvent environmental legislation and allow the purchase of any pesticide without proper presentation of a prescription, prescribed by a legally qualified professional." The judge also stressed that the ban preserves the "interest of the community, with the fundamental preservation of health and the environment".

# 14. Theft of pesticides

Pesticides are a valuable cargo for counterfeit gangs, who steal part of the raw material for counterfeiting, in addition to smuggling. Of course, the highest incidence of pesticide theft occurs either in the producing states or along the access routes to them. This is the case of the constant records in Goiás and Minas Gerais (Uberaba and Uberlândia), as they are a passage route towards producing regions.

Despite the significant number of occurrences on both farms and roads, there are no specific national statistics on the theft of agrochemicals. According to data presented by the security consultant NTC e Logística, the number of cargo theft cases in Brazil went from 15,200 in 2013 to 25,900 in 2017. However, that is the general statistic, representing all occurrences related to cargo theft in the country.

The numbers were presented during the IV National Forum on Cargo Theft Prevention, held in São Paulo, last July. In monetary values, the

estimated number of losses from cargo theft on Brazilian roads reached R\$ 1.5 billion in 2017 alone.

To try to change the situation regarding agrochemicals, farmers from Mato presented to the Association of Soy Producers of Mato Grosso (APROSOJA) a proposal to trace pesticides from the factory to the farms. Presented in October 2018, the proposal is due to the frequent occurrences of pesticide theft in the region, as well as the continuous supply of counterfeit products. In 2017, the Mato Grosso Security Secretariat recorded 73 such offenses on farms in the state.



#### Agricultores de MT propõem rastreamento de defensivos agrícolas para tentar evitar roubos

Conforme a proposta, essa ferramenta seria compartilhada com a Sesp. para auxiliar nas investigações dos roubos e furtos, para a identificação dos receptadores e as rotas utilizadas.

26/10/2018 15856 - Abustizado Ná 6 meses







# 15. Economic impacts



The trade in illegal agrochemicals represents about 24% of the pesticide market in Brazil. The calculation is from the study "Illegal Market of Agrochemicals", produced by the Federation of Industries of the State of São Paulo (FIESP), based on data from the 2015/2016 harvest.

To reach the percentage, the researchers used data that identified the size of supply and demand of pesticides in the period. According to these data, the

total net demand for the products was R\$ 33.4 billion, and the supply of legal production was R\$ 25.6 billion. The difference, about R\$ 7.8 billion, represents the segment that was illegally introduced in the country.

Demand was calculated based on a survey of the cost per hectare with pesticides that cover more than 90% of the Gross Value of Agricultural Production and the area cultivated with agriculture and planted forests in 2015/16. (Sources: IBGE--PAM, MAPA and IBÁ [Brazilian Tree Industry]).

The survey of the production cost per hectare considered the pesticides delivered to rural properties and was based on information provided by the main crop reference agencies of producing states such as Paraná, Mato Grosso, Goiás and Rio Grande do Sul, in addition to the Center for Advanced Studies in Applied Economics (CEPEA/USP) and the National Supply Company (CONAB).

FIESP also calculated the losses for the domestic industry with the entry of smuggled pesticides. This illegal market causes significant losses not only for the

The trade in illegal agrochemicals represents about 24% of the pesticide market in Brazil

pesticide-producing industry, but also for the economy in terms of output from other sectors, employment and workers' income, and tax revenue for the three spheres of government.

Based on the intersectoral impact matrix of the IBGE National Accounts System, it was possible to estimate the direct and indirect effect of agrochemical smuggling on the domestic economy:

#### R\$ 11.0 billion in production

of all economic sectors, equivalent to 0.11% of the total production of the economy

R\$ 3.2 billion in GDP (Added Value),

equivalent to 0.07% of total GDP

39,700 jobs, equivalent to 0.04% of employment in the economy

R\$ 1.4 billion in salary

to workers (0.06% of the total of salary)

R\$ 0.8 billion in ICMS [State Value Added Sales Tax]

THE PARTY OF THE P

to state governments (0.19% of the total)

R\$ 2.0 billion in taxes

to the federal government (0.16% of the total)

Losses between USD 5.98 and 40.2 billion in exports due to embargoes from the outside market

# 16.

# Legislation of the sector

On January 11, 2019, Act 13,804/19 was published in the Official Federal Gazette (DOU), which sets forth preventive measures and repression of smuggling, evasion, theft and handling. The law sets forth that the driver who uses his vehicle for handling, evasion and smuggling will have his or her driver's license cancelled or be prohibited from obtaining a driver's license for 5 years.

Authored by the President of the Parliamentary Front to Fight Smuggling, representative Putra Efraim Filho (PB), the act was widely debated at events held by IDESF and celebrated by agents stationed at the border, as it is considered a measure that inhibits drivers from taking part in illicit

transport schemes, such as agrochemicals.

The national pesticide industry advocates other legislative proposals to curb the trafficking of pesticides, such as raising the penalty and fine for smuggling these products.

Currently, punishment for violators is based on Act 7,802 of July 11, 1989, which sets forth in its Article 15 a sentence of 2 to 4 years for those who 'produce, market, transport,

apply, provide services, dispose of waste and empty packaging of pesticides, their components and the like, in breach of the requirements set forth in the relevant legislation', in addition to a fine.

The same law sets forth, in item IX, Article 17, the destruction of both crops and vegetable-based processed foods in which unauthorized

use of agrochemicals has been applied. Thus, in addition to being criminally prosecuted for receiving smuggled goods and environmental crime, the producer can have the crop interdicted and destroyed by incineration.

In the environmental area, Act 9,605/98 sets imprisonment at 1 to 4 years for violators, in addition to a fine of

R\$ 500 to R\$ 2,000, to be applied by IBAMA. In addition, pursuant to Article 334 of the Criminal Code, the offense also concerns the crime of smuggling or evasion, with a penalty of imprisonment of 1 to 4 years for the user (farmer), the transporter and everyone who contributed to the commission of the crime.

#### 17. Legislative proposals

At the

international

level, fighting

agrochemical

smuggling crime

demands bilateral

action with

A bill, written by representative Jerome Goergen (RS), aims to include in the list of heinous crimes the theft, handling and smuggling of pesticides. The bill is in line with the proposals of the Brazilian industry, arguing that current legislation has not been sufficient the illegal market. Therefore, curb manufacturers argue that the criminal consequences of smuggling and counterfeiting should be made more severe:

• Penalty of 2 (two) to 6 (six) years of imprisonment if the theft is of agrochemicals, their

components and the like (Art. 155 of the Criminal Code).

- Increase the penalty by one third for theft when it involves agrochemicals, their components and the like. (Art. 157 of the Criminal Code).
- neighboring Increase the penalty countries by one third for handling if the activity is related to pesticides, their components and the like (Art. 180 of the Criminal Code).
- Increase the penalty by one third for smuggling, if the activities set forth in this article are in relation to agrochemicals, their components and the like (Art. 334-A and 334 of the Criminal Code).

In addition to the above actions, the National Union of the Plant Protection Products Industry (SINDIVEG) defends the inclusion of the subject of illegal pesticides on the priority agenda for inspection, investigation and enforcement agencies.

The manufacturers also propose that resources be defined to adequately equip the government's inspection federal enforcement agencies, as well as periodic training of the agents involved in combating the illegal market. The increasing flow of smuggling also requires the structuring of

> official laboratories for the analysis of active ingredients in illegal agrochemicals.

> On an international level, fighting agrochemical smuggling crime demands bilateral action with neighboring countries, which are the gateway for illegal pesticides Brazil. The understanding of the sector is that discussion on regulatory

alignment should go through Mercosur, with the aim of ensuring greater rigor in the analysis for registration and marketing of pesticides in the countries of the bloc.

Another measure proposed by SINDIVEG is the creation of an agreement and permanent monitoring forum between the private sector and the federal government, for the development, monitoring and evaluation of education, communication and awareness actions on the subject.



# Reflections on the legal system regarding 'pirate' agrochemicals

Pesticides are essential tools for Brazilian agricultural production and for maintaining its high level of productivity. However, the need to use these tools makes their correct use even more important, according to the guidelines established at the time of product registration, in order to minimize the potential risks their use implies.

The Legal Journal of the Feira de Santana State University (UEFS)<sup>2</sup> reports that the periodic use of agrochemicals in Brazilian agriculture has been around since the 1960s, but the standardization of the use of such substances was in force at the federal level without a specific norm until the issuance of Act 7,802, of July 11, 1989 - better known as the "Pesticides Act".

Javert Ribeiro da Fonseca Neto<sup>1</sup>

Under current legislation (as in the new Senate Bill No. 6,299/2002), a pesticide can only be granted marketing authorization if approved also by the health (ANVISA) and environment (IBAMA) agencies participating in the registration of these substances, maintaining their legal prerogatives. Thus, the proposed amendment of Act 7,802 of July 11, 1989, under discussion in the National Congress, does not alter the system of registration nor allow products that have already been restricted or banned for health and environmental reasons

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<sup>2 -</sup> http://periodicos.uefs.br/index.php/revistajuridica/article/view/1819

to automatically return to the market. The Ministry of Agriculture, Livestock and Supply<sup>3</sup>, also highlighted Brazil as one of the countries that most produces and exports food, which is why its legislation needs to safely and efficiently satisfy the advancement of the agricultural sector.

It should also be noted that Decree No. 1,355 of 12/30/1994 reveals that Brazil has incorporated into its legal framework the provisions of the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (known as the SPS/WTO Agreement). According to this decree, in its Article 5.1, it was established that members shall ensure that their sanitary and phytosanitary measures are based on an appraisal appropriate to the circumstances, risks to human, animal or plant life or health, taking into consideration the techniques for risk assessment prepared by the competent international organizations. Given this, it was established that Brazilian legislation should consider the provisions of Codex Alimentarius, such that it must assess the risks to determine the approval (or not) of these substances.

Oblivious to this important issue, there has been a significant increase in criminals who believe there is a niche illicit market in agrochemical piracy. "Among the problems faced by the food supply chain, two of them are connected. The first is the production of counterfeit seeds, which accounts for 90% of all Brazilian bean production and 44% of rice. Then come pesticides, with 20% of the market made up of counterfeit products," according to data, respectively, from the Brazilian Seed and Seedling Association (ABRASEM) and the National Union of the Plant Protection Products Industry (SINDIVEG)."<sup>4</sup>

The issues related to agrochemicals are so relevant to the health and safety of users that there have been several legal innovations, especially in the CRIMINAL ASPECT, as a means of curbing this practice which is so detrimental to society. It must be borne in mind in this context that anyone transporting, producing, packaging, marketing, storing, applying

and/or using illegal agrochemicals is subject to a number of penalties.

The Special Law of Pesticides (Act 7,802/89), in its Article 15, states that anyone who sells, transports or uses agrochemicals not registered in the country (in violation of Act 7,802/89), commits a crime, subject to the penalty of 2 to 4 years of imprisonment plus a fine.

Article 17, subsection IX of the same law sets forth that at the discretion of the competent body, plants (soybeans, beans, wheat, cotton, etc.) and food processed with such plants, in which there has been the application of agrochemicals unauthorized in Brazil, must be destroyed. Thus, the farmer who buys and uses smuggled agrochemicals, in addition to being criminally prosecuted for smuggling and environmental crime, may have his or her fields quarantined (unable to sell your his or her crop immediately), and then destroyed by incineration. These penalties imposed on the offending farmer shall be disclosed in the general press (sole paragraph of Art.17).

There is also a TAX CRIME, of evasion, because those who sell or transport goods without issuing invoices may be fined by the Federal Revenue Service.

In addition, there is also a crime of SMUGGLING or EVASION, as provided for in Article 334 of the Criminal Code (with penalty of imprisonment from 1 to 4 years). The user (farmer), the transporter and everyone who contributed in any way to the crime fall under the same criminal provisions.

In spite of this, Act 13,008/14 brought changes regarding the separation of offenses into two distinct criminal norms. Previously, both offenses were described in the same article, and after the reform the misdemeanor offense is described in Art. 334 and the crime of smuggling in Art. 334-A, both of the Criminal Code.

Art. 334. Evading, in whole or in part, the payment of duty or tax due on the entry, exit or consumption of goods: Penalty -

<sup>3 -</sup> http://www.agricultura.gov.br/noticias/revisao-da-legislacao-brasileira-de-agrotoxicos

<sup>4 -</sup> Read more at: https://www.gazetadopovo.com.br/agronegocio/agricultura/feijao-com-arroz-pirata-banhado-em-agrotoxico-falsificado-e-isso--que-voce-come-erxd5nzor55fhzbx2itvbkaup

imprisonment, from 1 (one) to 4 (four) years.

Art. 334-A. Importing or exporting prohibited goods: Penalty - imprisonment, from 2 (two) to 5 (five) years.

That is: the penalty of the crime of smuggling was increased. This change impacts relevant procedural issues as 'Conditional suspension of the case is no longer allowed as the minimum penalty is more than 1 year', and now it is even possible to have preventive detention (since the maximum penalty is more than 4 years);

In addition, the new legislation has affected the sphere of the 'aggravating factors'. Before, smuggling and evasion could have a double penalty if the crime was committed by air. Now, in addition to air transport, the penalty may also double if the offenses are committed by sea or river transport:

Art. 334 and Art. 334-A. 3rd The penalty is doubled if the crime of smuggling is committed in air, sea or river transportation.

The intention of the legislator was, it seems, to extend the aggravating factor to achieve greater scope of punishment for agents who smuggle products not sanctioned by the competent agencies (health).

Therefore, the Agrochemical can be smuggled or even the subject of evasion. Article 8 of Decree 4,074/2000 states "Pesticides, their components and the like can only be produced, handled, imported, exported, traded and used in the country if previously registered with the competent federal agency, complying with the guidelines and requirements of the federal agencies responsible for the agriculture, health and environment sectors."

Furthermore, Article 15 of the Pesticide Act (Wording given by Act No. 9,974 of 2000) states that:

"Anyone who produces, markets, transports, applies, provides services, disposes of waste and empty packages of pesticides, their components and the like, in breach of the requirements set forth in the relevant legislation, shall be subject to the penalty of imprisonment from two to four years, in addition to a

fine."

It can be seen, then, that such a device proves to be dealing with multiple action crimes, since it contains various forms of conduct corresponding to the commission of crime. The Federal Judge of the Federal Regional Courts of the 4th Region, Paulo Afonso Brum Vaz, in an article published in the Journal Doctrine of the 4th Region, n. 8, Sep. 16, 2005<sup>5</sup>, spoke correctly about each of the entries listed in the criminal norm. Note:

"To produce is to bear fruit, to generate, to give, to supply, to render, to manufacture, to execute, to originate, to create, i.e., to give rise to the pesticide, its components or the like. Manipulations and mixtures of pesticide formulas are common, aimed at giving greater potency and/or yield. Altering any of the original properties of the pesticide, properties that were evaluated at the time of registration and which will necessarily appear in the prescriptions, manufacturer's recommendations, the agronomic prescription and the package leaflet, is equivalent to producing or originating a new product in the absence of legal requirements. Thus, the act of production is not of the manufacturer, and can be practiced by anyone who proposes to give rise to a substance that fits the broad concept of pesticide."

"Marketing is placing into a commercial circuit. In this respect, it is irrelevant in our view whether the trade in the pesticide is carried out by a trader who is regularly incorporated or not. Also, the so-called irregular trader - and even the de facto one - can be the active subject of the crime. Here, we can highlight the conduct of those who sell or expose for sale pesticides, their components and the like, without the packaging containing the proper labels and package inserts, written in Portuguese and containing the data set forth in Art. 7 of Act 7,802/89. The conduct of anyone who gives products for free was excluded from the norm, as it will fit under the text of Art. 56 of Act No. 9,605/98. This admits as descriptive element of the norm the equivalent conduct of supplying."

"Transporting is driving or taking from one place to another. The transport can be internal or

<sup>5 -</sup> https://bdjur.stj.jus.br/jspui/bitstream/2011/62621/crimes\_agrotoxicos.pdf

external, a circumstance that may alter the jurisdiction for the trial of the respective crime. The nature of the entity (individual or legal) who transports the pesticide is irrelevant. What is relevant, for the verification of the compliance of the typical conduct, is the fact that the substance is being transported in violation of the governing legislation."

"Applying is to use, in any way (manually, with the use of machines or by air), the pesticide, its components and the like."

"Providing services refers to the activities of individuals and legal entities that perform the work of prevention, destruction and inspection of living beings, considered harmful, by applying pesticides, their components and the like."

"Illegally disposing of waste and empty packaging is to breach especially the new provisions added by Act No. 9,974/2000, among others, which regulate the division and repackaging of pesticides, their components and the like, which impose on users the duty to return the empty packaging of the products to the commercial establishments from which they were purchased, within one year from the date of purchase."

Given this, it appears that the application of the accumulation of crimes between smuggling and the criminal norm set forth in the "Pesticides Act" is of curial importance to curb such conduct, especially because it generates a higher penalty to be applied, precisely because usually only Article 334 of the Brazilian Criminal Code applies. Therefore, the application of the appropriate criminal norm proves to be an effective means of reducing the use of smuggled agrochemicals (of foreign origin, without proper registration), in view of the ills that such illegal use causes to the environment and the public health.

The issue is of such importance that the work published by Judge Paulo Afonso Brum Vaz, is worth

mentioning once again, making known some nuances of the "Crimes of Pesticides". Please review the following passages<sup>6</sup>:

"Pesticide smuggling is common practice in southern states, with a tendency to spread throughout the country. Smuggling, theft<sup>7</sup> and counterfeiting<sup>8</sup> enable the sale and use of pesticides without the necessary agronomic prescription. By bypassing legal requirements and without technical control, the toxic product is used to the detriment of public health and the environment. "Crop pirates" act mainly in municipalities located near the borders. Products banned in Brazil are brought in illegally (without registration with the Ministries of Agriculture, Environment and Health) from Argentina, Uruguay and Paraguay. A report prepared by the United Nations Environment Program states that one of the deadliest poisons ever made by man, DDT an insecticide banned in Brazil since 1985 - continues to be applied to Brazilian fields. Some of it will be being smuggled from Paraguay and part of it will be the result of a misappropriation of stocks by the Brazilian government (Brazil imported 3,000 tons of this product for use against malaria in the Amazon between 1990 and 1995). DDT affects the immune and neurological systems of humans and is therefore banned in 40 countries. In Switzerland, for example, since 1939. In the US, since 1972. The acquisition of banned pesticides in Brazil is common in the border region of Río Grande del Sur, especially with its border Uruguay, in the cities of Chuy, Rivera, Jaguarão and Livramento. In Chuy, you just have to cross the street in order to buy (smuggle), without any problem, herbicides of various brands devoid of the triple registration and, therefore, illegal in Brazil. The National Union of the Agricultural Protection Products Industry (SINDAG) attests that the sale of smuggled pesticides in Brazil represents about USD 20 million per year."

The importance of the matter is determined

<sup>6 -</sup> https://bdjur.stj.jus.br/jspui/bitstream/2011/62621/crimes\_agrotoxicos.pdf

<sup>7 -</sup> One of the biggest theft of pesticides occurred in Londrina, PR. A group of 15 men, armed with pistols, revolvers and shotguns, attacked the agricultural distributor Luftuma, stealing 2.8 tons of herbicides. The amount stolen, assessed by the 21 Journal of Doctrine of the 4th Region, no. 8, Sep. 16, 2005 at R\$ 2.8 million, is equivalent to 5% of the total pesticides consumed in Paraná.

<sup>8 -</sup> Proving the existence of counterfeiting, BASF S.A., of the chemical industry, published in the Zero Hora newspaper of Porto Alegre, on 09/15/2004, an alert about the counterfeiting of the pesticide Regent in Rio Grande do Sul. This counterfeit product can be purchased over the phone or over the internet.

to involve health and the environment. In the House of Representatives, Bill No. 2,079 of 2015, which, among its proposals, the most relevant, seeks to include in the list of heinous crimes theft, receipt and smuggling of agricultural pesticides, having as JUSTIFICATION "The constant theft of crop protection products from farms across the country has caused concern among the productive sector. The theft of pesticides is one of the quick ways found by criminal organizations to capitalize on and acquire heavy weaponry for other activities, including bank robbery and drug trafficking. We see the activity of very well-structured gangs in this activity, given that the product is singled out because of the high commercial value."

Thus, there is also Bill No. 4,689, of 2016, by the then Representative from Rio de Janeiro (today President-elect of Brazil), Mr. Jair Bolsonaro, amending Decree-Law No. 2,848 of December 7, 1940, which establishes the Criminal Code, to rule regarding the theft, damage and handling of pesticides, their components and the like.

Another very important point, which also leads us to a certain legal uncertainty, sides with the legislative entanglement regarding the sphere of MERCOSUR. See:

The problem of agrochemical smuggling occurs and tends to worsen, because there is a legislative gap in the area of environmental protection and public health between the countries that make up Mercosur, especially regarding agrochemicals.

The fight against smuggling and counterfeiting has been receiving the attention of federal, state and municipal authorities, because the damage done to the country is significant. According to preliminary surveys, the Brazilian-based pesticide industry is no longer conducting business of around USD 100 million, which would result in approximately USD 34 million in tax collection to public coffers.<sup>9</sup>

It is estimated that 20% of agrochemicals consumed in Brazil are of illegal origin. In other words:

if there were a pirate "industry", it would be the third or fourth largest producer of agrochemicals in the country. The high profitability and soft penalties for those caught with the smuggled product make this crime extremely attractive and make police work difficult. This is considering only the official data.

IMPORTANT: pursuant to Articles 57 to 60 of Decree 4,074/02, companies in violation are responsible for the disposal of seized products.

However, until the destruction of smuggled or illegal products is determined, the federal government will be responsible for temporarily storing any types of agrochemicals seized in the region until the related administrative or legal proceedings have been completed. This was even the subject of a decision of the 2nd Federal Court of Uruguaiana (RS), which ruled that the product should be under the responsibility of the Federal Revenue Department.<sup>10</sup> In case of a specifically verified need, as determined by the judgment, the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) may assign qualified personnel to the Revenue to handle the products. In addition to Uruguaiana, the decision covers material collected in the cities of Alegrete, Barra do Quaraí, Itaqui, Manoel Viana.

Read more about the case: The Federal Public Prosecution Office filed a lawsuit against the Federal Government and IBAMA to build a suitable place for the disposal of the material. According to the former, there are about 20 lawsuits in progress in the municipality (which borders Argentina) involving the illegal entry of these products in the country. IBAMA stated that, by participating in the Rio Grande do Sul Forum to Fight Impacts of Pesticides, the Federal Public Prosecution Office was aware of the procedures adopted by the competent bodies to deal with the issue. The federal government, for its part, argued that it was the violator's responsibility to arrange for the storage, transport and final disposal of seized pesticides.<sup>11</sup>

<sup>9 -</sup> http://www.cnpa.embrapa.br/produtos/algodao/publicacoes/trabalhos\_cba5/320.pdf

<sup>10 -</sup> PUBLIC CIVIL ACTION No. 5002148-87.2014.4.04.7103/RS PLAINTIFF: FEDERAL PUBLIC MINISTRY DEFENDANT: FEDERAL GOVERNMENT - ATTORNEY GENERAL OF THE FEDERAL GOVERNMENT DEFENDANT: BRAZILIAN INSTITUTE OF THE ENVIRONMENT AND RENEWABLE NATURAL RESOURCES - IBAMA

Risk to the environment: In the analysis of the case, federal judge Aline Corrêa de Barros pointed out that IBAMA and the Ministry of Agriculture had already stated that they were unable to store it. As mentioned, the Federal Revenue Service would also have been justified, reporting a lack of proper location and conditions for storage, as well as the absence of qualified personnel for handling chemicals. The decision also highlighted that illegally imported chemicals contain substances of prohibited use in Brazil and that their improper storage would be potentially harmful to the environment.

In addition, it should be noted that there is a revocation of the license to drive a motor vehicle as a reflection of the conviction for evasion or smuggling of agrochemicals, especially when it was evidenced that the right to drive was relevant to the commission of the crime. (4th Federal Regional Court, ACR 50141431220144047002/PR).

#### **FINAL CONSIDERATIONS:**

In the light of the foregoing, it should be noted that the criminal law, in the case of the prosecution of crimes between criminal offenses with different penalties, the penalty of the most serious violation applies, increased by one sixth to one half. Thus, in the

case of an accumulation of offences for agrochemical smuggling (of foreign origin), the application of the formal accumulation causes the initial penalty to be doubled, starting from the premise of framing the crime of smuggling - only -, since its minimum penalty is 1 (one) year, while 2 (two) years the minimum penalty for the crime provided for in Article 15 of the Pesticides Act.

Thus, applying the formal accumulation of crimes, the minimum applicable penalty, in theory, in the case under consideration would be 2 (two) years and 3 (three) months, otherwise, if only the penalty for smuggling is applied, such penalty would only be 1 (one) year. Therefore, it is noted that the application of the accumulation of crimes between smuggling and the criminal norm provided for in the "Pesticides Act" is extremely relevant to seek ways to stop such conduct, since it increases the penalty to be sanctioned, especially because, in spite of this, only article 334 of the Criminal Code is usually applied.

Application of this criminal norm can be an effective means of reducing the use of pesticides of foreign origin without the proper registration (PIRACY), given the ills that such use can cause to the environment and public health.



19.

# Main official sources consulted

- Customs of Paraguay.
- Paraná Agricultural Defense Agency (Agência de Defesa Agropecuária do Paraná ADAPAR)
- Brazilian Confederation of Agriculture and Livestock (Confederação da Agricultura e Pecuária do Brasil - CNA)
- Border Operations Department (Departamento de Operações de Fronteiras DOF)
- Brazilian Agricultural Research Corporation (Empresa Brasileira de Pesquisa Agropecuária -EMBRAPA)
- Brazilian Environmental Institute (Instituto Brasileiro do Meio Ambiente IBAMA)
- National Institute for Processing of Empty Packaging (Instituto Nacional de Processamento de Embalagens Vazias - INPEV)
- Brazilian legislation: Agrochemicals Law, Environmental Crimes Law, Brazilian Criminal Code.
- Federal Police (PF)
- Federal Highway Police (PRF)
- Federal Revenue Service (RF)
- Secretary of Health of the state of Paraná
- National Union of the Plant Protection Products Industry (Sindicato Nacional da Indústria de Produtos para a Defesa Vegetal - SINDIVEG)
- Independent operations of the Federal Police or performed jointly with agencies such as the Federal Revenue Service, Civil Police and Federal Prosecutor's Office (see full list on page X).

20.

### Data sheet

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