

Agro products



Industry overview

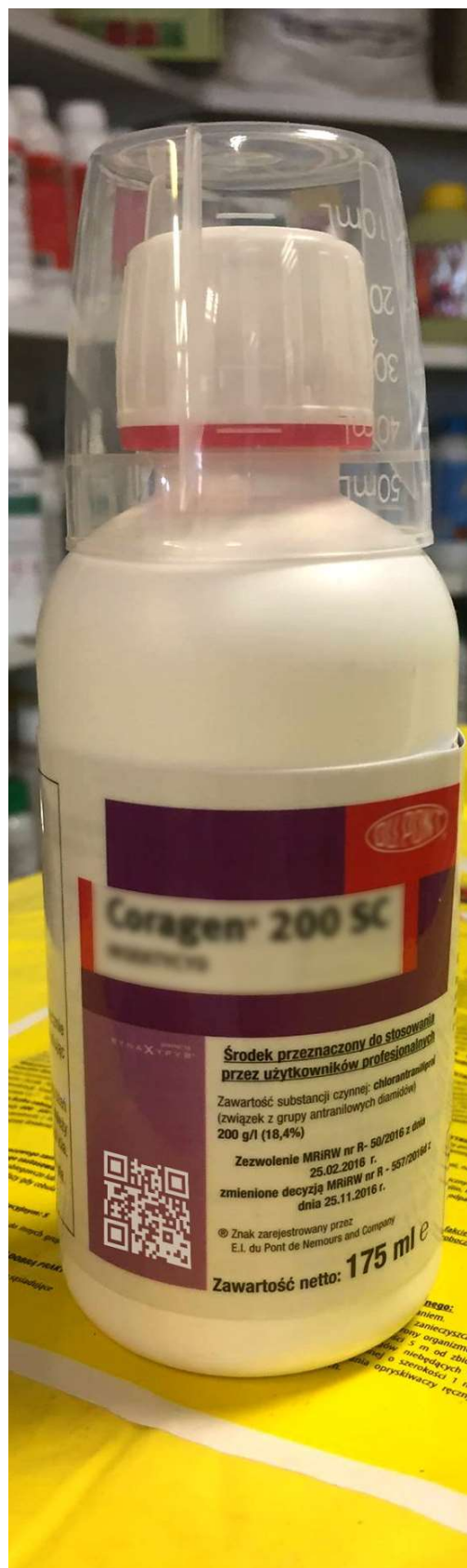
One of the largest sectors in India, agriculture contributed 20.2% to the GDP in fiscal 2021. It also provides employment to many people. Agrochemicals are a key input required for crop protection and better yield during both pre- and post-harvest stages. Agro chemicals significantly contribute towards national food security. Judicious use of crop protection chemicals supports sustainable farm management and delivers socioeconomic benefits to meet the challenge of feeding India's population.

The Indian pesticide industry is expected to grow 11-12% on-year to Rs 695 billion by FY 2024 from ~Rs 588 billion in FY 2022. The domestic pesticide industry and exports contribute an equal share. Insecticides form the largest segment, accounting for 56% of total pesticides in India, followed by herbicides (23%), fungicides (20%) and other pesticides (1%). Several factors will drive future growth – increasing population, decreasing arable land, growing demand for high-value agricultural products, and increasing efforts by the industry and government to promote awareness and technology penetration.

Table 15: Stakeholder/reports for counterfeit expectations-Agro products

Stakeholders	Counterfeit expectation
FICCI-TATA Strategic Management Group (TSMG) report 2015	~25% by value and ~30% by volume
Survey: Consumers/ farmers perception	~30%
Retailers/ distributors/ manufacturers	30-35%
Associations / industry experts	30-35%
Consumers	Price is a major factor in the buying decision of agrochemicals, but awareness of risks associated with counterfeits is important. As many as 40% of farmers bought counterfeit products because of low price. Perception of harmfulness of agrochemicals is moderate among farmers as per the survey findings, leading to more farmers buying counterfeits.
Retailers and distributors	Availability of agrochemicals during the peak demand season and inflation determine demand for counterfeits in the market.
Industry players – manufacturers/ industry experts	The counterfeit market is growing faster than agrochemicals supply, leading to higher penetration of counterfeits. Further, with higher prices and lower yields and earnings, a higher number of farmers are looking for low-priced alternatives. Some of the key states affected by counterfeits are Uttar Pradesh, Jharkhand, Madhya Pradesh, Andhra Pradesh, Telangana, Haryana, Maharashtra, West Bengal, Karnataka and Tamil Nadu. Usage of counterfeits can reduce the yield of the crop by 3-4%, impacting earnings of farmers, but such assessment and evidence of benefits of genuine products (which are priced higher) are not accessible to all farmers. Counterfeits also impact the effect of certain chemicals, leading to pests developing resistance – the counterfeit agrochemicals may not have the right mixture of active ingredients (if any), or may have some banned ingredients.

Source: CRISIL MI&A



However, the growth of counterfeit agro products is posing a challenge. The market for counterfeit agro chemicals is perceived to be as high as 30-40%. The counterfeiting in pesticides is highest due to higher volumes; as per a retailer survey conducted by CRISIL, it is 30-35%. The margin on counterfeit products is 30-35%, which makes it a lucrative for distributors and retailers. In Agro-chemicals sector, most consumers believed counterfeits make up 30% of the agro-chemicals market as per the survey conducted by CRISIL-ASPA.

As per a FICCI report, non-genuine/illegal pesticides account for ~25% by value and ~30% by volume of the domestic agrochemical market in India. These products are inferior formulations that are unable to kill the pests, or kill them efficiently. Some of the products work well but leave by-products that may significantly harm the soil and the environment. Apart from crop loss and damage to soil fertility, use of non-genuine products leads to revenue loss for farmers, agrochemical companies and the government. For example, Kashmiri apple farmers reported a 60-70% decrease in production of apples due to fake pesticides.

The issue of counterfeit agrochemicals is prevalent across various countries. In 2020 status report of the European Union Intellectual Property Office (EUIPO) the sales of legitimate pesticides decreased by an average of 4.2% across the EU due to the presence of counterfeits. This equates to a loss of direct sales of EUR 0.5 billion per year.

Extent of counterfeiting: City-wise consumers who have come across counterfeit products

There are various reasons for the high prevalence of counterfeiting in agro chemicals products, which includes demand supply gaps, lack of consumer awareness, unavailability of original products, and lower cost. As per the consumer survey, ~35% consumers willingly purchased the counterfeit agro chemical products; out of these, 40% brought them due lower cost and 31% due to the non-availability of original products. Consumers in Chennai, Hyderabad and Kolkata had seen higher instances of counterfeit agro chemical products as compared with other cities.

Types of counterfeiting in the agro products industry

There are three main forms of counterfeit pesticides.

a. Fake pesticides: These products are often sold in simple packs (white bottles) with minimal information on the label about their use and no mention of any health or environmental precautions. They contain anything from water or talc to diluted and outdated or obsolete stocks, including banned or restricted materials. Some fakes also provide a degree of biological control, as they sometimes may contain an illegal and untested copy of the proprietary active substance.

b. Counterfeit of genuine branded products: These are sophisticated copies of legitimate branded products, usually with high-quality labelling and packaging. Most contain a copy of the original active substance; however, their efficacy is often diminished owing to a high level of impurities and process by-products. It is often difficult to distinguish such products from genuine ones. Mostly, farmers are fooled into buying them unknowingly in the absence of proper education and awareness. In various cases, counterfeiters purchase genuine, empty bottles from farmers for as high as 25% of the MRP mentioned on the original bottle. The counterfeiters then put substandard ingredients into the bottle and resell it.

c. Illegal parallel imports: These are legitimate parallel traded products substituted with illegal generic copies, repackaged and sold as legitimate products.

Key reasons behind counterfeiting in agro products

Low consumer awareness and lack of monitoring are the reasons behind high counterfeiting in agro products. The problem is growing because of various factors, such as:

a. Difficulty in identification of fake products due to lack of awareness: In India, most farmers lack awareness of the usage and identification of pesticides. Many do not ask for specified chemicals or brands, and

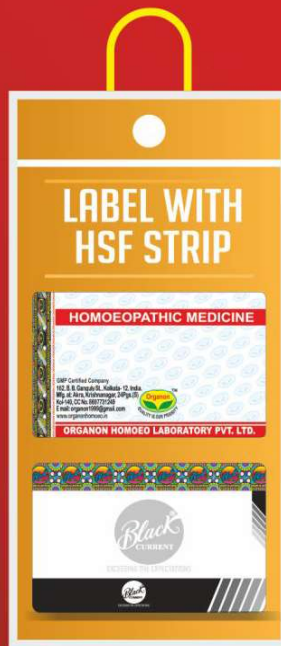
DELHI NCR	AGRA	JALANDHAR	MUMBAI	AHMEDABAD	JAIPUR
15%	4%	9%	14%	12%	7%
INDORE	KOLKATA	PATNA	CHENNAI	BANGALORE	HYDERABAD
11%	22%	13%	40%	12%	21%

Figure 18: City wise extent of counterfeits-Agro chemicals

Source: Consumer survey, CRISIL MI&A

ONE ROOF ALL SOLUTIONS

SOLUTION
FOR A
SAFER WORLD



PRIZM
HOLOGRAPHY AND SECURITY FILMS
ISO 9001:2008

Prizm Holography and Security Films Pvt. Ltd.
A-2/32-33, Site V, UPSIDC, Kasna, Gr. Noida, U.P. (201310)
Mob. No.: 88269 98414, 16, 18, Ph. +91-120 2341074
prizmholography@gmail.com, info@prizmholography.com,
www.prizmholography.com,

often ignore if specific details are not available on the products. Ironically, even though food manufacturers and producers are consumer-oriented companies, they do not publicly highlight this issue. Many food companies do recognise the challenges, but prefer to resolve these quietly and directly with their suppliers. Farmer organisations and co-ops must play a leading role in increasing awareness about the risks of using counterfeits.

b. Lack of monitoring and surveillance: Since the responsibility of enforcement is divided between regional and national authorities, political divisions and sensitivities have led to weak enforcement coordination and action. At the national level, this requires multi-disciplined specialist teams with skills in policing and prosecution, chemicals, agriculture, customs, environment, etc. The skills are available, but are often are not working in conjunction.

c. Inadequate judicial frameworks and penalties: India does not have adequate legislation to properly prosecute counterfeiting.

Identifying a counterfeit agro product

Farmers do not have any tool/medium to differentiate genuine pesticides from fake ones at the time of purchase. Due to lack of awareness and illiteracy, they rely on the visual appeal and can only check the quality of products with the marking of ISI/AGMARK. However, with advancement in digital technology, it has become easy for unethical manufacturers to produce fake ISI/AGMARK products as well.

Integrated with track-and-trace technologies, tools such as security hologram seals and labels, tamper-evident security films, low-cost transponder tags, and light-sensitive ink

designs can help farmers and enforcement authorities identify genuine and fake pesticides. However, educating them on these tools is crucial and needs to be done on a mass level.

Laws to protect against counterfeiting

India's proposed Pesticide Management Bill, 2020, which is supposed to replace the Insecticides Act of 1968, is the country's most important development related to pesticides in recent years. The bill, which has been in circulation and discussion since 2008, would set up a Central Pesticides Board to advise the central and state governments on pesticides, and regulate their production, sale and use. It will issue licences to the manufacturers and retailers of pesticides, empowering the central government to ban hazardous pesticides. However, activists and concerned scientists argue that the bill has several significant gaps.

Key markets for counterfeit products

Uttar Pradesh, Bihar, Madhya Pradesh and Jharkhand are the most affected states

The problem of non-genuine/illegal pesticides has spread across India, with hardly any region not affected by it. Uttar Pradesh, Bihar, Madhya Pradesh, Jharkhand, Karnataka, Haryana, Maharashtra, Tamil Nadu, and Andhra Pradesh are most affected by the menace of counterfeit pesticides.

Instances of counterfeit agro product seizures in India

ASPA recorded 32 instances of fake agro-products in 2021 and 21 instance in 2020.

Table 16: Instances of counterfeit agro product seizures in India

Sr no.	DD/MM/YY	Location	Incident
1.	25-03-2022	Purnia, Bihar	Fake fertiliser factory busted
2.	07-03-2022	Begusarai, Bihar	Fake pesticide drug factory busted
3.	24-02-2022	Gopalganj, Bihar	Fake urea factory exposed
4.	20-01-2022	Prayagraj, Uttar Pradesh	Fake DAP fertiliser factory busted
5.	20-01-2022	Khagaria, Uttar Pradesh	Fake fertiliser business exposed once again
6.	27-11-2021	Chitrakoot, Madhya Pradesh	Fake fertiliser factory unearthed, 300 sacks recovered
7.	25-11-2021	Jabalpur, Madhya Pradesh	Crime branch raids on suspicion of selling fake pesticides in Jabalpur, 19 lakh stock found from shop
8.	04-09-2021	Ludhiana, Punjab	Counterfeit pesticides, fertilisers seized in Ludhiana, six booked
9.	07-08-2021	Kushinagar, Uttar Pradesh	Fake fertiliser factory busted, 675 kg of duplicate fertiliser recovered, owner arrested
10.	02-08-2021	Delhi	Delhi police busted a spurious pesticide-manufacturing plant in Mundka, two arrested

Source: ASPA