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Looking at the core of intellectual property rights and agriculture

December 2006
Vol 7 No. 1

CropLife ASIA

Editorial:
Delivering Innovation

Intellectual property (IP) enables the plant science industry to deliver solutions to Asian farmers. Our industry is constantly inventing ways for farmers to grow safe, healthy and affordable food for everyone. We take a serious responsibility in creating environmentally sound, safe and cost-effective tools to help farmers supply the demands of consumers.

This means we constantly research and develop new chemicals to help farmers protect their crops against insects, weeds and diseases. We constantly develop food crops with better nutritional value and new plant varieties with increased resistance to pests. Bringing these innovations from the laboratory to farmers' fields is made possible by the legal protection of intellectual property.

We have devoted this AgroLinks Special Edition to intellectual property rights (IPR) because we see its value to agriculture in Asia. Capturing "genius in a bottle" or in a tiny seed is what our industry does. Recognising and protecting genius is what governments do to ensure that everyone benefits fairly from innovation. In developing countries, there is now increasing recognition of IPR as an ingredient for growth, but tricky spots remain to be ironed out in the agriculture sector.

Arnd Nenstiel

Over the years, the IPR agenda has gained a place at the heart of global trading. While the debate continues on what is a balanced interplay of IPR in trade, developing nations are now adjusting their intellectual property systems to capture the benefits of innovation. And help is available for these countries through various multilateral programmes that focus on mutual interests.

For many countries undergoing transitions in their IPR systems, IP infringements remain a big challenge. Counterfeit products rob owners, deceive buyers and steal governments of taxes. In agriculture, substandard and fake products could compromise the livelihoods of farmers. Maintaining the quality of agricultural produce in the market is a function of IP protection in many ways. The industry's call for intellectual property protection is a step towards raising the quality of tools that can be made available for today's farmers.

Arnd Nenstiel is Chair of CropLife Asia Communications Project Team.

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Designed by Keen Publishing Co., Ltd. (www.discoverkeen.com) • Printed in Thailand.

Genius in a Bottle

Our intellectual property gains in agriculture

By Lichelle Carlos, CropLife Asia

When farmers buy a branded product from a shop, they are likely to identify the product through its distinctive qualities – its trademark. Intellectual property rights such as trademarks and other forms of protection deliver many benefits to farmers and consumers. Protection of intellectual property fosters innovation, enhances quality and guards consumer trust.

A combination of intellectual property rights can protect a single product. This is especially true for innovative products that take extensive efforts to research and develop. Let's take crop protection products as an illustration. Our fictional bottle of pesticide will demonstrate various forms of intellectual property rights and how we all benefit from them.

Patent

The novel substance inside this pesticide bottle took its inventors an average of ten years and approximately US$200 million to develop. A patent grants innovators exclusive rights to exploit their invention for a fixed number of years. In exchange for the rights granted, innovators must describe the invention so that others can understand it.

Our Benefit: Patented inventions, such as new chemicals, introduce improved methods for protecting farmers' crops against insects, weeds and diseases. This enables farmers to produce food more efficiently for all of us. Because the invention is described to the public, everyone can build on the new findings to create ever better agricultural solutions for society.

Data protection

The active substance inside this bottle has been thoroughly tested to demonstrate its safety and efficacy. The test data are submitted to governments when seeking product approvals, but they remain the property of the company that created them. Data protection prevents others from unfairly relying on the data provided by the original developer to get similar products approved in a given market.

Our Benefit: Data protection raises the safety standards for regulating farm chemicals. We want well-tested products to treat the farm produce we eat, wear or use. We want every product held to the same high standards of safety and efficacy testing.

Trade secret

The exact formulation of the product in this bottle is a trade secret, known to only a few. If such formulation is maintained secret, reasonable confidentiality measures are observed, and the formulation contains commercial value, then protection should last forever.

Our Benefit: Two products with the same active ingredient may not give the same results. The difference could be due to formulation – the specific amounts of ingredients and the ways that these substances are mixed in this bottle. For farmers, this guarded secret could spell the difference between crop failure and a good harvest, with repercussions in our local economies.

Trademark

Certain symbols, shapes and colours could distinguish this product from other goods. The trademark protects the distinctive properties that consumers use to identify a product. Trademarks can be registered, renewed and protected as long as they are being used.

Our Benefit: Trademarks ensure safety and quality for farmers and the rest of us who buy farm goods. Trademarks protect both the product owners and consumers.

Registered design

The particular design of this bottle could enhance its marketability. When a design is protected, others are not allowed to copy it without permission.

Our Benefit: Registered designs could contribute to the recognition of quality by making it illegal for substandard products to assume the look of branded goods. As with trademarks, our farmers could use registered designs to identify products they trust for their crops. The protection granted to those designs helps to maintain the livelihoods of farmers.

Intellectual Property Rights
Ingredient for growth in developing countries

By Javier Fernandez, CropLife International

The situation today

In today's knowledge-based societies, the ability to innovate drives economic performance and competition. Intellectual property protection encourages creative dynamism, which translates into better quality products and more choices of products and services for consumers. Robust protection is the lifeblood for research, development, dissemination and the promotion of technology transfer. It is a channel for encouraging foreign investment and expanding international trade and long-term economic growth.

Trends in the global economy dictate more value on ideas and innovation as opposed to land, energy and raw materials.[1] Under this new paradigm, productive sectors are overhauling business models to capitalise on intellectual property. In light of these winds of change, why does resistance to intellectual property systems seem to be building?

The answer lies in the quiet revolution that questions the value of intellectual property as a driver for economic growth. The public is increasingly exposed to opposing messages that fuel lively discussions in international forums, especially in developing countries.

Intellectual property rights in agriculture are no exception to this increased attention. Specific regulation and enforcement to protect new plant varieties, the use of genetic resources, traditional knowledge and agricultural product names are closely watched.

Developing countries face the challenge of designing policies that capture the benefits of intellectual property protection while promoting national interests. In productive sectors like agriculture, it is necessary to strike a balance between promoting innovation and availing technology.

Photo courtesy of Bayer CropScience

Intellectual property protection is the lifeblood of research and development.

Building the global cornerstone of IPR with TRIPS

The multilateral intellectual property regime that we have today – with a full range of intellectual property protection enforced at both country borders and in the international market – took two decades to engineer. The process brought optimism to innovative entrepreneurs who applauded the entry into force of the Agreement on Trade-Related Aspects of Intellectual Property (TRIPS) in 1995.[2]

It all began in 1986 with the Uruguay Round negotiations. Exhaustive debates then revealed two contrasting threads: a heavy dissatisfaction with existing international agreements and resistance to heightened intellectual property rights. The mixture of views led to a general acceptance of a multilateral regime that would benefit both developed and developing countries. When The Uruguay Round concluded in 1994, intellectual property consolidated as a trade topic. In 1995, the results of the Uruguay Round were embodied in a new Agreement establishing the World Trade Organization (WTO). And TRIPS became a major part of the WTO Agreement.

The TRIPS Agreement is the cornerstone of multilateral intellectual property rights. The Agreement established conditions and minimum standards of protection for patents, copyrights, industrial designs, trademarks and trade secrets, including safety and efficacy data protection. Also, it forged the guidelines for IP enforcement.

The TRIPS Agreement has delivered promising improvements in domestic

legislation over the past 10 years. But in agriculture, milestones have been difficult to achieve. Protection for plant-related innovation is still under review, and there is little appetite for the TRIPS patent system to govern new plant variety protection. There seems to be a preference for the Union for Protection of New Varieties of Plants (UPOV) Convention to protect plant innovation. In addition, protection for safety and efficacy data related to crop protection products pursuant to TRIPS Article 39 remains unsatisfactory. This is the case with some agricultural powerhouses in developing countries that deem domestic copycat industries as strategic.

High stakes for agriculture

Agricultural research has delivered great results over the last century, lifting millions of people out of poverty and hunger. The demand for agricultural goods and services has risen, posing a unique challenge. Increased yields in crop production are necessary to nourish a growing and increasingly urban population. The world's population is estimated to grow by more than 40 per cent over the next 50 years, from 6.3 billion people to around 9 billion. More food, feed and fibre production is needed, but not at the expense of subjecting wilderness to plough.

Decreasing farmland per capita and diminishing precious fresh water resources require sustainable solutions – not only to palliate hunger and malnutrition, but also to support economic growth. Innovative crop protection products and agricultural biotechnologies are key elements to securing global food supply. However, the resources required are significant. Currently, hundreds of millions of dollars in capital and labour, and up to 10 years of research and regulatory review, are required to bring a novel plant technology from the laboratory to the field.

The plant science industry is one of the world's most research and development-intensive industries. It ranks in the top four global industries in terms of percentage of sales invested in research and development (R&D). For example, the industry's top 10 companies invest US $2.25 billion, or 7.5 per cent, of sales into research and development of cutting edge crop protection products to improve sustainable agricultural production.

There is a certain degree of tension between technology-driven and traditional agriculture, but any gap should not be exaggerated by misinformation. There is room for an informed dialogue addressing the legitimate needs of all stakeholders. The crosscutting nature of policy dialogues and legal frameworks should allow various countries to capitalise on the benefits of IP protection for the agricultural sector.

Capturing agricultural innovation while protecting intellectual property rights is a balancing act.

A Better Tomorrow

Like all policy measures, intellectual property rights are not sufficient in themselves to boost economic growth and development. A combination of sound economic management, proper infrastructure and efficient institutions to ensure enforcement is also required.

Economic, social, cultural and environmental benefits are expected when the policies effectively eradicate corruption and market distortions, and investments are made in health and education. The energy and resources spent on attacking intellectual property frameworks could be better invested in championing enabling environments to facilitate technology development and giving farmers access to the best products on the market.

[1] A Survey of Patents and Technology. The Economist. 5 October 2006.
[2] Agreement on Trade-Related Aspects of Intellectual Property Rights. http://www.wto.org/english/tratop_e/trips_e/agm0_e.htm (accessed 16 December 2006).

Beyond the IP Debate: Q&A with Experts

Interview with Niclas Morey and Stephane Passeri
By George Fuller and Lichelle Carlos, CropLife Asia

Intellectual property (IP) is at the core of trade interests between Europe and Asia. While there is ongoing debate as to who benefits from IP protection, efforts to make Asia's systems on intellectual property rights (IPR) comply with WTO requirements – such as TRIPS – are gaining a foothold.

Among the key movers of stronger IPR in this region is the EC-ASEAN Intellectual Property Rights Cooperation Programme (ECAP II), a European Commission-supported initiative implemented by the European Patent Office (EPO) and the Office for Harmonization in the Internal Market (OHIM). CropLife Asia sat down with ECAP II Director Niclas Morey and ECAP II Programme Administrator Stephane Passeri to learn what it takes to make IPR work for various stakeholders. Here are the highlights from our discussion.

Why is the European Commission interested in IPR in Asia?

The EC wants to increase the economic trade between ASEAN and Europe. One way of doing this is to increase the investment and investment flow. And to increase investment, you need to have a strong IPR system.

Another goal is to increase the investment intra-ASEAN, or among ASEAN countries. By improving the IPR structure, you get increased economic cooperation or economic trade among ASEAN countries.

A third goal is to raise the profile of the EU in the field of IPR in this region. We are showing the EU system: it may be a model or at least an interesting experience for ASEAN countries to look at.

And of course there is an interest from the European Union to assure that IPRs are lifted. European industry is very present here, like US industry or Japanese industry. Currently, 25 per cent of the applications on industrial property, on average, come from the European Union. If there is better protection here, it would also benefit European industry.

Do you believe that IPR serves the interests of developed countries more than developing countries?

We are convinced the answer is no. In fact, it serves developing countries a lot: By strengthening their IPR, they are showing the world that they take this issue seriously. As a result, there will be legitimate investment flowing into the country. This is the European Commission view – this is also our view, and this is the view that we are pursuing.

Do you see any disadvantage for developing countries as they try to comply with IP requirements of the WTO?

Developed nations had ample time to build their IP systems before the WTO changed the economic landscape. We must not expect developing countries, particularly least developed countries, to build their IP systems overnight. We must be fair and give them time and assistance. We acknowledge that if copying may be considered as part of the development process, aiming to make this step as short as possible is crucial for development.

How does ECAP II help in strengthening IPR systems in this region?

We have four main pillars: legal framework, administration, enforcement and awareness.

The level of legal assistance that we give varies by country. Likewise, administration assistance can take a variety of forms, including training of patent, design and trademark examiners, or helping with automation of the patent office to speed up procedures. Enforcement assistance can include: training of judiciary branches; showing European or ASEAN models to demonstrate good practices; training police; or training customs officers using materials that we've prepared in a regional customs handbook on IPR for ASEAN countries – which will be available online at www.ecap-project.org.

We're always looking at the big picture. For example, it is useless to train enforcers on enforcement techniques if you don't involve right-owners because they are the ones who know the product. Similarly, training police how to catch counterfeiters is undermined by judges who are unaware of IP issues. Without proper sentencing, appropriate to the level of the crime, the perpetrators will go right back to the street with new illegal goods.

George Fuller (centre) talks with Niclas Morey (left) and Stephane Passeri (right) about EU and ASEAN cooperation on IP development.

With regards to awareness, we try to raise general knowledge of IPR through pamphlets, newsletters, DVDs and our website. We try to disseminate as much information as possible to both the general public and targeted groups (business people, academics, etc) about why IPR is important.

Could you give us a general picture of IPR development trends in Asia?

We are seeing arguments for TRIPS as a minimum requirement (not TRIPS plus). At the legal level, this is complemented by the adoption of new laws, which is a sign of progress. Vietnam has a new IP law, which is overall quite good. Thailand has adopted the Optical Media Act, as well as Geographical Indications legislation.

We also have more countries joining international conventions on IPR. If you are a member of these conventions, it's easy to apply for international protection when it comes to patent, trademark, design or copyrights.

It's still a very mixed picture in ASEAN, as the heterogeneity of countries is also reflected in the development of IPRs. Thailand is not a member of the Paris Convention, which is a fundamental instrument. Singapore and Vietnam are members of most international conventions. Indonesia is a member of all major international conventions.

What is your message to consumers in terms of protecting IPR?

We encourage people to think of the long-term effects. In the short run, the consumer may say that they do not want to pay more than US $1 for a CD. They don't mind that it is counterfeit as long as it has the music. But this CD often comes from organised crime, and counterfeiting is a very lucrative business to fund other illicit activities – like prostitution, arms deals and drug trafficking.

Although most news coverage is often dedicated to counterfeit luxury goods, small and medium sized businesses (SMEs) are also susceptible to counterfeiting. When consumers purchase fakes, they hurt SMEs and local economies. Consumers may not care if they are taking money from international celebrities, but when local artists can't succeed because of counterfeiting, that's when it becomes a national problem.

We also try to raise awareness of safety issues. Counterfeit CDs are one thing, but if you go out and buy brake pads that are fake, you put yourself and others in great danger. Nowadays, more and more counterfeit products target a wider range of goods (food and beverages, cosmetics, drugs, apparel, etc.) which are bought by consumers unaware of their counterfeit nature. So where is the cut-off point of what you can and cannot accept?

Do you have a message for IP owners?

Companies attacking the counterfeiting problem individually may face difficult challenges because they may have resource constraints and worry from customers. You need cooperation among right-holders, and an integrated approach based on mutual understanding. The environment needs to change, not just a single vendor, service provider or company.

What is your approach to IPR enforcement? Do you have any tips on how countries can improve enforcement?

Our general approach in this programme is to help the countries achieve their goals. It does not help them to focus only on sanctions. We are active in enforcement, but it is part of a balanced programme.

Enforcement involves awareness, and commitment from customs, police and court systems. We think that customs is key. If you look at enforcement across the border, it is a lot easier to intercept one big shipment at the border than to try to get individual goods off the market after they have entered the country.

The amount of goods being shipped is just enormous. Technically, customs can only check a few percentages of shipments. We intend to provide them with training and tools to 'control less, but better.' We tell how to study the manifest, which is the weight of the container compared with what's inside.

We also promote a strong partnership with right-holders as an important tool of success to ease the custom officials' day-to-day work. Through the relationship with right-holders, officials get useful information on how to identify genuine from counterfeit products.

Eventually, the goal is not to put a 15-year-old selling illegal goods in the street in jail, but to cut off the supply. The goal is to catch the big fish.

Which IP area should developing countries capitalise as a driver for development?

Both developing and developed countries could benefit from a better understanding of the patent system. What is a patent? It is an exemption from free trade, whereby you get a monopoly for a number of years in exchange for giving your knowledge to the public.

The inventor and public authorities benefit from the patent system. The inventor enjoys the economic benefits of his patent, while the public authorities, through the published patent documents, support the dissemination of technical information and further research and development.

There are databases – like the EPO-provided esp@cenet® (http://www.espacenet.com) – where you can search worldwide existing patents, so as not to waste time and money reinventing the wheel. If you make improvements on a product, you can get your own patent, and pay a royalty to the original patent owner.

Alternatively – and this is where many developing countries can benefit – you can start a business in Asia based on patents and products elsewhere. You can manufacture them for your local market, as long as long as you do not export to a country that has the original patent protected. Just because a product is patented in one country does not mean that it is necessarily patented in all countries. That is determined by the inventor, when evaluating where they want to market their product.

For example, there was an outcry in Thailand during the bird flu scare because certain drugs were patented abroad. People said, 'Look, here's another example of how the West is imposing expensive drugs on us, which we can't make here.' But many manufacturers had not even protected the drugs in Thailand. They said, 'You are free to copy it for your local market.'

These types of outcries lead to myths about patents and copying with regards to public sector research. In developing countries especially, IPR protects against commercialisation, but all knowledge is always free for research – be it for pharmaceuticals or any other industry.

What remains the biggest challenge for IPR development in Asia?

In ASEAN, the biggest challenge would be to bring IPR to the regional level – to get a regional system for patents, trademarks and designs, and perhaps even geographical indications (GI). There is an ASEAN IP Framework, which was signed in 1995. It states that countries should endeavour to establish a regional patent, trademark and industrial design system. However, this has proven to be difficult to enact, and needs more attention in order to be successful.

IPR and Agriculture at Work:

Protecting Geographical Indication in Thailand

Geographical indication (GI) is one of the latest forms of protection for intellectual property. A GI is a sign used on goods that have a specific place of origin and possess qualities or a reputation that are due to that origin. Agricultural goods usually have qualities that are influenced by local factors, such as climate and soil. Famous examples are Darjeeling tea from India, Champagne from France and Parma ham from Italy. GIs can add value and benefits to local farming communities and build a name for the country.

Recently, a joint initiative of the European Commission and ASEAN has demonstrated how an integrated approach to protecting geographical indication is paying off in Thailand.

"We participated in providing information on GI legislation in Europe and neighbouring countries to the Thai authorities. This allowed them to implement the Protection of Geographical Indication B.E. 2546 [2003]," explained ECAP II Administrator Stephane Passeri.

Government officers and their departments were trained to welcome and deal with GI applications. Part of the work involved public awareness and capacity building with local communities. The officers went to the different provinces of Thailand to meet local communities and help them apply for GI protection.

"It was so effective. And now in Thailand, we have 11 GI-registered products," Stephane said. The products include Petchabun Sweet Tamarind, Nakornchaisri Pomelo, Trang Roast Pork, Doi Tung Coffee, Phurua Plateau Wine, Khao Tangkwa Pomelo (Chai Nat), Surat Thani Oyster, Sri Racha Pineapple, and Sangyod Rice (Phattalung). Handicraft products, such as silk and pottery, are also lining up for future registration. In addition, Champagne from France and Pisco from Peru became the first foreign GIs registered in Thailand.

Counterfeiting: New Challenge to Intellectual Property

By Javier Fernandez, CropLife International

Anything in the market today can be counterfeited. The products of the plant science industry are not immune to this problem. Many farmers have fallen victim to fake pesticides and seeds that have ruined their harvests or even threatened their safety. The impact of counterfeiting is complex and cuts deep across social, economic, environmental and technological development issues.

Counterfeiting assaults IPR

To right-holders and business owners, counterfeiting means: loss of sales; infringements on patents, trademarks and registered designs; erosion of trade secrets; and damage to reputation. But the damage to society goes beyond that. It affects individuals' very livelihoods, in addition to the broader issues of safety, global trade, technology transfer, food supply chains, health, the environment and regulatory issues.

Illegal trade in plant science products discourages innovation. Left unchecked, it could cut development of the next-generation crop protection and biotechnology products.

Counterfeiting is big business

The value of counterfeit and illegal pesticides is estimated at a conservative 5 to 7 per cent of the total sales made by innovative companies. The figures vary among markets, with certain countries increasingly capable of manufacturing active substances for pesticide formulations. In Asia-Pacific estimates, counterfeits are worth US $200 – 250 million of sales. The impact is significant in China, India, Thailand and Vietnam, and to some extent, in Malaysia and Indonesia as well. Studies in China indicate that in some locations, 17 per cent or more of pesticides sold are counterfeits.

Toxic, worthless, unsafe... it's fake

"Safety emerges as a real issue when pesticides are counterfeited. The fake product can actually be something much more toxic than what the farmer thinks. It can be something totally worthless, and the farmer loses his crop. It could be something totally different than what its label claims. And the farmer's harvest gets rejected because somebody analyses it and finds pesticide residue that isn't cleared."

George Fuller, Executive Director, CropLife Asia

Counterfeiters infringe on registered trademarks.

Authorities often require hard data to take strides against counterfeiters. But the complexity and nature of the covert industry – often involving criminal organisations – makes it difficult to quantify the extent of the problem.

Four ways to fake

Counterfeiting in the plant science industry could be in any of these forms: 1) sophisticated, illegal copies of existing patented and branded products; 2) low-quality fakes with simplified, false or missing labelling; 3) illegal imports of legitimate products on sale in other parts of the world; and 4) parallel trade abuse where legitimate traded products are substituted by counterfeits.

Counterfeit products not only affect the reputation of the plant science industry, but also pose threats to everyone involved in the food value chain.

Counterfeits cut farmer earnings

Farmers in Asia are increasingly exposed to adulterated products for crop production. Small-scale farmers particularly are the first to suffer from the economic losses from the use of substandard products.

Even if they contain the correct active ingredient, illegal products tend to be less effective than their legally registered equivalent. Poor efficacy against weeds, pests and diseases cuts yields and profit margins for farmers.

Counterfeits endanger farmer health

Legitimate plant protection products are rigorously tested and regulated through one of the world's most comprehensive testing and evaluation processes. Conversely, illegal and counterfeit products (and their unknown contents) escape regulatory vigilance. The active substances and other chemicals used in the fabrication of illegal and counterfeit products, untested for human health impact, could contain highly toxic impurities and other contaminants. Illegal and counterfeit products can pose acute and chronic health threats to farmers and product applicators.

Counterfeits threaten the environment and food supply

Harmful ingredients in counterfeit products can contaminate the ground and waterways. Residues from unknown substances can remain in harvested crops and prevail through the food chain. This has all the potentials of a "food scare" story, which can be quite damaging to the reputation of food retailers.

Counterfeits undermine stewardship

The plant science industry takes serious responsibility for its products throughout their life cycle. Industry stewardship teaches how to maximise benefits and minimise risks from the use of crop protection products. But illegitimate, and often hazardous, chemicals in counterfeit products undermine the effectiveness of stewardship.

Corrupted copies damage the reputation of legitimate crop protection products. Counterfeiters are not accountable for, and thus unconcerned with, safety matters – such as benefits from pesticide container designs and practices to minimise risk and contamination. Intoxications, accidents and pollution could result from inadequate management and disposal of containers. When these situations arise, farmers and the general public lose confidence in crop protection tools and the impact of industry programmes on the responsible use of pesticides.

Call to action

The plant science industry is calling for an intensification of the fight against counterfeiting – with more political attention, as well as increased human and financial resources from authorities and international organisations. To prevent damage to industry, farmers, the environment and the economy, urgent and effective action must be taken to enact adequate IPR legislation and enforce existing instruments.

Fake Farm Products Hit Asian Farmers

By Lichelle Carlos, CropLife Asia

Counterfeit products in agriculture make headlines in Asia. Farmers are often the hardest hit victims.

In Taiwan, authorities this year have seized over 50 tonnes of highly toxic pesticides from three alleged counterfeiters. For three years, the illegal products were sold to major pesticide dealers, who in turn sold supplies to rice, fruit and vegetable farmers.[1]

In the first half of 2006, the Chinese Ministry of Agriculture confiscated 47,000 tonnes of fake and shoddy products used by farmers, worth 300 million Yuan (US $37.5 million).[2] In 2005 alone, more than 2,000 people were charged with producing and selling fake milk powder, wine, medicine, fertiliser and pesticide.[3]

The damage makes deep inroads into society. In India, a representative of the National Commission on Farmers claims that a third of pesticides and 40 per cent of biotechnology seeds in the market are bogus.[4] Farmers in some villages have lost faith in the tools of the trade – large sums of money spent on apparently fake pesticides did not save their paddy from brown plant hopper.[5]

In Vietnam, a farmer had to overuse pesticides on her crops. Who can blame her? Suppliers in her area were accused of selling substandard seedlings and farm chemicals. Rarely did farmers report the problem. They simply shifted to another brand, another shop or blamed the bad weather for crop losses.[6]

Headlines bare only the tip of the counterfeiting syndicate in agriculture. The networks of counterfeiters in Asia are well hidden, and it takes cooperation to end their practice. Right-owners have the responsibility to protect their brands, designs and other intellectual properties from theft. Citizens have a duty to denounce and report fake products to the authorities. Governments need to toughen enforcement measures. After all, fakes hurt everyone – farmers, businesses, consumers and economies.

[1] "Pesticide firms questioned over illegal, toxic products." Taiwan Headlines. 6 July 2006.
[2] "China cracks down on fake farm goods." Xinhua. 20 July 2006.
[3] "China arrests more than 800,000 people for endangering state security." AsiaNews. 9 March 2005.
[4] "Spurious pesticides dominate Indian markets." The Indian Express. 4 August 2006.
[5] "BPH pest destroys farmers' hopes." Deccan Herald. 10 November 2004.
[6] "Shopowners accused of tampering." Vietnam News. 8 March 2004.

Five Truths about Data Protection[1]

By Lichelle Carlos, CropLife Asia

When it comes to intellectual property rights, TRIPS Article 39.3 offers great promise to the plant science industry. The Article gives protection to a special property of the industry – the set of test data that a company files with national authorities to get approval for marketing a crop protection product.

Photo courtesy of Bayer CropScience

Data protection holds every product maker to the same high standards of safety and efficacy testing.

5 Truths in a Nutshell

Data protection ...

- is different from patent protection.
- allows market entry of generics.
- allows free market competition.
- is an instrument of fair registration.
- raises competitiveness of farmers.

What's in the data?

These data are company studies showing that a certain product is effective and does not pose any risk to farmers, consumers or the environment. For any single product, the studies take an average of 10 years and approximately US $200 million to complete. Without these safety and efficacy data, authorities will not grant companies permission to sell in a certain market.

Why protect data?

Data protection means authorities will not use the studies submitted by a registrant to evaluate a copy product submitted by another party for marketing approval. This ensures that each registrant undertakes the cost of supporting its own product for a specified period of time. The plant science industry considers 10-year data exclusivity as the minimum period for adequate protection. After 10 years, it is possible for follow-on registrants to rely on the data of the original developer, if they can demonstrate that their product is equivalent to the original product.

Data protection works in many ways. It guarantees the entry of innovative products into the market. It also raises the quality and safety of products on the market. It ensures continued research on agricultural solutions that benefit farmers, consumers and local economies.

But data protection is also raising a barrage of questions. To clear up some doubts, let's take a look at five bare facts on data protection.

[1] This article is based on the paper written by Alfredo Ruiz, CropLife Latin America, on "IP Rights for Studies on Safety and Efficacy Data of Agricultural Chemical Products."

Data Protection: The Bare Facts

Data protection is different from patent protection. 1

Patents apply to products, while data protection applies to test data behind the products. Patents protect inventions, whereas data protection guards research efforts from being wrongly used. Safety and efficacy studies are not inventions and, thus, cannot be patented. A product may be covered by a patent, but unapproved for marketing as a result of data evaluation.

Data protection allows market entry for generic products. 2

Protection for safety and efficacy studies is limited in time, and it covers new chemical entities. It covers a small fraction of crop protection products that are registered every year. For this reason, it does not affect any of the generic products that are presently on the market, nor new generic products that may be launched, which contain active ingredients that are already registered in a given country.

Local companies are not the only ones that make generic products. Foreign companies also make generic crop protection products and export these to developing countries. They are the ones called upon to produce the information on the quality and safety of their products and deliver it to the national companies that sell them. Products that are supported with their own information ensure quality and safety.

Data protection allows free market competition. 3

Today, only 30 per cent of the market is made of innovative products. Competition in the crop protection market is open, and supply is broad. This supply allows farmers to select the product that best meets their needs. A vast range of products, both innovative and generic, compete in any given market band.

Data protection is an instrument of fair registration. 4

Protection for safety and efficacy studies is an instrument that favours fair competition, rather than an obstacle to registration. Laxity in the registration process – by procedures that see accreditation of product safety as unnecessary or inconvenient – contradicts the principles of responsibility that rule and prevail in the plant science industry.

Companies that produce generics can develop, at a low cost, information on the quality and safety of its products using the guidelines of the FAO/WHO Pesticide Specifications.

Data protection raises competitiveness of agricultural producers. 5

The plant science industry fosters sustainable and safe agricultural production by supplying the highest-quality product to farmers, allowing them to be more productive and competitive. Registration requirements that provide clear data protection and that adequately assess, in advance, the safety of the crop protection products represent a performance warranty for agricultural exporters, who can thus accredit the quality of products applied on their crops.

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