

Malaysia Country Report
29th APPPC Session, 7-11 September 2015
Bali, Indonesia

1. General Information

The National Plant Protection Organization (NPPO) of Malaysia is Department of Agriculture Malaysia (DOA) and the managing authorities to carry out the function of the NPPO are Plant Biosecurity Division, DOA (PBD), Department of Malaysian Quarantine and Inspection Service (MAQIS) (For entry points in Peninsular Malaysia only), DOA Sabah and DOA Sarawak.

Malaysia would like to highlight several changes to the organization profile of the Malaysian NPPO. In 2013, the NPPO of Malaysia which was previously known as the Crop Protection and Plant Quarantine Division has been renamed as Plant Biosecurity Division, DOA. In 2014, several new appointments to the top management level of the Ministry of Agriculture and Agro-based Industry (MOA) and DOA were carried out by the Malaysian Government. A new Secretary General to MOA, Dato' Mohd Arif Bin AB Rahman was appointed in 2014. This was followed by the appointment of Dato' Ahmad Zakaria Bin Mohamad Sidek as the new Director-General of Agriculture and Ms Faridah Aini Binti Muhammad as the new Director of PBD. Mr Halimi Mahmud was appointed as the new Director of Pesticide Division, DOA since 2014 who is also responsible as the Secretary of Pesticides Board Malaysia.

Malaysia has yet to table the Plant Biosecurity Bill (PBB) and its seven new regulations at the Parliament which would eventually repeal the current Plant Quarantine Act 1976 and Plant Quarantine Regulations 1981. The tabling of the PBB was scheduled to be tabled in the Malaysian Parliament during the second half of 2015.

Import inspection of plants, plant products and regulated articles under the Plant Quarantine Regulations 1981 at the entry points in Peninsular Malaysia and Labuan Island are conducted by MAQIS since 2011. The primary function of MAQIS as provided under the provision of the MAQIS Act 2011 is to conduct quarantine inspection at entry points for all agriculture produce such as plants, animal and fish products. Agricultural import inspection at entry points in the state of Sabah and Sarawak is still the responsibility of DOA Sabah and DOA Sarawak, respectively.

The issuance of import permit for the import of plants, plant products and regulated articles are conducted separately by the three component regions of PBD for Peninsular Malaysia and Labuan Island, DOA Sabah and DOA Sarawak for entry into Sabah and Sarawak, respectively.

The development of web-based system on the application, processing and issuance of Phytosanitary Certificate (PC) known as MyPhyto has started in 2012 and progressing according to the schedule. The system has been implemented by all PC issuance offices in Peninsular Malaysia. For Sabah and Sarawak, an offline version of the system will be introduced in 2015. Following the MyPhyto system, the paper used for the issuance of hardcopy PC will be enhanced with new format and safety features. This new PC will be adopted by the three component regions for the issuance of PC starting from 2016. In August 2015, e-Certification program between Malaysia and Australia has been established.

Electronic version of PC will be able to be viewed by the NPPO and quarantine inspection authorities of both countries for import clearance at entry points.

Presently, there are several laws in operation in the country for the control of pesticides. Pesticides Act 1974 is implemented by DOA Malaysia. The main objective of the Pesticides Act 1974 is to ensure that all activities related to pesticides are properly managed and controlled. Rules and Regulations under the Pesticides Act 1974 are as follows:

- Pesticides (Registration) Rules 2005
- Pesticides (Importation for Educational and Research Purposes) Rules 1981
- Pesticides (Advertisement) Regulations 1996
- Pesticides (Labelling) Regulations 1984
- Pesticides (Highly Toxic Pesticides) Regulations 1996
- Pesticides (Certificate of Analysis) Rules 1994
- Pesticides (Pest Control Operator) Rules 2004
- Pesticides (Licensing for Sale and Storage for Sale) Rules 2007
- Pesticides (Exemption) Order 2004
- Administrative Control of Aerial Spraying

In addition, other legislations involved in the control of certain aspects of pesticides are:

- Hydrogen Cyanide (Fumigation) Ordinance, 1953 controls the fumigation of premises including ships (the license is issued by the Ministry of Health);
- Environmental Quality Act 1985 (Amendment) controls pesticide effluents from factories enforced by the Department of Environment;
- Occupational Safety and Health Act 1994 regulates worker safety related to pesticides and is implemented by the Department of Occupational Health and Safety;
- Food Act 1983 regulates maximum residue levels of contaminants including pesticides in food (administered by the Ministry of Health).
- Strategic Trade Act 2010, control of export, transit and transshipment of dual use chemical (administered by the Ministry of International Trade and Industry).

2. Phytosanitary Matters (Plant Quarantine)

2.1 Changes to import requirement for plants, plant products and regulated articles

2.1.1 Importation of 9 items

In 2013, Malaysia has revised the requirement for the importation of 9 items that are; soy bean (*Glycine max*), maize/corn (*Zea mays*), cocoa bean (*Theobroma cacao*), coffee bean (*Coffea Arabica*, *Robusta coffee*, *Coffea liberica*), tobacco leave (*Nicotiana tabacum*), cotton (*Gossypium hirsutum*), fresh orange and lime (*Citrus* spp.), fresh banana (*Musa* spp.) and all plant-based commodities intended for livestock or animal feed (such as hay, straw, corn cob, skin cocoa, sago etc.). Notification has been made to WTO Committee on SPS on 10th March 2014 with the accession reference of G/SPS/N/MYS/27. The new import measures imposed on the 9 items are the requirement for an import permit from DOA Malaysia and Phytosanitary Certificate from the exporting country. Pest Risk Analysis will be conducted on items which has not been imported into Malaysia prior to July 2014 and items originated from country exporting to Malaysia for the first time. The import measures have been into force starting from 1st January 2015.

2.1.2 Importation of cereal and grain from Khapra Beetle (*Trogoderma granarium*) endemic countries

Import permit is required for the importation of cereal and grains from Khapra Beetle endemic countries commencing from 1st January 2015. The list of the countries as stipulated under the Schedule 9, Regulation 5(5) of the Plant Quarantine Regulations 1981 are Bangladesh, India, Pakistan, Sudan, Turkey, Philippines, Myanmar, Morocco and Sri Lanka. A Phytosanitary Certificate shall accompany the consignment and must be inspected by plant quarantine inspector upon arrival at all Malaysian entry points.

2.2 Export quarantine services and market access

2.2.1 In 2013 – 2014, DOA has received and hosted several audits from Australia, China, European Union (EU), New Zealand, Singapore and Thailand to ensure the exportation of Malaysian agricultural products complied with the importing countries requirements. All audits are conducted jointly with DOA.

2.3 Phytosanitary Capacity Development (PCD)

The NPPO and the managing authorities have implemented a total of 50 PCD programs in 2013 – 2015 conducted for its staff and the public to further enhance the understanding and capability for various stakeholders in undertaking efficient measures on plant quarantine and pest management. In addition, 15 of this PCD were conducted with the assistance of international organizations such as APPPC, FAO, STDF, CABI, AANZFTA Economic Cooperation Work Program (ECWP) and USDA.

2.4 Cooperation projects

2.4.1 ASEAN Regional Diagnostic Network (ARDN)

ARDN was established in collaboration between DOA, the Department of Agriculture Australia and ASEANET for the purpose of enhancing the capability in identification/diagnosis of plant pests and diseases within the ASEAN region. Malaysia is the lead country to coordinate the establishment and activities under this cooperative project including as a co-sponsor in acquiring funding for the project. This cooperative project is supported by AANZFTA-ECWP (Economic Cooperation Work Program), Japan ASEAN Integration Fund (JAIF) and ASEANET.

3. Surveillance, Pest Outbreaks and Invasive Species Management

The NPPO conducted surveillance mainly on agricultural commodities related to rice, fruits which include pineapple, highland and lowland vegetables and flowers. Surveillance for other agricultural commodities such as oil palm, rubber, cocoa, pepper and tobacco are conducted by their specific government statutory bodies.

3.1 Surveillance on rice for the period of 2013 – 2014

3.1.1 Update on infestation of Golden Apple Snail (*Pomacea* spp)

Golden apple snails were first detected in Malaysia in 1991. Since then, surveillance, containment, and eradication activities have been conducted by DOA Malaysia and various other government agencies involved in rice production. Various integrated pest management strategies involving the usage of biological, cultural and chemical control techniques have been implemented and extended to all rice farmers. In 2013, a total of 23,364 hectares of paddy field had been detected with the snails in Peninsular Malaysia. In 2014, the area of paddy fields detected with this snail has increased to 20,421 hectares. Although the infested areas detected were quite large, the damage caused on rice production was quite minimal and the pests were successfully controlled.

3.1.2 Update on weedy rice

Malaysia has started large scale planting of MR220-CL1 and MR220-CL2 varieties since 2013 to mitigate the problem of weedy rice. The control strategy proved to be successful in suppressing the infestation of weedy rice in Malaysia. In addition to that, the cultural practice of switching from direct seeding to transplanting has also contributed to the reduction of weedy rice infestation.

3.2 Surveillance on fruit commodities for the period of 2013 – 2014

3.2.1 Update on papaya dieback disease (*Erwinia papayae*)

The papaya dieback disease infestation was detected in 2007. Since then, eradication program has been initiated and at peak, a total of 879 hectares of papaya were infected with the disease in 2010 and were successfully eradicated. At present in 2013 and 2014, only 24.4 hectares were detected to be infested by the disease. In 2015, no new infestation was detected.

3.2.2 Update on banana bacterial wilt disease

Banana bacterial wilt disease was first detected in 2007 by Department of Agriculture (DOA) in Johor. For the period of 2013 to 2014, approximately 65% of 20,654 hectares of banana areas were infected by banana wilt disease. Destruction of infested plant has been implemented to prevent it from spreading into new areas. However, the control strategies are still being evaluated to come up with a better eradication program on this disease.

3.2.3 Update on red palm weevil – RPW (*Rhynchophorus ferrugineus* Olivier) infestation on coconut

RPW infestation was first detected in the state Terengganu during the coconut surveillance program in 2007. The status of infestation in 2013 to 2014 shows that only several states were infested with RPW namely Kelantan, Terengganu, Perlis and Pahang. Suppression control has been initiated using pheromones trapping, field sanitation and chemical control. Presently, trapping stations have shown that the number of insect trapped had been declining. This indicates that the integrated control measures are showing its effectiveness in reducing the infestation of RPW. The work will be continued especially on the mass trapping of RPW population.

3.2.4 Update on mango seed weevil (*Sternochetus mangiferae*)

Surveillance activities on the status of the mango seed weevil infestation were planned to be conducted bi-annually. In the year 2013 and 2014, 600 fruits were collected in each state and the result had shown that there is no *Sternochetus mangiferae* (seed weevil) were found in Malaysia. However, *Sternochetus frigidus* (Mango pulp weevil) were found in some of the samples collected throughout the country.

3.3 Surveillance on vegetables for the period of 2013 – 2014

Surveillance on the status of vegetable pests was conducted periodically at several planted area in Peninsular Malaysia including in areas designated as Permanent Food Production Park (TKPM) and National Blue Ocean Strategies (NBOS). Surveillance is also conducted by the farmers to determine the pest status for control management decision. DOA through its extension services train farmers to identify major vegetable pests and control action as and when as required. In addition, DOA developed and demonstrated the implementation of IPM on vegetables cultivation for farmers to emulate.

Through detection and monitoring surveillance, the data were obtained by visual inspection (identify the cause of problems that occur on the farm based on the symptoms and signs of insect pests and diseases) and using surveillance and control equipments and tools namely sticky trap, light trap etc.

For the period of 2013 to 2014, approximately 2% of 67,777 hectares of vegetable cultivated areas were infested with plant pests and diseases such as armyworm, thrips, whitefly, aphids, leaf miner, leaf hopper, downy mildew, Cercospora leaf spot, mosaic virus, Alternaria leaf spot and bacterial soft rot. However, there is no outbreak of vegetable pests during the period of 2013 and 2014.

3.4 General surveillance on other invasive species for the period of 2013 – 2014

3.4.1 Update on bagworms of oil palm (*Metisa plana*, *Pteroma pendula*, *Mahasena corbetti*)

In 2013 and 2014, approximately 8,000 hectares of oil palm plantation areas were infested with bagworm and could cause damage up to 40% within 2 years of infestation. IPM was used to mitigate the pest infestation by means of aerial spraying of *Bacillus thuringiensis* as biopesticide, which also contributes to the increase of bagworm parasitoid. In addition, the use of beneficial plants such as *Cassia cobanensis*, *Turnera* sp. and *Antigonon leptopus* has also contributed to the increase the population of bagworm

predator and parasitoid. These IPM measures have successfully suppressed the damage caused by the bagworm to be less than 10%.

3.4.2 Update on pests and diseases of rubber

The surveillance on rubber pests and diseases status was conducted biannually by the Malaysian Rubber Board (LGM). The latest report by LGM showed that the level of infestation of common pests of rubber such as *Cercospora* leafspot, white root and pink disease are still very low throughout rubber plantation in Malaysia. SALB is confirmed to be absent in Malaysia.

3.5 Update on surveillance of quarantine pest

3.5.1 Khapra beetle (*Trogoderma granarium*)

Periodical survey on all store-product premises conducted in 2013 and 2014 showed no record of Khapra beetle infestation in Peninsular Malaysia, Sabah and Sarawak.

3.5.2 Mexican itch grass (*Parthenium hysterophorus*)

The weed was first detected in Selangor, Malaysia in 2013 infesting an area of about 1 hectare. In the period 2013 and 2014, delimiting survey was conducted whereby 73 locations amounting to 41.23 hectares of area in Malaysia was found to be infested with this weed. It was gazetted as dangerous pest under the Plant Quarantine Act 1976 in 2014 that provides DOA Malaysia with the necessary authority to implement effective eradication programs and revision of import conditions for certain products coming from *Parthenium* infested countries.

3.6 Implementation of Integrated Pest Management (IPM)

As stated under the Malaysian Agro Food Policy 2010-2020 (DAN), IPM continues to be an important tool to control pests and diseases in order to achieve a better self sufficiency level (SSL) of domestic food crops supply such as rice, coconut, fruits and vegetables. During the period of 2013-2014, DOA Malaysia has promoted and implemented IPM in cultivation of all food crops including 6 specific IPM programs such as rice at Sungai Burong, temperate flowers and highlands vegetables at Cameron Highlands, coconut at Besut, Terengganu, starfruit in Negeri Sembilan and Harumanis mango in Perlis.

4 Pesticide management

4.1 Changes/improvements in national strategies, organization, legislation, regulations and registration since 2013.

a) Changes has been implemented includes:

National Strategies

- The Pesticides Board has approved label expansion for minor use crops without requirement to submit pesticide information and study. Label expansion based on crop group extrapolations (residue and efficacy) and implementation of Codex MRLs for minor-use crops.
- The Pesticides Board has banned 7 pesticides for import, manufacture, sale and use in the country. The pesticides are alachlor, azinphos-methyl, prothiophos, phenthoate, triazophos, profenofos, quinalphos. However, importation of these chemicals in small quantities for research and educational purposes may be permitted provided approval is obtained from the Pesticides Board. Refer *Annex I* and *Annex II* for updated banned/ restricted list.
- The phase-out process for paraquat has been initiated in 2014. The use has been restricted only for use in rubber, oil palm (under 2 years), hill paddy and pineapple stump.

Legislation & regulation and registration

- Pesticides registration requirements:
 - Toxicology data for technical grade material and finished product must be generated by the GLP Certified laboratory according to internationally accepted standards such as OECD Standards.
 - The product registration or license certificate in the manufacturing country must be certified by competent authority for new registration & re- registration of pesticide.
 - Revised Guidelines on Residue Data Requirements for Pesticide Registration (GP4/2012) has been implemented in 2013 and revised Guidelines on Product Chemistry Data Requirements for Pesticide Registration (GP1/2015) has been circulated to industries and will be implementing in January 2016 as part of efforts to harmonize pesticides data requirements in ASEAN countries. The revised guidelines were adopted from “The Guidance for Harmonizing Pesticides Regulatory Management in South East Asia”, FAO-TCP Project 2009-2011.
- Establishment of Pest Control Operator (PCO) Committee to facilitate the approval of PCO license.

b) Changes in the progress of amendments includes:

Legislation & regulation and registration

- The Pesticides Board currently is in the process of amending 1st Schedule of the Pesticides Act 1974. This amendment involved to include new pesticides including bio-pesticides
- The Pesticides Board is presently undertaking a major review of the Pesticide Act 1974 to make amendments to the Act in keeping with new developments and to improve pesticides control in the country.

- The Pesticides Board has completed a review on Pesticides (Advertisement) Regulations 1996 in line with the government initiative to create a more business friendly environment. This Regulation will be amended to implement a pesticides advertisement notification to replace the present approval system.
- Guidelines on Pesticides Registration, Labelling, Toxicology Data Requirements (GP2/93), Efficacy Data Requirements (GP3/93) and Pesticides (Importation for Educational and Research Purposes) Rules 1981 are also currently under review for amendments.
- A new online pesticide registration system (MyPesticide) was developed in an effort to streamline and provide a more efficient registration process. This online application serves as a convenience assistance program that is designed to make pesticide registration easier and more cost efficient. MyPesticides for new applications will be implemented in 2015.

5.2 National targets, efforts and progress with regard to pesticide risk reduction as well as phasing out highly hazardous pesticide.

The phase-out process for paraquat was initiated in 2014. Paraquat use has been restricted only for rubber, oil palm (under 2 years), hill paddy and removal of pineapple stumps. This chemical will be banned in 2020. Steps were taken to promote less toxic pesticides to replace paraquat and to facilitate the phase-out of process.

Pesticide users who intend to purchase with the purpose of using or storing the pesticides monocrotophos and methamidophos and paraquat must get approval from the Pesticides Board. The licensing officers of the Board would verify the application before issuing the permit. Conditions set includes the exclusion of pregnant women, workers under 16 years or workers who have been diagnosed with medical conditions from handling these 3 pesticides, maintenance of use records, storage, provision of PPEs, cleaning facilities and annual medical check-up.

5.3 Development and application status of biopesticides including botanical pesticides.

Several bio-pesticides have been registered under the Pesticide Act 1974. Bio-pesticides comprise 2.9% of all registered agricultural pesticides. These includes azadirachtin, B.thuringiensis, pyrethrins and white oil. The Pesticides Board currently in the process of amending 1st Schedule of the Pesticides Act 1974 to include more bio-pesticides including botanical pesticides. The simplified guideline for registration of bio-pesticides is in the final stage of drafting. Pesticides Board has joined ASEAN-GIZ Cooperation Project on ASEAN Biocontrol for Sustainable Agrifood System.

5.4 Status of Management of obsolete pesticides.

The Pesticide Board periodically disposes pesticides that have been seized by enforcement officers of which the cases have been settled in court. Disposal is carried out as per Environmental Quality Act 1974 (Hazardous Waste) and at licensed incinerator premises.

5.5 Status of Ratification and Implementation of International Conventions and treaties on Pesticide Management

a) Rotterdam Convention

Malaysia ratified Rotterdam Convention in 24 February 2004. Pesticides Board is the Designated National Authority for Pesticide under Rotterdam Convention. Implementation of RC includes:

- Notification of final regulatory action to ban or severely restrict chemical
- Import response of Annex III chemicals of the Rotterdam Convention

- Acknowledging export notification
- Participation in Rotterdam Convention meetings

Malaysia is in the process of preparing its National Action Plan (NAP) for implementation of the Rotterdam Convention under SAICM Quick Start Program Trust Fund.

Action taken since 2013 for PIC Pesticides listed in Annex III of the Rotterdam Convention:

- Never been registered : azinphos-methyl (2014)
- De-registered : alachlor (2014)

b) Minamata Convention

Malaysia signed on 24 September 2014. Malaysia has banned mercury compounds for pesticide use since 1994. The importation of mercury compounds in small quantities maybe permitted for research and education purposes provided approval is obtain from the Pesticide Board.

Updated List of Banned/Prohibited Pesticides- Annex-I

Updated List of Restricted Pesticides- Annex-II

5 Important Contact Addresses (Last updated September 2015)

(i) WTO-SPS National Contact Point

Under Secretary
International Division
Ministry of Agriculture and Agro-Based Industry
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Tel: (+603) 8870 1210/ 1214, Fax: (+603) 8888 6909
Email: wanz@moa.gov.my/ rudy@moa.gov.my
Website: <http://www.moa.gov.my/>

(ii) National Plant Protection Organization (NPPO) Contact Point

Director
Plant Biosecurity Division
Department of Agriculture
Level 1-3, Wisma Tani Kuala Lumpur
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Tel: (+603) 2030 1400/ 1402, Fax: (+603) 2691 3530
Email: faridah@doa.gov.my/ mycontactpoint@doa.gov.my
Website: <http://www.doa.gov.my>

(iii) Rotterdam Convention (PIC) DNA Pesticides (P)

Director (*Secretary of Pesticides Board*)
Pesticides Control Division
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Jalan Sultan Salahuddin
50632 Kuala Lumpur
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Email: halimi@doa.gov.my

(iv) Rotterdam Convention (PIC) DNA Industrial Chemical (I)

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(v) Stockholm Convention (POP) National Focal Point (S)

Under Secretary
Environmental Management and Climate Change Division
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(vi) Basel Convention Competent Authority (CA) and Focal Point

Director General
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Ministry of Natural Resources and Environment
Level 3-7. Block C4
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ANNEX I

ACTIVE INGREDIENTS REGISTRATIONS HAVE BEEN BANNED

No.	Pesticides	Usage	Status	Action Taken (Year)
1	Binapacryl	Fungicide / Acaricide	Banned	
2	Butachlor	Herbicide	Banned	
3	Dicofol	Miticide	Banned	
4	Methomyl	Insecticide	Banned	
5	Dinoseb	Herbicide	Banned	1993
6	HCH (mixed isomers)	Insecticide	Banned	
7	Aldrin	Insecticide	Banned	1994
8	Chlordimeform	Insecticide / Acaricide	Banned	1994
9	Dieldrin	Insecticide	Banned	1994
10	Ethylene dibromide	Herbicide / Fumigant	Banned	1994
11	Heptachlor	Insecticide	Banned	1994
12	Mercury compounds	Insecticide	Banned	1994
13	Chlordane	Insecticide	Banned	1996
14	Captafol	Fungicide	Banned	1997
15	Chlorobenzilate	Insecticide / Acaricide	Banned	Never been registered
16	2,4,5-T	Herbicide	Banned	1998
17	Folpet	Fungicide	Banned	1998
18	DDT	Insecticide	Banned	1999
19	Sodium pentachlorophenate	Preservative	Banned	2000
20	DNOC	Insecticide / Herbicide	Banned	Never been registered
21	Lindane (gamma-HCH)	Insecticide	Banned	2001
22	Fluoroacetamide	Rodenticide	Banned	Never been registered
23	Hexachlorobenzene	Insecticide	Banned	Never been registered
24	Parathion	Insecticide	Banned	Never been registered
25	Calcium cyanide	Rodenticide	Banned	2002
26	Toxaphene	Insecticide	Banned	Never been registered

27	Phosphamidon	Insecticide	Banned	Never been registered
28	Parathion-methyl	Insecticide	Banned	Never been registered
29	Endosulfan	Insecticide / Molluscide	Banned	2005
30	Mixture of benomyl, carbofuran and thiram	Fungicide	Banned	2008
31	Tributyltin Compounds	Anti-fouling agent/wood preservative	Banned	2011
32	Aldicarb	Insecticide	Banned	Never been registered
33	Alachlor	Herbicide	Banned	2014
34	Azinphos-methyl	Insecticide	Banned	Never been registered
35	Prothiophos	Insecticide	Banned	2014
36	Phenthoate	Insecticide	Banned	2014
37	Triazophos	Insecticide	Banned	2014
38	Profenofos	Insecticide	Banned	2014
39	Quinalphos	Insecticide	Banned	2014

*ANNEX II***ACTIVE INGREDIENTS REGISTRATIONS HAVE BEEN RESTRICTED**

	active ingredients	Usage	Status	Action Taken (Year)
1	Monocrotophos	Insecticide	Restricted	1986
2	Ethylene dichloride	Fumigant	Banned for agricultural used	2001
3	Ethylene oxide	Fumigant	Banned for agricultural used	2001
4	Methamidophos	Insecticide	Restricted	2004
5	Acephate	Insecticide	Restricted	2005
6	Paraquat	Herbicide	Phase-out/ Banned	Phasing-out started in 2014 and total ban in 2020