

China

I. General information Last updated: December 2014

Overall executive summary

During the period of 2013-2014, 8 National standards and 3 Industry standards of agricultural pests, 18 Industry standards of forestry pests were issued effectively. *Chalara fraxinea* T. Kowalski was added in the quarantine pests list of entry based on pest risk analysis.

In 2013, 4,883 pests were intercepted for 610,746 times annually, including 53,757 times for 319 quarantine pests and 556,989 times for 4,564 non-quarantine pests. In 2014, 5,460 pests were intercepted for 804,400 times annually, including 74,133 times for 349 quarantine pests and 730,267 times for 5,111 non-quarantine pests.

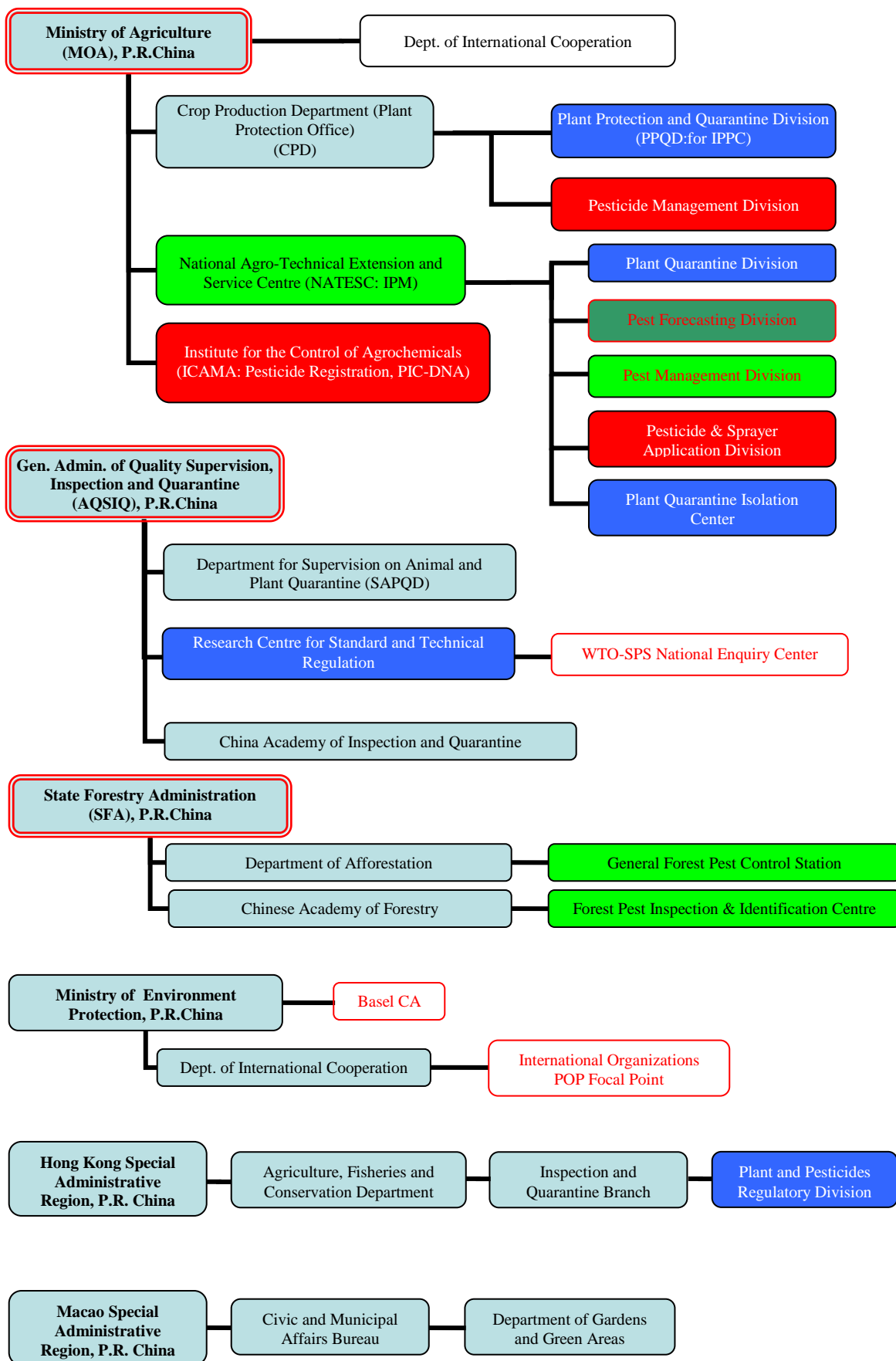
In 2013 and 2014 great efforts were taken to control *Cydia pomonella* (L.) for establishing and maintaining the Pest Free Areas (PFA). Since *Leptinotarsa decemlineata* (Say) invaded Jilin and Heilongjiang province from Russia in 2013 and 2014 respectively, the emergency control activities were acted. And strict methods, like destroy infected tree and spray pesticide for killing *Diaphorina citri* (Kuwayama), were taken for controlling Huanglongbing in Guangdong and Jiangxi province to protect citrus industry.

Outbreaks of some pests on major crops occurred in responses to significant changes in cropping systems, climate conditions, and crop varieties during the period of 2013-2014, among them, wheat scab (*Gibberella zeae*), potato late blight, army worm [*Mythimna separate* (Walker)], rice brown plant hopper (*Nilaparavata lugans*), rice leaf folder (*Cnaphalocrocis medinalis*), rice blast (*Magnaporthe grisea*) and corn leaf diseases were most severe and destructive ones. Regional actions were coordinated by the National Agro-technical Extension and Service Center (NATESC), Ministry of Agriculture for controlling migratory pests- locusts, meadow moth, army worm, rice brown hopper, rice leaf roller and regionally epidemical diseases-wheat scab, wheat stripe rust, rice blast and rice sheath blight. The annual control acreages of major crop pests reached 559 million hectares in 2013 and 563 million hectares in 2014 respectively.

During the period of 2013 to 2014, advice of General Office of the State Council to Reinforce the Biological Control of Forestry Pest Further was formulated by the State Council, which was the first time on deploying prophylaxis, treatment and quarantine forestry pest work on national level. Two newly invaded forestry pest, *Sirex noctilio* Fabricius and *Opisina arenosella* Walker were controlled effectively by using eradication measures. The management and elimination of pine wilt disease (*Bursaphelenchus xylophilus* (Steiner et Buhner) Nickle) and fall webworm (*Hyphantria cunea* (Drury)) were strengthened, which caused the epidemic area declined continuously.

In order to protect human health and environmental safety, pesticide management was strengthened and pesticide registration system was improved in 2013 and 2014. The Regulation on Pesticide Administration and its supporting polices such as the Pesticide Registration Data Requirements, the Measures for the Administration of Pesticide Product Labels and Instructions, the Measures for the Administration of Pesticide Test Institutions were being revised.

Plant protection organisation chart



Color Code:



Important contact addresses

Responsible ministry

Ministry of Agriculture(MOA)

Mr Dongyu Qu, Vice Minister

No.11 Nongzhanguan Nanli, Beijing, P. R. China, 100125

Fax: 86-10-6500 3621

Website: www.agri.gov.cn

Address for nominations

International Cooperation Department

Mr Sixi Qu, Deputy Director General

Ministry of Agriculture

No.11 Nongzhanguan Nanli, Beijing, P. R. China, 100125

Fax: 86-10-6500 4635

Email: qusixi@agri.gov.cn

Website: www.agri.gov.cn

Operational offices:

Plant protection and plant quarantine

Plant Protection & Quarantine Division

Mr Jianwei Li,, Division Director

Crop Production Department, MOA

No.11 Nongzhanguan Nanli, Beijing, P. R. China, 100125

Fax: 86-10-5919 2890

Email: ippc@agri.gov.cn

Websites: www.agri.gov.cn

Forestry plant quarantine

Pests Management Division

Mr Yuxiang Zhao, Division Director

Forestation Department, State Forestry Administration (SFA)

Fax: 86-10-8423 8069

Email: zlsfzc@126.com

Website: www.forestry.gov.cn

Import/export plant quarantine

Plant Quarantine Division

Mr Hao Wu, Division Director

Department for Supervision on Animal and Plant Quarantine

General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)

No.9 Madian Donglu, Haidian District, Beijing, P. R. China 100088

Fax: 86-20-8226 0158

Email: Wuh@aqsiq.gov.cn

Website: www.aqsiq.gov.cn

Surveillance, pest outbreaks and invasive species management

Mr Shengdou Chen, Director General

National Agro-Tech Extension and Service Center (NATESC)

Ministry of Agriculture
No.20, Maizidian Street, Chaoyang District, Beijing, P.R. China 100125
Fax: 86-10-5919 4517
Email: chensd@agri.gov.cn, yangpy@agri.gov.cn, wulifeng@agri.gov.cn
Website: www.natesc.gov.cn

Pesticide registration

Institute for the Control of Agrochemicals (ICAMA)
Ministry of Agriculture
Mr Pengfei Sui, Director General
No.22 Maizidian Street, Chaoyang District, Beijing, P. R. China 100125
Fax: 86-10-59194047
Email: suipengfei@agri.gov.cn
Website: www.chinapesticide.gov.cn

Official international contact points

National Plant Protection Organization (NPPO) Contact Point (for IPPC/APPPC)

Crop Production Department, Ministry of Agriculture
Mr Youquan Chen, Deputy Director General
No 11, Nongzhanguan Nanli
Beijing, P.R. China 100125
Fax: 86-10-5919 3376
Email: ippc@agri.gov.cn
Website: www.agri.gov.cn

WTO SPS contact point

Research Centre for International Inspection & Quarantine Technical Regulation &
Standard of the People's Republic of China
WTO-SPS Enquiry Point
General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)
No 18, Xibahe Dongli, Chaoyang District, Beijing, P.R.China 100028
Fax: 86-10-8460 3815
Email: sps@aqsiq.gov.cn

Rotterdam Convention (PIC) DNA Pesticides (P)

Ms. WANG Xiaojun
Deputy Director
International Cooperation Division,
Institute for the Control of Agrochemicals,
Ministry of Agriculture(ICAMA), P. R. China.
Add: No.22, Maizidian Street, Chaoyang District, Beijing, 100125
Tel: +86 10 59194342
Fax: +86 10 65937006
E-mail: wangxiaojun@agri.gov.cn
wangxj1107@hotmail.com

Selected country statistics

Last updated: December 2014

Agricultural Population	619 million	Agricultural Land	135.2 million ha
GDP RMB ¥ 63646 billion	Agric. GDP: 16%	GNI: RMB ¥ 63436 billion	Undernourishment: —
Main crops grown: Rice, Wheat, Maize, Cotton			

GDP= Gross Domestic Product; GNI = Gross National Income; Undernourishment = Population below minimum energy requirement
Detailed information please refer to the publication of National Bureau of China. Website: <http://www.stats.gov.cn/>

II. Plant quarantine

Last updated: December 2014

Executive summary

During 2013-2014, Mr. Youquan Chen was appointed as Deputy Director of Crop Production Department, MOA, and as the contact person of National Plant Protection Organization (NPPO) Contact Point. Also, Mr. Jianwei Li was appointed as Director of Plant Protection & Quarantine Division, CPD, MOA, Mr Hao Wu was appointed as Director of Plant Quarantine Division, Department of Import/export plant quarantine, AQSIQ and Mr. Yuxiang Zhao was appointed as Director of Pests Management Division, SFA.

During 2013-2014, 8 National standards and 3 Industry standards of agricultural pests, 18 Industry standards of forestry pests were issued effectively. *Chalara fraxinea* T. Kowalski was added in the quarantine pests list of entry based on pest risk analysis.

In 2013, 4,883 pests were intercepted for 610,746 times annually, including 53,757 times for 319 quarantine pests and 556,989 times for 4,564 non-quarantine pests. On year-on-year basis, species of pests increased by 12.75% , the interception species-time increased by 5.42%, species of quarantine pests increased by 12.32% , the interception species-time increased by 5.62%, species of non-quarantine pests increased by 12.77% and the interception species-time increased by 5.40%.

In 2014, 5,460 pests were intercepted for 804,400 times annually, including 74,133 times for 349 quarantine pests and 730,267 times for 5,111 non-quarantine pests. On year-on-year basis, species of pests increased by 11.82%, the interception species-time increased by 31.71%, species of quarantine pests increased by 9.40%, the interception species-time increased by 37.9%, species of non-quarantine pests increased by 11.99% and the interception species-time increased by 31.11%.

According to ISPM 6, a national monitoring system for quarantine pest was established. 3000 monitoring sites, which normally located at high risk place like ports and marketplaces, were taken regulative surveillance. Once a new pest invaded or an important pest infested seriously, the report should be sent to high level immediately. The data of the most important pests was reported monthly and annually to follow up the pest trends. Beside this, a special survey of *Opisina arenosella* Walker was conducted in country widely.in 2013 to clarify the pest present.

According to ISPM 14, integrated measures were used during crop produce and process to reduce pest risks. The main measures included crop rotate, using resistant variety, protecting natural enemy, choosing suitable pesticide and spraying on time. A lot of crop produce base were established and certification.

To enhance the understanding and ability, a regional workshop on ISPM 15 was held in Beijing in 2014. More than 40 delegates from Asia and Northern-American participated to discuss how important to conduct ISPM 15 more effectively and how to help regional countries to enhance ability.

During the period of 2013 to 2014, Advice of General Office of the State Council to Reinforce the Biological Control of Forestry Pest Further was formulated by the State Council, which was the first time on deploying prophylaxis, treatment and quarantine forestry pest work on national level. State Forestry Administration formulated and issued a series of normative documents to arrange forestry pest management. Two newly invaded forestry pest, *Sirex noctilio* Fabricius and *Opisina arenosella* Walker were controlled effectively by using eradication measures. The management and elimination of Pine wilt disease (*Bursaphelenchus xylophilus* (Steiner et Buhrer) Nickle) and fall webworm (*Hyphantria cunea* (Drury)) were strengthened, which caused the epidemic area declined continuously.

List of key legislation/regulations/rules

- 1991 Law of the PRC on the entry and exit animal and plant quarantine
- 1992 Regulation on Plant Quarantine
- 1994 Detailed Rules for the Implementation of the Regulation on Plant Quarantine (the part on Forestry)
- 1995 Rules for the implementation of the regulation on plant quarantine
- 1996 Regulation for the implementation of the entry and exit animal and plant quarantine
- 2001 Administrative Rules for the Risk Alerting and Fast Response of Entry-Exit Inspection and Quarantine
- 2003 Quarantine and Regulatory Requirements of the entry tree seeds, seedlings and other propagating materials
- 2007 Administrative Rules for the Risk Analysis of Entry Plants and Plant Products
- 2009 Phytosanitary Requirements for the Import of Host Plant of *Phytophthora ramorum* from Regulated Areas
- 2010 The Phytosanitary Requirements for Importing Yaccatree
- 2010 The procedures and management of report and promulgate of quarantine pest and new pest.
- 2011 The Phytosanitary Requirements for Importing Blueberry from Chile
- 2012 The Phytosanitary Requirements for Importing maize from Laos
- 2013 The Phytosanitary Requirements for importing Tapioca Chips Imported from Ghana
- 2013 The Phytosanitary Requirements for importing Cherries Imported from Tajikistan
- 2013 The Phytosanitary Requirements for importing Finland Oats to China
- 2013 The Phytosanitary Requirements for importing Grain and Oilseed Imported from Canada
- 2013 The Phytosanitary Requirements for importing Barley Imported from Mongolia
- 2013 Notification on Regulation of Introduction Forest Tree Seed and Examination, Approval and Supervision on Quarantine of Nursery-grown Plant
- 2014 The Phytosanitary Requirements for importing Barley Imported from Ukraine
- 2014 The Phytosanitary Requirements for importing Soybean Imported from Ukraine
- 2014 The Phytosanitary Requirements for importing Corn Imported from Brazil
- 2014 The Phytosanitary Requirements for importing Barley Imported from Uruguay
- 2014 The Phytosanitary Requirements for importing Potato and Minituber Imported from Netherlands

- 2014 The Phytosanitary Requirements for importing Fresh Avocado Imported from Chile
- 2014 The Phytosanitary Requirements for importing Fresh Pear Imported from Netherlands
- 2014 The Phytosanitary Requirements for importing Sorghum Imported from Argentina
- 2014 The Phytosanitary Requirements for importing Fresh Blackberry and Raspberry Imported from Mexico
- 2014 Regulation of Epidemic and Endemic Area and Disease-infected Wood of Pine Wilt Disease

Policies regarding plant quarantine	Yes	No	Don't know
Does phytosanitary legislation cover domestic quarantine?	<input checked="" type="checkbox"/>		
Does phytosanitary legislation cover import quarantine?	<input checked="" type="checkbox"/>		
Does phytosanitary legislation cover export quarantine?	<input checked="" type="checkbox"/>		
Does phytosanitary legislation cover living modified organisms?		<input checked="" type="checkbox"/>	
Is plant quarantine a separate organization from animal quarantine?	<input checked="" type="checkbox"/>		
Other policy initiatives (under review/progress)			
Web source for further information: http://www.agri.gov.cn ; http://www.aqsiq.gov.cn ; www.forestry.gov.cn			

Organization of plant quarantine functions	Responsible organizational unit* (Ministry/Department/Unit)
Pest risk analysis (PRA)	MOA/CPD/NATESC AQSIQ/SAPQD SFA/FD/PMD
National standards development	MOA/CPD/NATESC AQSIQ/SAPQD SFA/FD/PMD
International notifications	MOA/CPD AQSIQ/SAPQD
<i>Import:</i>	
Import permits	AQSIQ/SAPQD MOA/CPD/NATESC SFA/FD
Import inspections	AQSIQ/SAPQD
Emergency action	MOA/CPD/NATESC SFA/FD/PMD AQSIQ/SAPQD
<i>Export:</i>	
Phytosanitary certificates	AQSIQ/SAPQD
Treatment of commodities	AQSIQ/SAPQD

Infrastructure	Year: 2014
Number of plant quarantine officers authorized to inspect/certify	40,000
Total qualified personnel for plant pest risk analysis	200

Number of quarantine offices	5578
entry points (sea/air/land/mail = total)	598
post-entry plant quarantine containment facilities	29
other offices	4949
Number of quarantine service diagnosis laboratories	69
In-country recognized pest diagnostics capabilities (incl. universities, etc.)	450
Number of laboratories for insect/mite (arthropod) samples	many
Number of laboratories for bacteria samples	many
Number of laboratories for virus samples	many
Number of laboratories for fungus samples	many
Number of laboratories for mycoplasma samples	many
Number of laboratories for nematode samples	many
Number of laboratories for plant/weed samples	many
Number of laboratories for other pests (snail, slug, rodents, etc.)	many

Pest-free areas according to ISPM 10	Responsible organizational unit* (Ministry/Department/Unit)
Overall management	MOA/CPD/NATESC
- surveillance	MOA/NATESC/Plant Quarantine Division
- management	MOA/CPD/NATESC
- certification	MOA/CPD/NATESC
List of target pest species and crops ISPM 4	Number of sites in 2014
Codling moth on apples	9 provinces
Fruit fly on citrus	1 provinces
List of target pest species and crops ISPM 10	Number of sites in 2014

Export Volume**year: 2014**

Product	Exporting Country	Export Volume
Wood and wooden products	USA, EU, Japan, ASEAN, South Korea, Canada, etc.	308,771t
Fruits	ASEAN, Japan, EU, USA, Russia and South Korea	207,847t
Tobacco	ASEAN, Hong Kong, EU, United Arab Emirates, Egypt and North Korea	19,950t

Import Volume**year: 2014**

Product	Import Country	Import Volume
Soybean	Brazil, USA, Argentina, Uruguay and Canada	7,139,910t
Cereal grains	USA, ASEAN, Australia, EU, Canada and Ukraine	2,163,552t
Fruits	ASEAN, Chile, USA, Peru, Ecuador and South Africa	387,518t

Cooperation projects			
Title (Purpose/target)	Donor	Amount	Years (start-end)
Title of government follow-up programmes		Amount	Years (start-end)

Key operation indicators

Institutional functions	Year: 2014
Number of import permits issued	21,000
Number of import inspections carried out	
Number of emergency phytosanitary treatments taken on imports	
Number notifications of non-compliance	
Number of conventional phytosanitary certificates issued	400,000
Number of electronic phytosanitary certificates issued	0

Quarantine pests intercepted in 2014

Pest category	Species of Quarantine pest	Number of Quarantine pest
Insect	204	40091
Weeds	78	31914
Fungus	21	722
Miscellaneous	6	350
Nematode	25	641
Bacteria	9	87
Viruses	6	328
Total	349	74133

List of regulated pests	Year of last update	Insects	Pathogens	Plants
Number of quarantine pests	2014	155	244	42
Number of regulated non-quarantine pests				
Number of regulated import articles				
Website for the above information: www.agri.gov.cn www.aqsiq.gov.cn				

Pest risk analysis (PRA)	Insects	Pathogens	Plants
Number of PRA completed and documented (according to ISPM)	20	15	5
Web source for further information: www.agri.gov.cn http://www.aqsiq.gov.cn			

Progress and constraints

Main progress in recent years (legislation, policies, infrastructure, investments, training, etc.)
Updated the quarantine pest list of entry(2007). Updated the domestic quarantine pest list(2008). Updated the domestic quarantine pest list(2009). Updated the domestic quarantine pest list(2010).
Main constraints (personnel, infrastructure, administrative, operational, training, etc.)

Implementation of ISPMs	Relevance			Implementation				Planned/actual year of full implementation
	low	medium	high	none	partial	most	full	
International measures								
ISPM 01 Principles of plant quarantine as related to international trade			X				X	2006
ISPM 02 Guidelines for pest risk analysis			X				X	2007
ISPM 03 Code of conduct for the import and release of exotic biological control agents		X				X		2005
ISPM 04 Requirements for the establishment of pest free areas		X				X		1995
ISPM 05 Glossary of phytosanitary terms			X				X	2010
ISPM 06 Guidelines for surveillance			X				X	1997
ISPM 07 Export certification system			X				X	1997
ISPM 08 Determination of pest status in an area			X				X	1998
ISPM 09 Guidelines for pest eradication programmes			X				X	1998
ISPM 10 Requirements for the establishment of pest free places of production and pest free production sites			X				X	1999
ISPM 11 Pest risk analysis for quarantine pests			X				X	2004
ISPM 12 Guidelines for phytosanitary certificates			X				X	2001
ISPM 13 Guidelines for the notification of noncompliance and emergency action			X				X	2001
ISPM 14 The use of integrated measures in a systems approach for pest risk management			X				X	2002
ISPM 15 Guidelines for regulating wood packaging material in international trade			X				X	2002
ISPM 16 Regulated non-quarantine pests: concept and application			X		X			2002
ISPM 17 Pest reporting			X				X	2002
ISPM 18 Guidelines for the use of irradiation as a phytosanitary measure		X			X			2003
ISPM 19 Guidelines on lists of regulated pests			X				X	2003
ISPM 20 Guidelines for a phytosanitary import regulatory system			X				X	2004
ISPM 21 Pest risk analysis for regulated non-quarantine pests			X			X		2004
ISPM 22 Requirements for the establishment of areas of low pest prevalence		X			X			2005
ISPM 23 Guidelines for inspection			X				X	2005
ISPM 24 Guidelines for the determination and recognition of equivalence of phytosanitary measures			X				X	2005
ISPM 25 Consignments in transit			X				X	2006
ISPM 26 Establishment of pest free areas for fruit flies (Tephritidae)			X			X		2006
ISPM 27 Diagnostic protocols for regulated pests			X			X		2006
ISPM 28 Phytosanitary treatments for regulated pests			X				X	2007
ISPM 29 Recognition of pest free areas and areas of low pest prevalence			X			X		2007
ISPM 30 Establishment of areas of low pest prevalence for fruit flies (tephritidae)			X			X		2008

ISPM 31 Methodologies for sampling of consignments			X				X	2008
ISPM 32 Categorization of commodities according to their pest risk			X			X		2009
ISPM 33 Pest free potato (<i>Solanum</i> spp.) micropropagative material and minitubers for international trade			X		X			2010
ISPM 34 Design and operation of post-entry quarantine stations for plants			X		X			2010
ISPM 35 Systems approach for pest risk management of fruit flies (<i>Tephritidae</i>)			X			X		2012
ISPM 36 Integrated measures for plants for planting			X			X		2012
Comments/constraints:								

III. Surveillance, pest outbreaks and invasive species management

Last updated: December 2014

Executive summary

During the period of 2013-2014, the quarantine pest surveillance were conducted regularly, especially in high risk areas such as coastal areas, border regions, airports, sea ports, and distribution centers of imported agricultural products. The national investigation and monitoring on forest major pests was conducted according to the general requirements “timely monitoring, accurate forecast, active warning”.

The forecasting methods for main crop pests had been sorted and unified. The pest forecasting and preventing technology were broadcasted through internet, television, broadcast, newsletter etc.. For invasive species, a wide survey for *Leptinotarsa decemlineata* (Say) was taken along the broad with Russia and a special survey of *Opisina arenosella* Walker was conducted in country widely in 2013 to clarify the pest present. For migratory pest, like locust and rice plant hopper, a national system was established to monitor and forecast the trend. The data was transferred through China Crop Pests Management Information System.

Because of effective organization and large-scale training for farmers, the suitable technologies were used to control pest. As a result, serious harmful pests, such as locust, migratory rice pests, rice borer, rice blast, wheat stripe rust, army worm and meadow moth, etc. were effectively suppressed. The annual control acreages of major crop pests reached 559 million hectares in 2013 and 563million hectares in 2014 respectively. The annual control acreages of forest pest were 7.874 million hectare in 2014. The invade potato beetle were rooted out immediately. The yield lost by migratory pests was unobvious.

List of key legislation/regulations/rules for surveillance, pest reporting and emergency actions

(year, title and possibly short description)

2010

The procedures and management of report and promulgate of quarantine pest and new pest

Web source for further information:

www.natesc.org.cn
www.cropipm.com

Policies regarding invasive/migratory species management	Yes	No	Don't know
National strategy to control serious field pest outbreaks?	x		
National strategy to control migratory or periodically occurring pests?	x		
National strategy to eradicate serious newly invaded exotic pests?	x		

Other policies: (e.g. subsidies, etc.) In 2013-2014, the amount of \$ 1,100 million RMB Yuan were subsidized from national government for controlling migratory and grain pests
Web source for further information: www.agri.gov.cn

Organization of functions related to surveillance pest outbreaks and invasive species management	Responsible organizational unit* (Ministry/Department/Unit)
<i>Field/storage pest outbreaks</i>	(e. g. BPH, boll worm, etc.)
Response strategy/plans	MOA/CPD/PPQD, NATESC, SFA MOA/NATESC + Provincial Plant Protection Stations
Surveillance	MOA/NATESC/ Pest Forecast Division, SFA
Control	MOA/NATESC/ Pest Management Division, SFA
<i>Migratory pest outbreaks</i>	(e.g. locusts, birds, armyworm)
Response strategy/plans	MOA/CPD/PPQD, NATESC, SFA
Surveillance	MOA/NATESC/Pest Forecast Division, SFA
Control	MOA/NATESC/Pest Management Division, SFA
<i>New exotic pest eradication</i>	(e.g. coconut beetle)
Response strategy/plans	MOA/CPD/PPQD, NATESC, SFA
Surveillance	MOA/NATESC/Plant Quarantine Division, SFA
Control/eradication	MOA/NATESC/Plant Quarantine Division, SFA
Reporting to bilateral or international organizations	MOA/CPD/PPQD, AQSIQ/SAPQD/PQD

Infrastructure	Year: 2013	Year: 2014
Number of designated staff for surveillance of field pests of national importance	26,900	28,100
Number of designated staff for surveillance of migratory and periodically occurring pests	26,900	28,100
Number of designated staff for surveillance of invasive species	8,300	7,900
Number of designated staff for control of field pests of national importance	21,400	22,100
Number of designated staff for control of migratory and periodically occurring pests	21,400	22,100
Number of designated staff for eradication of invasive species	8,300	7,900

Key situation and operation indicators

(Outbreaks and invasions in the past 2 years)

New exotic species found established in the country	Insects	Pathogens	Weeds
Total number for 2013-2014[most recent]	0	0	1

Total number since 2008 [year before]	1	9	3
Total number on record:	1	9	4

Eradication or internal quarantine actions taken against economically important species			
Name of species			
Year of first discovery			
Passway			
Location of first discovery			
Area affected [ha]			
Area treated [ha]			
Control method			
Expenditures			

Pest outbreak actions	Outbreak 1		Outbreak 2		Outbreak 3		Outbreak 4	
Name of species	BPH		WBPH		Rice Leaf Folder		Army worm	
Year of outbreak	2014	2013	2014	2013	2014	2013	2014	2013
Area affected (million ha)	11.5	14.0	10.0	10.5	15.0	16.9	5.52	7.8
Estimated damage (million tons)	0.43	0.58	0.37	0.51	0.52	0.54	0.23	0.38
Area treated by government [million ha]	2.2	0.3	0.5	NA	NA	NA	2.1	NA
Expenditures by government [million \$]	16	3.4	4	NA	NA	NA	6.4	NA
Control method	Pesticides		Pesticides		Pesticides		Pesticides	
More information								

Progress and constraints

Main progress in recent years (legislation, policies, infrastructure, investments, training, etc.)

- Both the national & local governments increased financial subsidizes on the management of major crop pests during 2013 and 2014.
- National crop protection project funded the construction of over 1000 plant protection stations at county level.

Main constraints (personnel, infrastructure, administrative, operational, training, etc.)

- Most plant protection stations at grass roots have limited operational funding resources.
- Plant protection staff at county level or below needed professional training.

IV. Pest management

Last updated: December 2014

Executive summary

During the period of 2013-2014, outbreaks of some pests on major crops occurred in responses to significant changes in cropping systems, climate conditions, and crop varieties. Among them, wheat scab (*Gibberrella zae*), potato late blight, army worm [*Mythimna separate* (Walker)], rice brown plant hopper (*Nilaparavata lugans*), rice leaf folder (*Cnaphalocrocis medinalis*), rice blast (*Pyricularia oryzae* Cav.) were the most severe and destructive.

Wheat scab (*Gibberrella zae*) epidemic disease continuously occurred 4.2 million hectares in 2013 and 2014 respectively, as a serious threat to Yangze, Huai and Huang River valley wheat cultivation. The 2nd-generation larvae of army worm [*Mythimna separate* (Walker)] was outbreak in 2013 in Huang-Huai-Hai region, which occurred 5.1 million hectares. The outbreaks of rice migration pest have been occurring. In the case of BPH (*Nilaparavata lugans*), the infested area were 14.0 million hectares in 2013 and 11.5 million hectares in 2015 respectively. The total area infested by rice leaf folder (*Cnaphalocrocis medinalis*) amounted to 16.9 million hectares in 2013 and 15.0 million hectares in 2014 respectively.

Regional actions were coordinated by the National Agro-technical Extension and Service Center for controlling migratory pests- locusts, meadow moth, army worm, rice brown hopper, rice leaf roller and regionally epidemical diseases- wheat scab, wheat stripe rust, rice blast and rice sheath blight, etc. The annual control acreages of major crop pests reached 559 million hectares in 2013 and 563 million hectares in 2014 respectively.

National IPM programs coordinated by NATESC have been supporting the implementation of key IPM technologies in major crops and major pests. Biological and ecological control measures such as using microorganisms and reclaiming locust habitats were extensively promoted in recent years.

The IPM technologies on rice were well developed and widely applied in China. Seed treatments with fungicides and insecticide were commonly used by farmers to prevent the infestations of rice seedling diseases and insects. Wheat IPM strategies focused on prevention and ecological approaches. In the regions where the pathogens of wheat stripe rust can over-winter and over-summer, the percentage of seed coating or treatment with fungicides was increased to over 96 % in 2014.

In corn, biological technologies such as the use of *Beauveria bassiana* for killing over-winter larvae of corn borer, artificial release of *Trichogramma spp* in fields have been extended to above 4 million hectares since 2009.

In cotton, the transgenic Bt cotton has been continually applied over 3.37 million hectares in China.

List of key legislation/regulations/rules for pest management*(year, title and possibly short description)***Web source for further information:**www.agri.gov.cnwww.cropipm.com

Policies regarding pest management	Yes	No	Don't know
Do you have policies encouraging organic or low-pesticide use production	x		
Is IPM specifically mentioned in laws or policy documents?	x		
Do you have official Good Agricultural Practice (GAP) or any other relevant food safety (ecofood, etc.) standards for pest management?	x		
Is pest management extension separate from general extension?		x	
Other policies: (subsidies, production inputs, etc.)			
Web source for further information: http://www.moa.gov.cn			

Organization of pest management function	Responsible organizational unit* (Ministry/Department/Unit)
Policy development	MOA/CPD/PPQD, NATESC, SFA
Pest management research	MOA/NATESC, SFA
Control recommendations	MOA/NATESC, SFA
Pest management extension	MOA/NATESC, Plant protection station at county, prefecture and provincial levels. SFA
IPM training	MOA/NATESC, Plant protection station at county, prefecture and provincial levels. SFA
GAP training	Plant protection station at county, prefecture and provincial levels.

Infrastructure	Year: 2014
Number of technical officers for pest management	26,887
Number of central, regional, provincial or state offices	5,000
Number of district and village level field offices	9,187
Number of field/extension agents for pest management advice	12,300
Number of field/extension agents trained in IPM-FFS facilitation	1,200
Number of government biocontrol production/distribution facilities	NA
Number of government biopesticide production/distribution facilities	NA
Number of general extension staff involved in pest management	20,824
Number of designated plant protection technical officers for extension	20,824

Key situation and operation indicators

Pest management	Yes	No	Don't know
Does the country have a National IPM program? <i>If yes, give Name and Address of IPM Programme:</i> NATESC, MOA	<input checked="" type="checkbox"/>		
Does the country have specific IPM extension programs? <i>If yes, in which crops?:</i> Rice, Corn, Vegetables and Fruits	<input checked="" type="checkbox"/>		
Does the country have specific IPM research programs? <i>If yes, in which crops?:</i>		<input checked="" type="checkbox"/>	
Does the country have specific GAP extension programs? <i>If yes, in which crops?:</i> Apple	<input checked="" type="checkbox"/>		
Does the country have specific GAP research programs? <i>If yes, in which crops?:</i>		<input checked="" type="checkbox"/>	

Market shares (estimated value, volume or area under control)	Year: 2014
Size of chemical pest control market	450. M ha
Size of bio-pesticides market	54 M ha
Size of biological control agents market	5.2M ha

Major crops requiring most pesticide applications	1st	2 nd	3rd
Affected crop	Rice [2013]	Vegetables [2013]	Cotton [2013]
Name(s) of pest(s)	Rice borers, BPH, Leaf feeders, Rice blast, Sheath blight	Leaf miners, Caterpillars, DBM, White-flies, Soil diseases, Leaf diseases	Cotton bollworm, Aphids, <i>Lygus</i> bugs
Estimated crop loss	38.7 million tons	46.4 million tons	1.5 million tons
Affected area	96.8 million ha	31.5 million ha	18.8 million ha
Number of pesticide applications or amount of pesticide used	116.1 million ha	38.6 million ha	18.7 million ha
Government action taken	Training farmers	Training farmers	Training farmers

Cooperation projects			
Purpose/target	Donor	Amount	Years (start-end)
Pesticide risk reduction & IPM-FFS	FAO/Sweden	US\$ 150,000	2014-2018
Purpose/target of government follow-up programmes		Amount	Years (start-end)
Matching funds for IPM-FFS Pesticide risk reduction program		US\$ 150,000	2014-2018

Pest management extension	Year: 2014
Number of farmers trained in IPM during the year	6,300
Number of IPM-FFS conducted during the year	210
Number of farmers trained in GAP standards during the year	NA
Area under IPM/low pesticide management [ha]	NA
Area under organic/pesticide-free management [ha]	NA
Crops in which IPM or other ecology friendly programmes are successfully implemented: Rice, cotton, wheat, locusts, vegetable and fruits	
Crops grown organic/pesticide-free: NA	

Progress and constraints

<p>Main progress in recent years (legislation, policies, infrastructure, investments, training, etc.)</p> <ul style="list-style-type: none"> - Both the national & local governments increased financial subsidizes on the management of major crop pests during 2013 and 2014 - National crop protection project funded the construction of over 1000 plant protection stations at county level.
<p>Main constraints (personnel, infrastructure, administrative, operational, training, etc.)</p> <ul style="list-style-type: none"> - Most plant protection stations at grass roots have limited operational funding resources. - Plant protection staff at county level or below need professional training.

V. Pesticide management

Last updated: December 2014

Executive summary

In order to protect human health and environmental safety, pesticide management was strengthened and pesticide registration system was improved in 2013 and 2014. The Regulation on Pesticide Administration and its supporting polices such as the Pesticide Registration Data Requirements, the Measures for the Administration of Pesticide Product Labels and Instructions, the Measures for the Administration of Pesticide Test Institutions were being revised.

Control of the high risk and hazardous pesticides were reinforcement. The No.2032 Notice was published by the MOA in 2013, for the revocation and restricted use of chlorsulfuron, metsulfuron-methyl, ethametsulfuron, asomate, urbacide, chlorpyrifos and triazophos. In accordance with the No.1745 Notice, the formulation paraquat SC registration and manufacture permit were withdrawn in July 1st, 2014, and is canceled to use in July 1st, 2016. To fulfill the POPs Convention, the last production line of dicofol in the Yangnong Corporation was closed in May 17th, 2014, which marked dicofol to be banned absolutely in China.

The Project of minor use pesticides was initiated in 2013. Activities toward special crops and minor use pesticide investigation, increasing communication with minor use stakeholders, pesticide manufactures, ICAMA coordinated with MOA and the local provincial institutions, and expedited registrations for minor use pesticides.

List of key legislation/regulations/rules

1982 Pesticide Registration Regulation

1989 Data Requirement of Pesticide Registration

1995 Pesticide Advertisement Inspection Measures (MOA and SA Industry & Commerce)

1997 Regulation on Pesticide Administration

1998 Implementation Rule of Regulation on Pesticide Administration (Min. Chem. Industry)

1999 Implementation Rule of Regulation on Pesticide Administration (MOA)

2007 Measures for the Administration of Pesticide Labels and Instructions (MOA)

2007 The Decision on Amending the Measures for Implementing the Regulation on Pesticide Administration (MOA).

2007 Revised Data Requirement for Registration of Pesticide (MOA).

2007 Revision and Approval for Pesticide Name (MOA).

2007 Nomenclature for Pesticides (MOA).

2007 Content of Active Ingredient for Pesticide (MOA).

Web source:

www.chinapesticide.gov.cn

Policies regarding pesticide management	Yes*	No*	Don't know
Do you have national pesticide reduction targets? <i>If yes, what is the target: _____</i> <i>Note: Reduce the production of high toxic pesticides and persistence organic pollution pesticides</i>	See Note		
Have you ratified the Rotterdam (PIC) Convention?	x		
Have you ratified the Stockholm (POP) Convention?	x		
Have your ratified the Basel Convention? (hazardous wastes)	x		
Have your ratified the Montreal Protocol? (MeBr phasing-out)	x		
Have you reported the observance of the Code of Conduct to FAO according to Art. 12 of the Code?		x	
Have you adopted Good Laboratory Practices (GLP)?	x		
Pesticide registration			
Do you require pesticides to conform to relevant FAO or WHO specifications?	x		
Do you allow the "me-too" registration and sale of generic pesticides?	x		
Do you require data on product equivalence for generic registration?	x		
Do you conduct country-specific risk assessments for...			
occupational risks?	x		
consumer risks?	x		
environmental risks?	x		
Have you adopted the Global Harmonized System (GHS) for pesticides hazards evaluation and labelling?		x	
Do you accept evaluation results from other countries?		x	
Do you accept field studies conducted in other countries?		x	
Do you require environmental fate studies?	x		
Incentives/disincentives			
Do you have a special tax on pesticides to cover externality costs?		x	
Do you subsidize or provide low-cost pesticides?	x		
Do you subsidize or provide low-cost biopesticides?	x		
Other policies:			
Web source for further information: --			

Organization of pesticide management function	Responsible organizational unit* (Ministry/Department/Unit)
Legislation	National Legislative Bureau
Registration	MOA/ICAMA and ICAs
Licensing of shops	CAMTC /MOA
Licensing of field applicators	
Enforcement/inspections	AQSIQ, State Admin. for Industry and Commerce (SAIC), MOA
Testing of pesticide efficacy	State PPI, PPS
Development of pesticide use recommendations	MOA/ICAMA
Safe use training/extension	MOA/NATESC, +State PPS
Food residue monitoring	MOA/
Environmental monitoring	MOA/ICAMA
Health monitoring	MOA/ICAMA
<i>Other Stakeholders:</i>	
Pesticide Industry Association	Crop Life China, China Pesticide Industry Assoc. China Pesticide Development and Application Assoc.
Civil Society Organizations (NGO, etc.)	

Infrastructure *	Year:2013
Number of registration officers	485(ICAMA:88)
Number of enforcement officers	20,000
Number of department quality control laboratories	62
Number of quality control laboratory personnel	510
Number of department residue analysis laboratories	73
Number of residue laboratory personnel	448
	Total : ~30,000

*only include the laboratories belonging to MOA

Key situation indicators

Pesticide trade: ^a	Tons*	US\$ '000 Value*
Imports	56 500	171 000
Manufacture	584 000	3 719 000
Export	422 800	2 584 000
Domestic use/sales	350 000	1 200 000
Pesticide use profile: 2012	Tons (a.i./formulation to be specified)	US\$ '000 Value
Agriculture		
Chem. Insecticides	109, 000(a.i)	4 330 000 000
Chem. Fungicides	80, 000(a.i)	2 420 000 000
Chem. Herbicides	102, 100(a.i)	3 040 000 000
Chem. Rodenticides	66(a.i)	72 000 000
Chem. Others: e.g.: molluscicide, acaricide	12, 400(a.i)	290 000 000
Other E.g. Avamectrin, Bt,	40, 000 (formulation)	200 000 000

Neem		
Other purposes		
TOTAL	303, 400	10 400 000 000

^a Or for most recent year for which data are available

* if possible, give in tons a.i. ; if known, also give value in US\$ or other currency.

Post registration monitoring

Testing, quality control and effects in the field	Yes	No	Don't know
Do you have significant problems with low-quality pesticides in the market?	x		
Do you have significant problems with pesticide resistance?	x		
Do you have a list of pesticides under close observation for problems	x		
Source for more information: www.chinapesticide.gov.cn			

Health and environmental information	Yes	No	Don't know
Do you maintain data on pesticide poisoning cases?	x		
Do you have a system to monitor pesticide residues in food?	x		
Do you have a system to monitor pesticide residues in the environment?		x	
Do you have significant problems of environmental contamination from pesticides?	x		
Do you have data on pesticides effects on wildlife and ecosystems?	x		
Source for more information: --			

Pesticide disposal	Yes	No	Don't know
Do you have system to collect and safely dispose of used containers and small quantities of left-over pesticides?		x	
Do you have an inventory of outdated and obsolete pesticides in the country? (eg. banned and no longer traded, but still in storage)	x		
Do you have illegal trade in pesticides? if yes: what is the estimated amount: _____	x		
Source for more information: --			

Key operation indicators

Registration/regulation/monitoring	Year: 2014	
	a.i.*	Trade names
Number of registered pesticide products	650	0
Number of registered biopesticides (Avamectrin, Bt, Neem, etc.)	150	0
Number of restricted-use pesticides/formulations	34	
Number of banned pesticides	31	
Number of licensed outlets		
Number of licensed field applicators (professional and/or farmers)	4 0000	
Number of licensing violations reported during year	600	
Number of quality control analyses conducted during year	15,000	
Number of food samples analyzed for pesticide residues during year	12,000	

Number of samples exceeding MRL	250
Number of environmental samples analyzed for pesticide residues	1000

* active ingredient

Pesticides restricted in recent years (2013-2014)	
Year	Name of active ingredient or hazardous formulation
1982, 2002	Methamidophos, Parathion-methyl, Parathion, Monocrotophos, Phosphamidon, Phorate, Isufenphos-methyl, Terbufos, Phosfolan-methyl, Sulfotep, Carbofuran, Demeton, Aldicarb, Ethoprophos, Phosfolan, Coumaphos, Fonofos, Isazofos, Fenamiphos (Banned use on fruit, vegetable, tea and herbal medicine)
1982	Phorate (Restricted for seed dressing)
1982	Carbofuran (Restricted for broadcasting and seed dressing)
	Pyrethroid insecticides (Banned use on paddy)
	Lindan (Restricted for wheat or in wastelands)
	Fenvalerate, Dicofol (Banned use on tea)
2009	Fipronil was banned using on paddy
2011	Phorate, isufenphos-methyl, carbofuran, demeton, ethoprophos, aldicarb, phosfolan, isazofos(Banned use on vegetable, fruit and traditional Chinese medicinal materials)
2011	Omethoate was banned using on cabbage
2011	Daminozide was banned using on peanut
2011	Endosulfan was banned using on apple
2011	Methyl bromide was banned using on cucumber and strawberry
2011	Methomyl was banned using on apple and brassicaceous vegetable

Pesticides banned in recent years (2013-2014)	
Year	Name of active ingredient
1970's	Arsena, Acetate, Mercury compounds, dieldrin, aldrin
1982	Fluoroacetamide
1983	BHC, DDT, Dibromochloropropane,
1984	Ethylene dibromide
1986	Cyhexatin
1990	Chlordimeform (Promulgated 1990 and enforced 1992)
1990	
1991	Tetramine, Silatrane
1995	Gliflor
1997	Nitrofen (Promulgated 1997, production banned 2000, use banned 2001)
2007	Methamidophos, Parathion-methyl, Parathion, Monocrotophos, Phosphamidon
2011	Fenamiphos, fonofos, posfolan-methyl, Calcium phosphide, Magnesium phosphide, zinc phosphide, cadusafos, Coumaphos, sulfotep, terbufos
2013	Registration of Asomate, Methylarsinediyl bis were repealed

Cooperation projects			
Purpose/target	Donor	Amount	Years (start-end)
Sino-German Pesticide Quality Control Project	Germany Government	3,750,000 \$	1995-2002

Sino-German Obsolete Pesticide Management Project	Germany Government	2,550,000 €	2004-2009
Sino-Dutch Minimize	Holland Government	2,849,461 €	2003-2007
Sino-US Pesticide Management Project	China and USA Government		2008-
Purpose/target of government follow-up programmes		Amount	Years (start-end)

Progress and constraints

Main progress in recent years (legislation, policies, infrastructure, investments, training, etc.)	
In 2014, medias such as broadcast, newspapers and television were used to publicize knowledge about safe application of pesticide, 27000 farmers were trained, and 31000 copies of hanging charts of safe application of pesticides, 33000 copies of safe application of pesticide handbook were compiled and distributed.	
Main constraints (personnel, infrastructure, administrative, operational, training, etc.)	
NA	

VI. Additional issues of interest

1. Genetically Modified Crops

Genetically Modified Crops	
Name of GMO Crop	Area under cultivation [ha in 2012]
Cotton	3,376,000

2. International Cooperation

During the period of 2013-2014, China collaborated with the United States of Environment Protection Agency on the Continued Good Laboratory Practice Standards Compliance Monitoring Project. State Forestry Administration continually cooperated with Ministry of Fisheries and Agriculture, Republic of Maldives to provide assistance in the control of coconut leaf beetle (*Brontispa longissima* (Gestro)).

The bilateral management projects with neighboring countries on crop migratory pest management were continually implemented during 2013 and 2014. China and Vietnam established cooperative mechanisms on jointly managing rice BPH & WBPH and rice virus disease, main activities of the collaborations focused on sharing information on the monitoring and forecasting of the pests and diseases. And the same cooperation project between China and Korea was conducted also. China and Kazakhstan have been also continually working on controlling the trans-boundary crop pest- Asian Migratory Locust (AML), the exchanges of occurring information of AML were frequently carried out and its biological control methods shared between two sides.