[Pest Management Profile of China (2011-2012)](http://www.apppc.org/index.php?id=1110802&tx_document_pi1%5bshowUid%5d=215507&cn=197&frompage=197&type=document&subtype=&tag=&cn=197&L=0#item)

Last updated: December 2012

**Executive summary**

During the period of 2011-2012, outbreaks of some pests on major crops occurred in responses to significant changes in cropping systems, climate conditions, and crop varieties. Among them, *Athetis lepigone,* wheat scab (*Gibberrella zeae*) ,Army worm [*Mythimna separate* (Walker)], rice brown plant hopper (*Nilaparavata lugans*), Rice Leaf Folder(*Cnaphalocrocis medinalis*)were the most severe and destructive ones.

*Athetis lepigone*, a new lepidopteran insect pest occurred 2.2 million hectares on the seedling stage of corn in China, once heavily out broke on summer sowing corn in 2011 throughout the Huang-Huai-Hai region, threatening the corn production safety. wheat scab (*Gibberrella zeae*) epidemic disease occurred 9.9 million hectares in 2012 both Jiang-Huai region and Huang-Huai region. The 3rd-genaration larvae of Army worm [*Mythimna separate* (Walker)] was outbreak with more serious damage over the past twenty years in 2012 in North China,which occurred 4.0 million hectares.The outbreaks of rice migration pest have been occurring. In the case of BPH(*Nilaparavata lugans*), the infested area grew to 11.5 million hectares in 2011 and 14.6 million hectares in 2012 respectively. The total area infested by (*Cnaphalocrocis medinalis*) amounted to16.7million hectares in 2011 and 17.5 million hectares in 2012 respectively.

Regional actions were coordinated by the National Agro-technical Extension and Service Center (NATESC) of the 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, and newly emerged pests- Athetis lepigone, etc.The annual control acreages of major crop pests reached 530 million hectares in 2011 and 567 million hectares in 2012 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. Bio-diversity strategies were implemented in about 6.67 million hectares annually for rice blast management in 2011 and 2012. Light trips were extended to 1.6 million hectares of rice fields to kill moths of rice borers and leaf folders.

During the period of 2011-2012, 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 92 % in 2012.

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 3.3 million hectares since 2009.

In cotton, the transgenic Bt cotton has been continually applied over 3.4 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.cn

www.cropipm.com.

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| **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> | | | |

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| **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. |
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| **Infrastructure** | Year: 2012 |
| Number of technical officers for pest management | 38,416 |
| Number of central, regional, provincial or state offices | 5,000 |
| Number of district and village level field offices | 10,932 |
| Number of field/extension agents for pest management advice | 19,322 |
| Number of field/extension agents trained in IPM-FFS facilitation | 1,345 |
| 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 | 28416 |
| Number of designated plant protection technical officers for extension | 28416 |

**Key situation and operation indicators**

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| --- | --- | --- | --- |
| **Pest management** | Yes | No | Don’t know |
| Does the country have a National IPM program?  *If yes, give Name and Address of IPM Programme:*  NATESC, MOA | X |  |  |
| Does the country have specific IPM extension programs?  *If yes, in which crops?:*  Rice, Corn, Vegetables and Fruits | X |  |  |
| Does the country have specific IPM research programs?  *If yes, in which crops?:* |  | x |  |
| Does the country have specific GAP extension programs?  *If yes, in which crops?:*  *Apple* | x |  |  |
| Does the country have specific GAP research programs?  *If yes, in which crops?:* |  | x |  |

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| **Market shares (estimated value, volume or area under control)** | Year: 2012 |
| Size of chemical pest control market | 289.2 M ha |
| Size of bio-pesticides market | 37.8 M ha |
| Size of biological control agents market | 2.32M ha |

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| --- | --- | --- | --- |
| **Major crops requiring most pesticide applications** | **1st** | **2nd** | **3rd** |
| Affected crop | Rice [2011 | Vegetables [2011] | Cotton [2011 |
| Name(s) of pest(s) | Rice borers, BPH, Leaf feeders, Rice blast, Sheath blight | Leaf miners, Cater-pillars, DBM, White-flies, Soil diseases, Leaf diseases | Cotton bollworm,  Aphids, *Lygus* bugs |
| Estimated crop loss | 612 million tons | 1183 million tons | 37.1 million tons |
| Affected area | 12.million ha | 24 million ha | 2.37 million ha |
| Number of pesticide applications or amount of pesticide used | 12.63 million ha | 2.57 million ha | 1.83 million ha |
| Government action taken | Training farmers | Training farmers | Training farmers |

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| --- | --- | --- | --- |
| **Cooperation projects** |  |  |  |
| Purpose/target | Donor | Amount | Years (start-end) |
| Pesticide risk reduction & IPM-FFS | FAO/Sweden | US$ 150,000 | 2009-2012 |
| IPM demonstration for substituting Dicofol in controlling citrus, apple and cotton mites | GEF/UNDP | US$ 2 million | 2009-2013 |
| Purpose/target of government follow-up programmes | | Amount | Years (start-end) |
| Matching funds for IPM-FFS in vegetables and fruits | | US$ 150,000 | 2009-2012 |

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| **Pest management extension** | Year: 2012 |
| Number of farmers trained in IPM during the year | 36,800 |
| Number of IPM-FFS conducted during the year | 560 |
| 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**

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| 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 2011 and 2012.  - National crop protection project funded the construction of over 230 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 need professional training. |