



CCM Data & Business
Intelligence

Disease and Pest Occurrence in China

The First Edition

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1. Introduction

This report is about disease and pest occurrence in China. Basic information such as occurrence, control and yield loss of crops resulted by pests, diseases, weeds and rodents in China was reported in detail in the report in order to guide investments and business movements for the players who pay close attention to the industry or try to find opportunities from it.

2. Approach for this report

The report is drafted by diverse methods as follows:

- Desk research

The sources of desk research are various, including published magazines, journals, government statistics, industrial statistics, association seminars as well as information from the Internet. A lot of work has gone into the compilation and analysis of the obtained information.

- Internet

CCM contacted with players in the domestic agrochemical industry through B2B websites and software as well as obtained registration information on the internet.

- Data processing and presentation

The data collected and compiled are sourced from:

- ✓ CCM's database
- ✓ Published articles in periodicals, magazines, journals and third-party databases
- ✓ Statistics from governments and international institutes
- ✓ Telephone interviews with domestic producers, joint ventures, service suppliers and governments
- ✓ Third-party data providers
- ✓ Comments from industrial experts
- ✓ Professional databases from other sources
- ✓ Information from the internet

The data from various sources have been combined and cross-checked to make this report as precise and scientific as possible. Throughout the process, a series of internal discussions were held in order to analyze the data and draw the conclusions.

3. Executive summary

In March 2017, wheat entered a vulnerable period in China and the control of pests and diseases has been paid highly attention to recently.

To provide more information about this period, CCM has done lots of researches on the historical occurrence of pests, diseases, weeds and rodents on crops. In China, the overall occurrence of pests, diseases, weeds and rodents on crops was in a severe state during 2006–2016. The average annual occurrence area of pests, diseases, weeds and rodents from 2006 to 2016 was XXX million ha, decreasing by XXX%, compared with that from 1996 to 2005 (XXX million ha). Although the rising trend of the occurrence of pests, diseases, weeds and rodents has slowed in China, the situation remains serious in recent years.

According to the prediction from the National Agricultural Technology Extension and Service Center (NATESC) in Dec. 2016, pests like rice planthoppers, wheat aphids, pests on corn and diseases like rice sheath blight and wheat head blight may strike heavily, while wheat stripe rust, rice blast, corn northern leaf blight and potato late blight may occur moderately in China in 2017.

4. What's in this report?

Note: Key data/information in this sample page is hidden, while in the report it is not.

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1 Overview of occurrence, control and yield loss of crops resulted by pests, diseases, weeds and rodents in China, 2006-2016

During 2006–2016, the overall occurrence of pests, diseases, weeds and rodents on crops in China was in a severe state. According to the National Agricultural Technology Extension and Service Center (NATESC), the average annual occurrence area of pests, diseases, weeds and rodents from 2006 to 2016 was XXX million ha, decreasing by XXX%, compared with that from 1996 to 2005 (XXX million ha). In recent years, although the rising trend of the occurrence of pests, diseases, weeds and rodents has slowed in China, the situation remained very serious.

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Table 1-1 Occurrence area, control area and yield loss of crops resulted by pests, diseases, weeds and rodents in China, 2006–2016

Year	Occurrence area, million ha	Control area, million ha	Retrieved loss, million tonne	Actual loss, million tonne	Yield, million tonne	Ratio of retrieved loss to yield, %	Ratio of actual loss to yield, %
2006	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2007	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2008	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2009	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Average	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: The National Agricultural Technology Extension and Service Center (NATESC)

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2 Review of occurrence of pests, diseases, weeds and rodents in China in 2016

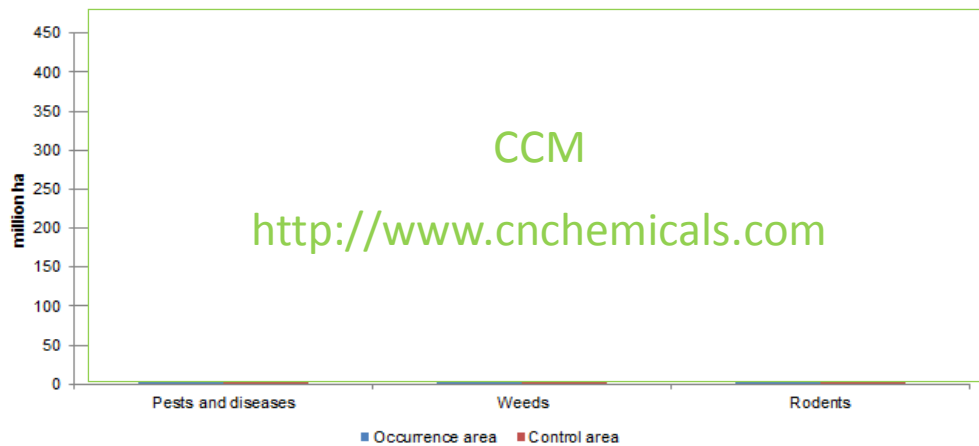
The year 2016 saw an overall moderate occurrence of pests, diseases, weeds and rodents in China.

According to the NATESC, the total occurrence area of pests, diseases, weeds and rodents decreased by XXX% year on year to XXX million ha in 2016, and the corresponding control area fell to XXX million ha, down by XXX % year on year. Thereinto, in 2016, the occurrence and control area of pests together with diseases were XXX million ha and XXX million ha, accounting for XXX% and XXX% of the total respectively; those of weeds were XXX million ha and XXX million ha, accounting for XXX% and XXX% of the total respectively; and those of rodents were XXX million ha and XXX million ha, accounting for XXX% and XXX% of the total respectively.

Yet, affected by El Nino, most areas in southern China suffered early flooding and increasing extreme weather. As a result, some pests, diseases and weeds struck heavily.

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Figure 2-1 Occurrence and control area of pests, diseases, weeds and rodents in China, 2016



Source: NATESC & CCM

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3 Situation of pests and diseases on crops in China, 2012-2016

3.1 Occurrence of pests and diseases on rice in China, 2012-2016

During 2012–2016, the total occurrence area of pests and diseases on rice ranged around XXX–XXX million ha in China. Thereinto, the occurrence area of pests and diseases accounted for about XXX% and XXX% of the total respectively. And the retrieved and actual loss accounted for about XXX% and XXX% of the total rice yield respectively.

Table 3.1-1 Planting area, yield loss and occurrence area of pests and diseases on rice in China, 2012–2016

Year	Planting area, million ha	Yield, million tonne	Total occurrence area, million ha	Occurrence area of pest, million ha	Occurrence area of disease, million ha	Retrieved loss, million tonne	Actual loss, million tonne
2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Average	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: The National Bureau of Statistics of China (NBS) & NATESC

Table 3.1-2 Yield loss caused by five main pests and diseases on rice in China, 2012–2015

Year	Rice planthopper		Rice leaf roller		<i>Chilo suppressalis (Walker)</i>		Rice blast		Rice sheath blight	
	Retrieved loss, million tonne	Actual loss, million tonne	Retrieved loss, million tonne	Actual loss, million tonne	Retrieved loss, million tonne	Actual loss, million tonne	Retrieved loss, million tonne	Actual loss, million tonne	Retrieved loss, million tonne	Actual loss, million tonne
2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Average	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: NATESC

Table 3.1-3 Pesticides used to control five main pests and diseases on rice in China

No.	Rice planthopper	Rice leaf roller	<i>Chilo suppressalis (Walker)</i>	Rice blast	Rice sheath blight
1	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	XXX	XXX	XXX
5	XXX	XXX	XXX	XXX	XXX
6	XXX	XXX	XXX	XXX	XXX
7	XXX	XXX	XXX	XXX	XXX
8	XXX	XXX	XXX	XXX	XXX
9	XXX	XXX	XXX	XXX	XXX
10	XXX	XXX	XXX	XXX	XXX

Source: The Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA) & CCM

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