

Prevention and Control of Small Size Pests on Fruits and Vegetables in China

The First Edition

Jan. 2018

Researched & Prepared by:

Kcomber Inc.

Copyright by Kcomber Inc.

Any publication, distribution or copying of the content in this report is prohibited.

Contents

Executive summary	1
Methodology	2
1 Main small size pests and their occurrence in China	3
1.1 Brief introduction of main small size pests	3
1.2 Occurrence of small size pests on fruits and vegetables	4
1.3 Importance of small size pest control on fruits and vegetables	6
2 Pesticide registration of small size pests on fruits and vegetables	8
2.1 Overview	8
2.2 Registration of pesticides for silverleaf whitefly	8
2.3 Registration of pesticides for greenhouse whitefly	9
2.4 Registration of pesticides for thrip	10
2.5 Registration of pesticides for leaf miner	10
2.6 Registration of pesticides for scale insect	11
2.7 Registration of pesticides for leafhopper	12
2.8 Registration of pesticides for red spider mite	12
2.9 Registration of pesticides for striped flea beetle	13
2.10 Registration of pesticides for aphid	14
3 Resistance of small size pests on fruits and vegetables	16
3.1 Characteristics	16
3.2 Reasons	16
4 Measures of control on small size pests on fruits and vegetables	17
4.1 On pesticides	17
4.2 On application methods	17
4.3 On prevention and control methods	18

LIST OF TABLES

Table 2.1-1 Registration of pesticides of small size pests in China, as of 11 Dec., 2017

Table 2.2-1 Registration of active ingredients for silverleaf whitefly in China, as of 11 Dec., 2017

Table 2.2-2 Registration of formulation types for silverleaf whitefly in China, as of 11 Dec., 2017

Table 2.3-1 Registration of active ingredients for greenhouse whitefly in China, as of 11 Dec., 2017

Table 2.3-2 Registration of formulation types for greenhouse whitefly in China, as of 11 Dec., 2017

Table 2.4-1 Registration of active ingredients for thrip in China, as of 11 Dec., 2017
Table 2.4-2 Registration of formulation types for thrip in China, as of 11 Dec., 2017
Table 2.5-1 Registration of active ingredients for leaf miner in China, as of 11 Dec., 2017
Table 2.5-2 Registration of formulation types for leaf miner in China, as of 11 Dec., 2017
Table 2.6-1 Registration of active ingredients for scale insect in China, as of 11 Dec., 2017
Table 2.6-2 Registration of formulation types for scale insect in China, as of 11 Dec., 2017
Table 2.7-1 Registration of active ingredients for leafhopper in China, as of 11 Dec., 2017
Table 2.7-2 Registration of formulation types for leafhopper in China, as of 11 Dec., 2017
Table 2.8-1 Registration of active ingredients for red spider mite in China, as of 11 Dec., 2017
Table 2.8-2 Registration of formulation types for red spider mite in China, as of 11 Dec., 2017
Table 2.9-1 Registration of active ingredients for striped flea beetle in China, as of 11 Dec., 2017
Table 2.9-2 Registration of formulation types for striped flea beetle in China, as of 11 Dec., 2017
Table 2.10-1 Registration of active ingredients for aphid in China, as of 11 Dec., 2017
Table 2.10-2 Registration of formulation types for aphid in China, as of 11 Dec., 2017

LIST OF FIGURES

Figure 1.2-1 Share of occurrence area of small size insects on fruits and vegetables in China, 2016
Figure 1.2-2 Share of control area of small size insects on fruits and vegetables in China, 2016
Figure 1.3-1 Fruit planting area in China, 2006–2015
Figure 1.3-2 Vegetable planting area in China, 2006–2015

1. Introduction

Fruits and vegetables are important economic crops in China. But in recent years, small size pests on fruits and vegetables have caused significant losses to China's fruit and vegetable production. A consensus has been reached that it is difficult to control small size pests. In this report, nine kinds of small size pests are selected as research objects because of their serious harm to fruits and vegetables. Research objects include silverleaf whitefly, greenhouse whitefly, thrip, leaf miner, scale insect, leafhopper, red spider mite, striped flea beetle and aphid. The occurrence situation of small size pests on fruits and vegetables, the status of pesticide registration, the progress of resistance and its control measures are also analysed in this report.

Scope of the report

Region scope: China

Time scope: 2017

Objects: Small size pests on fruits and vegetables

Aspects: Main small size pests and their occurrence in China, pesticide registration of small size pests on fruits and vegetables, resistance of small size pests on fruits and vegetables, measures of control on small size pests on fruits and vegetables

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 websites and 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 visited government websites and 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 analyse the data and draw the conclusions.

3. Executive summary

Fruits and vegetables are important economic crops in China. But in recent years, small size pests on fruits and vegetables have caused significant losses to China's fruit and vegetable production. A consensus has been reached that it is difficult to control small size pests, which is mainly for the two reasons: On one hand, there is a lack of registered pesticides for the prevention and control of small size pests on fruits and vegetables. On the other hand, serious misuse and abuse of pesticides have led to increasingly serious pesticide resistance. In this report, nine kinds of small size pests are selected as research objects because of their serious harm to fruits and vegetables. Research objects include silverleaf whitefly, greenhouse whitefly, thrip, leaf miner, scale insect, leafhopper, red spider mite, striped flea beetle and aphid. The occurrence situation of small size pests on fruits and vegetables, the status of pesticide registration, the progress of resistance and its control measures are also analysed in this report.

At present, more and more attention has been paid to small size pests on fruits and vegetables by the government, the pesticide industry and pesticide enterprises. It's worth noting that the Summit Forum on Control of Small Size Pests with Serious Chemical Resistance on Fruits & Vegetables was hold by the committee of China Plant Protection Information Exchange & Pesticide and Sprayer Facilities Trade Fair on 23 Nov., 2017. As the first special forum of small size pests on fruits and vegetables in China, this forum was aimed at improving the control level of small size pests in China.

4. What's in this report?

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

...

1 Main small size pests and their occurrence in China

1.2 Occurrence of small size pests on fruits and vegetables

Figure 1.2-1 Share of occurrence area of small size insects on fruits and vegetables in China, 2016



Source: Summit Forum on Control of Small Size Pests with Serious Chemical Resistance on Fruits & Vegetables

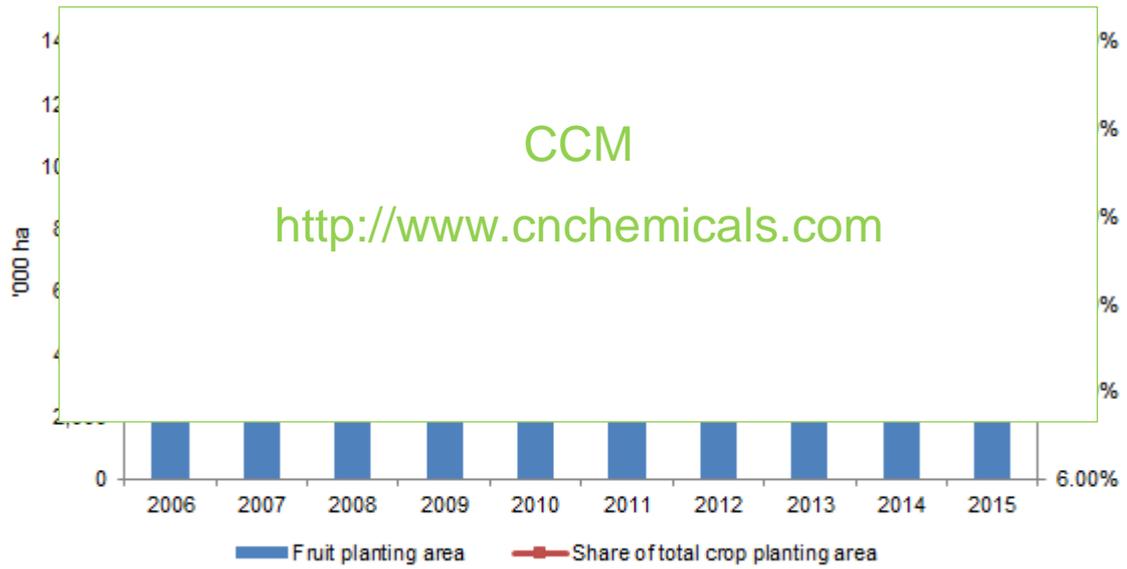
Figure 1.2-2 Share of control area of small size insects on fruits and vegetables in China, 2016



Source: Summit Forum on Control of Small Size Pests with Serious Chemical Resistance on Fruits & Vegetables

1.3 Importance of small size pest control on fruits and vegetables

Figure 1.3-1 Fruit planting area in China, 2006–2015



Source: National Bureau of Statistics of China

Figure 1.3-2 Vegetable planting area in China, 2006–2015



Source: National Bureau of Statistics of China

2 Pesticide registration of small size pests on fruits and vegetables

2.1 Overview

Table 2.1-1 Registration of pesticides of small size pests in China, as of 11 Dec., 2017

Species	Number of registration	Single formulations	Mixed formulations
Silverleaf whitefly	XXX	XXX	XXX
Greenhouse whitefly	XXX	XXX	XXX
Thrip	XXX	XXX	XXX
Leaf miner	XXX	XXX	XXX
Scale insect	XXX	XXX	XXX
Leafhopper	XXX	XXX	XXX
Red spider mite	XXX	XXX	XXX
Striped flea beetle	XXX	XXX	XXX
Aphid	XXX	XXX	XXX

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

2.2 Registration of pesticides for silverleaf whitefly

Table 2.2-1 Registration of active ingredients for silverleaf whitefly in China, as of 11 Dec., 2017

Active ingredient	Number of registration
Cyantraniliprole	XXX
Sulfoxaflor	XXX
Others	XXX

Source: ICAMA

Table 2.2-2 Registration of formulation types for silverleaf whitefly in China, as of 11 Dec., 2017

Formulation	Number of registration
WG	XXX
SC	XXX
OD	XXX
WP	XXX
SL	XXX
EC	XXX
AS	XXX
SE	XXX

Source: ICAMA

...

If you want more information, please feel free to contact us

Tel: +86-20-37616606 Fax: +86-20-37616968

Email: econtact@cnchemicals.com