

ICS 65.100
CCS B 17

NY

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

NY/T 1154.7-2006

**Pesticides guidelines for laboratory bioactivity tests. Part 7:
Synergism evaluation of insecticide mixtures**

农药室内生物测定试验准则 杀虫剂 第7部分：混配的联合作用测定

(English Translation)

Issued on: July 10, 2006

Implemented on: October 1, 2006

Issued by: Ministry of Agriculture of PRC

Table of Contents

Foreword...	3
1 Scope...	4
2 Test conditions...	4
3 Test design...	5
4 Investigation...	5
5 Data statistics and analysis...	6
6 Results...	7

1 Scope

This part specifies the basic requirements and methods for the synergism evaluation of insecticide mixtures of pesticides.

This part is applicable to the pesticide registration indoor test for the determination of the combined action of pesticides. Other tests shall be carried out with reference to this part.

2.1 Test target

The test target shall be a sensitive test insect raised indoors, indicating the source of the test insect and the breeding conditions.

2.2 Equipment

2.2.1

Electronic balance (sensitivity 0.1 mg);

2.2.2

Filter paper;

2.2.3

Microdropper;

2.2.4

Tissue culture plate;

2.2.5

Potter spray tower;

2.2.6

Triangular bottle;

2.2.7

Writing brush;

2.2.8

Culture dish;

2.2.9

Beaker;

2.2.10

Pipette, etc.

3.1 Preparation of test materials

Choose sensitive test insects raised indoors and consistent in age. If the insect is collected from the field, the test shall be carried out after 1 generation ~ 2 generations are raised indoors. When the insect is large (such as cotton bollworm, cabbage caterpillar, etc.), the number of test insects per dose is not less than 40; when the insect is small (such as aphids, red spiders, etc.), the number of test insects per dose is not less than 120.

3.2 Drug

The test drug shall be the original drug (parent drug), indicating the generic name, trade name or code, content, manufacturer.

3.3.1 Preparation of liquid drug

Water-soluble drugs are directly dissolved and diluted by water. Other drugs shall be dissolved in suitable organic solvents (such as acetone, chloroform, ethanol, etc.); then diluted by the aqueous solution containing a suitable amount of surfactant such as 0.1% Tween 80 (or 0.1% Triton-X100). Prepare a single-dose parent liquid separately. Design more than 5 groups of ratios according to the mixing purpose and the activity of the agent. Each single-dose and each group of mixing agents are set to 5 ~ 7 series of mass concentrations according to the equal ratio or equal difference method.

3.3.2 Drug treatment

Select the corresponding test methods, such as the drug film method, drip method, spray method, leaf poisoning method, dipping method, etc., according to the specific requirements of insect species, drug action characteristics, action mode, the test itself. Each treatment is repeated 4 times. The corresponding organic solvent treated which

containing no agent is set as a control.

4 Investigation

Investigate the death of test insects 24 hours after treatment. Record the total number of insects and the number of dead insects. The investigation time can be shortened or extended according to the test requirements and the characteristics of the drug.

.....