

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

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**Technical guideline on environmental safety application of
pesticides**

农药使用环境安全技术导则

(English Translation)

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Foreword

To implement the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, and the Solid the Waste Pollution Prevention and Control Law, to prevent or mitigate the adverse environmental impacts caused by the use of pesticides, to protect the ecological environment, and to develop this standard.

This standard specifies the principles of environmentally safe use of pesticides, technical measures for pollution control and management measures.

This standard is the first release.

This standard was formulated by the Science and Technology Standards Department of the Ministry of Environmental Protection.

This standard is mainly drafted by. Nanjing Institute of Environmental Sciences, Ministry of Environmental Protection, China Academy of Environmental Sciences.

This standard was approved by the Ministry of Environmental Protection on July 9, 2010.

This standard has been implemented since January 1, 2011.

This standard is explained by the Ministry of Environmental Protection.

Environmental Safety Technical Guidelines for Pesticide Use

1 Scope of application

This standard specifies the principles of the safe use of pesticides, control technical measures and management measures.

This standard is applicable to the supervision and management of guiding the safe use of pesticides. It can also be used as an agricultural technical department to guide agricultural producers.

The basis for rational use of drugs.

2 Normative references

The contents of this standard refer to the terms in the following documents. For undated references, the valid version applies to this standard.

GB 8321 rational use guidelines for pesticides NY 686 Sulfonylurea Herbicide Rational Use Guidelines Regulations on the Safety Management of Dangerous Chemicals (Order No. 344 of the People's Republic of China) Measures for the Prevention and Control of Environmental Pollution by Abandoned Hazardous Chemicals (Order No. 27 of the State Environmental Protection Administration)

3 Terms and definitions

The following terms and definitions apply to this standard.

Pesticide

Used to prevent, destroy or control diseases, insects, grasses and other harmful organisms that endanger agriculture and forestry, and to regulate plants and Kun Chemical synthesis of insect growth or a substance derived from organisms, other natural substances or a mixture of several substances and preparations thereof.

Soil adsorption

The adsorption performance of pesticides in the soil in the equilibrium between solid and liquid phases. Commonly used adsorption constant K_d . According to soil adsorption the size of sex is divided into five levels. easy to adsorb, easy to adsorb, medium adsorption, difficult to adsorb, and difficult to adsorb.

Pesticide mobility

The phenomenon that pesticides in the soil are transferred from one place to another by the form of molecules or adsorbed on the surface of solid particles, with the diffusion of water and gas.

Divided into horizontal movement and vertical movement. According to the mobility of pesticides in the soil, it is divided into extremely mobile,, medium Move, not easy to move, do not move five levels.

Soil leaching

The phenomenon that pesticides move vertically downward with water in the soil is the main way for pesticides to pollute groundwater. Leaching in soil according to pesticides the size of the sex is divided into four levels. easy to leaching,, difficult to leaching, and difficult to leaching.

Degradation in soil

Under the joint influence of factors such as soil formation factors and field cultivation, the pesticides remaining in the soil are gradually decomposed into small molecules by macromolecules.

To the entire process of losing biological activity. The commonly used degradation half-life $t_{0.5}$ is the time required for the pesticide to degrade by half. According to pesticides the degree of degradability in the soil is divided into five levels. easy to degrade, more easily degraded, moderately degraded, more difficult to degrade, and difficult to degrade.

Pesticide water retention pesticide persistence in water the time when pesticides are stable in water. According to the different retention time of pesticides in water, they are classified as non-retaining pesticides and weakly retained.

Sex pesticides, retention pesticides, and very stable pesticides.

Bioconcentration

The process by which organisms continuously absorb residual pesticides from their surroundings or food and gradually accumulate in their bodies. Bioconcentration factor the size of the (BCF value) is divided into three levels. low, medium, and high.

Long residual herbicide A herbicide that has a long residual time in the soil and is liable to cause phytotoxicity of the posterior sputum sensitive crop.

Killer herbicide non-selective herbicide Lack of selective or selective herbicides on plants.

3.10

Beneficial organism

Under certain conditions, it is possible to control the growth and reproduction of organisms that seriously endanger human life or production; or those with economic value.

Object.

3.11

Good agricultural practice, GAP Refers to a set of codes of conduct for agricultural production and post-processing of agricultural products that are designed to be effective while obtaining safe and healthy agricultural products.

Reliably control pests; use pesticides in a state-approved or officially recommended manner, with pesticides no higher than the maximum approved amount and Minimize pesticide residues.

3.12

Integrated pest management, IPM Considering all available pest control techniques, it is preferred to combine appropriate measures to prevent the development of pests and diseases while controlling the use of chemical pesticides and minimizes the risk of harm to human health and the environment.

3.13

Pesticide waste obsolete pesticide Refers to the waste packaging materials produced during the use of pesticides and pesticides that are banned during the failure or renewal of storage and transportation.

4.1 Environmental protection principles

Following the environmental protection policy of "prevention first, comprehensive prevention and control", it is not advisable to use highly toxic pesticides and persistent pesticides to reduce the use of highly toxic pesticides.

Long-residue pesticides, using safe, efficient and environmentally friendly pesticides, encourage the implementation of biological control technologies. Protect beneficial and rare species and maintain the balance of the ecosystem.

4.2 Principles of Scientific Drug Use

The use of pesticides should comply with the relevant provisions of GB 8321, and in accordance with the use and technology specified in the label and instructions for pesticide products.

Methods such as scientific application.

5.1 Technical measures to prevent contaminated soil

5.1.1

According to soil type, crop growth characteristics, ecological environment and climate characteristics, rational selection of pesticide varieties and reduction of pesticides in soil Residue.