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

GB/T 24681-2009

**Equipment for crop protection -- Methods for field measurement
of spray drift**

植物保护机械 喷雾飘移的田间测量方法

(English Translation)

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Foreword

This standard is equivalent to using ISO 22866:2005 "crop protection spray drift field measurement method" (in English).

This standard is equivalent translation ISO 22866:2005.

For ease of use, this standard made the following editorial changes.

--- "This International Standard" by "this standard";

--- Deleted international standards foreword;

--- With a decimal point "." As an alternative to the decimal point "." this standard Annex A, Annex B, Annex D is normative appendix, Appendix C, Annex E is informative appendix.

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee (SAC/TC201)
Agricultural machinery centralized.

This standard was drafted. Chinese Academy of Agricultural Mechanization Sciences,
China Agricultural University, Jiangsu University, Ministry of Agriculture, Nanjing Agricultural
Mechanization Institute the study.

1 Scope

This standard specifies the method for measuring field crop protection spray drift.

This standard applies to field crops by hanging, towed and self-propelled agricultural
sprayer (sprayer spray rod) with shrubs and trees crops (Including grapes, hops, fruits) with
hanging, towed and self-propelled agricultural sprayer (including wind Sprayer).

This standard also applies to hand-held sprayer or aerial spray equipment, but the technical
specifications of this standard does not contain these device tests Detailed program.

Measurements shall be carried out in typical field conditions or outdoor ground prescribed

(including grass) on. Available objects include crop spraying spray rod Fog spray pesticides all field crops and horticultural crops. Test shall be measured and recorded the basic meteorological conditions and crop conditions.

This standard specifies the method for measuring the field away from the test area by a predetermined distance inherent pesticide spray drift produced during the amount of risk in order to achieve Objective assessment; provides a number of standard measurement distance for the result of the comparison of different tests.

One of drift of the measurement relates to the following two conditions. the amount of spray deposited on the surface level outside the processing area determination or measurement process Wind distribution of droplet stream transmission within a certain distance measured at area. Deposited on a horizontal plane to evaluate the contamination (such as surface water Contamination) risks, and distribution of airflow droplet transmission pattern measurements to evaluate the risk of inhalation of droplets of plant structure and field boundary pollution risk. While the focus may be due to different series of test sample array of choice and different, but the standard is applicable to both cases.

This standard applies to the relative drift between different sprinkler system, if necessary conducted comparison and evaluation of risk, but the reference spray system EC, the collector, the test site is selected and determined certain requirements related to the possible need to modify. It should be appropriate to describe these modifications.

Measuring the amount of spray drift conditions, should be sprayed as far as possible the amount of deposition on the target area to achieve a spray applied to the actual amount of liquid. because the drift amount is usually expressed as a direct evaluation of amount of liquid applied at the ratio, and therefore the target drift deposited as part of the process is measured important.

2 Terms and definitions

The following terms and definitions apply to this standard.

The spraying process by the gas flow will bring the amount of pesticide target area.

NOTE: depositing a pesticide on the crop or the ground and then escaping, not for spray drift. Form thereof may be droplet drift, dry particles or vapor, this standard Sampling and evaluation involves only the droplet drift.

Field crop spraying operation using spray sprayer rod and trees and shrubs with crops breeze sprayer working width.

Spraying of the target area.

3.1 General requirements

Spray drift measurements should include the following procedures. a predetermined forward speed along the route to the average wind direction perpendicular to perform one-way spraying, for GB/T 24681-2009/ISO 22866:2005