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Crop protection equipment — Spray deposition test for field crop —

Part 2: Measurement in a crop

*Matériel de protection des cultures — Essais de dépôt de la
pulvérisation sur les grandes cultures —*

Partie 2: Mesurage dans une culture



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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Test method	1
4.1 Principle.....	1
4.2 Test area.....	2
4.3 Monitoring of meteorological conditions	2
4.4 Acceptable meteorological conditions for field measurement of spray deposition.....	2
4.5 Tracers.....	3
4.6 Collectors	3
4.7 Spray liquid.....	3
5 Test procedure	4
5.1 General.....	4
5.2 Sampling spray deposition on the canopy	7
5.2.1 Spray flux on top of crop canopy.....	7
5.2.2 Inside canopy.....	8
5.3 Sampling spray deposition to the ground underneath canopy.....	9
5.4 Drop distribution/spray coverage (optional).....	9
6 Test report	9
6.1 Data related to the spraying system	9
6.1.1 Sprayer working condition	9
6.1.2 Sprayer boom.....	10
6.1.3 Nozzles and liquid distribution.....	10
6.1.4 Air flow distribution (for air-assisted sprayers).....	10
6.2 Data related to the field.....	11
6.3 Data related to the crop.....	11
6.4 Data related to the spray liquid	11
7 Expression of results	11
Annex A (informative) Examples of collectors for canopy and ground measurements	13
Annex B (informative) Fluorimetry and deposition calculation	14
Annex C (informative) Reference collector system	16
Annex D (informative) Specifying air assistance on boom sprayers	18
Annex E (informative) Calculations and expression of the spray distribution results	19
Bibliography	21

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*.

ISO 24253 consists of the following parts, under the general title *Crop protection equipment — Spray deposition test for field crop*:

- *Part 1: Measurement in a horizontal plane*
- *Part 2: Measurement in a crop*

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Introduction

Efficacy of plant protection products (PPP), their safety to the crop and the environment may be much influenced by spraying efficiency. The dose of the active ingredient and its variation that is retained on target surfaces in a downward directed (boom) spray application such as ground surface need to be measured in a manner that is both accurate and precise.

The location, numbers, and sampling structures used to monitor sprayed depositions need to be defined in a standard manner to enable results from different experiments to be compared.

A test can be set up to quantify or to describe the in-field situation or for machine comparison.

A spray system can be compared with a reference system.

This International Standard does not deal with the deposition of spray outside the treatment zone, in crop canopy nor that lost as airborne spray drift. However, the combination of this part of ISO 24253 with the protocol for field measurements of spray drift as given in ISO 22866^[4] when measured at the same time may result in a possible evaluation of spray mass balance. On the other hand, its combination with the measuring of sprayer boom movements in the field (see ISO 14131^[2]) can also be used to evaluate the spray deposition and its variation in the field as a result of the boom movement.

Spray deposition from horizontal boom sprayers with downward directed application is affected by nozzle parameters, boom height, boom steadiness, sprayer speed, meteorological conditions, and other sprayer additional devices such as air assistance. These dynamic factors can all be elements of a test to determine the quantity and the variation in spray deposition.