

ISO 5682-1:2017-05 (E)

Equipment for crop protection - Spraying equipment - Part 1: Test methods for sprayer nozzles

Contents		Page
Foreword		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Measuring equipment	1
4.1	General	1
4.2	Horizontal patternator	1
4.2.1	General	1
4.2.2	Groove characteristics	1
4.2.3	Upper part of the groove walls	5
4.2.4	Overall dimensions	6
4.2.5	Traversing systems	6
4.3	Distance	6
4.4	Pressure	6
4.5	Time	6
4.6	Flow rate	7
4.7	Angle	7
4.8	Temperature and humidity	7
4.9	Volume and mass	7
4.10	Air pressure	7
4.11	Standard laboratory horizontal spray boom	7
5	General test conditions	8
5.1	General	8
5.2	Test liquids	8
5.2.1	Water	8
5.2.2	Abrasive liquid	9
5.3	Temperature and relative humidity	9
5.4	Nozzle flow rate setting	9
6	Determination of sprayer nozzle characteristics	9
6.1	Nozzle sampling	9
6.1.1	General	9
6.1.2	Nozzle samples	9
6.2	Nozzle flow rate uniformity	9
6.2.1	General	9
6.2.2	Test liquid	10
6.2.3	Nozzle flow rate setting	10
6.2.4	Measurements	10
6.2.5	Results	10
6.3	Nozzle flow rate as a function of pressure adjustments	10
6.3.1	General	10
6.3.2	Test liquid	10
6.3.3	Nozzle flow rate settings	10
6.3.4	Measurements	11
6.3.5	Results	11
6.4	Spray distribution on a horizontal patternator	11

6.4.1	General	11
6.4.2	General test conditions	13
6.4.3	Test liquid	13
6.4.4	Nozzle flow rate settings	13
6.4.5	Nozzle orientation	14
6.4.6	Nozzle height	15
6.4.7	Measurements	15
6.4.8	Results	16
6.5	Nozzle flow rate and distribution changes due to abrasion (accelerated wear test)	16
6.5.1	General	16
6.5.2	Test liquid	16
6.5.3	Nozzle flow rate setting	16
6.5.4	Abrasion test duration	16
6.5.5	Measurements	17
6.5.6	Results	17
6.6	Spray angle	17
7	Test report	18
Annex A (informative) Applicable tests by nozzle type		19
Annex B (informative) Horizontal patternator		21
Annex C (informative) Nozzle spray angle, spacing and height relationships for horizontal patternator testing		25
Annex D (normative) Specification of the aluminium oxide		26
Annex F (informative) Reporting results for cone nozzles		33
Annex G (informative) Standard spray boom for testing multiple nozzles		34
Bibliography		35