

ISO 11268-2:2023-01 (E)

Soil quality - Effects of pollutants on earthworms - Part 2: Determination of effects on reproduction of *Eisenia fetida*/*Eisenia andrei* and other earthworm species

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Principle	3
5	Reagents and material	4
6	Apparatus	6
7	Procedure	6
7.1	Experimental design	6
7.1.1	General	6
7.1.2	Preliminary test	7
7.1.3	Definitive test	7
7.2	Preparation of test mixtures	7
7.2.1	Testing of contaminated soil	7
7.2.2	Testing substances added to the control soil	8
7.2.3	Preparation of control container	8
7.3	Addition of the earthworms	9
7.4	Test conditions and measurements	9
7.5	Reference substance	9
8	Calculation and expression of results	10
8.1	Calculation	10
8.2	Expression of results	10
9	Validity of the test	10
10	Statistical analysis	10
10.1	General	10
10.2	Single-concentration tests	10
10.3	Multi-concentration tests	11
10.3.1	Preliminary test	11
10.3.2	Definitive test	11
11	Test report	12
Annex A (informative) Determination of the chronic toxicity of chemicals on <i>Eisenia fetida</i> / <i>Eisenia andrei</i> under tropical conditions		13
Annex B (informative) Culturing and testing procedures for assessing the effects of contaminants on juvenile production using the earthworm, <i>Dendrodilus rubidus</i>		15

Annex C (informative) Culturing and testing procedures for assessing the effects of contaminants on adult survival and cocoon production and hatchability using the earthworm, <i>Aporrectodea caliginosa</i> s.s	19
Annex D (informative) Culturing of <i>Eisenia fetida</i> and <i>Eisenia andrei</i>	23
Annex E (normative) Determination of water holding capacity	24
Annex F (informative) Techniques for counting juvenile worms hatched from cocoons	25
Annex G (informative) Experience with performance criteria of the test	26
Bibliography	33