

ISO 22030:2005-02 (E)

Soil quality - Biological methods - Chronic toxicity in higher plants

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 2 |
| 4 | Principle | 4 |
| 5 | Materials | 4 |
| 5.1 | Test plants | 4 |
| 5.2 | Soil and soil storage | 4 |
| 5.2.1 | General | 4 |
| 5.2.2 | Test soil | 5 |
| 5.2.3 | Control soil | 5 |
| 5.3 | Reference substance | 6 |
| 6 | Apparatus | 6 |
| 7 | Methods | 8 |
| 7.1 | Experimental design | 8 |
| 7.2 | Pre-test | 8 |
| 7.3 | Preliminary test (range-finding) | 8 |
| 7.4 | Final test | 9 |
| 7.5 | Preparation of the pots | 9 |
| 7.6 | Preparation of the seeds | 9 |
| 7.7 | Growth conditions | 9 |
| 7.8 | Start of the test | 10 |
| 7.9 | Handling during the test | 10 |
| 7.9.1 | Number of plants and thinning out | 10 |
| 7.9.2 | Watering | 10 |
| 7.9.3 | Rearrangement of test vessels | 10 |
| 7.9.4 | Pollination | 10 |
| 7.9.5 | Reporting | 11 |
| 7.10 | Endpoint measurements | 11 |
| 7.10.1 | Seedling emergence | 11 |
| 7.10.2 | Harvest at day 14 | 11 |
| 7.10.3 | Final harvest | 11 |
| 7.11 | Summary and timetable of the test | 12 |
| 8 | Validity criteria | 13 |
| 9 | Assessment of the results | 13 |
| 9.1 | Presentation of measured data | 13 |
| 9.2 | Statistical analysis | 14 |
| 9.2.1 | Preliminary test | 14 |
| 9.2.2 | Final test | 14 |
| 9.2.3 | NOEC (no observed effect concentration) approach | 14 |
| 9.2.4 | ECx (effect concentration) approach | 14 |

| | | |
|-----------|---|-----------|
| 10 | Test report | 15 |
| | Annex A (informative) Testing of chemicals in soil | 16 |
| | Bibliography | 17 |