

ISO 25177:2008-11 (E)

Soil quality - Field soil description

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	General references	1
3.1	Site/profile numbers	1
3.2	Location	1
3.3	Geographical coordinates	2
3.4	Date of observation	2
3.5	Author and organization	2
4	Profile environment	2
4.1	Previous precipitation	2
4.2	Land use at plot level (checked by detailed field survey)	3
4.3	Type of cultivation or vegetation or human utilization (at the plot level)	3
4.4	Geomorphology of the site	4
4.5	Slope length (in metres)	4
4.6	Slope value	4
4.7	Orientation (aspect) of the slope	4
4.8	Nature of the parent material	4
4.8.1	Modified or artificial material	4
4.8.2	Natural material	4
4.9	Presence and depth of water table	5
4.9.1	General	5
4.9.2	Depth	5
4.9.3	Minimum depth of water table	5
4.9.4	Maximum depth of water table	5
4.9.5	Nature of the water	6
5	Surface appearance	6
5.1	Percentage of land surface occupied by rock outcrops or surface exposures of "non-natural" material (e.g. on an industrial site)	6
5.2	Evidence of erosion	6
6	General designation - Soil type	7
6.1	General	7
6.2	Type of soil classification used	7
6.3	Soil type with reference to the soil classification used	7
6.4	Type of horizon designation used	7
6.5	Sequence of horizons	7
7	Horizon or layer description	8
7.1	General	8
7.2	Horizon or layer number	8
7.3	Depth	8
7.4	Estimation of moisture status	8
7.5	Colour of the horizon or layer matrix	9
7.6	Mottles	9

7.6.1	General	9
7.6.2	Abundance	9
7.6.3	Colour	10
7.7	Estimated organic matter content	10
7.8	Texture	10
7.8.1	Description of texture diagram	10
7.8.2	Estimation	10
7.9	Coarse elements	10
7.9.1	General	10
7.9.2	Abundance (in percent volume fraction)	10
7.9.3	Maximum size of the most frequently observed coarse elements	11
7.9.4	Nature	11
7.10	Carbonates and effervescence	11
7.10.1	Intensity of effervescence	11
7.10.2	Location of effervescence	12
7.11	Main categories of structure	12
7.12	Compactness	13
7.13	Total estimated porosity	13
7.14	Roots	14
7.14.1	Size (diameter) of most frequently observed roots	14
7.14.2	Abundance	14
7.15	Density of worm channels (usually an average over a number of square decimetres)	14
7.16	Nature of lower horizon boundary	14
Annex A (informative) Charts for estimating proportions of mottles, coarse elements, etc		16
Annex B (informative) Reference soil groups of the World Reference Base for soil resources (FAO, ISRIC and ISSS, 2006)		17
Annex C (informative) Soil horizon designation -- Example of the FAO System (2006)		23
Annex D (informative) Examples of texture diagrams		28
Annex E (informative) Determination of soil texture in the field		31
Annex F (informative) Some types of soil structure		34
Bibliography		35