

Description of the pedological profile

O6. Layers description

Horizon Layer	Depth (cm)	9			Stickiness	Plasticity	6	10		11			12	13		14		
		Consistence					Humidity	Texture		Structure			Soil organic matter	pH		CaCO ₃		
1 A/B	999 - 999	G	-	G	-	G	Y/N	Y/N	9	S-L	-	S-C-L	G	-	Po	A	9,9 / A	A
2 A/B	999 - 999	G	-	G	-	G	Y/N	Y/N	9	S-L	-	S-C-L	G	-	Po	A	9,9 / A	A
3 A/B	999 - 999	G	-	G	-	G	Y/N	Y/N	9	S-L	-	S-C-L	G	-	Po	A	9,9 / A	A
4 A/B	999 - 999	G	-	G	-	G	Y/N	Y/N	9	S-L	-	S-C-L	G	-	Po	A	9,9 / A	A
5 A/B	999 - 999	G	-	G	-	G	Y/N	Y/N	9	S-L	-	S-C-L	G	-	Po	A	9,9 / A	A
6 A/B	999 - 999	G	-	G	-	G	Y/N	Y/N	9	S-L	-	S-C-L	G	-	Po	A	9,9 / A	A

Horizon Layer	Colour			31				61				60													
	Colour			Skelleton				Artificial additives				Rottiness													
1 A/B	10YR3/5	15	/	3	15	/	3	99	O	SP	Kr	15	/	3	99	O	SP	99	15	/	3	A	A	A	A
2 A/B	10YR3/5	15	/	3	15	/	3	99	O	SP	Kr	15	/	3	99	O	SP	99	15	/	3	A	A	A	A
3 A/B	10YR3/5	15	/	3	15	/	3	99	O	SP	Kr	15	/	3	99	O	SP	99	15	/	3	A	A	A	A
4 A/B	10YR3/5	15	/	3	15	/	3	99	O	SP	Kr	15	/	3	99	O	SP	99	15	/	3	A	A	A	A
5 A/B	10YR3/5	15	/	3	15	/	3	99	O	SP	Kr	15	/	3	99	O	SP	99	15	/	3	A	A	A	A
6 A/B	10YR3/5	15	/	3	15	/	3	99	O	SP	Kr	15	/	3	99	O	SP	99	15	/	3	A	A	A	A

Code list**1-Macorelief**

- flatland / valley / basin / plateau / river terrace / lower hills / hills / mountain

2-FAO use

- field & garden / meadow / vineyard/ orchard / hopfield / olive plantation / other plantations / forest / urban area / water

3-Vegetation

- grain / rattle / fodder plants / legumes / vegetables / other commercial plants / grasses / shrubs / swampy vegetation / coniferous forest / deciduous forest / mixed forest

4-Type of erosion

- wind erosion / water erosion

5-Degree of erosion

- no erosion / weak (0-25%) / medium (25-75%) / strong (>75%)

6-Soil humidity

- dry / fresh / wet

7-Excavation difficulty

- easy / medium / hard

8-Draining

- very bad / bad / moderate / good

9-Consistence

- loose / friable / firm /thick / sticky / plastic /

10-Texture

- clay / silt / sand

11-Structure

- worm casts / lumpy / granular / blocky / prismatic / columnar / platy /

12-Soil organic matter

- organic / humus / moderate humus / mineral

13-pH

- (0-6,5) acid / (6,6-7,3) neutral / (7,4-9) alkaline

14-Carbonate reaction

- no reaction / weak reaction / strong reaction

The constituents have the following feel:

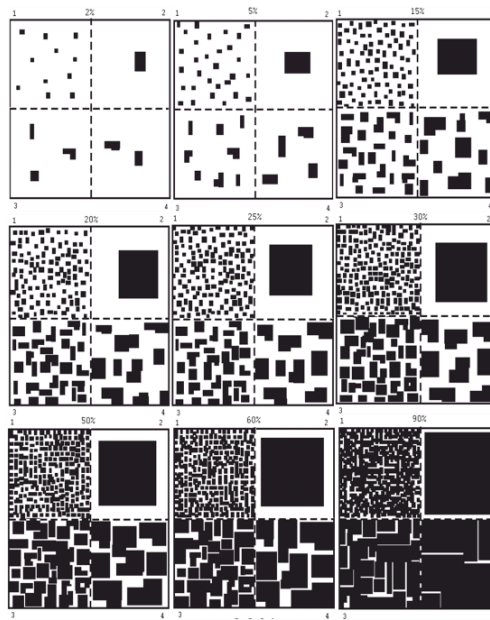
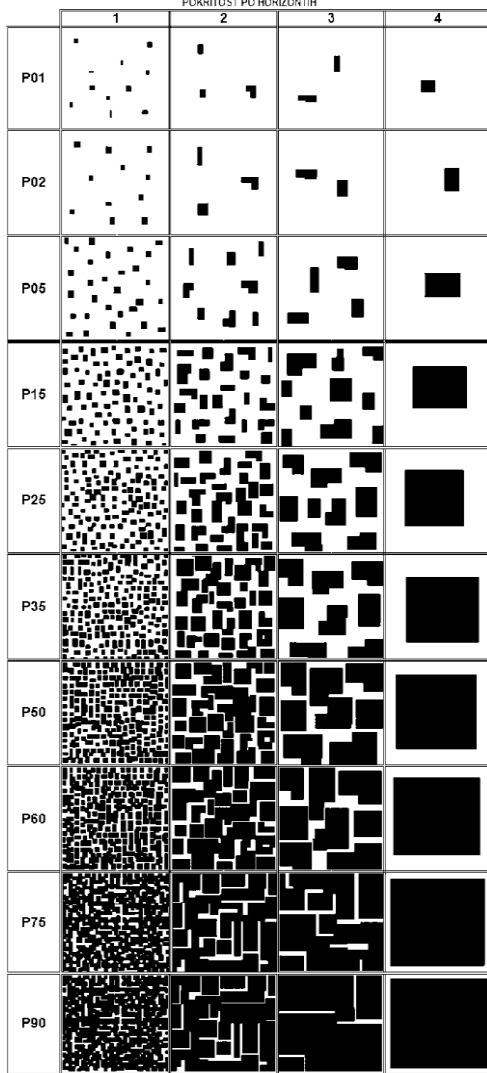
☞ Clay: soils fingers, is cohesive (sticky), is formable, has a high plasticity and has a shiny surface after squeezing between fingers.

☞ Silt: soils fingers, is non-sticky, only weakly formable, has a rough and ripped surface after squeezing between fingers and feels very floury (like talcum powder).

☞ Sand: cannot be formed, does not soil fingers and feels very grainy.

Description of the pedological profile

POKRITOST PO HORIZONTIH



GUIDELINES FOR PRACTICAL WORK

1. Comparison of different types of soil according to bedrock

We choose two different types of rock (e.g. limestone, sandstone, dolomite) we excavate and describe the profile and we gather samples. In the samples we determine the reaction of soil and the share of free carbonates. We interpret the change in/of the soil reaction and the share of free carbonates in each horizon and between the profiles. We present the results graphically: the depth of the gathered sample (horizon)/pH.

2. Comparison of soil according to its use

We choose types of soil with use as diverse as possible (e.g. forest-meadow or forest-field). We excavate profiles, make descriptions and take samples. The difference will be seen mostly in the upper part of the soil profile, where we determine the amount of organic material. We interpret the results according to whether the **circulation of vegetation mass (deprivation of produce) has been interrupted or maintained.**

NOTES TO THE PROFILE DESCRIPTION

The SOIL TEXTURE is denoted as the ratio among the amounts of sand, silt and clay, which determines multiple soil characteristics. If sand prevails, the soil is airy, but does not hold water. Sandy soil can also be referred to as “easy” soil, because it is easily cultivated. If clay and silt prevail, the soil is thick, beat, poorly airy, retains water and is difficult to cultivate. If a handful of soil is taken from a garden or a field, it does not disintegrate into elementary particles, but into bigger or smaller lumps. These lumps are referred to as STRUCTURAL AGGREGATES.

Crumbly structural aggregates are also porous and look like bread crumbs. They are present in the soil with a high share of organic material, like forest soil. They can also be found in compost and growing substrates, which can be bought in shops. Lumpy structural aggregates are curvy and firm, while nut-like structural aggregates have some flat surfaces or sharp edges and form the transition towards blocky structural aggregates.

Angular or polyhedron structural aggregates have flattened surfaces and sharp edges. They are quite compatible. They are significant for soil based on limestone and dolomites. Platy structural aggregates can be found in the soil of plain flood regions, which are occasionally highly saturated with water and contain a higher share of clay. The shape of platy structural aggregates prevents water from draining through the soil.

Type	Description
Granular	Rounded surfaces
Crumb	Rounded surfaces but larger than granular
Subangular blocky	Cube-like with flattened surfaces and rounded corners
Blocky	Cube-like with flattened surfaces and sharp corners
Prismatic	Rectangular with a long vertical dimension and flattened top
Columnar	Rectangular with a long vertical dimension and rounded top
Platy	Rectangular with a long horizontal dimension
Single grain	No aggregation of coarse particles when dry
Structureless	No aggregation of fine particles when dry

