Description of the pedological profle Let`s Talk About Soil

1. Location and marks

Nr of Profile	SI	9	9	9	/	I	P	/	p	r	o	j	e	k	t

Date	d	d	.	m	m	.	I	I	WGS	GK	X	9	9	9	9	9	9	Y	9	9	9	9	9	9	Altitude	9	9	9	9	m

State	location	Name:

2. Pedogenetic factors

1	Macro relief	A	Angle of inclination	9	o	Cardinal direction	A	A
2	FAO use	A	Human influence	Y/N				
3	Vegetation	A						

3. Description of the soil profile

Presence of rock	Y/N
Max. size of rosk (cm)	9
Type of erosion	A
Degree of erosion	A
Soil humidity	9
Depth of Roots (cm)	9
Excavation Difficulty	9

4 5 6 7

Profile sketch

Dubina (cm)

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

Dubina (cm)

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150

4. General remarks

Water stagnation	Y/N
Flooding	Y/N
Draining	A

8

5. Photographies

Photo	✓	Photo of the location	N	✓	E	✓	S	✓	W	✓

Notes...

Opis horizontov / slojev

Horizon Layer	Depth (cm)			Consistence (9)				Stickiness	Plasticity	Humidity (6)	Texture (10)		Structure (11)			Soil organic matter (12)	pH (13)	$CaCO_3$ (14)
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				Skelleton (31)							Artificial additives (61)							Rottiness (60)					
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-Macrorelief

- 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

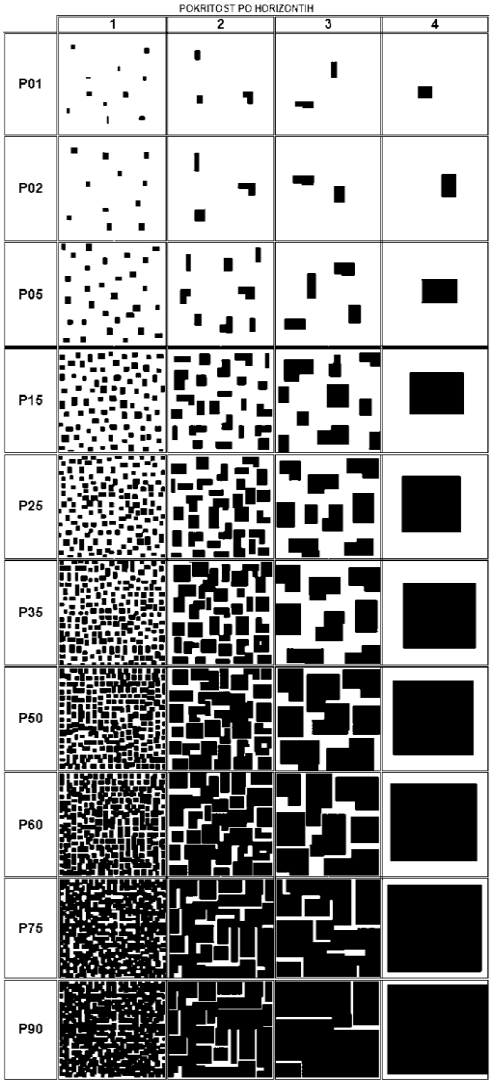
- (0-6,5) acid / (6,6-7,3) neutral / (7,4-9) alkalin

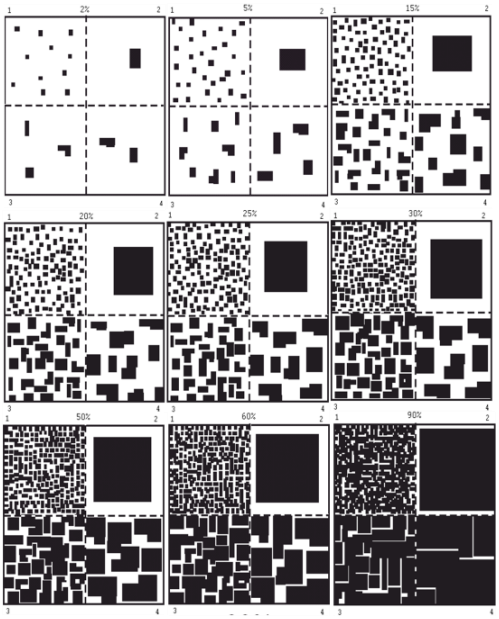
14-Carbonate reaction

- 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.


POKRITOST PO HORIZONTIH
1
2
3
4
P01
P02
P05
P15
P25
P35
P50
P60
P75
P90


2%
5%
15%
20%
25%
30%
50%
60%
90%

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 od 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.

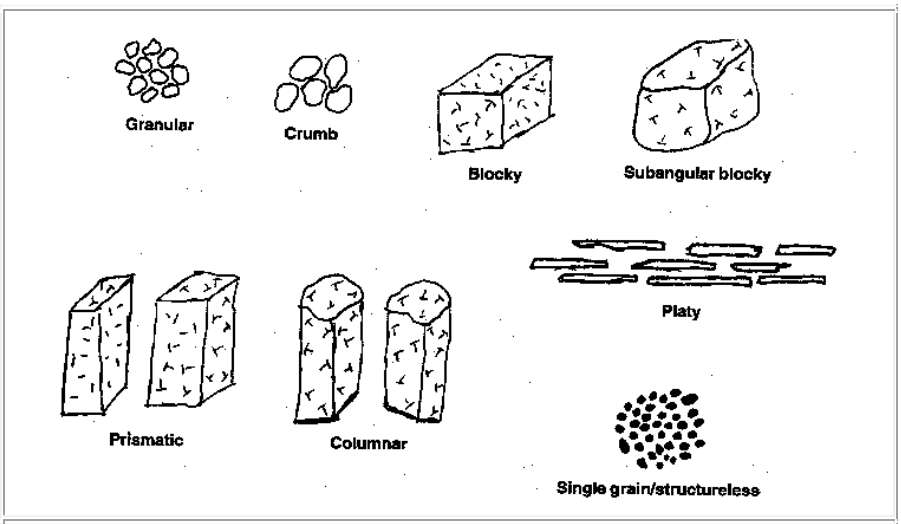


Figure 2.5. Soil structural types.

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

http://passel.unl.edu/pages/informationmodule.php?idinformationmodule=1130447039&topicorder=4&maxto=10