Contents

1			n			
	1.1		al Information Regarding Croatia			
	1.2	Short	History of Soil Science and Soil Survey in Croatia			
	Refe	rences				
2	Soil	as a Na	atural Resource of Croatia			
	2.1	Soil as	s a Unique Natural Body			
	2.2		functions: Roles of the Croatian Pedosphere			
		2.2.1	Primary Production of Organic Matter: Soil is a Source of Food,			
			Feed, Timber, and Biofuels!			
		2.2.2	Environment-Regulatory Functions: Soil is a Regulator!			
		2.2.3	Soil Provides the Space for Settlements and Infrastructure:			
			We are Living, Producing, Transporting, Playing on Soil!			
		2.2.4	The Function of Soil as a Medium for Waste Disposal:			
			All Communal and Industrial Wastes Terminate on/in Soil!			
		2.2.5	Soil is a Significant Gene Reservoir: A Larger Biomass Lives			
			in Croatian Soils than in the Above-Ground			
			Biomass: Soil Diversity = Biodiversity!			
		2.2.6	Soil in the Function of Landscape Shaping: Soil is the Base			
			of Croatian Natural Beauty and an Emotional			
			Foundation of Patriotism!			
		2.2.7	Soil as a Source of Raw Materials: Soil Supports			
			Industrial and Other Production!			
		2.2.8	Conservation: The Archival Function of Soil: Soil is a Conservator			
			of Croatian Natural and Human Heritage!			
	2.3	Conce	pt of Multifunctionality (MFCAL) in Land Management			
	Refe	eferences				
3	Agr	gricultural Regions of Croatia				
•	3.1	Panno	mian Region			
		3.1.1	Eastern Pannonian Subregion (P-1)			
		3.1.2	Central Pannonian Subregion (P-2)			
		3.1.3	Western Pannonian Subregion (P-3)			
		3.1.4	North-West Pannonian Subregion (P-4)			
	3.2		tainous Region			
		3.2.1	The Perimountainous Subregion (G-1)			
		3.2.2	Mountainous Subregion (G-2)			
	3.3	Adriat	tic Agricultural Region			
		3.3.1	North Adriatic Subregion (J-1)			
		3.3.2	Central Adriatic Subregion (J-2)			
		3.3.3	South Adriatic Subregion (J-3)			
	Refe	erences				

xii

4	Fact	ors of S	Soil Genesis of Croatia	37				
	4.1	Parent	Substrate	37				
		4.1.1	Pannonian Region	38				
		4.1.2	Mountainous Region	40				
		4.1.3	Adriatic Region	44				
	4.2	Climat	e and Hydromorphism as a Factor of Soil Genesis	49				
		4.2.1	Pannonian Region	50				
		4.2.2	The Mountainous Region	52				
		4.2.3	Adriatic Region	54				
	4.3	Biolog	ical Factors of Soil Genesis	57				
		4.3.1	Steppe Phytocenosis	58				
		4.3.2	Meadow Phytocenosis	58				
		4.3.3	Forest Phytocenosis	59				
		4.3.4	Soil Fauna: Zoosphere of Soil	64				
		4.3.5	Anthropogenic Influence on Soil Formation	65				
		4.3.6	Relief	66				
		4.3.7	Time (Soil Age) as a Factor of Soil Genesis	69				
	Refe			71				
	-1010							
5			omy of Croatia	73				
	5.1		History of Soil Taxonomy	73				
	5.2		Soil Taxonomy	76				
		5.2.1	Definitions of Genetic Soil Horizons	76				
		5.2.2	Soil Taxonomy	77				
	Refe	rences .		80				
6	Pedosphere of Croatia							
	6.1	Order	of Automorphic Soils	83				
		6.1.1	Class I: Initial Automorphic Soils of (A)-R or A-C Sequence					
			of Horizons in Soil Profile	83				
		6.1.2	Class II: Humus-Accumulative Soils of A-C, A-R or A-C-R					
			Soil Horizons Sequence	94				
		6.1.3	Class III: Cambic Soils A-(B) _o -C, or A-(B) _o -R					
			Soil Horizons Sequence	108				
		6.1.4	Class IV: Polygenetic Cambisols of Limestone—Dolomite Karst					
			of A-(B) _{no} -R Sequence of Soil Horizons	113				
		6.1.5	Class V: Eluvial–Illuvial Soils of A–E–B _t –C/R Sequence					
			of Soil Profile	120				
		6.1.6	Class VI: Autochthonous Terrestrial Anthrosols of P-C, P-(B)-C,					
			or P-B-C Sequence of Soil Horizons	128				
		6.1.7	Class VII: Technogenic Soils (Technosols)					
			I–II–III–IVetc. Layers	138				
	6.2	Order	of Semiterrestrial Soils	140				
	0.2	6.2.1	Class I: Soils with Stagnation of Rainwater of A-E _g -S-C	1.0				
		J. .	Soil Horizon Sequence	140				
		6.2.2	Class II: Anthrosols Semiterrestrial P–S–C Soil	1.0				
		J.L.L	Horizon Sequence	146				
	6.3	Order	of Hydromorphic Soils	148				
	0.5	6.3.1	Class I: Initial Multilayer Soils of I–II–III–IVg _{r/ox}	148				
		6.3.2	Class II: Semigleyic Soils of AG _r , Sequence	1-10				
		0.5.2	of Soil Horizon	151				
		6.3.3	Class III: Hypoglevic Soils of A-G. Soil Horizon Sequence	153				

	6.3.4	Class IV: Amphygleyic Soils of A _a -G _r -G _{so} -G _r ,	
		Soil Horizon Sequence	156
	6.3.5	Class V: Peat Soils of T-G _r , Soil Horizon Sequence	162
	6.3.6	Class VI: Anthrosol Hydromorphic of PG _{r/so}	
		Soil Horizon Sequence	164
6.4	Order	of Halomorphic Soils	168
	6.4.1	Class I: Salty Soils	168
	6.4.2	Class II: Alkalized Soil	168
6.5	Order	of Subaquatic Soils	169
Refe	erences		171
Curricu	ılum V	itae	175
Index			179