

APPENDIX-II

Site features and morphological and physicochemical properties of typifying PedonP2 (Grass land) in Older alluvium (Majuligarh, Biswanath Chariali)

Geomorphic unit	Age	Topography	Slope	Drainage class	Soil depth	Erosion	Flooding	Ground water table
Older alluvium	Pleistocene	Gently Undulating	Very Gentle (1-3%)	Well drained	Very deep (>150cm.)	Slight	Nil	Moderately deep
Horizon	Depth(cm)	Colour(moist)		Texture (USDA)	Structure Consistence		Mottles	
A	0-5	10YR4/3 (dark brown)		Clay loam	1fsbk	ws,wp, mfr & dh	–	
B1	5-20	10YR5/(yellowish brown)		Clay loam	2msbk	wvs,wp, mf & dh	–	
B2 _{1t}	20-35	10YR4/4 (dark yellowish brown)		Clay loam	1msbk	wvs,wp, mf& dh	–	
B2 _{2t}	35-75	7.5YR4/4 (Dark brown)		Clay loam	2msbk	wvs,wp, mf & dh	–	
B3 _{1t}	75-150	5YR4/4 (reddish brown)		Clay	2msbk	wvs,wp, mf & dh	–	
B3 _{2t}	150-200	7.5YR4/4 (Dark brown)		Clay	1msbk	wvs,wp, mf & dh	c2d, 5YR4/4	
Horizon	Depth (cm)	Particle Size Distribution			Silt/ Silt + clay	Bulk density (Mg M ⁻³)		
		Sand (%)	Silt (%)	Clay (%)				
A	0-5	40.0	17.5	40.0	0.30	1.46		
B1	5-20	38.5	20.5	39.0	0.34	1.49		
B2 _{1t}	20-35	34.0	17.5	44.5	0.28	1.47		
B2 _{2t}	35-75	32.0	18.0	49.0	0.27	1.50		
B3 _{1t}	75-150	27.5	14.0	56.0	0.20	1.57		
B3 _{2t}	150-200	22.0	18.0	58.0	0.24	1.64		
Horizon	Depth (cm)	Org. matter (%)	PH (1:2.5)	Exch. Cations(Cmol (p+)kg ⁻¹)				CEC Cmol (p+)kg ⁻¹
				Ca ⁺⁺	Mg ⁺⁺	Na ⁺	K ⁺	
A	0-5	3.6	4.3	0.8	0.7	0.30	0.50	4.6
B1	5-20	1.3	4.4	0.9	0.3	0.20	0.60	5.6
B2 _{1t}	20-35	0.9	4.9	1.8	0.2	0.14	0.16	4.2
B2 _{2t}	35-75	0.8	5.1	1.1	0.7	0.30	0.20	3.3
B3 _{1t}	75-150	0.5	4.9	0.4	0.4	0.14	0.23	4.3
B3 _{2t}	150-200	0.4	5.2	0.5	0.4	0.26	0.28	4.1
Horizon	Depth (cm)	Base Sat-ration (%)	Exch. acidity(Cmol p ⁺)kg ⁻¹		Available Nutrients (Kg/ha)			
			H ⁺	Al ⁺⁺	N	P ₂ O ₅	K ₂ O	
A	0-5	50.0	0.2	0.4	706.1(H)	117.9(H)	362.8(H)	
B1	5-20	35.7	0.3	0.7	248.9(L)	123.1(H)	672(H)	
B2 _{1t}	20-35	54.8	0.1	1.3	169.5(L)	28.2(M)	168(M)	
B2 _{2t}	35-75	39.4	0.4	2.7	157.9(L)	22.5(M)	215(M)	
B3 _{1t}	75-150	27.2	0.4	0.8	88.8(L)	23.8(M)	235(M)	
B3 _{2t}	150-200	35.1	0.3	1.1	76.2(L)	29.2(M)	192(M)	

**Site features and morphological and physicochemical properties of typifying PedonP5
(Grass land) in Older alluvium (Negheriting, Dergaon)**

Geomorphic unit	Age	Topography	Slope	Drainage class	Soil depth	Erosion	Flooding	Ground water table
Older alluvium	Pleistocene	Gently Undulating	Very Gentle (1-3%)	Well drained	Very deep (>150cm.)	Slight	Nil	Moderately deep
Horizon	Depth(cm)	Colour(moist)		Texture (USDA)	Structure Consistence		Mottles	
A	0-35	10YR5/4 (yellowish brown)		Clay loam	1fsbk	ws,wp, mfr & dh	-	
B1	35-75	10YR5/8(yellowish brown)		Clay loam	2msbk	wvs,wp, mf & dh	-	
B2 _{1t}	75-150	10YR6/6 (brownish yellow)		Clay loam	1msbk	wvs,wp, mf& dh	-	
B2 _{2t}	150-180	7.5YR6/8 (reddish yellow)		Clay	2msbk	wvs,wp, mf & dh	C1d 5YR (5/4)	
B3 _t	180-200	7.5YR6/6 (reddish yellow)		Clay	2msbk	wvs,wp, mf & dh	C1d 5YR3/2	
Horizon	Depth (cm)	Particle Size Distribution			Silt/ Silt + clay	Bulk density (Mg M ⁻³)		
		Sand (%)	Silt (%)	Clay (%)				
A	0-35	38.0	19.5	39.0	33.3	1.49		
B1	35-75	37.0	18.2	42.0	30.2	1.54		
B2 _{1t}	75-150	35.0	15.0	48.0	23.8	1.62		
B2 _{2t}	150-180	28.0	19.5	49.5	28.2	1.66		
B3 _t	180-200	25.0	21.0	53.0	28.4	1.68		
Horizon	Depth (cm)	Org. matter (%)	PH (1:2.5)	Exch. Cations(Cmol (p+)kg ⁻¹)				CEC Cmol (p+)kg ⁻¹
				Ca ⁺⁺	Mg ⁺⁺	Na ⁺	K ⁺	
A	0-35	2.1	4.3	1.6	0.6	0.23	0.25	4.8
B1	35-75	1.3	4.6	1.8	0.5	0.21	0.38	4.9
B2 _{1t}	75-150	0.9	4.8	0.9	0.4	0.12	0.30	4.1
B2 _{2t}	150-180	0.7	4.9	0.7	0.8	0.13	0.38	4.5
B3 _t	180-200	0.4	4.9	0.9	0.7	0.12	0.36	4.6
Horizon	Depth (cm)	Base Saturation (%)	Exch. acidity(Cmol p ⁺)kg ⁻¹		Available Nutrients (Kg/ha)			
			H ⁺	Al ⁺⁺	N	P ₂ O ₅	K ₂ O	
A	0-35	49.0	0.8	1.65	405.3(M)	128.3(H)	321.5(M)	
B1	35-75	41.0	0.7	2.16	250.9(L)	76.9(H)	356.9(H)	
B2 _{1t}	75-150	42.0	0.7	1.72	173.7(L)	28.5(M)	245.0(M)	
B2 _{2t}	150-180	45.0	0.8	1.73	135.1(L)	36.9(M)	132.0(L)	
B3 _t	180-200	39.0	0.6	2.17	77.2(L)	15.2(L)	145.0(M)	

Site features and morphological and physicochemical properties of typifying Pedon P7 (Forestland) in Older alluvium (Makri Chariali, Goalpara)

Geomorphic unit	Age	Topography	Slope	Drainage class	Soil depth	Erosion	Flooding	Ground water table
Older alluvium	Pleistocene	Undulating	Gentle (3-8%)	Well drained	Very deep (>150cm.)	Moderate	Nil	Moderately deep
Horizon	Depth(cm)	Colour(moist)		Texture (USDA)	Structure Consistence		Mottles	
A	0-25	10YR5/4 (yellowish brown)		Sandy clay	1fsbk	ws,wp, mfr & dh	-	
B1	25-75	10YR5/8(yellowish brown)		Clay	2msbk	wvs,wp, mf & dh	-	
B2 _{1t}	75-120	7.5YR5/8 (strong brown)		Clay	1msbk	wvs,wp, mf& dh	-	
B2 _{2t}	120-155	7.5YR6/6 (reddish yellow)		Clay	2msbk	wvs,wp, mf & dh	-	
B3 _t	155-190	7.5YR6/8 (reddish yellow)		Clay	2msbk	wvs,wp, mf & dh	C2d 10YR3/5	
Horizon	Depth (cm)	Particle Size Distribution			Silt/ Silt + clay	Bulk density (Mg M ⁻³)		
		Sand (%)	Silt (%)	Clay (%)				
A	0-25	39.5	19.1	40.2	0.32	1.43		
B1	25-75	38.3	18.1	40.0	0.31	1.44		
B2 _{1t}	75-120	37.3	16.5	44.9	0.27	1.48		
B2 _{2t}	120-155	36.5	14.5	48.3	0.23	1.51		
B3 _t	155-190	34.2	14.4	50.5	0.22	1.56		
Horizon	Depth (cm)	Org. matter (%)	PH (1:2.5)	Exch. Cations(Cmol (p+)kg ⁻¹)				CEC Cmol (p+)kg ⁻¹
				Ca ⁺⁺	Mg ⁺⁺	Na ⁺	K ⁺	
A	0-25	1.4	4.2	1.6	0.7	0.20	0.50	4.5
B1	25-75	0.8	4.4	0.8	1.1	0.25	0.23	5.2
B2 _{1t}	75-120	0.8	4.4	0.6	0.7	0.12	0.28	4.9
B2 _{2t}	120-155	0.4	4.5	1.4	0.6	0.18	0.31	4.8
B3 _t	155-190	0.2	4.6	0.8	0.5	0.11	0.18	5.0
Horizon	Depth (cm)	Base Sat-ration (%)	Exch. acidity(Cmol p ⁺)kg ⁻¹		Available Nutrients (Kg/ha)			
			H ⁺	Al ⁺⁺	N	P ₂ O ₅	K ₂ O	
A	0-25	46.7	0.8	1.3	269.4(L)	28.6(M)	269.5(M)	
B1	25-75	45.8	0.6	1.9	168.1(L)	25.3(M)	145.9(L)	
B2 _{1t}	75-120	34.7	0.7	1.2	152.5(L)	22.2(L)	136.5(L)	
B2 _{2t}	120-155	31.0	0.4	0.7	86.9(L)	15.3(L)	125.5(L)	
B3 _t	155-190	21.8	0.5	0.6	40.5(L)	11.5(L)	93.0(L)	