

Field descriptions of main soil sites (H1 to H7).

H1

H	+16	7.5YR 2.5/2; many very fine + fine roots, common medium + coarse roots; clear + wavy boundary to
Ah	0-3	7.5YR 3/2; loamy silt; moderate fine subangular blocky to fine granular; many very fine + fine + medium roots; non sticky; moderately plastic; deformable failure; weak strength; clear + wavy boundary to
AE	3-11	7.5YR 4/2; mottles at base 7.5YR 4/6, coarse, prominent; additional colours at base 2.5Y 6/4 (50%) + 10YR 5/2 (10%); loamy silt; weak fine to medium subangular blocky; many fine roots, common medium roots; non sticky; moderately plastic; semi-deformable failure; weak strength; clear + wavy boundary to
Bw	11-17	2.5Y 6/5 (70%), 10YR 4/2 (30%), few mottles 5GY 6/1, coarse, distinct; silt loam; weak medium subangular blocky breaking to moderate fine subangular blocky; common fine roots, few medium roots; slightly sticky; moderately plastic; semi-deformable to brittle failure towards base; weak strength; clear + wavy boundary to
Bs	17-24	10YR 6/7 (80%), few 10YR 4/4 (20%) metal-organic coatings on ped faces + root channels, continuous, prominent, 2 mm thick; silt loam; moderate fine + medium + coarse subangular blocky; common very fine + fine roots, few medium roots; slightly sticky; moderately plastic; friable to brittle failure; weak strength; clear + wavy boundary to
Bs2	24-34	10YR 3/6; few 7.5YR 3/3 metal-organic coatings on ped faces, continuous, distinct, 1 mm thick; silt loam; moderate fine + medium subangular blocky; common fine + medium roots, few coarse roots; slightly sticky; moderately plastic; friable failure; weak strength; slightly greasy; clear + wavy boundary to
2Bs	34-49	10YR 4/5; few 7.5YR 3/3 metal-organic coatings on ped faces, continuous, distinct, 1-2 mm thick; loamy sand; weak coarse subangular blocky breaking to fine subangular blocky + coarse granular; common fine + medium roots; non-sticky; slightly grading to non-plastic; brittle grading to friable failure; weak grading to very weak strength; slightly greasy; gradual + smooth boundary to
2BC1	49-64	10YR 4/4; sand; weak coarse subangular blocky breaking to single grain; few very fine + fine roots; non-sticky; non-plastic; very friable failure; very weak strength; gradual + smooth boundary to
2BC2	64-110	2.5Y 4/3; sand; weak coarse subangular blocky; few very fine + fine roots; non-sticky; non-plastic; very friable failure; very weak strength; gradual + smooth boundary to
2C	110-140+	5Y 4/1; medium sand; weak coarse subangular blocky to massive breaking to single grain; non-sticky; non-plastic; very friable failure; very weak strength;

H2

H	+8	5YR 5/2; many very fine + fine + medium + coarse roots, common very coarse roots; clear + smooth boundary to
Ah	0-4	5YR 3/1; loamy silt; few very fine + fine roots, many medium + coarse roots; clear + wavy boundary to
E	4-14	2.5Y 5/1, from 9 cm 10YR 4/6, 10YR 5/3, 7.5YR 4/6 (30% each), 10YR 3/4 (10%); very few 7.5YR 3/3 metal-organic coatings on ped faces + root channel walls, continuous, prominent, <1mm thick; loamy silt; moderate medium to coarse subangular blocky; few very fine + fine roots; slightly sticky; moderately plastic; brittle to semi-deformable failure; firm strength; clear + smooth boundary to
Bhs	14-30	10YR 4/6; very few 7.5YR 3/4 metal-organic coatings on ped faces + root channel walls, continuous, prominent, <1mm thick; loamy silt; weak medium subangular blocky + moderate single grain; common very fine + fine + medium roots; slightly sticky; slightly plastic; friable failure, weak strength; greasy at base; clear + smooth boundary to
2Bs	30-36	10YR 3-4/6, between 31-42 cm 10YR 4/6 associated with root channels of 8 cm diameter; sandy loam, silt loam in root channels; common very fine roots, few fine + medium roots, many very fine + fine roots in root channels; weak medium subangular blocky + moderate coarse granular; slightly sticky; non-plastic; friable failure to brittle failure at base; weak strength; greasy; gradual + wavy boundary to
2BC	36-110	2.5Y 5/4; 10YR 3/3 (30%) associated with medium, vertical + horizontal root channels, 10YR 4/6 root channels as in horizon above (5%); few 7.5YR 3/3 metal-organic coatings on ped faces, continuous, prominent, <1mm thick; loamy sand, from 50 cm medium sand; weak medium to coarse subangular blocky breaking to single grain; common very fine + fine roots; non-sticky; non-plastic; very friable failure; very weak; greasy; gradual + smooth boundary to
2C	110-120+	5Y 4/3; 2.5Y4/3 (20%) in former root channels; medium sand; single grain, 2.5Y4/3 patches weak medium subangular blocky; few fine roots; non-sticky; non-plastic; very friable failure; very weak

H3

H	+20	7.5YR 2.5/2; many very fine + fine roots, common medium roots, few coarse roots; clear + smooth boundary to
Ah	0-5	10YR 2/2; silt loam; weak medium subangular blocky breaking to very fine + fine subangular blocky; many very fine + fine roots, common medium roots, few coarse roots; slightly sticky; moderately plastic; semi-deformable failure; weak strength; clear + smooth boundary to
E	5-12	10YR 4/2 (50%), 7.5YR 3/2 (50%); few 7.5YR 2.5/1 metal-organic coatings on ped faces, continuous, prominent, 1 mm thick; silt loam; moderately coarse subangular blocky breaking to fine + medium subangular blocky; few very fine + fine + medium + coarse roots; slightly sticky; slightly plastic; semi-deformable failure; slightly firm; abrupt + smooth boundary to
Bs	12-33	10YR 4/6 (80%), 7.5YR 2.5/3 (10%) vertically aligned, former root channels, spherical, 3-5 cm diameter + 1 cm thick, 2.5Y 4/4 (8%), 5YR 4/6-5/8 (2%) iron pan fragments, 3 cm long + 0.5 cm thick, prominent; very few 7.5YR 2.5/1 metal-organic coatings on ped faces + root channels confined to root channels, continuous, distinct, 1 mm thick; silt loam, sandy loam by 27 cm; weak medium to fine subangular blocky breaking to fine granular, moderate medium to coarse subangular blocky breaking to fine granular by 27 cm; common very fine + fine roots, few medium + coarse roots; slightly sticky; slightly plastic; brittle failure; weak strength; gradual + smooth boundary to
2Bs	33-54	2.5Y 5/4 (60%), 10YR 3/4 (33%) spherical, vertical root channels (cf. Bs), 7.5YR 2.5/3 (5%), 2.5Y 6/3 (<2%); loamy sand, medium sand by 48 cm; weak medium subangular blocky breaking to very fine + fine subangular blocky, very weak fine + medium subangular blocky breaking to single grain by 41 cm, single grain by 48 cm; few very fine + medium roots; non-sticky; non-plastic; brittle failure; weak strength; gradual + smooth boundary to
2BC	54-160	2.5Y 4/4 (60%), 10YR 3/6 (36%) root channels, 7.5YR 2.5/3 (2%) (cf. 2Bs), 2.5Y 5/1; medium sand, loamy sand in root channels; single grain; few very fine + fine + medium roots, confined to root channels; non-sticky; non-plastic; very friable failure; very weak strength; gradual + smooth boundary to
2C	160-175+	5Y 4/2; medium sand; single grain; no roots; non-sticky; non-plastic; very friable failure; very weak strength

H4

H	+9.5	2.5YR 2.5/1; many very fine + fine + medium roots, common coarse roots; clear + wavy boundary to
Ah	0-2/8	10YR 3/2; silt loam; moderate medium subangular blocky; common very fine + fine + medium roots, few coarse roots; non-sticky; slightly plastic; very friable failure; very weak to weak strength; clear + wavy boundary to
E	2/8-10	10YR 5/4 (50%), 10YR 4/1 (40%), 10YR 4/3 (10%) tongue-like, vertically aligned patches associated with former roots; silt loam; moderate medium + coarse subangular blocky; few very fine + medium + coarse roots; non-sticky; non-plastic; friable failure; slightly firm; abrupt + broken boundary to
Bfm	10-12	5YR 4/6; firm strength; slightly cemented; abrupt + broken boundary to
Bs	12-47	10YR 4/6 (70%), 10YR 5/6 (25%), 2.5Y 5/6 former root channels with selvedges of 5YR 4/6 <5 mm thick; at 29-35 cm few 7.5YR 2.5/3 metal-organic coatings on ped faces, continuous, prominent, 2 mm thick; silt loam, sandy loam by 18 cm; weak medium subangular blocky; few very fine roots; non-sticky; non-plastic; very friable failure; weak strength; clear + irregular boundary to
BC	47-80	2.5Y 4/3, 10YR 5/6 (<2%) medium sand; weak coarse subangular blocky breaking to single grain; no roots; non-sticky; non-plastic; very friable failure; very weak strength; gradual + smooth boundary to
C	80-160+	5Y 4/2; horizontal lamination (1 cm scale); medium sand; single grain; no roots; non-sticky; non-plastic; very friable failure; very weak strength

H5

H	+24	7.5YR 2.5/2; many very fine + fine + medium roots, common coarse roots, few very coarse roots; abrupt + smooth boundary to a 3 cm gap penetrated by many roots followed by
E	0-8	10YR 4/2 (50%), 10YR 5/2 (50%); silt loam; weak coarse subangular block with tendency to massive; very few very fine + medium roots; slightly sticky; moderately plastic; friable failure, weak strength; clear + smooth boundary to
Bh	8-14	7.5YR 3/2 (49%), 10YR 4/3 (49%), 10YR 2/2 (2%) horizontally and vertically aligned, former root channels, spherical, 2 mm in diameter, 5 cm long, very few 7.5YR 3/3 metal-organic coatings on ped faces associated with former root channels, continuous, distinct, 1 mm thick; sandy loam; weak medium to coarse subangular blocky; very few very fine + fine roots; slightly sticky; moderately plastic; friable failure; weak strength; clear + wavy boundary to
Bs1	14-23	10YR 5/6 (40%), 2.5Y 5/4 (25%), 2.5Y 4/3 (20%), 5YR 4/6 (15%), mottles (iron concretions), prominent, coarse; sandy loam; moderate medium subangular blocky; very few very fine + fine roots; slightly sticky; non-plastic; friable failure; weak strength, iron concretions slightly firm strength; clear + smooth boundary to
Bs2	23-32	10YR 4/6 (98%); 5YR 4/6 (2%) mottles restricted to upper boundary, prominent, coarse; loamy sand; weak fine to medium subangular blocky; very few fine roots; slightly sticky; non-plastic; friable failure, weak strength; gradual + smooth boundary to
BC	32-93	2.5Y 4/3, 5Y 4/3 from 60 cm; loamy sand, medium sand from 40 cm; weak coarse subangular blocky breaking to single grain; very few very fine roots, from 52 cm no roots; non-sticky; non-plastic; brittle failure, weak strength; gradual + smooth boundary to
BC	93-120+	5Y 4/2; medium sand; single grain; no roots; non-sticky; non-plastic; very friable failure; very weak strength

H6

H	+20	7.5YR 2.5/2; many very fine + fine roots, common medium + coarse roots; clear + smooth boundary to
E	0-14	10YR 4/2; sandy loam; moderate medium subangular blocky; few fine roots, common medium + coarse roots; slightly sticky; slightly plastic; friable failure; weak strength; clear + smooth boundary to
Bh	14-20	7.5YR 3/3; silt loam; few very fine + fine + medium + coarse roots; slightly sticky; moderately plastic; brittle to semi-deformable failure; weak strength; abrupt + wavy boundary to
Bfm	20-21.5	5YR 4/6; firm strength; cemented; abrupt + wavy boundary to
Bs	21.5-36	10YR 4/6, 2.5Y 5/4 by 30 cm; sandy loam, medium sand by 30 cm; weak medium subangular blocky to single grain; few very fine roots; non-sticky; non-plastic; brittle failure; weak strength; gradual + smooth boundary to
BC	36-80	2.5Y 4/3; 5YR 4/6 iron-stained former root channels, selvedges 2 mm thick; medium sand; single grain; very few very fine roots; non-sticky; non-plastic; very friable failure; very weak; gradual + smooth boundary to
C	80-130+	5Y 4/2; medium sand; single grain; no roots; non-sticky; non-plastic; very friable failure; very weak strength

H7

H	+12	7.5YR 2.5/2; many very fine + fine + medium roots, few coarse + very coarse roots; clear + smooth boundary to
E1	0-5	10YR 3/2; sandy loam; moderate fine to medium subangular blocky; many very fine + fine roots, common medium roots; slightly sticky; slightly plastic; very friable failure, very weak strength; clear + smooth boundary to
E2	5-11	10YR 4/2 (70%), 10YR 5/2 (25%), 10YR 2/2 (5%) horizontally and vertically aligned former root channels, spherical, < 5 mm, very few 5YR 3/1 metal-organic coatings on ped faces, continuous, prominent, 1 mm thick; iron pan fragments, 3 cm long + 0.5 cm thick, prominent; sandy loam; weak medium to coarse subangular blocky with tendency to massive; few very fine + fine roots, common medium roots; slightly sticky; moderately plastic; friable failure; weak strength; clear + wavy boundary to
Bhs	11-17	7.5YR 3/3 (60%), 10YR 4/4 (10%), 5YR 3/4 (30%) iron pan fragments, 1-2 cm long, 0.5-1 cm thick, distinct, very few 5YR 3/1 metal-organic coatings on ped faces, continuous, prominent, 1 mm thick; sandy loam; moderate fine to medium subangular blocky; very few very fine + fine roots, few medium roots; slightly sticky; moderately plastic; friable failure; weak strength, iron pan fragments slightly firm to firm strength, partly cemented; abrupt + wavy boundary to
Bs	17-28	10YR 4/6 (50%), 10YR 3/6 (43%), 10YR 3/4 (5%), 5YR 4/6 (2%) mottles, medium; loamy sand; moderate fine to medium subangular blocky; very few very fine roots, few fine + medium roots; slightly sticky; slightly plastic; friable failure; weak strength; gradual + smooth boundary to
BsBC	28-40	2.5Y 4/4 (50%), 10YR 4/6 (50%); loamy sand; weak coarse subangular blocky breaking to single grain; very few very fine + fine roots; non-sticky; non-plastic; very friable failure, occasionally brittle failure; very weak strength; gradual + smooth boundary to
BC	40-122	2.5Y 4/4 to 60 cm, 2.5Y 4/2 (90%) + 2.5Y 4/4 (10%) from 60 cm; medium sand; weak coarse subangular blocky breaking to single grain; very few fine roots; non-sticky; non-plastic; brittle failure; very weak strength, gradual + smooth boundary to
C	122-140+	5Y 4/2; medium sand; single grain; very few fine roots; non-sticky; non-plastic; very friable failure; very weak strength