

Proposed by S. Luangsirorat, 1971
Revised by :
W. Sirichuaychoo, 1988
W. Sirichuaychoo, 2004

HUA HIN SERIES

Field Symbol: Hh

Distribution: Occupies moderate extent along coastal zone in Peninsular Thailand and some areas along coastal zone of Thailand.

Setting: Hua Hin soils are formed from beach sand on young beach ridge or dune sand. They occurred on nearly level to gently undulating relief of young beach ridges and dune sand. Slope ranges from 1 to 5 percent. The climate is Tropical Monsoon (Koppen 'Am'). Average annual air temperature is from 26 °C to 28°C. Average precipitation is from 1,500 to 3,000 mm.

Drainage, Permeability and Surface Runoff: Drainage is somewhat excessively drained, permeability is estimated to be rapid and surface runoff is slow. The ground water level is below 2 m during the dry season.

Vegetation and Land Use: Mainly used for settlement and coconut plantation.

Characteristic Profile Features: Hua Hin series is a member of the isohyperthermic, coated Typic Quartzipsamments. They are very deep sandy soils and are characterized by a very dark brown sand surface or A horizon overlying a yellowish brown sand C horizon. Shell fragment throughout the soil profile. Moderately alkaline, reaction values 8.0.

Typifying Pedon: Hua Hin sand – coconut plantation, Va-na-gron Huai Yang Station, Amphoe Tub Sa Kae, Changwat Prachuap Khiri Khan, 7 m above mean sea level, 1 to 2 percent slopes. (Sheet name Satthani Huai Yang, sheet number 4945 IV, coordinate: 578288).

Profile Code Number: SW-57/29, described by: Somsak Luangsirorat, 21 November 1971.

Horizon Depth (cm)	Description
A 0-12	Very dark brown (10YR2/2) sand; single grain; loose, nonsticky and nonplastic; porous; many fine and few medium roots; common shell fragment; moderately alkaline (field pH 8.0); abrupt smooth boundary.
AC 12-45	Dark brown (10YR3/3) sand; single grain; loose, nonsticky and nonplastic; porous; many fine roots; common medium shell fragment; slightly acid (field pH 6.5); abrupt smooth boundary.
C1 45-90	Yellowish brown (10YR5/8) sand; single grain; loose, nonsticky and nonplastic; porous; few fine roots; common fine shell fragment; neutral (field pH 7.0); clear smooth boundary.
C2 90-120	Brown to dark brown (7.5YR4/4) sand; single grain; loose, nonsticky and nonplastic; porous; no roots; many fine shell fragment; moderately alkaline (field pH 8.0); clear smooth boundary.

Type Location:

Name of district, Amphoe Hua Hin, Changwat Phetchaburi.

Range of Profile Features:

The surface or A horizon sand or loamy sand ranges from 10 to 20 cm in thickness and has 10YR or 7.5YR hues, values 2 to 4, chromas 2 or 3. Structure is single grains, loose, non-sticky and non-plastic. Neutral to moderately alkaline, reaction values range from 7.0 to 8.0.

The C horizon sand or loamy sand, 10YR hues, values 5 to 8 and chromas 6 to 8. Single grains, loose, non-sticky and non-plastic, shell fragment throughout the soil profile. Neutral to moderately alkaline, reaction values range from 7.0 to 8.0.

Similar Soil series:

Bacho series (Bc): isohyperthermic, coated Typic Quartzipsamments, no shell fragment.

Principal Associated soils:

These include Bacho series.

ANALYSIS RESULTS

(oven dry basis)

Profile code No.: SW-57/29

Soil series: Hua Hin series (Hh)

Lab No.	Depth (cm)	Horizon	Particle size distribution analysis (% by weight)								Texture		pH		CaCO ₃ %	P, mg kg ⁻¹ Bray 2	K, mg kg ⁻¹ NH ₄ OAc
			USDA grading			Sand-fraction grading					Lab	Field	1:1	1:1			
			sand	silt	clay	vc	c	m	f	vf	result	estim ⁿ	water	KCl			
Pc-77	0-12	A	97.5	1.0	1.5						s	s	7.3	6.8	0.6	10.5	47
Pc-78	12-45	AC	99.0	0.0	1.0						s	s	7.2	6.5	0.6	8.0	29
Pc-79	45-90	C1	98.0	0.5	1.5						s	s	8.0	7.3	2.4	5.9	29
Pc-80	90-120	C2	97.5	1.5	1.0						s	s	8.0	7.4	4.2	8.6	35

Depth (cm)	Air dried to oven dried	C %	N %	Exchange capacity and cations (cmol ₍₊₎ kg ⁻¹)										Base satur ⁿ (%)		ECEC cmol ₍₊₎ kg ⁻¹ (B+D)	Al KCl extr. cmol ₍₊₎ kg ⁻¹ (D)	Electrical conduct ^y (ECx10 ⁶) dS m ⁻¹
				Ca	Mg	K	Na	SUM cations (B)	Extr. acidity (A)	SUM (B+A)	CEC NH ₄ OAc (C)	CEC 100g Clay	B/Cx100	(Bx100)/(B+A)				
				0-12	0.2	1.01		6.80	0.60	0.10	0.20	7.70	0.40	8.10	4.2			
12-45	0.1	0.17		1.20	0.10	0.03	0.20	1.53	0.10	1.63	1.2	120.0	100	94			0.02	
45-90	0.1	0.01		7.90	0.10	0.04	0.30	8.34	1.70	10.04	1.0	66.7	100	83			0.05	
90-120	0.2	0.06		9.70	0.10	0.10	0.20	10.10	1.10	11.20	1.4	140.0	100	90			0.05	

Surveyor: S Luangsirorat

Date: Nov. 21, 1971

Reported by: W. Sirichuaychoo

Date: Nov. 23, 1998