

Summary of Properties

- Drainage:** The soil is moderately well to imperfectly drained. It may remain wet for a week to several weeks, due to its high clay content.
- Fertility:** The natural fertility is high (indicated by the high base status), as are the phosphorus and organic carbon levels.
- pH:** Neutral at the surface, alkaline with depth.
- Rooting depth:** 115 cm in the pit, mostly concentrated in the upper 40 cm.
- Barriers to root growth:**
- Physical:** The high strength of the clay may restrict growth in some rootstock varieties.
 - Chemical:** There are no apparent chemical barriers to root growth, although low quality irrigation water will cause salts and exchangeable sodium to accumulate over time.
- Waterholding capacity:** 150 mm (very high), but not all is available due to uneven root distribution.
- Seedling emergence:** Moderate, depending on the organic matter status and dispersiveness of the surface. Cracking and surface sealing are problems on these soils.
- Workability:** Moderate to good. Organic carbon levels must be maintained at about 2% and / or gypsum is required to enable non-destructive working of this soil.
- Erosion Potential:**
- Water:** Low.
 - Wind:** Low.

Laboratory Data

Depth cm	pH H ₂ O	pH CaCl ₂	CO ₃ %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO ₄ mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
											Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
Paddock	7.1	6.8	0	0.28	1.43	2.8	49	672	-	3.0	11.2	47	20.3	14.5	25.9	23.94	6.35	1.24	1.73	4.8
0-12	7.5	7.1	0.1	0.24	1.31	3.0	50	758	-	2.9	14.5	45	24.9	14.8	26.6	18.42	7.02	1.41	1.72	5.3
12-27	7.7	7.0	<0.1	0.14	0.78	2.2	15	422	-	2.3	2.7	34	17.3	2.1	21.0	16.02	5.78	1.46	0.78	7.0
27-40	7.8	7.0	<0.1	0.16	0.90	0.7	5	333	-	2.1	2.0	27	11.1	0.2	22.9	13.13	6.67	2.09	0.69	9.1
40-65	7.9	7.2	<0.1	0.22	0.94	0.5	5	382	-	2.6	2.3	22	11.3	0.2	26.0	14.04	8.25	2.65	0.83	10.2
65-115	8.4	8.0	3.8	0.39	1.75	0.1	<4	346	-	2.3	1.1	11	3.2	0.1	17.7	10.57	6.50	2.27	0.66	12.8
115-180	8.5	8.0	1.6	0.46	3.17	0.1	<4	266	-	2.1	0.5	7	1.5	0.1	12.1	7.26	4.89	1.95	0.52	16.1

Note: Paddock sample bulked from 20 cores (0-10 cm) taken around the pit.
CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements.
ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.

Further information: [DEWNR Soil and Land Program](#)

