

# COR Corryton Land System

Irregular hillslopes between Trial Hill and Mount Crawford

**Area:** 16.4 km<sup>2</sup>

**Annual rainfall:** 630 – 800 mm average

**Geology:** The land is underlain by quartzites, micaceous sandstones and schists of the Stonyfell Quartzite and Woolshed Flat Formations. These are commonly deeply weathered and kaolinized. Minor deposits of locally derived medium to coarse grained alluvium occur in drainage depressions.

**Topography:** The Land System comprises rolling to moderately steep hillslopes flanking the eastern and southern sides of the Pewsey Vale Peak - Wirra Wirra Range. The steeper slopes are strongly dissected by water courses in narrow drainage depressions. The gentler slopes, which form an apron adjacent to the Pewsey Vale Peak Land System, are weakly dissected.

**Elevation:** 380 – 560 m

**Relief:** Up to 80 m

**Soils:** The soils almost all have coarse textured surfaces, but depth varies considerably. On hillslopes, profiles are either moderately deep over rock with clayey subsoils, shallow over rock with no subsoil, or deep over highly weathered or kaolinized rock. There are deep coarse textured soils on creek flats.

#### Main soils

*Soils formed in fresh weathering basement rock*

**K4** Acidic sandy loam over brown clay

**L1** Shallow stony sandy loam

*Ironstone soils*

**J2** Deep acidic ironstone soil

*Soils formed in deeply weathered rock*

**F1** Sandy loam over brown clay on kaolinized rock

**K1/F1** Sandy loam over brown clay on deeply weathered rock

#### Minor soils

*Soils formed on alluvium*

**F2** Loamy sand over poorly structured brown clay

**H3** Deep sand

**M1** Gradational sandy loam

**Main features:** The Corryton Land System is characterized by moderately steep slopes with sandy loam soils of variable depth, low fertility and high erodibility. Most of the land is non arable, although more than 90% is accessible to machinery. Pasture productivity is limited mainly by low fertility and acidity. There is some scope for perennial horticultural crops, but water availability is generally a problem. High erosion potential requires careful soil management.



**Soil Landscape Unit summary:** 7 Soil Landscape Units (SLUs) mapped in the Corryton Land System:

SLU	% of area	Main features #
AqC	4.8	<p>Moderately inclined strike ridges, generally with well defined north-south lineation. Parent rocks are metamorphosed sandstones and quartzites of the Stonyfell Quartzite Formation. Slopes are 15% to 30% and relief is up to 40 metres. The soils usually have gravelly sandy loam to sandy clay loam surfaces but have variable subsoils and may be shallow over hard rock to deep on kaolinitic rock.</p> <p>Main soils: <u>Acidic sandy loam over brown clay</u> - <b>K4</b> (E)  <u>Shallow sandy loam on rock</u> - <b>L1</b> (E) on steeper rocky slopes  <u>Sandy loam over brown clay on kaolinized rock</u> - <b>F1</b> (L)</p> <p>The land is non arable, although the majority is suitable for perennial crops provided erosion is controlled. Despite the rocky reefs, most soils are moderately deep, moderately well drained and have adequate waterholding capacities. Natural fertility is low, and all soils are prone to acidification. Most soils have poor surface structure, and are highly erodible.</p>
ArC ArD	43.8 7.0	<p>Rolling low hills and occasional steep slopes formed on micaceous sandstones and schists, often kaolinized, of the Stonyfell Quartzite and Woolshed Flat Formations. Water courses are well defined in narrow depressions. Some ironstone residuals occur.</p> <p><b>ArC</b> Rolling low hills with relief of up to 70 metres and slopes of 16-30%.  <b>ArD</b> Steep, rocky hillslopes with relief of up to 80 metres and slopes of 30-50%.</p> <p>Most soils consist of sandy to sandy loam surfaces overlying yellow and brown subsoils, sometimes shallow over weathering rock, but more commonly grading to deeply weathered and often kaolinitic rock. Ironstone is common in many soils. Shallow coarse to medium textured gravelly soils formed on hard rock are common on steeper slopes.</p> <p>Main soils: <u>Acidic sandy loam over brown clay</u> - <b>K4</b> (E) } on fresh weathered rock  <u>Shallow stony sandy loam</u> - <b>L1</b> (E) }  <u>Sandy loam over brown clay on kaolinized rock</u> - <b>F1</b> (L)  <u>Deep acidic ironstone soil</u> - <b>J2</b> (L) on ironstone residuals.</p> <p>These soils are generally moderately deep and moderately well drained, but inherent infertility is a significant limitation, particularly as the soils are prone to acidification. The slopes are highly susceptible to erosion, but there is some potential for perennial crops on <b>ArC</b> provided soil management is adequate. Pasture productivity potential is restricted by low fertility.</p>
CdC CdD	11.9 26.6	<p>Undulating rises and gently rolling low hills formed on micaceous sandstones and schists, commonly kaolinized, of the Stonyfell and Woolshed Flat Formations. Slopes are up to 16% and relief is less than 50 m. Water courses are well defined in broad depressions. Some lateritic (ironstone) residuals occur.</p> <p><b>CdC</b> Undulating rises and gentle slopes with relief to 20 metres and slopes of 3-8%.  <b>CdD</b> Gently rolling low hills with relief of up to 50 metres and slopes of 8-16%.</p> <p>Most soils consist of sandy to sandy loam surfaces overlying yellow and brown subsoils, sometimes shallow over weathering rock, but more commonly grading to deeply weathered and often kaolinitic rock. Ironstone is common in many soils. There are some shallow coarse to medium textured gravelly soils formed on hard rock.</p> <p>Main soils: <u>Acidic sandy loam over brown clay</u> - <b>K4</b> (E) } formed on fresh weathered rock  <u>Shallow stony sandy loam</u> - <b>L1</b> (L) }  <u>Sandy loam over brown clay on kaolinized rock</u> - <b>F1</b> (L)  <u>Sandy loam over brown clay on deeply weathered rock</u> - <b>K1/F1</b> (L)  <u>Deep acidic ironstone soil</u> - <b>J2</b> (L) on ironstone residuals</p> <p>These soils are generally moderately deep and moderately well drained, but inherent infertility is a significant limitation, particularly as the soils are highly susceptible to acidification. With adequate soil management however, horticultural potential is good where water is available. All slopes are prone to erosion as the soils are highly erodible. Minor saline seepages occur on lower slopes.</p>
LTE LTJ	3.5 2.4	<p>Creek flats and drainage depressions formed on sand, clayey sand and sandy clay alluvium derived from the erosion of coarse grained metamorphic rocks.</p> <p><b>LTE</b> Creek flats with mainly stable water courses.  <b>LTJ</b> Creek flats with eroded water courses.</p> <p>A variety of sandy surfaced soils occurs. The differences between the various soils are largely due to the texture and structure of their subsoils.</p>



	<p>Main soils: <u>Loamy sand over poorly structured brown clay - F2</u> (E)  <u>Gradational sandy loam - M1</u> (E)  <u>Deep sand - H3</u> (L)</p> <p>The soils have low natural fertility and are subject to waterlogging, salinization, acidification and compaction. However, with suitable species and grazing management, pasture productivity potential is moderately high. Watercourse management is an additional consideration in these landscapes, due to past stream bank erosion and high soil erodibility.</p>
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# PROPORTION codes assigned to soils within Soil Landscape Units (SLU):

- (D) Dominant in extent (>90% of SLU)
- (V) Very extensive in extent (60–90% of SLU)
- (E) Extensive in extent (30–60% of SLU)
- (C) Common in extent (20–30% of SLU)
- (L) Limited in extent (10–20% of SLU)
- (M) Minor in extent (<10% of SLU)

### Detailed soil profile descriptions:

- F1** Sandy loam over brown clay on kaolinized rock (Mesotrophic, Brown Chromosol)  
Thick, brownish loamy sand to sandy loam with a paler coloured and gravelly A2 horizon, overlying a yellow and brown, finely structured clay subsoil, grading to deeply weathered and kaolinized metasandstone, with freshly weathered rock deeper than 200 cm.
- F2** Loamy sand over poorly structured brown clay (Mesotrophic, Brown Sodosol)  
Thick massive grey loamy sand to loam with a bleached and quartz gravelly A2 horizon, overlying a yellow brown and grey brown sandy clay to clay with prismatic structure, grading to medium textured stony alluvium from 100 cm.
- H3** Deep sand (Regolithic, Bleached-Orthic Tenosol)  
Very deep greyish brown massive sand, grading to white sand, overlying layers of brown, yellow and grey sand to clayey sand.
- J2** Deep acidic ironstone soil (Bleached-Ferric, Mesotrophic, Brown Kurosol)  
Medium thickness grey brown loamy sand with a bleached A2 horizon containing over 50% ironstone gravel, overlying a yellow brown clay with soft red inclusions of weathered ironstone, grading to a greyish silty clay forming in weathering schist or micaceous sandstone deeper than 200 cm.
- K1/F1** Sandy loam over brown clay on deeply weathered rock (Bleached-Mottled, Mesotrophic, Brown Kurosol)  
Thick grey loamy sand to loam with a gravelly and bleached A2 horizon, overlying a brown, yellowish brown and red coarsely prismatic sandy clay to clay subsoil, becoming siltier and greyer with depth. Soft weathering metasandstone occurs from about 150 cm.
- K4** Acidic sandy loam over brown clay (Mesotrophic, Brown Chromosol)  
Thick brownish loamy sand to sandy loam with a paler coloured and gravelly A2 horizon, overlying a yellow and brown finely structured clay subsoil, grading to weathering rock by 100 cm.
- L1** Shallow stony sandy loam (Acidic, Lithic, Bleached-Leptic Tenosol)  
Thick greyish very gravelly loamy sand to sandy loam with a bleached A2 horizon, grading to hard metasandstone by 50 cm.
- M1** Gradational sandy loam (Sodic, Grey Kandosol)  
Thick brown sandy loam with a quartz gravelly paler coloured sandy clay loam A2 horizon, grading to a greyish brown and yellowish brown mottled sandy clay loam to sandy clay with weak coarse prismatic structure, grading to a mottled clayey sand from 125 cm.

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

