9. Black, grey and brown friable calcareous cracking clays and gradational soils on Quaternary aeolian sediments

These soils have developed on aeolian deposits, predominantly lunettes associated with basaltic areas or former swamps, lakes and depressions.

The surface is a self-mulching clay loam to light clay which overlies a strongly structured heavy clay subsoil which exhibits strong vertic properties, such as lenticular peds and smooth surfaces where swelling and shrinking produce polished surfaces. The profile overlies fine textured unconsolidated sediments with a high carbonate content at a depth of about 60 to 80 cm continuing below 150 cm. The surface soil and upper subsoil are dark (black, brown or red) coloured reflecting either/or high organic matter content and basaltic parent material. Topographical position may influence soil depth, and in conjunction with slope and land use, influence the presence or absence of the friable surface material. While structure is strong throughout with evident deep cracks, permeability will be low once the clays have swelled, putting strength strains on plant root systems, particularly when the soil dries. Notable characteristics are well drained soils due to the landform (lunettes are elevated above the plain) and the high calcium content of the subsoil and deep regolith. This is a nutrient rich soil type, though sodic and saline at depth.

Soil sites

Site code	Soil-landform unit	Component	ASC	FK	1:100 000 mapsheet
MM114	148	Crest	Epicalcareous, Self-mulching, Brown Vertosol	Ug5.24	T7621 - COLAC
SFS21	182	Upper slope	Mealnic, Calcic, Black Dermosol, Vertosol	Gn3.43, Ug5.11	T7721 - GEELONG
SW87	117	Gentle simple slope	Epihypersodic-Endocalcareous, Self-Mulching, Black Vertosol	Ug5.11	T7621 - COLAC