

Soils of Phillip Island & French Island



Fact Sheet series for the
Small Rural Landholder

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What soil do I have on my property?

Managing soil is a complex issue.

Do I have a sandy soil with good drainage but poor fertility, or do I have a red to brown volcanic loam soil that appears to be more fertile? Perhaps I have a gravelly granitic clay soil.

This fact sheet explores the major soil types across Phillip Island and French Island and discusses their properties in terms of what enterprises they might best support.

All rural landowners should be aware of their soil types and how best to manage them. Given that the earth's topsoil ranges from 1cm or less to 40cm there is a responsibility of landowners to ensure that this precious resource is well managed.



Soils are derived from rocks **Phillip Island**

Cambrian greenstones (600 million years) are the oldest rocks in the Bass Coast region, outcropping on Phillip Island.

Silurian sandstones and mudstones (430million years), and Devonian granite (400million years) are also seen here.

Cretaceous sediments were deposited in a basin (~135million years ago) and can be seen in areas around Rhyll. Tertiary basalts cover most of the island.

French Island

Cretaceous sediments (~135 million years old) of sandstones and mudstones are the main geological elements with small outcrops of Tertiary basalts in the south of the island. Quaternary (~ 1 million years old) windblown sands and more recent swamp and intertidal deposits complete the geology.

Rocks weather to soils

Through the agency of weathering, chemical, physical and biological elements combine to render ancient rocks into finer particles that together with organic materials, over time form the basis of the soils and soil profiles that we see today.

The Landscape

Phillip Island has environmental and landscape values of national significance attracting over a million visitors per year. Ramsar listed wetlands, world class beaches, basalt cliffs, remnant native vegetation, rolling hills and grass lands supporting beef grazing and more intensive agriculture are some of the wide range of landscapes to be seen.

French Island has low relief with extensive sand sheets and swamp deposits containing a network of freshwater wetlands. Extensive mangrove areas, mudflats occur on the coast with steep hills towards the centre. Remnant vegetation supports a wide array of fauna. Cleared areas support low level grazing regimes and other increasingly diverse agricultural practices.

Land classing

Land classing ranks land on its suitability for agricultural and horticultural production and identifies land more suited to non-agricultural activities. This evaluation includes assessment of the biophysical, economic and social factors that potentially could constrain the use of the land for horticulture and agriculture. Knowledge of the landscape described above will dictate the relative suitability of land for these activities and will help with the development of plans and actions for sustainable production.

Viable agricultural production on both these islands is largely determined by the soils and their inherent fertility.



