

This Information Sheet describes the *typical average properties* of the specified soil. It is essentially a summary of information obtained from one or more profiles of this soil that were examined and described during the Topoclimate survey or previous surveys. It has been prepared in good faith by trained staff within time and budgetary limits. However, no responsibility or liability can be taken for the accuracy of the information and interpretations. Advice should be sought from soil and landuse experts before making landuse decisions on individual farms and paddocks. The characteristics of the soil at a specific location may differ in some details from those described here.
No warranties are expressed or implied unless stated.

Soil name: **Otikerama**

Overview

Otikerama soils occupy about 1000 ha on the floodplains of rivers and major streams in eastern Southland. They are formed into deep fine alluvium from tuffaceous greywacke. Otikerama soils are moderately well to imperfectly drained, with deep rooting depth, high plant available water and have heavy silt loam texture. Climate is cool temperate with regular rain throughout the year. Soils rarely dry out.

Physical properties

Otikerama soils have a deep rooting depth with high plant available moisture. The soils have moderate to imperfect drainage, with moderately permeable subsoils. Soil texture is heavy silt loam in all horizons. Topsoil clay content is 25–30%. Soils are stoneless.

Fertility properties

Otikerama soils have a deep rooting depth with high plant available moisture. The soils have moderate to imperfect drainage, with moderately permeable subsoils. Soil texture is heavy silt loam in all horizons. Topsoil clay content is 25–30%. Soils are stoneless.



Otikerama profile

Associated and similar soils

Some soils that commonly occur in association with Otikerama soils are:

- Jacobstown: poorly drained, deep to moderately deep soil with silty texture
- Makarewa: poorly drained, deep to moderately deep soil with clayey texture
- Fleming: poorly to imperfectly drained with a fragipan; deep to moderately deep soil with silty texture

Some soils that have similar properties to Otikerama soils are:

- Mataura: recent soils formed in greywacke and schist alluvium of the Mataura and Oreti rivers
- Pomahaka: recent soils formed in dominantly schist alluvium of the Clutha river

Sustainable management indicators

Note: the vulnerability ratings given in the table below are generalised and should not be taken as absolutes for this soil type in all situations. The actual risk depends on the environmental and management conditions prevailing at a particular place and time. Specialist advice should be sought before making management decisions that may have environmental impacts. Where vulnerability ratings of Moderate to Very severe are indicated, advice may be sought from Environment Southland or a farm management consultant.

Vulnerability factor	Rating	Vulnerability compared to other Southland soils
Structural compaction	severe	These soils have a very severe vulnerability to structural degradation by long-term cultivation, or compaction by heavy stocking and vehicles. This rating reflects the likely low organic matter, P-retention and moderate clay content.
Nutrient leaching	moderate	These soils have a moderate vulnerability to leaching to groundwater. This rating reflects the moderate permeability and drainage, but is off-set by high water-holding capacity.
Topsoil erodibility by water	moderate	Due to the likely low organic matter and moderate clay content, topsoil erodibility in these soils is moderate. Erodibility is highly dependent on management, particularly when there is no vegetation cover.
Organic matter loss	slight	Vulnerability to long-term decline in soil organic matter levels is partly dependent on soil properties and highly dependent on management practices (e.g., crop residue management and cultivation practices).
Waterlogging	slight	These soils have a slight vulnerability to waterlogging during wet periods. This rating reflects the moderately well drained nature of the soil and moderate permeability.

General landuse versatility ratings

Note: The versatility ratings in the table below are indicative of the major limitations for semi-intensive to intensive land use. These ratings differ from those used in the past in that sustainability factors are incorporated in the classification. Refer to the Topoclimate district soil map or property soil map to determine which of the soil symbols listed below are applicable, then check the versatility ratings for that symbol in the appropriate table.

OtU1 (Otikerama undulating deep)

OtU1vi (Otikerama undulating deep imperfectly drained variant)

Versatility evaluation for soil OtU1, OtU1vi

Landuse	Versatility rating	Main limitation
Non-arable horticulture	Limited	Potential flood risk
Arable	Moderate	Vulnerability of topsoil to structural degradation by cultivation and compaction; potential flood risk.
Intensive pasture	Moderate	Vulnerability of topsoil to structural degradation by cultivation and compaction; vulnerability to leaching to groundwater.
Forestry	Limited	Potential flood risk.

Management practices that may improve soil versatility

- Careful management after heavy rain and wet periods will reduce the impact of short-term waterlogging. Intensive stocking, cultivation and heavy vehicular traffic use should be minimised during these periods.
- Installation and maintenance of subsurface mole and tile drains will reduce the risk of short-term waterlogging.
- If compaction occurs, aeration at the correct moisture condition and depth can be of benefit.