

Sediment

UNDERSTANDING YOUR SOIL

Each soil group has a defined range of distinguishing properties i.e. they have similar profiles with similar horizon sequences, have developed from similar parent materials, and have many similar physical and chemical properties.

However, they may occur on a range of different topographies and have other land characteristics such as drainage, soil depth or stoniness which may influence management on these areas.

A good knowledge of soils on farm and surrounding areas can be used by all those involved in rural land use or with an interest in sustainable land management, to answer a range of land use issues at various scales. For example, it can be used by landholders to assist them in realising their property's potential; by Landcare groups and others involved with regional land management issues such as catchment planning; by extension officers dealing with land and water use issues; by local authorities for regional and strategic planning and for the protection of good quality agricultural land; and by others such as planners, consultants, agribusiness representatives, land valuers, prospective property buyers, bankers, school teachers and students.

Soil mapping is a key part of this knowledge and will enable a farmer to relate the information on regional features to on-farm features. This helps in identifying potential problem areas, and how to manage these within known limitations. Alternatively, this information will also enable farmers to identify previously untapped land use options, or highlight areas where degradation will occur with inappropriate management.

A soil survey is a fairly comprehensive analysis of soil types and their distribution across a property.

Soil surveys establish a better understanding of the soil's ability to hold water and any potential physical and chemical limitations to growing crops in that soil. Soil surveys also assist in determining if the land is suitable for developing particular crop types and help identify the irrigation system types that may be most suitable, manageable and efficient.

Soil surveys / mapping are also useful for identifying:

- soil structural issues that may result in limited drainage, surface run-off, soil structure decline and root growth problems; and
- soil chemical and nutritional characteristics that may directly affect plant growth or result in long-term soil quality decline (i.e. soil acidity, salinity and sodicity).

Information in this fact sheet has been obtained from the following resources and is gratefully acknowledged.

Noble, K.E. (ed.) 1996, Understanding and Managing Soils in the Moreton Region, Department of Primary Industries Training Series QE96003, Brisbane.

Guidelines for Environmental Assurance in Australian Horticulture, Developed by Horticulture For Tomorrow, Funded by HAL & NHT

Disclaimer: This information is provided as a reference tool only. Please seek professional advice.

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