



AUSTRALIA SOIL RESOURCES

BASED ON SOIL PROPERTIES THAT AFFECT LAND MANAGEMENT

Although these properties refer mainly to agricultural and ecological considerations, including soil conservation, they may have implications for building and construction. The text expands the information given below and explains such terms as duplex.

- | | | | |
|---|---|---|---|
| <p>SOILS GENERALLY WITHOUT LIMITING CHEMICAL OR PHYSICAL PROPERTIES
These soils are mostly favorable for a wide range of uses except that phosphorus and nitrogen are commonly required. Their physical properties allow plant roots to penetrate deeply and thus take advantage of their high water holding capacity.</p> <ul style="list-style-type: none"> A <ol style="list-style-type: none"> 1. Deep loam soils 2. Red, and also brown or yellow, duplex soils without subsurface bleaching <p>SOILS WITH PREDOMINANTLY CHEMICAL LIMITATIONS
Soil improvement primarily involves the correction of such chemical limitations as nutrient deficiencies or salinity.</p> <ul style="list-style-type: none"> Ba <p>DEEP, HIGHLY STRUCTURED SOILS WITH HIGH INITIAL FERTILITY
Fertility declines rapidly with intensive use but physical properties mostly remain good to excellent.</p> <ul style="list-style-type: none"> 1. Structured loam soils 2. Structured clay soils 3. Structured earths <p>SOILS NATURALLY LOW IN NUTRIENTS
Physical properties range from good, especially for Bb1 and Bb2, to relatively poor for Bb5.</p> <ul style="list-style-type: none"> 1. Earthy loam soils 2. Organic loam soils 3. Earthy clay soils 4. Massive earths 5. Yellow duplex soils containing much ironstone gravel <p>CALCAREOUS SOILS
High calcium carbonate content markedly decreases the availability of some nutrients. Bc1 soils are excessively drained whereas Bc2 soils may have restricted permeability.</p> <ul style="list-style-type: none"> 1. Calcareous sand soils 2. Calcareous earths | <p>SOILS WITH PREDOMINANTLY PHYSICAL LIMITATIONS</p> <ul style="list-style-type: none"> Bc <p>SOILS WITH PERIODIC SURFACE WATERLOGGING</p> <ul style="list-style-type: none"> 1. Saline loam soils 2. Saline clay soils 3. Red duplex soils with crusty surfaces <p>SOILS WITH PERIODIC SUBSURFACE WATERLOGGING</p> <ul style="list-style-type: none"> Cd | <p>SOILS WITH PERIODIC SURFACE WATERLOGGING</p> <ul style="list-style-type: none"> 1. Clay soils with gleyed subsoils 2. Clay duplex soils <p>SHALLOW SOILS</p> <ul style="list-style-type: none"> Ct <p>ORGANIC SOILS</p> <ul style="list-style-type: none"> 1. Peaty sands to peats | <p>DEEP COARSE-TEXTURED SOILS
Low water-holding capacity often results in droughtiness and serious wind erosion. Inherent fertility is low.</p> <ul style="list-style-type: none"> Ca <p>CRACKING CLAYS
These deeply cracking clays swell on setting, often preventing water penetrating deeply, hence available moisture may be low. Inherent fertility ranges from high to low.</p> <ul style="list-style-type: none"> 1. Finely structured (soil-mulching) clays 2. Coarsely structured clays <p>HARD-SETTING SOILS WITH DISPERSIBLE CLAY SUBSOILS
Generally thin surface soils and subsoil sodicity restrict plant roots and limit permeability. Inherent fertility is low to moderate.</p> <ul style="list-style-type: none"> 1. Red, and also brown, yellow or black, duplex soils with spotty bleaching or no subsurface soil over the subsoil |
|---|---|---|---|

Produced for the topic 'Soils' of the Atlas of Australian Resources 3rd Series
Division of National Mapping, Canberra
© Commonwealth of Australia 1978

Printed by C. J. Thompson, Commonwealth Government Printer, Canberra

SOURCE
Due to impure soils, soil conditions are periodically too wet and too dry. Inherent fertility is very low to moderate.

Specially compiled 1976-77 by K. H. Northcote, Division of Soils, CSIRO, Adelaide, from 'A Soil Map of Australia' (1:5,000,000) accompanying 'A Description of Australian Soils' by K. H. Northcote and others Commonwealth Scientific and Industrial Research Organisation, Australia, 1976.

SCALE 1:5 000 000
SIMPLE CONIC PROJECTION WITH TWO STANDARD PARALLELS (30°S AND 30°E)