Open alluvial plains



Landform

Occasionally or seasonally, sometimes rarely, flooded alluvial plains (slopes <1%) associated with drainage lines, watercourses and major river systems. Large scalded areas, saltpans and claypans may be present on some plains.

Woody vegetation

Predominantly treeless with vegetation ranging from saltbush/burr and bluebush forblands to sparse open Mitchell grass tussock and/or bluegrass grasslands. Where trees are present they occur as scattered whitewood, poplar box or coolibah on watercourses.

Expected pasture composition

- * Denotes non-native "Expected Pasture Composition" species.
- [#] Denotes non-grass species that are important to grazing and land condition values in annually dominated land types.

Preferred

Mitchell (barley, hoop, curly, bull) grasses, Queensland bluegrass, neverfail, umbrella/blowaway grass, silky browntop, early spring grass.

Intermediate

Bottlewasher grasses, swamp cane grass, native millet, rat's tail couch, katoora, fairy/yakka grass, five-minute grass.

Non-preferred

Wiregrasses (e.g. feathertop).

Annual grasses

Preferred species include channel millet. Native couch grass, comb chloris, button grass, mulka, weeping lovegrass, small and red Flinders grass. Bunched kerosene (non-preferred).

Common forbs

Red spinach, Australian carrot, lamb's tail, daisy burrs, paper daisy, saltbushes# (e.g. Mueller's, old man), Queensland bluebush#, ruby saltbush, cotton bush, soda bush, soft roly poly, burrs, black roly poly, Australian bindweed, cow vine#, sedges, caustic weed, annual verbine, rhynchosia, silky goodenia#, high sida, nardoo.

Suitable sown pastures

Turanti barley Mitchell and Yanda curly Mitchell in southern Mitchell grass country.

Introduced weeds

Mother-of-millions, Noogoora burr, Bathurst burr, parkinsonia, African boxthorn, coral cactus to south, mesquite to west, saffron thistle to the east.

Soil

Deep to very deep alluvial cracking red, brown and grey clays, often intermixed with texture contrast soils.



Description

Surface: Thin or thick surface crusts over self-mulching or weakly self-mulching soils; **Surface texture:** medium to heavy clays, some intermixing of sand and silt; **Subsoil texture:** heavy clays throughout (grey clays) or becoming lighter clay on smaller watercourses (grey or red colouring).

Features

Self-mulching or hard-setting. Scalded surfaces are common.

Water availability

High

Rooting depth

Sodicity at depth (usually >60 cm) may limit effective soil depth.

Infiltration

High on self-mulching; low on hard-setting soils.

Fertility

Generally moderate.

Salinity

Generally low at surface, increasing with depth.

Sodicity

Increasing at depth; lime present at depth.

рН

Commonly slightly acid to neutral (red and brown) or more strongly alkaline (grey), increasingly alkalinity at depth.

Utilisation

20%

Enterprise

Breeding cows and sheep.

Land use and management recommendations

- Deep alluvial cracking clays are stable, highly productive Mitchell grass and bluegrass pastures with a high proportion of seasonal forbs.
- Deep alluvial texture contrast soils tend to be unstable and, with a sparser vegetation cover, are subject to widespread scalding.
- Lighter soils may respond to moderate rainfall (25–50 mm) with heavy clays requiring rainfall of 50–75 mm to promote good pasture growth, germination and for seed to set.
- Improved pastures possible in some areas subject to frequent inundation.
- Opportunistic cropping may be undertaken after flooding in some areas.
- Careful management of grazing pressure to maintain vegetation cover and retain topsoil is necessary to avoid further degradation and extension of scalded surfaces.
- Maintenance of vegetation cover can minimise flood (riverbank) and gully erosion and siltation of waterways.

Land use limitations

 Texture contrast soils are prone to wind and/or water erosion that results in scalding and degradation, particularly near water holes and along main channels.

Conservation features and related management

- Alluvial plains provide habitat for a range of birds (e.g. ground cuckooshrike, plum-headed finch, brolga, bustard, little button-quail), reptiles (netted dragons, tessellated and fat-tailed geckos) and for rare and threatened flora species (*Picris evae, Aponogeton queenslandicus*).
- Some areas are unstable and a loss of topsoil and frequent scalding are evident over extensive areas.
- Careful management of grazing pressure to maintain vegetation cover and retain topsoil is necessary to avoid further degradation and extension of scalded surfaces.

Regional ecosystems

6.3.10, 6.3.10a-b, 6.3.11, 6.3.11a-b, 6.3.11f, 6.3.12, 6.3.13, 6.3.13a-b, 6.3.14, 6.3.15, 6.3.16, 6.3.17, 11.3.21.

