

Alkali Saltgrass (*Distichlis*) Community

Description

This community exists as an almost pure stand of alkali saltgrass with minor amounts of alkali cordgrass, field sedge and possibly a fringe of red samphir or reedtop (*Agrostis stolonifera*). Soils have electrical conductivity (EC) readings and may be solonchic.

Sites degrade to foxtail barley and field sedge and gumweed with overgrazing, soil compaction and hydrological changes.

Location

Southern interior plateau.

Representative Reference Area

Haines Lake Exposed.

BEC Correlation

GS01 in BG, PP and IDF zones

Site Characteristics

Soils

Typically heavy textured clays with a high salt content. Often solonchic soils.

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Seral Stages

PNC Climax & Late Seral



An alkali saltgrass community with a fringe of redtop. Late Seral



An alkali saltgrass community adjacent to an exposed mud flat. The high clay content is evident by the cracked soil surface.

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Plant Community PNC & Late Seral	
Species	Canopy cover (%)
Alkali saltgrass	85-95
Alkali cordgrass	1-5
Nevada bulrush	1-5
Redtop	1
Red samphir	1

Productivity

300 – 400 kg/ha

Range Management consideration

Soils are subject to compaction if grazed when wet. Alkali saltgrass is rhizomatous, has a low growing point and is resistant to grazing pressure and hoof damage. Alkali saltgrass has good regrowth when soil moisture conditions allow, so it can be regrazed during the same growing season. Soil compaction favours foxtail barley, field sedge and gumweed.

Alkali saltgrass is often seen as an increaser, moving into non-saline, dry upland sites that have been overgrazed and compacted.

Properly Functioning condition

PNC and late seral sites will score as properly functioning.

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Early Seral



A compacted site that has been converted to foxtail barley with a redtop fringe. Early Seral.

Plant Community Early Seral	
Species	Canopy cover (%)
Foxtail barley	80-90
Field sedge	5-10
Redtop	1-10
Gumweed	5
Alkali saltgrass	1
Red samphir	1

Productivity

150 – 200 kg/ha

There is reduced palatability and more limited regrowth potential where foxtail barley has replaced alkali grass. Foxtail is palatable and of reasonable quality until the boot stage and then declines in palatability once the seedhead emerges.

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Range Management consideration

The key to recovery on these sites is rest, incorporation of litter to ameliorate soil compaction and restoration of natural water levels. These sites respond relatively quickly to rest.

Alkali saltgrass and alkali cordgrass are both C4 (warm season grasses) and initiate spring growth later and grow at hotter temperatures than foxtail barley and field sedge.

Properly Functioning condition

Sites will score as moderate risk to non-functional. Low scores are due to soil compaction, poor rooting depth, loss of animal habitat, lack of litter and erosion.