Key to determine Kimberley pasture types

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Copies of this document are available in alternative formats upon request.

3 Baron-Hay Court, South Perth WA 6151
Telephone: +61 (0)8 9368 3333
Email: enquiries@agric.wa.gov.au
Website: agric.wa.gov.au
Key to determining pasture type
A pasture type is a distinctive mix of plant species, soil type and position in the landscape.

**soil type + position in landscape + identifier grass(es) → pasture type**

Working through a series of questions can help you determine the pasture type.

- **Soil type**
  - Colour: red, brown, yellow, grey, black?
  - Texture: sand, loam, clay?

- **Position in landscape**
  - Does it most closely resemble a plain, or a hill or an upland?

- **Identifier grass(es)**
  - Which grasses contribute to the species mix?

The pasture type name is given according to the identifier grass(es) and the position in the landscape.

**Example 1: Hard Spinifex Hill Pasture**
- **Soil type:** shallow and rocky
- **Pasture type:** Hard Spinifex Hill Pasture
- **Identifier grass:** Hard Spinifex
- **Position in landscape:** hills, ranges and footslopes

**Example 2: Hard Spinifex Plain Pasture**
- **Soil type:** Variable depth sands or loams, frequently rocky
- **Pasture type:** Hard Spinifex Plain Pasture
- **Identifier grass:** Hard Spinifex
- **Position in landscape:** plains – level to undulating
Observe the features of the site

Go through steps one to four on this page, observing the features of the chosen site, then follow the key starting on the next page using your observations.

1. Is the soil... black, grey or brown and heavy (high clay content)?
   or red, yellow, brown or pale and sandy?
   or red, yellow or brown and loamy, gravelly or rocky?

2. Is the position in the landscape more of... a hill?
   or an upland (or plateau)?
   or a plain?

3. Are the perennial grasses spinifex?
   No (not spinifex) These grasses can be found on most soils
   Yes (spinifex) Spinifex grasses are rarely seen on heavy soils

4. What grasses can you see?

Some commonly observed grasses:

Note: these grasses are common examples; this list does not include all grasses that occur in the region.
Is the soil...

...black, grey or brown and heavy (high clay content)?

- Mitchell Grass Upland Pastures
- Mitchell Grass Alluvial Plain Pastures
- Blue Grass Alluvial Plain Pastures
- Ribbon Grass Alluvial Plain Pastures

...red, yellow, brown or pale and sandy?

- Salt Water Couch Pastures
- Curly Spinifex Plain Pastures
- Tippera Tall Grass Plain Pastures
- Soft Spinifex Pastures
- Pindan Pastures

...red, yellow or brown and loamy, gravelly or rocky?

- Curly Spinifex/Annual Sorghum Hill Pastures
- Hard Spinifex Hill Pastures
- Hard Spinifex Plain Pastures
- Soft Spinifex Pastures
- Curly Spinifex Plain Pastures
- Pindan Pastures
- Buffel Grass Pastures
- Ribbon Grass Pastures
- Arid Short Grass Pastures
- Black Speargrass Pastures
- White Grass/Bundle-Bundle Pastures
Search carefully and see if you can find Ribbon Grass, Mitchell Grass or Bundle–Bundle butts. Check descriptions and photographs for all ‘black soil’ pasture types.
Pasture types that occur on uplands and hills with sandy soils have been included in the ‘red’ soil group in this guide.

‘Red’ soil group

Position in the landscape

Upland

Hill

Is it coastal country?

Yes (coastal)

Are there Pindan wattles present?

Yes

Identifier grasses

Soft Spinifex

Curly Spinifex

Pindan pastures

Check descriptions and photographs for both

Go to next page

No

Identifier grasses

Buffel Grass

Salt Water Couch

both grasses

neither grass

Buffel Grass pastures

Salt Water Couch pastures

Go to next page
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Are there Pindan wattles present?

Yes

Identifier grasses

Soft Spinifex

Identifier grasses

Curly Spinifex

Pindan pastures

Web

No

Identifier grasses

Soft Spinifex

If Soft Spinifex is present check the description for Soft Spinifex pastures as well, then choose the closest matching type

Soft Spinifex pastures

Web

Are the perennial grasses spinifex?

Yes (spinifex)

Identifier grasses

Curly Spinifex

Curly Spinifex plain pastures

Web

No (not spinifex)

Identifier grasses

Kangaroo Grass

Plume Sorghum

Annual Sorghum

Tippera Tall Grass plain pastures

Web

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Pasture condition guide for the Kimberley

‘Red’ soil group

Are there Pindan Wattles present?

No

Are the perennial grasses spinifex?

No (not spinifex)

Yes (spinifex)

Position in the landscape

Hill

Identifier grasses

Curly Spinifex

Annual Sorghum

Curly Spinifex/Annual Sorghum hill pastures

Web

Hard Spinifex

Hard Spinifex hill pastures

Web

Hard Spinifex

Hard Spinifex plain pastures

Web

Soft Spinifex

Soft Spinifex pastures

Web

Pindan pastures

Web

Upland or plain

Identifier grasses

Soft Spinifex

Curly Spinifex

Annual Sorghum

Curly Spinifex/Annual Sorghum hill pastures

Web

Hard Spinifex

Hard Spinifex hill pastures

Web

Hard Spinifex

Hard Spinifex plain pastures

Web

Soft Spinifex pastures

Web

Curly Spinifex plain pastures

Web

Pindan pastures

Web

If the Pindan and Soft Spinifex pastures don’t seem right, check the description and photographs for Curly Spinifex plain pastures.

Identifier grasses

Soft Spinifex

Curly Spinifex

Annual Sorghum

Curly Spinifex/Annual Sorghum hill pastures

Web

Hard Spinifex

Hard Spinifex hill pastures

Web

Hard Spinifex

Hard Spinifex plain pastures

Web

Soft Spinifex pastures

Web

Curly Spinifex plain pastures

Web

Pindan pastures

Web

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Key to determine Kimberley pasture types

Position in the landscape

Upland or plain

Identifier grasses

Limestone Grass and/or other short annual grasses

Arid Short Grass pastures

Note: check the Ribbon Grass pastures description as well because Arid Short Grass pastures are generally similar to Ribbon Grass pastures in poor condition.

Ribbon Grass pastures

Ribbon Grass pastures

Black Speargrass pastures

Note: ‘red soil’ pastures in fair to poor condition that have a Black Speargrass component may transition to Black Speargrass pastures if a run of above average rainfall years occurs. See States and Transitions for more detail.

Buffel Grass pastures

Note: check the Ribbon Grass pastures description as well because Arid Short Grass pastures are generally similar to Ribbon Grass pastures in poor condition.

Buffel Grass pastures

Hill

None, some or all of the grasses listed

Go to next page

Web

Web

Web

Web

Web

Key to determine Kimberley pasture types
• Try to choose the most dominant grass. If it is too hard to choose, you may be looking at (1) pasture in fair to poor condition or (2) an uncommon pasture type.

• Use your general knowledge of desirable, intermediate and undesirable plants to make an assessment of pasture condition. Check all pasture descriptions for your soil group and landscape position (e.g. ‘red’ soils on the plain).

• Still not satisfied? DAFWA's Rangelands Development Officers can help with uncommon pasture types.