

GRP Greenpatch Land System

Undulating low hills west of Boston Bay on lower Eyre Peninsula. Small area near Sleaford Bay

- Area:** 119.5 km²
- Annual rainfall:** 485 – 545 mm average
- Geology:** Tertiary clays and sandy clays covered by more recent alluvial or colluvial deposits
- Topography:** Undulating low hills with slopes of up to 10%
- Elevation:** 75 m to 160 m in the main section, 0 m to 84 m in the Sleaford Bay area
- Relief:** 30 - 40 m
- Main soils:**
- Slopes*
- J2** Ironstone soil (Ferric, Brown Chromosol)
(Local name – Wanilla)
30 cm sandy loam with a bleached A2 layer containing abundant ironstone gravel, overlying a yellowish brown mottled clay grading to Tertiary sediments.
- F1** Loam over brown clay (Eutrophic, Brown / Red Chromosol)
(Local name – Greenpatch)
20 cm sandy clay loam with some ironstone gravel, overlying a brown or red mottled clay.
- Flats*
- F2/J1** Sandy loam over poorly structured brown clay (Ferric, Eutrophic, Brown Sodosol / Chromosol)
(Local name – Wanilla, sodic variant)
30 cm sandy loam with a bleached A2 layer containing abundant ironstone gravel, overlying a yellowish brown poorly structured mottled clay.
- Minor soils:**
- N2** Miscellaneous soil of wet saline flats (Salic Hydrosol)
Miscellaneous wet saline soil influenced by rising saline groundwater tables.
- Main features:** The Greenpatch Land System is characterized by gently undulating to undulating low hills in the highest rainfall district of Eyre Peninsula. The soils are predominantly ironstone rich sandy loams with brown mottled clayey subsoils, deep over fine grained Tertiary or younger alluvial sediments. These soils have moderately low inherent fertility and are prone to waterlogging and acidification. Sloping ground is moderately susceptible to water erosion. Saline seepages, mainly on lower slopes and drainage depressions, are a feature of the low hills. On broader flats, salt affected areas are extensive. Soils on the flats are morphologically similar to those on the rising ground, but have sodic subsoil clays. Drainage is imperfect to poor.



Soil Landscape Unit summary: 10 Soil Landscape Units (SLUs) mapped in the Greenpatch Land System:

| SLU | % of area | Main features |
|-----|-----------|---|
| Aem | 0.3 | Moderately steep rocky slopes with little agricultural value. |
| FEB | 24.4 | Very gentle slopes west of Sleaford Bay. There is minor saline seepage. Main soils: <u>ironstone soil - J2</u> (dominant), with <u>sandy loam over poorly structured brown clay - F2/J1</u> (minor) in drainage lines. These soils are deep, acidic and imperfectly drained, with moderately low fertility. There is moderately low water erosion potential. |
| FRB | 1.4 | Slopes with variable saline seepage. |
| FRL | 35.9 | FRB Very gentle slopes with less than 2% saline seepage. |
| FRM | 10.0 | FRL Very gentle slopes with 2-10% saline seepage. |
| FRQ | 19.7 | FRM Gentle slopes with 2-10% saline seepage. FRQ Very gentle slopes with 2-10% saline seepage and minor water course erosion. |
| | | Main soils: <u>ironstone soil - J2</u> (extensive) and <u>loam over brown/red clay - F1</u> (extensive), with <u>sandy loam over poorly structured brown clay - F2/J1</u> (minor) in drainage lines. These soils are deep, acidic and imperfectly drained, with moderately low fertility. Salinity control is a significant issue. There is moderately low to moderate water erosion potential. |
| JdT | 3.1 | Drainage depressions with more than 10% of land affected by saline seepage. Main soil: <u>sandy loam over poorly structured brown clay - F2/J1</u> . These soils are imperfectly to poorly drained. Salinity is a significant feature of this landscape. |
| ZA- | 3.3 | Salt affected land. |
| ZD- | 1.4 | ZA- Moderately to highly saline flats, where more than 50% of the land surface is covered by halophytes or bare ground. |
| ZL- | 0.5 | ZD- Saline lakes. ZL- Lunettes. |
| | | <u>Miscellaneous saline soil (N2)</u> dominates the landscape. This land is of little or no agricultural use other than for light grazing. |

Further information: [DEWNR Soil and Land Program](#)

