Interlaken soil – red gradational soil in dolerite under mid-altitude dry forest

Site description

Occurrence: Widespread on the Central Platreau and eastern mountains at altitudes between about 700 m and 1100 m
Parent Material: Jurassic dolerite and Quaternary dolerite talus
Landform: Undulating, rolling, hilly and steep land
Drainage Class: Well drained
Vegetation: Dry sclerophyll forest, often with dominant Eucalyptus delegatensis and E. dalrympleana over an understorey that includes Acacia dealbata, Cyathodes parvifolia, Pultanea juniperina and Poa sp.

Distinguishing Soil Properties

Profile Features:
- Gradational profiles
- Reddish subsoils with weak strength
- Loam or clay loam textures in upper soil layers, overlying clay loam or clayey subsoils
- Many stones and boulders
- Low erodibility

Chemical and physical features
- High levels of total P and medium levels of total C and N in surface layer
- High P throughout profile
- Well drained
- Moderate permeability

Similar soils
- Bluestone soil (Fact Sheet 13) and Skyline soil (Laffan et al. 1995) – red colours in subsoil layers; higher C levels (wetter sites)

Previous description
Interlaken soil has been previously described in Forest Soils of Tasmania (soil 11.5) and this fact sheet is largely based on this earlier description, except that the profile was redescribed.
### Soil Degradation Potential

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>RATING OF DEGRADATION POTENTIAL</th>
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<tbody>
<tr>
<td>Erodibility:</td>
<td>Low</td>
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<tr>
<td>Compaction and puddling:</td>
<td>Moderate</td>
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<tr>
<td>Mixing:</td>
<td>Moderate</td>
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<tr>
<td>Nutrient depletion:</td>
<td>Low</td>
</tr>
<tr>
<td>Landslides:</td>
<td>Slight – Severe (severe on some steep slopes where slope deposits overlie sedimentary rocks)</td>
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<tr>
<td>Flooding:</td>
<td>Negligible</td>
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</tbody>
</table>

### Site Productivity

Low to very low productivity due to low temperatures at higher altitudes, low moisture availability, and restricted rooting volume

### Soil Management

Excessive disturbance of the soil surface will reduce productivity and should be avoided

### Native Forest Logging and Regeneration

**LOGGING AND CLEARING:** These soils are resistant to physical degradation and are suitable for wet weather logging provided soils are not saturated. Selective harvest is the preferred method. However, due to the concentration of nutrients in the thin surface soil horizon and susceptibility to mixing, care should be taken during planning to reduce the area disturbed by snig tracks

**PREPARATION FOR REGENERATION:** Scarification or burning is required to prepare a seedbed. Dry conditions may affect the success of regeneration. Surface rock limits trafficability and preparation of ground for regeneration by scarification. Poor regeneration may occur as a result of exposure of the soil and young seedlings to frost, if clearfell methods are used.

**SILVICULTURAL CONSIDERATIONS:** Medium levels of nutrients and low moisture availability will limit growth rates and long-term productivity and will require relatively long rotations

### Suitability for Plantations

Marginally suitable to Unsuitable for plantations due to low to very low productivity and trafficability constraints due to surface rock and steep slopes and, in some areas, landslide hazard
Profile*

Authors: M.D. Laffan, P.D. McIntosh

Date: 15 June 2005

Location: Dogs Head Tier between Tunbridge and Lake Sorell. Site is 500 m north along access track from junction with Tunbridge Tier Road (C526)

Map reference (AGD): Sheet 5033 (Interlaken) 0520038, 5336774

Landform: Upper slopes of Dogs Head Tier

Vegetation: Dry eucalypt forest dominated by *E. delegatensis*, often with *E. dalrympleana* over an understorey including *Acacia dealbata*, *Cyathodes parvifolia*, *Pultanaea juniperina* and *Poa* spp

Parent material: Jurassic dolerite and derived Quaternary slope deposits

Drainage: Well drained

Slope: 4°

Aspect: North

Altitude: 890 m

Photographs: PDM 3-05-2 (site); 3-05-9 (profile)

Australian Soil Classification: **Haplic Eutrophic Red Ferrosol**

<table>
<thead>
<tr>
<th>Horizon</th>
<th>Depth (cm)</th>
<th>pH (H₂O)</th>
<th>Total C (%)</th>
<th>Total N (%)</th>
<th>C/N</th>
<th>Total P (mg/kg)</th>
<th>Colwell P (mg/kg)</th>
<th>P retn. (%)</th>
<th>SO₄-S (mg/kg)</th>
<th>Water Stable Aggreg. (%)</th>
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<tbody>
<tr>
<td>A1</td>
<td>0–10</td>
<td>6.4</td>
<td>28.0</td>
<td>0.13</td>
<td>22</td>
<td>502</td>
<td>8</td>
<td>54</td>
<td>11</td>
<td>n.d.</td>
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<tr>
<td>B21</td>
<td>15–38</td>
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<td>B22</td>
<td>38–76</td>
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<tr>
<td>B23</td>
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References

Citation

30 June 2005