

Balrownie SERIES

A. SOIL MAP UNIT DESCRIPTION

SOIL CLASSIFICATION

SCOT: Brown forest soils
with gleying,
SSEW: Stagnogleyic
brown earths

SOIL ASSOCIATION

BALROWNIE

PARENT MATERIAL

Sandy loam, water-modified
material, up to 60 cm thick,
overlying reddish brown
sandy silt loam or sandy
clay loam till derived mainly
from Old Red Sandstone
sandstones with some
erratics of Dalradian schist.

DRAINAGE CLASS

Imperfect

PERMEABILITY CLASS

Moderate or slow

REFERENCES

soil maps —
1:63 360 sheets
30 (Glasgow)
39 (Stirling)
40/41 (Kinross/Elie)
47 (Crieff)
48/49 (Perth/Arbroath)
56 (Blairgowrie)
57 (Forfar)
66/67 (Banchory/
Stonehaven)

memoirs —
Soils round Perth, Arbroath
and Dundee

Compiled by J.S. Bell
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SMUTS 1

LOCATION AND EXTENT

Vale of Strathmore (Auchterarder to Montrose) and parts of
Sidlaw foothills (460 sq km); Strathallan, Strathearn (50 sq km);
Mid-Forth valley to Loch Lomond (110 sq km); small areas near
Stonehaven (7 sq km) and Laurencekirk (5 sq km). Total 632 sq km.

LANDFORM

Undulating lowland and foothills; gentle or moderate slopes.

VEGETATION

Arable; permanent pastures; broad-leaved woodlands, some soft
rush pasture.

CLIMATE

	<i>Eastern Scotland</i>	<i>West Perthshire</i>
<i>av. ann. rainfall, mm*</i>	735mm on coast, 900 mm inland	1200
<i>accum. temperature*</i> (day °C above 0°C Jan-Jun)	1120-1350	1250-1420
<i>maximum PSMD, mm</i>	80-120	70-100
<i>growing season, days*</i>	215-225	215-225
<i>field capacity*</i>	late Oct to early Mar on coast early Oct to early Mar inland	early Oct to early Mar

SOIL DESCRIPTION

	<i>topsoil</i>	<i>subsoil</i>
<i>colour</i>	dark greyish brown to dark reddish brown	dark reddish brown
<i>texture</i>	sandy loam or sandy silt loam	sandy loam overlying sandy silt loam or sandy clay loam
<i>structure</i>	moderate subangular blocky	weak subangular blocky, massive at depth
<i>stone content</i>	slightly or moderately stony	moderately stony
<i>potential rooting depth</i>	35-60 cm depending on thickness of water- modified material. Deeper in dry years	

COMMENT Thickness of water-modified material is variable.
Underlying till and induration restricts rooting depth and water
movement.

SOIL CHEMISTRY

Percentage base saturation low or medium in sandy loam
subsoil, high in underlying sandy clay loam. Low total
phosphorus in subsoil.

MAP UNIT VARIATION

Thickness of water-modified material decreases southwards
from Coupar Angus.

*Climate data extracted from Meteorological Office publications *Average Annual Rainfall: Northern Britain* and
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