

# Darleith SERIES

## A. SOIL MAP UNIT DESCRIPTION

### SOIL CLASSIFICATION

SCOT: Brown forest soils  
SSEW: Typical brown  
earths

### SOIL ASSOCIATION

DARLEITH

### PARENT MATERIAL

Drifts of sandy silt loam  
texture derived from  
basalts.

### DRAINAGE CLASS

Free; some moderately  
well drained in wetter  
areas and on till.

### PERMEABILITY CLASS

Moderate

### REFERENCES

*soil maps* —  
1:63 360 sheets  
7/8 (Girvan/Carrick)  
14 (Ayr)  
17 (Jedburgh)  
18 (Morebattle)  
22 (Kilmarnock)  
23 (Hamilton)  
24/32 (Peebles/Edinburgh)  
25 (Kelso)  
26 (Berwick-on-Tweed)  
31 (Airdrie)  
33/34 (Haddington/  
Eyemouth)  
39 (Stirling)  
40/41 (Kinross/Elie)  
47 (Crieff)  
48/49 (Perth/Arbroath)

### *memoirs* —

Soils of Carrick and round  
Girvan  
Soils round Jedburgh and  
Morebattle  
Soils round Kilmarnock  
Soils round Kelso and Lauder  
Soils round Haddington and  
Eyemouth  
Soils round Perth, Arbroath  
and Dundee

Compiled by G. Hudson  
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SMUDS 2

### LOCATION AND EXTENT

Sporadic, occasionally extensive, throughout the Midland Valley,  
particularly the Sidlaw, Touch, Campsie and Carrick Hills and in hills  
north of Stewarton and around Denny and Cambuslang, with low-  
lying areas near Kinghorn in Fife. 385 sq km.

### LANDFORM

Wide range: lowland to upland, gentle to very steep slopes, non- to  
moderately rocky.

### VEGETATION

Ben-fescue, white bent and crested hair-grass grasslands on hill  
ground; permanent pastures and some arable on low ground.

### CLIMATE

	<i>East Midland Valley</i>	<i>Central and west Midland Valley</i>
<i>av. ann. rainfall, mm*</i>	700-900	1100-1400
<i>accum. temperature*</i> (day °C above 0°C Jan-Jun)	1180-1410	no data
<i>maximum PSMD, mm</i>	80-110	70-90
<i>growing season, days*</i>	215-225	no data
<i>field capacity*</i>	late Sept to early Mar	no data

### SOIL DESCRIPTION

	<i>topsoil</i>	<i>subsoil</i>
<i>colour</i>	brown to very dark greyish brown	dark brown to brown or reddish brown
<i>texture</i>	sandy silt loam or fine sandy loam	sandy silt loam or sandy loam; sandy clay loam in till
<i>structure</i>	moderate medium crumb or medium subangular blocky	moderate subangular blocky
<i>stone content</i>	slightly or moderately stony	moderately or very stony
<i>potential rooting depth</i>	up to 90 cm, restricted only by underlying rock or weak induration in the subsoil	

**COMMENT** Principal features are free drainage, sandy silt loam  
texture, stoniness and shallowness on rock.

### SOIL CHEMISTRY

Percent base saturation and cation exchange capacity are medium to  
high in the topsoil, increasing with depth. Slight increases in  
sesquioxide iron are occasionally recorded in subsoils. Total  
phosphorus is high. Cobalt levels are low.

### MAP UNIT VARIATION

Areas with imperfect drainage (Dunlop Series) occur locally on clay  
loam till in the west. There are areas with rock outcrops included in  
Darleith Series on maps published prior to 1980.

\*Climate data extracted from Meteorological Office publications *Average Annual Rainfall: Northern Britain* and  
*Climatological Memorandum No 108* and reproduced by permission of the Controller of HMSO.