

SOIL CLASSIFICATION

SCOT: Noncalcareous  
gleys (Brown forest  
soils with gleying on  
early maps)  
SSEW: Cambic  
stagnogley soils

SOIL ASSOCIATION  
DARLEITH

PARENT MATERIAL

Clay loam till derived  
from basic igneous rocks,  
mainly basalt, but which  
locally includes  
intermediate lavas and  
ultrabasic material.

DRAINAGE CLASS  
Imperfect

PERMEABILITY CLASS  
Slow or moderate

REFERENCES

soil maps —  
1:63 360 sheets  
7/8 (Girvan)  
14 (Ayr)  
22 (Kilmarnock)  
23 (Hamilton)  
30 (Glasgow)  
31 (Airdrie)  
39 (Stirling)  
48/49 (Perth/Arbroath)  
  
memoirs —  
Soils round Carrick and  
round Girvan  
Soils round Kilmarnock  
Soils round Perth, Arbroath  
and Dundee

LOCATION AND EXTENT

Scattered throughout the Central Lowlands on the fringes  
of the volcanic hills, the main occurrences being around  
Stewarton, Eaglesham and Ballantrae in the Largo area  
and north-east of Denny. *About 100 sq km.*

LANDFORM

Hill slopes and undulating plains usually below 250 m  
altitude, slopes gentle or moderate.

VEGETATION

Permanent pastures; arable; some herb-rich bent-fescue  
grassland, rush pastures and sedge mires.

| CLIMATE  | West (Ayrshire)           | Central<br>(Renfrew,<br>Lanark,<br>Stirling) | East (Fife)             |
|--|---------------------------|--|-------------------------|
| <i>av. ann. rainfall, mm</i>                             | 1200-1400                 | 1400   | 800                     |
| <i>accum. temperature<br/>(day °C above 0°C Jan-Jun)</i> | 1280-1450                 | 1250-1420                                    | 1240-1410               |
| <i>maximum PSMD, mm</i>                                  | 100-128                   | 72-98  | 140                     |
| <i>growing season, days</i>                              | 255                       | 225  | 225                     |
| <i>field capacity</i>                                    | early Oct to<br>early Mar | early Oct to<br>early Mar                    | mid-Oct to<br>early Mar |

| SOIL DESCRIPTION               | topsoil  | subsoil                              |
|--------------------------------|--|--------------------------------------|
| <i>colour</i>                  | brown  | reddish brown                        |
| <i>texture</i>                 | clay loam  | clay loam                            |
| <i>structure</i>               | moderate medium<br>subangular blocky   | weak or moderate<br>medium prismatic |
| <i>stone content</i>           | slightly stony   | slightly or<br>moderately stony      |
| <i>potential rooting depth</i> | free rooting in topsoil (25 cm), limited<br>rooting to about 50 cm, thereafter<br>restricted by compact till |                                      |
| COMMENT                        | Subsoils typically moderately fine-<br>textured and slowly permeable.  |                                      |

SOIL CHEMISTRY

Percentage base saturation high, increasing with depth.  
Exchangeable bases medium and total phosphorus high in  
subsoil; values for both high in parent till.

MAP UNIT VARIATION

High exchangeable magnesium near Ballantrae associated  
with serpentine in parent tills.