2010-012-89

AGRICULTURAL LAND CLASSIFICATION

LAND NORTH OF SANDLING ROAD, SALTWOOD, HYTHE

Background

The site lies on the north west outskirts of Saltwood near Hythe in Kent. Southern and western boundaries of the site are formed by the edges of gardens along Sandling Road. The eastern boundary of the site is formed by field margins whilst the northern boundary follows no physical feature.

The site was surveyed using a 110cm Dutch auger. Samples were taken at c.50 to 75m intervals due to the relatively small size of the area surveyed. Where neccessary, representative pits were dug to provide further information on profile morphology.

Land Use

At time of survey (April 1988) all of the site was pastureland.

Physical Factors Affecting Land Quality

Relief

The site lies at 75m OD and is very gently undulating. Gradients present are very shallow and impose no restrictions to agricultural land quality.

Climate

The average annual rainfall for this area is 779mm with soils being at Field Capacity for 162 days/annum. The median accumulated temperature above zero degrees C for the period January to June (a measure of the relative warmth of a locality) is 1421 day degrees. Soil moisture deficits are 113 and 109 for wheat and potatoes respectively.

Geology and Soils

British Geological Survey Sheet 305/306 shows the site to be composed dominantly of the Folkestone Beds with the possibility of an inclusion of the Sandgate Beds at the north east of the site. Both deposits derive from the Cretaceous.
The Soil Survey of England and Wales Sheet 6 (1:250000) shows all of the site to be composed of the Malling Association (typical argillic brown earths).

Agricultural Land Classification

Appendix 1 gives a generalised description of the grades used in this classification.

Grade 2

All of the agricultural land on this site falls into this grade. Profiles are typically composed of fine sandy loam topsoils overlying borderline fine sandy loam/fine sandy clay loam, fine sandy clay loam or occasionally fine sandy loam textures in the immediate subsoil. Such textures grade either into fine sandy clay loam or fine sandy loam at varying depth.
Profiles at this site fall dominantly into Soil Wetness Class 1 and 2. An individual profile was found to belong to Wetness Class 3, which coupled with its topsoil texture in this range of Field Capacity days resulted in its allocation to this grade in terms of slight problems of wetness and workability. For the majority of profiles however, the average structural conditions found to be dominant in many subsoils in combination with the textures and moisture deficits present at this site have resulted in the land being allocated to this grade in terms of slight liability to drought stress.

Areas of Grades

Total area of site	2.04ha
Agricultural buildings	0.06ha
Total area of agricultural land	1.98ha

Grade 2 1.98ha (100% total agricultural area)

References
MAFF 1988 Agricultural Land Classification (revised guidelines and criteria for grading the quality of agricultural land)
The Met Office 1989 Climatological Data for Agricultural Land Classification
British Geological Survey 1974 Sheet 305/306 (Folkestone and Dover) 1:50000
Soil Survey of England and Wales 1983 Sheet 6 Soils of South East England 1:250000 (plus accompanying memoir)
Soil Survey of England and Wales 1980 Soils of Kent (plus accompanying memoir: Soil Survey Bulletin No 9, Soils of Kent, SJ Fordham & RD Green)

IAN RUGG
RESOURCE PLANNING GROUP
SOUTH EASTERN REGION
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APPENDIX 1

DESCRIPTION OF THE GRADES AND SUBGRADES

Grade 1 – excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 – very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 – good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a – good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b – moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 – poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 – very poor quality agricultural land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Table 11 Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging[1]
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years[2].
II	The soil profile is wet within 70 cm depth for 31-90 days in most years *or*, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but not wet within 40 cm depth for more than 30 days in most years.
III	The soil profile is wet within 70 cm depth for 91-180 days in most years *or*, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 180 days,but only wet within 40 cm depth for between 31 and 90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years *or*, if there is no slowly permeable layer within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.
V	The soil profile is wet within 40 cm depth for 211-335 days in most years.
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years.

[1] The number of days specified is not necessarily a continuous period.

[2] 'In most years' is defined as more than 10 out of 20 years.