

## AGRICULTURAL LAND CLASSIFICATION

### LAND AT LITTLE DOUCEGROVE, NORTHIAM, EAST SUSSEX

#### Background

The site covers approximately 4.96ha and lies 2 miles south of Northiam, East Sussex. The site is bounded to the north by agricultural land, to the east by Marlpit Wood, and to the south and west by a minor road leading from A28 to Littledouce Grove (residence).

The site was surveyed in connection with an application for a private golf course. Samples were taken at approximately 100m intervals using a 110cm Dutch auger.

#### Land use

At time of survey (February 1989), all the area surveyed was ploughed but unsown.

#### Physical Factors Affecting Land Quality

##### Relief

The majority of the site lies between 76 and 61m O.D. It is undulating and falls gently to the north. However, at the far north of the site the gradient was a significant factor in relation to agricultural land quality with a measured gradient of 7°. The remainder of the site had gradients less than 5°.

##### Climate

The average annual rainfall for this area is approximately 838mm. Soils are at field capacity for 171 days/annum and the available moisture deficits for wheat and potatoes are 107mm and 103mm respectively. The median accumulated temperature above 0 degrees C for January to June is 1451 degree days ( Meteorological Office, 1988. Interpolated climatic data).

##### Geology and Soils

British Geological Survey Sheets 320(1928) and 304(1960) show the site overlying Lower Cretaceous Wadhurst clay. The Soil Survey of England and Wales "Soils of South East England"(1983) shows the site to be at the boundary of the Curtisden and Wickham 1 Associations. Curtisden Association soils are found over sandstone inclusions within Wadhurst clay and are silty stagnogleyic argillic brown earths. Wickham 1 Association soils are typical stagnogleys which develop in the Wadhurst clay. Both are seasonally waterlogged.

Field examination of the soils found all profiles to be of a single soil type - medium or heavy clay loams over silty clay within 25cm.

#### Agricultural Land Classification

The survey was carried out in accordance with the "Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (M.A.F.F. 1988). Appendix 1 gives a generalised description of the grades used in this classification.

#### Grade 3b

Field examination of the soils found this grade over the whole site. Profiles were typically composed of 20 to 25cm of medium or heavy silty clay loam over clay or silty clay to depth. The profiles were chiefly limited by drainage status and showed evidence of wetness from the surface. A small pit showed the clay to be slowly permeable putting the soils into wetness class IV.

#### Areas of Grades

Total area of site	4.96 ha
Areas primarily in non-agricultural use	0.0 ha
Total agricultural area	4.96 ha
Grade 3b	4.96 ha (100% total)

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References

- British Geological Survey 1975. Sheets 320 and 304 (Hastings 1928 and Horsham 1960 respectively). 1:63360.
- M.A.F.F. 1988. Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land.
- Meteorological Office 1988. Climatological Data for Agricultural Land Classification. (inprinted)
- Ordnance Survey 1974. Sheet 199 Eastbourne and Hastings. 1:50000
- Soil Survey England and Wales 1980. Soils of South East England Sheet 6. 1:250 000

AGRICULTURAL LAND CLASSIFICATION OF LITTLE DOUCEGROVE, NORTHIAM,  
WEST SUSSEX

SCHEDULE OF AUGER BORINGS

The site was undulating, sloping gently down to the north. At the northerly extreme of the site the land drops below 61m O.D.

1. Level, bare ploughed (small pit).

0-20 (H)ZCL 10 YR 5/3 brown, 10 YR 6/2 light brownish gray, 10 YR 5/4 and 5/6 yellowish brown.  
20-70+ C/ZC 2.5 Y 6/2 light brownish gray, 10 YR 5/8 yellowish brown, 7.5 YR 5/8 strong brown, 7.5 YR dark brown.  
Common small Mn concretions.  
Massive structure.  
0.1-0.5% very fine and fine pores.  
Slowly permeable.  
Increasingly green, gray and orange with depth.

Wetness class IV                      Grade 3b

2. Level, bare ploughed.

0-25 (H)ZCL 10 YR 5/3, 10 YR 6/2, 10 YR 5/4, 10 YR 5/6  
25-70+ C/ZC 10 YR 6/6 and 6/4 brownish yellow, 2.5 Y 6/2.  
Few Mn concretions.  
Increasingly orange, 7.5 YR 6/8 strong brown, and green, 5 GY 7/1 light greenish gray.

Wetness class IV                      Grade 3b

3. Very slightly sloping, bare ploughed.

0-25 (M)ZCL 10 YR 5/3, 10 YR 6/2, 10 YR 5/4 and 5/6.  
Common calcarious frags-only in surface so possibly from liming.  
Common Mn concretions.  
25-70+ ZC 10 YR 6/3 pale brown, 2.5 Y 7.2 light gray, 7.5 YR 6/8.  
Few Mn concretions.

Wetness class IV                      Grade 3b

4. Slightly sloping, bare ploughed.

0-25 (H)ZCL 10 YR 5/3, 10 YR 5/4 root mottles.  
25-70+ C 7.5 YR 6/8, 10 YR 6/3, 2.5 YR 6/2 and 7/2.  
Common Mn concretions. Abundant below 45cm.  
Increasingly green with depth, 5 GY 7/1-6/1.

Wetness class IV                      Grade 3b

5. Sloping 7 , bare ploughed.

0-25 (M)ZCL 10 YR 5/3, 10 YR 6/2, 10 YR 5/4 and 5/6.  
25-35 C 10 YR 6/2, 7.5 YR 6/8.  
35-100+ VFSL 10 YR 7/1 light gray, 7.5 YR 6/8, 10 YR 6/4.  
Increasingly sandy.

Slope 7

Grade 3a/b

6. Slightly sloping, bare ploughed.

0-25 (H)CL 10 YR 5/3 brown, 10 YR 5/4 yellowish brown.  
25-70+ C 10 YR 6/4, 10 YR 4/6 dark yellowish brown, 10 YR  
6/1 gray, 7.5 YR 6/8.  
Abundant Mn concretions. Gritty.

Wetness class IV

Grade 3b

7. Level, bare ploughed.

0-25 (M/H)ZCL 10 YR 5/3, faint mottles 10 YR 5/6 & 5/2.  
25-70+ C 2.5 Y 6/4 light yellowish brown, 2.5 Y 6/2, 7.5  
YR 5/8.  
Common Mn concretions becoming abundant below 40cm-  
gritty.

Wetness class IV

Grade 3b

## 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.