

AGRICULTURAL LAND CLASSIFICATION
BARNESLEY UNITARY DEVELOPMENT PLAN
SOUTH YORKSHIRE

SITE DE 19
AUGUST 1993

ADAS
Leeds Statutory Group

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2 FCS 6630

SUMMARY

An Agricultural Land Classification survey of part of Site DE 19, Barnsley UDP was carried out in August 1993.

A total of 11.7ha of land was surveyed, of which 7.7ha falls in Subgrade 3a. Profiles are moderately well or imperfectly drained (falling in Wetness Classes II or III) and typically consist of medium clay loam topsoils and upper subsoils overlying slowly permeable heavy clay loam or heavy silty clay loam lower subsoils at around 50cm depth. Soil wetness and a pattern limitation limit this land to Subgrade 3a.

The remainder of the agricultural land surveyed (2.7ha) falls in Subgrade 3b. Profiles are poorly drained (Wetness Class IV) and typically consist of medium or heavy clay loam topsoils overlying gleyed, slowly permeable silty clay subsoils at around 30cm depth. Soil wetness and workability restrictions limit this land to Subgrade 3b.

The remainder of the area surveyed consists of Urban land (0.6ha) and Agricultural Buildings (0.7ha).

11.3ha in the centre of the site was not surveyed because access to carry out the survey was denied.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT DEARNE, SOUTH YORKSHIRE (BARNSELEY UDP SITE DE 19)

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies approximately 10km east-south-east of Barnsley town centre, around Grid Reference SE 450040. Survey work was carried out in August 1993 when (where access was granted) soils were examined by hand auger borings at 100m intervals predetermined by the National Grid. Extra borings were made where necessary to refine grade boundaries and one soil pit was dug to allow the assessment of subsoil structure and the collection of samples for laboratory analysis. Land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land" (MAFF, 1988).

1.2 Land Use and Relief

At the time of survey, the agricultural land to the north of Barnsley road was in oilseed rape and winter wheat. The remainder of the agricultural land surveyed was in set-aside and had recently been ploughed. Site altitude varies from 30m AOD in the south to 40m AOD in the north, and the land is gently to moderately sloping (1-4°), with a southerly or westerly aspect.

1.3 Climate

Grid Reference	: SE 450040
Altitude (m)	: 35
Accumulated Temperature above 0°C (January-June)	: 1387 day°C
Average Annual Rainfall (mm)	: 634
Climatic Grade	: 1
Field Capacity Days	: 132
Moisture Deficit (mm) Wheat	: 106
Moisture Deficit (mm) Potatoes	: 97

1.4 Geology, Soils and Drainage

The site is underlain by Carboniferous Coal Measures consisting of interbedded sandstones and shales. There is no drift cover on the site (with the exception of localised head deposits) and the soils have formed directly over weathering bedrock. Profiles are typically moderately well to imperfectly drained (falling in Wetness Classes II or III) although well drained (Wetness Class I) and poorly drained profiles (Wetness Class IV) occur in places.

The soils are generally medium to heavy textured (consisting of medium clay loam topsoils and upper subsoils overlying heavy silty clay loam or silty clay lower subsoils) but light textured subsoils (consisting of medium sandy loam) occur in places.

The soils on the site correspond to the Bardsey Association as mapped by the Soil Survey and Land Resource Centre.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2		
3a	7.7	33.5
3b	2.7	11.7
4		
5		
(Sub total)	(10.4)	(45.2)
Urban	0.6	2.6
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.7	3.0
Open Water		
Land not surveyed	11.3	49.2
(Sub total)	(12.6)	(44.8)
 TOTAL	 23.0	 100

2.1 Subgrade 3a

Land in this subgrade occurs to the north of Barnsley Road and in the far south of the site. Profiles are moderately well or imperfectly drained (falling in Wetness Classes II or III) and typically consist of medium clay loam topsoils overlying similarly textured upper subsoils and gleyed heavy silty clay loam or heavy clay loam lower subsoils. The lower subsoils form slowly permeable layers and generally begin at around 50cm depth. The ALC grade of this land is limited by soil wetness and a pattern limitation.

2.2 Subgrade 3b

Two small areas of Subgrade 3b land occur, one in the north-east of the site and one in the south. Profiles are poorly drained (falling in Wetness Class IV) and consist of medium clay loam or heavy clay loam topsoils overlying gleyed, slowly permeable silty clay subsoils at around 30cm depth. The land is, thus, limited to Subgrade 3b by soil wetness and workability restrictions, which are more severe than on the adjoining Subgrade 3a land.

2.3 Urban

This refers to a short section of Barnsley Road and the track leading to Holly Grove.

2.4 Agricultural Buildings

This category includes the farmhouse and outbuildings at Holly Grove.

2.5 Land not Surveyed

The central part of the site was not surveyed because access to carry out the survey was denied.

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MAP