



Ministry of
Agriculture
Fisheries
and Food

AGRICULTURAL LAND CLASSIFICATION
KIRKLEES UDP
(CARLINGHOW LANE, BATLEY)
WEST YORKSHIRE
APRIL 1996

ADAS
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1. AGRICULTURAL LAND CLASSIFICATION

SUMMARY

A detailed Agricultural Land Classification (ALC) survey of 23.7ha of land at Batley ("Kirklees UDP, Carlinghow Lane, Batley") was carried out in April 1996. 15.1ha. of this falls in Subgrade 3b. The profiles here are poorly drained, with medium-textured topsoils overlying medium to heavy-textured upper subsoils and heavy-textured lower subsoils. The subsoils become gleyed and slowly permeable at between 20 and 45cm depth, and soil wetness limits this land to Subgrade 3b, although some areas are also limited to this subgrade by slopes of 8° to 11°.

Grade 4 land covers 5.1 ha. In the north topsoils are absent and the gleyed and slowly permeable heavy-textured subsoils begin at the soil surface. These soils are poorly drained and limited to Grade 4 by severe soil wetness and workability restrictions. In the east and south-west slopes of 11° to 18° are the factor restricting the land to Grade 4.

0.8ha of Grade 5 land has been mapped in the east on the site of a spoil heap. Micro-relief is very complex here and it is this which limits the land to Grade 5.

Other land on this site covers 2.7ha. in the south, where an area of land has been fenced off and disturbed, apparently in connection with recent pipe-laying by Yorkshire Water.

AGRICULTURAL LAND CLASSIFICATION (ALC) REPORT ON LAND AT
CARLINGHOW LANE, BATLEY IN RELATION TO KIRKLEES UNITARY
DEVELOPMENT PLAN

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

This site lies 4km north-west of Dewsbury town centre, and around grid reference SE 226 252. Survey work was carried out in April 1996 when the soils were examined by hand auger borings at 100m intervals predetermined by the O.S. National Grid. Additional borings were made where necessary to refine grade boundaries and one soil profile pit was dug to allow a full description to be made. The 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 the survey most of the site was under permanent grass. An area of agriculturally derelict land occurs in the north of the site (where the topsoils have been removed) and on the site of a spoil heap in the east. A band of land along the southern boundary has recently been disturbed as a result of pipeline laying by Yorkshire Water and has been classified as non-agricultural land.

Site altitude varies from 127m AOD in the west to 90m AOD in the east. The land varies between gently and steeply sloping (3° to 20°) and much of the site is limited to Subgrade 3b, Grade 4 or Grade 5 by slopes of greater than 7°. Aspect is variable.

1.3 Climate

Grid Reference	: SE 226 252
Altitude (m)	: 110
Accumulated Temperature above 0°C (January - June)	: 1298 day °C
Average Annual Rainfall (mm)	: 769
Climatic Grade	: 2
Field Capacity Days	: 187
Moisture Deficit (mm) Wheat	: 87
Moisture Deficit (mm) Potatoes	: 73

1.4 Geology, Soils and Drainage

The area in question is underlain by Middle Coal Measures consisting of interbedded sandstones and shales. With the exception of locally derived Head deposits there is no drift cover on the site and the soils have developed in weathering shale. Generally the profiles are poorly drained (Wetness Class IV) with medium clay loam topsoils overlying medium clay loam, heavy clay loam or heavy silty clay loam upper subsoils and silty clay lower subsoils. In the north of the site the topsoils have been removed and the heavy clay loam, heavy silty clay loam or silty clay subsoils begin at the soil surface, and in the east there is a spoil heap where thin topsoils overlie shale. Finally, along the southern edge of the site, there is an area of disturbed soils which have recently been affected by pipe-laying work carried out for Yorkshire Water.

The undisturbed soils on the site correspond to the Dale association as described by the Soil Survey and Land Research Centre.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>% of Total Area</u>
1		
2		
3a		
3b	15.1	63.7
4	5.1	21.5
5	0.8	3.4
(Sub total)	(21.0)	(88.6)
Other Land	2.7	11.4
TOTAL	23.7	100

2.1 Subgrade 3b

Most of the site falls in Subgrade 3b. The soils are generally poorly drained (Wetness Class IV), with medium clay loam topsoils overlying medium clay loam, heavy clay loam or heavy silty clay loam upper subsoils (which are often gleyed and sometimes slowly permeable) and, at between 30 and 45cm depth, gleyed and slowly permeable silty clay lower subsoils. Soil wetness limitations restrict the ALC grade of this land. In addition, some areas are also limited to Subgrade 3b by slopes of between 8° to 11°.

2.2 Grade 4

Grade 4 land occurs in three separate areas. The largest of these occurs in the north where the topsoils have been stripped (and some at least placed in mounds) and the gleyed and slowly permeable heavy clay loam, heavy silty clay loam and silty clay subsoils therefore begin at the soil surface. The profiles are poorly drained, falling in Wetness Class IV, and the land is limited to Grade 4 by severe soil wetness and workability restrictions.

The two other areas of Grade 4 land (one in the east and one in the south-west) are similar to the Subgrade 3b land already described, but slopes of 11° to 18° provide a further limitation which restricts the land to Grade 4.

2.3 Grade 5

Grade 5 land occurs in the east of the site, on a spoil heap. Thin medium clay loam topsoils overlies shaly spoil. This land is not being actively farmed but if it were to be the complex microrelief would prevent it's being used for anything other than permanent grass. It is this microrelief limitation which restricts the land to Grade 5.

2.4 Other Land

This occurs along the southern boundary of the site, where a disturbed area has been fenced off by Yorkshire Water, apparently in connection with recent pipe-laying work.

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MAP