



AGRICULTURAL LAND CLASSIFICATION  
ROTHERHAM UDP  
LAND ADJOINING SITE H51  
LILLY HALL ROAD, MALTBY  
SOUTH YORKSHIRE

MARCH 1996

ADAS  
Leeds Statutory Group

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2 FCS 11270

## SUMMARY

A detailed Agricultural Land Classification (ALC) survey of 17.6 ha of land east of Lilly Hall Road, Maltby ("Rotherham UDP, Land adjoining Site H51") was carried out in February 1996.

At the time of the survey 16.4 ha of the site was in agricultural use and 3.5 ha of this falls in Grade 2. The soils in this area are well drained, with very slightly stony medium silty clay loam topsoils and subsoils overlying weathering limestone at between 60 cm and 100 cm depth in most cases. Overall climate and, in many cases, slight soil droughtiness limit this land to Grade 2.

Subgrade 3a land covers 2.2 ha in the east. The soils are very similar to those on the Grade 2 land but weathering limestone begins at between 50 cm and 60 cm depth in many places. This results in a more serious soil droughtiness limitation which further restricts the ALC grade to Subgrade 3a.

Subgrade 3b land covers a total of 10.7 ha on the site. Although the soils are well drained, weathering limestone begins at between 20 cm and 40 cm depth and severe soil droughtiness as well as, in many cases, soil depth limit the ALC grade.

Other land, consisting of 1.2 ha of woodland and parkland, occur in the east of the site.

## CONTENTS

1. INTRODUCTION AND SITE CHARACTERISTICS
2. AGRICULTURAL LAND CLASSIFICATION

## MAP

1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND EAST OF LILLY HALL ROAD, MALTBY ("ROTHERHAM UDP, LAND ADJOINING SITE H51")

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

This land lies 9 km east of Rotherham town centre, on the north-western edge of Maltby. Survey work was carried out in February 1996 when the soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. An area of land adjoining this site to the south-west was subject to a detailed survey in 1993 ("Rotherham Unitary Development Plan, Site H50, Lilly Hall Road, Maltby" Job No. 65/93), and information obtained during this survey was taken into account when drawing grade boundaries. In addition, three soil profile pits were dug to confirm depth to bedrock and to allow full profile descriptions 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 93% of the site was in agricultural use (growing winter cereals or in set-aside) while 7% consisted of woodland and parkland. The site altitude varies from approximately 140 m AOD in the west to 130 m AOD in the east and the land is level to gently sloping (1-3°), with a generally southerly aspect.

1.3 Climate

Grid Reference	:	SK518932
Altitude (m)	:	137
Accumulated Temperature above 0°C (January - June)	:	1275 day °C
Average Annual Rainfall (mm)	:	673
Climatic Grade	:	2
Field Capacity Days	:	138
Moisture Deficit (mm) Wheat	:	94
Moisture Deficit (mm) Potatoes	:	81

#### 1.4 Geology, Soils and Drainage

This site is underlain by Lower Magnesian Limestone deposits, which outcrop to within one metre of the soil surface over most of the site. There is no significant drift cover and the soils have developed in the weathering limestone.

The soils are well drained (Wetness Class I) and consist of medium silty clay loam topsoils overlying medium silty clay loam subsoils in most cases with weathering limestone bedrock beginning at between 20 cm and 100 cm depth. A detailed soils map for this area published by the Soil Survey of England and Wales (Sheet SK59, Maltby, 1:25,000 scale) shows most of the soils on the site as belonging to the Elmton and Aberford series.

## 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	3.5	19.9
3a	2.2	12.5
3b	10.7	60.8
4		
5		
(Sub total)	(16.4)	(93.2)
Other land	1.2	6.8
<b>TOTAL</b>	<b>17.6</b>	<b>100</b>

### 2.1 Grade 2

Grade 2, land occurs in the west of the site. Very slightly stony medium silty clay loam topsoils and subsoils overlie weathering limestone bedrock at between 60 cm and 100 cm depth in most cases. These soils are well drained (Wetness Class I) but the land is limited to Grade 2 by the overall climate of the area and, often, by slight soil droughtiness.

### 2.2 Subgrade 3a

Land in the north-east has been mapped as Subgrade 3a. The soils are well drained (Wetness Class I), with very slightly stony medium silty clay loam topsoils and subsoils. Weathering limestone bedrock begins below around 50 cm depth in places and it is a moderate soil droughtiness limitation which restricts this land to Subgrade 3a.

### 2.3 Subgrade 3b

The centre of the site and a band in the far west fall in Subgrade 3b. The soils are well drained (Wetness Class I) but shallow, consisting of slightly stony medium silty clay loam topsoils and subsoils overlying weathering limestone bedrock at between 20 cm and 40 cm

depth. These soils have a low water holding capacity which means that soil droughtiness restricts the land to Subgrade 3b, as does soil depth in many places.

#### 2.4 Other land

Land in this category occurs in the east of the site and consists of a small area of woodland (Amory's Holt) and a small area of parkland adjoining recently built housing.

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MAP