



AGRICULTURAL LAND CLASSIFICATION
LEEDS UDP
TOPIC 746
WEST YORKSHIRE
FEBRUARY 1995

ADAS
Leeds Statutory Group

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SUMMARY

A detailed Agricultural Land Classification survey of 11.4 ha of land south of Rothwell (Leeds UDP, Topic 746) was carried out in February 1995. Of the total site, area 7.0 ha falls in Subgrade 3a. This land consists of imperfectly drained soils with medium-textured topsoils and upper subsoils overlying gleyed and slowly permeable heavy-textured lower subsoils at around 50cm depth. Soil wetness limits the ALC grade of this land.

The remainder of the site (4.4 ha) falls in Subgrade 3b. These soils are poorly drained and consist of medium textured topsoils overlying gleyed and slowly permeable heavy-textured subsoils at around 30cm depth. A more severe soil wetness limitation restricts this land to Subgrade 3b.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT: LEEDS UDP, TOPIC 746,
WEST YORKSHIRE

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies approximately 8km south-east of Leeds city centre, on the south side of the village of Rothwell. Survey work was carried out in February 1995 when hand auger borings were made at 100m intervals predetermined by the National Grid. One soil pit was dug to allow a full profile 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 survey all of the site (11.4 ha) was under winter cereals.

Site altitude varies from 60m AOD in the north to 70m AOD in the south and the land is level to gently sloping (0-3°) with a northerly aspect in most cases.

1.3 Climate

Grid Reference	: SE 349 276
Altitude (m)	: 65
Accumulated Temperature above 0°C (January - June)	: 1346 day °C
Average Annual Rainfall (mm)	: 649
Climatic Grade	: 1
Field Capacity Days	: 152
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 90

1.4 Geology, Soils and Drainage

The area is underlain by Carboniferous Coal Measures consisting of interbedded sandstones and shales. With the exception of localised Head deposits there is no drift cover on the site and the soils are derived from weathering shale.

In most cases the soils are imperfectly or poorly drained, falling in Wetness Classes III or IV, and typically consist of medium clay loam or medium silty clay loam topsoils and, in many cases, upper subsoils, overlying heavy silty clay loam or silty clay.

These soils correspond to the Dale Association as mapped 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>Percentage of Total Area</u>
1		
2		
3a	7.0	61.4
3b	4.4	38.6
4		
5		
(Sub total)	(11.4)	(100.0)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
 TOTAL	 <u>11.4</u>	 <u>100</u>

2.1 Subgrade 3

The west of the site falls in Subgrade 3a. The soils are typically imperfectly drained, falling in Wetness Class III, and consist of very slightly stony medium clay loam or medium silty clay loam topsoils and upper subsoils overlying gleyed and slowly permeable heavy silty clay loam or silty clay lower subsoils at around 50cm depth. Soil wetness is the factor restricting this land to Subgrade 3a.

2.2 Subgrade 3b

The east of the site falls in Subgrade 3b. The soils are poorly drained (Wetness Class IV) and generally consist of very slightly stony medium clay loam or medium silty clay loam topsoils overlying gleyed and slowly permeable heavy silty clay loam or silty clay subsoils at around 30cm depth. A more severe soil wetness limitation restricts this land to Subgrade 3b.

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MAP