



AGRICULTURAL LAND CLASSIFICATION
LEEDS UDP
(MIDGLEY FARM)
WEST YORKSHIRE
JANUARY 1995

ADAS
Leeds Statutory Group

Job No:- 8/95
MAFF Ref:- EL49/13D
Commission No:- 1564

SUMMARY

A detailed Agricultural Land Classification of 34.9 ha of land north of Midgley Farm, Otley (Leeds U.D.P) was carried out in January 1995. At the time of survey over 99% of the site was in agricultural use of which 60% (20.8 ha) falls in Grade 2. The soils are well drained and consist of deep medium clay loams or sandy clay loams . Heavy clay loams or slightly to moderately stony sandy loams or loamy sands occur at depth in places. This land is limited to Grade 2 by a slight topsoil workability restriction, slight flood risk and, in places, slight soil droughtiness.

14.0 ha of the site falls in Subgrade 3b. The soils are typically poorly drained with medium clay loam or medium silty clay loam topsoils overlying gleyed and slowly permeable heavy clay loam, heavy silty clay loam or clay subsoils at around 30 cm depth. Soil wetness is the factor which limits this land to Subgrade 3b. The remainder of the area surveyed (0.1 ha) consists of Agricultural Buildings in the north of the site.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT MIDGLEY FARM, OTLEY, WEST YORKSHIRE (LEEDS U.D.P.)

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies 14 Km north-west of Leeds city centre, on the east side of Otley, and covers a total area of 34.9 ha. Survey work was carried out in January 1995 when the soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. Two soil pits were dug 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 survey all of the agricultural land on the site (34.8 ha) was under permanent grass, with the exception of one field of cereal stubble in the south-west.

Site altitude varies from 50 m in the centre to 48 m in the north-east and the land is level.

1.3 Climate

Grid Reference	: SE 221 457
Altitude (m)	: 48
Accumulated Temperature above 0°C (January - June)	: 1360 day °C
Average Annual Rainfall (mm)	: 781
Climatic Grade	: 1
Field Capacity Days	: 202
Moisture Deficit (mm) Wheat	: 92
Moisture Deficit (mm) Potatoes	: 80

1.4 Geology, Soils and Drainage

The area is underlain by Millstone Grit and this site is covered by deep deposits of alluvium. Two distinct soil types occur. The more widespread consists of well drained profiles (falling in Wetness Class I) where medium clay loam or sandy clay loam topsoils overlie similarly textured subsoils. In some places heavy clay loam or moderately stony sandy loam or loamy sand lower subsoils occur.

The second soil type occurs in two separate areas in the centre and south of the site. These soils are generally poorly drained, falling in Wetness Class IV, and consist of medium clay loam or medium silty clay loam topsoils over gleyed and slowly permeable heavy clay loam, heavy silty clay loam or clay subsoils in most cases. Moderately stony sandy clay loam or sandy loam lower subsoils occur at depth in places.

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	20.8	59.6
3a		
3b	14.0	40.1
4		
5		
(Sub total)	(34.8)	(99.7)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.1	0.3
Open Water		
Land not surveyed		
(Sub total)	(0.1)	(0.3)
	_____	_____
TOTAL	34.9	100
	_____	_____

2.1 Grade 2

Grade 2 land covers much of the north and centre of this site. The soils are well drained (Wetness Class I) and consist of medium clay loam or sandy clay loam topsoils and subsoils, although heavy clay loam, sandy loam or loamy sand lower subsoils occur in places. Topsoils and subsoils are generally very slightly to slightly stony, containing 4 - 6% subrounded sandstones and hard stones. The light-textured lower subsoils are slightly to moderately stony, containing 12 - 20% subrounded sandstones and hard stones.

This land is restricted to Grade 2 by a slight topsoil workability limitation, by a slight flood risk and, in places, by slight soil droughtiness.

2.2 Subgrade 3b

Subgrade 3b land occurs in two separate areas in the centre and south of the site. The soils are generally poorly drained, falling in Wetness Class IV, and consist of medium clay loam or medium silty clay loam topsoils overlying gleyed and slowly permeable heavy clay loam, heavy silty clay loam or clay. The gleyed and slowly permeable subsoils begin at between 20 cm and 35 cm depth in most places and soil wetness is the factor limiting the land to Subgrade 3b.

2.3 Agricultural Buildings

These cover a small area in the north of the site.

RPT File: 2 FCS 10607
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