

AGRICULTURAL LAND CLASSIFICATION
LEEDS UDP
WEST YORKSHIRE
TOPICS 700 AND 745
NOVEMBER 1994

ADAS
Leeds Statutory Group

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SUMMARY

A detailed Agricultural Land Classification survey of 18.4 ha of land at Greenland Farm, Oulton (Topics 700 and 745, Leeds UDP) was carried out in November 1994.

At the time of survey 97% of the sites was in agricultural use, of which 8.8 ha falls in Subgrade 3a. These soils are well drained, with medium sandy loam or medium clay loam topsoils and subsoils overlying weathering sandstone at around 60cm depth. Soil droughtiness limits this land to Subgrade 3a.

The remainder of the agricultural land surveyed falls in Subgrade 3b. These soils are generally poorly drained, with medium clay loam topsoils overlying gleyed and slowly permeable medium to heavy-textured subsoils. Soil wetness restricts this land to Subgrade 3b.

In addition to the agricultural land, a small area of Urban land (0.2 ha) occurs in the south-west of Topic 700.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT GREENLAND FARM, OULTON (TOPICS 700 AND 745, LEEDS UDP)

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The two sites lie 9km south-west of Leeds city centre, on the eastern side of the village of Oulton. They cover a total area of 18.4 ha and are centred on Grid Reference SE 366 280. Survey work was carried out in November 1994 when the soils were examined by hand auger borings at 100m intervals predetermined by the National Grid. In addition, two soil pits were dug to allow the soils to be described in greater detail. The land quality was assessed using 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 97% of the sites was in agricultural use, with four fields under permanent grass and two in cereal stubble.

Site altitude varies from 25m AOD in the north and south to 20m AOD in the centre. The land is level to gently sloping (0-3°) with variable aspect.

1.3 Climate

Grid Reference	: SE 366 280
Altitude (m)	: 20
Accumulated Temperature above 0°C (January - June)	: 1397 day °C
Average Annual Rainfall (mm)	: 633
Climatic Grade	: 1
Field Capacity Days	: 147
Moisture Deficit (mm) Wheat	: 106
Moisture Deficit (mm) Potatoes	: 98

1.4 Geology, Soils and Drainage

The land is underlain by Carboniferous Coal Measures consisting of interbedded sandstones and shales, with weathering sandstone outcropping to within one metre of the soil surface in parts of the north of the sites.

With the exception of some alluvial deposits in the centre of the area surveyed, and of some disturbed areas in the south-west and east (as a result of pipes being laid), the soils have formed directly over weathering Coal Measures.

Where outcrops of sandstone occur the soils are well drained (Wetness Class I) with medium sandy loam or medium clay loam topsoils and subsoils overlying weathering sandstone at around 60cm depth. Where soils have formed over weathering shale or in deposits of alluvium, profiles are typically poorly drained (Wetness Class IV) with medium clay loam topsoils overlying medium clay loam, sandy clay loam, medium silty clay loam or heavy silty clay loam subsoils.

2.1 AGRICULTURAL LAND CLASSIFICATION: TOPIC 700

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	2.5	64
3b	1.2	31
4		
5		
(Sub total)	(3.7)	(95)
Urban	0.2	5
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.2)	(5)
TOTAL	3.9	100

2.2 AGRICULTURAL LAND CLASSIFICATION: TOPIC 745

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	6.3	43.4
3b	8.2	56.6
4		
5		
(Sub total)	(14.5)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	<u>14.5</u>	<u>100</u>

2.3 Subgrade 3a

Much of the north and centre of the land surveyed falls in subgrade 3a. The soils are well drained, falling in Wetness Class I, with medium sandy loam or medium clay loam topsoils and subsoils overlying weathering sandstone bedrock at around 60cm depth. Both topsoils and subsoils are typically very slightly to slightly stony, with between 4% and 8% subangular sandstones. This land is restricted to Subgrade 3a by soil droughtiness limitations.

2.4 Subgrade 3b

The southern areas of both Topic 700 and Topic 745 fall in Subgrade 3b. Typically the soils are poorly drained, falling in Wetness Class IV, with medium clay loam topsoils overlying medium clay loam, sandy clay loam, medium silty clay loam or heavy silty clay loam subsoils. The subsoils are gleyed and slowly permeable and the land is, therefore, restricted to Subgrade 3b by soil wetness limitations.

2.5 Urban

A small area of Urban land occurs in the south-west of Topic 700.

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MAPS