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AGRICULTURAL LAND CLASSIFICATION
REPORT, LEEDS UDP
TOPIC 738
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ADAS
Leeds Statutory Group
2FCS 10339

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SUMMARY

A detailed agricultural land classification survey of 28.7 ha of land at Rothwell Haigh was carried out in November 1994. 87% of the site is currently in agricultural use.

8.2 ha of land were graded 2. These well drained, light textured soils are subject to a slight droughtiness limitation.

Subgrade 3a covers 7.7 ha. Again soils are light textured and well drained but shallower than on the Grade 2 land. A more severe drought limitation places this land in Subgrade 3a.

Subgrade 3b land occurs in 3 areas measuring 9.0 ha in total. To the east are restored soils limited by soil wetness. A strip of 3b land to the north with clayey, slowly permeable subsoils is also limited by soil wetness. A small central area of 3b land limited by slope was also identified.

Urban, non agricultural and farm buildings occupy 1.3 ha , 0.8 ha and 1.7 ha respectively.

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AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT ROTHWELL HAIGH, (TOPIC 738), LEEDS UDP

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site is located 4km south-east of Leeds city centre and to the north of Rothwell. It covers 28.7 ha and has a centroid grid reference of SE 334 295. Survey work was carried out in November 1994 when all the soils were examined by hand auger borings at 100m intervals predetermined by the National Grid. In addition 3 soil profile pits were dug to allow the soils to be described in greater detail. 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 87% of the site was in agricultural use, mostly growing arable crops. Altitude ranges from 75m AOD in the south to 45m AOD in the north. Slopes were mostly gentle or moderate with a small area of strong slopes towards the centre of the site. Aspect was generally northerly.

1.3 Climate

Grid Reference	: SE 334 295
Altitude (m)	: 55
Accumulated Temperature above 0°C (January - June)	: 1357 day °C
Average Annual Rainfall (mm)	: 648
Climatic Grade	: 1
Field Capacity Days	: 155
Moisture Deficit (mm) Wheat	: 101
Moisture Deficit (mm) Potatoes	: 91

1.4 Geology, Soils and Drainage

Soils are developed from weathering Carboniferous Coal Measures, mostly sandstones with shale in the extreme north. Drift cover is mostly thin or absent. Towards Rose Farm Cottage soils have been restored following quarry workings.

Soils developed from sandstone have medium sandy loam top and upper subsoils, over loamy medium sand lower subsoils. Topsoils are very slightly stony and subsoils slightly stony. They are well drained (Wetness Class I) but generally droughty.

Shale found in the north on the lowest land on the site has weathered to produce medium or heavy clay loam topsoils over clayey, slowly permeable subsoils. These soils are poorly drained (Wetness Class IV).

The restored soils are mostly heavy textured and shallow, typically medium to heavy clay loam over a clayey slowly permeable subsoil. Again they are poorly drained and fall into Wetness Class IV.

The whole site has been spread with sewage sludge for many years and has been nightsoiled. Laboratory results indicate that although heavy metal levels are raised, especially for copper, this should not pose a problem on the site assuming good practice is followed in respect of liming.

3. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	8.2	29
3a	7.7	27
3b	9.0	31
4		
5		
(Sub total)	(24.9)	(87)
Urban	1.3	4
Non Agricultural	0.8	3
Woodland - Farm		
- Commercial		
Agricultural Buildings	1.7	6
Open Water		
Land not surveyed		
(Sub total)	(3.8)	(13)
TOTAL	28.7	100

2.1 Grade 2

Grade 2 land occurs in two blocks, both with similar soils. Top and subsoils are medium sandy loam and very slightly stony. Profiles are well drained (Wetness Class I) but slightly droughty. This limits the land to Grade 2.

2.2 Subgrade 3a

Soils are similar to those graded 2. However subsoils are lighter textured usually loamy medium sand and slightly stony. This increases the drought limitation on the land to Subgrade 3a.

2.3 Subgrade 3b

This Subgrade includes 3 separate areas of land. Firstly restored soils in the east of the site are limited to this subgrade by soil wetness problems. Land in the north of the site with clayey, slowly permeable subsoils is also limited to 3b by soil wetness. Finally a small area of strongly sloping land towards the centre of the site is limited by slope.

2.4 Urban

This comprises two sets of buildings.

2.5 Non Agricultural

This category includes scrub land.

2.6 Farm Buildings

This refers to buildings associated with a garden centre and nursery.

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MAP