



AGRICULTURAL LAND CLASSIFICATION
LEEDS UDP, TOPIC 487 & 547
CHURWELL, W. YORKSHIRE

JUNE 1995

ADAS
Leeds Statutory Group

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2 FCS 10812

SUMMARY

A detailed agricultural land classification survey of 22.4 ha of land north of Churwell (ref Leeds UDP

Topics 487 & 547) was carried out in June 1995. Soils on the site are developed from thinly bedded sandstones and shales and are slowly permeable. Profiles are generally soil wetness class III or IV. A colliery spoil heap occupies land in the south east of the site.

6.0 ha of land were Subgrade 3a, limited by soil wetness and workability problems.

A further 5.3 ha of Subgrade 3b land were mapped. A more severe soil wetness problem occurs here. Grade 4 land (3.2 ha) was identified on the thin soils of the former spoil tip.

Remaining land comprises Urban 2.9 ha, Non Agricultural 4.3 ha and Farm buildings 0.7 ha.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT CHURWELL, W.
YORKSHIRE; LEEDS UDP TOPIC 487 & 547

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies about 4km south west of Leeds city centre to the north of Churwell and east of the M621 motorway. It has a centroid grid reference of SE 270 300 and measures 22.4 ha. Detailed survey work was carried out in June 1995 when soils were examined by hand auger borings at 100m intervals predetermined by the National Grid. Soil pits were dug to describe profiles in greater detail. Land quality assessments were made 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 65% of the site was in agricultural use, including two fields of barley. The remaining farmland was grazed by horses. Other land uses were allotments, a scrap metal yard, farm buildings and scrub land.

Relief was mostly gentle to moderate (up to 7°) with northerly or westerly aspect. Average altitude was 80m A.O.D.

1.3 Climate

Grid Reference	: SE 270 300
Altitude (m)	: 80
Accumulated Temperature above 0°C (January - June)	: 1329 day °C
Average Annual Rainfall (mm)	: 700
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 94
Moisture Deficit (mm) Potatoes	: 82

1.4 Geology, Soils and Drainage

Drift cover is thin or absent in the area and soils have developed directly from weathering Carboniferous Coal Measures comprising thinly bedded sandstones and shales.

Topsoils are medium textured over either similar textured, or clayey subsoils. Slowly permeable, gleyed horizons occur at between 25cm and 60cm depth, placing these profiles into either soil Wetness Class III or IV.

Soil wetness and workability limit the ALC grade of this land.

South of the allotment gardens is a colliery spoil tip with very shallow soils

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	6.0	27
3b	5.3	24
4	3.2	14
5		
(Sub total)	(14.5)	(65)
Urban	2.9	13
Non Agricultural	4.3	19
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.7	3
Open Water		
Land not surveyed		
(Sub total)	(7.9)	(35)
TOTAL	<u>22.4</u>	<u>100</u>

2.1 Subgrade 3a

This land is found towards the centre of the site. Soils are moderately well drained with slowly permeable horizons starting at about 50cm depth. Soil wetness and workability problems limit the ALC grade of this land.

2.2 Subgrade 3b

Subgrade 3b land is found in the north and south of the site. Soils are poorly drained and slowly permeable at about 25cm depth. A more severe soil wetness problem limits the ALC grade.

2.3 Grade 4

Very shallow soils over the former spoil tip limit the ALC grade here.

2.4 Non Agricultural

This includes allotment gardens and scrub land.

2.5 Urban

A metal scrap yard was classed as Urban.

2.6 Farm Buildings

This comprises Manor House Farm and some rhubarb sheds.

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MAPS