MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
LEEDS UDP
TOPIC 510
WEST YORKSHIRE
APRIL 1996

ADAS
Leeds Statutory Group

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SUMMARY

A detailed Agricultural Land Classification (ALC) survey of 33.3ha of land lying to the north-west of the M1/M62 junction (Leeds UDP Topic 510) was carried out in April 1996. At the time of the survey most of the site (22.1ha) consisted of a landfill site, non-agricultural land adjoining it, and industrial units. Of the agricultural land in the east of the site 7.1ha falls in Subgrade 3a. The soils in these areas are well drained and consist of light to medium-textured topsoils and subsoils overlying weathering sandstone at between 45cm and 75cm depth. Topsoils are slightly stony while the subsoils are slightly to moderately stony, and soil droughtiness is the grade-limiting factor.

Subgrade 3b land covers 4.1ha. The soils are either well drained but shallow, with weathering sandstone occurring at between 30cm and 40cm depth (in which case soil droughtiness limits the ALC grade) or poorly drained, with medium to heavy-textured topsoils overlying gleyed and slowly permeable heavy-textured subsoils (in which case soil wetness limits the land to Subgrade 3b).

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AGRICULTURAL LAND CLASSIFICATION (ALC) REPORT ON LAND AT THORPE LANE, ROBIN HOOD (LEEDS UDP, TOPIC 510) WEST YORKSHIRE

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

This site lies 7Km south-south-east of Leeds City Centre, to the north-west of the M1/M62 road junction. Survey work was carried out in April 1996 when the soils were examined by hand auger borings at 100m intervals predetermined by the O.S. 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 the survey, most of this site (66%) consisted of a landfill site, adjoining non-agricultural land and industrial units. The agricultural land on the site (34%) lies in the east and at the time of survey was growing winter cereals or had been recently harrowed. The remains of a cabbage crop from the previous season was still evident around some of the field edges of the harrowed land.

Site altitude varies from 110m AOD in the south to 70m AOD in the north-east and the land is gently to moderately sloping (2° - 5°) with a northerly or easterly aspect.

1.3 Climate

Grid Reference	: SE320 267
Altitude (m)	: 90
Accumulated Temperature above 0°C (January - June)	: 1318 day °C
Average Annual Rainfall (mm)	: 658
Climatic Grade	: 1
Field Capacity Days	: 155
Moisture Deficit (mm) Wheat	: 97
Moisture Deficit (mm) Potatoes	: 85

1.4 Geology, Soils and Drainage

The area is underlain by Carboniferous Coal Measures which consist of interbedded sandstones and shales, and the only drift cover on this site consists of locally derived Head material. In most cases medium clay loam, medium silty clay loam, sandy loam or sandy silt loam topsoils and subsoils overlie weathering sandstone at between 30cm and 75cm depth. These profiles are well drained, falling in Wetness Class I.

In parts of the far east of the site the soils are derived from weathering shale and consist of medium silty clay loam or heavy silty clay loam topsoils and upper subsoils overlying heavy silty clay loam or silty clay lower subsoils. These soils are poorly drained, falling in Wetness Class IV.

The soils on this site correspond to the Dale and Rivington series as described by the Soil Survey and Land Research Centre.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2		
3a	7.1	21.3
3b	4.1	12.3
4		
5		
(Sub total)	(11.2)	(33.6)
Other Land	22.1	66.4
TOTAL	**33.3**	**100**

2.1 Subgrade 3a

Land in this subgrade covers 7.1ha of the site. The soils are well drained (Wetness Class I) and consist of medium sandy loam, medium sandy silt loam, medium clay loam or medium silty clay loam topsoils and subsoils overlying weathering sandstone at between 45cm and 75cm depth. The topsoils are typically slightly stony, with between 6% and 10% sandstones, while the subsoils are slightly to moderately stony, with up to 35% sandstones. Soil droughtiness is the factor which limits this land to Subgrade 3a.

2.2 Subgrade 3b

Subgrade 3b land covers 4.1ha and consists of two distinct soil types. The first consists of well drained (Wetness Class I) profiles where sandy loam topsoils and subsoils overlie weathering sandstone at between 30cm and 40cm depth. Severe soil droughtiness limits the ALC grade of this land. The second soil type consists of poorly drained (Wetness Class IV) profiles where medium or heavy silty clay loam topsoils overlie gleyed and slowly permeable heavy silty clay loam or silty clay subsoils at around 40cm depth. Soil wetness is the grade limiting factor in this case.

2.3 Other Land

Other land on this site occurs mainly in the west and consists of a landfill site, adjoining non-agricultural land, and industrial units. In addition, there is a small area of scrub in the north-eastern corner of the site.

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