MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
LEEDS UDP
TOPIC 698
(KIRKLEES KNOWL, FARSLEY)
WEST YORKSHIRE
AUGUST 1995

ADAS
Leeds Statutory Group

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SUMMARY

A detailed Agricultural Land Classification (ALC) survey of 19.2 ha of land at Kirklees Knowl, Farsley (Leeds UDP Topic 698) was carried out in August 1995.

At the time of the survey 17.2 ha of the land was in agricultural use and 6.2 ha of this falls in Subgrade 3a. The soils on this land are well drained and consist of very slightly to slightly stony medium clay loam topsoils and subsoils overlying weathering sandstone at around 50 cm depth. Soil droughtiness is the grade limiting factor.

Subgrade 3b land covers 11.0 ha on the site. The soils are poorly drained, with medium clay loam topsoils overlying heavy clay loam, heavy silty clay loam or clay subsoils. The subsoils are gleyed within 40 cm and become slowly permeable within 50 cm depth. Soil wetness is, thus, the factor which restricts this land to Subgrade 3b.

The remaining 2.0 ha of the site consists of Non Agricultural land (scrub) in the north-west.

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AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT KIRKLEES KNOWL, FARSLEY (LEEDS UDP, TOPIC 698)

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The land lies approximately 4 km west of Leeds city centre, on the eastern side of the A6120 (Leeds Outer Ring Road), and covers a total area of 19.2 ha. Survey work was carried out in August 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 more detailed profile descriptions to be made and 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 ley grass covered 17.2 ha of the site and an area of scrub in the north-west covered 2.0 ha. The altitude of the site varies from 99 m in the south-west to 61 m AOD in the north-east, and the land is gently sloping (typically 2 - 3°) with a north-easterly aspect.

1.3 Climate

Grid Reference	: SE 219360
Altitude (m)	: 85
Accumulated Temperature above 0°C (January - June)	: 1322 day °C
Average Annual Rainfall (mm)	: 699
Climatic Grade	: 1
Field Capacity Days	: 185
Moisture Deficit (mm) Wheat	: 94
Moisture Deficit (mm) Potatoes	: 81

1.4 Geology, Soils and Drainage

This area is underlain by Carboniferous Coal Measures consisting of inter-bedded sandstones and shales.

There is no drift cover on the site and the soils in the north and parts of the centre are well drained (Wetness Class I) and consist of medium clay loam topsoils and subsoils overlying weathering sandstone at around 50 cm depth.

The remaining soils in the centre and in the south are derived from shales and are poorly drained, falling in Wetness Class IV. Typically medium clay loam topsoils overlie heavy clay loam, heavy silty clay loam or clay subsoils which are gleyed within 40 cm depth and become slowly permeable within 50 cm depth.

The soils on the site correspond to the Dale Association as mapped 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	Percentage of Total Area
1		
2		
3a	6.2	32.3
3b	11.0	57.3
4		
5		
(Sub total)	(17.2)	(89.6)
Urban		
Non Agricultural	2.0	10.4
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(2.0)	(10.4)
TOTAL	19.2	100

2.1 Subgrade 3a

Land in this subgrade occurs in the north and centre of the site. The soils are well drained, falling in Wetness Class I, and are underlain by weathering sandstone at around 50 cm depth. Typically both topsoils and subsoils consist of very slightly to slightly stony medium clay loams which contain 3 - 8% subangular sandstones. The ALC grade of this land is restricted by soil droughtiness.

2.2 Subgrade 3b

Subgrade 3b land covers the north and parts of the centre of the site. Derived from Coal Measures shales, the soils are poorly drained, falling in Wetness Class IV. In most cases medium clay loam topsoils overlie heavy clay loam, heavy silty clay loam or clay subsoils, which are gleyed within 40 cm and become slowly permeable within 50 cm depth. In this case soil wetness is the grade limiting factor.

2.3 Non Agricultural

Non Agricultural land consisting of scrub occurs in the north-west of the site, with well grown hawthorn, oak and broom. The soils in this area appear to have been disturbed and, were the land to be returned to agriculture, it would not be graded above Subgrade 3b.

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