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# AGRICULTURAL LAND CLASSIFICATION
# LEEDS UDP
# WEST YORKSHIRE
# TOPIC 727/376
# NOVEMBER 1994

ADAS
Leeds Statutory Group
2FCS 10357

Job No:- 146/94
MAFF Ref:- EL 49/13C
Commission No:- 1440

2FCS 10357

## SUMMARY

This report combines the Agricultural Land Classification surveys of Topics 727 and 736 of the Leeds Unitary Development Plan, which will be discussed as one site.

An Agricultural Land Classification survey of 25.5 ha of land at Moss Carr Farm, north east of Junction 30 of the M62 motorway was carried out in November 1994. At the time of survey 97% of the site was in agricultural use, of which 1.1 ha falls in Subgrade 3a. Profiles are imperfectly drained (Wetness Class III) and consist of medium clay loam topsoils overlying heavy or sandy clay loam upper subsoils and silty clay lower subsoils. The ALC grade of this land is limited by soil wetness and workability restrictions.

The remainder of the agricultural land on the site (23.5 ha) falls in Subgrade 3b. Profiles are poorly drained (Wetness Class IV) and consist of medium or heavy silty clay loam, or medium or heavy clay loam topsoils. Upper subsoils, where present, are heavy clay loam or sandy clay loam, overlying slowly permeable clay or silty clay lower subsoils. The ALC grade of this land is limited by soil wetness and workability restrictions which are more severe than on the area of Subgrade 3a land.

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# 1. INTRODUCTION AND SITE CHARACTERISTICS

## 1.1 Location and Survey Methods

The site lies approximately 10km south east of Leeds city centre, north east of Junction 30 of the M62 motorway. Survey work was carried out in November 1994 when soils were examined by hand auger borings at 100m intervals predetermined by the National Grid. One soil profile pit was dug in order to assess soils in more detail. Land quality was determined 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 most of the site was in arable use growing cereals. A small area of land in the extreme north of the site was fallow land. The site lies at an altitude of approximately 55m AOD and is gently sloping (typically 1-2°) with a southerly aspect.

## 1.3 Climate

| | |
|---|---|
| Grid Reference | : SE 364 264 |
| Altitude (m) | : 55 |
| Accumulated Temperature above 0°C (January - June) | : 1358 day °C |
| Average Annual Rainfall (mm) | : 644 |
| Climatic Grade | : 1 |
| Field Capacity Days | : 145 |
| Moisture Deficit (mm) Wheat | : 102 |
| Moisture Deficit (mm) Potatoes | : 93 |

## 1.4 Geology, Soils and Drainage

The site is underlain by Carboniferous Coal Measures consisting of interbedded sandstones and shales. This is overlain by boulder clay in the north of the site where soils have medium or heavy clay loam topsoils overlying clayey subsoils. The rest of the site has no drift cover and the soils are formed in weathering shale with medium clay loam and medium silty clay loam (in places becoming heavy textured) topsoil, occasionally with heavy or sandy clay loam upper subsoils, typically overlying gleyed, slowly permeably clay or silty clay (lower) subsoils. Profiles are imperfectly or poorly drained, falling in Wetness Classes III or IV.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

| Grade/Subgrade | Hectares | Percentage of Total Area |
|---|---|---|
| 1 | | |
| 2 | | |
| 3a | 1.1 | 4 |
| 3b | 23.5 | 92 |
| 4 | | |
| 5 | | |
| (Sub total) | (24.6) | (96) |
| Urban | | |
| Non Agricultural | 0.2 | 1 |
| Woodland - Farm | | |
| - Commercial | | |
| Agricultural Buildings | 0.7 | 3 |
| Open Water | | |
| Land not surveyed | | |
| (Sub total) | (0.9) | (4) |
| TOTAL | 25.5 | 100 |

2.1 Subgrade 3a

Land in this Subgrade occurs in the south west of the site. Profiles are generally imperfectly drained (falling in Wetness Class III) and typically consist of medium clay loam topsoils overlying heavy clay loam or sandy clay loam upper subsoils and clay or silty clay lower subsoils. Slowly permeable layers start at around 50 cm depth and the land is limited to Subgrade 3a by soil wetness restrictions.

2.2 Subgrade 3b

The rest of the agricultural land on the site falls into Subgrade 3b. Profiles are poorly drained (Wetness Class IV) and typically consist of medium or heavy textured clay loam or silty clay loam topsoils overlying gleyed, slowly permeable heavy silty clay loam or silty clay subsoils at around 30cm depth. The soil wetness and workability restrictions are more severe than on the Subgrade 3a land, which limit this land to Subgrade 3b.

2.3 Non Agricultural

This category includes a small area of land used as a loading area in the centre east of the site.

2.4 Farm Buildings

This category includes the farm house and garden in the east of the site

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MAP