



AGRICULTURAL LAND CLASSIFICATION  
LEEDS UDP  
TOPIC 357  
WEST YORKSHIRE  
MARCH 1996

ADAS  
Leeds Statutory Group

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## SUMMARY

A detailed Agricultural Land Classification (ALC) survey of 14.4 ha of land north of Horsforth (Leeds UDP, Topic 357) was carried out in March 1996. At the time of survey, 13.8 ha was in agricultural use, whilst a further 0.6 ha comprised buildings, tracks and hard standings around the farmstead.

Of the agricultural land, 3.7 ha falls into Subgrade 3a. The profiles are imperfectly drained with medium textured topsoils and subsoils which occasionally pass into heavy textured lower subsoil horizons. The subsoils are slowly permeable at about 60 cm to 70 cm depth causing the land to be limited by soil wetness factors.,

Most of the site (10.1 ha) falls into Subgrade 3b. The soils are poorly drained with medium textured topsoils, and occasionally similarly textured gleyed upper subsoil, overlying gleyed and slowly permeable heavy textured subsoil at between 35 cm and 50 cm depth. A more severe soil wetness limitation restricts this land to Subgrade 3b. .

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1. AGRICULTURAL LAND CLASSIFICATION

# AGRICULTURAL LAND CLASSIFICATION (ALC) REPORT ON LAND AT NORTH IVES FARM, HORSFORTH (LEEDS UDP - TOPIC 357).

## 1. INTRODUCTION AND SITE CHARACTERISTICS

### 1.1 Location and Survey Methods

This site lies on the northern edge of Horsforth 8½ km north-west of Leeds city centre. It covers a total area of 14.4 ha. Survey work was carried out in March 1996 when soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. A soil inspection pit was also dug to confirm the detailed soil structural characteristics of the site. 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

13.8 ha of land was in agricultural grassland use, whilst a further 0.6 ha comprised farm buildings, access tracks and hard standings. Site altitude varies from 116 m AOD in the east to 145 m AOD in the west. The land is moderately sloping (2 - 5°) with an easterly aspect.

### 1.3 Climate

Grid Reference	: SE 242394
Altitude (m)	: 135
Accumulated Temperature above 0°C (January - June)	: 1262 day °C
Average Annual Rainfall (mm)	: 742
Climatic Grade	: 2
Field Capacity Days	: 193
Moisture Deficit (mm) Wheat	: 84
Moisture Deficit (mm) Potatoes	: 68

#### 1.4 Geology, Soils and Drainage

Glacial and recent drift deposits cover the whole site and comprise boulder clay with some river terrace deposits along the extreme eastern edge.

All of the soils are poorly to imperfectly drained, falling into Wetness Classes IV and III. Generally, medium clay loam topsoils overly gleyed heavy clay loam or sandy clay loam subsoils. On poorly drained profiles, which comprise most of the site, these often pass into a clay or heavy clay loam lower subsoil.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>% of Total Area</u>
3a	3.7	26
3b	10.1	70
(Sub total)	(13.8)	(96)
Other land	0.6	4
<b>TOTAL</b>	<b>14.4</b>	<b>100</b>

### 2.1 Subgrade 3a

A small area of Subgrade 3a land has been mapped along the eastern site boundary. The soils are imperfectly drained (Wetness Class III) and consist of medium clay loam topsoils over gleyed sandy clay loam subsoils which along the fringes of the area pass into clay below approximately 60 cm depth. All subsoils become slowly permeable at 60 cm to 70 cm depth. The ALC grade of this land is therefore limited by soil wetness.

### 2.2 Subgrade 3b

Most of the agricultural land on this site falls into Subgrade 3b. In most cases the soils are poorly drained, falling within Wetness Class IV, with medium clay loam topsoils overlying gleyed heavy clay loam or sandy clay loam upper subsoils. Slowly permeable clay or heavy clay loam occurs at between 35 cm and 50 cm depth, causing the ALC grade to be limited by soil wetness factors.

2.3 Other Land

This comprises buildings, tracks and hard standings around the North Ives farmstead.

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