

AGRICULTURAL LAND CLASSIFICATION

ARCOT HALL  
CRAMLINGTON  
NORTHUMBERLAND

MAFF  
Leeds Regional Office

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CONTENTS

1. INTRODUCTION AND SITE CHARACTERISTICS
2. AGRICULTURAL LAND CLASSIFICATION GRADES

MAP(S)

1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-

NZ 257753

Location Details:-

Adjacent to the A1(T),  
2 km SW of Cramlington.

Site Size:-

118 ha.

1.2 Survey Methods

Date Surveyed:-

23 May 1991.

Boring Density and Spacing Basis:-

One boring per hectare  
at 100 metre intervals  
predetermined by the  
National Grid.

Sampling Method:-

Auger borings to 1 m  
depth.

Number of Borings:-

118.

All 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)".

### 1.3 Climate and Relief

|   |               |
|---|---------------|
| Average Annual Rainfall (AAR):-   | 670 mm        |
| Accumulated Temperature above<br>0°C (January-June):-                                 | 1283 day °C   |
| Field Capacity Days:-   | 171 days      |
| Altitude average:-  | 41 m a.o.d.   |
| maximum:-   | 65 m a.o.d.   |
| minimum:-   | 17 m a.o.d.   |
| Climatic limitation (based on<br>interaction of rainfall and<br>temperature values):- | Best grade 2. |
| Gradient Limitations  |               |
| Limiting gradient(s):-  | None.         |
| Grade(s)/subgrade(s):-  |               |
| Occurrence on site:-  |               |

### 1.4 Geology and Soil

|  |   |
|--|---|
| Solid Strata:-                           | Carboniferous coal<br>measures.   |
| Depth of solid rock from surface:-       | More than 1 m.  |
| Drift types:-                            | Boulder clay.   |
| Thickness of drift<br>and distribution:- | Boulder clay covers the<br>whole site and is more<br>than 1 m in thickness. |

Soil Types and Distribution:-

Site is covered by stagnogley soils consisting of seasonally waterlogged fine loamy over clayey boulder clay.

Soil Textures (topsoils and subsoils):-

Soils consist of medium to heavy clay loam topsoils over heavy clay loam subsoils.

Soil Series/Associations:-

On 1/250000 map:-

Identified on site:-

Dunkeswick/Foggathorpe  
Dunkeswick and Foggathorpe

Soil Limitations and type:-

Soil wetness and workability.

#### 1.6 Drainage

Soil type and Wetness Class:-

All the boulder clay soils are slowly permeable at 35-75 cm (Wetness Classes III and IV.)

Drainage Limitations:-

Slowly permeable subsoils.

## 2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:-

| <u>Grade/Subgrade</u>  | <u>Hectares</u> | <u>Percentage of<br/>Agricultural Area</u> | <u>Percentage of Total<br/>Area</u> |
|------------------------|-----------------|--|-------------------------------------|
| 3a                     | 5.1             | 5.1  | 4.1                                 |
| 3b                     | 94.6            | 94.8                                       | 75.1                                |
| Non Agricultural       | 9.1             |  | 7.2                                 |
| Agricultural Buildings | 1.6             |  | 1.3                                 |
| Urban                  | 10.6            |  | 8.2                                 |
| Other - Open Water     | 5.2             |  | 4.1                                 |
| Total                  | <u>125.9</u>    | <u>100</u>                                 | <u>100</u>                          |

**Subgrade 3a**

|   |  |
|---|--|
| <b>Distribution on site:-</b>             | Isolated occurrences across the site.  |
| <b>Soil Type(s) and Texture(s):-</b>      | Typical stagnogleys with medium to heavy clay loam topsoils over heavy clay loam upper subsoils and clay lower subsoils. |
| <b>Depth to Slowly Permeable Layers:-</b> | Between 45 and 75 cm.  |
| <b>Wetness and Drainage Class:-</b>       | Wetness Class III, imperfectly drained.  |
| <b>Stone Percentage and Type:-</b>        | None.  |
| <b>Grade Limiting Factors:-</b>           | Soil wetness and workability.  |

Subgrade 3b

Distribution on site:- Evenly distributed across the site.

Soil Type(s) and Texture(s):- Typical stagnogley with medium to heavy clay loam topsoils over heavy clay loam to clay subsoils.

Depth to Slowly Permeable Layers:- < 45 cm.

Wetness and Drainage Class:- Wetness Class IV, poorly drained.

Stone Percentage and Type:- None.

Grade Limiting Factors:- Soil wetness and workability.



Non Agricultural

Type and location of land included:-

Woodlands along roads.  
Ungrazed farmland and  
open water adjacent to  
Arcot Hall.

Agricultural Buildings

Type and location of building included:-

Plantation Farm on  
eastern boundary of  
site.

Urban

Type of land use included:-

A1(T) and minor roads.

Resource Planning Group  
Leeds Regional Office  
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MAP