

AGRICULTURAL LAND CLASSIFICATION

South Tyneside UDP  
Site B, Elliscope Farm,  
Hebburn, Tyne & Wear

MAFF  
Leeds Regional Office

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1. AGRICULTURAL LAND CLASSIFICATION

# AGRICULTURAL LAND CLASSIFICATION REPORT

## 1.0 Introduction and Site Characteristics

### 1.1 Location

National Grid Reference:- NZ 331 604  
Location Details:- 3km south of Hebburn southwest of the A184/A19 junction  
Site Size:- 205 hectares

### 1.2 Survey Methods

Date Surveyed:- February 1992  
Boring Density and Spacing Basis:- One boring per hectare on a 100 metre grid predetermined by the National Grid.  
Sampling Method:- Hand auger boring to a depth of 1 metre.  
Number of Borings:- 206  
Number of Soil Pits (used for):- 3 pits were dug to examine soil structure.

All land quality assessments were 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 Land Use:-

Most agricultural land is under cereal production with other large areas of ley grassland and oilseed rape. Other land uses include farm woodland, roads and buildings.

1.4 Climate and Relief

Average Annual Rainfall (AAR):- 635 mm

Accumulated Temperature above 0°C (January-June):- 1322 day °C

Field Capacity Days:- 156 days

Altitude average:- 40 m a.o.d.

maximum:- 46 m a.o.d.

minimum:- 33 m a.o.d.

Climatic limitation (based on interaction of rainfall and temperature values):- Grade 1/2 boundary.

Relief:- Flat with occasional gentle slopes

Slopes (°):- 0 - 4°

1.5 Geology and Soil

Solid Strata:- Coal measures

Depth of solid rock from surface:- greater than 1 metre

Drift types:- lacustrine clay

Thickness of drive and distribution:- greater than 1 metre over the whole site.

Soil Types and Distribution:- medium over heavy soils cover the whole site except along the River Don in the south where profiles are medium textured to a much greater depth.

Soil Textures (topsoils and subsoils):-

Medium or heavy clay loam topsoils over heavy clay loam, clay or silty clay subsoils. Medium clay loam topsoils and upper subsoils passing to heavy clay loam lower subsoils at depth occur along the River Don.

Soil Series/Associations:-

On 1/25000 map:-

Foggathorpe II

Identified on site:-

-

Soil Limitations and type:-

Heavy topsoil textures and slow permeability of subsoils cause wetness and workability problems.

#### 1.6 Drainage

Soil type and Wetness Class:-

Heavy soils - Wetness Class IV  
Medium soils - Wetness Class II

Drainage Limitations:-

Slowly permeable subsoils especially in the heavier profiles.

## 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 Agricultural Area</u>	<u>Percentage of Total Area</u>
1			
2	7.0	3.6	3.4
3a			
3b	184.8	96.4	89.8
4			
5			
Non Agricultural	2.1		1.02
Farm Woodland	2.1		1.02
Agricultural Buildings	1.8		0.88
Urban	7.9		3.88
Other			
Total	<u>205.7</u>	<u>100</u>	<u>100</u>

Grade 2

Distribution on site:-

Confined to a strip along the River Don in the south.

Soil Type(s) and Texture(s):-

Medium textured soils consisting of medium clay loam topsoils and upper subsoil over heavy clay loam at depth.

Depth to Slowly Permeable Layers:-

55 - 80cm

Wetness and Drainage Class:-

Wetness Class II - moderately well drained.

Grade Limiting Factors:-

Slight wetness problems plus possibly, overall climatic limitations, restrict this land to Grade 2.

Subgrade 3b

Distribution on site:-

The whole area except for land along the River Don.

Soil Type(s) and Texture(s):-

Medium or heavy clay loam topsoils over clay or silty clay subsoils.

Depth to Slowly Permeable Layers:-

20-40 cm

Wetness and Drainage Class:-

Wetness Class IV - poorly drained.

Grade Limiting Factors:-

Soil wetness and workability.



Non Agricultural

Type and location of land included:- Several patches of farm woodland scattered throughout the site along with small areas of scrub.

Agricultural Buildings

Type and location of building included:- Farm houses and outbuildings at Elliscope Farm and Hylton Grove in the south and at Scot's House in the northwest.

Type of land use included:- Public and Farm access roads, houses and a gas pipeline valve compound.

MAP