

AGRICULTURAL LAND CLASSIFICATION
LAND NORTH OF GERMANY BECK,
FULFORD, YORK

NOVEMBER 1995

ADAS
Leeds Statutory Group

Job No:- 230/95
MAFF Ref:- EL10857
Commission No:- N2223

SUMMARY

36.5 ha of land were the subject of a detailed Agricultural Land Classification (ALC) survey carried out in two stages, firstly in 1988 with additional work in November 1995.

Most of the site is currently in arable production.

The site contains a complex pattern of soils although topsoil textures are relatively uniform.

Topsoils are generally medium or fine sandy loam over the south and west of the site over similar textured subsoils which are occasionally clayey and slowly permeable. These soils are Wetness Class I to III.

Towards Bleak House, topsoils are medium textured over clayey slowly permeable subsoils - generally soil Wetness Class III or Wetness Class IV.

Grade 2 occupies 16.8 ha of well or moderately well drained land with a slight droughtiness limitation.

Subgrade 3a land (12.2 ha) is mostly limited by soil wetness but also includes some land subject to a droughtiness restriction.

Land graded 3b (3.6 ha) suffers from significant soil wetness and workability problems.

Other non-agricultural land uses occupy 3.9 ha.

CONTENTS

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

MAP

1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND NORTH OF GERMANY
BECK, FULFORD, YORK

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

36.5 ha of land south of Fulford, York were the subject of a detailed Agricultural Land Classification (ALC) survey. The site has a centroid grid reference of SE 615 491 and is shown on the accompanying ALC map. The site was first surveyed in May 1988 as part of the Greater York Local Plan. Additional survey work was carried out in November 1995 to take account of the revised site boundaries and to collect more soil auger boring and soil profile pit information.

Soils were examined by hand auger borings at locations predetermined by the OS National Grid. Supplementary borings were used to check upon and refine grade boundaries. The overall density of borings was 1 per hectare. Three soil profile pits were dug to examine representative soils in greater detail. 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

Most of the land is currently in arable production growing winter cereals and sugar beet.

The site is virtually level at an altitude of 10m AOD.

1.3 Climate

Grid Reference	: SE 615 491
Altitude (m)	: 10
Accumulated Temperature above 0°C (January - June)	: 1392 day °C
Average Annual Rainfall (mm)	: 595
Climatic Grade	: 1
Field Capacity Days	: 132
Moisture Deficit (mm) Wheat	: 110
Moisture Deficit (mm) Potatoes	: 103

1.4 Geology, Soils and Drainage

Soils over the site are formed on glacial and post glacial drift deposits. These deposits vary from lacustrine and boulder clays to fluvio-glacial and windblown sands. Their distribution over the site is patchy resulting in a complex soil pattern. However topsoil textures are relatively uniform. Soils formed on the clay deposits found near Bleak House are generally slowly permeable and consist of clay loam or heavy clay loam topsoils over similar, or heavier, strongly mottled subsoils. These soils are Wetness Class IV. The lighter sandy deposits found elsewhere result in sandy loam or loamy sand topsoils over similar subsoils, occasionally with clay at between 40 and 90 cm depth. These soils range from Wetness Class I to Wetness Class IV.

The Soil Survey and Land Research Centre have published a 1:25000 soils map of the area - sheet SE64, York. This shows a similar pattern of soils to that described above. Loamy, brown earth Escrick series is mapped in the west and the loamy to clayey Crimple complex is shown in the centre of the site. Stocksbridge series (sandy) is mapped in the east of the site and clayey Deighton series was identified near Bleak House.

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>
1		
2	16.8	46
3a	12.2	33
3b	3.6	10
4		
5		
(Sub total)	(32.6)	(89)
Other Land	3.9	11
TOTAL	36.5	100

2.1 Grade 2

Land in this grade is widespread in the west and central part of the site. Most soils fall within Wetness Classes I or II and consist of medium sandy loam, loamy fine sand or medium clay loam topsoils over subsoils varying from loamy fine sand to clay. Topsoils are rarely light enough to be subject to a significant blowing risk. Assessments suggest that only the lightest soils will be slightly droughty for potatoes but not for wheat.

Although some land included in this grade contains soils eligible for Grade 1, the patchy distribution of these creates management problems and an overall maximum of Grade 2 has been applied.

2.2 Subgrade 3a

Soil workability problems caused by wetness are the main limitation on most land within this subgrade. Topsoils and upper subsoils consist usually of medium clay loam over a slowly permeable, often heavy textured lower subsoil. This land is soil Wetness Class III. This subgrade also includes a small area of land near Germany Beck in the east with droughtiness problems.

2.3 Subgrade 3b

Subgrade 3b land occurs only in the north east of the site. Soils consist of heavy clay loam topsoils overlying slowly permeable clay subsoils. These soils fall within Wetness Classes III and IV and are likely to be waterlogged for long periods of the year. Workability problems caused by wetness are more restricting than on the adjoining Subgrade 3a land.

2.4 Other Land

This includes residential buildings, roads and farm buildings.

MAP