AGRICULTURAL LAND CLASSIFICATION

BETTON FARM

EAST AYTON, SCARBOROUGH

PROPOSED GOLF COURSE

MARCH 1993

ADAS

Leeds Statutory Centre

Job No:- 53/93

MAFF Ref:- EL 48/00082

SUMMARY

An Agricultural Land Classification Survey of approximately 54ha of land at East Ayton was carried out in March 1993.

50.4ha of this land was in agricultural use of which 9.0ha falls within Grade 2. Soils in this grade are well drained (Wetness Class I) and consist of medium sandy loam topsoils over sandy clay loam subsoils. They are limited to Grade 2 by slight droughtiness.

Subgrade 3a land covers 29.6ha. Soils are well drained (Wetness Class I) and consist of fine or medium sandy loam topsoils over medium sandy loam or loamy medium sand subsoils. They are restricted to Subgrade 3a by droughtiness which is more limiting than on the adjoining Grade 2 land.

Subgrade 3b land covers 11.8ha. Soils are again well drained (Wetness Class I) and consist of fine sandy loam topsoils over thin extremely stony fine sandy loam subsoils. These soils are limited to Subgrade 3b by severe soil droughtiness.

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1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site is centred on Grid Reference TA 000857, ½ Km east of East Ayton, near Scarborough. Survey work was carried out in March 1993 when soils were examined by hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. Land quality was assessed using the methods described in "Agricultural Land Cassification of England and Wales: Revised criteria for grading the quality of agricultural land" (MAFF 1988).

1.2 Land Use and Relief

At the time of survey 94.2% of the site was in agricultural production most of which was in arable use. The remainder consisted of agricultural buildings and non-agricultural land. Site altitude varies between 40 and 50m AOD and the site is gently to moderately sloping (gradients of 2-7°).

1.3 Climate

Grid Reference	:	TA 000857
Altitude (m)	:	45
Accumulated Temperature above 0°C (January-June)	:	1328 day°C
Average Annual Rainfall (mm)	:	719
Climatic Grade	:	1
Field Capacity Days	:	174
Moisture Deficit (mm) Wheat	:	99
Moisture Deficit (mm) Potatoes	:	89

1.4 Geology, Soils and Drainage

The site is underlain by Jurasic limestones over which, especially in the southern part of the site, there is a thin covering of post glacial sand and gravel. Most soils consist of well drained (Wetness Class I) medium sandy loam topsoils over medium sandy loam, sandy clay loam or loamy medium sand upper subsoils. These overlie weathering limestone or gravelly material at varying depths. In general limestone lies within 45-60cm of the surface in the northern part of the site where there is an appreciable droughtiness limitation on ALC grade. Elsewhere profiles vary between 65cm and more than 100cm in depth.

2. AGRICULTURAL LAND CLASSIFICATION

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

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	9.0	16.8
3a	29.6	55.3
3b	11.8	22.1
4		
5		
(Sub total)	(50.4)	(94.2)
Urban		
Non Agricultural	1.4	2.6
Woodland - Farm		
- Commercial		
Agricultural Buildings	1.7	3.2
Open Water		
Land not surveyed		
(Sub total)	(3.1)	(5.8)
TOTAL	53.5	100

2.1 Grade 2

Grade 2 land occurs in the western part of the site. Soils consist of very slightly stony medium sandy loam topsoils over very slightly stony to slightly stony sandy clay loam subsoils. Profiles are well drained (Wetness Class I) and are limited to Grade 2 by slight soil droughtiness.

2.2 Subgrade 3a

Most of the agricultural land on the site falls within this subgrade. Soil profiles consist mainly of very slightly stony fine or medium sandy loam topsoils over slightly stony medium sandy loam or loamy medium sand subsoils which are occasionally very stony at depth. These soils are well drained (Wetness Class I) and limited to Subgrade 3a by droughtiness.

2.3 Subgrade 3b

Subgrade 3b land occurs in the north and as a tongue crossing the centre of the site. Most profiles consist of slightly stony fine sandy loam topsoils over thin, extremely stony fine sandy loam subsoils. Weathering limestone bedrock occurs between 45cm and 65cm depth. Profiles of this type are well drained (Wetness Class I) but restricted to Subgrade 3b by soil droughtiness.

2.4 Non Agricultural

This consists of a speedway track and woodland adjoining Betton Farm.

2.5 Agricultural Buildings

This consists of the farm buildings at Betton Farm.

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MAP

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