AGRICULTURAL LAND CLASSIFICATION

MOOR LANE, PONTEFRACT
WEST YORKSHIRE

ADAS
Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT: MOOR LANE, PONTEFRACT, WEST YORKSHIRE

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location

The site which covers 89 hectares is located around grid reference SE 465 195 about 3 km south of Pontefract.

1.2 Survey Methods

Survey work was carried out in October 1990 when soils were examined by hand auger borings at 100 cm intervals pre-determined by the National Grid. Soil profile pits were also dug to confirm soil characteristics and to collect samples for laboratory analysis.

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 Land Use

All the site is in arable use with the majority being under cereal production in 1990.

1.4 Climate

Average annual rainfall at Moor Lane is 594 mm. Accumulated temperature above 0°C between January and June (ATO) is 1386 day °C and the land is at field capacity for about 129 days each year. The above climatic data indicates that there is no overall climatic limitation on ALC grade although a summer moisture deficit of 107 mm for winter wheat means that soil droughtiness is a limiting factor on the lighter soils in the north eastern part of the site.

1.5 Relief

The site, overall, is gently undulating at a mean altitude of about 35 m a.o.d. There are no slopes steep enough to restrict the use of agricultural machinery.

1.6 Geology and Soils

Soils in the lower lying western and north western parts of the site are formed on heavy clays derived from weathering Coal Measure shales. Topsoils on this material consist of heavy clay loam overlying gleyed slowly permeable clay subsoils, all of which fall within Wetness Class III. Elsewhere on the more undulating slightly higher ground soils are developed on loamy and sandy deposits originating from underlying Coal Measure sandstones (the Ackworth Rock). Soils in these areas vary from freely drained sandy loam topsoils over loamy sand subsoils on the highest ground underlain by solid sandstone, to mixed loamy soils on the lower slopes where there is a transitional zone between the light and heavy land.

2. AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring on this site are as follows.

Grade	Hectares	Per Cent of Total Area
2	36.1	38
3a	12.2	13
3b	45.7	49
Total	94	100

2.1 Grade 2

Land of this grade is widespread in the eastern and southern parts of the site where soils consist mainly of sandy loams and medium loamy sands most of which fall within Wetness Class I. Summer droughtiness is slightly restricting on these soils, especially for winter wheat and is the overriding restriction on ALC grade.

2.2 Subgrade 3a

Subgrade 3a land occurs on the lower slopes of the sandy drift deposits where medium clay loam top soils overlie heavy clay loam and silty clay loam subsoils. These soils which are slowly permeable at depth, fall within Wetness Class III and are limited to subgrade 3a by wetness and workability problems.

2.3 Subgrade 3b.

Land in this subgrade is widespread in the central and northern parts of the site. Soils consist of heavy clay loam topsoils about 30 cm in thickness over gleyed slowly permeable clay to depth. These soils fall within Wetness Class III and are limited to subgrade 3b by wetness and workability problems which are more severe than on the adjoining subgrade 3a land.

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