SF C54403

SHAW

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MANOR FARM, OAKE

AGRICULTURAL LAND CLASSIFICATION

REPORT OF SURVEY

1. Introduction

In August 1991 a detailed Agricultural Land Classification (ALC) was carried out around Manor Farm, Oake in response to an ad hoc planning application. The survey area covered 48 ha.

The field work was carried out by the Resource Planning Group at a scale of 1:10,000. A total of 28 borings and 1 soil pit were examined. The Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1981) were used to classify the land.

2. Agricultural Land Classification

2.1 The ALC provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The grading takes into account the top 120 cm of the soil profile. The distribution of ALC grades is detailed below and illustrated on the accompanying ALC map at a scale of 1:10,000. The information is accurate at the scale of mapping but any enlargement would be misleading.

Table 1 Distribution of ALC grades

Grade	Area (ha)	% of Survey Area	% Agricultural Land
2	9.8	20.3	21.2
3A	36.4	75.3	78.8
Urban	1.0	2.1	100% (46.2 ha)
Non Agric	1.1	2.3	
	48.3 ha	100%	

2.2 Climate

The grade of the land is determined by the most limiting factor present. The overall climate is considered first because it can have an overriding influence on restricting land to lower grades despite other favourable soil or site conditions.

To assess any overall climatic limitation, estimates of important climatic variables were obtained for the site by interpolation from the 5 km grid Met Office/MAFF database (Climatological Data for Agricultural Land Classification. Met Office/MAFF/SSLRC 1989). The indicative parameters used for assessing such a limitation are accumulated temperature (a measure of the relative warmth of a locality) and average annual rainfall (a measure of overall wetness). The results, shown in Table 2 reveal

that there is no overall climatic limitation across the survey area. No local climatic risk factors such as exposure were observed in the survey area.

Table 2 Climatic Interpolation

Grid Reference	ST 155248	ST 150254
Height	40	55
Accumulated Temperature (° days)	1535	1517
Average Annual Rainfall (mm)	821	833
Field Capacity (days)	176	178
Moisture Deficit, Wheat (mm)	101	99
Potatoes (mm)	93	90
Overall Climatic Grade	1	1

2.3 Grade 2

The south west part of the survey area has been classified as Grade 2. These soils are well drained and shown no evidence of a wetness limitation nor would crops experience a shortage of available water. The soils are assigned to Wetness Class I. A typical profile would be a medium clay loam to 35 cm above a heavy clay loam upper subsoil and clay lower subsoil. With the prevailing field capacity days (FCD) of 176 a soil profile with a medium clay loam topsoil and Wetness Class I can be graded no better than Grade 2. A workability limitation is said to exist. Workability affects the extent to which cultivations and grazing can occur through the year. The effect is created the interaction of soil texture, climate and the soil water regime.

2.4 Sub-Grade 3A

The majority of the survey area has been classified as Sub-grade 3A. The soils are also free draining and drought-free but have a heavier topsoil, heavy clay loam. This further restricts the opportunities for cultivations and grazing without damaging the soil structure. These soils are therefore limited to Sub-grade 3A. A soil pit dug in this unit confirmed the findings of the auger borings.