AGRICULTURAL LAND CLASSIFICATION

WHEATLEYWELL LANE, PLAWSWORTH
CO DURHAM

ADAS
LEEDS REGIONAL OFFICE

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lds.rpg5.Wheatley.Well

1. AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT WHEATLEYWELL LANE, PLAWSWORTH, CO DURHAM

1.1 INTRODUCTION

The site is located around National Grid Reference NZ 267480 adjoining the village of Plawsworth in County Durham. It covers an area of 27.2 hectares, 78.7% of which is in agricultural use.

Survey work was carried out in April 1989 when soils were examined by hand auger borings at 20 points predetermined by the National Grid. Profile pits were dug to collect data on soil morphology and to obtain samples for laboratory analysis. Land quality assessments were made using the revised guidelines published by MAFF in 1988.

1.2 CLIMATE AND RELIEF

Average annual rainfall is approximately 678 mm and the accumulated temperature above $0^{o}C$ (January to June) is 1272 day ^{o}C. The site is at field capacity for 170 days a year. These factors impose an overall climatic limitation of grade 2 across the site. Soil moisture deficits of 90 mm for wheat and 76 mm for potatoes suggest that light textured soils will be droughty for wheat and potatoes.

Most of the site is affected by slope to some extent. Strongly sloping land occurs east of "Green acres" and around "East Farm".

The single field north of Ripon Terrace contains moderately steep slopes throughout. Altitude ranges from below 65 m a.o.d. in the disused quarry to over 90 m a.o.d. at Green acres.

1.3 GEOLOGY AND SOILS

Most of the soils are developed on fluvio glacial sandy drift. The resulting soils are slightly or moderately stony with a coarse loamy topsoil over a similar or lighter textured subsoil.

Profiles are inherently freely drained and fall within Wetness Class I. Stone content is variable and usually increases down the soil profile. Near the railway soils are heavier and consist of fine loamy topsoils over slowly permeable, clayey subsoils. These soils fall within Wetness Class IV and are limited by poor drainage and workability problems.

1.4 LAND USE

Most of the agricultural land is currently growing cereals. Several small fields around East Farm, however, are used for grazing. Non agricultural land includes domestic gardens, marshy land and scrub vegetation. A disused quarry also lies within the site boundary.

1.5 AGRICULTURAL LAND CLASSIFICATION

Grade	Area	% of total land area
3a	11.9	43.8
3b	6.1	22.4
4	2.7	9.9
Non Agricultural	1.1	4.0
Urban	4.7	17.3
(Not surveyed)	0.7	2.6)
Total	27.2	100

1.5.1 Subgrade 3a

Light textured freely drained soils with no slope limitation fall within subgrade 3a. Topsoils are typically medium sandy loam or loamy medium sand over a slightly stony loamy medium sand subsoil. Although these soils are easy to work at most times of the year they will be slightly droughty especially for potatoes. This is the main limiting factor on ALC grade.

1.5.2 Subgrade 3b

A narrow strip of land adjoining the railway consists of medium or heavy clay loam topsoils over slowly permeable clayey subsoils. Similar soils occur north of the old quarry. Both of these areas are limited to subgrade 3b by soil wetness and workability problems. All remaining areas of 3b land are limited to the subgrade by slopes of 7-11°.

1.5.3 Grade 4

Land west of the A167 is limited to Grade 4 by moderately steep slopes of 11°-18°.

1.5.4 Non Agricultural

Domestic gardens, marshy ground and scrub land are included in this category.

1.5.5 Urban

The disused quarry is regarded as urban.

1.5.6 Not Surveyed

This is land where access was refused by the owner.

Reference, "Revised guidelines and criteria for grading the quality of agricultural land", MAFF, (1988).