AGRICULTURAL LAND CLASSIFICATION

HIGH FLATTS AND BURNTHOUSE BANK
CHESTER LE STREET, COUNTY DURHAM

ADAS
LEEDS REGIONAL OFFICE

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CONTENTS

1. AGRICULTURAL LAND CLASSIFICATION

1. AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT *HIGH FLATTS AND BURNTHOUSE BANK, CHESTER LE STREET, COUNTY DURHAM*

1.1 INTRODUCTION

The sites are located at High Flatts (National Grid Reference NZ 262527) and Burnthouse Bank (NGR NZ 258517) between South Pelaw and Pelton, Chester-le-Street. They cover a total area of 41.2 hectares, 86% of which is in agricultural use. Much of the land has been restored after opencast coal mining.

Survey work was carried out in early May 1989 when soils were examined by hand auger borings at 38 points predetermined by the National Grid giving an overall survey density of approximately 1 boring per hectare. 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 1310 day^{o}C. The site is at field capacity for 169 days a year. These factors impose an overall climatic limitation of Grade 2 across the area.

Although both sites are undulating, slope is limiting only at Burnthouse Bank where gradients exceed 11^{o} in places. Altitude ranges from a minimum of 27 m a.o.d. at Burnthouse Bank to over 65 m a.o.d. at High Flatts.

1.3 GEOLOGY, SOILS AND DRAINAGE

Much of the land at High Flatts has been restored to agriculture after previous opencast coal mining. Topsoils on this land are usually of medium clay loam over a compacted, clayey, slowly permeable subsoil at about 20 cm depth. These soils fall within Wetness Class IV. Remaining undisturbed soils here and at Burnthouse Bank are formed on boulder clay drift. Topsoils again are mainly fine loamy, either of medium clay loam or sandy clay loam over a similar or heavier, mottled, slowly permeable subsoil. These soils also fall within Wetness Class IV.

All the soils surveyed have a soil wetness limitation. None were considered to be droughty.

1.4 LAND USE

North of High Flatts Farm and at Burnthouse Bank the land is under permanent grass. Elsewhere arable uses prevail, mainly winter cereals and oilseed rape.

1.5 AGRICULTURAL LAND CLASSIFICATION

Grade	Area (hectares)	% of total site
3a	0.8	2
3b	30.6	75
4	4.2	10.0
Non Agricultural	4.3	10.0
Urban	1.3	3.0
Total	41.2	100

1.5.1 Subgrade 3a

The small area of subgrade 3a land east of High Flatts contains soils with a deeper slowly permeable horizon making them slightly better drained than elsewhere on the site. Topsoils are usually of medium or heavy clay loam and most profiles fall within Wetness Class III. The main limitations on ALC grade are wetness and workability problems.

1.5.2 Subgrade 3b

This subgrade is dominant, especially at High Flatts.
Soils are similar to those on the 3a land except that the slowly permeable horizon occurs at a shallower depth thus making soil wetness more limiting (Wetness Class IV). Much of the 3b land has been restored to agriculture after opencast coal mining and subsoils are consequently more compacted than on the undisturbed land.

1.5.3 Grade 4

There are two areas of grade 4 land. At High Flatts a thin strip of land next to the disused minerals railway has been heavily disturbed making it unsuitable for arable farming. The larger area at Burnthouse Bank is limited mainly by gradients of 12-18^{0}.

1.5.4 Non Agricultural

This category includes woodland and uncultivated land around High Flatts Farm and Burnthouse Bank.

1.5.5 Urban

This consists of tracks and roads around High Flatts.

Reference

Revised guidelines and criteria for grading the quality of agricultural land, MAFF 1988.

Resource Planning Group
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