

**Land West of Bournmoor
Chester - le - Street District**

**Agricultural Land Classification (ALC)
Map and Report**

November 1998

**Resource Planning Team
Northern Region
FRCA, Leeds**

**RPT Job Number:84/98
MAFF Reference: Not given
LURET Number: ME27PCA**

rpt 20, 415

AGRICULTURAL LAND CLASSIFICATION REPORT

Land West of Bournmoor

INTRODUCTION

1. This report presents the findings of a detailed, Agricultural Land Classification (ALC) survey of 8.1 ha of land West of Bournmoor in Chester - le - Street District, County Durham. The survey was carried out during October 1998.
2. The survey was carried out by the Farming and Rural Conservation Agency (FRCA) for the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with a proposed housing development on the land. This report supersedes any previous ALC information for this land.
3. The work was conducted by members of the Resource Planning Team in the Northern Region of FRCA . The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.
4. At the time of survey the land use on the site was in grass with a small parcel of woodland in the west.

SUMMARY

5. The findings of the survey are shown on the attached ALC map. The map has been drawn at a scale of 1:5,000; it is accurate at this scale but any enlargement would be misleading.
6. The areas and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
3b	7.8	100	96.3
Agricultural land not surveyed		N/A	
Other land	0.3	N/A	3.7
Total surveyed area	7.8	100	-
Total site area	8.1	-	100

7. The fieldwork was conducted at an average density of one boring per hectare. A total of 8 borings and one soil pit was described.
8. All agricultural land is Subgrade 3b, moderate quality land. Soil wetness and workability problems limit the grade of this land. A small area of Other Land containing woodland is found in the west of the site.

FACTORS INFLUENCING ALC GRADE

Climate

9. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.
10. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	NZ305513
Altitude	m, AOD	50
Accumulated Temperature	day°C (Jan-June)	1309
Average Annual Rainfall	mm	640
Field Capacity Days	days	162
Moisture Deficit, Wheat	mm	94
Moisture Deficit, Potatoes	mm	82
Overall climatic grade	N/A	Grade 1

11. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.
12. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.
13. The combination of rainfall and temperature at this site indicate there is no overall limitation on ALC grade.

Site

14. The site contains a series of small hummocks and has an irregular relief, although slopes never exceed 7°. Overall there is a north easterly aspect to the land.

Geology and soils

15. Solid deposits of coal measures are overlain with a drift cover of Pelaw Clay (BGS Sheet 21, Sunderland, 1978). Soils are derived from the Pelaw Clay and typically have a medium or heavy clay loam topsoil over a clay or silty clay subsoil. Profiles are gleyed and slowly permeable within 40 cm depth and are Wetness Class IV. Some profiles have a slightly deeper and darker topsoil than is natural, probably as a result of being night soiled.

AGRICULTURAL LAND CLASSIFICATION

17. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1, page 1.

Subgrade 3b

18. All agricultural land on the site is Subgrade 3b. Topsoils are medium or heavy clay loam over a clay or silty clay subsoil. Profiles are gleyed and slowly permeable within 40 cm depth and are Wetness Class IV. Soil wetness and workability problems limit the ALC grade of this land.

Other Land

19. This comprises a small woodland parcel in the west of the site.

RPT File 20 415
Resource Planning Team
Northern Region
FRCA Leeds

SOURCES OF REFERENCE

British Geological Survey Solid and Drift Geology, Sunderland. *sheet No. 21*, 1 :50 000 scale (1978). BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land*. MAFF: London.

Met. Office (1989) *Climatological Data for Agricultural Land Classification*.
Met. Office: Bracknell.

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.