Land North of Jubilee Industrial Estate
Ashington
Agricultural Land Classification (ALC)
Map and Report

August 1998

Resource Planning Team
Northern Region
FRCA, Leeds

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AGRICULTURAL LAND CLASSIFICATION REPORT
Land North of Jubilee Industrial Estate Ashington

INTRODUCTION

1. This report presents the findings of a detailed, Agricultural Land Classification (ALC) survey of 8.1 ha of land north of the Jubilee Industrial Estate, Ashington. The survey was carried out during August 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 development on the 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 agricultural land use on the site was all in permanent grass. Other land comprises the remains of demolished farm buildings in the centre of the site.

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	7.6	100	93.8
Other land	0.5	N/A	6.2
Total surveyed area	7.6	100	-
Total site area	8.1	-	100

7. The fieldwork was conducted at an average density of one boring per hectare. A total of 11 borings and 1 soil pit were described.

8. All agricultural land was Subgrade 3b. Soil wetness and workability limit the ALC grade of this land. Remaining Other Land comprised demolished farm buildings.

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	NZ274 867
Altitude	m, AOD	30
Accumulated Temperature	day°C (Jan-June)	1317
Average Annual Rainfall	mm	662
Field Capacity Days	days	166
Moisture Deficit, Wheat	mm	98
Moisture Deficit, Potatoes	mm	86
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 (ATO, January to June), as a measure of the relative warmth of a locality.

13. The combination of rainfall and temperature at this site mean there is no overall climatic limitation on ALC grade.

Site

14.The site is level at an altitude of 30m AOD

Geology and soils

15. Till forms a thick cover over underlying deposits of Carboniferous Coal Measures. (BGS Sheet 14, Morpeth). Soils typically contain medium clay loam topsoils, over clayey, slowly permeable subsoils. Profiles are Wetness Class IV. These soils correspond with the Dunkeswick association as described by the Soil Survey and Land Research Centre (1984). Topsoils were often very dark with coal and cinder inclusions, suggesting the area has been nightsoiled in the past.

AGRICULTURAL LAND CLASSIFICATION

16. 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

17. All agricultural land on the site was placed within this subgrade, which is described as moderate quality land. Soils typically contain medium clay loam topsoils, over clayey, slowly permeable subsoils. Profiles are Wetness Class IV. Soil wetness and workability limit the ALC grade of this land.

Other Land

18. Other land comprises demolished farm buildings in the centre of the site.

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SOURCES OF REFERENCE

British Geological Survey (1977)*Sheet No.* [14], [Morpeth solid and drift geology 1:50 000]. 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.

Soil Survey of England and Wales (date1983) *Sheet* 1 *Northern England.* SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in Northern England* SSEW: Harpenden

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.