

HUGDEN FARM, NORTON

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

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AGRICULTURAL LAND CLASSIFICATION REPORT

HUGDEN FARM, NORTON

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 5.6 ha of land on the east side of the village of Norton in North Yorkshire.
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 the proposal by Malton Bacon Factory Ltd. to develop this land. This ALC survey supersedes any previous surveys.
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 on the site was mainly sown to winter cereals (in the south and north-east) or was in permanent grass (in the north-west). Other, non-agricultural, land on this site consists of farm buildings in the north and scrub along the course of a disused railway line in the west.

SUMMARY

5. The findings of the survey are shown on the enclosed 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 area 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
1			
2	5.2	100.0	92.9
3a			
3b			
4			
5			
Agricultural land not surveyed		N/A	
Other land	0.4	N/A	7.1
Total surveyed area	5.2	100	-
Total site area	5.6	-	100

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

8. Grade 2, very good quality agricultural land, covers most of the site. The soils are well or moderately well drained and typically consist of medium sandy loam topsoils overlying medium sandy loam or occasional sandy clay loam or heavy clay loam upper subsoils and loamy medium sand or loamy fine sand lower subsoils. Although most horizons are stoneless to slightly stony, containing 0-8% very small and small chalks and flints, some subsoil horizons contain up to 35% chalk stones. The ALC grade of this land is limited by slight soil droughtiness.

9. Other land on this site consists of farm buildings in the north and scrub along the course of a disused railway line in the west.

FACTORS INFLUENCING ALC GRADE

Climate

10. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

11. 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	SE 807713
Altitude	m, AOD	22
Accumulated Temperature	day°C (Jan-June)	1365
Average Annual Rainfall	mm	679
Field Capacity Days	days	170
Moisture Deficit, Wheat	mm	102
Moisture Deficit, Potatoes	mm	92
Overall climatic grade	N/A	Grade 1

12. 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.

13. 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.

14. The combination of rainfall and temperature at this site means that there is no overall climatic limitation on ALC grade.

Site

15. The land on this site is level and as such gradient does not limit ALC grade at any point. Equally, neither flood risk nor microrelief are of significance on the site.

Geology and soils

16. The site is underlain by Middle Oolite deposits over which lie post-glacial sands and gravels (BGS, Sheet 53).

17. The soils on the site have been mapped as belonging to the Landbeach association (Soils of England and Wales, Sheet 1).

AGRICULTURAL LAND CLASSIFICATION

18. 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.

Grade 2

19. Grade 2, very good quality land, covers all of the agricultural land on the site. The soils are generally well drained (Wetness Class I) although occasional moderately drained (Wetness Class II) profiles occur. Generally the profiles consist of medium sandy loam topsoils overlying medium sandy loam or occasional sandy clay loam or heavy clay loam upper subsoils, and loamy medium sand or loamy fine sand lower subsoils. Lenses of clay are occasionally found below 100cm depth. Most horizons are stoneless to slightly stony, with 0-8% very small and small flints and chinks, but some moderately stony subsoil horizons occur which contain up to 35% very small and small chalk stones. The ALC grade of this land is limited by slight soil droughtiness.

Other land

20. Other, non-agricultural, land on this site occurs in the north (farm buildings) and west (scrub along the course of a disused railway line).

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SOURCES OF REFERENCE

British Geological Survey (1960) *Sheet No. 53*, Pickering, 1:63,360 scale
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 (1983) *Sheet 1, Soils of Northern England*, 1:250,000 scale
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.