

**LAND ADJACENT TO HOLLINWOOD
LANE, CALVERTON, NOTTS.
GEDLING BOROUGH LOCAL PLAN**

**Agricultural Land Classification
ALC Map and Report**

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AGRICULTURAL LAND CLASSIFICATION REPORT

LAND ADJACENT TO HOLLINWOOD LANE, CALVERTON, NOTTS. GEDLING BOROUGH LOCAL PLAN

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of approximately 3.8 ha of land to the north west of the village of Calverton, Nottinghamshire, adjacent to Hollinwood Lane centred on grid reference SK 605 498. The majority of the land was surveyed during January 1999, with a small part in the east also being included to work done in 1997 (RPT job no. 13/97 (4)).
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 Gedling Borough Local Plan process. This survey supersedes previous ALC information for this land.
3. The work was conducted by members of the Resource Planning Team in the Eastern 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 grassland. The area mapped as 'Other land' in the north west corner of the site comprises part of the garden of the adjacent house.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000; 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
3a	3.8	100	97
Other land	0.1	N/A	3
Total surveyed area	3.8	100	
Total site area	3.9	-	100

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

8. The whole of the agricultural land within the site has been assessed as Subgrade 3a (good quality agricultural land) due to a moderate droughtiness limitation.

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 5 km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SK 605 498
Altitude	m, AOD	70
Accumulated Temperature	day°C (Jan-June)	1369
Average Annual Rainfall	mm	694
Field Capacity Days	days	150
Moisture Deficit, Wheat	mm	101
Moisture Deficit, Potatoes	mm	91
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 impose no overall limitation to land quality and hence the site has a climatic grade of 1.

Site

14. The site occupies undulating land with gentle slopes. The land falls from approximately 70 m AOD in the north and north east to a shallow valley in the centre of the site. The land rises again to 77 m AOD in the south west. There are no relief or gradient limitations to the quality of the agricultural land.

Geology and soils

15. The published 1:50 000 scale geology map of the area, sheet 126, Nottingham, (Geol. Survey, 1972) shows the whole site to comprise Permo-Triassic Pebble Beds (soft sandstone with pebbles).

16. The 1:250 000 reconnaissance scale soil survey map for the area (Soil Survey, 1983) shows the site as consisting of soils of the Cuckney 1 Association which are briefly described as well drained sandy and coarse loamy soils, often over sandstone.

17. During the current, more detailed survey, a single soil type was identified which corresponds closely to the Cuckney 1 Association described above.

18. The soils within the site were found to comprise very slightly stony loamy medium sand topsoil which overlies a similar textured very slightly stony upper subsoil. This upper subsoil in turn overlies medium sand with few stones. These profiles are non-calcareous throughout and are free draining.

AGRICULTURAL LAND CLASSIFICATION

19. 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.

20. The location of the auger borings and pits is shown on the attached sample location map.

Subgrade 3a

21. The whole of the site has been assessed as Subgrade 3a quality land. The soils are well drained (Wetness Class I). However, the profile textures and stone content combine to restrict the amount of moisture available for plant growth within these soils. Therefore a moderate droughtiness limitation restricts the land to Subgrade 3a.

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SOURCES OF REFERENCE

Geological Survey of Great Britain (1972) *Sheet No. 126, Nottingham. Solid and Drift Edition, scale 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 (1983) *Sheet 3, Midland and Western 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.