RUGELEY
Rydal Farm (19)

Agricultural Land Classification
ALC Map and Report
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AGRICULTURAL LAND CLASSIFICATION REPORT
RUGELEY
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 115.4 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the north of Rugeley, between Colton and Rugeley Junction. The survey was in connection with the Staffordshire Structure Plan Development Study.

2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) between the months of August and November 1998 by the Resource Planning Team of the Farming and Rural Conservation Agency (FRCA) - Northern region of FRCA.

3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988) .

4. At the time of survey the agricultural land on this site was under cereals, grass, oilseed rape and potatoes. During the survey it was observed that soils had been reinstated over a recently installed pipeline. The pipeline traversed the site from east to north west, approximately from Parchfield Farm to Rycot House to Colwich Lodge

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and 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	-	-	-
3a	69.9	68	61
3b	32.7	32	28
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	12.8	N/A	11
Total surveyed area	102.6	100	-
Total site area	115.4	-	100

7. The agricultural land on this site has been classified as Subgrade 3a (good quality) and Subgrade 3b (moderate quality). The key limitations to the agricultural use of this land are topsoil stone content, soil droughtiness and soil wetness.

8. The area of good quality land is located over the majority of the site. In the north and west of this unit the soil has a sandy loam topsoil texture over loamy sand and sand to depth, with common to abundant stones within the profile. In places the volume of topsoil stones greater than 2cm in size is between 10% and 15%, limiting the land to Subgrade 3a. In the east of this unit the soil has either a sandy clay loam or a clay loam topsoil texture over clay loam and a very stony sandy clay loam to depth. The moisture balance places these soils in Subgrade 3a.

9. The area of moderate quality land is mapped mainly in the east and south of the site. The majority of the soil profiles in this area have either a clay loam or a sandy clay loam topsoil texture over clay loam and clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV. Along the Moreton Brook very stony soils of a clay loam texture underlie the slowly permeable layer.

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 standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values	
Grid reference	N/A	SK 041 205	SK 052 195
Altitude	m, AOD	76	70
Accumulated Temperature	day°C (Jan-June)	1387	1394
Average Annual Rainfall	mm	732	727
Field Capacity Days	days	173	172
Moisture Deficit, Wheat	mm	95	96
Moisture Deficit, Potatoes	mm	84	85
Overall climatic grade	N/A	Grade 1	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 (ATO, 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. The site is climatically Grade 1.

Site

15. The site lies at an altitude of 68 to 75 metres AOD. The highest part of the site is found in the north near Bellamour Lodge, the lowest land is adjacent to Rugeley Junction.

16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.

17. These factors do not impose any limitations on the agricultural use of the land.

Geology and Soils

18. The solid geology of the area is comprised of Mercia Mudstones. This is overlain with First and Second River Terrace deposits - British Geological Survey (1982).

19. The soils that have developed on this geology are generally of either a sandy loam or a sandy clay loam texture over clay or sand.

Agricultural Land Classification

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

Subgrade 3a

21. Land of good quality occupies 69.9 hectares (61%) of the site area and is located over the majority of the site.

22. In the north and west of this unit the soil has a sandy loam topsoil texture over loamy sand and sand to depth, with common to abundant stones within the profile. In places the volume of topsoil stones greater than 2cm in size is between 10% and 15% limiting these soils to Subgrade 3a. In the east of this unit the soil has either a sandy clay loam or a clay loam topsoil texture over clay loam and a very stony sandy clay loam to depth. The moisture balance places these soils in Subgrade 3a.

23. To the north of Boathouse Spinney there are isolated borings of Grade 2 quality agricultural land which cannot be shown separately at this scale of mapping.

24. The main limitations to the agricultural use of this land are topsoil stone content and soil droughtiness.

Subgrade 3b

25. Land of moderate quality occupies 32.7 hectares (28%) of the site area and is mapped mainly in the east and south of the site.

26. The majority of the soil profiles in this area have either a clay loam or a sandy clay loam topsoil texture over clay loam and clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV. Along the Moreton Brook very stony soils of a clay loam texture underlie the slowly permeable layer.

27. To the north west of Boathouse Spinney and the north west of Parchfield House the volume of topsoil stones greater than 2cm in size is between 15% and 20%, limiting these soil profiles to Subgrade 3b.

28. The main limitations to the agricultural use of this land are topsoil stone content and soil wetness.

Other Land

29. Other land occupies 12.8 hectares (11%) of the site area and includes a number of farms, houses, hard standings, ponds, roads, trackways and woodland.

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SOURCES OF REFERENCE

British Geological Survey (1982) Sheet 140, Burton upon Trent Solid and Drift Edition. 1:50,000 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.
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Meteorological Office (1989) Climatological Data for Agricultural Land Classification.
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