

**SHREWSBURY AND ATCHAM
LOCAL PLAN
SUTTON GRANGE FARM**

**Agricultural Land Classification
ALC Map and Report
January 1999**

**M J W Wood
Resource Planning Team
Northern Region
FRCA Wolverhampton**

**RPT Reference: 046/98 & 25/RPT/0973
FRCA Reference: EL 35/10151A
LURET Job Number: ME1AP74**

**AGRICULTURAL LAND CLASSIFICATION REPORT
SHREWSBURY AND ATCHAM LOCAL PLAN
SUTTON GRANGE FARM**

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 11.1 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the west of Sutton, on the southern edge of Shrewsbury. The survey was in connection with the Shrewsbury and Atcham Borough Local Plan.
2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in January 1999 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 and grass.

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	6.2	67	56
3b	1.8	19	16
4	1.3	14	12
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	1.8	N/A	16
Total surveyed area	9.3	100	-
Total site area	11.1	-	100

7. The agricultural land on this site has been classified as Subgrade 3a (good quality), Subgrade 3b (moderate quality) and Grade 4 (poor quality). The key limitations to the agricultural use of this land include gradient, topsoil stone content, soil wetness and soil droughtiness.

8. The area of good quality land is found in the centre and west of the site. The soils have a clay loam topsoil texture over clay loam to depth.

9. The area of moderate quality land is mapped mainly towards the north east of the site. The soils have a silty clay loam topsoil texture overlying a gleyed and slowly permeable silty clay subsoil.

10. The area of poor quality land is mapped on slopes of 12° in the north east of the site, where the soils have a clay loam texture over bedrock. There are traces of possible ridge and furrow in this area.

FACTORS INFLUENCING ALC GRADE

Climate

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

12. 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	SJ 501 106
Altitude	m, AOD	60
Accumulated Temperature	day°C (Jan-June)	681
Average Annual Rainfall	mm	1422
Field Capacity Days	days	147
Moisture Deficit, Wheat	mm	105
Moisture Deficit, Potatoes	mm	95
Overall climatic grade	N/A	Grade 1

13. 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.

14. 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.

15. The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

Site

16. The site lies at an altitude of 55 to 70 metres AOD. The land rises southwards from the Rea Brook in the north of the site.

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

18. In the north east of the site there are slopes of 12°. Here gradient limits the agricultural use of the land to Grade 4.

19. Microrelief and flooding do not impose any limitations on the agricultural use of this land.

Geology and Soils

20. The solid geology of the area is comprised of Carboniferous Upper Coal Measures. This is overlain with deposits of glacial sands and gravel and River Terrace Gravels - British Geological Survey (1952 and 1974).

21. The soils that have developed on this geology are generally of a clay loam texture over clay or gravel at depth.

Agricultural Land Classification

22. 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

23. Land of good quality occupies 6.2 hectares (56%) of the site area and is found across the centre and west of the site.

24. The soil has a clay loam topsoil texture over clay loam to depth, with occasional lenses of sandy silt loam. The soil profile is moderately to extremely stony. Occasionally the volume of topsoil stones greater than 2cm in size is between 10% and 15%, placing these soils in Subgrade 3a. The moisture balance places these soils in Subgrade 3a.

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

Subgrade 3b

26. Land of moderate quality occupies 1.8 hectares (16%) of the site area and is mapped mainly in the north east of the site.

27. The soil has a silty clay loam topsoil texture overlying silty clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class IV. At the western end of the unit of Subgrade 3b land there are gradients of 8°, limiting the land to Subgrade 3b.

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

Grade 4

29. Land of poor quality occupies 1.8 hectares (12%) of the site area and is found in the north east of the site on slopes of 12°. This land has traces of former ridge and furrow. In the south west end of this unit there is some scrub which is grazed by horses.

30. The soil has a clay loam topsoil texture over bedrock. The moisture balance places these soils in Grade 4.

31. The main limitations to the agricultural use of this land are gradient and soil droughtiness.

Other Land

32. Other land occupies 1.8 hectares (16%) of the site area and includes Sutton Grange Nursery, a caravan park, a house, a trackway and a small area of scrub with rubble.

Resource Planning Team
Northern Region
FRCA Wolverhampton

SOURCES OF REFERENCE

**British Geological Survey (1952) Sheet 152, Shrewsbury Solid Edition.
1:63 360 Scale.
BGS: London.**

**British Geological Survey (1974) Sheet 152, Shrewsbury Drift Edition.
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.**

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