

**SHREWSBURY AND ATCHAM  
LOCAL PLAN**

**MEOLE BRACE**

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

**Anya J Spalding  
Resource Planning Team  
Northern Region  
FRCA Wolverhampton**

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**AGRICULTURAL LAND CLASSIFICATION REPORT  
SHREWSBURY AND ATCHAM LOCAL PLAN  
MEOLE BRACE**

**INTRODUCTION**

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 19.1 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the south east of Shrewsbury at Meole Brace, centred on grid reference SJ 494 102. The site is bounded to the north by Oteley Road, to the south by the A5 by-pass, to the west by a railway track and to the east by agricultural land. 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 stubble.

**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	3.8	20	20
3a	14.8	80	77
3b	-	-	-
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	0.5	N/A	3
<b>Total surveyed area</b>	<b>18.6</b>	<b>100</b>	
<b>Total site area</b>	<b>19.1</b>		<b>100</b>

7. The agricultural land on this site has been classified as Grade 2 (very good quality) and Subgrade 3a (good quality). The key limitations to the agricultural use of this land are soil droughtiness and soil wetness.

8. Very good quality land is found in the centre of the site extending towards the eastern boundary of the site. The soils commonly comprise of either a sandy clay loam, medium silty clay loam or a medium clay loam topsoil, overlying a variety of subsoil textures including medium silty clay loam, medium sandy loam, sandy clay loam or medium clay loam. Occasionally stony subsoils are present.

9. Good quality land is found throughout the majority of the site. Two profiles are found. In the first profile, found in the north west of the site, the topsoils comprise of a medium clay loam overlying a variety of subsoil textures including medium clay loam, heavy clay loam or a medium silty clay loam, passing to either a clay loam or clay at depth. In the second profile, found throughout the majority of the site, the soils commonly comprise of either a medium clay loam, medium silty clay loam, sandy clay loam or a medium sandy silt loam topsoil overlying a variety of subsoil textures including medium sandy silt loam, sandy clay loam, medium silty clay loam, medium clay loam and heavy clay loam. Occasionally stony subsoils are present.

## 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	SJ 494 102
Altitude	m, AOD	70
Accumulated Temperature	day°C (Jan-June)	1411
Average Annual Rainfall	mm	690
Field Capacity Days	days	149
Moisture Deficit, Wheat	mm	103
Moisture Deficit, Potatoes	mm	93
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. The site is climatically Grade 1.

### **Site**

15. The site lies at an altitude of 70 metres AOD. The topography of the site is generally flat in nature, rising gently at the centre of the site.

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 this land.

### **Geology and Soils**

18. The solid geology of the area comprises of Carboniferous Upper Coal Measures - British Geological Survey (1952). The drift geology of the site comprises of River Terrace and Sand and Gravel deposits - British Geological Survey (1974).

19. The soils that have developed on this geology are generally of a clay loam texture.

### **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.

#### *Grade 2*

21. Land of very good quality occupies 3.8 hectares (20%) of the site area.

22. The soils commonly comprise of either a sandy clay loam, medium silty clay loam or a medium clay loam topsoil, overlying a variety of subsoil textures including medium silty clay loam, medium sandy loam, sandy clay loam or medium clay loam. Occasionally stony subsoils are present. The depth to gleying and the absence of a slowly permeable layer place these soils in Wetness Class I. The moisture balance places these soils in Grade 2.

23. The main limitation to the agricultural use of this land is soil droughtiness.

*Subgrade 3a*

24. Land of good quality occupies 14.8 hectares (77%) of the site area.

25. Two profiles are found. In the first profile, found in the north west of the site, the topsoils comprise of a medium clay loam overlying a variety of subsoil textures including medium clay loam, heavy clay loam or medium silty clay loam, passing to a clay or clay loam at depth. The depths to gleying and a slowly permeable layer place these soils in Wetness Class III and Grade 3a.

26. In the second profile, found throughout the majority of the site, the soils commonly comprise of either a medium clay loam, medium silty clay loam, sandy clay loam or a medium sandy silt loam topsoil overlying a variety of subsoil textures including medium sandy silty loam, sandy clay loam, medium silty clay loam, medium clay loam and heavy clay loam. Occasionally stony subsoils are present. The depth to gleying and absence of a slowly permeable layer place these soils in Wetness Class I. The moisture balance places these soils in Subgrade 3a.

26. The main limitations to the agricultural use of this land are soil droughtiness and soil wetness.

*Other land*

27. Other land occupies 0.5 hectares (3%) of the site area and is found as a track along the northern and western site boundaries.

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.

SAMPLE NO.	GRID REF	ASPECT USE	---WETNESS---				-WHEAT-		-POTS-		M.REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
1	SJ49501050	STU SE	02	032		2	2	090	-13	095	2	3A			DR 3A	DA SPLCK	
1P	SJ49491050	STU SE	02	025 055		3	3A	097	-6	091	-2	3A			WE 3A	WET PIT	
2	SJ49601050	STU SE	01	032		2	2	084	-19	084	-9	3A			DR 3A	DA 50-HR	
2P	SJ49411010	STU S	03	035		2	2	085	-18	077	-16	3A			DR 3A		
3	SJ49401040	STU SE	02	048 065		2	2	108	5	114	21	3A			DR 3A	DA 80	
3P	SJ49601050	STU S	03	063		1	1	126	23	087	-6	2			DR 2		
4	SJ49501040	STU	01	020		2	2	137	34	120	27	1			WE 2		
5	SJ49601040	STU	01	000		1	1	060	-43	060	-33	3B			DR 3B	DA	
6	SJ49701040	STU	01	035		2	2	069	-34	069	-24	3B			DR 3B	DA	
7	SJ49401030	STU S	02	032		2	2	088	-15	088	-5	3A			DR 3A	DA 50-HR	
8	SJ49501030	STU NW	03	032		2	2	108	5	120	27	2			WE 2	DA 70	
9	SJ49601030	STU	01	000		1	1	162	59	115	22	1			1		
10	SJ49401020	STU E	03	000		1	1	081	-22	081	-12	3B			DR 3B	DA 50-HR	
11	SJ49501020	STU W	04	000		1	1	090	-13	095	2	3A			DR 3A	DA 60-GR	
12	SJ49601020	STU	01	070		1	1	130	27	102	9	2			DR 2		
13	SJ49301010	STU	01	000		1	1	084	-19	088	-5	3A			DR 3A		
14	SJ49401010	STU SE	03	000		1	1	078	-25	078	-15	3B			DR 3B	DA 50-GR	
15	SJ49501010	STU	02	000		1	1	057	-46	057	-36	3B			DR 3B	DA	
16	SJ49301000	WHT	01	093		1	1	129	26	112	19	2			DR 2		
17	SJ49401000	STU	01	000		1	1	085	-18	090	-3	3A			DR 3A		
18	SJ49501000	STU	01	000		1	1	102	-1	111	18	3A			DR 3A	DA WC2	
19	SJ49200990	WHT	01	000		1	1	134	31	105	12	1			1	STONES	

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED COL.	---STONES---			STRUCT/ CONSIST	SUBS						
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL	CALC
1	0-32	mc1	25 Y42 00						0	0	HR	5						
	32-60	hc1	25 Y53 00	10YR56	62	M	00MN00	00	Y	0	0	HR	10			M		
1P	0-25	mc1	10YR42 00	10YR56	00	F			0	0	HR	10						
	25-55	hc1	10YR61 00	10YR56	00	M	00MN00	00	Y	0	0	HR	8	WKCAB	FM	P		
	55-90	hc1	10YR53 00	10YR51	56	M			Y	0	0	HR	30	WKMSAB	FM	M		Y
2	0-32	mc1	25 Y42 00						0	0	HR	2						
	32-50	hc1	25 Y53 00	10YR56	00	M	00MN00	00	Y	0	0	HR	5			M		
2P	0-35	mc1	10YR42 00						0	0	HR	22						
	35-100	mzc1	10YR44 00	10YR51	56	C			Y	0	0	HR	57	MDCAB	FR	M		
3	0-30	mc1	10YR42 00						0	0	HR	5						
	30-48	mc1	10YR53 00				00MN00	00		0	0	HR	5			M		
	48-65	mzc1	10YR52 00	10YR63	56	C			Y	0	0	HR	5			M		
	65-80	c	10YR52 00	10YR62	56	M			Y	0	0	HR	5			M		Y
3P	0-30	msz1	10YR42 00						0	0	HR	22						
	30-63	msz1	75YR43 00						0	0	HR	57	MDCAB	FR	G			
	63-100	msz1	75YR53 00	75YR62	56	C			Y	0	0	HR	0	MDCAB	FR	G		
	100-120	ms	75YR53 00						Y	0	0	HR	0	MDCAB	FR	G		
4	0-20	fsz1	10YR42 00						0	0	HR	5						
	20-35	mc1	10YR42 00	10YR56	00	C			Y	0	0	HR	5			M		
	35-55	hc1	10YR62 00	10YR56	00	M			Y	0	0	HR	2			M		
	55-70	hc1	10YR62 00						Y	0	0	HR	2			M		
	70-100	mc1	25Y 52 00	10YR56	00	M			Y	0	0	HR	2			M		
5	0-35	mc1	10YR42 00						0	0	HR	5						
6	0-35	msz1	10YR43 00						5	3	HR	8						
	35-40	mc1	10YR43 00	10YR56	00	C			Y	0	0	HR	10			M		
7	0-32	msz1	10YR42 00						0	0	HR	4						
	32-50	mzc1	75YR43 00	75YR46	00	C	00MN00	00	Y	0	0	HR	5			M		



SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED		---STONES---			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR	IMP	SPL
8	0-32	msz1	10YR42 00						0	0	HR	4					
	32-68	msz1	10YR43 00	10YR56 00	M		00MNOO 00	Y	0	0	HR	5			M		
	68-70	mzc1	10YR53 00	10YR62 56	M			Y	0	0	HR	5			M		
9	0-33	sc1	75YR43 00						5	3	HR	8					
	33-55	sc1	75YR44 00						0	0	HR	5			M		
	55-80	fsz1	75YR44 00						0	0	HR	0			M		
	80-100	ms1	75YR44 00						0	0	HR	0			M		
	100-120	ms1	75YR53 00						0	0	HR	0			M		
10	0-45	msz1	10YR42 00						0	0	HR	5					
11	0-32	mc1	10YR42 00						0	0	HR	5					
	32-60	mc1	75YR43 00						0	0	HR	10			M		
12	0-27	mc1	10YR32 00						0	0	HR	10					
	27-40	sc1	75YR44 00						0	0	HR	10			M		
	40-70	sc1	10YR54 00						0	0	HR	10			M		
	70-110	sc1	10YR53 00	10YR53 00	C			Y	0	0	HR	10			M		
13	0-30	mc1	10YR32 00						7	3	HR	10					
	30-40	mc1	10YR43 00						0	0	HR	10			M		
	40-60	sc1	75YR44 00						0	0	HR	20			M		
14	0-32	msz1	10YR42 00						0	0	HR	5					
	32-45	mzc1	75YR42 00	75YR46 00	C				0	0	HR	10			M		
15	0-30	mc1	10YR42 00						12	0	HR	22					
	30-40	mc1	10YR44 00						0	0	HR	10			M		
16	0-30	mc1	10YR32 00						7	3	HR	10					
	30-60	mc1	75YR44 00				00MNOO 00		0	0	HR	2			M		
	60-93	mc1	10YR42 00						0	0	HR	2			M		
	93-100	mc1	10YR42 00	10YR56 00	M			Y	0	0	HR	2			M		

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED COL.	---STONES---			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLEY	>2	>6		LITH	TOT	STR	POR	IMP	SPL
17	0-28	msz1	10YR42 00					0	0	HR	10						
	28-60	mc1	10YR43 00					0	0	HR	20		M				
18	0-40	mc1	10YR32-00					0	0	HR	2						
	40-70	sc1	10YR44 00					0	0	HR	10		M				
19	0-30	sc1	10YR32 00					8	3	HR	11						
	30-55	sc1	75YR43 00					0	0	HR	2		M				
	55-70	sc1	10YR53 00					0	0	HR	2		M				
	70-80	mc1	10YR53 00	10YR56	00	F		0	0	HR	2		M				
	80-110	sc1	10YR42 00					0	0	HR	2		M				