

**SHROPSHIRE STRUCTURE PLAN  
MUCH WENLOCK  
LAND EAST OF BRIDGNORTH ROAD**

**Agricultural Land Classification  
ALC Map and Report**

**May 1999**

Resource Planning Team  
Northern Region  
FRCA Wolverhampton

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MAFF Reference: EL35/11859

**AGRICULTURAL LAND CLASSIFICATION REPORT**  
**SHROPSHIRE STRUCTURE PLAN**  
**MUCH WENLOCK, LAND EAST OF BRIDGNORTH ROAD**

**INTRODUCTION**

1. This report presents the findings of a detailed *Agricultural Land Classification (ALC)* survey of 5 ha of land east of Bridgnorth Road, to the south-east of Much Wenlock, Shropshire. The survey was carried out in April 1999.
2. The survey was undertaken by the Farming and Rural Conservation Agency (FRCA)<sup>1</sup> on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF). This survey was carried out in connection with MAFF's statutory input to the Shropshire Structure Plan. This survey supersedes any previous ALC information for this land.
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 site was under oil seed rape.

**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)	% Total agricultural land area	% Total survey area
1	-	-	-
2	-	-	-
3a	5.0	100	100
3b	-	-	-
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	-	-
Other land	-	-	-
Total agricultural land area	5.0	100	-
Total survey area	5.0	-	100

<sup>1</sup> FRCA is an executive agency of MAFF and the Welsh Office

7. The fieldwork was conducted at an average density of 1 boring per hectare of agricultural land. A total of 7 borings and 1 soil pit was described.
8. The agricultural land on this site has been classified as Subgrade 3a (good quality). The principal limitation to the agricultural use of this land is soil wetness.
9. Land of good quality (Subgrade 3a) is found across the site. Soils comprise medium clay loam topsoils over medium clay loam and medium silty clay loam upper subsoils. These overlie lower subsoils of heavy clay loam texture. Soil wetness is the principal limitation to the agricultural use of this land.

**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	SO626994
Altitude	m, AOD	162
Accumulated Temperature	day°C (Jan-June)	1308
Average Annual Rainfall	mm	758
Field Capacity Days	days	179
Moisture Deficit, Wheat	mm	84
Moisture Deficit, Potatoes	mm	69
Overall climatic grade	N/A	Grade 2

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 this land experiences a climatic limitation consistent with Grade 2. As a result land cannot be graded higher than Grade 2.

## **Site**

15. The site lies at an altitude of 158-168m AOD, and slopes to the north-east. The site is bordered to the south-west by Bridgnorth Road, and elsewhere by agricultural land.

## **Geology and soils**

16. The solid geological information for this area (BGS 1952) maps the site as being underlain by Lower Ludlow Shales. Drift geological information for this area (BGS 1974) indicates that there is no drift on this site.
17. The most detailed published soils information for this area (SSEW, 1983) shows the site to comprise soils of the Munslow association. This association, which occur over siltstones and fine grained sandstones, includes soils broadly described as 'typical brown earths' (SSEW 1984).
18. Upon detailed field examination, soil profiles broadly similar with the above description were found across the site.

## **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.

### **Subgrade 3a**

20. Land of moderate quality occupies 5 ha (100%) of the total survey area. The principal limitation to the agricultural use of this land is soil wetness.
21. Within the Grade 3a mapping unit, soils comprise stoneless or very slightly stony medium clay loam topsoils, which overlie slightly stony medium clay loam and medium silty clay loam upper subsoils and moderately stony heavy clay loam lower subsoils. Observed depths of gleying and slowly permeable layers in relation to the local climatic regime, place these soils into Wetness Classes II, III and Subgrade 3a.

William Fearnough  
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Northern Region  
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## SOURCES OF REFERENCE

British Geological Survey (1952) *Sheet No. 152, Shrewsbury. (1:63630)*.  
BGS: London.

British Geological Survey (1974) *Sheet No. 152, Shrewsbury. (1:63630)*.  
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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, Soils of Midland and Western England. (1:250 000)*.  
SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their use in 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.

02/99

program: ALC012

LIST OF BORINGS HEADERS 06/05/99 MUCH WENLCOK ADDITIONAL

page 1

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT		--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT		
1	S062509940	OSR	02	047 070	2	3A	130	46 118	49	1					WE	3A	
1P	S062709930	OSR NE	01	050 050	3	3A	118	34 108	39	1					WE	3A	
2	S062609940	OSR		045 045	3	3A	124	40 108	39	1					WE	3A	
2A	S062649945	OSR	01	018 070	3	3A	119	35 117	48	1					WE	3A	POOR CROP
3	S062709940	OSR	01	040 040	3	3A	112	28 117	48	2					WE	3A	
3A	S062649942	OSR	01	028 075	3	3A	128	44 122	53	1					WE	3A	POOR CROP
4	S062609930	OSR		085 085	1	2	139	55 111	42	1					CL	2	
5	S062709930	OSR	02	055 065	2	3A	144	60 116	47	1					WE	3A	

SAMPLE	DEPTH	TEXTURE	COLOUR	—MOTTLES—			PED COL.	—STONES—			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL
1	0-28	mc1	10YR42 00					0	0	0							
	28-47	mc1	25Y 53 00					0	0	0		M					
	47-50	mc1	25Y 53 00	10YR56	00	C		Y	0	0	0		M				
	50-70	mc1	25Y 52 00	10YR56	00	C		Y	0	0	0		M				
	70-110	hc1	10YR53 00	10YR56	00	C		Y	0	0	HR 15		P				Y
1P	0-28	mc1	10YR42 00					0	0	HR 2							
	28-50	mc1	10YR43 00					0	0	HR 2	MDMPR	FM	M				
	50-65	hc1	10YR53 00	10YR46	00	C		Y	0	0	HR 2	MDMPR	FM	P	Y		Y
	65-100	hc1	10YR53 00	10YR46	00	M		Y	0	0	HR 2	MDCPL	FM	P	Y		Y
2	0-28	mc1	10YR32 00					0	0	0							
	28-45	mc1	25Y 53 00					0	0	0		M					
	45-95	hc1	25Y 53 00	10YR56	00	C		Y	0	0	0		P				Y
	95-110	hc1	05YR53 00	10YR56	00	C		Y	0	0	HR 15		P				Y
2A	0-18	mc1	10YR42 00					0	0	0							
	18-36	mzc1	10YR52 00	10YR56	00	C		Y	0	0	0		M				
	36-70	mc1	25Y 62 00	10YR56	00	C		Y	0	0	0		M				
	70-90	hc1	10YR52 53	10YR56	00	C		Y	0	0	0		P				Y
3	0-28	mc1	10YR41 00					0	0	0							
	28-40	mc1	10YR54 00					0	0	HR 5		M					
	40-70	hc1	10YR53 00	10YR56	00	C		Y	0	0	0		M				
	70-80	hc1	10YR43 00					Y	0	0	0		P				
3A	0-28	mc1	10YR42 00					0	0	0							
	28-75	mzc1	10YR53 00	10YR56	00	C		Y	0	0	0		M				
	75-90	hc1	10YR52 00					Y	0	0	0		M				Y
4	0-27	mc1	10YR43 00					0	0	HR 5							
	27-60	mc1	75YR44 00					0	0	HR 5		M					
	60-85	mc1	75YR34 00					0	0	HR 10		M					
	85-110	hc1	10YR53 00	10YR46	00	C		Y	0	0	0		M				Y



SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----			PED	-----STONES-----			STRUCT/	SUBS	STR	POR	IMP	SPL	CALC
				COL	ABUN	CONT		COL.	GLEY	>2							
5	0-28	mc1	10YR32 00					0	0	HR	3						
	28-55	mc1	10YR43 00					0	0		0						M
	55-65	hc1	10YR53 00	10YR56	00	C		Y	0	0	0						M
	65-75	hc1	10YR43 00	10YR56	00	C		Y	0	0	0						M
	75-110	hc1	10YR53 54	10YR56	00	C		Y	0	0	0						M