

SOUTH SOMERSET LOCAL PLAN: MILBORNE PORT

AGRICULTURAL LAND CLASSIFICATION

Report of survey

1. INTRODUCTION

Nearly one hundred and fifty hectares of land around Milborne Port, South Somerset were graded under the Agricultural Land classification (ALC) System in September 1992. The survey was carried out for MAFF as part of its statutory role in the preparation of the South Somerset Local Plan.

The fieldwork was carried out by ADAS's Resource Planning Team (Taunton Statutory Unit) at a scale of 1:10,000 (approximately one sample point every hectare). The information is correct at the scale shown but any enlargement would be misleading. This survey supercedes the previous surveys of this area at 1" and the 1984 survey being at a more detailed level and carried out under the revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1989). A total of 56 borings and 2 soil pits were examined.

The ALC provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The grading takes account of the top 120cm of the soil profile. A description of the grades used in the ALC System can be found in the appendix.

The distribution of ALC grades identified in the survey area is detailed below and illustrated on the accompanying map.

Table 1 Distribution of ALC grades: Milborne Port

Grade	Area (ha)	% of Survey Area	% of Agricultural Land
3A	109.4	73.7	91.0
3B	10.0	6.7	8.3
4	0.3	0.2	0.3
5	0.6	0.4	0.4
Non Agric	16.5	11.2	100%(120.3ha)
Urban	10.0	6.7	
Farm Bdgs	1.6	1.1	
TOTAL	148.4	100%	

The majority of the survey area has been classified as Subgrade 3a with small areas of Subgrade 3b.

2. CLIMATE

The grade of the land is determined by the most limiting factor present. The overall climate is considered first because it can have an overriding influence on restricting land to lower grades despite other favourable conditions.

To assess any overall climatic limitation, estimates of important climatic variables were obtained for the site by interpolation from the 5km grid Met Office/Maff Database (Met Office/MAFF/SSLRC 1989). The parameters used for assessing climate are accumulated temperature, (a measure of the relative warmth of a locality) and average annual rainfall, (a measure of overall wetness). The results shown in Table 2 reveal that there is no overall climatic limitation within the survey area.

No local climatic factors such as exposure were noted in the survey area. Climatic data on Field Capacity Days (FCD) and Moisture Deficits for wheat (MDW) and potatoes (MDP) are also shown. This data is used in assessing the soil wetness and droughtiness limitations referred to in Section 5.

Table 2 Climatic Interpolations: Milborne Port

Grid Reference	ST 668 190	ST 681 182
Height (m)	120	70
Accumulated Temperature (° days)	1434	1491
Average Annual Rainfall (mm)	867	861
Overall Climatic Grade	1	1
Field Capacity (Days)	183	183
Moisture Deficit, Wheat (mm)	95	101
Potatoes (mm)	84	92

3. RELIEF

Milborne Port has gentle slopes in the surrounding area except for a small area of steeper slopes near Kingsbury House. The land mainly slopes into the village where a small stream drains to the south east. The lowest land in the south is at 70m rising to 120m in the west.

4. GEOLOGY AND SOILS

The survey area is underlain by Inferior Oolite limestone. The area around the small stream through the centre of the survey area has alluvial deposits.

Most of the soils are free draining with variable stone contents. Topsoil textures vary slightly being heavy clay loam and heavy silty clay loam, but both these soil textures fall into the same workability grouping. Stone contents were

measured in two pits and were found to vary at depth from 2% to 30%. The type of stone reflects the geology in the area. Small areas in the south and north show signs of wetness.

5. AGRICULTURAL LAND CLASSIFICATION

The distribution of ALC grades identified in the survey area is detailed in Section 1 and shown on the accompanying ALC map. The information is correct at the scale shown but any enlargement would be misleading.

Subgrade 3a

The majority of the survey area has been classified as Subgrade 3a. These soils are well drained with variable stone contents. They qualify for Wetness Class I and are only slightly droughty when the stone contents are high. The main limitation in these soils is their workability. The heavy clay loam and heavy silty clay loam topsoils in combination with the local climatic situation mean that the soils can be no better than Subgrade 3a. A soil pit was dug in the area and the stone content was found to rise to 30% in the lower subsoil. The soil became slightly heavier with depth.

Subgrade 3b

The small area of 3b land in the south has a combination of steeper slopes and poor drainage. The poor drainage is shown by the presence of gleying from the surface and is caused by a slowly permeable layer at depth. This soil is placed into Wetness Class IV.

The two areas of 3b in the north are also less well drained, but the restriction isn't as great. Here the evidence of poor drainage in the form of gleying does not appear until below 40cm and occurs in the slowly permeable layer itself and not above. These soils are placed into Wetness Class III. However despite the slight variations both these soils are restricted to Subgrade 3b.

Grades 4 and 5

A small area of land near to Kingsbury House has steep slopes. These slopes restrict the type of agricultural use and versatility. Land over 11 degrees and 18 degrees is graded as 4 and 5 respectively.

APPENDIX

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 include 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 and horticultural crops can usually be grown but on some land in the 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.

Grade 3 - good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where 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 level of yields. It is mainly suited to grass with occasional arable crops (eg 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 very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Descriptions of other land categories used on ALC maps

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including: private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Agricultural buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg polythene tunnels erected for lambing) may be ignored.

Open water

Includes lakes, ponds and rivers as map scale permits.

Land not surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above land cover types, eg buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will usually be shown.

ALC SURVEY INFORMATION

SITE NAME: Milborne Port

LOCALITY: S. Somerset

1:50,000 SHEET NO: 183

JOB NUMBER: 50192

AREA (ha): 150 ha

REASON FOR SURVEY: S. Somerset D.C.
Local Plan

CLIMATE: ATO:

MD WHEAT:

FCD:

ALTITUDE: MAXIMUM: 120m

GEOLOGY: SHEET/SCALE: 1:50,000 313

SOLID:

ALC: PROVISIONAL 1" MAP:

SOILS: SHEET/SCALE: 1:250,000 Sheet 5

ASSOCIATION/DESCRIPTION:

ANCILLARY SOILS:

REQUESTED BY/VIA:

ACCESS OK?:

OWNER/OCCUPIER:

OTHER:

GRID REFERENCE: 675 185

FILE NUMBER:

AIR PHOTOS:

AAR:

MD POTS:

BEST CLIMATIC ALC: Grade 1

MINIMUM: 70m

DRIFT:

OTHER SURVEYS:

DEADLINE: