

**Dunkirk Hill Sleight Road  
and Roundway Devizes**

**Agricultural Land Classification**

**July 1999**

Resource Planning Team  
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FRCA Western Region

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**DEVIZES**  
**AGRICULTURAL LAND CLASSIFICATION SURVEY**

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## **DEVIZES**

### **AGRICULTURAL LAND CLASSIFICATION SURVEY**

#### **INTRODUCTION**

1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 74.5 ha of land at 6 sites around Devizes. Field survey was based on 69 auger borings and 7 soil profile pits and was completed in June 1999.

2 The survey was conducted by the Resource Planning Team of FRCA Western Region on behalf of MAFF in its statutory role in the preparation of the Kennet Local Plan.

3 Apart from the published regional ALC map (MAFF 1977) which shows the sites at a reconnaissance scale, the sites were previously surveyed in 1980 at a scale of 1:25,000 (ADAS 1980). The current survey uses the Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988) and supersedes any previous ALC survey. Grade descriptions are summarised in Appendix I.

4 This report covers three FRCA survey sites 36/38/99 which in this report are described under the identification numbers that they were given by the Kennet District Planning Office.

#### **Site 1**

5 The ex MOD sports ground at Site 1 was not surveyed as it was decided it did not fall under the definition of agricultural land or a soft use of land formally in agricultural use.

#### **Site 15**

6 The land to the south of Coate Lane was mapped at a reconnaissance scale as being Grade 3.

7 The 1980 survey showed the site to be Subgrade 3a with imperfect drainage. The soils found during the current survey are very similar, being sandy with ochreous mottling and impaired drainage, but changes to the grading system allow some of the land to be now mapped as Grade 2.

8 At the time of survey the landcover at Site 15 was field beans.

#### **Site 29**

9 The site on Dunkirk Hill, Devizes, was mapped at a reconnaissance scale as being Grade 3.

10 The 1980 survey showed the site to be Subgrades 3b and 3c due to impaired drainage, with the 3b land being next to Dunkirk Hill and the 3c land elsewhere. The actual profiles from this survey showed some variability in their drainage that was confirmed by the current survey.

11 At the time of survey land cover at Site 29 was improved and unimproved pasture although several fields appeared to have been abandoned

#### **Site 44**

12 The land at Roundway adjacent to the Devizes Garden Trading Estate was mapped at a reconnaissance scale as being Grade 3

13 This area was mapped as Grade 2 in 1980 with minor wetness limitations with ochreous mottling being found in the lower subsoils The soils found during the current survey are very similar although changes to the grading system have now downgraded some of the land to Subgrade 3a

14 Land to the south west of this site was surveyed in early 1999 (FRCA, 1999) This shows two mapping units one of Grade 1 and nearer to the current survey site a unit of Subgrade 3a with a moderate wetness limitation These findings were taken into account during the current survey

15 At the time of survey the landcover of the site was winter wheat

#### **Site 45**

16 The land adjacent to Lay Wood to the south of Horton Road was mapped at a reconnaissance scale as being mainly Grade 3 with a small area of Grade 4 next to the wood

17 This area of land was not covered by the 1980 survey

18 At the time of survey the landcover of the site was winter wheat

#### **Site 46**

19 The land next to the old Hopton Barracks at Roundway Hill Farm was mapped at a reconnaissance scale as being Grade 2

20 This area was mapped as Grade 2 in 1980 with weathered chalk subsoils The soils found during the current survey are very similar although changes to the grading system have now downgraded the land to Subgrade 3a

21 At the time of survey the landcover of the site was winter wheat in the northern field and cereal stubble in the southern field There was also some land that included areas of hard standing and rough grass from the old barracks and light industry that was not surveyed

#### **Site 57**

22 The land opposite Harebell Way at Coate Bridge was mapped at a reconnaissance scale as being Grade 3

23 The 1980 survey showed the site to be Subgrade 3a with imperfect drainage. The soils found during the current survey are very similar, being sandy with ochreous mottling and impaired drainage, but changes to the grading system allow some of the land to be now mapped as Grade 2.

24 At the time of survey the landcover of the site was maize, with some derelict land and farm buildings adjacent to Coate Lane.

#### **Site 59**

25 The land adjacent to canal at Coate Bridge was mapped at a reconnaissance scale as being Grade 3.

26 This site was mapped in 1980 as being mostly Subgrade 3a with a small area of Subgrade 3b with restricted drainage. Very similar soils were found during the current survey, being poorly drained clays in the Subgrade 3b mapping unit and imperfectly sandier soils elsewhere, but changes to the grading system allow some of the land to be now mapped as Grade 2.

27 At the time of survey the landcover of the site was permanent grassland.

#### **Site 61**

28 The land at the junction of Sleight Road and Nursteed Road was mapped at a reconnaissance scale as being Grade 1.

29 This site was mapped in 1980 as Grade 1 with deep, well drained sandy profiles. Very similar soils were found during the current survey.

30 At the time of survey the landcover of the site was permanent grassland that appeared to have been abandoned.

### **SUMMARY**

31 The distribution of ALC grades is shown on the accompanying three 1:10,000 scale ALC maps. The detail of information shown at this scale is appropriate to the intensity of field survey but could be misleading if enlarged or applied to small areas. Areas are summarised in Table 1.

#### **Site 15**

32 The whole of Site 15 has been mapped as best and most versatile land. Most of the site has been mapped as Subgrade 3a (good quality) with a moderate wetness limitation due to slowly permeable subsoils. The lower part of the field, next to the derelict farm buildings where the subsoils are lighter, has been mapped as Grade 2 (very good quality) with a minor wetness limitation.

**Table 1      Distribution of ALC grades   Devizes**

<b>Grade</b>	<b>Area (ha)</b>	<b>% Surveyed Area (61.1 ha)</b>
1	7.7	13
2	13.0	21
3a	25.5	42
3b	12.1	20
4	2.8	4
Other land	13.3	
Total site area	74.4	100

#### **Site 29**

33      None of Site 29 has been mapped as best and most versatile land. The upper slopes of the site have moderate and severe limitations at Subgrade 3b (moderate quality) and Grade 4 (poor quality) due to irregular micro relief and localised wetness. The lower part of the site has moderate wetness limitations due to the slowly permeable nature of the parent Gault clay.

#### **Site 44**

34      The whole of Site 44 has been mapped as best and most versatile land. Most of the site has been mapped as Subgrade 3a (good quality) with a moderate wetness limitation due to slowly permeable subsoils. The northern part of the field, where the subsoils are lighter, has been mapped as Grade 2 (very good quality) with a minor wetness limitation.

#### **Site 45**

35      The majority of this site has been mapped as Subgrade 3a (good quality) with a moderate wetness limitation. Two localised areas of wetness at Subgrade 3b (moderate quality) have been mapped next to Lay Wood and the new marina.

#### **Site 46**

36      The majority of this site has been mapped as Subgrade 3a (good quality) with a moderate workability limitation where silty clay topsoils overlie weathered chalk. The old sports ground has been mapped as Subgrade 3b (moderate quality) due to a moderate drought limitation while the field that adjoins Folly Road, although variable, is Grade 2 (very good quality) with a minor wetness limitation.

#### **Site 57**

37      The whole of Site 57 has been mapped as best and most versatile land. Most of the site has been mapped as Grade 2 (very good quality) with a minor wetness limitation. The southern part of the field, where the soil textures are heavier, has been mapped as Subgrade 3a (good quality) with a moderate wetness limitation due to slowly permeable subsoils.

## Site 59

38 The majority of this site has been mapped as Grade 2 (very good quality) with a minor wetness limitation. A localised area of more severe wetness at Subgrade 3b (moderate quality) have been mapped in the northern corner next to the canal.

## Site 61

39 The whole of Site 61 has been mapped as best and most versatile land. The site has been mapped as Grade 1 (excellent quality) with none or only very minor limitations to its agricultural use.

## CLIMATE

40 Estimates of climatic variables for this site were derived from the published agricultural climate dataset Climatological Data for Agricultural Land Classification (Meteorological Office 1989) using standard interpolation procedures. Data for key points around the site are given in Table 2 below.

41 Since the ALC grade of land is determined by the most limiting factor present, overall climate is considered first because it can have an overriding influence by restricting land to a lower grade despite more favourable site and soil conditions. Parameters used for assessing overall climate are accumulated temperature, a measure of relative warmth and average annual rainfall, a measure of overall wetness. The results shown in Table 2 indicate that there is no overall climatic limitation.

42 Climatic variables also affect the ALC grade through interactions with soil conditions. The most important interactive variables are Field Capacity Days (FCD) which are used in assessing soil wetness and potential Moisture Deficits calculated for wheat and potatoes which are compared with the moisture available in each profile in assessing soil droughtiness limitations. These are described in later sections.

**Table 2 Climatic Interpolations Devizes**

Grid Reference	ST 993 617	SU 017 603	SU 020 623
	Site 29	Site 61	Sites 15 57 59
Altitude (m)	90	120	130
Accumulated Temperature (day °C)	1442	1408	1396
Average Annual Rainfall (mm)	740	747	753
Overall Climatic Grade	1	1	1
Field Capacity Days	166	167	168
Moisture deficit (mm)	Wheat	107	100
	Potatoes	98	94

**Table 2 continued**

Grid Reference	SU 027 628	SU 019 631
	Site 45	Sites 44 46
Altitude (m)	130	135
Accumulated Temperature (day C)	1395	1390
Average Annual Rainfall (mm)	753	757
Overall Climatic Grade	1	1
Field Capacity Days	169	169
Moisture deficit (mm)		
	Wheat	99
	Potatoes	89

**RELIEF****Site 15**

43 The altitude of the site ranges from 131m at Coate Lane to 145m at the southern end of the field. The site is gently sloping with no limitation to its agricultural use.

**Site 29**

44 The altitude of the site ranges from 80m opposite the public house at the bottom of Dunkirk Hill to 110m at the top of the hill. This site covers an area of unconsolidated landslips on the hill with localised areas where the gradient is above 7°. This has a moderate limitation to their agricultural use.

45 The edge of the scarp contains an area of unconsolidated landslips. Therefore the southern three fields next to the built up area suffer from moderate and severe limitations to their agricultural use due to micro relief.

**Site 44**

46 The altitude of the site ranges from 130m near the trading estate to 141m on Folly Road. The site is level and gently sloping with no limitation to its agricultural use.

**Site 45**

47 The site straddles the 130m contour and is level with no limitation to its agricultural use.

**Site 46**

48 The altitude of the site ranges from 135m near the old barracks to 150m on the hillside above Roundway. The site is level and gently sloping with no limitation to its agricultural use.



#### **Site 57**

49 The altitude of the site ranges from 131m at Coate Lane to 134m at the southern end of the field. The site is gently sloping with no limitation to its agricultural use.

#### **Site 59**

50 The site straddles the 130m contour and is level with no limitation to its agricultural use.

#### **Site 61**

51 The altitude of the site ranges from 116m on Sleights Lane to 120m near Wayside Farm, on Nursteed Road. The site is level with no limitation to its agricultural use.

### **GEOLOGY AND SOILS**

52 The underlying geology of the sites is shown on the published geology maps (IGS 1967 and 1974).

53 Soils were mapped by the Soil Survey of England and Wales at a reconnaissance scale of 1:250,000 (SSEW 1983). Soil information is also available at a more detailed level for those sites on the eastern side of the town in the 1:25,000 scale survey (SSEW 1973).

#### **Site 15**

54 The underlying geology of the site is shown to be Upper Greensand from the Upper Cretaceous Era.

55 The soils are mapped at a reconnaissance scale as being from the Ardington Association<sup>1</sup> and in greater detail as belonging to the Stert Series<sup>2</sup> on the higher ground and the Ardington Series<sup>3</sup> on the lower ground along Coate Lane.

56 The soils found during the current survey were as expected from the geology map and reconnaissance soil map but indicated that the Ardington Series<sup>3</sup> might extend further up the slope towards the southern end of the field than the detailed soils map suggested.

#### **Site 29**

57 The underlying geology of the area is mapped as being Upper Greensand (sand and sandstone) on the sloping ground and Gault Clay on the flats, both from the Upper Cretaceous Era.

58 The soils are mapped as being from the Denchworth Association<sup>4</sup> on the flat land and the Wickham 3 Association<sup>5</sup> on the sloping land.

59 The soils found during the current survey were very similar to those described by the SSEW with poorly drained clayey soils on the flat land and soils with variable drainage on the

sloping land following landslips and spring lines. These soil types match the profiles that are expected from the types of geology that are mapped in the site

#### **Site 44**

60 The underlying geology of the site is shown to be Upper Greensand from the Upper Cretaceous Era

61 The soils are mapped at a reconnaissance scale as being from the Ardington Association<sup>1</sup> and in greater detail as belonging to the Stert Series<sup>2</sup> on the ground adjacent to the trading estate and to the Ardington Series<sup>3</sup> on the ground along Folly Road

62 The soils found during the current survey were as expected from the geology map and reconnaissance soil map but indicated that the Ardington Series<sup>3</sup> extends further towards the trading estate than the detailed soils map suggested

#### **Site 45**

63 The underlying geology of the site is shown to be Upper Greensand from the Upper Cretaceous Era

64 The soils are mapped at a reconnaissance scale as being from the Ardington Association<sup>1</sup> and in greater detail as belonging mainly to the Coate Series<sup>6</sup> and to the Broadmoor Series<sup>7</sup> on the ground next to Lay Wood and the new marina

65 These descriptions and distributions were borne out by the current survey

#### **Site 46**

66 The underlying geology of the site is shown to be mostly Upper Greensand from the Upper Cretaceous Era. There is a small area of Lower Chalk also from the Upper Cretaceous Era in the northern part of the site above Roundway

67 The soils are mapped at a reconnaissance scale as being from the Ardington Association<sup>1</sup> and in greater detail as belonging to the Ardington Series<sup>3</sup> on the ground around the old sports ground and Roundway Farm and the Stert Series<sup>2</sup> on the ground leading up the hill above Roundway and the old barracks

68 These descriptions and distributions were borne out by the current survey although there is an area of shallow soils over sandstone centred on the old sports ground

#### **Site 57**

69 The underlying geology of the site is shown to be Upper Greensand from the Upper Cretaceous Era

70 The soils are mapped at a reconnaissance scale as being from the Ardington Association<sup>1</sup> and in greater detail as belonging to the Puckshipton Series<sup>8</sup> for most of the site with a small area of soils from the Ardington Series<sup>3</sup> at the southern end of the site

71 These descriptions and distributions were borne out by the current survey

#### Site 59

72 The underlying geology of the site is shown to be Upper Greensand from the Upper Cretaceous Era

73 The soils are mapped at a reconnaissance scale as being from the Ardington Association<sup>1</sup> and in greater detail as belonging mainly to the Puckshipton Series<sup>8</sup> Small areas of soils from the Urchfont<sup>9</sup> and Ardington Series<sup>3</sup> are mapped in the south west corner of the site and from the Broadmoor Series<sup>7</sup> in the north west corner next to the canal

74 These descriptions and distributions were largely borne out by the current survey although the areas of Urchfont<sup>9</sup> and Ardington Series<sup>3</sup> soils were not identified

#### Site 61

75 The underlying geology of the site is shown to be Upper Greensand from the Upper Cretaceous Era

76 The soils are mapped as being from the Ardington Association<sup>1</sup> and in greater detail as belonging to the Urchfont Series<sup>9</sup>

77 These descriptions were entirely borne out by the current survey

### AGRICULTURAL LAND CLASSIFICATION

78 The distribution of ALC grades found by the current survey is shown on the three accompanying 1:10 000 scale maps and areas are summarised in Table 1 The detail of information shown at this scale is appropriate to the intensity of field survey but could be misleading if enlarged or applied to small areas

#### Site 15

79 The lower land adjoining Coate Lane has been mapped as Grade 2 very good quality land The soil profiles typically consist of a dark greyish brown sandy clay loam topsoil over greenish grey sandy clay loam subsoils and medium sand at depth Common ochreous mottles are present in the upper subsoil which is gleyed so the profiles were assessed as Wetness Class II (see Appendix II) With the sandy clay loam topsoil this imposes a minor wetness limitation Soil pit 1 (38/99) is an example of these profiles Due to the sand content of the profiles and the few stones (less than 5% hard rock) in the subsoils there is also a minor drought limitation

80 The majority of this site has been mapped as Subgrade 3a good quality land The soil profiles typically consist of a dark greyish brown medium clay loam topsoil over grey sandy clay loam and sandy clay subsoils passing into a greenish grey sandy clay Common ochreous mottles were observed to start above 40cm in the upper subsoils which are gleyed Below this

the greenish grey sandy clay which has a low level of porosity was assessed as a slowly permeable layer. The profiles were assessed as Wetness Class III with a moderate wetness limitation. Soil pit 2 is typical of this mapping unit.

81 One isolated profile Asp 55 was developed over chalk rubble as expected from the SSEW soil maps. It was well drained and was assessed as Wetness Class I Grade 2 with a minor workability limitation. Due to the level of this survey it could not be mapped individually and is included in the Subgrade 3a mapping unit.

#### **Site 29**

82 This site falls into two neat units. The three fields below the crest of the hill have variable soils due to the unstable nature of the geology and as such have a variety of differently graded profiles. The two fields in the south west corner have been mapped as a Grade 4 unit having severe limitations overall due to micro relief. The soil profiles include some at Subgrade 3b with a moderate wetness limitation due to the presence of springs and clay subsoils with low porosity and others at Grade 2 with a minor wetness limitation. The third field in the south east corner is similar but the limitation due to micro relief is not as severe and the land was mapped as Subgrade 3b.

83 The fields lower down the slope and on the level ground at the bottom are more uniform in the landform. Here the land has a moderate wetness limitation. The profiles typically consist of heavy and medium clay loam topsoils some of which are organic over clay subsoils. They are gleyed from the surface and have slowly permeable layers starting below the topsoil allowing them to be assessed as Wetness Class IV.

#### **Site 44**

84 The northern half of the site has been mapped as Grade 2 very good quality land. The soil profiles typically consist of a dark greyish brown medium and sandy clay loam topsoils over greenish grey sandy clay loam and sandy clay subsoils. Common ochreous mottles are present in the lower subsoils which are gleyed. They also have low porosity and were assessed as slowly permeable layers so the profiles were assessed as Wetness Class II. With the topsoil textures this imposes a minor wetness limitation. Soil pit 6 is an example of these profiles. Due to the sand content of the profiles and the few stones (5% hard rock) in the subsoils there is also a minor drought limitation.

85 The majority of this site has been mapped as Subgrade 3a good quality land. The soil profiles typically consist of a dark greyish brown medium clay loam topsoil over grey sandy clay loam and sandy clay subsoils passing into a greenish grey sandy clay. Common ochreous mottles were observed to start above 40cm in the upper subsoils which are gleyed. Below this the greenish grey sandy clay has a low level of porosity and was assessed as a slowly permeable layer. The profiles were therefore assessed as Wetness Class III with a moderate wetness limitation. Soil pit 2 is similar to this mapping unit.

86 An isolated profile in the south west corner had a similar profile except that the topsoil was heavier heavy clay loam which at Wetness Class III is Subgrade 3b. At the current level of survey this was incorporated into the Subgrade 3a mapping unit.

## Site 45

87 The majority of this site has been mapped as Subgrade 3a good quality land. The soil profiles typically consist of a dark greyish brown medium clay loam topsoil over light olive brown and greenish grey sandy clay subsoils. Common ochreous mottles were observed to start above 40cm in the upper subsoils which are gleyed lying above the greenish grey sandy clay which has a low level of porosity. This lower subsoil was assessed as a slowly permeable layer and the profiles were assessed as Wetness Class III with a moderate wetness limitation. Soil pit 3 is typical of this mapping unit.

88 Two smaller areas of Subgrade 3b moderate quality land were mapped on the edges of the site. Here the slowly permeable layer was found to start in the upper subsoil which was heavier than the rest of the site. The profiles were therefore assessed as Wetness Class IV.

## Site 46

89 The southern part of the site adjoining Folly Road has been mapped as Grade 2 very good quality land. The soil profiles typically consist of a dark greyish brown medium and sandy clay loam topsoils over greenish grey sandy clay loam and sandy clay subsoils. Common ochreous mottles are present in the lower subsoils which are gleyed. They also have low porosity and were assessed as slowly permeable layers so the profiles were assessed as Wetness Class II. With the topsoil textures this imposes a minor wetness limitation. Soil pit 6 is an example of these profiles. Due to the sand content of the profiles and the few stones (5% hard rock) in the subsoils there is also a minor drought limitation.

90 The northern part of this site has been mapped as Subgrade 3a good quality land with a moderate workability limitation. The profiles are typically dark greyish brown silty clay topsoils over greyish brown silty clay upper subsoils and light grey weathered chalk to depth. They are well drained and were assessed as Wetness Class I. Rooting was observed in soil pit 4 to 80cm and within this depth there is sufficient moisture for droughtiness not to be the main limitation.

91 The field where the old sports ground was adjacent to Roundway Farm has been mapped as Subgrade 3b moderate quality land. Here the profiles are typically very dark grey medium clay loam topsoil over a greenish grey sandy clay subsoil and shallow over sandstone bedrock as shown by soil pit 5. Roots were observed to 55cm in the weathered portion at the top of the bedrock. This allows the profile to provide enough moisture for there to be a moderate limitation due to droughtiness.

92 Areas of land around the old sports field which did not appear to have been cultivated or grazed were not surveyed.

## Site 57

93 The lower part of the site adjoining Coate Lane has been mapped as Grade 2 very good quality land. The soil profiles typically consist of a dark greyish brown sandy clay loam topsoil over greenish grey sandy clay loam subsoils and medium sand at depth. Common ochreous mottles are present in the upper subsoil which is gleyed so the profiles were assessed as Wetness Class II. With the sandy clay loam topsoil this imposes a minor wetness

limitation Soil pit 1 (38/99) is an example of these profiles Due to the sand content of the profiles and the few stones (less than 5% hard rock) in the subsoils there is also a minor drought limitation

94 The southern part of this site has been mapped as Subgrade 3a, good quality land The soil profiles typically consist of a dark greyish brown medium clay loam topsoil over grey sandy clay loam passing into a greenish grey sandy clay Common ochreous mottles were observed to start above 40cm in the upper subsoils which are gleyed Below this the greenish grey sandy clay which has a low level of porosity was assessed as a slowly permeable layer The profiles were assessed as Wetness Class III with a moderate wetness limitation Soil pit 2 is typical of this mapping unit

#### Site 59

95 The majority of the site has been mapped as Grade 2 very good quality land The soil profiles typically consist of a dark greyish brown sandy clay loam topsoil over greenish grey sandy clay loam subsoils and medium sand at depth Common ochreous mottles are present in the upper subsoil which is gleyed so the profiles were assessed as Wetness Class II With the sandy clay loam topsoil this imposes a minor wetness limitation Soil pit 1 (38/99) is an example of these profiles Due to the sand content of the profiles and the few stones (less than 5% hard rock) in the subsoils there is also a minor drought limitation

96 A small area of land adjacent to the canal has been mapped as Subgrade 3b moderate quality land with a moderate wetness limitation The profiles here are similar to parts of Site 45 with heavy clay loam topsoils over clay and sandy clay subsoils with sandier horizons at depth The profiles are gleyed below the topsoil and have slowly permeable layers in the subsoils They were assessed as Wetness Class IV

#### Site 61

97 The whole of this site has been mapped as Grade 1 excellent quality land The profiles typically consist of fine sandy loam to depth The soils are well drained and were assessed as Wetness Class I Although there are a few stones in the topsoil (less than 5% hard rock) and the soils have a relatively high sand content there is no droughtiness limitation because the fine sand fraction is capable of holding significant amounts of moisture which are available to crops Soil pit 1 (37/99) is typical of these profiles

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July 1999

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<sup>1</sup> Ardington Association Deep well drained fine and cause loams glauconitic soils Some valley bottom soils are affected by groundwater Locally perennially wet

- <sup>2</sup> Stert Series Permeable calcareous clayey colluvial soils over chalk rubble at 30 to 80cm depth Well drained, subsoil rarely wet
- <sup>3</sup> Ardington Series Deep permeable fine loamy soils with greenish glauconitic subsoils passing to bedded loam and sand at depth Some similar fine loamy over clayey soils in places Well drained
- <sup>4</sup> Denchworth Association Slowly permeable seasonally waterlogged clayey soils with similar fine loamy over clayey soils Some fine loamy over clayey soils with only slight seasonal waterlogging and some slowly permeable calcareous soils Landslips and associated irregular terrain locally
- <sup>5</sup> Wickham 3 Association Slowly permeable seasonally waterlogged fine loamy over clayey and coarse loamy over clayey soils and similar more permeable soils with slight waterlogging Some deep coarse loamy soils affected by groundwater and landslips with irregular terrain locally
- <sup>6</sup> Coate Series Deep moderately permeable prominently mottled fine loamy soils with greenish glauconitic subsoils passing to bedded loam and sand at depth Some similar slightly mottled soils on higher ground and a few fine loamy over clayey soils in places Seasonally waterlogged soils affected by fluctuating groundwater are also found The subsoils are wet for most of the winter and spring
- <sup>7</sup> Broadmoor Series Stoneless prominently mottled calcareous clayey soils over greenish glauconitic sandy loam or sandy clay loam below 30cm depth Seasonally waterlogged soils affected by fluctuating groundwater are also found Upper subsoil are wet for most of the winter and early spring while the lower subsoils are wet for most of the year There is a risk of seasonal flooding
- <sup>8</sup> Puckshupton Series Deep moderately permeable prominently mottled coarse loamy soils with greenish glauconitic subsoils passing to bedded loam and sand at depth There are some similar sandy soils in places Seasonally waterlogged soils are affected by fluctuating groundwater and subsoils are wet for most of the winter and spring
- <sup>9</sup> Urchfont Series Deep permeable coarse loamy soils with greenish glauconitic subsoils passing to bedded sand at depth Some similar sandy soils in places They are well drained and the subsoils are rarely wet

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## **APPENDIX I**

### **DESCRIPTION OF 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 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 (e.g. cereals and forage crops) the yields of which are variable. In most 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

**Source** MAFF (1988) Agricultural Land Classification of England and Wales Revised Guidelines and Criteria for Grading the Quality of Agricultural Land MAFF Publications Alnwick

## **APPENDIX II**

### **DEFINITION OF SOIL WETNESS CLASSES**

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile

#### **Wetness Class I**

The soil profile is not wet within 70 cm depth for more than 30 days in most years

#### **Wetness Class II**

The soil profile is wet within 70 cm depth for 31-90 days in most years or if there is no slowly permeable layer within 80 cm depth it is wet within 70 cm for more than 90 days but not wet within 40 cm depth for more than 30 days in most years

#### **Wetness Class III**

The soil profile is wet within 70 cm depth for 91-180 days in most years or if there is no slowly permeable layer within 80 cm depth it is wet within 70 cm for more than 180 days but only wet within 40 cm depth for between 31 and 90 days in most years

#### **Wetness Class IV**

The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years or if there is no slowly permeable layer within 80 cm depth it is wet within 40 cm depth for 91-210 days in most years

#### **Wetness Class V**

The soil profile is wet within 40 cm depth for 211-335 days in most years

#### **Wetness Class VI**

The soil profile is wet within 40 cm depth for more than 335 days in most years

**Notes** The number of days specified is not necessarily a continuous period

In most years is defined as more than 10 out of 20 years

**Source** Hodgson J M (Ed) (1997) Soil Survey Field Handbook Soil Survey Technical Monograph No 5 Silsoe

## APPENDIX III

### ABBREVIATIONS AND TERMS USED IN SURVEY DATA

Soil pit and auger boring information collected during ALC survey is held on a computer database and is reproduced in this report. Terms used and abbreviations are set out below. These conform to definitions contained in the Soil Survey Field Handbook (Hodgson, 1997)

#### 1 Terms used on computer database in order of occurrence

**GRID REF** National 100 km grid square and 8 figure grid reference

**LAND USE** At the time of survey

<b>WHT</b>	Wheat	<b>SBT</b>	Sugar Beet	<b>HTH</b>	Heathland
<b>BAR</b>	Barley	<b>BRA</b>	Brassicas	<b>BOG</b>	Bog or Marsh
<b>OAT</b>	Oats	<b>FCD</b>	Fodder Crops	<b>DCW</b>	Deciduous Wood
<b>CER</b>	Cereals	<b>FRT</b>	Soft and Top Fruit	<b>CFW</b>	Coniferous Woodland
<b>MZE</b>	Maize	<b>HRT</b>	Horticultural Crops	<b>PLO</b>	Ploughed
<b>OSR</b>	Oilseed Rape	<b>LEY</b>	Ley Grass	<b>FLW</b>	Fallow (inc Set aside)
<b>POT</b>	Potatoes	<b>PGR</b>	Permanent Pasture	<b>SAS</b>	Set Aside (where known)
<b>LIN</b>	Linseed	<b>RGR</b>	Rough Grazing	<b>OTH</b>	Other
<b>BEN</b>	Field Beans	<b>SCR</b>	Scrub		

**GRDNT** Gradient as estimated or measured by hand held optical clinometer

**GLEYSPL** Depth in centim to gleying or slowly permeable layer

**AP (WHEAT/POTS)** Crop adjusted available water capacity

**MB (WHEAT/POTS)** Moisture Balance (Crop adjusted AP crop potential MD)

**DRT** Best grade according to soil droughtiness

If any of the following factors are considered significant Y will be entered in the relevant column

<b>MREL</b>	Microrelief limitation	<b>FLOOD</b>	Flood risk	<b>EROSN</b>	Soil erosion risk
<b>EXP</b>	Exposure limitation	<b>FROST</b>	Frost prone	<b>DIST</b>	Disturbed land
<b>CHEM</b>	Chemical limitation				

**LIMIT** The main limitation to land quality. The following abbreviations are used

<b>OC</b>	Overall Climate	<b>AE</b>	Aspect	<b>EX</b>	Exposure
<b>FR</b>	Frost Risk	<b>GR</b>	Gradient	<b>MR</b>	Microrelief
<b>FL</b>	Flood Risk	<b>TX</b>	Topsoil Texture	<b>DP</b>	Soil Depth

<b>CH</b>	Chemical	<b>WE</b>	Wetness	<b>WK</b>	Workability
<b>DR</b>	Drought	<b>ER</b>	Erosion Risk	<b>WD</b>	Soil Wetness/Droughtiness
<b>ST</b>	Topsoil Stoniness				

**TEXTURE** Soil texture classes are denoted by the following abbreviations

<b>S</b>	Sand	<b>LS</b>	Loamy Sand	<b>SL</b>	Sandy Loam
<b>SZL</b>	Sandy Silt Loam	<b>CL</b>	Clay Loam	<b>ZCL</b>	Silty Clay Loam
<b>ZL</b>	Silt Loam	<b>SCL</b>	Sandy Clay Loam	<b>C</b>	Clay
<b>SC</b>	Sandy clay	<b>ZC</b>	Silty clay	<b>OL</b>	Organic Loam
<b>P</b>	Peat	<b>SP</b>	Sandy Peat	<b>LP</b>	Loamy Peat
<b>PL</b>	Peaty Loam	<b>PS</b>	Peaty Sand	<b>MZ</b>	Marine Light Silts

For the sand loamy sand sandy loam and sandy silt loam classes the predominant size of sand fraction will be indicated by the use of the following prefixes

<b>F</b>	Fine (more than 66% of the sand less than 0.2mm)
<b>M</b>	Medium (less than 66% fine sand and less than 33% coarse sand)
<b>C</b>	Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub divided according to the clay content **M** Medium (< 27% clay) **H** heavy (27 - 35% clay)

**MOTTLE COL** Mottle colour using Munsell notation

**MOTTLE ABUN** Mottle abundance expressed as a percentage of the matrix or surface described

**F** few <2% **C** common 2 - 20% **M** many 20 - 40% **VM** very many 40%+

**MOTTLE CONT** Mottle contrast

<b>F</b>	faint indistinct mottles evident only on close inspection
<b>D</b>	distinct mottles are readily seen
<b>P</b>	Prominent mottling is conspicuous and one of the outstanding features of the horizon

**PED COL** Ped face colour using Munsell notation

**GLEYS** If the soil horizon is gleyed a **Y** will appear in this column If slightly gleyed an **S** will appear

**STONE LITH** Stone Lithology One of the following is used

<b>HR</b>	All hard rocks and stones	<b>SLST</b>	Soft oolitic or dolomitic limestone
<b>CH</b>	Chalk	<b>FSST</b>	Soft fine grained sandstone
<b>ZR</b>	Soft argillaceous or silty rocks	<b>GH</b>	Gravel with non porous (hard) stones
<b>MSST</b>	Soft medium grained sandstone	<b>GS</b>	Gravel with porous (soft) stones

**SI** Soft weathered igneous or metamorphic rock

Stone contents are given in % by volume for sizes >2cm >6cm and total stone >2mm

**STRUCT** The degree of development size and shape of soil peds are described using the following notation

<b><u>Degree of development</u></b>	<b>WA</b> Weakly developed Adherent	<b>WK</b> Weakly developed
	<b>MD</b> Moderately developed	<b>ST</b> Strongly developed
<b><u>Ped size</u></b>	<b>F</b> Fine	<b>M</b> Medium
	<b>C</b> Coarse	<b>VC</b> Very coarse
<b><u>Ped Shape</u></b>	<b>S</b> Single grain	<b>M</b> Massive
	<b>GR</b> Granular	<b>AB</b> Angular blocky
	<b>SAB</b> Sub angular blocky	<b>PR</b> Prismatic
	<b>PL</b> Platy	

**CONSIST** Soil consistence is described using the following notation

<b>L</b> Loose	<b>VF</b> Very Friable	<b>FR</b> Friable	<b>FM</b> Firm
<b>VM</b> Very firm	<b>EM</b> Extremely firm	<b>EH</b> Extremely Hard	

**SUBS STR** Subsoil structural condition recorded for the purpose of calculating profile droughtiness **G** Good **M** Moderate **P** Poor

**POR** Soil porosity If a soil horizon has poor porosity with less than 0.5% biopores >0.5mm a **Y** will appear in this column

**IMP** If the profile is impenetrable to rooting a **Y** will appear in this column at the appropriate horizon

**SPL** Slowly permeable layer If the soil horizon is slowly permeable a **Y** will appear in this column

**CALC** If the soil horizon is calcareous with naturally occurring calcium carbonate exceeding 1% a **Y** will appear in this column

## 2 Additional terms and abbreviations used mainly in soil pit descriptions

### STONE ASSESSMENT

**V** Visual **S** Sieved **D** Displacement

## MOTTLE SIZE

<b>EF</b>	Extremely fine <1mm	<b>M</b>	Medium 5-15mm
<b>VF</b>	Very fine 1-2mm	<b>C</b>	Coarse >15mm
<b>F</b>	Fine 2-5mm		

**MOTTLE COLOUR** May be described by Munsell notation or as ochreous (OM) or grey (GM)

**ROOT CHANNELS** In topsoil the presence of rusty root channels might be noted as RRC

**MANGANESE CONCRETIONS** Assessed by volume

<b>N</b>	None	<b>M</b>	Many	20-40%
<b>F</b>	Few <2%	<b>VM</b>	Very Many	>40%
<b>C</b>	Common 2-20%			

## POROSITY

<b>P</b>	Poor	less than 0.5% biopores at least 0.5mm in diameter
<b>G</b>	Good	more than 0.5% biopores at least 0.5mm in diameter

## ROOT ABUNDANCE

The number of roots per 100cm <sup>2</sup>		Very Fine and Fine	Medium and Coarse
<b>F</b>	Few	1-10	1 or 2
<b>C</b>	Common	10-25	2-5
<b>M</b>	Many	25-200	>5
<b>A</b>	Abundant	>200	

## ROOT SIZE

<b>VF</b>	Very fine	<1mm	<b>M</b>	Medium	2-5mm
<b>F</b>	Fine	1-2mm	<b>C</b>	Coarse	>5mm

## HORIZON BOUNDARY DISTINCTNESS

<b>Sharp</b>	<0.5cm	<b>Gradual</b>	6-13cm
<b>Abrupt</b>	0.5-2.5cm	<b>Diffuse</b>	>13cm
<b>Clear</b>	2.5-6cm		

**HORIZON BOUNDARY FORM** Smooth wavy irregular or broken \*

\* See Soil Survey Field Handbook (Hodgson 1997) for details

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	747 mm	PARENT MATERIAL	
Site 61 Sleight Road Devizes		Pit 1 (At Asp 6)	0	PGR	ATO	1408 day C	Cretaceous Upper Greensand	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	167	PSD SAMPLES TAKEN	
37/99		18/6/99	SU 0190 6010	HLJ	Climatic Grade	1	None	
					Exposure Grade	1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	28	FSL	10YR4/2	1 / 2cm (S) 2 / 2cm (S&D) 3 / HR T tal	None	None				G	MM&F		Clear Smooth
2	60	FSL	2 5Y 4/3	N (VIS)	None	None	WKCSAB	VF	G	G	CF		Gradual Smooth
3	120	FSL	5Y 5/3	N (VIS)	None	None	WKCSAB	VF	G	G	FF		

Profile Gleyed From	Not gleyed	Available Water	Wheat	216 mm	Final ALC Grade	1
Slowly Permeable Horizon From	No SPL		Potatoes	141 mm	Main Limiting Factor(s)	
Wetness Class	I	Moisture Deficit	Wheat	103 mm		
Wetness Grade	1		Potatoes	94 mm	Remarks	
		Moisture Balance	Wheat	113 mm		
			Potatoes	47 mm		
		Droughtiness Grade	1	(Calculated to 120 cm)	Under utilised/abandoned ?	



SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	753 mm	PARENT MATERIAL					
Site 57 Roundway Devizes		Pit 1 (Asp 14)	1 North	MZE	ATO	1396 day C	Cretaceous Upper Greensand					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	PSD SAMPLES TAKEN					
38/99		17/6/99	SU 0190 6220	HLJ	Climatic Grade	1	None					
					Exposure Grade	1						

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	30	SCL	10YR4/2	None (VIS)	FFFO (10YR6/6)	None					CM&F		Clear Smooth
2	50	SCL	2.5Y 4/2	No (VIS)	CDFO (5YR5/6)	None	MDCSAB	FR	M	G	CF		Clear Smooth
3	80	SCL	5GY5/1	No (VIS)	None	None	MDCSAB	FR	M	G	FF		Clear Wavy
4	95 +	MS	5GY4/2	Non (VIS)	None	None	MDCAB	FR	M	G	FVF		

Profile Gleyed From	30 cm	Available Water	Wheat	119 mm	Final ALC Grade	2
Slowly Permeable Horizon From	No SPL		Potatoes	111 mm	Main Limiting Factor(s)	Wetness and droughtiness
Wetness Class	II	Moisture Deficit	Wheat	100 mm		
Wetness Grade	2		Potatoes	90 mm		
		Moisture Balance	Wheat	19 mm		
			Potatoes	21 mm		
		Droughtiness Grade	2	(Calculated to 120 cm)	Remarks	

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 753 mm		PARENT MATERIAL				
Site 15 Roundway Devizes		Pit 2 (Asp 54)	3 North		BEA		ATO 1396 day C		Cretaceous Upper Greensand				
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 168		PSD SAMPLES TAKEN				
38/99		17/6/99	SU 0220 6210		HLJ		Climatic Grade 1		None				
Exposure Grade 1													

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	26	MCL	10YR3/2	None (VIS)	None	None					MF		Clear Smooth
2	38	SCL	10Y 5/1	None (VIS)	FDFO (10YR6/6)	None	MDCSAB	FR	M	G	CF		Gradual Smooth
3	54	SC	10Y 5/1	N n (VIS)	CDFO (7 YR5/6)	None	WKCSAB	FR	M	G	FF		Clear Smooth
4	80 +	SC	5G 5/1	None (VIS)	MDFO (7 5YR5/6)	None	WKCSAB	FM	P	P	FVF		

Profile Gleyed From	38 cm	Available Water	Wheat	108 mm	Final ALC Grade	3a
Slowly Permeable Horizon From	54 cm		Potatoes	110 mm	Main Limiting Factor(s)	Wetness
Wetness Class	III	Moisture Deficit	Wheat	100 mm		
Wetness Grade	3a		Potatoes	90 mm		
		Moisture Balance	Wheat	8 mm		
			Potatoes	20 mm	Remarks	
		Droughtiness Grade	2	(Calculated to 120 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	753 mm	PARENT MATERIAL	
Site 45 Roundway Devizes		Pit 3 (Asp 36)	0	WHT	ATO	1395 day C	Cretaceous Upper Greensand	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	169	PSD SAMPLES TAKEN	
38/99		17/6/99	SU 0260 6270	HLJ	Climatic Grade	1	None	
					Exposure Grade	1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	27	MCL	10YR4/4	5 / HR Total (VIS)	None	None					CF		Clear Smooth
2	54	SC	2 5Y 5/3	N (VIS)	CDFO (10YR5/6)	None	MDCSAB	FR	M	G	CF		Clear Smooth
3	90 +	SC	10GY5/1	N (VIS)	CDFO (7 5YR5/6)	None	MDCAB	FM	P	P	FVF		

Profile Gleyed From	27 cm	Available Water	Wheat	114 mm	Final ALC Grade	3a
Slowly Permeable Horizon From	54 cm		Potatoes	108 mm	Main Limiting Factor(s)	Wetness
Wetness Class	III	Moisture Deficit	Wheat	99 mm		
Wetness Grade	3a		Potatoes	89 mm		
		Moisture Balance	Wheat	15 mm	Remarks	
			Potatoes	19 mm		
		Droughtiness Grade	2	(Calculated to 120 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	757 mm	PARENT MATERIAL	
Site 46 Roundway Devizes		Pit 4 (Asp 3)	1 South East	WHT	ATO	1390 day C	Cretaceous Upper Greensand	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	169	PSD SAMPLES TAKEN	
38/99		21/6/99	SU 0190 6350	HLJ	Climatic Grade	1	None	
					Exposure Grade	1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	28	ZC	10YR4/2	N (VIS)	None	None					CF		Clear Smooth
2	63	ZC	2.5Y 5/2	5% HR T 1 (VIS)	None	None	MDCSAB	FR	M	G	CF		Gradual Smooth
3	110 +	CH	2.5Y 7/1	100% CH (VIS)	None	None	MDCSAB	FR	M	G	FVF <sup>1</sup>		

Profile Gleyed From	Not gleyed	Available Water	Wheat	122 mm	Final ALC Grade	3a
Slowly Permeable Horizon From	No SPL		Potatoes	105 mm	Main Limiting Factor(s)	Workability
Wetness Class	I	Moisture Deficit	Wheat	98 mm		
Wetness Grade	3a		Potatoes	87 mm		
		Moisture Balance	Wheat	24 mm		
			Potatoes	18 mm	Remarks	
		Droughtiness Grade	2	(Calculated to 80 cm)	<sup>1</sup> - roots seen to 80cm	
					H3 is chalk flour	

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	753 mm	PARENT MATERIAL	
Site 46 Roundway Devizes		Pit 5 (Asp 19)	1 South East	STB	ATO	1396 day C	Cretaceous Upper Greensand	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	PSD SAMPLES TAKEN	
38/99		24/6/99	SU 0180 6310	HLJ	Climatic Grade	1	None	
					Exposure Grade	1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	28	MCL	2 5Y 3/1	1 / HR Total (VIS)	None	None					CF		Clear Smooth
2	42	SC	5GY6/1	5 / HR T tal (VIS)	None	None	MDCASB	FR	M	G	CF		Abrupt Smooth
3	60 +	MSST	5G 4/5	90 / MSST T tal (VIS)	None	None	Too Stony	Too Stony	M <sup>1</sup>	G	FVF <sup>2</sup>		

Profile Gleyed From	Not gleyed	Available Water	Wheat	74 mm	Final ALC Grade	3b
Slowly Permeable Horizon From	No SPL		Potatoes	75 mm	Main Limiting Factor(s)	Droughtiness
Wetness Class	I	Moisture Deficit	Wheat	98 mm		
Wetness Grade	1		Potatoes	87 mm		
		Moisture Balance	Wheat	24 mm	Remarks	
			Potatoes	12 mm	<sup>1</sup> - assumed	
		Droughtiness Grade	3b	(Calculated to 60 cm)	<sup>2</sup> roots seen to 55cm	

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	753 mm	PARENT MATERIAL	
Site 44 Roundway Devizes		Pit 6 (Near Asp 29)	0	WHT	ATO	1396 day C	Cretaceous Upper Greensand	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	PSD SAMPLES TAKEN	
38/99		24/6/99	SU 0153 6285	HLJ	Climatic Grade	1	None	
					Exposure Grade	1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Porosity	Roots Abundance and Size	Calcareous	Horizon Boundary Distinctness and form
1	30	MCL	10YR4/2	1 / HR T 11 (VIS)	None	None					CF		Abrupt Smooth
2	65	SCL	2 5Y 4/2	5 / HR T tal (VIS)	FFFO (10YR6/6)	None	MDCSAB	FR	M	G	CF		Clear Smooth
3	90 +	SC	5GY5/1	N e (VIS)	CDFO (7 5YR5/6)	None	MDCSAB	FM	M	P	FF		

Profile Gleyed From	65 cm	Available Water	Wheat	121 mm	Final ALC Grade	2
Slowly Permeable Horizon From	65 cm		Potatoes	111 mm	Main Limiting Factor(s)	Wetness and droughtiness
Wetness Class	II	Moisture Deficit	Wheat	98 mm		
Wetness Grade	2		Potatoes	87 mm		
		Moisture Balance	Wheat	23 mm		
			Potatoes	24 mm		
		Droughtiness Grade	2	(Calculated to 120 cm)	Remarks	