Pewsey

Agricultural Land Classification

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Resource Planning Team
Bristol
FRCA Western Region

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PEWSEY

AGRICULTURAL LAND CLASSIFICATION SURVEY

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PEWSEY

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INTRODUCTION

1 This report presents the findings of detailed Agricultural Land Classification (ALC) surveys of 16 3 ha of land at three locations around Pewsey Wiltshire Field survey was based on 16 auger borings and 3 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 Information on climate geology and soils and from previous ALC surveys was considered Apart from the published regional ALC map (MAFF 1977) which shows the sites at a reconnaissance scale the sites had not been surveyed previously 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 FRCA survey sites 35/99 which in this report is described under the identification numbers that they were given by the Kennet District Planning Office

Site 30

5 The site near Kepnal was mapped at a reconnaissance scale as being Grade 1

6 At the time of survey land cover at Site 30 was improved pasture although two fields appeared to have been abandoned

Site 92

7 The site on Green Drove was mapped at a reconnaissance scale as being Grade 2

8 At the time of survey land cover at Site 30 was winter wheat

Site 93

9 The site on Salisbury Road was mapped at a reconnaissance scale as being mainly Grade 2 but with a narrow strip of Grade 3 land along it s northern edge

10 Land adjacent to Site 93 was surveyed in 1987 and was mapped as being mainly Subgrade 3b due to a combination of limitations including drought and soil depth An isolated area of land was mapped as Subgrade 3a

11 At the time of survey land cover at Site 93 was potatoes

SUMMARY

12 The distribution of ALC grades is shown on the accompanying 1 10 000 scale ALC map 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 the Table 1

Table 1 Distribution of ALC grades Pewsey

Grade	Area (ha)	% Surveyed Area (16 1 ha)
1	5 4	33
2	7 5	46
3b	3 4	21
Other land	0 2	
Total site area	16 3	100

13 Of the land surveyed at Pewsey 79% was found to be best and most versatile with 33% being Grade 1 (excellent quality) and 46% being Grade 2 (very good quality)

14 Site 30 was mapped entirely as Grade 1 land with deep well drained fine sandy loam topsoils over loamy fine sand subsoils

15 Site 92 was mapped entirely as Grade 2 with minor limitations due to winter wetness and summer drought The profiles typically consist of sandy clay loam topsoils over sandy clay and clay subsoils which were imperfectly drained and were moderately stoney in places

16 Site 93 was mapped entirely as Subgrade 3b (moderate quality) although the soils are slightly more variable here than in the other two sites Overall this field has a moderate drought limitation The soils are typically sandy clay loam topsoils over moderately stony sandy clay loam subsoils and in places weathered Greensand bedrock

CLIMATE

17 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 sites are given in Table 2 below

18 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 are no overall climatic limitations

19 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 Pewsey

Grid Reference		SU 170 606	SU 167 594	SU 155 590
		Site 30	Site 92	Site 93
Altitude (m)		120	115	109
Accumulated Temperature (day C)		1404	1411	1418
Average Annual Rainfall (mm)		772	772	775
Overall Climatic Grade		1	1	1
Field Capacity Days		173	173	173
Moisture deficit (mm)	Wheat	98	98	99
	Potatoes	87	89	89

RELIEF

Site 30

20 The site is gently sloping with the gradients having no significance to the ALC grade and altitude ranges from just below 120 metres in the centre of the site to 125 metres at the northern and southern ends of the site

Site 92

21 The site is level and altitude ranges from 114 metres to 116 metres across the site

Site 93

22 The site is level and altitude ranges from 105 metres to 109 metres across the site

GEOLOGY AND SOILS

23 The underlying geology of the sites is shown on the published geology map (IGS 1967)

24 Soils were mapped by the Soil Survey of England and Wales at a reconnaissance scale of 1 250 000 (SSEW 1983)

Site 30

25 The geology map of the site shows it to be underlain by Cretaceous Upper Greensand which is borne out by the soils which were identified during the field survey

26 The soils of Site 30 are mapped as belonging to the Ardington Association which are described as being deep well drained fine and coarse loamy glauconitic soils Some soils in valley bottoms may be affected by groundwater and they can also be locally perennially wet

27 The soils found during the current survey were similar to those of the Ardington Association including an area with slightly impaired drainage in a small valley which runs through the site

Site 92

28 The geology map of the site shows it to be mainly underlain by Cretaceous Upper Greensand with a small area of river and valley gravels in the north west corner The soils which were identified during the field survey were consistent with the Greensand geology but no evidence was found of the gravels

29 The soils of Site 92 is mapped as mainly belonging to the Block Association which are described as being moderately permeable calcareous loamy soils over chalky gravel variably affected by groundwater There is also a small area of soils from the Thames Association (see Paragraph 32) which coincides with the area of gravel geology

30 The soils found during the current survey were similar to those of the Block Association in that they are stony with a moderate permeability and are calcareous but there was little evidence of the land being affected by groundwater

Site 93

31 The geology map of the site shows it to be underlain by river and valley gravels which is borne out by the soils which were identified during the field survey

32 The soils of Site 93 are mapped as belonging to the Thames Association which is described as being stoneless mainly calcareous clayey soils affected by groundwater usually on flat land where there is a risk of flooding A small area of soils from the Block Association (see Paragraph 29) is mapped in the southern part of the site

33 The soils found during the current survey were similar to those of the Block Association and little evidence was found of soils from the Thames Association The soils were stony sometimes with weathered Greensand within the profile and had variable permeability

AGRICULTURAL LAND CLASSIFICATION

34 The distribution of ALC grades found by the current survey is shown on the accompanying 1 10 000 scale map 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 30

35 The site in between Hollybush Lane and Dursden Lane has been entirely mapped as Grade 1 with no or only very minor limitations to its agricultural use The profiles typically consist of a deep medium sandy loam topsoil over well drained loamy fine sands Soil profile pit 3 is representative of this mapping unit All the horizons are stoneless or contain a negligible amount of stone The subsoils are derived from the local Greensand geology and are predominantly dark greyish brown in the upper subsoil and olive grey in the lower subsoil The lower subsoils also have a speckled appearance that is due to their chemical makeup rather than an adverse water regime Although few feint fine ochreous mottles were found in the lower subsoils of a couple of borings the profiles were still assessed as Wetness Class I (see Appendix II)

Site 92

36 The site off Green Drove has been entirely mapped as Grade 2 with minor limitations to its agricultural use The profiles typically consist of sandy clay loam or occasionally medium sandy loam topsoils over sandy clay and clay subsoils Common distinct grey mottles were found in the lower subsoils that are therefore gleyed These horizons were also assessed as being slowly permeable layers As the gleying starts below 40 cm the profiles were assessed as Wetness Class II with a minor wetness limitation during the winter months Chalk and flint rubble are also found in the lower subsoils which together with the occasional lighter textured topsoil can lead to a minor summer drought limitation in some areas

Site 93

37 The site off Salisbury Road has been entirely mapped as Subgrade 3b with moderate limitations to its agricultural use The profiles although variable typically consist of sandy clay loam topsoils and upper subsoils over medium sandy loam lower subsoils The majority of the site had weathered Greensand and flint rubble lower down the profile that lead to the auger borings being impenetrable at 50 and 55 cm This increased stone content within the profile leads to a moderate drought limitation at Subgrade 3b with restricted available water during the summer months This is similar to the soils that were found during an adjacent survey in 1987

38 One profile had a stoneless clay lower subsoil that is more common of the Block soil series The clay contained ochreous and grey mottles and was probably a slowly permeable layer so the profile was assessed as Wetness Class II Grade 2 with a minor wetness limitation Due to the isolated nature of this grade it was not possible to map it at this level of survey

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June 1999

REFERENCES

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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

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

GRDNT Gradient as estimated or measured by hand held optical clinometer

GLEY SPL Depth in centimetres 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

MREL	Microrelief limitation	**FLOOD**	Flood risk	**EROSN**	Soil erosion risk
EXP	Exposure limitation	**FROST**	Frost prone	**DIST**	Disturbed land
CHEM	Chemical limitation				

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

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

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

TEXTURE Soil texture classes are denoted by the following abbreviations

S	Sand	**LS**	Loamy Sand	**SL**	Sandy Loam
SZL	Sandy Silt Loam	**CL**	Clay Loam	**ZCL**	Silty Clay Loam
ZL	Silt Loam	**SCL**	Sandy Clay Loam	**C**	Clay
SC	Sandy clay	**ZC**	Silty clay	**OL**	Organic Loam
P	Peat	**SP**	Sandy Peat	**LP**	Loamy Peat
PL	Peaty Loam	**PS**	Peaty Sand	**MZ**	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

F Fine (more than 66% of the sand less than 0 2mm)
M Medium (less than 66% fine sand and less than 33% coarse sand)
C 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

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

PED COL Ped face colour using Munsell notation

GLEY 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

HR	All hard rocks and stones	**SLST**	Soft oolitic or dolimitic limestone
CH	Chalk	**FSST**	Soft fine grained sandstone
ZR	Soft argillaceous or silty rocks	**GH**	Gravel with non porous (hard) stones
MSST	Soft medium grained sandstone	**GS**	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

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

CONSIST Soil consistence is described using the following notation

L	Loose	**VF**	Very Friable	**FR**	Friable	**FM**	Firm
VM	Very firm	**EM**	Extremely firm	**EH**	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 this column

2 Additional terms and abbreviations used mainly in soil pit descriptions

STONE ASSESSMENT

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

MOTTLE SIZE

EF	Extremely fine <1mm	**M**	Medium 5 15mm
VF	Very fine 1 2mm>	**C**	Coarse >15mm
F	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

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

POROSITY

P	Poor	less than 0 5% biopores at least 0 5mm in diameter
G	Good	more than 0 5% biopores at least 0 5mm in diameter

ROOT ABUNDANCE

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

ROOT SIZE

VF	Very fine	<1mm	**M**	Medium	2 5mm
F	Fine	1 2mm	**C**	Coarse	>5mm

HORIZON BOUNDARY DISTINCTNESS

Sharp	<0 5cm	**Gradual**	6 13cm
Abrupt	0 5 2 5cm	**Diffuse**	>13cm
Clear	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			PARENT MATERIAL
Site 93 Pewsey	Pit 1 (Near Asp 14)	0	POT	Av Rainfall	775 mm	River and valley gravel
				ATO	1418 day C	
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days	173	PSD SAMPLES TAKEN
35/99	8/6/99	SU 1690 6053	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	25	SCL	10YR3/2	1 / >2cm (S) 4 / <2cm (S&D) 5 / HR T t l	None	None				G	CM&F		Clear Smooth
2	45	SCL	10YR4/4	1 / >2cm (S) 9 / <2cm (S&D) 10 / HR T tal	FDFO (7 5YR5/6)	None	WKCSAB	FR	M	G	CF		Clear Smooth
3	60	MSL	2 5Y 5/3	10 / >2cm (S) 35 / <2cm (S&D) 45 % MSST T tal	None	None	WKCSAB	FR	M	G	FF		Abrupt Smooth
4	70 +	MSL	5Y 5/3	90 / MSST (VIS)	None	None	Too Stony	Too Stony	M [1]	G	FVF [2]		

Profile Gleyed From Not gleyed

Slowly Permeable Horizon From No SPL

Wetness Class I

Wetness Grade 1

Available Water	Wheat	71 mm
	Potatoes	72 mm
Moisture Deficit	Wheat	99 mm
	Potatoes	89 mm
Moisture Balance	Wheat	28 mm
	Potatoes	17 mm
Droughtiness Grade	3b	(Calculated to 70 cm)

Final ALC Grade 3b

Main Limiting Factor(s) Droughtiness

Remarks

[1] assumed
[2] roots seen to 68cm

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE			PARENT MATERIAL
Site 92 Pewsey	Pit 2 (Asp 8)	0	WHT	Av Rainfall	772 mm	Cretaceous Upper Greensand
				ATO	1411 day C	
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days	173	PSD SAMPLES TAKEN
35/99	15/6/99	SU 1655 5943	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	SCL	10YR3/3	1 / >2cm (S) 4 / <2cm (S&D) 5 / HR T t l	None	None				G	MF		Clear Smooth
2	52	SCL	2 5Y 3/3	1 / >2cm (S) 4 2cm (S&D) 5 / HR T tal	FDFO (7 5YR5/6)	None	MDCSAB	FR	M	G	CF		Abrupt Smooth
3	70	C	5Y 4/2	1 / HR T tal (S&D)	CDFG (5G 5/2)	None	MDCSAB	FM	M	G	FF		Abrupt Smooth
4	90 +	C	5Y 4/2	5 / >2cm (S) 17 / <2cm (S&D) 22 / HR T t l 15 / CH T tal (VIS)	None	None	MDCSAB	FM	M	P	FVF		

Profile Gleyed From 52 cm

Slowly Permeable Horizon From 70 cm

Wetness Class II

Wetness Grade 2

Available Water	Wheat	105 mm
	Potatoes	108 mm
Moisture Deficit	Wheat	98 mm
	Potatoes	89 mm
Moisture Balance	Wheat	7 mm
	Potatoes	19 mm
Droughtiness Grade	2	(Calculated to 120 cm)

Final ALC Grade 2

Main Limiting Factor(s) Wetness and droughtiness

Remarks Probed to 120cm

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE			PARENT MATERIAL
Site 30 Pewsey	Pit 3 (Near Asp 4)	4 South East	PGR	Av Rainfall	772 mm	Cretaceous Upper Greensand
				ATO	1404 day C	
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days	173	PSD SAMPLES TAKEN
35/99	18/6/99	SU 1540 5910	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	MSL	10YR4/3	1/ 2cm (S) 4/ 2cm (S&D) 5/ HR T tal	None	None				G	MM&F		Abrupt Smooth
2	68	LFS	2 5Y 4/3	N (VIS)	None	None	MDCAB	VF	G	G	CF		Clear Smooth
3	120	LFS	5Y 4/2 5G 5/2	N ne (VIS)	None	None	MDCAB	VF	G	G	CF		

Profile Gleyed From Not gleyed

Slowly Permeable Horizon From No SPL

Wetness Class I

Wetness Grade 1

Available Water	Wheat	171 mm
	Potatoes	110 mm
Moisture Deficit	Wheat	98 mm
	Potatoes	87 mm
Moisture Balance	Wheat	73 mm
	Potatoes	23 mm
Droughtiness Grade	1	(Calculated to 120 cm)

Final ALC Grade 1

Main Limiting Factor(s)

Remarks H3 Black specs which are not manganese but which are a known characteristic of this soil type