AGRICULTURAL LAND CLASSIFICATION REPORT

SWALE BOROUGH LOCAL PLAN

IWADE, SITE EE

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Summary

1 1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality at Iwade (Site EE) This work was in connection with Swale Borough Local Plan

1 2 Approximately 74 5 hectares of land relating to this site was surveyed in June 1994 The survey was undertaken at a detailed level of approximately one boring per hectare A total of 76 borings and 4 soil inspection pits were assessed in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988) These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long term limitations on its use for agriculture

1 3 The work was carried out by members of the Resource Planning Team in the Huntingdon Statutory Group of ADAS

1 4 At the time of survey the agricultural land use was orchards cereals peas and grassland The area of Urban includes dwellings and fruit packing sheds

1 5 Previous ALC field survey work has been carried out nearby at sites 4, 11 and A1, Swale Borough Local Plan (Ref Nos 2011/93/93 2011/95/93 and 2011/127/92)

1 6 The distribution of the grades and subgrades is shown on the attached ALC map and the areas are given in the table below The map has been drawn at a scale of 1 10 000 It is accurate at this scale but any enlargement would be misleading This map supersedes any previous survey information for this site

Table 1 Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% of Agricultural Area
3a	27 3	36 7	37 7
3b	45 1	60 5	62 3
Urban	2 1	2 8	
Total	**74 5 ha**	**100%**	**100% (72 4 ha)**

1 7 A general description of the grades, subgrades and land use categories is provided in Appendix 1 The main classes are described in terms of the type of limitation that can occur the typical cropping range and the expected level and consistency of yield

1 8 The land quality on the site has been classified as subgrades 3a and 3b (good and moderate agricultural quality land) as a result of moderate and significant wetness/workability limitations respectively Moderate droughtiness is an equal limitation on the subgrade 3a land

2 0 **Climate**

2 1 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

2 2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall as a measure of overall wetness and accumulated temperature as a measure of the relative warmth of a locality The combination of rainfall and temperature at this site means an overall climatic grade of 1

Table 2 Climatic Interpolation

Grid Reference	TQ 904 676
Altitude (m, AOD)	10
Accumulated Temperature (° days Jan June)	1487
Average Annual Rainfall (mm)	573
Field Capacity Days	111
Moisture Deficit wheat (mm)	126
Moisture Deficit potatoes (mm)	125
Overall Climatic Grade	1

3 0 **Relief**

3 1 The site is in two parts

3 2 The main part comprises land to the east and south of the village of Iwade The land at an altitude of 8 m AOD (north east of the village) rises in a southerly direction to approximately 12 m AOD before gradually sloping away south east of the village to an altitude of 10 m AOD South of the village the land rises in a westerly direction to an altitude of 15 m AOD This area is intersected by the B2005 and A249(T) roads

3 3 The smaller part of the site lying west of the village comprises land at approximately 15 m AOD falling in a north easterly direction to an approximate altitude of 12 m AOD Neither gradient nor relief impose a limitation on the ALC grade

4 0 **Geology and Soils**

4 1 The published geology map for the site area, (BGS Sheet 272 Chatham, 1977) shows the site to be underlain by London Clay to the west, Head Brickearth to the east and a small area of alluvium to the north

4 2 The published soils information for the area (SSEW 1983 Sheet 6 1 250 000) shows the site to comprise the Windsor Association (*1) to the west Wallasea 1 Association (*2) to the northeast and Park Gate Association (*3) to the southeast

5 0 **Agricultural land Classification**

5 1 The ALC classification of the site is shown on the attached ALC map

5 2 The location of the soil observation points is shown on the attached sample point map

Subgrade 3a

5 3 Subgrade 3a land has been mapped to the east and south of the village Soils typically comprise non calcareous very slightly stony medium clay loam or heavy clay loam topsoils (a silt fraction is occasionally evident) over heavy clay loam upper subsoils (which may be slowly permeable) Lower subsoils comprise stoneless, slowly permeable clays typically below 50/70 cms Wetness class has been assessed as II or III depending on the depth to the horizons with imperfect drainage The combination of well bodied topsoil textures and imperfect drainage limits the land to subgrade 3a as a result of moderate wetness/workability limitations Many profiles are equally limited by droughtiness imperfections occasionally droughtiness alone constitutes the main limitation

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(*1) Windsor Association slowly permeable seasonally waterlogged clayey soils mostly with brown subsoils

(*2) Wallasea 1 Association deep stoneless non-calcareous and calcareous clayey soils

(*3) Park Gate Association deep stoneless silty soils variably affected by ground water

Subgrade 3b

5 4 Subgrade 3b land has been mapped over the remainder of the agricultural land where significant wetness/workability constraints affect the flexibility of the land Soils typically comprise non calcareous very slightly stony heavy clay loam (occasionally clay) topsoils over stoneless variably calcareous slowly permeable clays from typically 25/35 cms Wetness class has been assessed as III due to the presence of impeded drainage layers directly below the topsoil Wetness class together with the relatively heavy textured topsoils combine to exclude the land from a higher grade

ADAS Reference 2011/134/94
MAFF Reference EL20/245

Resource Planning Team
Huntingdon Statutory Group
ADAS Cambridge

REFERENCES

GEOLOGICAL SURVEY OF ENGLAND AND WALES 1977 Sheet 272 Chatham, scale 1 63 360

MAFF 1971 Agricultural Land Classification Map No 172 Scale 1 63 360

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

METEOROLOGICAL OFFICE 1989 Published climatic data extracted from the agroclimatic dataset compiled by the Meteorological Office

SOIL SURVEY OF ENGLAND AND WALES 1983 Soils of South East England, Sheet 6 1 250 000 scale

Appendix 1

DESCRIPTION OF THE GRADES AND SUBGRADES

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level of consistency of yield In practice the grades are defined by reference to physical characteristics and the grading guidance and cut-offs for limitation factors in Section 3 enable land to be ranked in accordance with these general descriptions The most productive and flexible land falls in Grades 1 and 2 and Subgrade 3a and collectively comprises about one-third of the agricultural land in England and Wales About half the land is of moderate quality in Subgrade 3b or poor quality in Grade 4 Although less significant on a national scale such land can be locally valuable to agriculture and the rural economy where farmland predominates The remainder is very poor quality land in Grade 5 which most occurs in the uplands

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 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 levels of yields It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yield 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

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

Woodland

Includes commercial and non-commercial woodland A distinction may be made as necessary between farm and non farm woodland

Agricultural buildings

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

Open water

Includes lakes ponds and rivers as map scale permits

Land not surveyed

Where the land use includes more than one of the above land cover types e g 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

Appendix 2

FIELD ASSESSMENT OF SOIL WETNESS CLASS

Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging[1]
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years[2]
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
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
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
V	The soil profile is wet within 40 cm depth for 211-335 days in most years
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years

[1] The number of days specified is not necessarily a continuous period

[2] 'In most years' is defined as more than 10 out of 20 years

Appendix 3

SOIL BORING AND SOIL PIT DESCRIPTIONS

Contents

* Soil boring descriptions
* Soil pit descriptions
* Soil Abbreviations Explanatory Note

SAMPLE NO	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS- CLASS	GRADE	-WHEAT AP	MB	-POTS- AP	MB	M REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
1	TQ90306830	FRT	W	01	055	055	2	3A	135	9	113	-12	3A				WE	3A	DR TOO
2	TQ90406830	PGR	NW	03	030	030	3	3B	128	2	105	-20	3A				WE	3B	
3	TQ90206820	PGR	NE	01	035	035		3B	129	3	106	-19	3A				WE	3B	
4	TQ90306820	FRT	NE	01	025	040	3	3B	124	-2	101	-24	3A				WE	3B	
5	TQ90406820	FRT	NE	01	030	045	3	3B	128	2	105	-20	3A				WE	3B	
6	TQ90506820	FRT	NE	01	025	025	3	3B	124	-2	101	-24	3A				WE	3B	
7	TQ90206810	PGR	E		035	035	3	3B	131	5	108	-17	3A				WE	3B	
8	TQ90306810	FRT	E	01	030	030	3	3B	131	5	108	-17	3A				WE	3B	3A POSS
9	TQ90406810	FRT	E	01	030	030	3	3B	128	2	105	-20	3A				WE	3B	3A POSS
10	TQ90506810	FRT	N		035	035	3	3B	133	7	109	-16	3A				WE	3B	
11	TQ90606810	FRT	N		065	065	2	2	137	11	115	-10	2				WE	2	DR TOO
12	TQ89306800	PGR	E		030	030	3	3B	125	-1	103	-22	3A				WE	3B	
13	TQ89406800	PGR	E		000	025	3	3B	127	1	104	-21	3A				WE	3B	DISTURBD
14	TQ89506800	PGR	NW	02	025	025		3B	126	0	103	-22	3A				WE	3B	
15	TQ89606800	PGR	NW	02	025	035	3	3B	128	2	106	-19	3A				WE	3B	
16	TQ90206800	PGR	SE	02	035	040	3	3B	129	3	107	-18	3A				WE	3B	
17	TQ90306800	FRT	SE	04	045	045	2	3A	131	5	108	-17	3A				WE	3A	DR
17P	TQ90306800	FRT	SE	01	050	050	2	3A	130	4	107	-18	3A				WE	3A	DR TOO
18	TQ90406800	FRT	NW	03	035	035	3	3A	127	1	105	20	3A				WE	3A	DR TOO
19	TQ90506800	FRT	NW	01	045	045	2	3A	131	5	108	-17	3A				WE	3A	DR TOO
19P	TQ90506800	FRT	NW	01	035	035	3	3A	128	2	106	-19	3A				WE	3A	DR TOO
20	TQ90606800	FRT	NW	02	030	045	3	3A	132	6	109	-16	3A				WE	3A	DR TOO
21	TQ90706800	FRT	NW		035	075	2	3A	124	-2	102	-23	3A				WE	3A	DR TOO
22	TQ89206790	PGR	N	01	025	025	3	3B	126	0	103	-22	3A				WE	3B	
23	TQ89306790	PGR	N	01	020	020	3	3B	123	-3	100	-25	3A				WE	3B	
24	TQ89406790	PGR	NW	02	025	025	3	3B	125	-1	102	-23	3A				WE	3B	
25	TQ89506790	PGR	NW	03	025	025	3	3B	127	1	104	-21	3A				WE	3B	
26	TQ89606790	PGR	NW	02	020	020	3	3B	124	-2	101	-24	3A				WE	3B	
27	TQ89706790	PGR	NW		000	025	3	3B	122	-4	99	-26	3A				WE	3B	
28	TQ90206790	LEY	SE	03	045	045	2	2	135	9	112	-13	3A				DR	3A	
29	TQ90306790	FRT	N	05	000		1	1	165	39	137	12	1					1	
30	TQ90406790	FRT	N	04	035	065	2	3A	134	8	111	-14	3A				WE	3A	
31	TQ90506790	FRT	N	01	030	030	3	3A	128	2	105	-20	3A				WE	3A	
32	TQ90606790	FRT	N	01	035	035	3	3B	134	8	111	-14	3A				WE	3B	
33	TQ90706790	FRT	N		030	030	3	3B	129	3	107	18	3A				WE	3B	
34	TQ89206780	PGR	E	01	035	035	3	3B	134	8	111	-14	3A				WE	3B	
35	TQ89306780	PGR	NW	02	025	025	3	3B	127	1	104	-21	3A				WE	3B	
36	TQ89406780	PGR	E	01	025	025	3	3B	126	0	103	-22	3A				WE	3B	
37	TQ90106780	FRT	NW	02	050	050	2	2	136	10	111	-14	3A				DR	3A	
38	TQ90206780	FRT	W	01	060	060	2	2	138	12	116	-9	2				WE	2	DR TOO
39	TQ90306780	FRT	N	02	030	030	3	3A	131	5	108	-17	3A				WT	3A	3B TTEXT
40	TQ90406780	LEY	NE	01	040	040	3	3A	129	3	107	18	3A				WE	3A	

SAMPLE NO	GRID REF	ASPECT USE		GRDNT	GLEY	SPL	-WETNESS- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M DRT	REL FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
41	TQ90506780	LEY	NE	01	025	025	3	3B	124	2	101	-24	3A				WT	3B	
42	TQ90606780	LEY	NE	01	025	025	3	3B	127	1	105	-20	3A				WT	3B	
43	TQ92906800	FRT	NE	01	025	040	3	3B	123	-3	100	-25	3A				WT	3B	
44	TQ89406770	PGR	E	01	025	025	3	3B	126	0	103	-22	3A				WE	3B	
45	TQ90206770	FRT	W	02	035	050	3	3A	132	6	110	-15	3A				WE	3A	DR
46	TQ90306770	FRT	W		030	030	3	3A	128	2	105	-20	3A				WE	3A	DR TOO
47	TQ90406770	LEY	E	01	030	030	3	3B	131	5	108	-17	3A				WE	3B	
48	TQ90506770	LEY	E		030	030	3	3A	131	5	108	-17	3A				WE	3A	DR TOO
49	TQ90606770	LEY	S	02	035	035	3	3A	131	5	109	-16	3A				WE	3A	DR TOO
50	TQ90306760	WHT	W	01	030	030	3	3B	127	1	105	-20	3A				WE	3B	
51	TQ90406760	WHT	N	01	025	025	3	3B	123	-3	100	-25	3A				WE	3B	
52	TQ90506760	WHT	SE	02	025	025	3	3B	122	-4	99	-26	3A				WE	3B	
53	TQ90606760	WHT	SE	01	025	025	3	3B	123	-3	100	-25	3A				WE	3B	
54	TQ90306750	WHT	S		025	025	3	3B	124	-2	102	-23	3A				WE	3B	
55	TQ90406750	WHT	S	01	035	035	3	3B	131	5	109	-16	3A				WE	3B	
56	TQ90506750	WHT	S	01	030	040	3	3B	133	7	111	-14	3A				WE	3B	
57	TQ90606750	WHT	S	02	025	025	3	3B	124	-2	101	-24	3A				WE	3B	
58	TQ90206740	FRT	S	01	030	030	3	3B	127	1	104	-21	3A				WE	3B	
59	TQ90306740	WHT	SE	01	025	025	3	3B	109	-17	93	-32	3B				WE	3B	DR TOO
60	TQ90406740	WHT	HR	01	035	035	3	3B	128	2	105	-20	3A				WE	3B	
61	TQ90506740	WHT	SE	02	030	030	3	3B	123	-3	101	-24	3A				WE	3B	
62	TQ90606740	WHT	SE	02	030	030	3	3B	122	-4	100	-25	3A				WE	3B	
63	TQ89806730	PEA	E	01	035	035	3	3A	134	8	111	-14	3A				WE	3A	DR TOO
64	TQ89906730	FRT	E		050	050	2	3A	133	7	110	-15	3A				WE	3A	DR TOO
65	TQ90006730	PEA	E		035	035	3	3A	129	3	105	-20	3A				WE	3A	DR TOO
66	TQ90106730	FRT	E	01	035	035	3	3A	128	2	105	-20	3A				WE	3A	DR TOO
66P	TQ90106730	PGR	E	01	035	035	3	3A	125	-1	102	-23	3A				WE	3A	DR TOO
67	TQ90206730	FRT	E	01	035	035	3	3A	127	1	104	-21	3A				WE	3A	DR TOO
68	TQ90306730	WHT	S	01	030	030	3	3B	122	-4	100	-25	3A				WE	3B	
69	TQ90406730	WHT	N	01	025	025	3	3B	126	0	103	-22	3A				WE	3B	
70	TQ89806720	PEA	E	01	050	035	2	2	135	9	112	-13	3A				DR	3A	
71	TQ89906720	FRT	W	01	050	050	2	2	135	9	112	-13	3A				DR	3A	
72	TQ90006720	PEA	S	01	040	050	2	2	135	9	112	-13	3A				DR	3A	
73	TQ90106720	FRT	NE		000	050	2	2	132	6	109	-16	3A				DR	3A	
74	TQ90206720	FRT	NE	01	030	040	3	3B	127	1	104	-21	3A				WE	3B	
75	TQ89906710	FRT	W	01	045	050	2	2	135	9	112	-13	3A				DR	3A	
75P	TQ89906710	FRT	W	01	045	045	2	2	132	6	109	-16	3A				DR	3A	
76	TQ90006710	PEA	S	02	040	060	2	2	138	12	115	-10	2				WE	2	DR TOO

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
1	0 35	hcl	10YR43 00						2	0	HR	2						
	35-55	c	10YR54 00						0	0	HR	1		M				
	55-120	c	10YR53 00	10YR58 61	C			Y	0	0		0		P	Y		Y	
2	0-30	hcl	10YR43 00						1	0	HR	1						
	30-120	c	10YR56 51	10YR56 61	C			Y	0	0		0		P	Y		Y	
3	0-25	hcl	10YR42 00						1	0	HR	1						
	25-35	hcl	10YR43 00						0	0	HR	1		M				
	35-120	c	10YR54 53	10YR58 00	C		10YR53 00	Y	0	0		0		P	Y		Y	
4	0-25	hcl	10YR42 00						1	0	HR	1						
	25 40	hcl	10YR43 53	10YR58 00	C			Y	0	0	HR	1		P				
	40 95	c	10YR54 53	10YR58 00	M		10YR53 00	Y	0	0	HR	1		P	Y		Y	
	95-120	c	10YR54 53	10YR58 00	C		10YR53 00	Y	0	0	CH	1		P	Y		Y	Y
5	0-30	hcl	10YR42 00						1	0	HR	1						
	30-45	c	10YR43 53	10YR56 00	C			Y	0	0	HR	1		P	Y			
	45-120	c	10YR52 53	10YR58 00	C			Y	0	0	HR	1		P	Y		Y	
6	0-25	hcl	10YR43 00						1	0	HR	1						
	25-40	hcl	10YR53 62	10YR56 00	C			Y	0	0	HR	1		P	Y		Y	
	40-120	c	10YR52 53	10YR58 52	C		10YR52 00	Y	0	0	HR	1		P	Y		Y	
7	0 35	hcl	10YR43 00						1	0	HR	1						
	35-120	c	10YR53 00	10YR56 61	C			Y	0	0		0		P	Y		Y	
8	0-30	hzcl	10YR43 00						1	0	HR	1						
	30-120	c	10YR53 00	10YR56 00	C			Y	0	0		0		P	Y		Y	
9	0-30	hcl	10YR43 00						1	0	HR	1						
	30-120	c	10YR53 00	10YR56 00	C			Y	0	0		0		P	Y		Y	
10	0-35	hzcl	10YR43 00						1	0	HR	1						
	35-45	mzcl	10YR51 00	10YR58 00	C			Y	0	0		0		P	Y		Y	
	45-60	zc	10YR51 00	10YR58 00	C			Y	0	0		0		P	Y		Y	
	60-120	c	10YR51 00		M			Y	0	0		0		P	Y		Y	
11	0-30	mcl	10YR43 00						1	0	HR	1						
	30-65	hcl	10YR54 00						0	0	HR	2		M				
	65 120	c	10YR54 53	10YR56 00	C			Y	0	0	HR	2		P	Y		Y	
12	0-30	c	10YR43 00						0	0		0						
	30-60	c	10YR53 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
	60-120	c	10YR61 00	10YR58 00	C			Y	0	0	HR	3		P	Y		Y	
13	0-25	hcl	10YR43 00						0	0		0						
	25-120	c	10YR53 00						0	0		0		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
14	0-25	hcl	10YR43 00						1	0	HR	1						
	25-120	c	10YR54 53	10YR56 00	C			Y	0	0		0		P	Y		Y	
15	0-25	hcl	10YR43 00						1	0	HR	1						
	25-35	hcl	10YR53 54	10YR58 00	C			Y	0	0		0		M				
	35-120	c	10YR53 54	10YR58 00	C			Y	0	0	HR	1		P	Y		Y	
16	0-25	hcl	10YR43 00						1	0	HR	1						
	25-35	hcl	10YR43 44						0	0	HR	1		M				
	35-40	c	10YR43 44	10YR52 56	F		10YR52 00	Y	0	0	HR	1		M				
	40-120	c	10YR53 52	10YR56 52	C			Y	0	0	HR	2		P	Y		Y	
17	0-30	hcl	10YR43 00						2	0	HR	3						
	30-45	hcl	10YR54 43						0	0	HR	2		M				
	45-120	c	10YR54 53	10YR56 52	C			Y	0	0	HR	1		P	Y		Y	
17P	0-20	hcl	10YR32 00						0	0	HR	1						
	20-50	c	10YR54 43	10YR56 00	C				0	0	HR	5	MDCSAB FM	M	Y			
	50-120	c	10YR53 00	10YR58 51	C			Y	0	0	HR	1	STCPR VM	P	Y		Y	
18	0-20	mcl	10YR43 42						1	0	HR	1						
	20-35	c	10YR54 00						0	0	HR	1		M				
	35-120	c	10YR54 53	10YR62 56	C			Y	0	0	HR	1		P	Y		Y	
19	0-25	mcl	10YR43 42						1	0	HR	1						
	25-35	hcl	10YR54 00						0	0	HR	1		M				
	35-45	hcl	10YR54 00	10YR52 58	F				0	0	HR	1		M				
	45-120	c	10YR54 00	10YR62 00	C		10YR53 00	Y	0	0	HR	2		P			Y	
19P	0-25	mcl	10YR42 43						1	0	HR	1						
	25-35	hcl	10YR54 00	10YR58 00	F				0	0	HR	1	MDCSAB FR	M	Y			
	35-120	c	10YR54 53	10YR58 00	C		10YR53 00	Y	0	0	HR	1	MDCPR Y	P	Y		Y	
20	0-30	mcl	10YR43 42						1	0	HR	1						
	30-45	hcl	10YR54 00	10YR58 52	C			Y	0	0	HR	1		M				
	45-120	c	10YR54 53	10YR58 52	C		10YR52 00	Y	0	0	HR	1		P	Y		Y	
21	0-25	hcl	10YR42 43						1	0	HR	1						
	25-35	hcl	10YR64 54						0	0	HR	1		M				
	35-75	hcl	10YR54 64	10YR58 62	C			Y	0	0	HR	1		P				
	75-120	zc	10YR54 56	10YR58 62	C		10YR62 00	Y	0	0	HR	10		P	Y		Y	
22	0-25	hcl	10YR43 00						0	0		0						
	25-120	c	10YR52 53	10YR58 00	C			Y	0	0	HR	1		P	Y		Y	
23	0-20	hcl	10YR42 00						0	0		0						
	20-120	c	10YR43 63	10YR56 52	C		10YR62 00	Y	0	0	HR	1		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
24	0-25	hcl	10YR43 00						0	0		0						
	25-120	c	10YR53 00	10YR58	52	C	10YR52 00	Y	0	0	HR	2		P	Y		Y	
25	0-25	hcl	10YR42 00						0	0		0						
	25 120	c	10YR52 53	10YR58	00	M	10YR52 00	Y	0	0		0		P	Y		Y	
26	0-20	hcl	10YR43 00						0	0		0						
	20-120	*c*	*10YR52 63*	*10YR66*	*00*	*M*	*10YR52 00*	Y	*0*	*0*		*0*		*P*	Y		Y	
27	0-25	c	10YR41 42	10YR58	00	C		Y	2	0	HR	2						
	25-120	c	10YR53 54	10YR56	00	C		Y	0	0	HR	2		P	Y		Y	
28	0-30	mzcl	10YR32 00						2	0	HR	2						Y
	30-45	hcl	10YR43 00						0	0	HR	1		M				
	45-75	c	10YR53 00	10YR66	00	C		Y	0	0		0		P	Y		Y	
	75-120	c	10YR41 00	10YR58	00	C		Y	0	0		0		P	Y		Y	
29	0-35	zl	10YR54 00						1	0	HR	1						
	35-55	mzcl	10YR54 00						0	0	HR	1		M				
	55-70	hcl	10YR54 00						0	0		0		M				
	70-120	c	10YR53 00	10YR66	00	F			0	0		0		M				
30	0-35	hzcl	10YR43 00						1	0	HR	1						
	35-65	c	10YR53 54	10YR66	00	F		Y	0	0		0		P				
	65-120	c	10YR53 54	10YR66	00	F		Y	0	0	CH	1		P	Y		Y	Y
31	0-30	mcl	10YR42 00						1	0	HR	1						
	30-120	c	10YR53 54	10YR58	61	C		Y	0	0		0		P	Y		Y	
32	0-35	hzcl	10YR43 00						1	0	HR	1						Y
	35-85	c	10YR53 54	10YR56	00	C		Y	0	0		0		P	Y		Y	
	85-120	c	10YR54 00	10YR56	00	F		Y	0	0		0		P			Y	Y
33	0-30	mzcl	10YR43 00						1	0	HR	1						
	30-120	c	10YR58 00	10YR58	00	C		Y	0	0	HR	3		P	Y		Y	
34	0 35	hzcl	10YR43 00						0	0	HR	0						
	35-50	zc	10YR53 00	10YR56	51	C		Y	0	0		0		P	Y		Y	
	50-120	c	10YR53 00	10YR56	51	C		Y	0	0		0		P	Y		Y	
35	0-25	hcl	10YR43 00						0	0	HR	0						
	25-120	c	10YR43 00	10YR58	51	C		Y	0	0		0		P	Y		Y	
36	0-25	hcl	*10YR43 44*						*0*	*0*	HR	1						
	25-120	c	10YR53 00	10YR58	61	C		Y	0	0		0		P	Y		Y	
37	0 25	mzcl	10YR43 00						1	0	HR	1						
	25-45	hcl	10YR54 53						0	0	HR	1		M				
	45-50	hcl	10YR54 53	10YR56	00	F			0	0	HR	1		M				
	50-65	hcl	10YR54 52	10YR56	00	C		Y	0	0	HR	1		P	Y		Y	
	65 120	*c*	*10YR54 53*	*10YR56*	*00*	C	*10YR52 00*	Y	*0*	*0*		*0*		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
38	0-25	mzcl	10YR43 00						2	0	HR	2						
	25-50	hcl	10YR54 00	10YR56 00	F				0	0	HR	1		M				
	50-60	hzcl	10YR54 53						0	0		0		M				
	60-120	c	10YR54 53	10YR56 00	C		10YR52 00	Y	0	0		0		P	Y		Y	
39	0-30	mzcl	10YR42 00						1	0	HR	1						Y
	30-65	c	10YR43 53	10YR58 52	C			Y	0	0	HR	2		P	Y		Y	
	65-75	c	10YR53 52	10YR58 00	C		10YR52 00	Y	0	0	HR	2		P	Y		Y	
	75-120	c	10YR53 00	10YR58 00	C			Y	0	0	CH	3		P	Y		Y	Y
40	0-35	mcl	10YR43 42						1	0	HR	2						Y
	35-40	hcl	10YR43 54						0	0	HR	2		M				
	40-120	c	10YR53 52	10YR58 00	C			Y	0	0	HR	4		P	Y		Y	
41	0-25	hcl	10YR42 00						0	0		0						
	25-35	hcl	10YR53 54	10YR56 00	C			Y	0	0	HR	4		P	Y		Y	
	35-45	c	10YR53 54		C		10YR52 00	Y	0	0	HR	5		P	Y		Y	
	45-120	c	10YR53 54	10YR56 00	C			Y	0	0	HR	1		P	Y		Y	
42	0-25	hzcl	10YR43 00	10YR56 00	F				1	0	HR	1						
	25-40	c	10YR54 53	10YR58 00	C		10YR52 00	Y	0	0	HR	3		P	Y		Y	
	40-120	c	10YR54 53	10YR58 51	C			Y	0	0	HR	1		P	Y		Y	
43	0-25	c	10YR42 43						0	0		0						
	25-40	c	10YR43 53	10YR58 00	C			Y	0	0		0		P	Y			
	40-120	c	10YR54 53	10YR58 00	C			Y	0	0	HR	2		P	Y		Y	
44	0-25	hcl	10YR43 00						1	0	HR	1						
	25-120	c	10YR53 00	10YR58 51	C			Y	0	0		0		P	Y		Y	
45	0-35	mzcl	10YR43 00						1	0	HR	1						
	35-50	c	10YR54 53	10YR56 00	F			Y	0	0	HR	3		P	Y			
	50-120	c	10YR53 00	10YR68 00	C			Y	0	0	HR	5		P	Y		Y	
46	0-30	mzcl	10YR43 00						3	0	HR	3						
	30-80	c	10YR53 00	10YR58 61	C			Y	0	0	HR	5		P	Y		Y	
	80-120	c	10YR53 54	10YR56 00	F			Y	0	0	CH	2		P	Y		Y	Y
47	0-30	hzcl	10YR43 00						1	0	HR	1						
	30-85	c	10YR53 00	10YR58 00	C			Y	0	0	HR	1		P	Y		Y	
	85-120	c	10YR53 54	10YR68 00	C			Y	0	0	CH	2		P	Y		Y	Y
48	0-30	mzcl	10YR43 00						1	0	HR	1						
	30-120	c	10YR53 54	10YR58 61	C			Y	0	0		0		P	Y		Y	
49	0-35	mzcl	10YR43 00						4	0	HR	4						
	35-55	c	10YR53 00	10YR58 61	C			Y	0	0	HR	3		P	Y		Y	
	55-120	c	10YR61 53	10YR56 61	C			Y	0	0	HR	1		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
50	0-30	hcl	10YR43 00						0	0	HR	1						
	30-120	c	10YR54 64	10YR56 00	C		10YR62 00	Y	0	0	HR	2		P	Y		Y	
51	0-25	c	10YR43 00						0	0	HR	1						
	25 95	c	10YR53 52	10YR58 00	M		10YR52 00	Y	0	0	HR	1		P	Y		Y	
	95-120	c	10YR53 00	10YR58 00	M		10YR52 00	Y	0	0	HR	1		P	Y		Y	
52	0-25	c	10YR43 00						2	0	HR	2						
	25-120	c	10YR54 53	10YR58 00	M		10YR52 00	Y	0	0	HR	2		P	Y		Y	
53	0-25	c	10YR43 00						1	0	HR	2						
	25-65	c	10YR54 53	10YR58 00	C		10YR53 00	Y	0	0	HR	1		P	Y		Y	
	65-120	c	10YR54 00	10YR56 00	C			Y	0	0	CH	2		P	Y		Y	Y
54	0-25	hcl	10YR43 00						1	0	HR	2						
	25-120	c	10YR53 54	10YR58 61	C			Y	0	0	HR	2		P	Y		Y	
55	0-35	hzcl	10YR43 00						1	0	HR	1						
	35-50	hcl	10YR53 00	10YR66 61	C			Y	0	0	HR	1		P	Y		Y	
	50-120	c	10YR53 51	10YR66 00	C			Y	0	0	HR	4		P	Y		Y	
56	0-30	hzcl	10YR43 00						2	0	HR	3						
	30-40	hzcl	10YR53 00	10YR56 00	C			Y	0	0	HR	1		M				
	40 120	c	10YR53 61	10YR56 61	C			Y	0	0	HR	2		P	Y		Y	
57	0-25	hcl	10YR43 00						4	0	HR	5						
	25-120	c	10YR54 53	10YR56 71	C			Y	0	0		0		P	Y		Y	
58	0-20	hcl	10YR52 00						1	0	HR	1						
	20-30	hcl	10YR43 53	10YR56 00	F				0	0	HR	1		M				
	30-80	c	10YR54 64	10YR66 00	C			Y	0	0		0		P	Y		Y	
	80-120	c	10YR54 64	10YR58 00	C			Y	0	0	CH	1		P	Y		Y	Y
59	0-25	hcl	10YR42 00						3	0	HR	3						
	25-40	hcl	10YR54 64	10YR66 00	C			Y	0	0	HR	1		P	Y		Y	
	40-60	c	10YR54 64	10YR66 00	C			Y	0	0	HR	15		P	Y		Y	
	60-120	c	10YR54 64	10YR66 00	C			Y	0	0	HR	30		P	Y		Y	
60	0-30	hcl	10YR43 00						1	0	HR	1						Y
	30-35	hcl	10YR54 64	10YR66 00	F				0	0	HR	3		P	Y			
	35-120	c	10YR54-64	10YR58 62	C		10YR62 00	Y	0	0		0		P	Y		Y	
61	0-30	c	10YR43 00						3	0	HR	3						
	30-120	c	10YR54 64	10YR56 62	C		10YR62 00	Y	0	0	HR	2		P	Y		Y	
62	0-30	c	10YR43 00						2	0	HR	2						
	30-120	c	10YR54 00	10YR63 58	C			Y	0	0	HR	5		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
63	0-35	mzcl	10YR43 00						1	0	HR	1						
	35-120	c	10YR53 56	10YR58	68	C		Y	0	0	HR	1		P	Y		Y	
64	0-30	hcl	10YR43 00						1	0	HR	2						
	30-50	hcl	10YR54 00						0	0	HR	1		M				
	50-120	c	10YR53 54	10YR56	00	C		Y	0	0	HR	1		P	Y		Y	
65	0-35	mcl	10YR43 00						2	0	HR	3						
	35 45	zc	10YR53 00	75YR58	00	C		Y	0	0	HR	1		P	Y		Y	
	45-120	c	10YR53 00	75YR68	00	C		Y	0	0	CH	2		P	Y		Y	Y
66	0-20	mcl	10YR43 00						1	0	HR	1						
	20 35	hcl	10YR43 00						0	0	HR	1		M				
	35-80	c	10YR53 00	10YR58	00	C		Y	0	0	HR	1		P	Y		Y	
	80-120	c	10YR54 00	10YR56	00	C		Y	0	0	CH	5		P	Y		Y	Y
66P	0-22	mcl	10YR43 00						2	0	HR	2						
	22-35	hcl	10YR54 00	10YR66	00	F			0	0	HR	3	MDCSAB FR	M				
	35 85	c	10YR53 00	10YR56	61	C		Y	0	0	HR	6	MDCAB FM	P	Y		Y	
	85-120	c	10YR54 00	10YR56	00	C		Y	0	0	CH	4	MDCSAB VM	P	Y		Y	Y
67	0 25	mcl	10YR43 00						4	0	HR	5						
	25-35	hcl	10YR54 00						0	0		0		M				
	35-85	c	10YR53 00	10YR68	00	C		Y	0	0	HR	1		P	Y		Y	
	85-120	c	10YR54 00					Y	0	0	CH	2		P	Y		Y	Y
68	0-30	c	10YR43 00						2	0	HR	2						Y
	30-120	c	10YR53 00	10YR56	51	C		Y	0	0	HR	4		P	Y		Y	
69	0 25	hcl	10YR44 00						1	0	HR	2						
	25-120	c	10YR53 00	10YR58	71	C		Y	0	0		0		P	Y		Y	
70	0-35	mcl	10YR43 00						2	0	HR	2						
	35 50	hcl	10YR53 00						0	0	HR	1		M			Y	
	50-120	c	10YR53 00	10YR56	00	C		Y	0	0		0		P	Y		Y	
71	0 30	mcl	10YR43 00						0	0	HR	0						
	30-50	hcl	10YR54 00						0	0		0		M				
	50-120	c	10YR54 00	10YR56	63	C		Y	0	0		0		P	Y		Y	
72	0-30	mcl	10YR43 00						0	0		0						
	30 40	mcl	10YR54 00						0	0		0		M				
	40-50	hcl	10YR54 00	10YR56	00	C		Y	0	0		0		M				
	50-70	c	10YR54 00	10YR56	00	C		Y	0	0		0		P	Y		Y	
	70-120	hcl	10YR54 63	10YR56	00	C		Y	0	0		0		P	Y		Y	
73	0-20	mcl	10YR42 00						2	0	HR	2						
	20 40	mcl	10YR43 00						0	0	HR	2		M				
	40-50	hcl	10YR54 00	10YR56	63	F			0	0	HR	1		M				
	50-120	c	10YR54 53	10YR58	00	M			0	0		0		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES COL	ABUN	- - CONT	PED COL	GLEY	>2	>6	-----STONES---- LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
74	0-30	hcl	10YR42 53	10YR56 00	F				1	0	HR	1						Y
	30-40	hcl	10YR53 63	10YR52 56	C			Y	0	0	HR	1		P	Y			
	40-120	c	10YR54 53	10YR58 00	C			Y	0	0	HR	1		P	Y		Y	
75	0-30	mcl	10YR43 00						0	0		0						
	30-45	hcl	10YR54 00						0	0		0		M				
	45-50	hcl	10YR54 00	10YR56 00	C			Y	0	0		0		M				
	50-120	c	10YR54 00	10YR56 00	C			Y	0	0		0		P	Y		Y	
75P	0-30	mcl	10YR43 00						1	0	HR	1						
	30-45	hcl	10YR54 00	10YR56 00	F		10YR53 00		0	0	HR	1	MDCSAB FM	M				
	45-120	c	10YR54 53	10YR56 00	C		10YR53 00	Y	0	0	HR	1	STCPR FM	P	Y		Y	
76	0-30	mcl	10YR43 00						1	0	HR	1						
	30-40	hzcl	10YR54 64	10YR66 00	F				0	0	HR	1		M				
	40-60	hcl	10YR54 64	10YR66 00	C			Y	0	0	HR	1		M				
	60-120	c	10YR54 64	10YR56 00	C			Y	0	0		0		P	Y		Y	

Appendix 3 (Cont)

SOIL PROFILE DESCRIPTIONS EXPLANATORY NOTE

Soil profile and pit information obtained during ALC surveys is held on a database This has commonly used notations and abbreviations as set out below

BORING HEADERS

1 GRID REF National grid square followed by 8 figure grid reference

2 USE Land-use at the time of survey
The following abbreviations are used

ARA - arable
WHT - wheat
BAR - barley
CER - cereals
OAT - oats
MZE - maize
OSR - oilseed rape
BEN - field beans
BRA - brassicae
POT - potatoes
SBT - sugar beet
FDC - fodder crops
FRT - soft and top fruit
HOR/HRT - horticultural crops

PAS/PGR - permanent pasture
RGR - rough grazing
LEY - ley grassland
CFW - coniferous woodland
DCW - deciduous woodland
SCR - scrub
HTH - heathland
BOG - bog or marsh
FLW - fallow
PLO - ploughed
SAS - set-aside
OTH - other
LIN - linseed

3 GRDNT Gradient as measured by optical reading clinometer

4 GLEY/SPL Depth in centimetres (cm) to gleyed and/or slowly permeable horizons

5 AP (WHEAT/POTS) Crop-adjusted available water capacity The amount of soil water (in millimetres) held in the soil profile that is available to a growing crop (wheat and potatoes are used as reference crops)

6 MB (WHEAT/POTS) The moisture balance for wheat and potatoes obtained by subtracting the soil moisture deficit from the crop-adjusted available water capacity

7 DRT Grade according to soil droughtiness assessed against soil moisture balances

8

M REL	Micro-relief	)
FLOOD	Flood risk	) If any of these factors are
EROSN	Soil erosion	) considered significant in terms of
EXP	Exposure	) the assessment of agricultural land
FROST	Frost prone	) quality a 'y' will be entered in the
DIST	Disturbed land	) relevant column
CHEM	Chemical limitation	)

9 LIMIT Principal limitation to agricultural land quality
The following abbreviations are used

OC - overall climate
AE - aspect
EX - exposure
FR - frost
GR - gradient
MR - micro-relief
TX - soil texture
DP - soil depth
CH - chemical limitations
WE - wetness
WK - workability
DR - drought
ER - erosion
WD - combined soil wetness/soil droughtiness
ST - topsoil stoniness

PROFILES AND PITS

1 TEXTURE Soil texture classes are denoted by the following abbreviations

S	- sand
LS	- loamy sand
SL	- sandy loam
SZL	- sandy silt loam
ZL	- silt loam
MZCL	- medium silty clay loam
MCL	- medium clay loam
SCL	- sandy clay loam
HZCL	- heavy silty clay loam
HCL	- heavy clay loam
SC	- sandy clay
ZC	- silty clay
C	- clay

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

F - fine (more than ⅔ of the sand less than 0 2 mm)
C - coarse (more than ⅓ of sand greater than 0 6 mm)
M - medium (less than ⅔ fine sand and less than ⅓ coarse sand)

The sub-divisions of clay loam and silty clay loam classes according to clay content are indicated as follows

M - medium (less than 27% clay)
H - heavy (27-35% clay)

Other possible texture classes include

OL - organic loam
P - peat
SP - sandy peat
LP - loamy peat
PL - peaty loam
PS - peaty sand
MZ - marine light silts

2 MOTTLE COL Mottle colour

3 MOTTLE ABUN Mottle abundance

F - few - less than 2% of matrix or surface described
C - common - 2-20% of the matrix
M - many - 20 40% of the matrix
VM - very many - 40% + of the matrix

4 MOTTLE CONT Mottle continuity

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

5 PED COL Ped face colour

6 STONE LITH Stone lithology One of the following is used

HR - all hard rocks or stones
MSST - soft, medium or coarse grained sandstone
SI - soft weathered igneous or metamorphic
SLST soft oolitic or dolomitic limestone
FSST - soft fine grained sandstone
ZR - soft, argillaceous, or silty rocks
CH - chalk
GH - gravel with non porous (hard) stones
GS - gravel with porous (soft) stones

Stone contents (>2 cm, >6 cm and total) are given in percentages (by volume)

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

- degree of development
  - WK - weakly developed
  - MD - moderately developed
  - ST - strongly well developed

- ped size
  - F - fine
  - M - medium
  - C - coarse
  - VC - very coarse

- ped shape
  - S - single grain
  - M - massive
  - GR - granular
  - SB/SAB - sub-angular blocky
  - AB - angular blocky
  - PR - prismatic
  - PL - platy

8 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

9 SUBS STR Subsoil structural condition recorded for the purpose of calculating profile droughtiness

G - good
M - moderate
P - poor

10 POR Soil porosity If a soil horizon has less than 0 5% biopores >0 5 mm a 'y will appear in this column

11 IMP If the profile in impenetrable a 'y' will appear in this column at the appropriate horizon

12 SPL slowly permeable layer If the soil horizon is slowly permeable a 'y' will appear in this column

13 CALC If the soil horizon is calcareous a 'y' will appear in this column

14 Other Notations

APW - available water capacity (in mm) adjusted for wheat
APP - available water capacity (in mm) adjusted for potatoes
MBW - moisture balance wheat
MBP - moisture balance potatoes

SOIL PIT DESCRIPTION

SITE EE - IWADE Pit 1 (AB19)

G R	TQ 90506800	AAR	578 mm
		ATO	1482° days
		FCD	112 days
		Land Use	Pear orchard
		Slope & Aspect	1° north west

Horizon	Texture	Colour	Stones >2	Tot Stone	Mottles	Structure
0-25	MCL	10YR4/3	1	1	-	-
25-35	HCL	10YR5/4	1	1	F	MDCSAB
35-120	C	10YR5/3	1	1	C	MDC&VCP

Wetness Grade	3a	Wetness class	III
		Gleying	35 cm
		SPL	35 cm

Drought Grade	3a	APW = 128 mm	MBW = 2 mm
		APP = 106 mm	MBP = -18 mm

Final ALC grade	3a
Limitations	Wetness and droughtiness

SOIL PIT DESCRIPTION

SITE EE - IWADE Pit 2 (Near AB17)

G R	TQ 90306800	AAR	578 mm
		ATO	1482° days
		FCD	112 days
		Land Use	Pear orchard
		Slope & Aspect	1° south east

Horizon	Texture	Colour	Stones >2	Tot Stone	Mottles	Structure
0-20	HCL	10YR3/2	-	1	-	-
20-50	C	10YR5/4	-	5	-	MDC&MSAB
50-100	C	10YR5/3	-	1	C	STCAB

Wetness Grade	3a	Wetness class	II
		Gleying	50 cm
		SPL	50 cm

Drought Grade	3a	APW = 130 mm	MBW = 4 mm
		APP = 107 mm	MBP = -17 mm

Final ALC grade	3a
Limitations	Wetness/Drought

SOIL PIT DESCRIPTION

SITE EE - IWADE Pit 3 (Near AB66)

G R	TQ 90306800	AAR	578 mm
		ATO	1482° days
		FCD	112 days
		Land Use	Pear orchard
		Slope & Aspect	1° east

Horizon	Texture	Colour	Stones >2	Tot Stone	Mottles	Structure
0 22	MCL	10YR4/3	-	2	-	-
22-35	HCL	10YR5/4	-	3	F	MDCSAB
35-85	C	10YR5/3	-	6	C	MDCAB
85-110	C	10YR5/4		2	C	MDCAB

Wetness Grade	3a	Wetness class	III
		Gleying	35 cm
		SPL	35 cm

Drought Grade	3a	APW = 125 mm	MBW = -1 mm
		APP = 102 mm	MBP = -22 mm

Final ALC grade	3a
Limitations	Wetness/Drought

SOIL PIT DESCRIPTION

SITE EE - IWADE Pit 4 (AB75)

G R	TQ 90306800	AAR	578 mm
		ATO	1482° days
		FCD	112 days
		Land Use	Apple orchard
		Slope & Aspect	1° west

Horizon	Texture	Colour	Stones >2	Tot Stone	Mottles	Structure
0-30	MCL	10YR4/3	-	1	-	-
30-45	HCL	10YR5/3 & 5/4	-	1	F	MDC&VCAB
45-100	C	10YR5/3 & 5/4	-	1	C	STC&VCPR

Wetness Grade	2	Wetness class	II
		Gleying	45 cm
		SPL	45 cm

Drought Grade	3a	APW = 132 mm	MBW = 6 mm
		APP = 109 mm	MBP = -15 mm

Final ALC grade	3a
Limitations	Droughtiness