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Eastleigh District Local Plan
Land north of Snakemoor Lane,
Horton Heath.
Agricultural Land Classification
ALC Map and Report
June 1995

AGRICULTURAL LAND CLASSIFICATION REPORT.

LAND NORTH OF SNAKEMOOR LANE, HORTON HEATH.

1. Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of sites in the vicinity of Eastleigh. This work was in connection with the Eastleigh District Local Plan.
- 1.2 The site comprises 10.3 ha of land to the south east of the village of Horton Heath. An Agricultural Land Classification (ALC) survey was carried out in June 1995. The survey was undertaken at a detailed level of approximately 1 boring per hectare of agricultural land surveyed. A total of 11 borings and 2 soil inspection pits were assessed according to 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 Guildford Statutory Group of ADAS.
- 1.4 At the time of the survey the agricultural land on the site comprised mainly permanent grass, with a small area of rough grassland in the valley bottom. A small area of woodland has been identified on the eastern side of the site.
- 1.5 The distribution of 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 ALC survey information for the site.

Table 1: Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% Ag. area
2	2.9	28.2	28.7
3b	6.8	66.0	67.3
4	0.4	3.9	<u>4.0</u>
Non-agricultural	<u>0.2</u>	<u>1.9</u>	100%(10.1ha)
Total area of Site	10.3	100%	

- 1.6 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. 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.

1.7 The majority of the agricultural land on the site has been mapped as subgrade 3b, moderate quality agricultural land, with an area of grade 2, good quality agricultural land on the gently sloping land. A very small area of grade 4 has been mapped in the valley bottom at the northern end of the site where the land is very wet. The major limitation on the area mapped as subgrade 3b on the western half of the site is topsoil stoniness, these soils have very stony upper horizons over slowly permeable clay at depth. The remaining area of subgrade 3b in the valley bottom has been included within this subgrade due to a moderately severe wetness limitation. The gently sloping land has been mapped as grade 2 due to wetness limitation caused by the presence of slowly permeable lower subsoil horizons.

2. Climate

2.1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe climatic 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 (day °C Jan-June), as a measure of the relative warmth of a locality.

2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site.

2.4 However, climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations. The climate at this location is relatively warm and moist in a regional context, therefore the likelihood of a soil wetness limitation may be increased.

2.5 No local climatic factors such as exposure or frost risk are believed to affect the site.

Table 2 : Climatic Interpolation

Grid Reference	SU 500 164
Altitude (m)	36
Accumulated Temperature (Day °C, Jan-June)	1513
Average Annual Rainfall (mm)	836
Field Capacity (days)	172
Moisture Deficit, Wheat (mm)	106
Moisture Deficit, Potatoes (mm)	99
Overall Climatic Grade	1

3. Relief

3.1 The site comprises a relatively flat plateau area on the western side falling to the east and north toward a small river valley. Slopes are relatively gentle over the majority of the area with the exception of a small area of moderately steeply sloping land (10°) toward the northern end of the site. The altitude of the site ranges from 36 m AOD on the plateau

area to approximately 25 m AOD in the valley bottom. Relief therefore is not limiting to the agricultural use of the site with the exception of the small area of moderately steeply sloping land at the northern end of the site, where land quality is limited to subgrade 3b due to restrictions in the safe and efficient use of farm machinery.

4. Geology and Soils

- 4.1 The published geological map (BGS, 1987) shows the majority of the site to be underlain by the Bracklesham Beds, mainly interbedded clay and silty sands with thin loamy intercalations. A small area of Alluvium has been mapped in the valley bottom on the eastern side of the site.
- 4.2 The published Soil Survey map (SSEW, 1983) shows the soils on the site to comprise those of the Wickham 3 association. These are described as 'slowly permeable seasonally waterlogged fine loamy over clayey and coarse loamy over clayey soils, and more permeable soils with slight waterlogging' (SSEW, 1983). A more detailed soil map for the area (SSLRC, 1989) shows the site to comprise Hornbeam series on the plateau area with Bursledon series on the sloping land and Fladbury series in the valley bottom.
- 4.3 Detailed field examination found the soils correlated well with the more recent SSLRC publication. The soils on the plateau area comprise stony loamy upper horizons over slowly permeable clays, whilst on the gently sloping side slopes are very slightly stony, imperfectly drained fine loamy soils. The alluvial soils in the valley bottom are typically poorly drained fine loamy over clayey overlying waterlogged gravels.

5. Agricultural Land Classification

- 5.1 The location of the soil observation points are shown on the attached sample point map.

Grade 2

- 5.2 The gently sloping land on the eastern side of the site has been included in grade 2 due to both a wetness and droughtiness limitation. The soils in this area have a medium sandy silt loam topsoil over a brown medium clay loam upper subsoil. Below approximately 50 cm depth the subsoil is slowly permeable, typically a heavy clay loam with distinct ochreous mottling (see pit 2P). These soils are assessed as wetness class III but due to the light textured topsoil will only have a minor workability limitation restricting the land to this grade. Moisture balance calculations indicate that these soils also have a minor droughtiness restriction limiting them to this grade.

Subgrade 3b

- 5.3 Two areas of subgrade 3b have been identified on this site. The larger area which comprises the land on the plateau area on the western half of the site is restricted to this subgrade due to topsoil stoniness. The soils in this area have a sandy silt loam or medium clay loam topsoil which is moderately stony, typically 20% flints of which approximately 15% or more are greater than 2 cm. The upper subsoil comprises a very stony (40-45%) medium clay loam which overlies a slightly stony slowly permeable clay. The soils are

assessed as wetness class III. Moisture balance calculations indicate that the soils are moderately droughty due to the high stone content, but the major limiting factor is stoniness which will interfere with cultivations and harvesting and increase production costs due to implement and tyre wear. This land, which is limited to subgrade 3b, is typified by pit 1P.

- 5.4 The low lying land in the valley on the eastern side of the site has also been mapped as subgrade 3b due to a moderately severe wetness limitation. The alluvial soils in this area have a medium silty clay loam topsoil over a strongly gleyed heavy clay loam subsoil which will be subject to both a fluctuating groundwater table and also surface water ponding. These soils are assessed as wetness class IV and consequently have a moderately severe wetness and workability limitation restricting the land to this subgrade.

Grade 4

- 5.5 A small area of grade 4 has been mapped at the northern end of the site where the land is very wet due to high a groundwater table. The soils in this area are assessed as wetness class V and due to the lack of sufficient freeboard, drainage improvement is not considered feasible. This area is therefore restricted to rough grazing and has been included within this grade.

ADAS Ref: 1503/118/95
MAFF Ref: EL 15/584

Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

British Geological Survey (1987), Sheet No. 315, Southampton, 1:50,000 Series (drift edition).

MAFF (1988), Agricultural Land Classification of England and Wales : Revised guidelines and criteria for grading the quality of agricultural land.

Meteorological Office (1989), Climatological Data for Agricultural Land Classification.

Soil Survey of England and Wales (1983), Sheet 6, Soils of South East England, 1:250,000 and accompanying legend.

Soil Survey and Land Research Centre (1989), Applied Soil Mapping in the Southampton Area.

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

APPENDIX II

SOIL WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

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 only wet within 40 cm depth for 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 present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years or, if there is no slowly permeable layer present 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.

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988).

¹ The number of days is not necessarily a continuous period.

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

APPENDIX III

SOIL DATA

Contents:

Sample location map

Soil abbreviations - Explanatory Note

Soil Pit Descriptions

Soil boring descriptions (boring and horizon levels)

Database Printout - Horizon Level Information

SOIL PROFILE DESCRIPTIONS: EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

Boring Header Information

1. **GRID REF:** national 100 km grid square and 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	FCD: Fodder Crops
LIN: Linseed	FRT: Soft and Top Fruit	FLW: Fallow
PGR: Permanent Pasture	LEY: Ley Grass	RGR: Rough Grazing
SCR: Scrub	CFW: Coniferous Woodland	DCW: Deciduous Wood
HTH: Heathland	BOG: Bog or Marsh	FLW: Fallow
PLO: Ploughed	SAS: Set aside	OTH: Other
HRT: Horticultural Crops		

3. **GRDNT:** Gradient as estimated or measured by a hand-held optical clinometer.
4. **GLEYSPL:** Depth in centimetres (cm) to gleying and/or slowly permeable layers.
5. **AP (WHEAT/POTS):** Crop-adjusted available water capacity.
6. **MB (WHEAT/POTS):** Moisture Balance. (Crop adjusted AP - crop adjusted MD)
7. **DRT:** Best grade according to soil droughtiness.
8. 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		

9. **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		

Soil Pits and Auger Borings

1. **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)

2. **MOTTLE COL:** Mottle colour using Munsell notation.
3. **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% +
4. **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
5. **PED. COL:** Ped face colour using Munsell notation.
6. **GLEYS:** If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.
7. **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/metamorphic rock		

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

8. **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 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

9. **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

10. **SUBS STR:** Subsoil structural condition recorded for the purpose of calculating profile droughtiness: **G:** good **M:** moderate **P:** poor

11. **POR:** Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

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

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

14. **CALC:** If the soil horizon is calcareous, a 'Y' will appear in this column.

15. 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 Name : EASTLEIGH DLP SNAKEMOOR Pit Number : 1P

Grid Reference: SU49901630 Average Annual Rainfall : 836 mm
 Accumulated Temperature : 1513 degree days
 Field Capacity Level : 172 days
 Land Use : Permanent Grass
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	MSZL	10YR43 00	16	20	HR					
30- 60	MCL	10YR54 00	0	43	HR	F			M	
60-100	C	25Y 63 00	0	12	HR	M	M	VM	P	
100-120	C	05Y 62 00	0	10	HR	M	M	VM	P	

Wetness Grade : 2 Wetness Class : III
 Gleying : 060 cm
 SPL : 060 cm

Drought Grade : 3A APW : 109mm MBW : 3 mm
 APP : 86 mm MBP : -13 mm

FINAL ALC GRADE : 3B

MAIN LIMITATION : Topsoil Stoniness

SOIL PIT DESCRIPTION

Site Name : EASTLEIGH DLP SNAKEMOOR Pit Number : 2P

Grid Reference: SU50001640 Average Annual Rainfall : 836 mm
 Accumulated Temperature : 1513 degree days
 Field Capacity Level : 172 days
 Land Use : Permanent Grass
 Slope and Aspect : 03 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	MSZL	75YR44 00	2	3	HR					
30- 50	MCL	75YR55 00	0	4	HR	F	MDCOSB	FM	M	
50-120	HCL	10YR64 00	0	2	HR	M	WKVCSB	FM	P	

Wetness Grade : 2 Wetness Class : III
 Gleying : 050 cm
 SPL : 050 cm

Drought Grade : 2 APW : 134mm MBW : 28 mm
 APP : 110mm MBP : 11 mm

FINAL ALC GRADE : 2
 MAIN LIMITATION : Wetness

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT	GLEYSPL	--WETNESS--		-WHEAT-		-POTS-		M.REL DRT	EROSN FLOOD	FROST EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
					CLASS	GRADE	AP	MB	AP	MB							
1	SU49901660	RGR W		000 030	5	4	100	-6	104	5	3A				WE	4	IMP 80
1P	SU49901630	PGR		060 060	3	2	109	3	86	-13	3A				ST	3B	STONY
2	SU49901650	PGR W		000	1	2	46	-60	46	-53	4				DR	3A	SEE PIT1
2P	SU50001640	PGR E	03	050 050	3	2	134	28	110	11	2				WE	2	
3	SU50001650	PGR E	04	050	2	2	151	45	114	15	1				WE	2	
4	SU49801640	PGR W	01	030	4	3B	78	-28	83	-16	3B				WE	3B	IMP 58
5	SU49901640	PGR E		000	1	1	44	-62	44	-55	4				ST	3B	SEE PIT1
6	SU50001640	PGR E	03	050 050	3	2	134	28	110	11	2				WE	2	
7	SU50101640	PGR E		000	4	3B	87	-19	92	-7	3A				WE	3B	
8	SU49801630	PGR		000	1	2	49	-57	49	-50	4				ST	3B	SEE PIT1
9	SU49901630	PGR		000	1	2	57	-49	57	-42	3B				ST	3B	SEE PIT1
10	SU50001630	PGR E	02	000	2	2	89	-17	92	-7	3A				DR	2	WE
11	SU50101630	PGR E	03	055 055	3	3A	135	29	111	12	2				WE	3A	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLEYS	>2	>6		LITH	TOT	STR	POR	IMP	SPL
1	0-30	mzc1	10YR31 32 05YR46 00 C					Y	0	0	0						
	30-80	c	25Y 62 00 10YR66 61 M					Y	0	0	HR 10		P				Y
1P	0-30	msz1	10YR43 00						16	0	HR 20						
	30-60	mc1	10YR54 00 75YR56 00 F						0	0	HR 43		M				
	60-100	c	25Y 63 00 75YR58 00 M					Y	0	0	HR 12	M	VM	P			Y
	100-120	c	05Y 62 00 05YR48 56 M					Y	0	0	HR 10	M	VM	P			Y
2	0-27	msz1	10YR43 00						12	0	HR 18						
	27-30	mc1	10YR54 00						0	0	HR 35		M				
2P	0-30	msz1	75YR44 00						2	0	HR 3						
	30-50	mc1	75YR55 00 75YR56 00 F						0	0	HR 4	MDCOSB	FM	M			
	50-120	hc1	10YR64 00 75YR68 00 M					Y	0	0	HR 2	WKVCSB	FM	P			Y
3	0-25	mc1	75YR43 00						0	0	HR 3						
	25-50	mc1	75YR44 00						0	0	HR 2		M				
	50-120	hc1	75YR54 00 75YR56 00 C					S	0	0	HR 3		M				
4	0-30	mc1	10YR43 00 75YR56 00 C						8	0	HR 12						
	30-58	c	25Y 63 00 10YR68 62 M					Y	0	0	HR 5		P				
5	0-26	msz1	10YR43 00						16	0	HR 20						
	26-30	mc1	10YR54 00						0	0	HR 35		M				
6	0-28	msz1	75YR44 00						0	0	HR 3						
	28-50	mc1	75YR55 00						0	0	HR 2		M				
	50-120	hc1	10YR64 00 75YR68 00 M					Y	0	0	HR 2		P				Y
7	0-30	mzc1	75YR42 00 05YR48 00 M						Y	0	0	0					
	30-58	hc1	25Y 62 00 75YR56 00 M					Y	0	0	0		P				Y
	58-60	hc1	25Y 62 00					Y	0	0	HR 45		P				Y
8	0-30	mc1	10YR43 00 75YR56 00 C						15	0	HR 20						
	30-35	hc1	10YR54 00						0	0	HR 35		M				Y
9	0-30	msz1	10YR43 00 75YR56 00 C						15	0	HR 20						
	30-40	mc1	10YR54 00						0	0	HR 35		M				
10	0-26	msz1	75YR43 00 75YR56 00 C						2	0	HR 4						
	26-55	mc1	75YR55 00 00M00 00 F					S	0	0	HR 5		M				
11	0-30	mc1	10YR43 00 75YR56 00 C						0	0	HR 2						
	30-55	mc1	10YR54 00 75YR56 00 C					S	0	0	0		M				
	55-75	hc1	10YR63 00 10YR58 00 M					Y	0	0	0		P				Y
	75-120	hc1	10YR63 00 10YR58 62 M					Y	0	0	0		P				Y