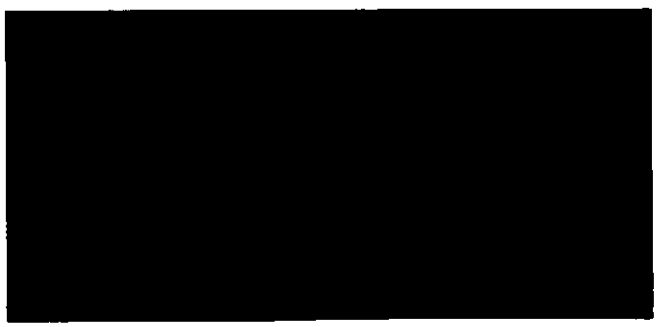

MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
RYEDALE LOCAL PLAN SITES
AT PICKERING, NORTON,
KIRBYMOORSIDE AND HELMSLEY
NORTH YORKSHIRE
AUGUST 1994

ADAS
Leeds Statutory Group

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SUMMARY

AGRICULTURAL LAND CLASSIFICATION. RYEDALE LOCAL PLAN.

A total of 32.8 ha of land was surveyed in detail at nine sites within Ryedale District in August 1994. 15.5 ha of land at Norton (sites 1 to 4) were surveyed. Undisturbed light textured soils are graded 3a with some disturbed land graded 3b. Drought is limiting in both cases. Two areas of urban land were also identified.

Three sites were surveyed at Pickering covering 14.8 ha. Site 1 contained 8.3 ha of subgrade 3a land. Soils are light textured and stony. Droughtiness is limiting. Sites 2, 1.4 ha and 3, 4.4 ha were both graded 3b. Soils are medium to heavy textured and soil wetness is limiting.

One 1.8 ha site at Kirbymoorside was surveyed. Topsoils are medium textured over clayey slowly permeable lower subsoils. Soil wetness limits all the site to subgrade 3a.

One 0.7 ha site at Helmsley was surveyed. Topsoils are shallow and medium textured over slowly permeable upper and lower subsoils. Soil wetness limits the whole site to subgrade 3b.

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AGRICULTURAL LAND CLASSIFICATION, RYEDALE LOCAL PLAN

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Survey Methods

Land covering an area of approximately 32.8 ha was surveyed on nine sites within Ryedale District. The agricultural land quality on each of these sites is described in the following section of this report. Detailed survey work was carried out in August 1994 when soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. Extra borings were made to check and refine grade boundaries. Soil profile pits were dug on each soil type and site to examine the soil in greater detail. All assessments of land quality were made using the methods described in Agricultural Land Classification of England and Wales, revised guidelines and criteria for grading the quality of agricultural land. (MAFF 1988).

1.2 Land Use and Relief

At the time of survey part of sites 1, 2 and 3 at Norton and the Helmsley site were not currently in productive agricultural use. The remaining sites contained a mixture of grass and arable uses. The Norton and Pickering sites also contained some urban uses. Altitude ranges from 20 m AOD at Norton to 55 m AOD at Helmsley. Most of the land is gently to moderately sloping (typically 1-6°) with variable aspect.

2.1 SITES 1 TO 4 NORTON

2.1.1 Location

The four sites at Norton are all adjacent and are described together below, although separate area statistics are provided for each site.

The sites all lie to the north-east of Norton around centroid grid reference SE 803 718.

2.1.2 Climate

Grid Reference	: SE 803 718
Altitude (m)	: 20
Accumulated Temperature above 0°C (January - June)	: 1367
Average Annual Rainfall (mm)	: 675
Climate Grade	: 1
Field Capacity Days	: 168
Moisture Deficit (mm) Wheat	: 103
Moisture Deficit (mm) Potatoes	: 93

2.1.3 Geology and Soils

Soils are developed upon glacial and post glacial sand and gravel deposits. Solid deposits of limestone do not outcrop within 1 m of the surface. Soils in site one and site two were disturbed by variable amounts. Top and sub soils are typically very slightly stony (2%) medium sandy loam, loamy medium sand or sandy clay loams. Lower subsoils were generally gleyed but not slowly permeable.

Most profiles were soil wetness class I or II.

2.1.4 AGRICULTURAL LAND CLASSIFICATION SITE 1 NORTON

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	5.21	78
3b		
4		
5		
(Sub total)	(5.21)	(78)
Urban	1.49	22
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(1.49)	22
TOTAL	6.7	100

2.1.5 AGRICULTURAL LAND CLASSIFICATION SITE 2 NORTON

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a		
3b	2.26	52
4		
5		
(Sub total)	(2.26)	(52)
Urban	2.07	48
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(2.07)	(48)
TOTAL	4.33	48

2.1.6 AGRICULTURAL LAND CLASSIFICATION SITE 3 NORTON

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	1.31	55
3b	1.09	45
4		
5		
(Sub total)	(2.4)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	2.4	100

2.1.7 AGRICULTURAL LAND CLASSIFICATION SITE 4 NORTON

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	2.12	100
3b		
4		
5		
(Sub total)	(2.12)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	2.12	100

2.1.8 Subgrade 3a

Profiles are well or moderately well drained (wetness class I or II) generally with a medium sandy loam or loamy medium sand topsoil over a similar slightly heavier textured subsoil. This subgrade includes some slightly disturbed soils on site one. The ALC grade of this land is limited by soil droughtiness.

2.1.9 Subgrade 3b

Disturbed soils on part of sites two and three were graded 3b. Profiles were shallow (60 cm deep) and topsoils were slightly stony. A more severe soil droughtiness limitation limits this land to subgrade 3b.

2.1.10 Urban

Two areas to the north of sites one and two contained a variety of non agricultural uses.

2.2 SITES 1 TO 3 PICKERING

2.2.1 Location

The 3 sites at Pickering are described together below, although separate area statistics were provided for each site. Site one lies to the west of Pickering at SE 789 839, sites two and three are located to the east at SE 808 836 and SE 808 831 respectively.

2.2.2 Climate

		Site 1	Site 2	Site 3
Grid Reference	:	SE 789 839	SE 808 836	SE 808 831
Altitude (m)	:	30	40	30
Accumulated Temperature above 0°C (January - June)	:	1350	1339	1350
Average Annual Rainfall (mm)	:	690	697	690
Climate Grade	:	1	1	1
Field Capacity Days	:	178	180	178
Moisture Deficit (mm) Wheat	:	100	99	101
Moisture Deficit (mm) Potatoes	:	89	88	90

2.2.3 Geology and Soils

All the sites are underlain with grit stone or clay over which is deposited a mixture of glacial deposits.

Soils on site 1 are generally consists of shallow (soil depth average 85 cm) medium sandy loam top and subsoils with many stones. Subsoils are occasionally gleyed but not slowly permeable. These soils fall within wetness class I.

Soils at sites two and three are developed upon clayey glacial deposits. Topsoils are a medium clay loam over a gleyed slowly permeable silty clay subsoil. These soils fall within wetness class IV.

2.2.4 AGRICULTURAL LAND CLASSIFICATION SITE 1 PICKERING

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	8.25	92
3b		
4		
5		
(Sub total)	(8.25)	(92)
Urban	0.42	5
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.31	3
Open Water		
Land not surveyed		
(Sub total)		(8)
TOTAL	8.98	100

2.2.5 AGRICULTURAL LAND CLASSIFICATION SITE 2 PICKERING

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a		
3b	1.39	100
4		
5		
(Sub total)	(1.39)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	1.39	100

2.2.6 AGRICULTURAL LAND CLASSIFICATION SITE 3 PICKERING

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a		
3b	4.36	100
4		
5		
(Sub total)	(4.36)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	4.36	100

2.2.7 Subgrade 3a

All the agricultural land at site one falls within subgrade 3a. Topsoils are a slightly stony medium sandy loam over a similar textured more stony subsoil. The ALC grade of this land is limited by soil droughtiness.

2.2.8 Subgrade 3b

All of sites two and three are graded 3b. Topsoils are medium clay loam over a clayey, slowly permeable subsoil. Soil wetness and workability restrictions limit the ALC grade of this land.

2.2.9 Urban

This includes two areas on site one.

2.2.10 Agricultural Buildings

This refers to the "Smallholdings" at site one.

2.3 SITE AT KIRBYMOORSIDE

2.3.1 *Location*

The site is located about 1 km south east of Kirbymoorside at grid reference SE 703 856.

2.3.2 Climate

Grid Reference	: SE 703 856
Altitude (m)	: 40
Accumulated Temperature above 0°C (January - June)	: 1341
Average Annual Rainfall (mm)	: 724
Climate Grade	: 1
Field Capacity Days	: 185
Moisture Deficit (mm) Wheat	: 95
Moisture Deficit (mm) Potatoes	: 83

2.3.3 Geology and Soils

The site is underlain with clay deposits above which lie glacial deposits. Topsoils are usually medium clay loam over a similar textured gleyed upper subsoil and a heavy clay loam, gleyed, slowly permeable lower subsoil. These profiles fall within soil wetness class III.

2.3.4 AGRICULTURAL LAND CLASSIFICATION SITE AT KIRBYMOORSIDE

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	1.83	100
3b		
4		
5		
(Sub total)	(1.83)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	1.83	100

2.3.5 Subgrade 3a

The whole site is graded 3a. Soil wetness and workability restrictions limit ALC grade.

2.4 SITE AT HELMSLEY

2.4.1 Location

The site at Helmsley lies to the east of the town at grid reference SE 620 836.

2.4.2 Climate

Grid Reference	: SE 620 836
Altitude (m)	: 55
Accumulated Temperature above 0°C (January - June)	: 1326
Average Annual Rainfall (mm)	: 743
Climate Grade	: 1
Field Capacity Days	: 190
Moisture Deficit (mm) Wheat	: 91
Moisture Deficit (mm) Potatoes	: 78

2.4.3 Geology and Soils

Clay underlies the alluvial deposits from which the soils are developed. Topsoils are medium clay loam or medium silty clay loam over clay slowly permeable subsoils. Profiles fall within wetness class IV.

2.4.4 AGRICULTURAL LAND CLASSIFICATION SITE AT HELMSLEY

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	0.74	100
3b		
4		
5		
(Sub total)	(0.74)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	0.74	100

2.4.5 Subgrade 3b

The whole site is graded 3b. Soil wetness and workability limit ALC grade.

Resource Planning Team
ADAS Statutory Centre
File 2FCS 10200-3

MAPS