AGRICULTURAL LAND CLASSIFICATION

GREATER YORK, SITE A, KNAPTON

ADAS
Leeds Regional Office

July 1989

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AGRICULTURAL LAND CLASSIFICATION REPORT

GREATER YORK, SITE A, KNAPTON

Introduction

The site is located around Grid Reference SE 565525 near the village of Knapton between the A1237 York ring road and the city boundary. It covers an area of **111.8** hectares **89%** of which is in agricultural production.

Survey work was carried out in 1988 when soils were examined to a depth of one metre using a hand auger at points predetermined by the National Grid. The density of borings was approximately one per hectare. Land quality assessments were made using the revised guidelines published by MAFF in 1988.

Land Use

All the agricultural land is in arable use except for a few small fields of permanent grass.

Climate

Mean annual rainfall in the area is approximately 630 mm (24.8 ins). Accumulated temperature (above $0^{o}C$ between January and June) is $1388^{o}C$ and the land is at field capacity for about 142 days each year. There is thus no overall climatic limitation on ALC grade. Summer droughtiness will, however, be slightly limiting on the lighter sandy soils.

Relief

The site is virtually level at an altitude of about 22 m aod.

Geology and Soils

Soils over most of the site are formed on post glacial fine and medium sand which forms a cover a metre or so in thickness over the underlying lacstrine and boulder clays. These clays occur close to the surface only in a few places along the eastern end southern margins of the site. Topsoils on the sands are generally of loamy sand, loamy fine sand or sandy loam passing into similar subsoils. Stone content at the surface is usually less than 5%. The areas in the south and east where clay occurs at shallow depth consist of clay loam or sandy clay loam topsoils over heavy clay loam or clay subsoil.

Drainage

The sandy soils fall within Wetness Class I and are easily worked at most times of the year. The heavier textured soils contain a slowly permeable layer between 40 and 60 cm depth and fall mainly within Wetness Class III.

Grade 1 (6.4 ha)

This consists of one small area containing well drained (Wetness Class I) sandy loam topsoils over similar or somewhat heavier subsoils. Topsoils are stoneless and contain enough clay to prevent blowing in the dry conditions common in early spring. Droughtiness assessments indicate that crops on these soils will not be restricted by drought in the summer months.

Grade 2 (57.4 ha)

Grade 2 land is widespread and consists mainly of well drained (Wetness Classes I and II) loamy sand and loamy fine sand topsoils over similar subsoils. Topsoils which are light enough to blow are excluded from the grade. Assessments suggest that soils in this grade may have a slight droughtiness limitation for crops such as potatoes.

Subgrade 3a (33.8 ha)

Soil wetness is the main limitation on most land in this subgrade most of which falls within Wetness Class III. Topsoils are of sandy clay loam, sandy loam, or occasionally loamy sand over heavier slowly permeable subsoils. A small exposed hill crest of light loamy fine sand near "The Gardens" at the north east end of the site, although within Wetness Class I, is placed within this subgrade because of the risk of wind erosion.

Subgrade 3b (1.9 ha)

Three small areas of land occupying hollows with poor drainage and a slowly permeable subsoil fall within this subgrade.

Non Agricultural Land (1.4 ha)

This is mainly derelict farmland.

Urban (9.2 ha)

This is largely the village of Knapton.

Agricultural Buildings (1.7 ha)

References

Agricultural Land Classification of England and Wales, revised guidelines and criteria for grading the quality of agricultural land MAFF 1988.

Resource Planning Group
Leeds RO
July 1989

AGRICULTURAL LAND CLASSIFICATION MAP