

NANCEMERE FARM, TRURO

APPENDIX C

The site was surveyed by MAFF at a detailed level by hand auger at 21 points. Gradient was measured at 64 points using a clinometer. At each point measurement was made over a distance of 25 metres, both up and down the slope. A soil pit was dug and described. Stone content was measured by sieving and moisture balances calculated.

AGRICULTURAL LAND CLASSIFICATION

1. Climate

Interpolated climatic data are:

Accumulated Temperature (AT0) - 1582 day deg C

Annual Average Rainfall (AAR) - 1115 mm

These combine to give no overall climatic limitation.

2. Gradient

Gradient limits the grade to 3b where slopes exceed 7 deg. One area to the north, where the slope exceeds 11 deg, is limited to grade 4.

3. Microrelief

Although the slope pattern is locally complex, this is on a macro scale which will not interfere with the use of precision machinery, and microrelief is not a limiting factor.

4. Soil depth

Soil depth is a limitation over the site, generally varying between 30cm and 60cm, leading to grades of 2 and 3a.

5. Stoniness

Stoniness does not exceed 15% in the top 25cm, leading to a grade no higher than 2 over the site.

6. Soil wetness

The soil is not wet within 70cm depth for >30 days in most years (wetness class 1). However, the surface texture of medium clay loam in combination with the climatic factors limits the site to no higher than grade 2 on wetness.

7. Droughtiness

Moisture balance calculations show a limitation to grade 2 on the deeper sites and sub-grade 3a where shallower.

SUMMARY OF MOST LIMITING FACTORS

<u>Mapping Unit</u>	<u>Most limiting factors</u>	<u>Area</u>
Grade 2	Depth, stoniness, wetness, droughtiness	4.0ha
Sub-grade 3a	Depth, droughtiness	7.1ha
Sub-grade 3b	Gradient	4.8ha
Grade 4	Gradient	0.8ha

DESCRIPTION OF GRADES AND SUBGRADES

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 (eg 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.