

WEST DORSET LOCAL PLAN: EASTERN AREA CONSULTATION: PUDDLETOWN
SOIL PIT DESCRIPTION

Pit No 1

This pit examination took the form of a Soil Stoniness Assessment for the top 25 cm adjacent to Auger Sample Point No 10.

Pit size approx 30 x 30 x 25 cm (deep)

Total Stone Content = 8.6 kg

Stone size is in the range 2 cm - 6 cm

Stone type is flint (both angular and rounded form); bulk density = 2.66g cm⁻²

Total number of spheres (1 cm) replacing soil and stone = 2738

Volume of pit = 7.3 (2738) + 64.3
= 20,048 cm³

8,600 g ÷ 2.66 = 3233

(3233 ÷ 20,048) x 100% = 16.1%

Grade according to topsoil stone content = sub grade 3B

Pit No 2

Topsoil: 0-33 cm
Medium Sandy Silt Loam
10YR32; very dark greyish brown
11.2% flint stone (2-6 cm): Stoniness Assessment (weight = 6.35 kg;
pit volume = 21,380 cm³)
Approx 5% flint, 2 mm - 2 cm
No evidence of wetness
Structure: affected by the nature and amount of topsoil stones
Weakly developed
Medium Sub-Angular Blocky
Friable

Subsoil: 33-55 + cm
Medium Silty Clay Loam
10YR43; dark brown
Approx 15% flint, 2-6 cm; 5% flint, 2 mm - 2cm. Hard, Angular
No evidence of wetness
Porous
Structure: difficult to assess because of high stone content
Weakly developed
Medium Sub-Angular Blocky
Friable
(ie "Good" structural conditions)

Soil profile examined to a depth of 55 cm to determine the presence of any limiting factor that would outweigh the 3A topsoil stoniness constraint; none found; if the droughtiness calculation is stopped at 55 cm, the profile has an AP volume for Wheat of 87 mm and an MB Wheat of only - 13 mm (ie at worst already).

ALC Grade = Sub-grade 3A (topsoil stoniness).