Lancrop Laboratories

Analysis Results (SOIL)

Customer DEMETER
BLANDINGS FM

Distributor DEMETER TECHNOLOGY
5 ST ANDREWS CLOSE
ISLEHAM
CAMBS
CB7 5TB

Sample Ref BLANDINGS

Date Received 16/09/2020 (Date Issued: 25/09/2020)

Sample No E204193

Crop NON STATED

Soil Characteristics	Result	Low	Normal	High
pH	8.0			
Org. Matter - DUMAS (%)	1.7			
C.E.C. (meq/100g)	10.5			
Soil Respiration (mg/kg)	32			
C:N Ratio	8.5			
Texture Class	SASILO			
Org. Carbon Stock (t/ha)	19.3			

Major Nutrients	Result	0	1	2-	2+	3	4+
Phosphorus (ppm)	28						
Potassium (ppm)	176						
Magnesium (ppm)	46						

Secondary and Micro Nutrients	Result	Deficient	Maintenance	High
Calcium (ppm)	2423			
Sulphur (ppm)	4			
Sodium (ppm)	12			
Boron (ppm)	2.16			
Copper (ppm)	5.8			
Iron (ppm)	85			
Manganese (ppm)	114			
Molybdenum (ppm)	0.02			
Zinc (ppm)	6.6			

Others	
Phosphorus Total (mg/kg)	652.0

Released by [redacted] ..Laboratory Manager on behalf of Lancrop Laboratories

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The Industrial Estate
Pocklington, York, YO42 1DN
Tel: + 44 1759 305116
[redacted]

PAAG Professional Agricultural Analysis Group

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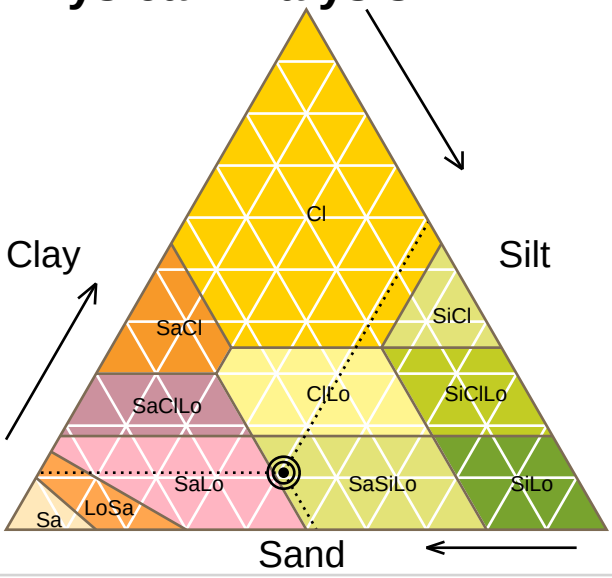
Physical Analysis



Analysis	Result (%)
Sand	48.30
Silt	40.74
Clay	10.96
Soil Type	SaSiLo Sandy Silt Loam

Property	Assessment
Available Water	Low to Medium
Drainage Rate	Rapid
Inherent Fertility	Low to Medium
Potential C.E.C.	Low to Medium
Leaching Risk	High to Moderate
Warming Rate	Rapid

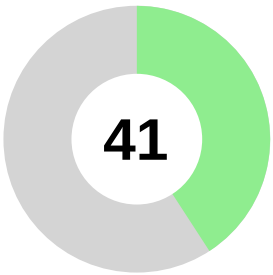
Biological Analysis

SOLVITA®

Analysis	Result	Ideal
Solvita Burst CO2-C (ppm)	32	>70
Organic Carbon (%)	1.0	
Total Nitrogen (%)	0.116	
C:N Ratio	8.5	10-12

Calculated Parameters	Result
Microbial Biomass (mg/kg)	734
Solvita Potentially Mineralizable Nitrogen (kg N/ha)	21
Soil Assessment Score	41/100

Soil Assessment Score



Microbial Biomass and Potentially Mineralizable N are calculated from the Solvita CO2-C Burst. The Potentially Mineralizable N assumes ideal conditions. Soil Assessment Score is calculated from biological, chemical and physical results.

pH impact on soil biology

Increasing Acidity
Fungi thrive
Bacterial activity declines
Nutrient cycling drops

Neutral
Desirable fungal and bacterial activity
Good earthworm activity
Nutrient cycling thrives

Increasing Alkalinity
Fungal activiy declines
Bacteria thrive
Nutrient cycling drops

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Analysis	Result	Guideline	Comments
pH	8.0	6.5	High. An alkaline environment will reduce the availability of certain nutrients - particularly P, K, B, Co, Cu, Fe, Mn and Zn. An elevated pH will also impact on beneficial soil fungal populations and activity.
Org. Matter - DUMAS (%)	1.7	3.0	Low. Soils with medium to high levels of organic matter would generally be expected to have a good potential fertility and good structure, moisture retention and water infiltration. Investigate soil conditons to establish if soil management practices can improve levels of organic matter.
C.E.C. (meq/100g)	10.5	15.0	Cation Exchange Capacity indicates a slightly low nutrient holding ability - soil applied nutrients could be readily leached. Where possible foliar applied nutrients should be recommended.
Soil Respiration (mg/kg)	32	70	Slightly low aerobic microbial activity and mineralisation potential. Further investigation of soil conditons is recommended to establish if soil management practices can improve biological fertility.
C:N Ratio	8.5	10.0	Low. A low C:N ratio in the soil encourages microbial activity and the amount and rate of nutrients made available to the plants through mineralisation. A ratio of 8 - 10 indicates the potential for a rapid decompostion of organic residue and a low retention of applied organic materials.
Texture Class	SASILO		
Org. Carbon Stock (t/ha)	19.3		
Phosphorus (ppm)	28	26	**(Index 3.1)**
Potassium (ppm)	176	241	**(Index 2.5)**
Magnesium (ppm)	46	100	**(Index 1.8)**
Calcium (ppm)	2423	1600	
Sulphur (ppm)	4	10	
Sodium (ppm)	12	90	
Boron (ppm)	2.16	2.10	
Copper (ppm)	5.8	2.1	
Iron (ppm)	85	50	
Manganese (ppm)	114	110	

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Analysis	Result	Guideline	Comments
Molybdenum (ppm)	0.02	0.20	
Zinc (ppm)	6.6	4.1	
Phosphorus Total (mg/kg)	652.0		

Additional Comments

Carbon Stock (t/ha) has been calculated with assumed bulk density of 1.3 g/cm3 (if an in-lab bulk density has not been performed) and sampling depth of 15 cm.
To recalculate the Carbon Stock using other depths and bulk densities please use this calculation:
Carbon (%) x Sampling Depth (cm) x Bulk Density (g/cm3) = Carbon Stock (t/ha)
E.g. 4.0% x 15cm x 1.3 g/cm3 = 78 t/ha carbon stock.
Where applicable soil applied P,K and pH recommendations are taken from AHDB Nutrient Management Guide (RB209)

Any indicated Lime Requirement assumes a medium textured soil.
Additional technical bulletins are available at [redacted].

Please Note

Whilst every care is taken to ensure that the Results from Analysis are as accurate as possible, it is important to note that the analysis relates to the sample received by the laboratory, and is representative only of that sample. No warranty is given by the laboratory that the Results from Analysis relates to any part of a field or growing area not covered by the sample received. It is important to ensure that any soil, leaf, silage or fruitlet sample sent for analysis is representative of the area requiring analysis and that samples are obtained in accordance with established sampling techniques. A leaflet containing instructions on how to take soil, leaf, herbage, silage and fruit samples for analysis is available from the laboratory on request. Uncertainty measurements of results are available on request

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