

RHYS EDWARDS

0
0
0

0
0



Solutions for Eco-nomically Sustainable Farming

SSM Soil Advisor Ian Robertson 07970 286420
Facts Fertiliser Advisor Ian Robertson 01653/12

Sample No: Q23800
LAB No: 92870
Sample DATE: 02/03/2020
Report DATE: 29/06/2020

Field ID: TOP LEFT 1 Ha CROP SOWN: No Crop Given

| | | | | | | | | |
|----------|--|-----------|---|--|-----------------------------|--------|------------------|--------|
| pH & CEC | An Ideal soil structure (Bd) | | Soil test is assumed to be carried out for soil at | | General plough depth | | | |
| | Active pH | 5.60 | Priority; consider liming. | Total Exchangeable Capacity (TEC) | Result | Sand % | Silt % | Clay % |
| | A moderately acidic soil. Crop dependant responses. | | 6 = small, 30 = large. 15 viewed as average | | 13.87 | 0 | 0 | 0 |
| | Buffer pH | 6.30 | | | Stone content % if known | | | |
| OM | Active Carbon | 2-3% | 1.66 | | Dry BD 0.811 | | | |
| | Organic Matter | Min >3% | 14.40 | Watch for copper lockup | Field Bulk density if known | | | |
| | Organic Carbon | ideal >5% | 8.45 | | Estimated NR | 169 | kg of NR from OM | |
| | Min required OM for structural integrity | | 3 | | T/C/ha Target | 98 | Found 165 T/C/ha | |

| | | | | |
|----------------|---|---|---|--|
| Cation Summary | Soil management recommendations | | Foliar management recommendations | |
| | pH | Liming is potentially reponsive (crop dependant) (view Buffer pH) | Foliar phosphate reponsive (Molybdenum in Brassicae and pulses) | |
| | Calcium | consider applying Soil Calcium in appropriate form | | |
| | Magnesium | Reduce Soil magnesium levels | | |
| | Potash | Question crop peak demands - 190.4 kg/ha K2O Found | | |
| | Sodium | | | |
| Phosphates | 0.0 kg/ha recommended - Apply solubilising bacteria | activate phosphate | | |
| Sulphates | Ensure Crop requirement Applied | Foliar apply sulphur if High N applications or sandy soil | | |

| | | | | | | | | |
|--------------------------------|---|---------------|--------------------------|------------|--|---------|--|-------|
| Base Cation Saturation figures | Reported as kilograms/hectare - elemental (kg/ha) | | | | % Base Cation Saturation Ratios (BCSR) | | | |
| | Major Elements in Elemental form | | CROP AVAILABLE NUTRIENTS | | TOTAL IN SOIL Reserves | | | |
| | | kg/ha DESIRED | kg/ha Found | Difference | ELEMENTAL kg/ha | DESIRED | | FOUND |
| | Calcium | 3710 | 2818 | -892 | 5542 | 68.60 | | 52.11 |
| | Magnesium | 370 | 404 | 34 | 1171 | 11.40 | | 12.45 |
| | Potassium | 351 | 159 | -192 | 1197 | 3.33 | | 1.50 |
| | Sodium | 55 | 46 | -10 | 83 | 0.89 | | 0.73 |
| | Other elements | 7% | 3.20 | | Minor Importance | 7.78 | | 3.20 |
| | Hydrogen | 8% | | | | 8 | | 30 |
| | Sulphate (S03) | 96 | 53.14 | -43 | 1450 | | | |
| Phosphate (P205) | 138 | 46 | -92 | 1474 | | | | |

| | | | | | | | | |
|----------------------------|--|---------|-------------------------|--|---|---|---|------------------------------------|
| General comment on Calcium | | | | The calcium is critically below the acceptable range for roots to function | | | | |
| Cation Ratios | RATIOS : 1 | | Target level | Found | Structural comments | | Plant health comments | |
| | Calcium | Ca : Mg | 6.02 | 4.2 | Dispersible soil structure. | | A Ca:Mg balanced soil, but assess sufficiency. | |
| | Magnesium | Mg: K | 3.42 | 8.27 | Soil slumping. | | Mg too high against K; reduce Mg or increase K. | |
| | Potassium | K : Mg | 0.95 | 0.39 | Few crop Mg problems unless soil deficient. | | Potash should be increased. | |
| | Potassium | K : Na | 3.74 | 2.05 | Increased risk of disease and pests. | | Consider amending the potash and sodium ratio. | |
| Sodium | Electrical Conductivity & Total Desolvable Salts | | Sodium Adsorbtion Ratio | CROSS Ratio of Stability | Estimated Sodium Potential (ESP) | | Na : K | |
| | EC/TDS | N/A | Guide <4 | 0.15 | Totals < 3 | 1.15 | Guide result <6 | 0.73 |
| | | | | Available < 0.5 | 0.34 | Potential dispersible soil surface in rain. | | Na should be lower than K ratio OK |

| | | | | | |
|---------|----------------|--------|-------|---|------------------------------------|
| Biology | Phosphorus | 1.24 | % 5-8 | Apply soil biology - (phospate solubilising bacteria) | Biological Treatment |
| | C:P ratio | 111.8 | 40to1 | maintain humus | Yes Required |
| | pH | 5.60 | | A fungal dominated environment. | Priority; consider liming. |
| | Organic Carbon | 8.45 % | | Maintain Carbon Levels with Organic matter | Aim for soil carbon to be above 5% |

| | | | | | | | |
|----------------|--|----|------|--------|----------|--------------------------------------|---------------------------------------|
| Trace Elements | Predicted availability of trace elements | | | Found | Guides | Soil Treatments | Foliar treatment |
| | Boron | B | mg/l | 0.70 | 1.2-2.4 | Apply Granular Boron | High Boron demanding crops only |
| | Iron | Fe | mg/l | 434.00 | 18 - 189 | Apply products that create new roots | |
| | Manganese | Mn | mg/l | 6.70 | 18 -70 | apply manganese in appropriate form | Yes |
| | Copper | Cu | mg/l | 1.90 | 2.5 - 7 | consider soil copper | YES |
| | Zinc | Zn | mg/l | 76.40 | 4 - 10. | | |
| | Chlorine | Cl | mg/l | 28.00 | 9-20. | | |
| | Iodine | I | mg/l | 0.00 | 1 | | |
| | Molybdenum | Mo | mg/l | 0.50 | 0.5-0.7 | N/A | Brassicae/pulse/ clover respond to Mo |
| | Cobalt | Co | mg/l | 0.00 | 0.5-2. | not reported | |

| | | | | | | |
|---------------|---|----------------|--|-----|------------------------------------|------|
| Index Figures | Standard UK index to ISO/IEC 17025-2005 | | Morgan / Reams | | Modified Morgan | |
| | mg/l | index | Buffer pH | 6.3 | Index | Mg/l |
| | 8.3 | 0 | Phosphorus | 0 | 0 | 0 |
| | 59.3 | 0 | Potassium | 0 | 0 | 0 |
| | 163 | 3 | Magnesium | 0 | 0 | 0 |
| | UK phosphate is via the Olsen method | | Calcium | 0 | 0 | 0 |
| 0.4 | standard UK K:Mg Ratio OK | Organic Matter | 14.4 | | 0 | |
| | | | Standard testing method for Southern Ireland | | Standard testing method for Europe | |

This report is based on the soil sample as received, and labeled by the sender. The company will not be responsible for any errors in sampling or labelling.