# Soil sampling and analysis
# Effluent Irrigation Area
# Coolamon Shire Council

## October 2015

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***Disclaimer***

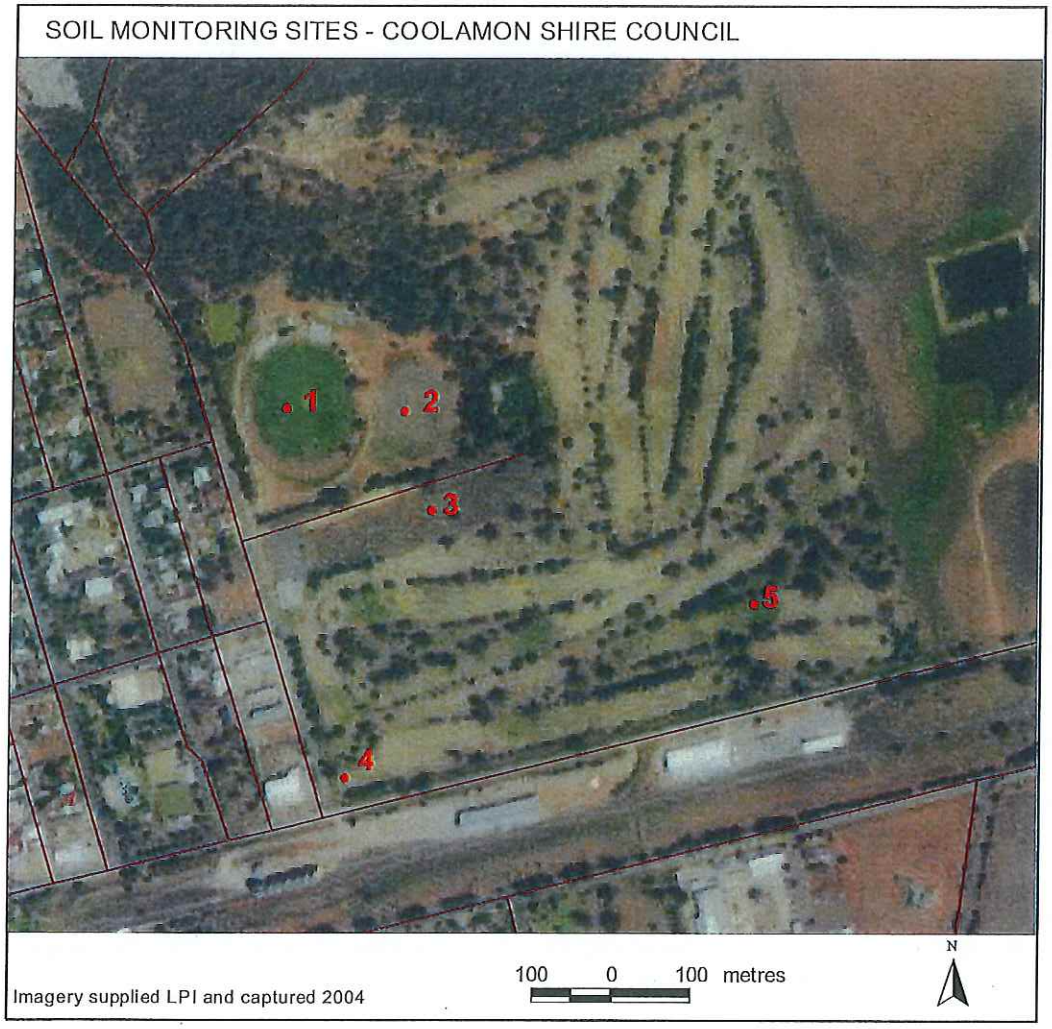
*The information contained in this report has been extracted from field and laboratory sources believed to be reliable and accurate. Neither DM McMahon Pty Ltd nor its employees will assume any responsibility for the misinterpretation of information supplied in this report. The accuracy and reliability of recommendations identified in this report need to be evaluated with due care according to individual circumstances.*

*It should be noted that findings in this report are based solely upon the said site location at the time of testing. The results of the said investigations undertaken are an overall representation of the conditions encountered. The properties of the soil within the location may change due to variations in ground conditions outside the tested area.*

Soil testing was carried out on the 12th of October 2015 at the request of Coolamon Shire Council, to satisfy statutory requirements outlined in the Environmental Protection Licence (EPL) - 7306.

Five soil sampling sites have been designated for monitoring in the EPL and are as follows:

- Point 1: The large football oval
- Point 2: The smaller football oval
- Point 3: The touch fields
- Point 4: South west corner of the golf course
- Point 5: Middle of the golf course



At the sampling sites the following pollutants are to be tested as per the EPL:

| Pollutant | Units of measure | Frequency | Sampling Method |
|---|---|---|---|
| Available phosphorus | milligrams per kilogram | Special Frequency 1 | Special Method 1 |
| Conductivity | deciSiemens per metre | Special Frequency 1 | Special Method 1 |
| Exchangeable sodium percentage | percent | Special Frequency 1 | Special Method 1 |
| Nitrate | milligrams per kilogram | Special Frequency 1 | Special Method 1 |
| pH | pH | Special Frequency 1 | Special Method 1 |

For the purposes of the table(s) above Special Frequency 1 means the collection of samples in every second year. For the purposes of the table(s) above Special Method 1 means representative composite samples must be taken of: (a) top soils; and (b) subsoils.

The basis for the soil sampling methodology will follow by reference the DEC Guidelines and is as follows:

*Topsoil*
A composite soil sample of 40 soil cores per site, taken at a depth of 0-10 cm; and

*Subsoil*
Composite subsoil samples of 5 cores at four depth intervals to 1 metre, within a 5 metre diameter plot. The four depths should fall within 10 -30, 30-60 and 60–100 cm depth increments.

*Results*

The Available Phosphorus was measured using the Colwell method. All samples were tested at Incitec-Pivot Nutrient Advantage Laboratory report number 021456712 with NATA accreditation 11958.

*Topsoil analysis*

| Test | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---|---|---|---|---|---|
| Available Phosphorus mg/kg | 240 | 68 | 51 | 18 | 250 |
| Conductivity dS/m | 0.10 | 0.10 | 0.07 | 0.05 | 0.16 |
| Exchangeable Sodium Percentage % | 2.4 | 5.3 | 8.7 | 1.3 | 10.0 |
| Nitrate as N mg/kg | 7.0 | 4 | 2 | 3 | 4 |
| pH | 7.4 | 8.0 | 8.3 | 6.5 | 8.1 |

*Subsoil analysis*

| Depth | Test | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---|---|---|---|---|---|---|
| 10-30 cm | Available Phosphorus mg/kg | 110 | 18 | 60 | 7 | 72 |
| | Conductivity dS/m | 0.12 | 0.06 | 0.12 | 0.04 | 0.22 |
| | Exchangeable Sodium Percentage % | 6.4 | 6.2 | 11.0 | 2.1 | 24.0 |
| | Nitrate as N mg/kg | 5 | 2 | 2 | 1 | 1 |
| | pH | 7.9 | 8.2 | 8.3 | 7.0 | 8.8 |
| 30-60 cm | Available Phosphorus mg/kg | 17 | 7 | 22 | <5 | 24 |
| | Conductivity dS/m | 0.12 | 0.05 | 0.14 | 0.06 | 0.49 |
| | Exchangeable Sodium Percentage % | 9.0 | 12.0 | 13.0 | 6.7 | 38.0 |
| | Nitrate as N mg/kg | 2 | 2 | 1 | 1 | 1 |
| | pH | 8.3 | 8.2 | 7.7 | 7.7 | 8.6 |
| 60-100 cm | Available Phosphorus mg/kg | 7 | <5 | 12 | <5 | 7 |
| | Conductivity dS/m | 0.15 | 0.21 | 0.19 | 0.31 | 0.81 |
| | Exchangeable Sodium Percentage % | 15.0 | 11.0 | 12.0 | 8.6 | 30.0 |
| | Nitrate as N mg/kg | 1 | <1 | <1 | 1 | 1 |
| | pH | 7.3 | 7.7 | 6.9 | 8.5 | 8.9 |

*Comments*

The levels of available phosphorus in the topsoil and subsoil is generally adequate for agronomic purposes with the exception of site 4 which is slightly below desirable levels.

Levels of salinity in the topsoil and subsoil are generally low and should not cause any problems in the foreseeable future.

Exchangeable Sodium Percentage in the topsoil ranges from non-sodic to marginally sodic. Sodic soils can lead to problems with permeability, surface crusting and erosion. Subsoil levels range from 2.1 to 38.0 which are considered inherent to the local soil type.

Nitrate levels are considered very low and are inadequate for agronomic purposes.

Topsoil pH ranges from neutral to mildly alkaline. Subsoils range from nuetral to strongly alkaline.

*References*

DEC 2004, *Environmental guidelines, Use of Effluent by Irrigation,* Department of Environment and Conservation (NSW), Sydney.

Hazelton, P and Murphy, B 2007, I*nterpreting Soil Test Results, What do all the Numbers Mean?* CSIRO Publishing Collingwood, Victoria

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

D M MCMAHON PTY LTD ATF
PO BOX 6118

WAGGA WAGGA
NSW 2650

**Report Print Date:** 22/10/2015
**Agent/Dealer:**
**Advisor/Contact:** D M MCMAHON PTY LTD
**Phone:** 02 6931 0510

| **Sample No** | **021456712** | **021456713** | **021456714** | **021456715** | **021456716** | **021456717** |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | E11 | E11 | E11 | E11 |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 |
| Paddock Name | CSC | CSC | CSC | CSC | CSC | CSC |
| Sample Name | NO 1 0-10CM | NO 1 10-30CM | NO 1 30-60CM | NO 1 60-100CM | NO 2 0-10CM | NO 2 10-30CM |
| Sample Type | Soil | Soil | Soil | Soil | Soil | Soil |
| Sample Depth (cm) | 0 - 10 | 10 - 30 | 30 - 60 | 60 - 100 | 0 - 10 | 10 - 30 |
| Sampling Date | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| pH (1:5 Water) | | 7.4 | 7.9 | 8.3 | 8.6 | 8.0 | 8.2 |
| pH (1:5 CaCl2) | | 6.6 | 6.9 | 7.1 | 7.3 | 6.9 | 6.9 |
| Electrical Conductivity (1:5 Water) | dS/m | 0.10 | 0.12 | 0.12 | 0.15 | 0.10 | 0.06 |
| Chloride | mg/kg | 13 | 16 | 24 | 32 | <10 | <10 |
| Nitrate Nitrogen (NO3) | mg/kg | 7 | 5 | 2 | 1 | 4 | 2 |
| Ammonium Nitrogen | mg/kg | 3 | 2 | 1 | 1 | 3 | 2 |
| Phosphorus (Colwell) | mg/kg | 240 | 110 | 17 | 7 | 68 | 18 |
| Phosphorus Buffer Index (PBI-Col) | | 66 | 60 | 82 | 77 | 47 | 35 |
| Sulphate Sulphur (KCl40) | mg/kg | 10 | 23 | 32 | 47 | 5 | 4 |
| Cation Exchange Capacity | cmol(+)/kg | 12.0 | 10.7 | 9.8 | 12.3 | 11.0 | 7.7 |
| Calcium (Amm-acet.) | cmol(+)/kg | 8.9 | 6.9 | 5.8 | 5.9 | 7.8 | 5.3 |
| Magnesium (Amm-acet.) | cmol(+)/kg | 1.4 | 1.8 | 1.9 | 3.5 | 1.3 | 1.0 |
| Sodium (Amm-acet.) | cmol(+)/kg | 0.29 | 0.69 | 0.89 | 1.80 | 0.58 | 0.48 |
| Potassium (Amm-acet.) | cmol(+)/kg | 1.20 | 1.20 | 1.10 | 0.87 | 1.20 | 0.88 |
| Available Potassium | mg/kg | 450 | 470 | 410 | 340 | 470 | 340 |
| Aluminium (KCl) | cmol(+)/kg | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 |
| Aluminium (KCl) | mg/kg | 12.0 | 11.0 | 12.0 | 25.0 | 12.0 | 13.0 |
| Aluminium Saturation | % | 1.1 | 1.1 | 1.4 | 2.2 | 1.2 | 1.8 |
| Calcium % of cations | % | 74.0 | 65.0 | 59.0 | 48.0 | 71.0 | 68.0 |
| Magnesium % of cations | % | 12.0 | 17.0 | 20.0 | 28.0 | 12.0 | 12.0 |


Analyses conducted by **Nutrient Advantage Laboratory Services**
8 South Road, Werribee VIC 3030
NATA Accreditation No: 11958
Tel: 1800 803 453
Certificate of Analysis is available upon request.
Email: lab.feedback@incitecpivot.com.au

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

| Sample No | 021456712 | 021456713 | 021456714 | 021456715 | 021456716 | 021456717 |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | E11 | E11 | E11 | E11 |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 |
| Paddock Name | CSC | CSC | CSC | CSC | CSC | CSC |
| Sample Name | NO 1 0-10CM | NO 1 10-30CM | NO 1 30-60CM | NO 1 60-100CM | NO 2 0-10CM | NO 2 10-30CM |
| Sample Type | Soil | Soil | Soil | Soil | Soil | Soil |
| Sample Depth (cm) | 0 - 10 | 10 - 30 | 30 - 60 | 60 - 100 | 0 - 10 | 10 - 30 |
| Sampling Date | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| Sodium % of cations | % | 2.40 | 6.40 | 9.00 | 15.00 | 5.30 | 6.20 |
| Potassium % of cations | % | 9.70 | 11.00 | 11.00 | 7.00 | 11.00 | 11.00 |
| Calcium/Magnesium Ratio | | 6.4 | 3.8 | 3.1 | 1.7 | 6.0 | 5.6 |

The results reported pertain only to the samples submitted.
Analyses performed on soil dried at 40 degrees Celsius and ground to <2mm (excluding moisture assay)
Analyses performed on plant material dried at 70 degrees Celsius and ground to <2mm
Water analyses performed on an 'as received' basis
Analytical results reported by the laboratory as 'less than' the level of reporting, will be deemed by Nutrient Advantage Advice as being equivalent to the level of reporting for both calculation and interpretive purposes

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

D M MCMAHON PTY LTD ATF
PO BOX 6118

WAGGA WAGGA
NSW 2650

**Report Print Date:** 22/10/2015
**Agent/Dealer:**
**Advisor/Contact:** D M MCMAHON PTY LTD
**Phone:** 02 6931 0510

| **Sample No** | **021456718** | **021456719** | **021456720** | **021456721** | **021456722** | **021456723** |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | E11 | E11 | E11 | E11 |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 |
| Paddock Name | CSC | CSC | CSC | CSC | CSC | CSC |
| Sample Name | NO 2 30-60CM | NO 2 60-100CM | NO 3 0-10CM | NO 3 10-30CM | NO 3 30-60CM | NO 3 60-100CM |
| Sample Type | Soil | Soil | Soil | Soil | Soil | Soil |
| Sample Depth (cm) | 30 - 60 | 60 - 100 | 0 - 10 | 10 - 30 | 30 - 60 | 60 - 100 |
| Sampling Date | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| pH (1:5 Water) | | 8.2 | 7.7 | 7.9 | 8.3 | 7.7 | 6.9 |
| pH (1:5 CaCl2) | | 6.6 | 6.7 | 6.8 | 7.1 | 6.6 | 6.0 |
| Electrical Conductivity (1:5 Water) | dS/m | 0.05 | 0.21 | 0.07 | 0.12 | 0.14 | 0.19 |
| Chloride | mg/kg | <10 | 38 | 11 | 17 | 57 | 130 |
| Nitrate Nitrogen (NO3) | mg/kg | 2 | <1 | 2 | 2 | 1 | <1 |
| Ammonium Nitrogen | mg/kg | 1 | 1 | 1 | 2 | 1 | 1 |
| Phosphorus (Colwell) | mg/kg | 7 | <5 | 51 | 60 | 22 | 12 |
| Phosphorus Buffer Index (PBI-Col) | | 38 | 62 | 10 | 61 | 71 | 67 |
| Sulphate Sulphur (KCl40) | mg/kg | 5 | 78 | 4 | 6 | 19 | 43 |
| Cation Exchange Capacity | cmol(+)/kg | 7.1 | 14.3 | 3.4 | 10.4 | 9.7 | 8.1 |
| Calcium (Amm-acet.) | cmol(+)/kg | 3.5 | 5.5 | 1.5 | 5.6 | 4.5 | 3.0 |
| Magnesium (Amm-acet.) | cmol(+)/kg | 1.8 | 5.7 | 1.1 | 2.5 | 2.7 | 2.9 |
| Sodium (Amm-acet.) | cmol(+)/kg | 0.83 | 1.60 | 0.30 | 1.10 | 1.20 | 1.00 |
| Potassium (Amm-acet.) | cmol(+)/kg | 0.72 | 1.40 | 0.54 | 1.10 | 1.20 | 1.20 |
| Available Potassium | mg/kg | 280 | 540 | 210 | 440 | 480 | 480 |
| Aluminium (KCl) | cmol(+)/kg | 0.2 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Aluminium (KCl) | mg/kg | 19.0 | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 |
| Aluminium Saturation | % | 2.9 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Calcium % of cations | % | 50.0 | 39.0 | 43.0 | 54.0 | 47.0 | 37.0 |
| Magnesium % of cations | % | 25.0 | 40.0 | 32.0 | 24.0 | 28.0 | 35.0 |

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

| Sample No | 021456718 | 021456719 | 021456720 | 021456721 | 021456722 | 021456723 |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | E11 | E11 | E11 | E11 |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 |
| Paddock Name | CSC | CSC | CSC | CSC | CSC | CSC |
| Sample Name | NO 2 30-60CM | NO 2 60-100CM | NO 3 0-10CM | NO 3 10-30CM | NO 3 30-60CM | NO 3 60-100CM |
| Sample Type | Soil | Soil | Soil | Soil | Soil | Soil |
| Sample Depth (cm) | 30 - 60 | 60 - 100 | 0 - 10 | 10 - 30 | 30 - 60 | 60 - 100 |
| Sampling Date | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| Sodium % of cations | % | 12.00 | 11.00 | 8.70 | 11.00 | 13.00 | 12.00 |
| Potassium % of cations | % | 10.00 | 9.60 | 16.00 | 11.00 | 13.00 | 15.00 |
| Calcium/Magnesium Ratio | | 1.9 | 1.0 | 1.4 | 2.2 | 1.7 | 1.0 |

The results reported pertain only to the samples submitted.
Analyses performed on soil dried at 40 degrees Celsius and ground to <2mm (excluding moisture assay)
Analyses performed on plant material dried at 70 degrees Celsius and ground to <2mm
Water analyses performed on an 'as received' basis
Analytical results reported by the laboratory as 'less than' the level of reporting, will be deemed by Nutrient Advantage Advice as being equivalent to the level of reporting for both calculation and interpretive purposes

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

D M MCMAHON PTY LTD ATF
PO BOX 6118

WAGGA WAGGA
NSW 2650

**Report Print Date:** 22/10/2015
**Agent/Dealer:**
**Advisor/Contact:** D M MCMAHON PTY LTD
**Phone:** 02 6931 0510

| **Sample No** | **021456724** | **021456725** | **021456726** | **021456727** | **021456728** | **021456729** |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | E11 | E11 | E11 | E11 |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 |
| Paddock Name | CSC | CSC | CSC | CSC | CSC | CSC |
| Sample Name | NO 4 0-10CM | NO 4 10-30CM | NO 4 30-60CM | NO 4 60-100CM | NO 5 0-10CM | NO 5 10-30CM |
| Sample Type | Soil | Soil | Soil | Soil | Soil | Soil |
| Sample Depth (cm) | 0 - 10 | 10 - 30 | 30 - 60 | 60 - 100 | 0 - 10 | 10 - 30 |
| Sampling Date | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| pH (1:5 Water) | | 6.5 | 7.0 | 7.7 | 8.5 | 8.1 | 8.8 |
| pH (1:5 CaCl2) | | 5.3 | 5.6 | 6.3 | 7.7 | 6.9 | 7.6 |
| Electrical Conductivity (1:5 Water) | dS/m | 0.05 | 0.04 | 0.06 | 0.31 | 0.16 | 0.22 |
| Chloride | mg/kg | <10 | <10 | 12 | 91 | 27 | 86 |
| Nitrate Nitrogen (NO3) | mg/kg | 3 | 1 | 1 | 1 | 4 | 1 |
| Ammonium Nitrogen | mg/kg | 2 | 2 | 1 | 1 | 1 | 1 |
| Phosphorus (Colwell) | mg/kg | 18 | 7 | <5 | <5 | 250 | 72 |
| Phosphorus Buffer Index (PBI-Col) | | 55 | 46 | 55 | 68 | 97 | 59 |
| Sulphate Sulphur (KCl40) | mg/kg | 2 | 1 | 2 | 11 | 4 | 12 |
| Cation Exchange Capacity | cmol(+)/kg | 9.7 | 9.5 | 15.6 | 24.0 | 14.6 | 11.7 |
| Calcium (Amm-acet.) | cmol(+)/kg | 6.2 | 6.1 | 7.5 | 12.0 | 7.4 | 4.4 |
| Magnesium (Amm-acet.) | cmol(+)/kg | 2.1 | 2.0 | 5.7 | 8.3 | 4.0 | 3.2 |
| Sodium (Amm-acet.) | cmol(+)/kg | 0.13 | 0.20 | 1.00 | 2.10 | 1.50 | 2.80 |
| Potassium (Amm-acet.) | cmol(+)/kg | 1.30 | 1.20 | 1.40 | 1.50 | 1.60 | 1.20 |
| Available Potassium | mg/kg | 510 | 450 | 540 | 590 | 630 | 490 |
| Aluminium (KCl) | cmol(+)/kg | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Aluminium (KCl) | mg/kg | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 | <9.0 |
| Aluminium Saturation | % | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Calcium % of cations | % | 64.0 | 64.0 | 48.0 | 50.0 | 51.0 | 38.0 |
| Magnesium % of cations | % | 21.0 | 21.0 | 36.0 | 34.0 | 28.0 | 28.0 |


Analyses conducted by **Nutrient Advantage Laboratory Services**
8 South Road, Werribee VIC 3030
NATA Accreditation No: 11958
Tel: 1800 803 453
Certificate of Analysis is available upon request.
Email: lab.feedback@incitecpivot.com.au

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## Nutrient Advantage Advice® Summary Report

| Sample No | 021456724 | 021456725 | 021456726 | 021456727 | 021456728 | 021456729 |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | E11 | E11 | E11 | E11 |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 | 21/10/2015 |
| Paddock Name | CSC | CSC | CSC | CSC | CSC | CSC |
| Sample Name | NO 4 0-10CM | NO 4 10-30CM | NO 4 30-60CM | NO 4 60-100CM | NO 5 0-10CM | NO 5 10-30CM |
| Sample Type | Soil | Soil | Soil | Soil | Soil | Soil |
| Sample Depth (cm) | 0 - 10 | 10 - 30 | 30 - 60 | 60 - 100 | 0 - 10 | 10 - 30 |
| Sampling Date | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 | 12/10/2015 |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| Sodium % of cations | % | 1.30 | 2.10 | 6.70 | 8.60 | 10.00 | 24.00 |
| Potassium % of cations | % | 13.00 | 12.00 | 8.80 | 6.30 | 11.00 | 11.00 |
| Calcium/Magnesium Ratio | | 3.0 | 3.1 | 1.3 | 1.4 | 1.9 | 1.4 |

The results reported pertain only to the samples submitted.
Analyses performed on soil dried at 40 degrees Celsius and ground to <2mm (excluding moisture assay)
Analyses performed on plant material dried at 70 degrees Celsius and ground to <2mm
Water analyses performed on an 'as received' basis
Analytical results reported by the laboratory as 'less than' the level of reporting, will be deemed by Nutrient Advantage Advice as being equivalent to the level of reporting for both calculation and interpretive purposes

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

D M MCMAHON PTY LTD ATF
PO BOX 6118

WAGGA WAGGA
NSW 2650

**Report Print Date:** 22/10/2015
**Agent/Dealer:**
**Advisor/Contact:** D M MCMAHON PTY LTD
**Phone:** 02 6931 0510

| **Sample No** | **021456730** | **021456731** | | | | |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | | | | |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | | | | |
| Paddock Name | CSC | CSC | | | | |
| Sample Name | NO 5 30-60CM | NO 5 60-100CM | | | | |
| Sample Type | Soil | Soil | | | | |
| Sample Depth (cm) | 30 - 60 | 60 - 100 | | | | |
| Sampling Date | 12/10/2015 | 12/10/2015 | | | | |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| pH (1:5 Water) | | 8.6 | 8.9 | | | | |
| pH (1:5 CaCl2) | | 7.6 | 8.1 | | | | |
| Electrical Conductivity (1:5 Water) | dS/m | 0.49 | 0.81 | | | | |
| Chloride | mg/kg | 330 | 600 | | | | |
| Nitrate Nitrogen (NO3) | mg/kg | 1 | 1 | | | | |
| Ammonium Nitrogen | mg/kg | 1 | 1 | | | | |
| Phosphorus (Colwell) | mg/kg | 24 | 7 | | | | |
| Phosphorus Buffer Index (PBI-Col) | | 49 | 42 | | | | |
| Sulphate Sulphur (KCl40) | mg/kg | 62 | 120 | | | | |
| Cation Exchange Capacity | cmol(+)/kg | 13.6 | 19.9 | | | | |
| Calcium (Amm-acet.) | cmol(+)/kg | 3.5 | 6.7 | | | | |
| Magnesium (Amm-acet.) | cmol(+)/kg | 3.8 | 6.1 | | | | |
| Sodium (Amm-acet.) | cmol(+)/kg | 5.10 | 5.90 | | | | |
| Potassium (Amm-acet.) | cmol(+)/kg | 1.10 | 1.30 | | | | |
| Available Potassium | mg/kg | 450 | 520 | | | | |
| Aluminium (KCl) | cmol(+)/kg | <0.1 | <0.1 | | | | |
| Aluminium (KCl) | mg/kg | <9.0 | <9.0 | | | | |
| Aluminium Saturation | % | <1.0 | <1.0 | | | | |
| Calcium % of cations | % | 26.0 | 33.0 | | | | |
| Magnesium % of cations | % | 28.0 | 30.0 | | | | |


Analyses conducted by **Nutrient Advantage Laboratory Services**
8 South Road, Werribee VIC 3030
NATA Accreditation No: 11958
Tel: 1800 803 453
Certificate of Analysis is available upon request.
Email: lab.feedback@incitecpivot.com.au

# Nutrient Advantage®

## Nutrient Advantage Advice® Summary Report

| Sample No | 021456730 | 021456731 | | | | |
|---|---|---|---|---|---|---|
| Test Code | E11 | E11 | | | | |
| Lab Results Received Date | 21/10/2015 | 21/10/2015 | | | | |
| Paddock Name | CSC | CSC | | | | |
| Sample Name | NO 5 30-60CM | NO 5 60-100CM | | | | |
| Sample Type | Soil | Soil | | | | |
| Sample Depth (cm) | 30 - 60 | 60 - 100 | | | | |
| Sampling Date | 12/10/2015 | 12/10/2015 | | | | |

| Analyte / Assay | Unit | Value | | | | | |
|---|---|---|---|---|---|---|---|
| Sodium % of cations | % | 38.00 | 30.00 | | | | |
| Potassium % of cations | % | 8.40 | 6.70 | | | | |
| Calcium/Magnesium Ratio | | 0.9 | 1.1 | | | | |

The results reported pertain only to the samples submitted.
Analyses performed on soil dried at 40 degrees Celsius and ground to <2mm (excluding moisture assay)
Analyses performed on plant material dried at 70 degrees Celsius and ground to <2mm
Water analyses performed on an 'as received' basis
Analytical results reported by the laboratory as 'less than' the level of reporting, will be deemed by Nutrient Advantage Advice as being equivalent to the level of reporting for both calculation and interpretive purposes