

# Project Catalyst Report

## K-Humate Product trial on reduce N rate.

### Grower Information

<b>Grower Name:</b>	Norm and Peter Reid
<b>Entity Name:</b>	Reid N&L FT T/A Reid Farming
<b>Trial Farm No/Name:</b>	Humates Trial F#763A B#4-3
<b>Mill Area:</b>	Victoria
<b>Total Farm Area ha:</b>	300
<b>No. Years Farming:</b>	25 years In sugarcane
<b>Trial Subdistrict:</b>	Pinnacle Hills, Masters road.
<b>Area under Cane ha:</b>	210.85

## Background Information

**Aim:** To see if a Potassium Humate product can increase nutrient uptake of the plant

**Background: (Rationale for why this might work)**

We know that humates have a double cation exchange with nutrients in the soil, making them more available to the plant. We are hoping a product like this can increase natural nutrient uptake by the plant resulting in a stronger, healthier crop, with better yield and sugar.

**Potential Water Quality Benefit:**

If the sugarcane is taking up the nutrients more efficiently then this reduces the nutrient loss pathway to water runoff.

**Expected Outcome of Trial:**

That the treatments with the K-humate product will perform better as the k-humate product should make more nutrients available. Norm is already on a reduce rate of nitrogen for his farm. We are hoping to see better yield and ratoon life with using this product.

**Service provider contact:** Megan Zahmel 0447 317 102

**Where did this idea come from:** Chrissa Rixon

**Plan -  
Project  
Activities**

**Date :** (mth/year to be undertaken)

**Activities :**(breakdown of each activity for each stage)

<b>Stage 1</b>	<b>Establish trial 2017</b>	<ul style="list-style-type: none"> <li>• Soil sample used from 2016 for plant crop. Crop is now 1<sup>st</sup> ratoon. Taken on the 13<sup>th</sup> May 2016</li> <li>• Trial design completed</li> <li>• NMP completed – July 2017</li> <li>• 29/11/2017 – Trial block was marked out in preparation to apply trial product</li> <li>• 15/12/2017 – Product applied to trial</li> </ul>
<b>Stage 2</b>	<b>Sampling 2018</b>	<ul style="list-style-type: none"> <li>• 3<sup>rd</sup> leaf sampling - 23<sup>rd</sup> of April 2018</li> <li>• Final Harvest and CCS results – 26<sup>th</sup> of September 2018</li> <li>• Re-apply product – 19<sup>th</sup> of November 2018</li> </ul>
<b>Stage 3</b>	<b>Sampling 2019</b>	<ul style="list-style-type: none"> <li>• 3<sup>rd</sup> leaf sampling – 4<sup>th</sup> April 2019</li> <li>• Harvest results – 2019 season</li> </ul>
<b>Stage 4</b>		
<b>Stage 5</b>		
<b>Stage 6</b>		

## Project Trial site details

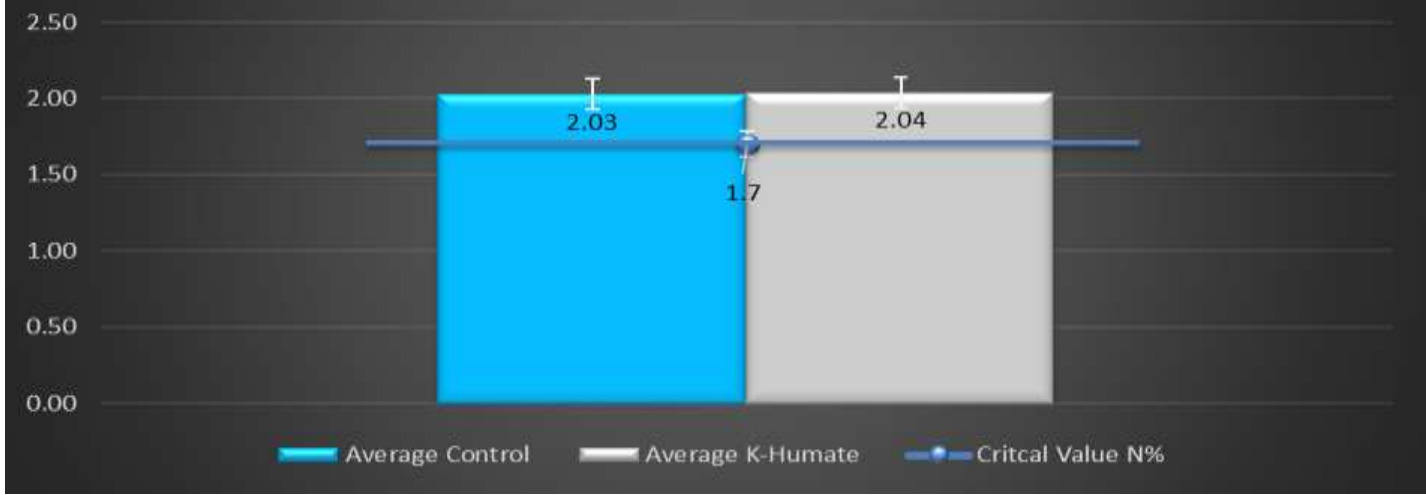
<b>Trial Crop:</b>	Sugarcane
<b>Variety:</b>	Q208
<b>Rat/Plt:</b>	1 <sup>st</sup> ratoon 2018
<b>Trial Block No/Name:</b>	#4-3
<b>Trial Block Size Ha:</b>	4.104ha
<b>Trial Block Position (GPS):</b>	Refer to google earth map
<b>Soil Type:</b>	Clay



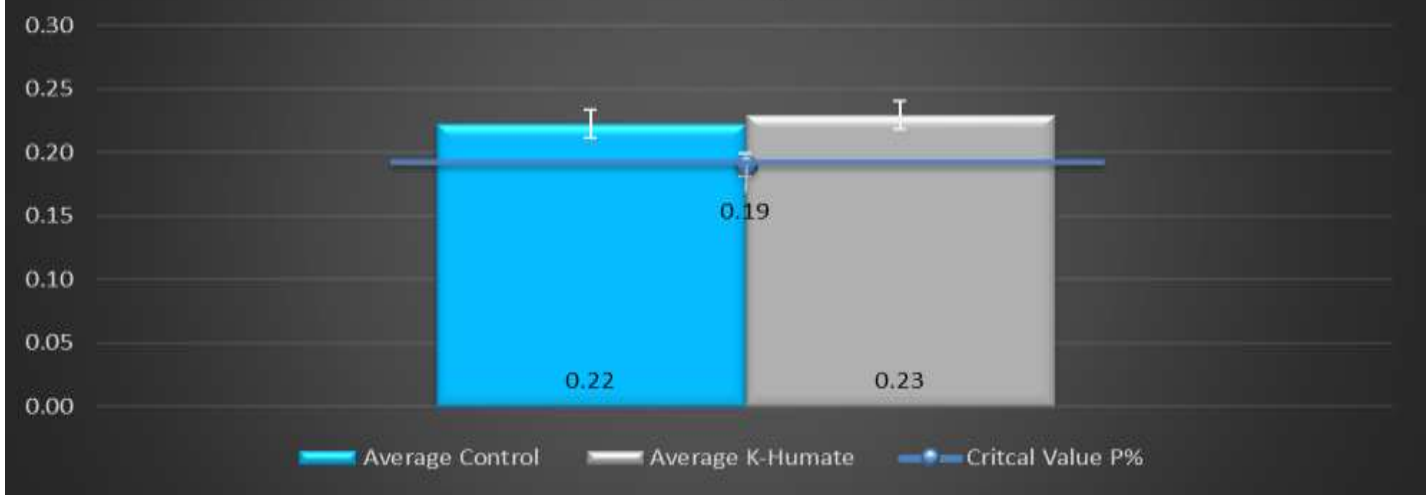
**Results:**

**2018 3<sup>rd</sup> leaf results**

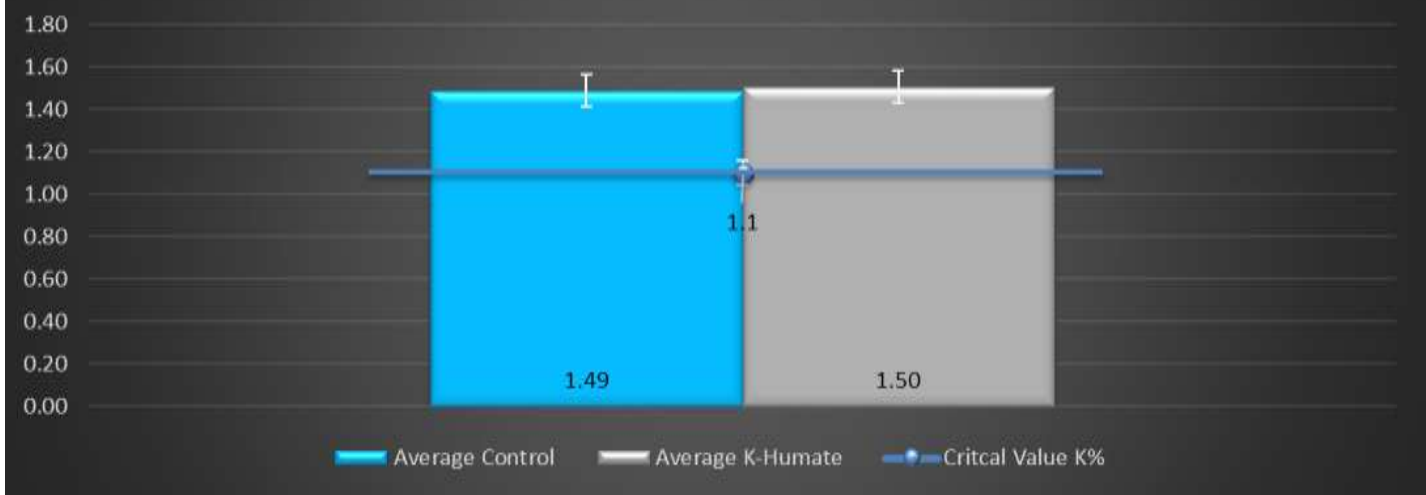
**3rd leaf results average for N% 2018**



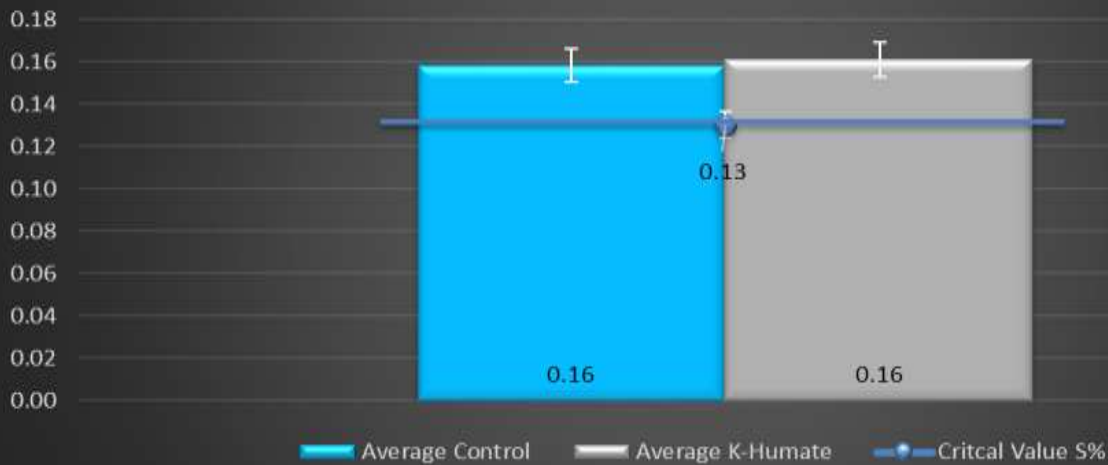
**3rd leaf results averaged for P% 2018**



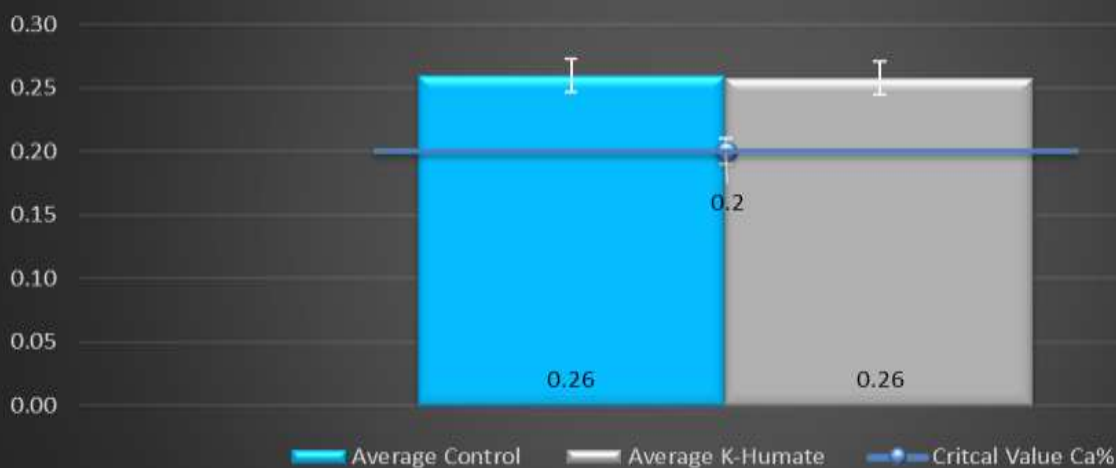
**3rd leaf results averaged for K% 2018**



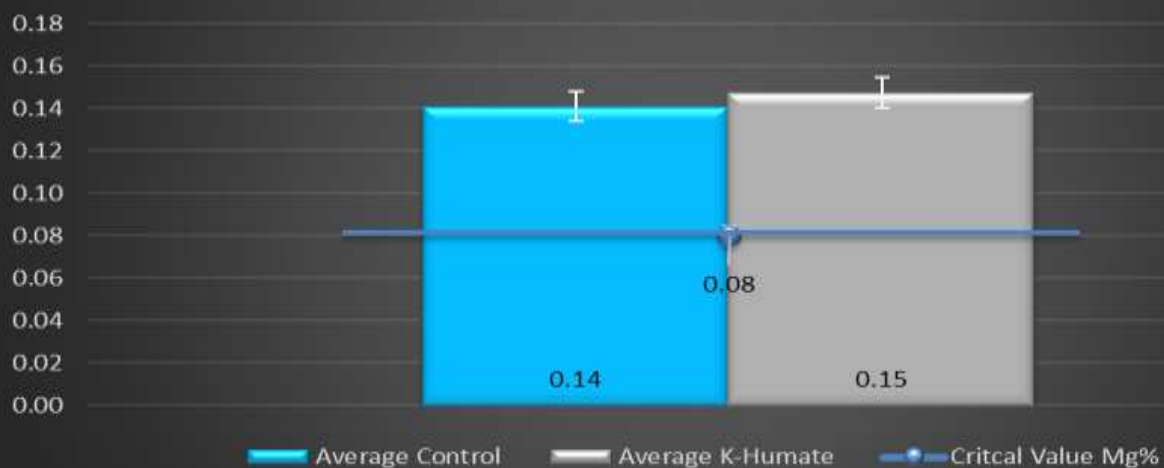
### 3rd leaf results averaged for S% 2018



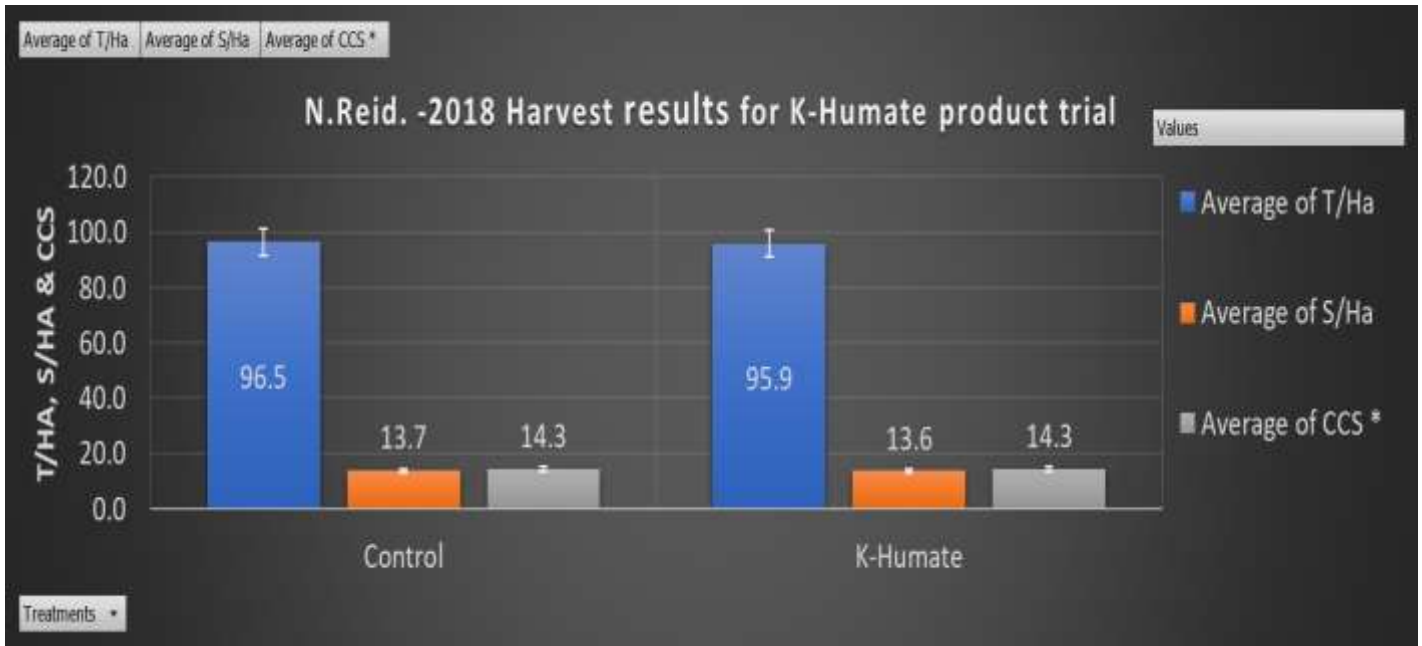
### 3rd leaf results averaged for Ca% 2018



### 3rd leaf results averaged for Mg% 2018



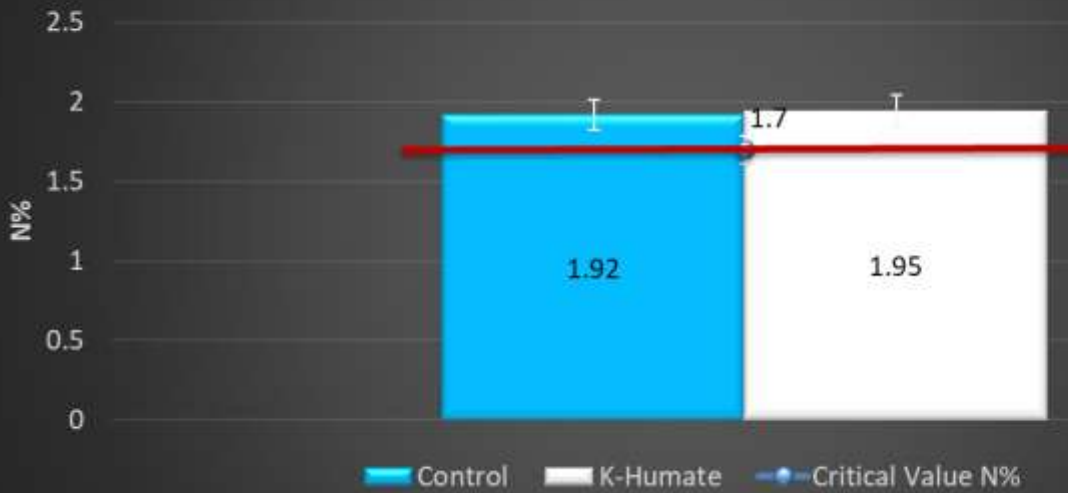
## 2018 Harvest results



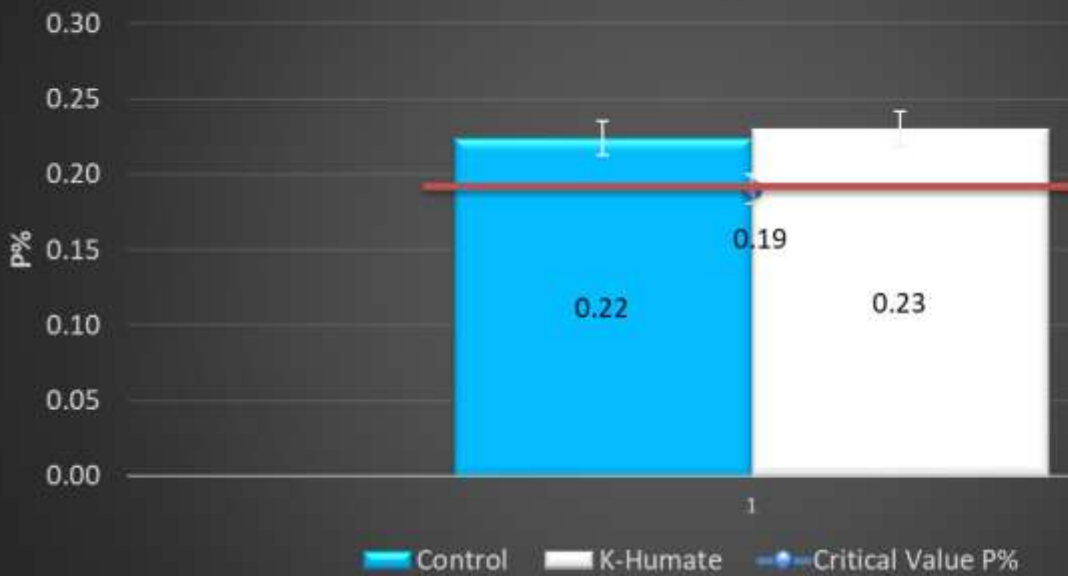


## 2019 3<sup>rd</sup> leaf results

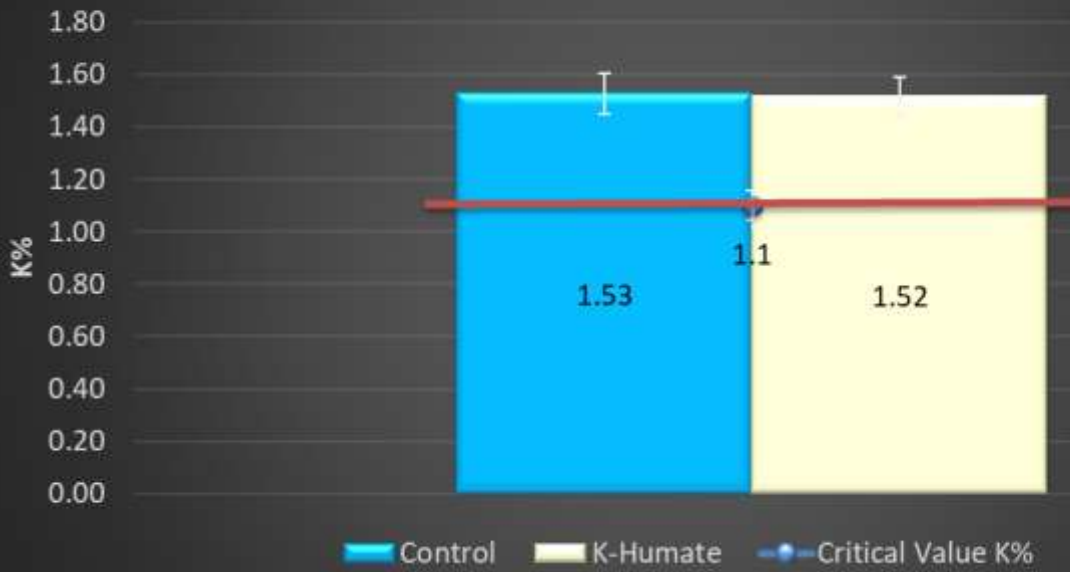
### 3rd leaf results for N% - 4th April 2019 - K-Humate trial



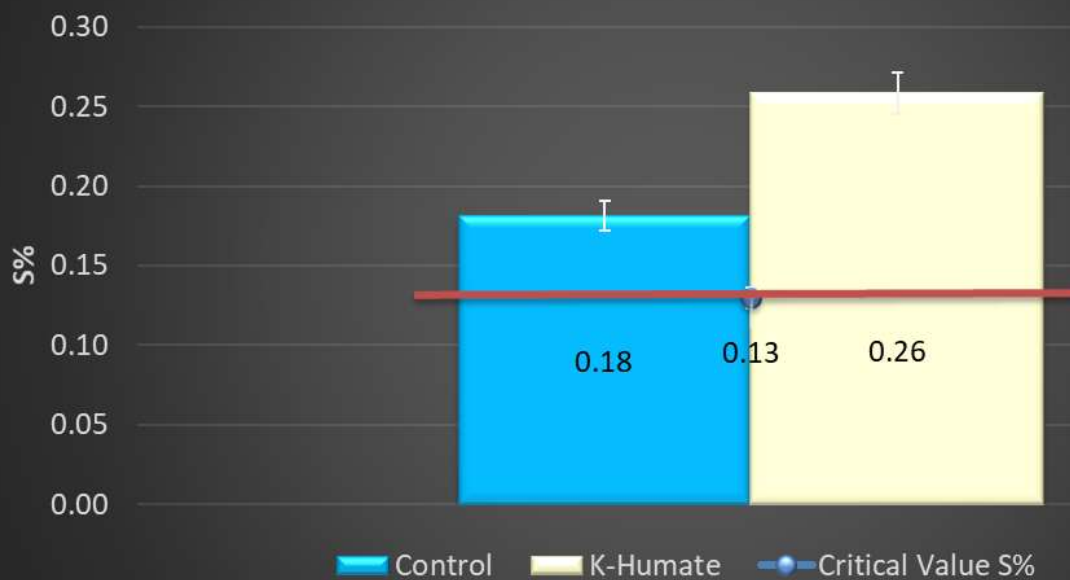
### 3rd leaf results for P% - 4th April 2019 - K-Humate trial



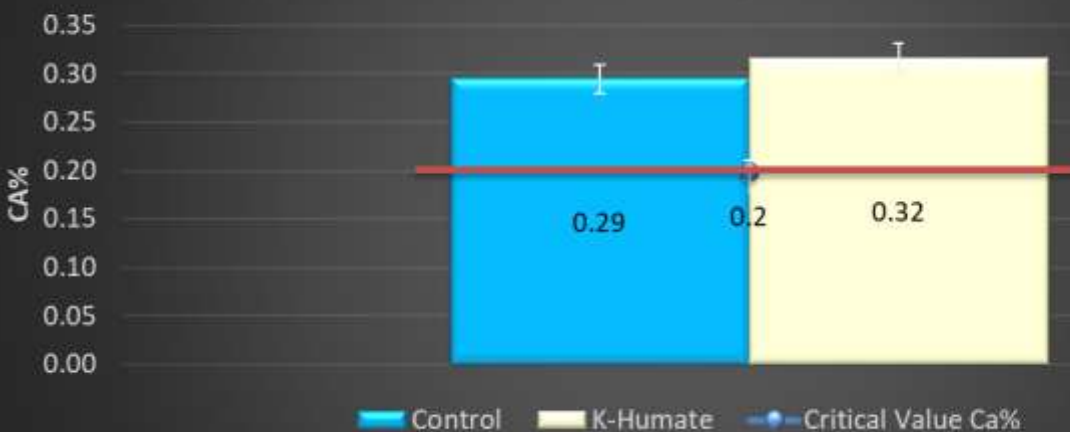
### 3rd leaf results for K% - 4th April 2019 - K-Humate trial



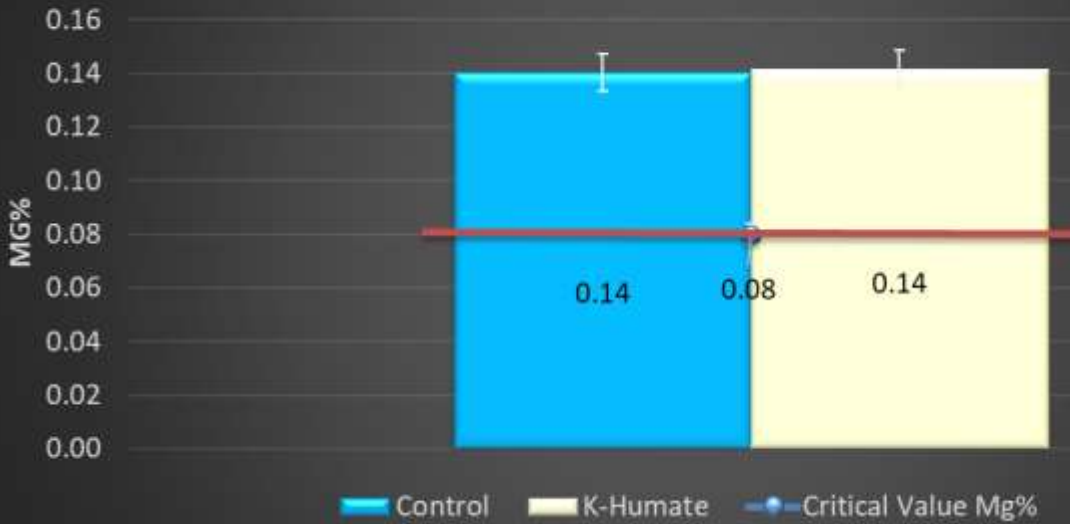
### 3rd leaf results for S% - 4th April 2019 - K-Humate trial



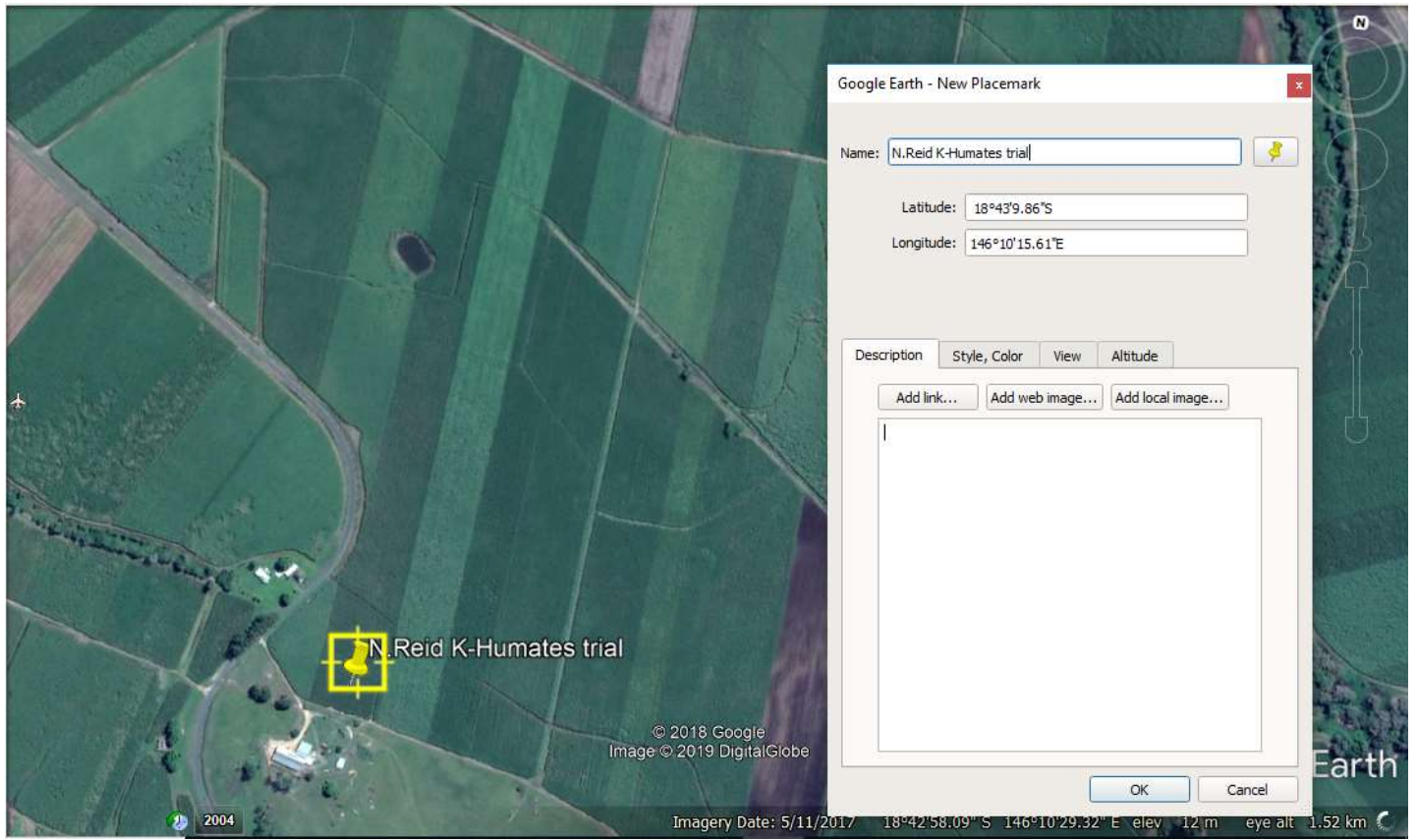
### 3rd leaf results for Ca% - 4th April 2019 - K-Humate trial



### 3rd leaf results for Mg % - 4th April 2019 - K-Humate trial



### Google Earth Reference Map



## Conclusions and comments

A good results for the first year of data. There was no statistical different between treatments. It is thought that the K-Humate treatments will improve as the trial progresses.

### Advantages of this Practice Change:

Possible soil health advantages, nutrient uptake advantages

### Disadvantages of this Practice Change:

Cost of the product if there are no beneficial results.

### Will you be using this practice in the future:

Maybe depending on 2019 seasons results

### % of farm you would be confident to use this practice :

Not sure yet