

Understanding Your Plant Tissue Test



Honeyland Ag Services

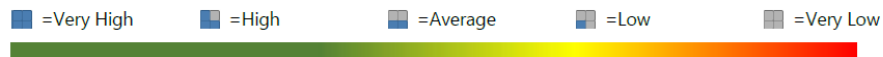
Plant Tissue Report

Account | Honeyland Miscellaneous
 Farm |
 Field | Home East
 Date Reported | 2021-12-02

S = Sufficiency Ranges, B = Balance Interpretation

Lab ID	Sample ID	Date Recv	Crop Type	Plant Stage	Plant Part	NBI	Protein	Fibre	Photosynthate	Starch	Mineral	Other	
P20211055	Home	16-Jun-21	Corn	5	Leaf	94	29.0	37.9	25.0	1.6	7.9	0.1	
	Nitrogen	Phosphorus	Potassium	Sulfur	Magnesium	Calcium	Sodium	Zinc	Iron	Manganese	Copper	Boron	Aluminum
	4.64	0.38	1.47	0.26	0.49	0.69	0.00	22	523	56	17.8	7.2	100
	6.0	3.2	-42.4	0.0	10.3	7.6	-2.6	12.9	0.0	8.9	0.0		

Comments:



Lab ID	Sample ID	Date Recv	Crop Type	Plant Stage	Plant Part
P20211055	Home	16-Jun-21	Corn	5	Leaf

Sample Information - Contains the information that we received on the sample and the ranges were used based off of the crop type and growth stage.

NBI
94

NBI (Nutrient Balance index) – Is a score that calculates the amount of variability in the nutrient content of the sample. A high score implies that there is imbalance in the nutrient content.

NBI interpretation:

0-50 – Excellent

50-100 – Some imbalance

100-175 – Imbalances are present

175+ – Severe imbalance

Protein	Fibre	Photosynthate	Starch	Mineral	Other
29.0	37.9	25.0	1.6	7.9	0.1

Sample Composition – The percentage of the dry matter that is made up of protein, fibre, photosynthate, starch, mineral content and what is not identified (other).

Protein – Proteins perform a vast array of functions within organisms, including catalysing metabolic reactions, DNA replication, responding to stimuli, providing structure to cells and organisms, and transporting molecules from one location to another. Nitrogen a critical component of Protein.

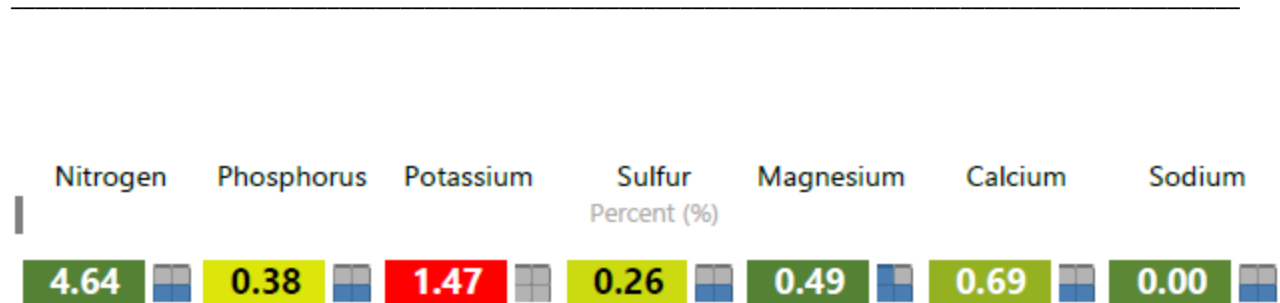
Fibre – Is the structural component of the plant.

Photosynthate - The amount of sugar that was produced by photosynthesis that is currently in the leaf. This can vary depending on the environmental conditions the plant is facing. In stressful conditions, the amount of photosynthate in the leaf increases. However certain nutrient deficiencies (manganese in particular) can disrupt photosynthesis which causes a decrease. Changes in the photosynthate levels can have a dilution/concentration effect on the nutrient levels that are measured in the leaf.

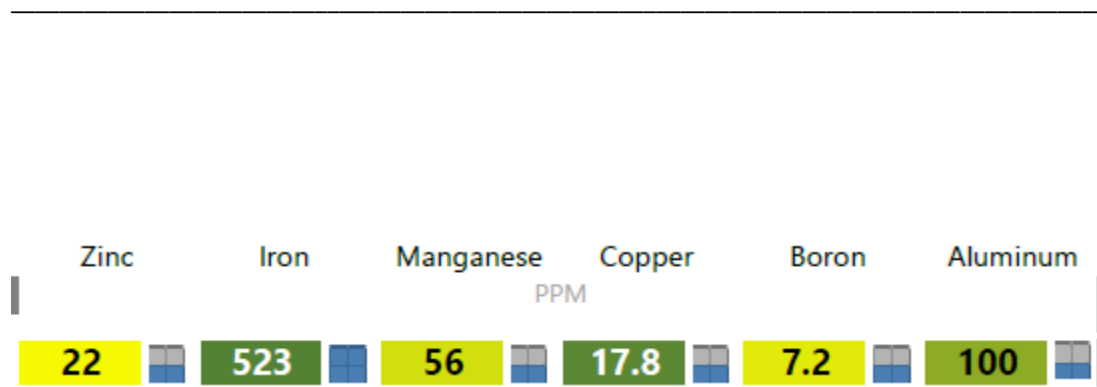
Starch – Is another compound related to photosynthesis that can accumulate in the leaf. Increases in starch indicate storage rather than movement of photosynthates.

Mineral – The mineral content of a leaf is normally between 5-12% of the leaf.

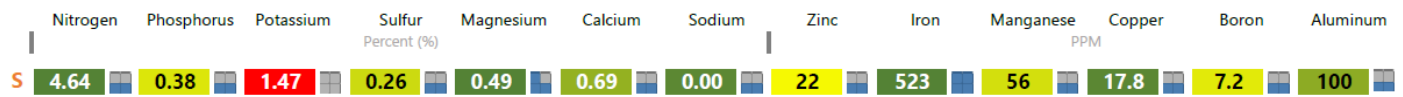
Other – Is the percentage of the dry matter that has not yet been identified. In situations where there are plant stresses other compounds can accumulate in the leaf.



Macronutrients – Make up a large part of a leaf. Nutrients that are reported as a percent of total dry matter. Example: Nitrogen is 4.64% of the dry matter of the plant.



Micronutrients – Make up a very small part of a leaf. Nutrients are reported in ppm (parts per million) of total dry matter. Example: Zinc is 22ppm (0.0022%). High Iron and Aluminum can indicate soil contamination. Foliar applications will show up as very high levels.



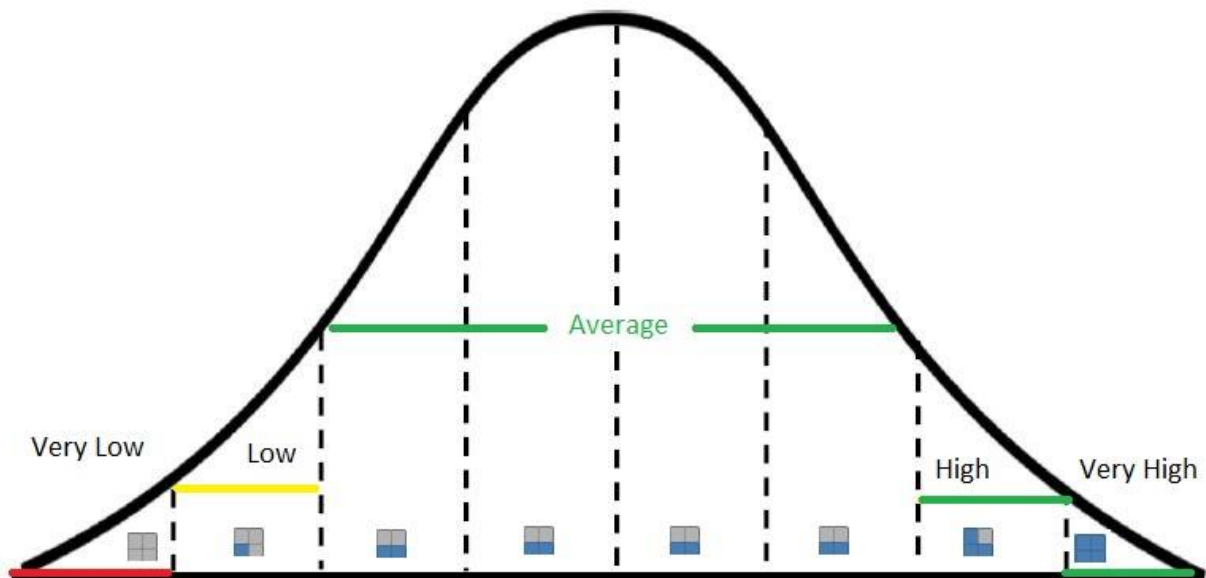
Sufficiency Ranges Interpretation – Compare the measured level to a normal range for that nutrient at a specific growth stage.



Example: Measured Nitrogen = 4.64%, Normal Range = 3.5% – 5.0%

Pros: Foliar applications only affects interpretation of the nutrient applied.

Cons: Selection of incorrect growth stage can lead to incorrect interpretation.



Sufficiency Ranges Boxes and Colours – Indicate where your sample is relative the normal distribution for a given growth stage.

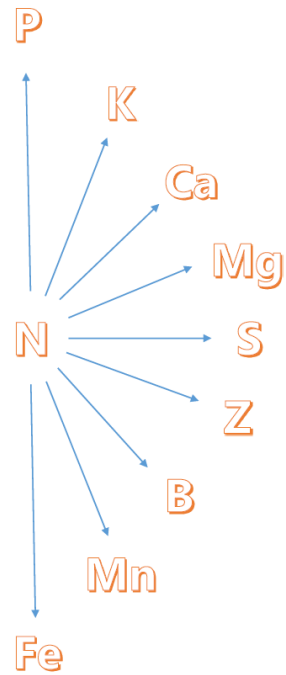
	Nitrogen	Phosphorus	Potassium	Sulfur	Magnesium	Calcium	Sodium	Zinc	Iron	Manganese	Copper	Boron	Aluminum
B	6.0	3.2	-42.4	0.0	10.3	7.6		-2.6	12.9	0.0	8.9	0.0	

Balance Interpretation – Uses a complex scoring system to compare the level of a nutrient to the other nutrients. A positive number indicates that a nutrient is higher relative to the other nutrients. A negative number indicates that the nutrient is lower than the other nutrient.

Example: Potassium has a -42.4 which means that potassium is very low relative to the N,P,S, etc

Pros: This interpretation is not affected by error from the selection of the incorrect growth stage.

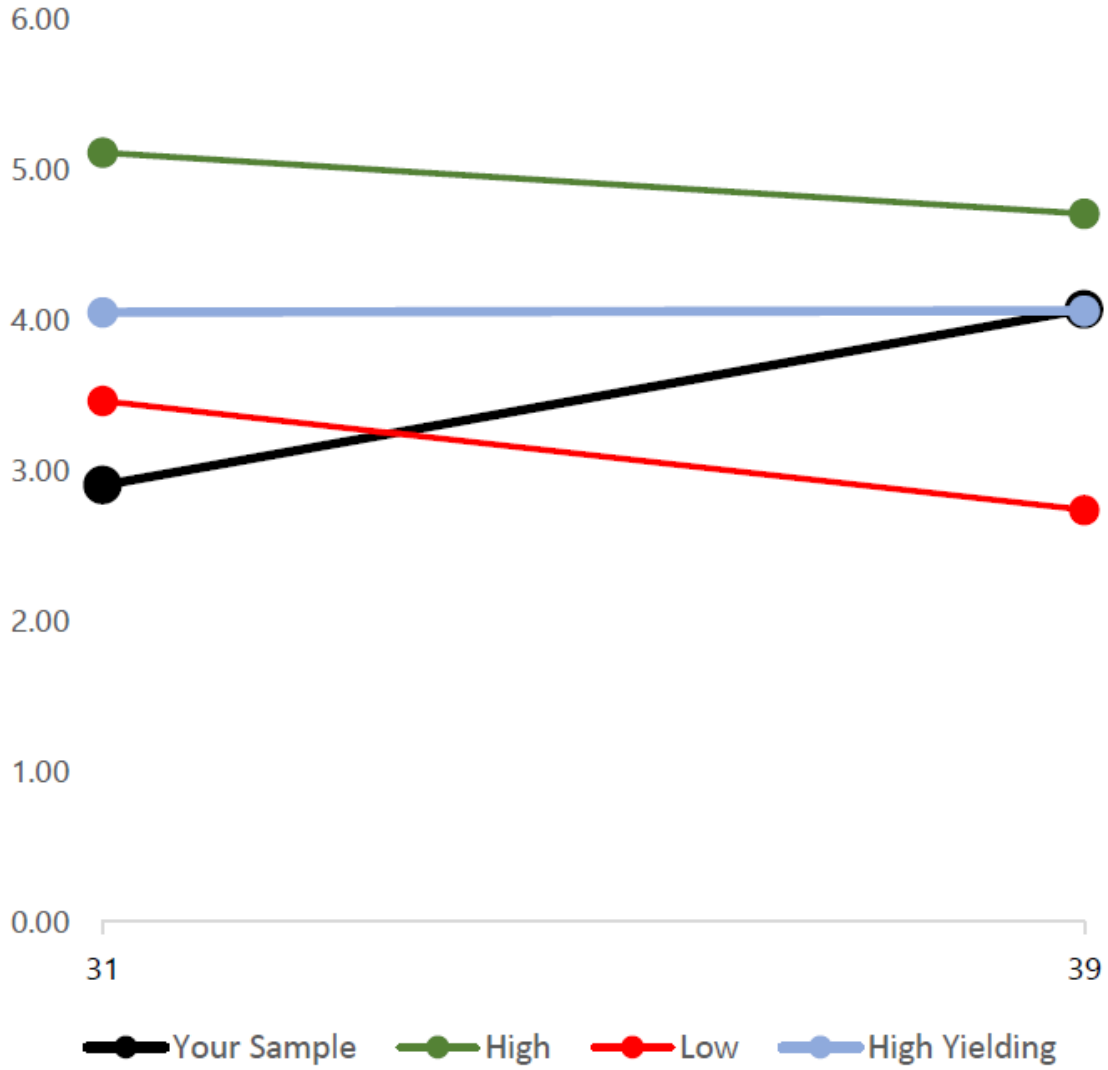
Cons: Foliar applications can affect the interpretation.



Very High **High** **Average** **Low** **Very Low**

Balance Interpretation Colours – Red and Yellow indicates that the nutrient is lower when compared to the other nutrients.

Nitrogen %



Tracker Report – Plots results from same location on a chart so you easily interpret trends over time. The high and low lines show the top and bottom of the normal range. The blue line shows the levels that are found in high yielding sites.