

Eric Morgan

Vice President Environmental Science and Resources

Eric.Morgan@BragaFresh.com

What is Regenerative Agriculture?

- Regenerative agriculture is an approach to farming that prioritizes soil health, biodiversity, and natural processes. It is a holistic, systems-based approach that seeks to create a resilient and regenerating agricultural system that restores and replenishes natural resources. Regenerative farmers use a variety of practices such as crop rotation, cover cropping, reduced tillage, and the integration of livestock to improve soil health, conserve water, and promote biodiversity.

Our Goal with Regenerative Agriculture



Feed the Soil, not the plant



3rd Crop







4th Crop

A wide-angle photograph of a vast agricultural field under a clear blue sky. The foreground and middle ground are filled with rows of crops, including large-leafed plants and smaller green plants. A prominent white irrigation pipe runs diagonally across the field. In the distance, a large wind turbine stands on a flat plain, with a range of mountains visible on the horizon. A small teal rectangular graphic is located in the top left corner.

Fifth Crop

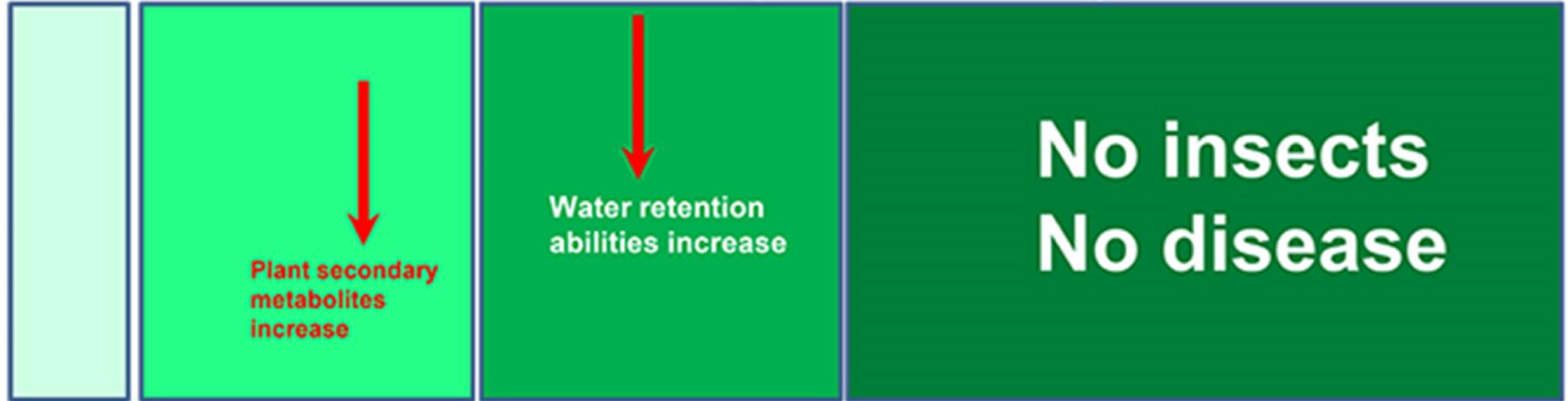


Sixth Crop

Leaf Brix chart- generalized markers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

Insect resistance begins Food is now produced



Brix and Plant Health

At what Brix levels do various insects lose interest in plants?



Aphid group 6-8 Brix

Sucking insects 7-9 Brix

Chewing Insects 9-11 Brix

Grasshopper group 10-12+ Brix

Sample Location Kelly	Sample Name New: 17a Old: 17a	Sample Matrix New: Sap Old: Sap	NAL Sample ID New: s023212 Old: s023213 Date/Time Received: 04-18-2023 12:00	Variety Unspecified Growth Stage: Unspecified Vigor Unspecified
---------------------------------	--	--	--	---

Parameter	Units	OLs	Result	Comparison	%
Sugars, Total	%	High: 3 Low: 1	1.04 0.912	New Old	
Brix	-	High: 6 Low: 4	5.2 5.3	New Old	
pH	-	High: 6.2 Low: 5.5	6.71 6.35	New Old	
EC	ms/cm ms/cm	High: 10 Low: 8	9.86 9.54	New Old	
Anions					
Chloride (Cl-)	ppm	High: 2000 Low: 500	183 1310	New Old	615.73%
Sulfur (S)	ppm	High: 350 Low: 200	1050 719	New Old	-31.52%
Phosphorus (P)	ppm	High: 400 Low: 200	290 94.1	New Old	-67.55%
Cations					
Calcium (Ca)	ppm	High: 600 Low: 300	365 2590	New Old	
Potassium (K)	ppm	High: 5000 Low: 4000	2190 1300	New Old	-40.64%
K/Ca Ratio			6 0.502	New Old	
Magnesium (Mg)	ppm	High: 350 Low: 180	157 424	New Old	170.06%
Sodium (Na)	ppm	High: 1000 Low: 250	138 319	New Old	
Trace Elements					
Aluminum (Al)	ppm	High: Low:	0.059 0.176	New Old	
Boron (B)	ppm	High: 15 Low: 4	1.01 3.2	New Old	
Cobalt (Co)	ppm	High: Low:	< 0.05 < 0.05	New Old	
Copper (Cu)	ppm	High: 5 Low: 1	0.271 0.192	New Old	
Iron (Fe)	ppm	High: 5 Low: 1.5	0.782 2.64	New Old	
Manganese (Mn)	ppm	High: 5 Low: 1	2 8.82	New Old	
Molybdenum (Mo)	ppm	High: 2 Low: 0.5	0.167 0.698	New Old	
Nickel (Ni)	ppm	High: Low:	0.23 0.133	New Old	
Selenium (Se)	ppm	High: Low:	< 0.05 < 0.05	New Old	
Silica (Si)	ppm	High: 20 Low: 5	7.78 49	New Old	
Zinc (Zn)	ppm	High: 5 Low: 2	3.37 5.61	New Old	
Nitrogen Parameters					
Nitrogen from Ammonium (NH4)	ppm	High: Low:	132 202	New Old	
Nitrogen from Nitrate (NO3)	ppm	High: Low:	14.3 6.4	New Old	
Nitrogen (N), Total	ppm	High: 2500 Low: 750	2030 1370	New Old	-32.51%
Nitrogen Conversion Efficiency	%		92.8 84.8	New Old	

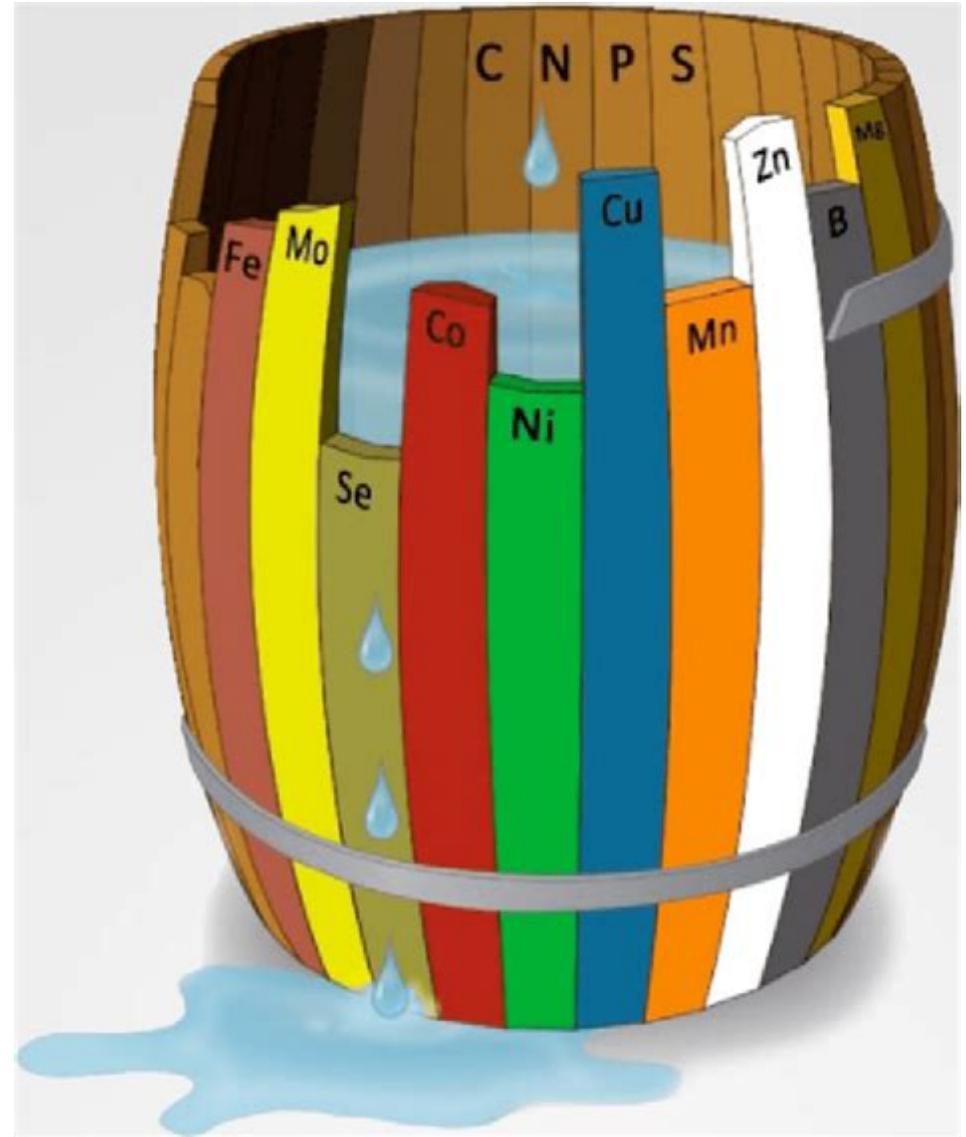
- NAL holds certification under ISO 17025:2017 and meets the AOAC International Guidelines for Laboratories Performing Microbiological and Chemical Analyses of Food Standards
 - The results reported apply only to the two (2) samples listed
 - This report may not be reproduced except in full without written permission of NEW AGE Laboratories
DISCLAIMER: Results are based on analysis of the samples as received. Because of the variability of sampling procedures and environmental conditions, the company does not accept liability for lack of performance based on these recommendations. Recommendations are made based on the sample and information received.



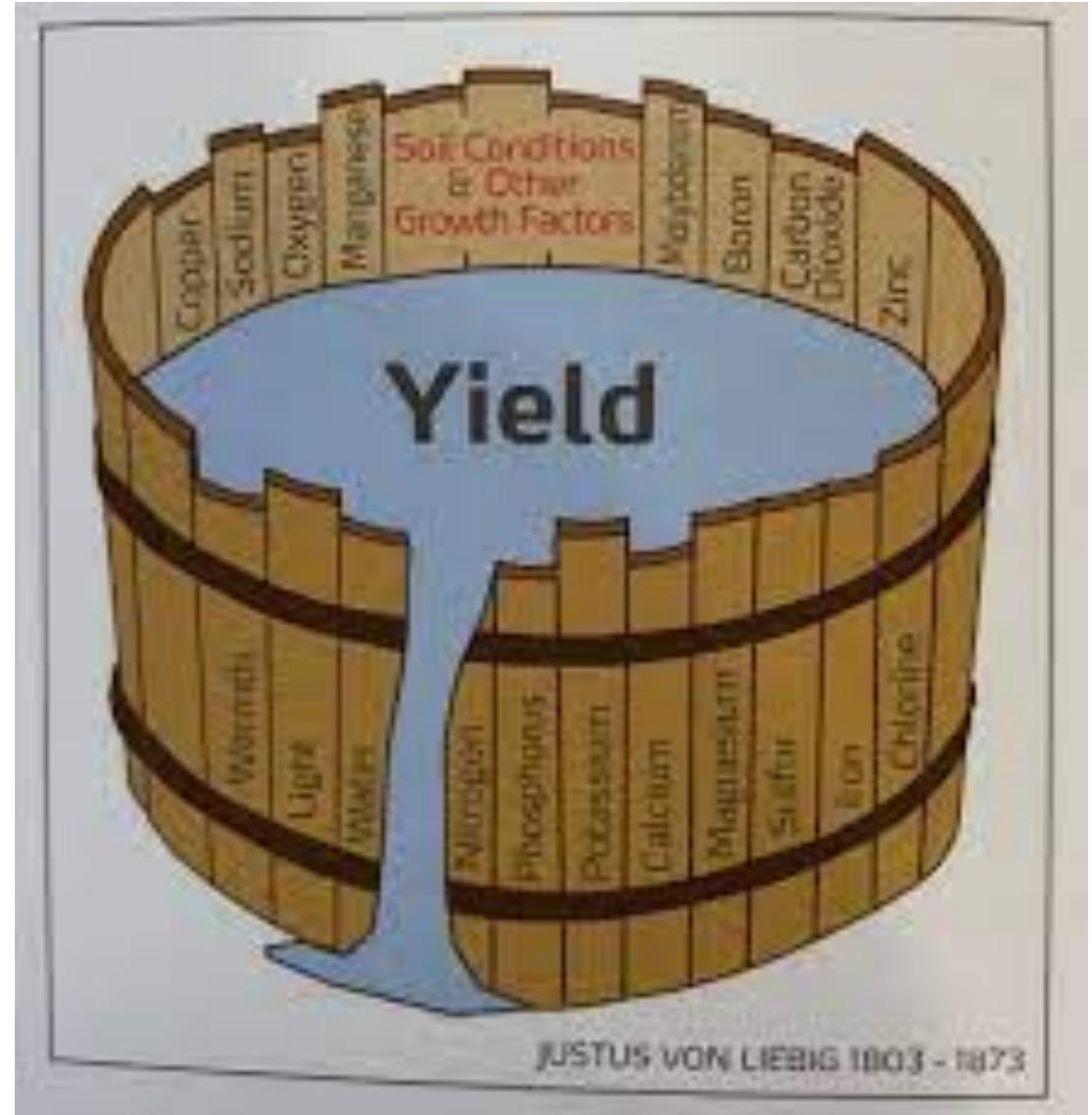
Scott D. Wall
President/Technical
Manager

Sap Analysis

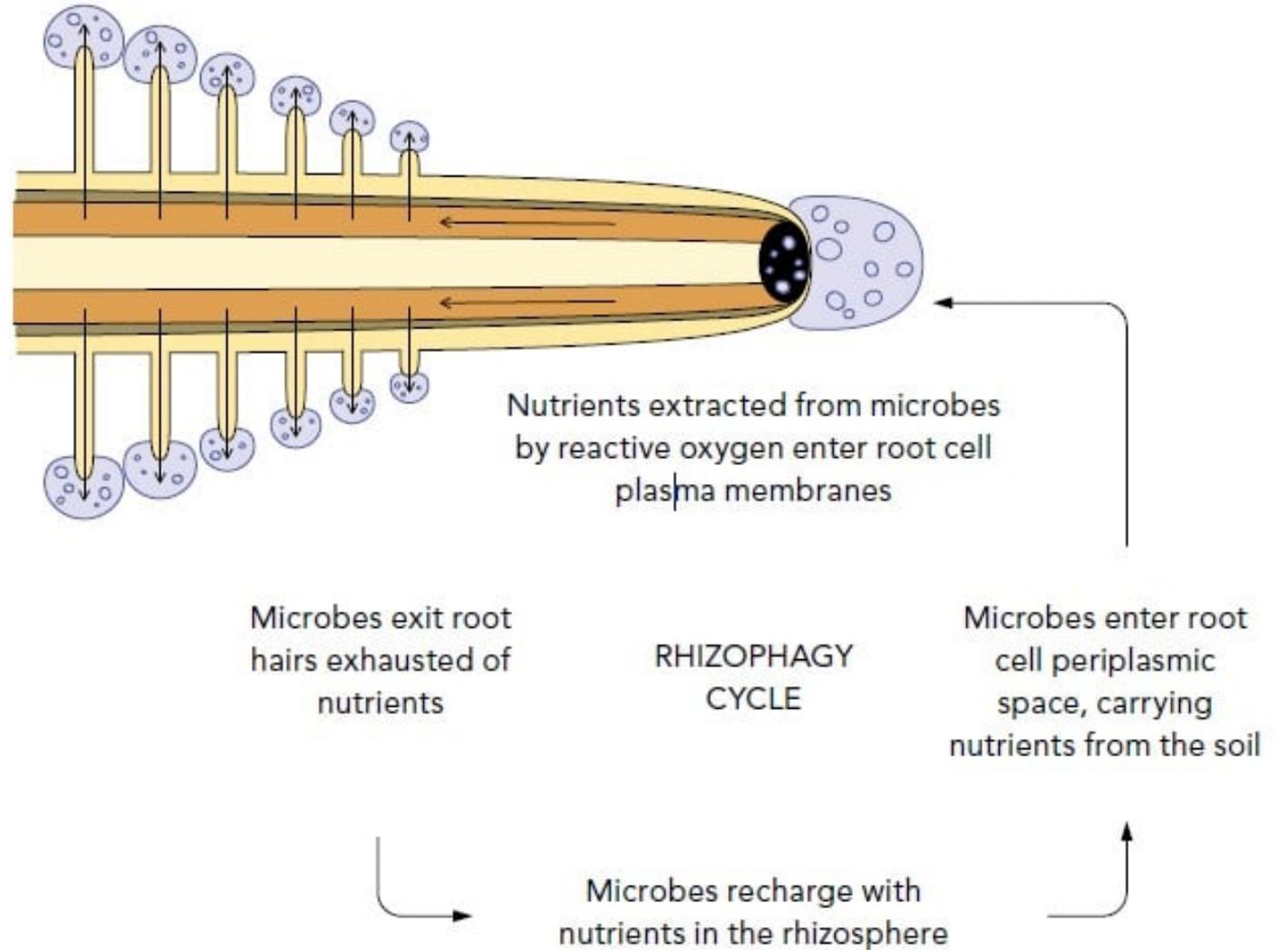
Law of the Minimum



Law of the Maximum



The Rhizophagy Cycle





Cabbage Aphid

Late Cabbage

