

EVOLUTION OF BIO BREAKTHROUGHS FROM INNOCULANTS TO FULL SOLUTIONS



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WHO WE ARE ?



BIOTROP

Biosolutions for Agriculture

- Started in 2018 by outsourcing technologies;
- 4 criteria (cost, efficacy, registrable and shelf-life);
- Over 176 technologies screened;
- Building a remarkable team;
- Acquired Total Bio in Nov. 2018;
- Focusing on soil health.



ANTONIO C. ZEM

+ 38.5 years in the CPP industry **=**

Soybean and
grape producer

BIOTROP
founder and CEO



AQUA CAPITAL

Largest investment fund
100% dedicated to
Agribusiness in LATAM

14 platforms in
different sectors and
locations



BIOTROP
Biosolutions for Agriculture

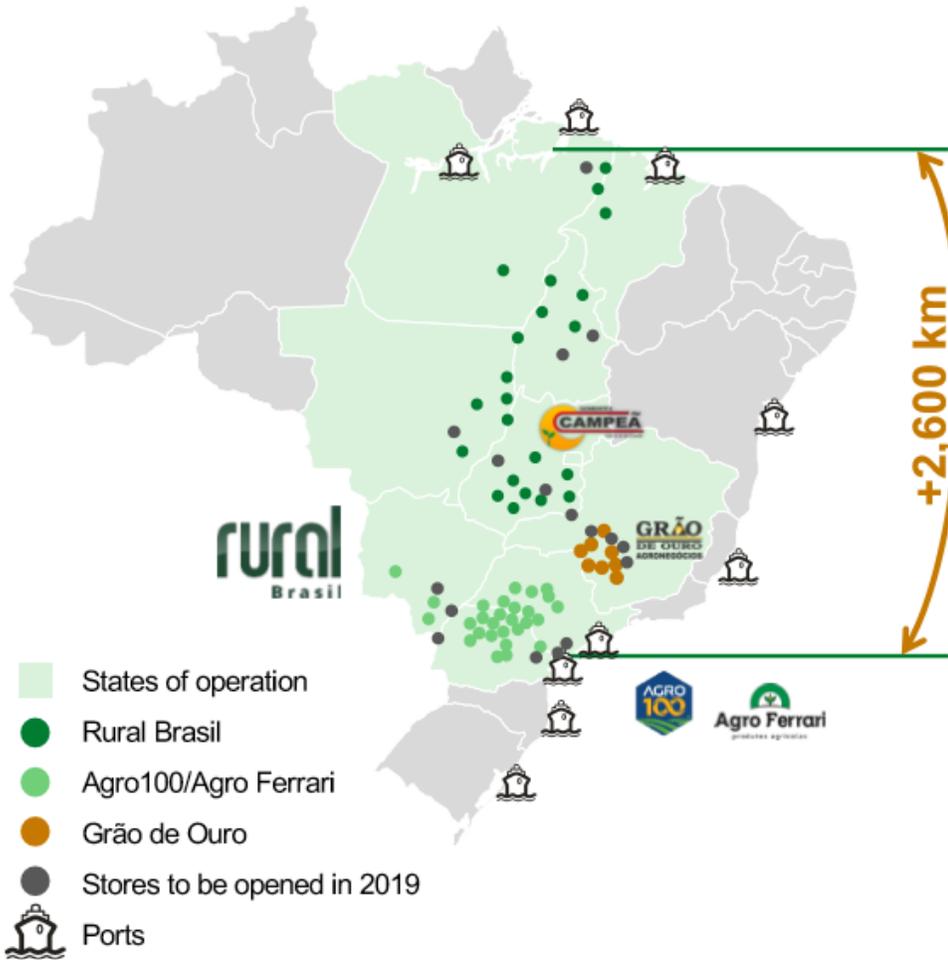


TOTAL BIO
Biosolutions for Agriculture

WHO WE ARE ?



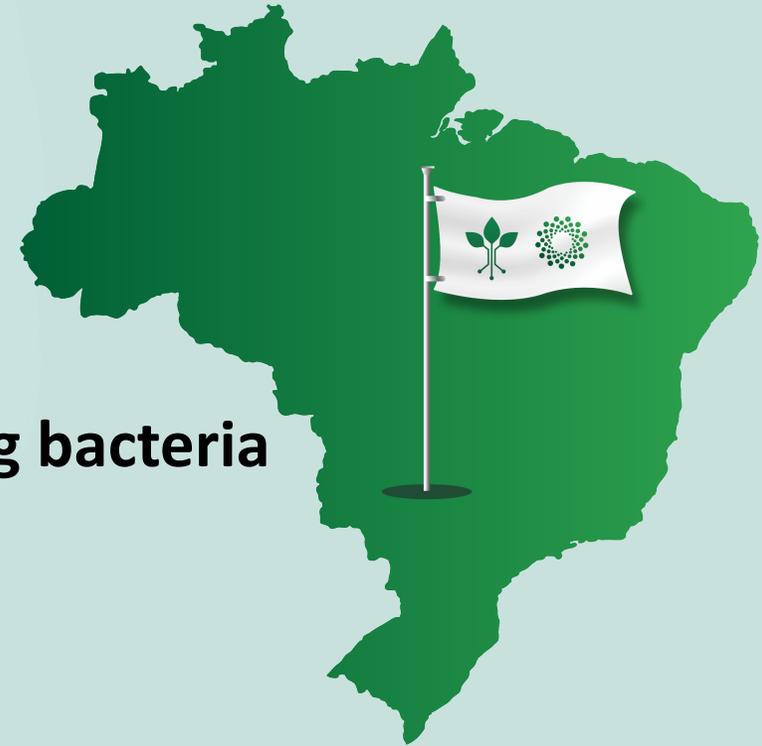
- Acquisition finalized in Nov. 2018;
- Leading inoculant player (26% market share in BR) with robust facilities and know-how;
- 72 salespeople across the country;
- Quickly becoming a market leader;
- Growing 43% YoY.



AQUA has one of the largest ag. input distribution businesses in Brazil

EXCLUSIVE BACTERIAS AND BOTHANICALS PIPELINE

- Together **BIOTROP** and **TOTAL BIO** are a leading biological company in Brazil;
- One out of four Brazilian soybean farmers use our bioproducts in S.T.;
- Speeding up new technologies:
 - Differentiated Inoculants shelf-life extensor;
 - Plant growth promoters and phosphors solubilizers;
 - Diseases, insects and nematodes control (Combining bacteria and botanical extracts);
 - Next and new generation products.



BRAZIL IS THE FASTEST GROWING MARKET FOR BIOLOGICALS

US\$
11 billions
Crop
protection

US\$
800
million
Micronutrients
and biostimulants

US\$
240
million
Biologicals and
inoculants

Brazil represents
**60 to
65%**
of LATAM

Biologicals
growing
approximately
35%
/ yr

Key crops planted area in 2019:

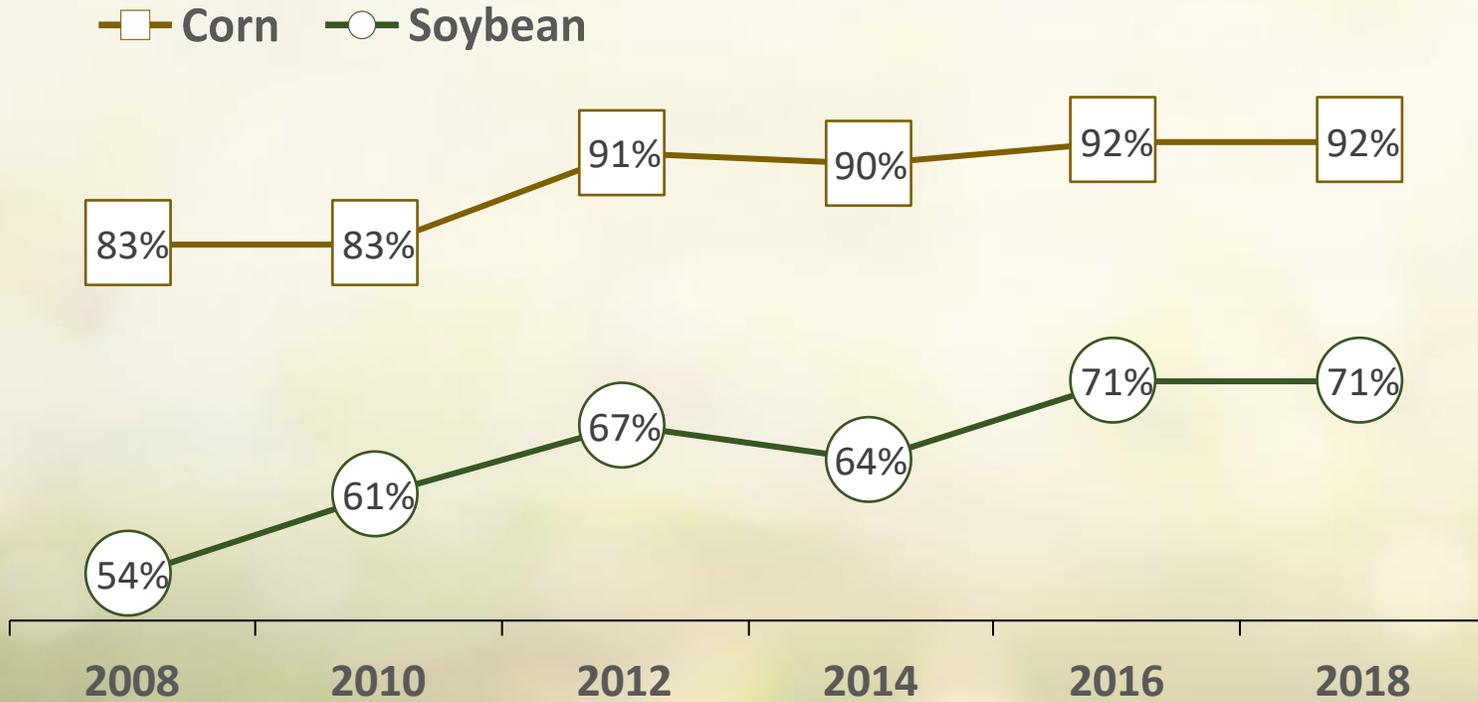
Soybean: 35.8M ha / 88.4M acres

Corn: 17.6M ha / 43.5M acres

Cotton: 1.6M ha / 4.0M acres

SEED COATING REACHING A LIMIT

CERTIFIED SEED UTILIZATION RATE IN BRAZIL



SEED TREATMENT

2.8 → products on average
US\$ 30 → on CPP for seeds per ha
47% → add treatment on farm

BIOLOGICALS ON SEEDS



Inoculants



Biocontrol

OUR NEW BIOTECHNOLOGIES ARE MOVING FAST

- **New formulations allow for longer seed shelf-life and chemical compatibility;**
- **Combination of Bacillus and plant extracts is performing outstandingly well (e.g. a new nematicide);**
- **Growing pipeline of biopesticides for industrial S.T.;**
- **Sales team fully dedicated to biologicals;**
- **Maximizing synergies of biologicals and plant nutrition on seeds.**

IN CONCLUSION...

- **Initially the integration of CPP with biologicals will speed growers' acceptance of a continuous biomanagement;**
- **Bioproducts will extend the market life of the CPP Products (resistance management);**
- **Environmental practices and consumer demand will speed up bioproducts adoption.**

...IN CONCLUSION

Today, chemicals are the rule and biologicals an exception.



In 10 years, biologicals will have a much more relevant position, and BIOTROP will be a key player in the industry.