Grace Breeding
green agro solutions

CORPORATE PRESENTATION

Q2 2023

Legal Disclaimer

This Presentation about Grace Breeding Ltd. (hereinafter: "the Company") includes forecasts, estimates, assessments and other information pertaining to future events and/or matters, whose materialization is uncertain and is beyond the Company's control, and which constitute forward-looking information, as defined in the Securities Law, 5728-1968. Such information may not materialize, in whole or in part, or may materialize in a manner significantly different to that forecast. Forward-looking information in the presentation is based on subjective estimates and assumptions of the management of the Company, based on facts and data regarding the current condition of the Company's business, which are uncertain by their nature, due to their dependence on the risks inherent in the Company's operations, and which are not under the Company's control, each of which, or a combination thereof, is liable to harm the results of the Company's operations and, consequentially, the realization of these estimates and outlooks, as well as by developments in the general environment, in market conditions and in external factors affecting the Company's activity which occurrence is not certain and are beyond the Company's control.

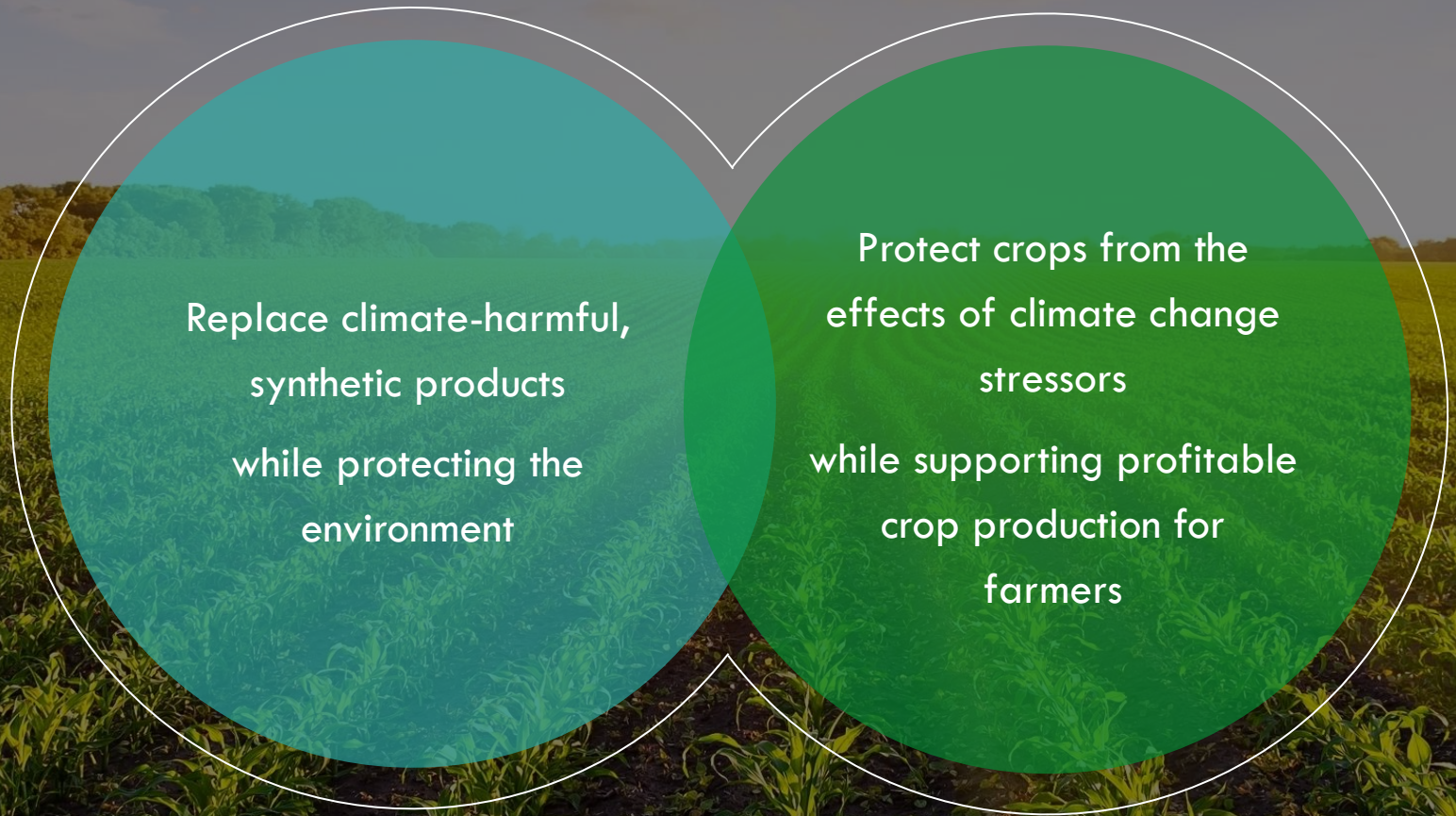
The information included in this presentation does not purport to survey or include all of the information that could be relevant for the purpose of reaching any conclusion related to investment in the securities of the Company. The Company does not undertake to update or change the information included in the presentation so that it reflects events or editing, processing or segmentation that differ from the current depiction in the presentation, or changes that take place after the date of its preparation. It is clarified that the Company's plans and strategy included in this presentation are correct as of the date of their publication and may and will change in accordance with the decisions of the Company's Board of Directors from time to time.

The presentation may include statistical data and publications that were published by third-parties, the content of which was not examined by the Company. This presentation may include information presented in a different manner than that presented in the draft prospectus published by the Company. In other words, the presentation may include data presented in a different manner and/or characterization and/or editing and/or segmentation than that presented in the Company's public reports.

This Presentation does not constitute a proposal or invitation to make an offer to purchase the Company's securities. Nothing in this presentation constitutes investment advice, nor does it contain any recommendations that would substitute for an investor's own discretion.

GRACE BREEDING

is an AgClimateTech company providing sustainable agricultural solutions for sustainable food supply

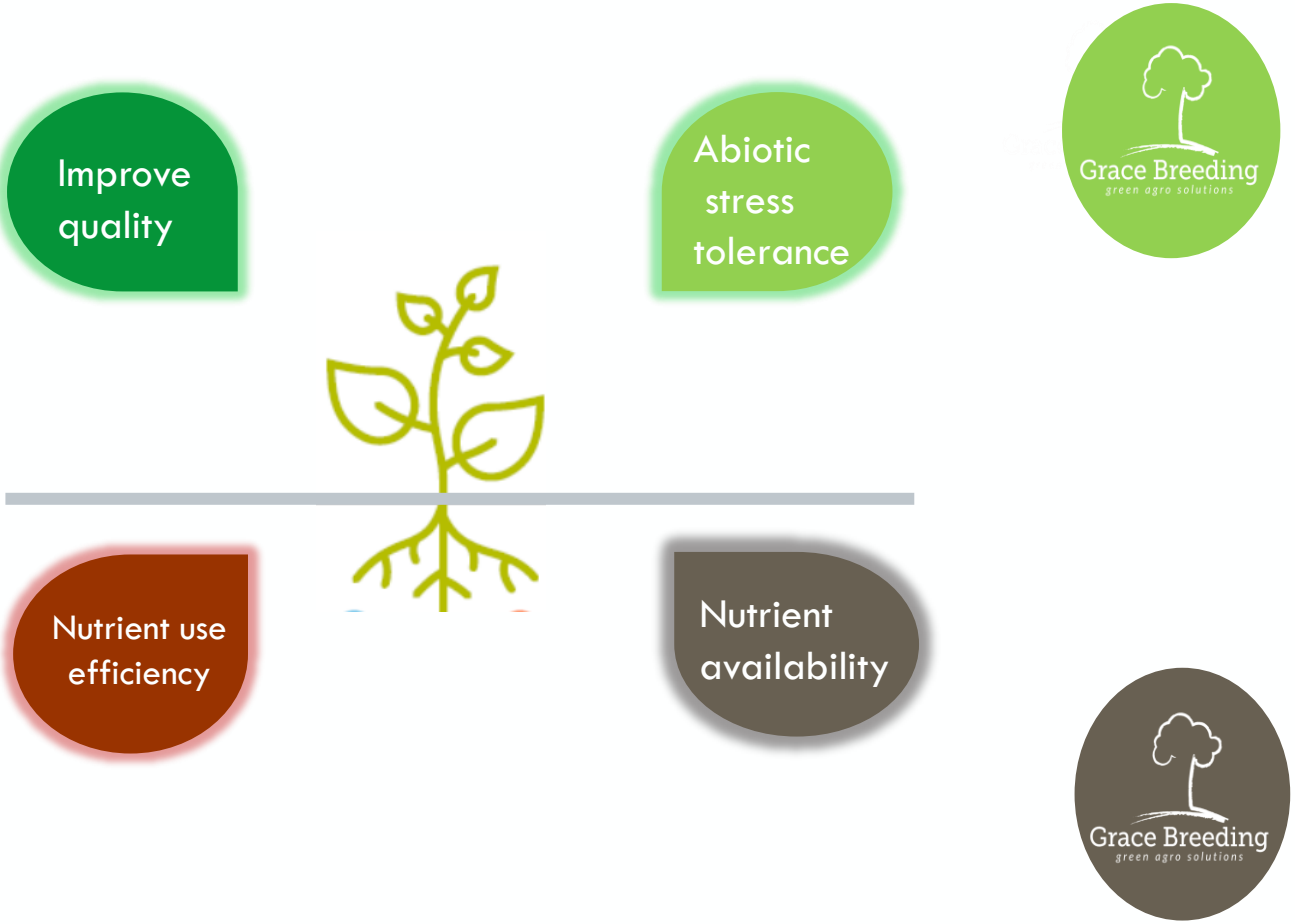


See our lab., greenhouse and field-level scientific and GTM trials

Video here

Biologicals market Product Positioning

Bio-Fertilizers and Bio-Stimulants



Investment Highlights

- **Emerging leader in agricultural technology** providing solutions to protect crops from ongoing effects of climate change
- **Operating in large and growing addressable end markets**
  - Biofertilizers represent a global TAM of $45 billion with a CAGR of 10.9%
- **Leading programs** are two novel, patent-pending, biological environmental Biofertilizers & stress tolerance technologies (NFT & WDS)
- **Reduce carbon emission, reduce reliance on synthetic fertilizers by 50% & increase yield in 20-30%**
- **Powerful unit economics and economies of scale** through availability to procure raw materials efficiently
- **Simplified regulatory pathway,** enabling the company, according to the company estimation, to launch commercially in Brazil mid-2024
- **Strong IP protection** with four separate utility patent applications
- **Validating strategic partnerships** and close industry relationships support R&D and pre-commercial efforts
- **Seasoned management team** with decades of combined cumulative experience in fertilizers, plant protection, and food supply

Upstream and **Downstream** Solutions to Support a Crop's Sustainable Growth Lifecycle

1

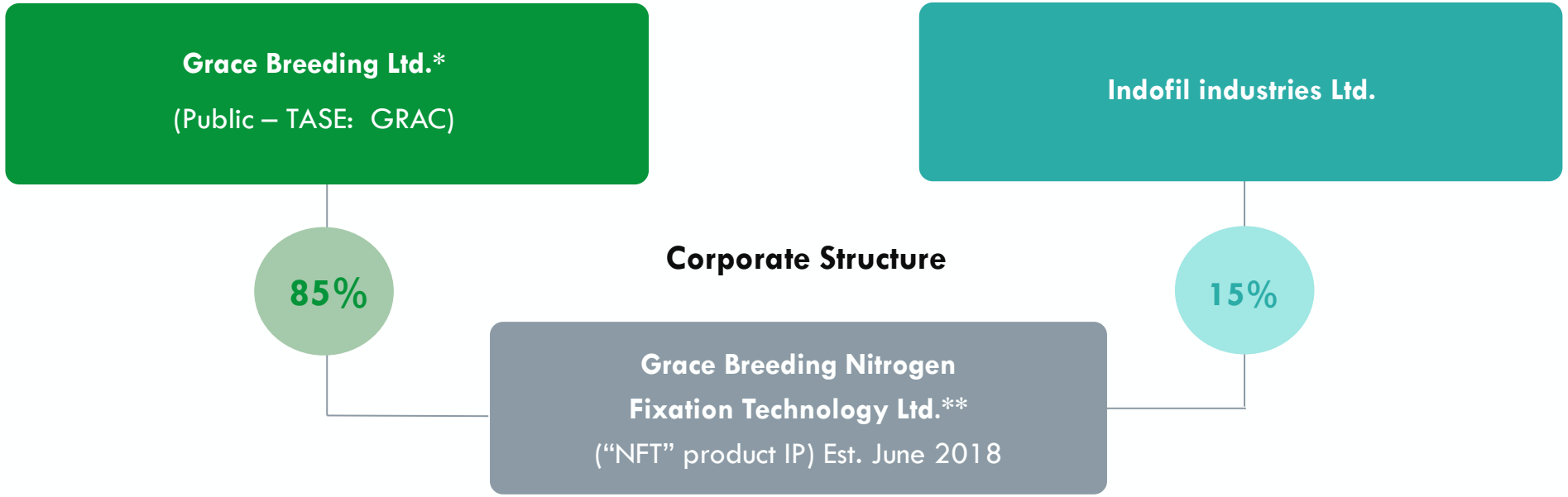
Upstream: "NFT" (Bio-Fertilizer)
Replaces climate-harmful, synthetic urea

2

Downstream: "WDS" (Climate Stress Solution)
Improves the crop tolerance to withstand abiotic climate stress

Company At-a-Glance

Established	2015
Headquarters	R&D center located in Israel's Rehovot's science park
Employees	12
Experience	Management with years of accumulated experience in the areas of Agtech, fertilizers, plant protection and food.
IPO	Feb 2022 (TASE: GRAC) with a market CAP ~ 100 Million ILS



Management

Morris Zelkha, Chairman of the Board of Directors
Founder and former CEO of LycoRed for 24 years
head of new product development Negev Phosphate ICL

Assaf Dotan, CEO
Senior Manager at ADAMA Agricultural Solutions Ltd.; entrepreneur in the ag-innovative world; former CEO of Casterra Ag. Former Ag Investment Advisor for Fortissimo Capital and RDC

Amit Avidov, CTO
Innovative agronomist and senior plant breeder with more than 30 years of experience and over 600 registered plant varieties attributed to his work

Moti Mordehai, CCO
Global Senior Manager at ADAMA Agricultural Solutions Ltd.; GTM expert with launch-to-commercial life cycle management experience & a deep understanding of the relationships between producers, distributors and product end-users

Orly Shuster, CFO
Graduate of the CPA firm EY Israel with 20 years of experience in accounting and economic services for a variety of private, public and governmental entities

Ricki Lahav, COO
Formerly head of budgeting and strategy at Evogene, with over 20 years of experience in sales, travel and administration at high-tech and agricultural companies

Professor Yoram Kapulnik,
Scientific Advisory Board - brings over 40 years experience in Life Science Innovations Industry and is a global expert in nitrogen fixation.

Valdemar Fischer,
Advisory Board – brings decades of experience in agriculture and leadership as Non-Executive Chairman at Syngenta Latin America

Shaul Friedland,
Director, Business Consultant - brings over 40 years of commercial expertise in the agriculture industry. ADAMA Agricultural Solutions Ltd. and ADAMA Americas

The Advantages of Our Approach

GRACE BREEDING'S GREEN AGRO SOLUTIONS

- Climate stress resilience enhancement
- Biological source
- Nitrogenous technology
- Yield and quality
- Profitability
- Tolerance
- Provides ESG benefits to farmer

OTHER UNSUSTAINABLE COMPANIES

(examples of producers of legacy synthetic chemicals)

- Environmental pollution
- Environmental residue
- Resistance formed by crops
- Air pollution
- Water source contamination
- Higher priced

Over the last 20 years the investment in R&D expenditure of the conventional crop protection market has shifted

The global fertilizer market is estimated at $171 Billion

Biofertilizers TAM (urea-nitrogen only) – US$ 45 Billion

Conventional agrochemicals projected at 2.9% CAGR

Global biofertilizer market to witness a CAGR of 10.9%

Bio-stimulants market is booming: 11.9% CAGR forecast for 2023-2028

B2B Strategy Supports Core Environmental and Sustainability Pillars

Our B2B business model produces more robust and resilient industrial crops and improves distributor and farmer economics, while importantly, supporting ESG initiatives - responsibly reducing environmental impact with a lower carbon-footprint and lower greenhouse gas (GHG) emissions.

Environmental Pillar of ESG Reporting

- **Climate Change**
- **Natural Resources**
- **Pollution & Waste**
- **Environmental Opportunity**

Leaders at the United Nation's Intergovernmental Panel on Climate Change (IPCC) presented on 3/20/23 an Acceleration Agenda for developed countries to achieve zero emissions approaching 2030.

* The 8 elements are: Carbon emissions, water stress, toxi emissions & waste, product carbon footprint, biodiversity & land use, packaging material and waste, raw material sourcing, climate change vulnerability

Bio-Fertilizer: NFT business model

Product Benefits:

- Reduce reliance on synthetic nitrogen by 50%
- Reduce carbon emissions to earn carbon credits
- Abiotic stress tolerance solution
- Increase yield

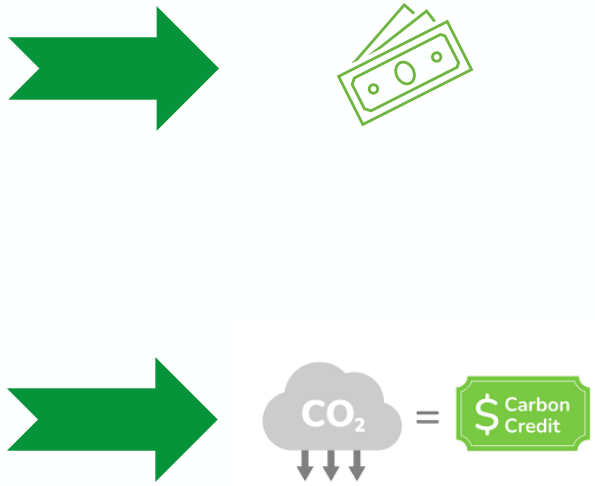
Business models:

1. **Direct**

Product benefits
Flexibility to deal directly to farmer or through a dealer

2. **In-direct**

Earn Carbon Credits
Farmland owners potentially move to farming carbon credits



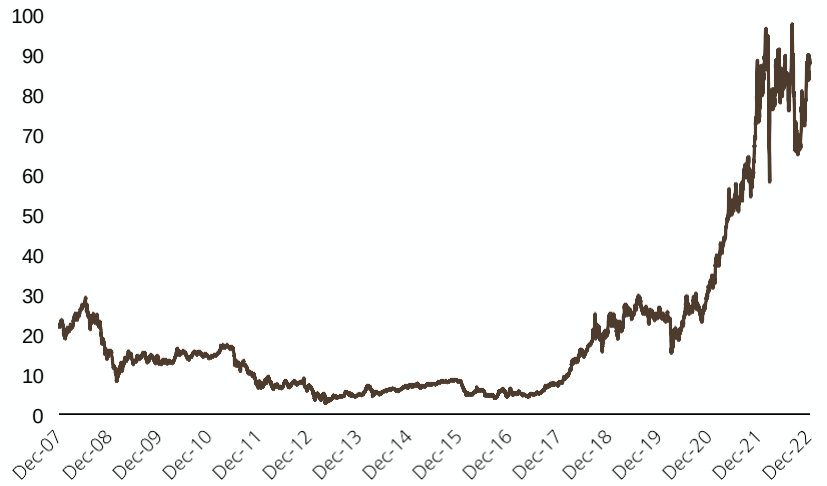
Climate Change May Cause Corn Yields to Fall;

A NASA study forecasts climate change to affect corn and wheat production as early as 2030.

With higher temperatures and surface CO2 concentrations as well as rainfall pattern changes, corn yields could **fall by 24%** from current levels

Farmland Owners May Move to Farming Carbon Credits

Figure 21: EU carbon allowance price



The price for EU allowances have increased nearly four times over the past two years

A more robust carbon credit market could set up competition for traditional agriculture.

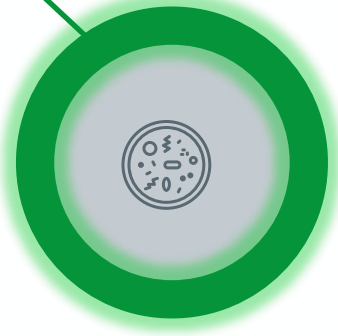
Source: NASA Scientific Visualisation Studio, EU Carbon Allowance Price Graph UBS Report: Q-Series, "Future of Farming", Gan, J., et al., January 12, 2023

Our Technology: How We Are Differentiated Within the AgTech Industry

Disrupting a multi-billion-dollar industry* with solutions to fertilize sustainably and enable crop tolerance and vigor

Grace Breeding

Market-accessible, widely-available, non-pathogenic **bacteria**



Grace Breeding's **Formulation of activated agent's**

Proprietary IP solutions that result from years of research evaluating a thousand biological molecules and their combinations with non-pathogenic bacteria

*World Fertilizer Market Nitrogen, No. 42 (418) 21 October 2021

Our Pipeline

Our transformative product lines

Product Candidate	Discovery	Field Trial 1	Field Trial 2	GTM	Commercial*
Proprietary Bio-Fertilizer ("NFT")					
Stress Tolerance Enhancer ("WDS")					
R&D					

NFT = Proprietary bio-fertilizer that is a natural replacement to synthetic fertilizer and serves as a urea replacement; environmentally friendly to air, soil and the aquifer; naturally provides nitrogen to cereals

WDS = Proprietary bio-stimulant that serves to increase yield and Improve the crop tolerance to withstand abiotic climate stress

*Development consists of field testing 2-3 season cycles per crop

Grace Breeding's products Recent Development

10/26/22

Grace Breeding Announces its Wide Defense System (WDS) Improves Industrial Tomato Yield by 17% Based on Field Trial Results

Click here for press release

11/15/22

Grace Breeding Forms Collaboration with the Prestigious University of Londrina (UEL) Located in a Major Agricultural Center of Brazil to Study and Validate the Crop Vigor Benefits of its Nitrogenous Technology

Click here for press release

1/25/23

Grace Breeding Study Results of its Proprietary Environment- Friendly Bio-Fertilizer ("NFT") Show Superior Growth Results in Brazilian Corn, Outperforming Standard Nitrogen Fertilizers While Reducing Carbon Emissions

Click here for press release

3/6/23

Grace Breeding and Evolva Holdings Partner to Develop Next-Generation, Sustainable Crop Yield and Resilience Solutions

Click here for press release

NFT (Proprietary Bio-Fertilizer)

The Problem: The Use of Urea is Not Sustainable

- Urea (Nitrogen), is the most common fertilizer in agriculture worldwide
- 1MT of urea production in the U.S. = 1.84 MT of gas emissions (CO_2)
- Global production of urea = CO_2 emissions of 120 million cars annually!

$45 Billion

Urea's global market size

High Production Cost

Urea's production consumes high amounts of energy

Air Pollution

Urea emits more CO_2 than any other industrial chemical reaction

Regulation

Several EU countries already ban the use of urea

United Nations Climate Change Global Climate Action Summit 2021 . Nitrogenous Fertilizer Market Size | Global Industry Report, 2026. **World Fertilizer Market Nitrogen, No. 42 (418) 21 October 2021

The Solution: NFT

Naturally provides nitrogen to crops in synergy with available bacteria; reduction of 50% in use of urea

Environmentally-friendly to air, soil and the aquifer

In field trials, NFT demonstrated it was as efficient as and competitive with urea, suggesting it may be an ideal potential replacement

Farmer cost savings expected per:

- Reduced volume and dose per Ha. (1:25)
- Reduced application frequency

Carbon credit:

- NFT use in corn reduce carbon emission
- Low-carbon-footprint-product with ESG benefits
- 1 Tone CO_2 = 1 Carbon credit

Distributor higher profit. Lower volume equals to less storage footprint & land transportation costs and margins higher than the standard 2-3%

NFT Field Trial Results

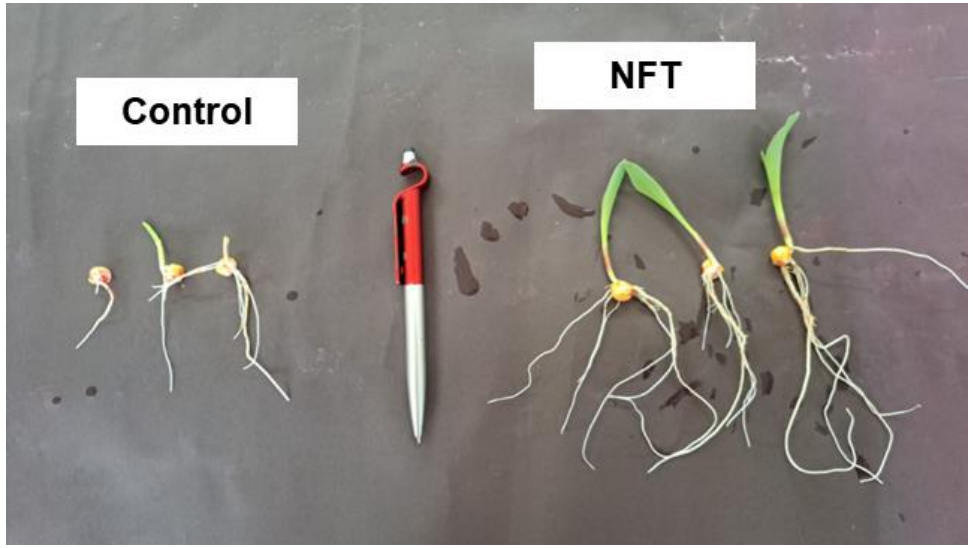
T2: Nitrogen 100%

T11: Nitrogen 50% + NFT

2023

Brazilian Study Results in corn seeds treated with NFT (UEL, January 2023)

- Potential reduction of more than 50% of nitrogen in corn cultivation.
- Reduced carbon emissions
- Outperforms standard nitrogen fertilizers in almost all parameters



NFT Comparison to Urea in Maize (Corn)

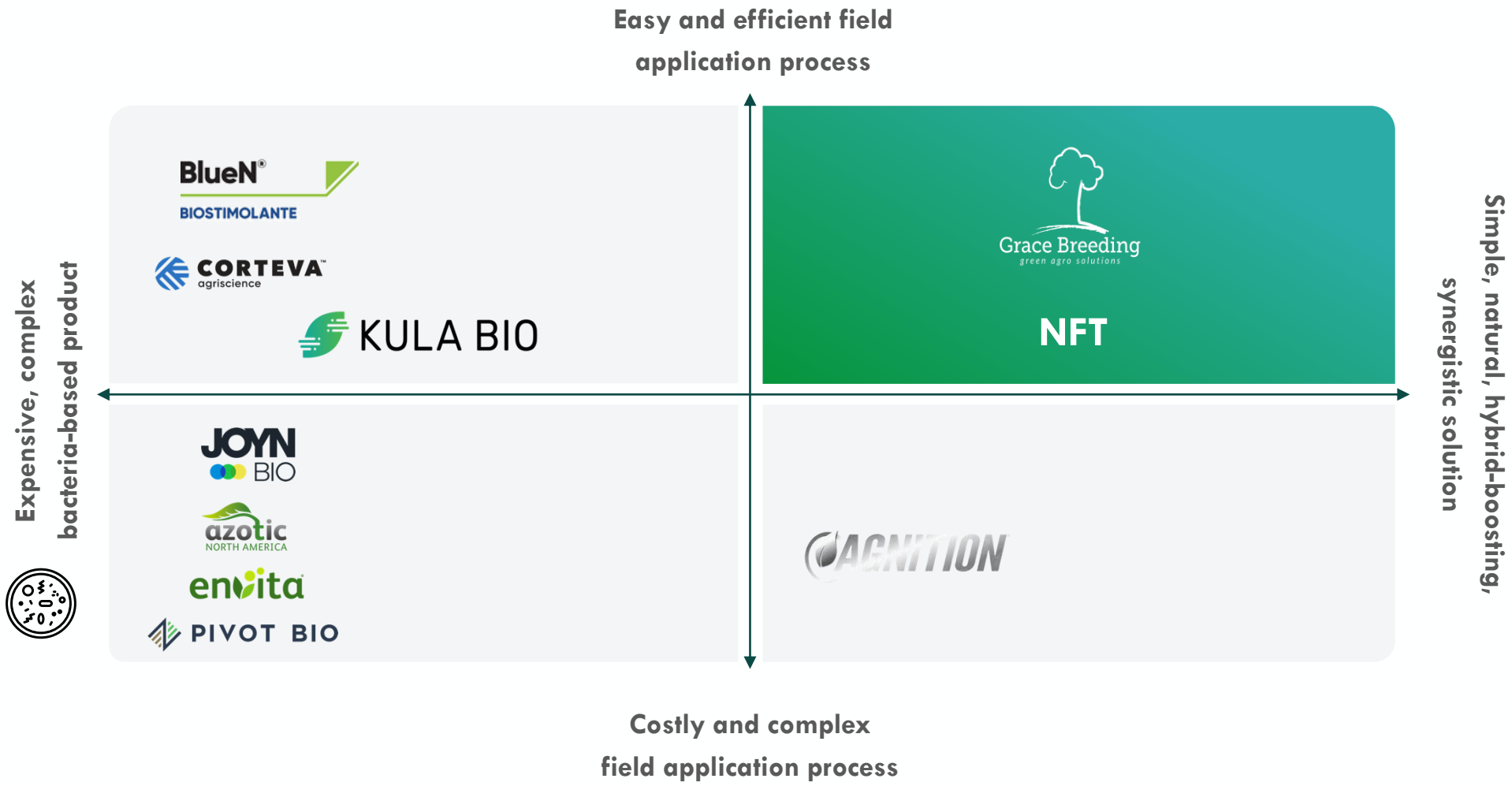
NFT amount applied per Ha.* – **20 L**

Urea amount applied per Ha. – **500 kg**

- ✓ Easy application method in the field. **Watch video here.**
- ✓ Farmer keeps similar agrotechnical tools and methodologies

* Reduction of 50% in use of urea

Bio-Fertilizer Approaches: Market Landscape



JOYN BIO

Joint Venture with Bayer Crop Science

BlueN BIOSTIMOLANTE

Joint Venture with Corteva

PIVOT BIO

$430M Series D @ $1.7B post-money valuation (July 2021)

azotic NORTH AMERICA envita

Private Investment by Koppert

KULA BIO

$50M Series A @ $210M post-money (Jan 2022)

- New startups have recently received multi-national investments
- https://blog.pivotbio.com/press-releases/series-d

WDS (Proprietary Stress Tolerance Enhancer)

The Problem: Climate Change is Affecting Global Crop Production

Rising levels of atmospheric carbon dioxide (CO_2) reduces the concentrations of protein and essential minerals in most plant species (including wheat, soybeans, and rice) which would otherwise serve as nourishment. **This direct effect of rising CO_2 on the nutritional value of crops represents a potential threat to human health.**

Changes in temperature, atmospheric carbon dioxide (CO2), and the frequency and intensity of extreme weather could have **significant impacts on crop yields**

If the higher temperature exceeds a crop's optimum temperature**, yields will decline.**

Changes in the frequency and severity of droughts and floods pose **challenges for farmers and threaten food safety** as well as disrupt ecosystems making it more difficult to grow crops.

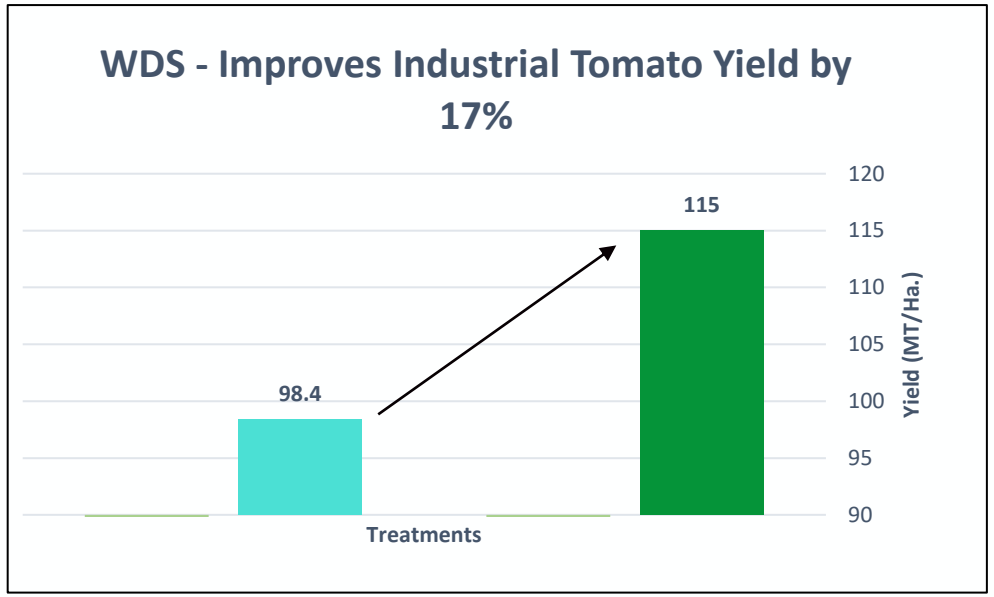
*Source: EPA: *Climate Impacts on Agriculture and Food Supply*

The Solution: WDS

- WDS is a **stress tolerance enhancer;** a combination of naturally sourced ingredients with market-available bacteria
- **Protects against abiotic climate stressors,** addressing the supply problem for the farmer and the pricing threat to the consumer
- **Increases yield in 20-30%** and improves plant nutrient uptake and therefore fruit and vegetable quality
- **Widely applicable in variety of crops as** legumes, industrial tomatoes, vegetables, mangoes and avocado.

*Source: EPA: *Climate Impacts on Agriculture and Food Supply*

The Need for Environmental Stress Protection Solutions Has Increased With Episodes of Global Drought



Lycored

The field trial (Israel, (2022) showed that the formula both boosted the growth of the tomato root system in different plots ***and*** improved the yield in amid various climate stress conditions.

Example: Tomato Supply Crisis

The global tomato processing market size reached **45.2M tons in 2022**, and, from 2023-2028 is expected to reach 56.5M, exhibiting a growth rate (CAGR) of 3.75%[1]

In the U.S., **California is home to 90 percent** of domestic tomatoes

California, Italy, Spain and Portugal **(4 markets only), represents 52% of the global market share**

In the consumer sector, there is an expected mass **shortage of tomato-based consumer products,** including ketchup and spaghetti sauce as a result of the water shortage from recent and ongoing droughts.

The shortage presents a **threat of price increases** for the tomato processing sector, with supply expected to decline by 6% by 2050 in key regions[2]

[1]tps://www.imarcgroup.com/tomato-processing-plant https://www.researchandmarkets.com/reports/5530618/tomato-processing-market-global-industry-trends
[2]Nature Food

WDS Trials in Avocados: 2020 – 2022

WDS

Control

" The WDS application saves me <u>two years</u> of growing and the additional cost of replanting; manpower and new plants."

- quote from farmer

Field trial was done in Israel (2022)

**UTC = untreated control (unfertilized)*

Target Market & Strategic Collaborators

Global Footprints

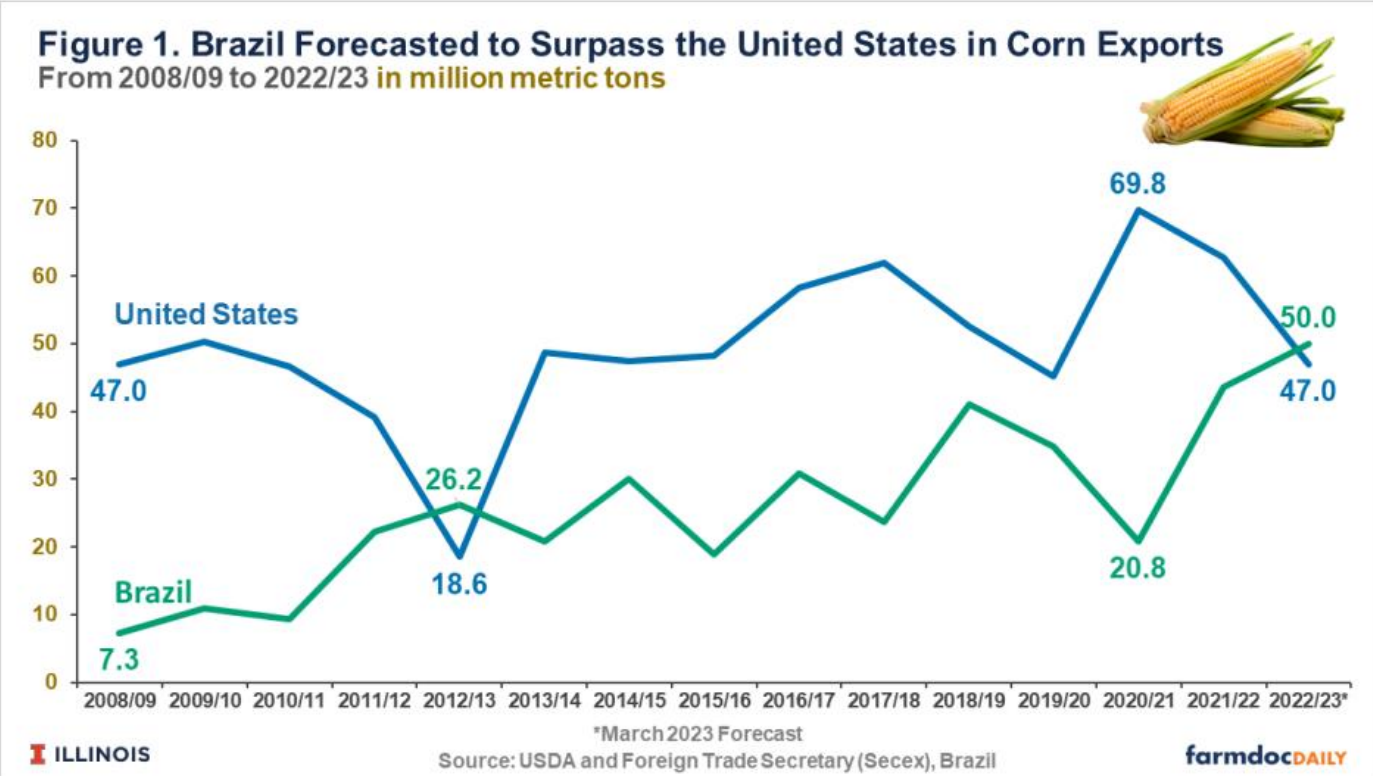
The company intends to start conducting field experiments and observations for marketing and sales around the world.

Brazil: Our First Strategic Market is An Agricultural Market Leader

- With 42 million Ha. of soybean and 22 million Ha. of maize (corn), **Brazil is one of the largest agricultural markets in the world.**
- Brazil is **the largest agricultural chemical market in the world,** with a turnover of 13 billion USD.
- **Brazil is a major importer of fertilizers: 95%** of the urea used in corn and 75% of the phosphorus used in corn and soybeans is imported.
- **23%** of Brazil's annual **imported fertilizers** are from Russia.
- Russia is planning to impose an **export tax of 23.5%** on all fertilizers.
- The market of **biological products grew 40%** this last year in Brazil.
- Grace Breeding announced a **strategic R&D collaboration** with the **University of Londrina** (UEL), based in Paraná State, Brazil (11/2022).

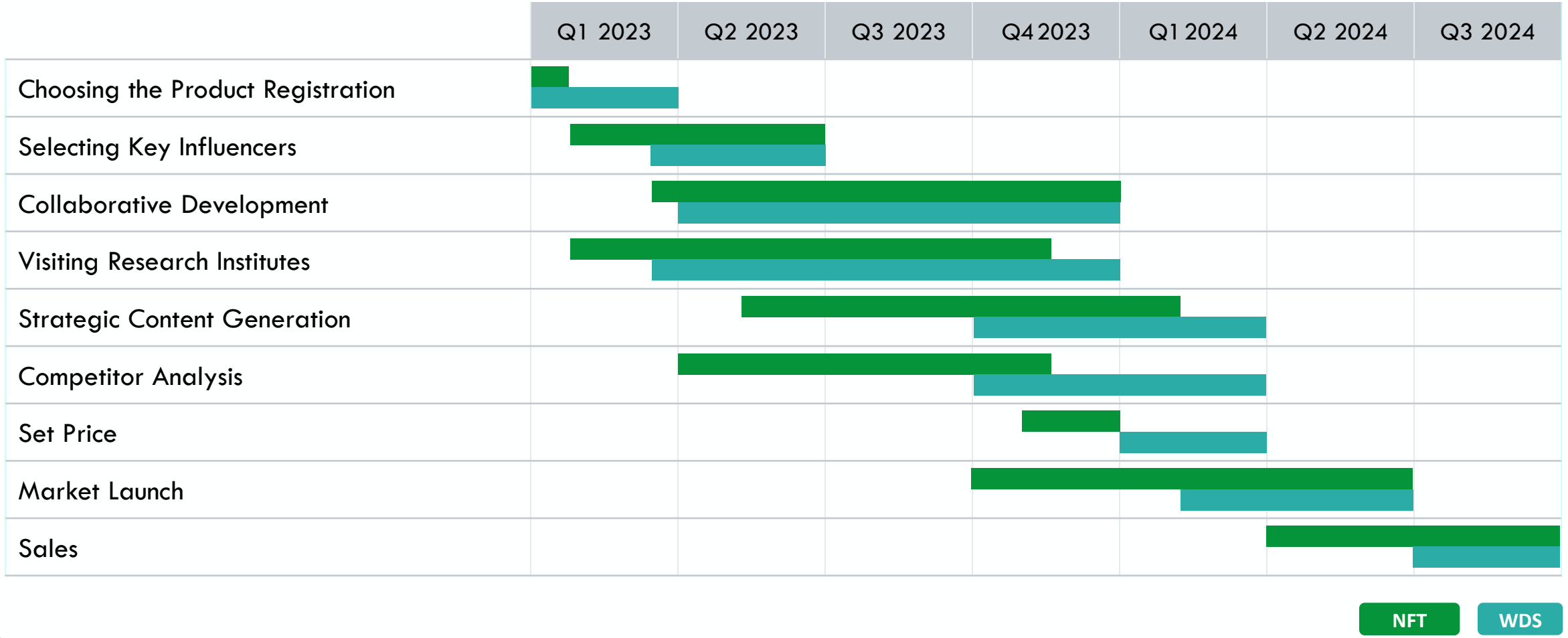
Geopolitical changes - Brazil is Forecasted to Surpass the U.S. in Corn Exportation

First shipment of Brazilian corn to China occurred in November 2022, after Phytosanitary agreement signed between the countries



In the 2021-2022 marketing year, the primary destinations of Brazilian corn were Iran, Spain, Japan, Egypt & Colombia

GTM Roadmap (Brazil): NFT and WDS



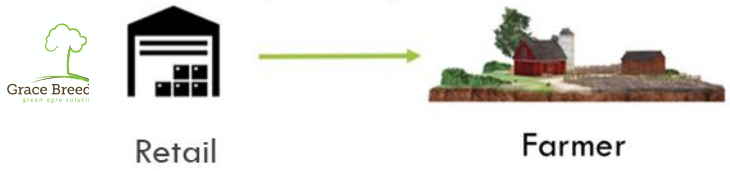
Note: projected timing is based on the typical timelines for market and product development and registration approvals

GTM

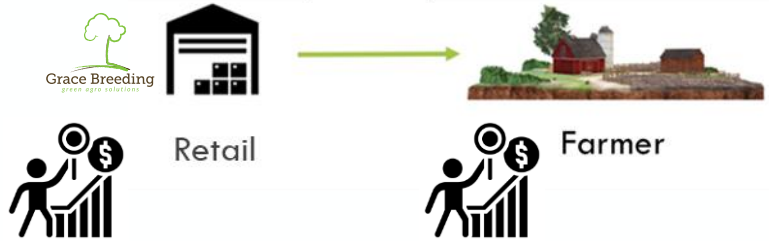
Implementing a Hybrid GTM Strategy

1 **Tier-1 Industry players**

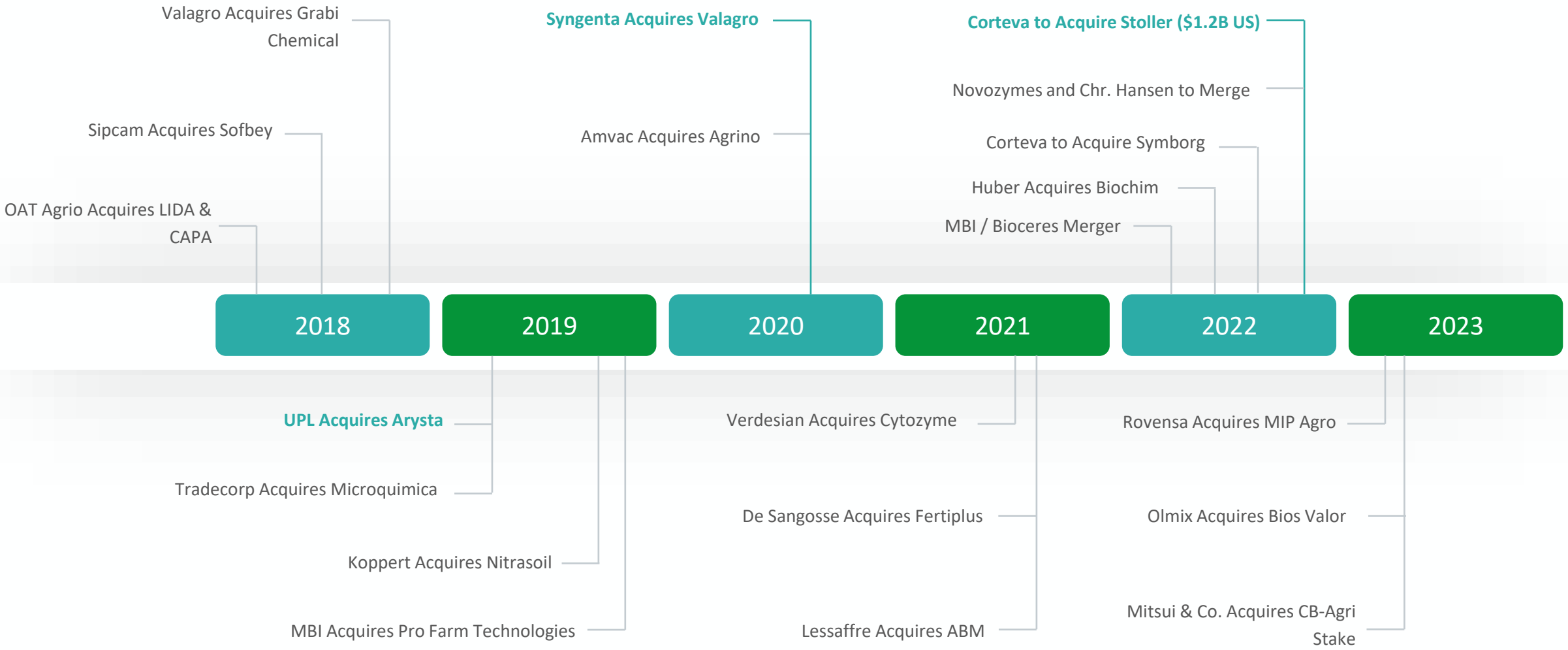
2 **Tier-2 & 3 Industry players**



3 **Acting on demand creation at the retail/farm level.**



BioStimulants Recent global M&A Activity



THANK YOU!

Contact:

Assaf Dotan,

Chief Executive Officer

assaf.dotan@gracebreeding.com

Jeremy Feffer

LifeSci Advisors LLC

jfeffer@lifesciadvisors.com

Grace Breeding

green agro solutions