

# A PLANT NUTRITION AND BIOSTIMULANT COMPANY EXPANDING INTO BIOCONTROL

PREM WARRIOR

ABIM - BASEL – OCTOBER 2015



“Valagro has been developing with passion innovative and effective solutions for **plant nutrition and care.**”

*Mission Valagro*



# THE MISSION THE VISION THE VALUE

For years VALAGRO has been developing with passion **innovative and effective solutions for plant nutrition and care**, while respecting both people and the environment. The increasing demand from the world's population for food and well-being requires an effective response. Trusting in a return to nature is not a realistic alternative because it is not sufficient to **meet the global needs**. On the other hand, relying excessively on chemistry is not a sustainable choice for the environment in the long term.

**Aware of this challenge, VALAGRO believes it is possible to find a third way: to meet the needs of humankind using fewer resources, thanks to a new Con-science, able to put Science at the service of man through innovation and respect for Nature.**

This vision is supported by the following values:

- ✓ HONESTY AND INTEGRITY;
- ✓ PASSION FOR THE CUSTOMER, PRODUCTS AND OUR WORK;
- ✓ RESPONSIBILITY TO OURSELVES, OTHERS AND THE ENVIRONMENT;
- ✓ COHESION AND MULTICULTURALISM;
- ✓ CONFIDENCE IN INNOVATION.



2011



2050



**WORLD FOOD  
DAY - OCT 16**

# COMPANY SNAPSHOT

Valagro is a leading global biostimulants and specialty nutrients company

## 1. BUSINESS OVERVIEW

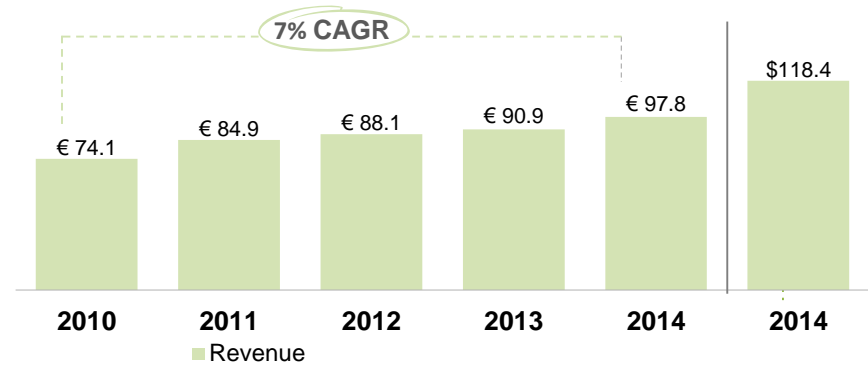
- ✓ **Founded in 1980.**
- ✓ Develops **sustainable solutions** to enhance food production and improve nutritional quality.
- ✓ **20+ product lines** (Biostimulants, Micronutrients and Water-Soluble Nutrients).
- ✓ **Three business units:** Farm, Industrials and Garden & Turf.
- ✓ Sales in over **80 countries**
- ✓ Revenue of **\$118.4 million in 2014**
- ✓ **348 employees**

Note: Euros converted to U.S. dollars assuming EUR/USD exchange rate of 1.378 for the year ended 2013. Revenue for years 2009 and 2010 are sourced from annual reports publicly filed with the Companies' Registry of Chieti.

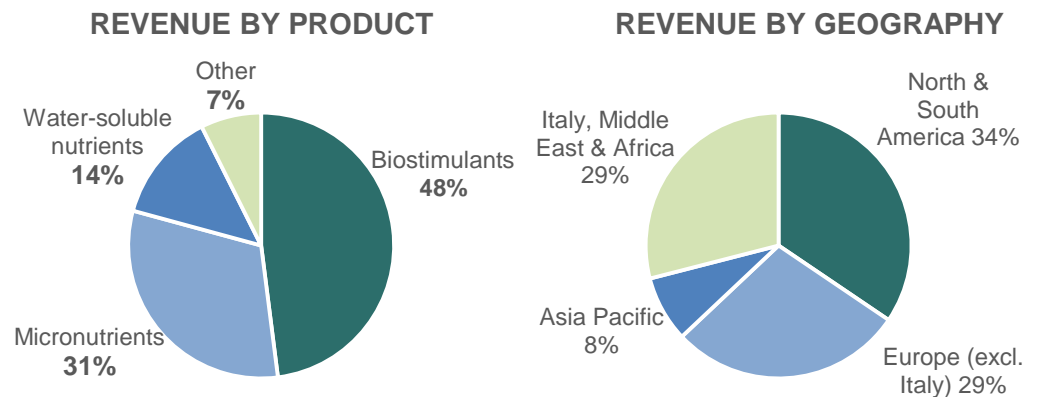
(1) Percentages do not add to 100% due to rounding.



## 2. HISTORICAL REVENUE



## 3. REVENUE BY CATEGORY – 2014



# OUR TECHNOLOGY PLATFORM



GeaPower reduces the cost of taking a solution to market while ensuring consistent efficacy



1

## Deep Knowledge of Active Ingredients\* and Raw Materials

- ✔ Deep knowledge of the biological and chemical characteristics of raw materials
- ✔ Enables Valagro to identify, characterize and preserve specific active ingredients that can achieve targeted physiological responses in plants



2

## Proprietary Extraction Processes

- ✔ Customized extraction processes help maintain the correct ratio of each ingredient in complex natural mixtures
- ✔ Rigorous quality control processes helps to minimize batch-to-batch variability



3

## Advanced Screening and Analytical Capabilities\*

- ✔ Use genomics, proteomics and metabolomics to decipher the genetic and molecular triggers for specific physiological responses in plant systems
- ✔ Screen more than 3,000 samples per day to map physiological responses to different environmental conditions



4

## Proven Ability To Provide Commercially Viable Solutions

- ✔ Extensive experience with field experiments
- ✔ Commercial function and research function are closely integrated
- ✔ Allows Valagro to fast-track product candidates with the best chance of attaining commercial viability

# WHY BIOSTIMULANTS?

Plant Biostimulant means a material which contains substance(s) and/or microorganisms whose function when applied to plants or the rhizosphere is to stimulate natural processes to benefit nutrient uptake, nutrient efficiency, tolerance to abiotic stress, and/or crop quality, independently of its nutrient content.

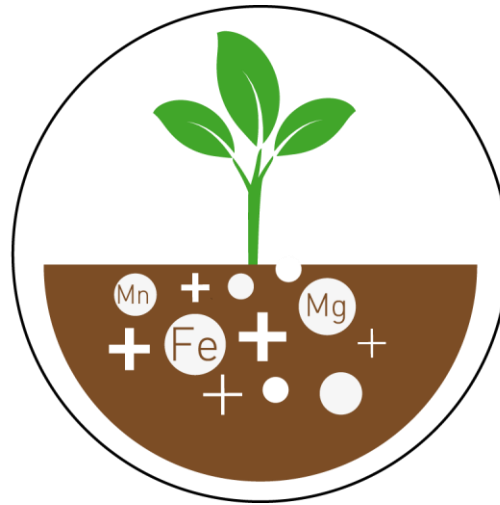
## BIOSTIMULANTS INCREASE AGRICULTURAL EFFICIENCY



1

### BIOSTIMULANTS

Improve tolerance  
to ABIOTIC STRESS



2

### BIOSTIMULANTS

Improve nutrient  
USE EFFICIENCY



3

### BIOSTIMULANTS

Improve  
CROP QUALITY

# VALAGRO PRODUCT OFFERINGS

Valagro currently offers over 20 branded product lines

## 1. ENTIRE CROP LIFE CYCLE

- ✔ Solutions are highly effective in fostering plant growth and development from seed germination to plant maturity

## 2. MULTIPLE CROPS ACROSS GEOGRAPHIES, CLIMATE AND SOIL CONDITIONS

- ✔ **Megafol, Master and Brexil** are used for every crop type
- ✔ Products are sold in 80+ countries, encompassing unique climates and soil conditions

## 3. COMPREHENSIVE SOLUTIONS FOR EVOLVING NEEDS

- ✔ Protecting and recovering from abiotic stresses such as drought, cold and salinity
- ✔ Enhancing nutrient and water use efficiency
  - Reducing waste and pollution
  - Enhancing soil fertility
- ✔ Improving metabolic efficiency to increase yield and enhance crop quality
  - Accelerating the onset of maturity in perennial crops
  - Extending the self-life of produce

## 4. PROVEN YIELD AND QUALITY RESULTS

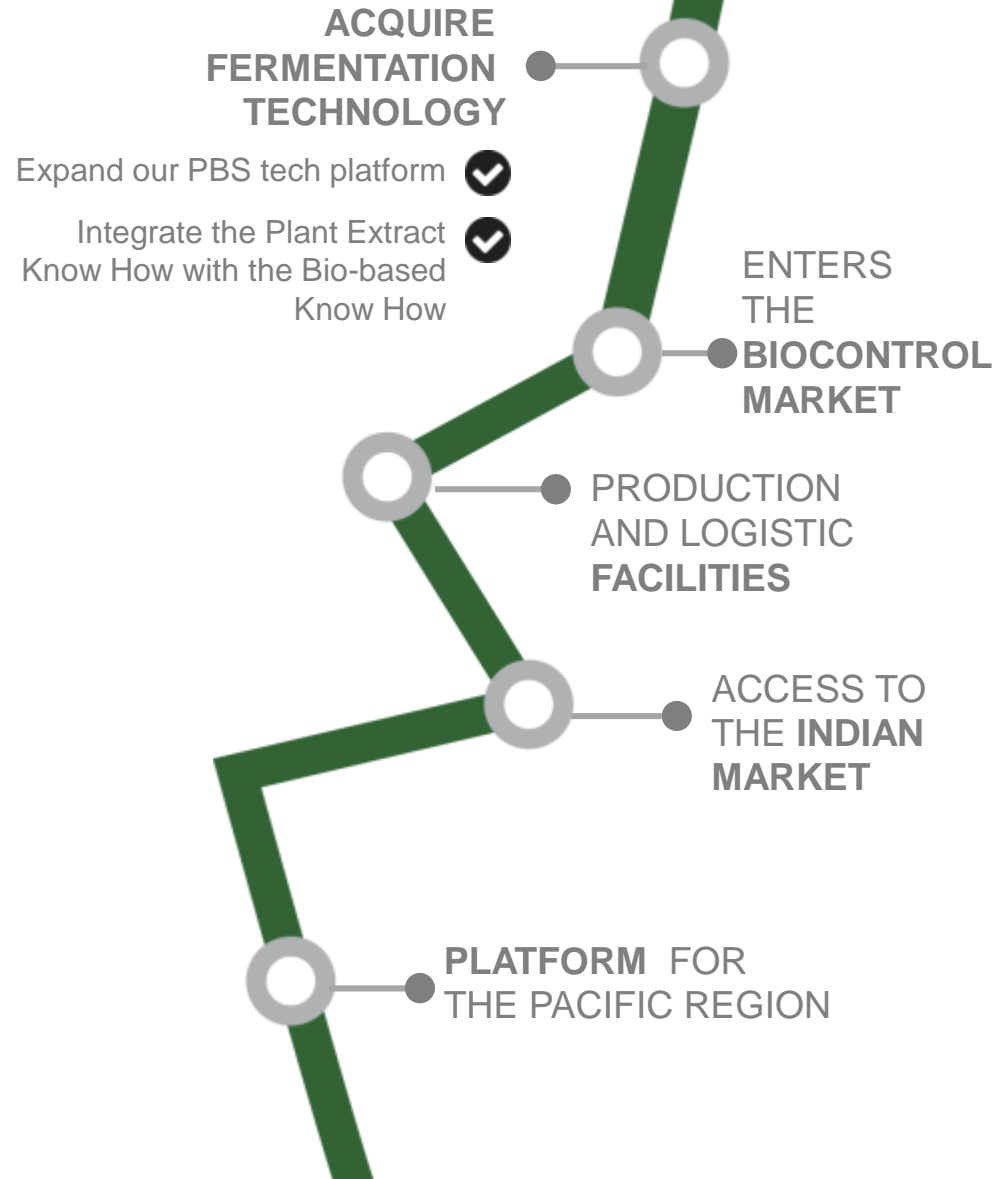
- ✔ **Megafol** showed an average increase in yield of 15% across crops such as wheat, corn, rice, carrots, tomatoes, apples and grapes
- ✔ **Megafol Protein** demonstrated an 8% increase in protein content for wheat, soybean and alfalfa



# BIOSTIMULANTS + BIOLOGICALS = A NEW OPPORTUNITY

## Biological expertise

- ✓ In March 2015, Valagro S.p.A announced that it has reached an agreement to acquire a majority stake in the biopesticide company **Sri Biotech Laboratories India Limited**.
- ✓ SriBio has developed eco-friendly solutions for addressing key pest/disease affecting farmers in the Indian subcontinent through its multiple national and international partnerships.
- ✓ SriBio is engaged in innovative research in the areas of crop improvement, crop nutrition and crop protection serving over 10 million farmers across 13 States in India and it invests about 3.5 % annually in R&D.
- ✓ SriBio has own manufacturing facilities
- ✓ SriBio is the first company to register Bio-Products with The Central Insecticides Board. Sri Biotech has twenty organically certified products by APEDA through Vedic Organic Certification Agency.



# VALAGRO SOLUTIONS TO ADDRESS THE GLOBAL MARKET NEEDS



## NUTRIENT USE EFFICIENCY

- ✓ P SOLUBILIZATION
- ✓ N FIXING
- ✓ SOIL FERTILITY



## CROP QUALITY

- ✓ FRUIT SIZE
- ✓ FRUIT COLOR/ BRILLIANCE



## ABIOTIC STRESS

- ✓ DROUGHT & HEAT
- ✓ CHILLING
- ✓ SALINITY
- ✓ WATER SCARCITY



## BIOCONTROL

- ✓ FUNGICIDES
- ✓ BACTERICIDES
- ✓ HERBICIDES
- ✓ INSECTICIDES
- ✓ FORMULATIONS

## “EXPLORING FIELD”

- ✓ INTELLIGENT FERTILIZER
- ✓ NANOTECHNOLOGY
- ✓ DIAGNOSTICS ON CROPS
- ✓ PRECISION AG

## → VALAGRO TODAY

CURRENT

TOMORROW

CURRENT

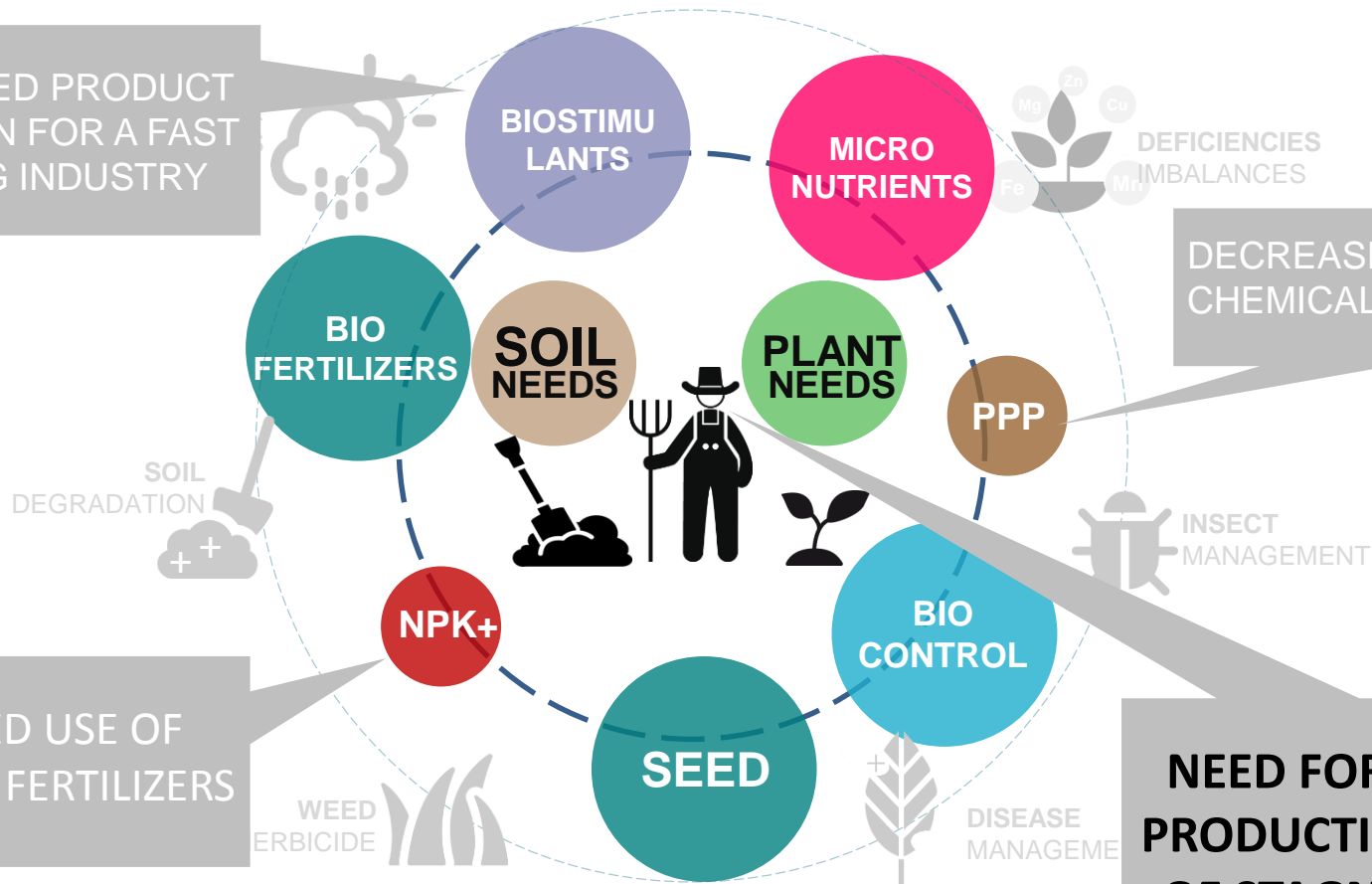
TOMORROW

FUTURE



# INTEGRATED CROP MANAGEMENT THE WAY FOWARD

INCREASED PRODUCT ADOPTION FOR A FAST GROWING INDUSTRY



DECREASED NEED FOR CHEMICAL INTERVENTION

NEED FOR INCREASED PRODUCTIVITY IN LIGHT OF STAGNATING YIELD

# INTEGRATED CROP MANAGEMENT THE ROLE OF BIOLOGICALS

VALAGRO'S APPROACH FOUNDED ON

**3B**

**B**IOSTIMULANT



**B**IOFERTILIZER

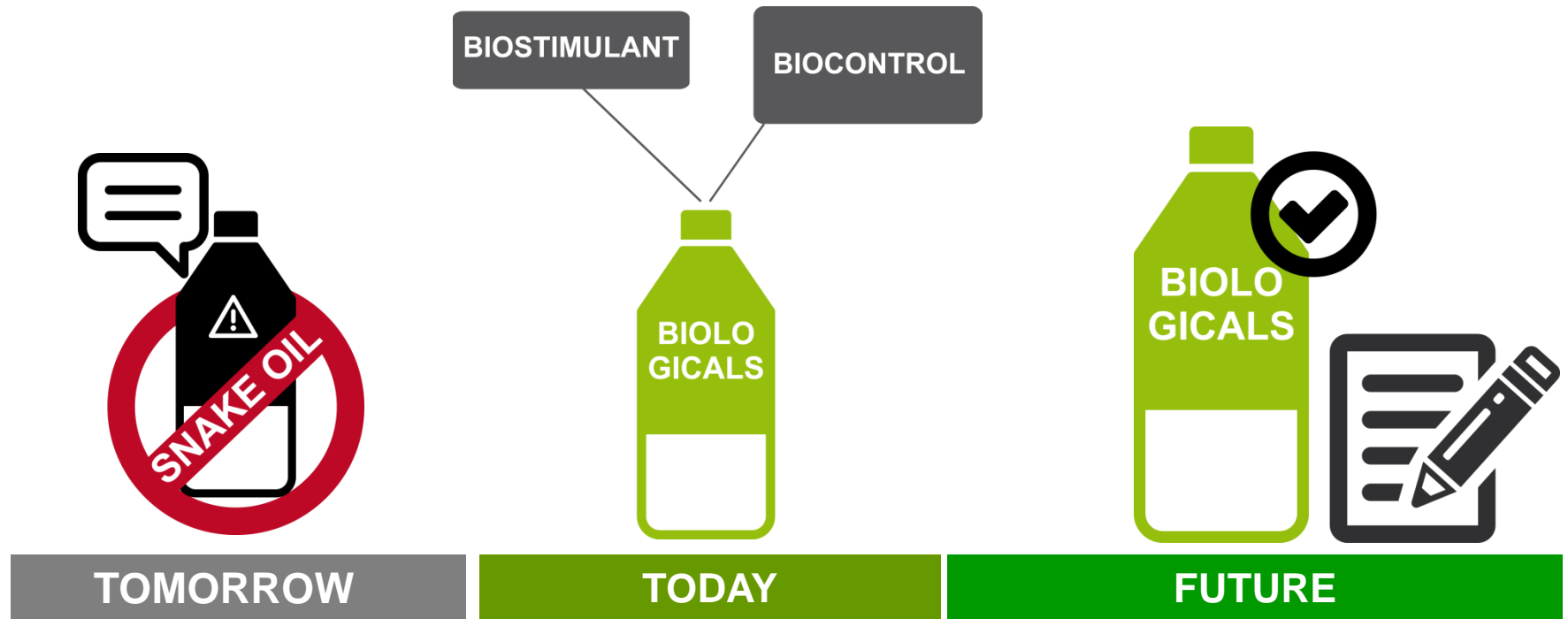


**B**IOCONTROL



**AGRICULTURAL BIOLOGICALS**

# INTEGRATED CROP MANAGEMENT THE CREDIBILITY OF BIOLOGICALS



IN THE PAST, PUBLIC AND PRIVATE RESEARCHERS OFTEN FAILED TO SUBSTANTIATE THE CLAIMS, RESULTING IN SUGGESTIONS THAT SUCH PRODUCTS WERE “**SNAKE OIL**”

IN RECENT YEARS, **NEW-GENERATION OF BIOLOGICALS** HAVE PROVEN THEMSELVES AS YIELD ENHANCERS AND BIOPESTICIDES AND SOMETIMES BOTH.

**CREDIBILITY** REQUIRES A THROUGH AND FAIR **REGULATION** MAINLY FOR BIOSTIMULANTS WHERE WW THERE AREN'T ANY REGULATION

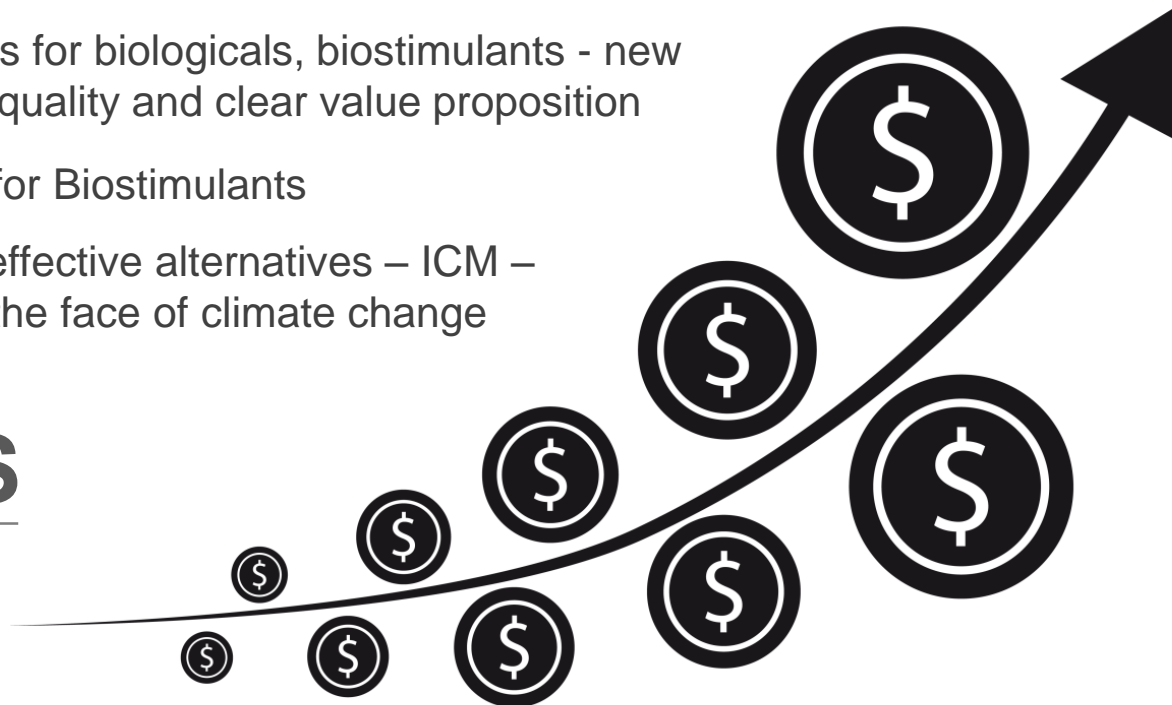
# FUTURE OUTLOOK

- ✓ Chemicals are essential; but, fewer chemistries will emerge - too expensive!
- ✓ Crop improvement, including GMOs, will remain the cornerstone of agriculture for defined traits/markets in specific geographies
- ✓ Need improved market access for biologicals, biostimulants - new technologies, better science, quality and clear value proposition
- ✓ Need for Federal Regulation for Biostimulants
- ✓ Judicious integration of cost-effective alternatives – ICM – for sustainable agriculture in the face of climate change

## BIOLOGICALS

- 1 BIOSTIMULANT
- 2 BIOCONTROL
- 3 BIOFERTILIZER

**WILL continue to GAIN MARKET SHARE**



# SUSTAINABILITY – IN THE FACE OF CLIMATE CHANGE



 **Valagro**<sup>®</sup>  
*Where science serves nature*

  
MINISTERO DELL'AMBIENTE  
E DELLA TUTELA DEL TERRITORIO E DEL MARE

# WIN THE GLOBAL CHALLENGE TOGETHER



*Where science serves nature*

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