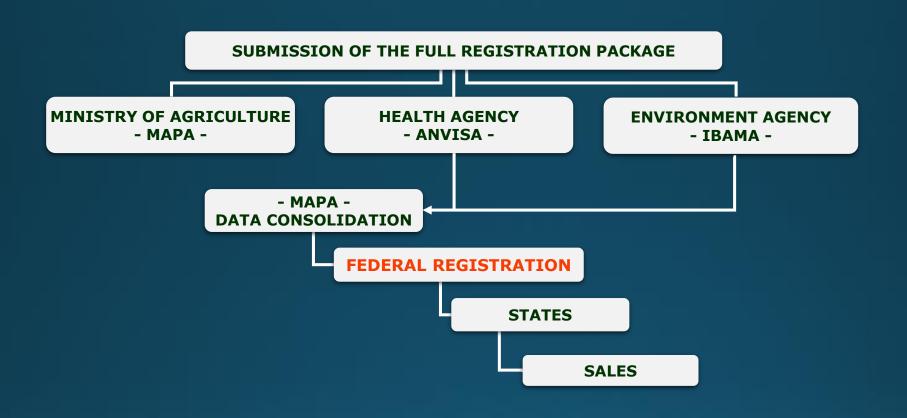




What's in force and what's to come for the biopesticides regulations in Brazil



# Brazilian Registration Process Pesticides



# **BIOPESTICIDES - CATEGORIES**



## **❖** MICROBIOLOGICALS

Fungi, bacteria, virus (living organisms)

## MACROBIOLOGICALS

Natural enemy, predator

## **❖** BIOCHEMICALS

Substances from "natural sources" with a non-toxic mode of action to the targets

Plant Growth Regulator (PGR) – natural or synthetic

Proteins, Aminoacids, Enzymes

## SEMIOCHEMICALS

Pheromones, sexual attractive

## **❖ PLANTS EXTRACTS**

Specific legislation is under discussion

Currently, it must be registered as a conventional formulation.

## BIOSTIMULANTS

This terminology does not exist in Brazil

# **REGISTRATION PROCEDURES – Basic steps**



- 1° Registration of a Brazilian company (Federal and local Agencies)
- 2° Experimental Use Permit (EUP / RET)
  - "Active ingredient" already registered only MAPA (approval takes around a month)
  - "Active ingredient" not registered all the 3 Authorities (approval takes around 3-4 months)
- 3° Samples importation
- 4° Perform the lab studies and field trials
  - LABORATORY (GLP)
  - FIELD (must be performed in Brazil)
    - Biological and Pheromones: registration is per target (any crop)
    - Biochemical: registration is per crop/target or claim
    - Plant extracts: per crop/target
      - New legislation: per target

# **REGISTRATION PROCEDURES – Basic Steps**



5° – Dossiers preparation

Official fees for **Biopesticidas** 

TECHNICAL PRODUCT (not usual - case by case): ± US\$ 4.200

FORMULATION (+ components): **± US\$ 4.900** 

CLONE (same quali-quantitative composition):

Same procedures/queue: **± US\$ 2.600** 

Possibility to include different brand names in the same registration (new)

6° – Submission to the Authorities

APPROVAL
TIMELINE FOR GETTING THE
APPROVAL: 8 - 10 MONTHS

7° – State Inscriptions (27)

8° – Sales and post-registration procedures

# **NEW LEGISLATION** - MICROBIOLOGICAL



- Text already approved by the technical area from the three authorities (now, bureaucrat procedures)
- Expectation to be published in the 1Q/2023

# Main changes:

- Definition (inclusion):
  - Inactivated microorganism
  - GMO
  - Biostimulants (related to biotic factors)
- Clarity about no need of technical product registration and residues studies
- Possibility to waive tox/ecotox studies, through scientific publication
- Post-registration: evaluated only by MAPA (only specific processes, like composition change, will be still evaluated by the three authorities).
- Waiver of agronomic prescription

## MICRORGANIMS ALREADY REGISTERED IN BRAZIL



- A57 Aspergillus flavus
- A61 Autographa californica multiple nucleopolyhedrovirus (AcMNPV)
- B01 Bacillus thuringiensis
- B30 Baculovirus anticarsia
- B31 Bacillus sphaericus
- B40 Beauveria bassiana
- B43 Bacillus pumilus
- B44 Bacillus subtilis
- B45 Baculovirus condylorrhiza vestigialis
- B47 Baculovirus helicoverpa zea
- B48 Baculovirus helicoverpa armigera
- B49 Bacillus amyloliquefaciens
- B50 Bacillus methylotrophicus
- B51 Baculovirus spodoptera frugiperda
- B52 Bacillus firmus
- B53 Bacillus licheniformis
- B56 Bacillus velezensis
- C76 Chrysodeixis includens nucleopolyhedrovirus
- C77 Cordyceps fumosorosea

## MICRORGANIMS ALREADY REGISTERED IN BRAZIL

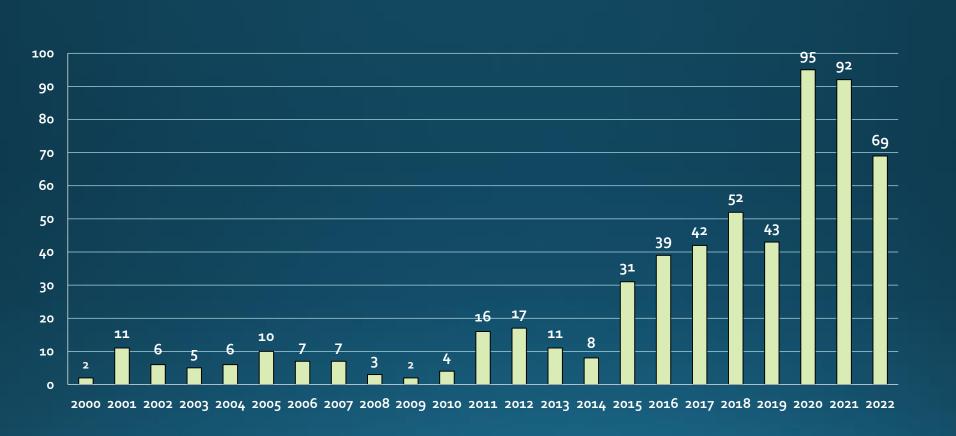


- C80 Clonostachys rosea
- H18 Hirsutella thompsonii
- 128 Isaria fumosorosea
- I31 Isaria javanica
- M39 Metarhizium anisopliae
- M51 Metarhizium rileyi
- P56 Paecilomyces lilacinus
- P58 Pochonia chlamydosporia
- P59 Pasteuria nishizawae
- P64 Pseudomonas oryzihabitans
- P66 Pseudomonas chlororaphis
- P67 Pseudomonas fluorescens
- P68 Phthorimaea operculella granulovirus
- T60 Trichoderma harzianum
- T64 Trichoderma asperelum
- T65 Trichoderma stromaticum
- T67 Trichoderma koningiopsis
- T73 Trichoderma afroharzianum
- T76 Trichoderma atroviride
- T78 Trichoderma viride

TOTAL: 39 different species (bacteria, fungi and virus)

## **NUMBER OF BIOPESTICIDES APPROVED PER YEAR**





TOTAL OF 567 BIOPESTICIDES
REGISTERED IN BRAZIL

Source: Ministério da Agricultura (MAPA), August 2022.

## CONCLUSIONS



- Brazil has been developing at great strides the regulation of Biopesticides
- Reduction of timeline for registration approval (less than 1 year)
- The regulatory framework has been favaroble for the development of an ecofriendly market
- The forecast represents that the market will continue to grow a lot in Brazil



