



SUB-GROUP: EFFICACY OF BIOLOGICAL AND ECO-FRIENDLY CPAs (BIO)

RHODA MAVUKA

2022 CORESTA Congress Online

October 2022

1. To test biological and eco-friendly CPAs as alternatives to traditional CPAs.
2. To produce a formal protocol for trial and testing procedures.
3. To collate results of trials done under the formal protocol and make them available to ACAC.
4. To harness global participation.





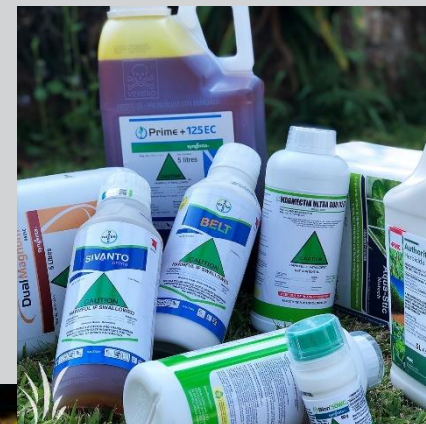
Amended Objectives

❖ ...amended Feb 2021

- 1. To test biological and eco-friendly CPAs as alternatives to traditional CPAs with CORESTA formal protocol and collate related results.**
- 2. To collate results and protocols from trials already conducted with biological and eco-friendly CPAs**
- 3. To collate results and protocols from trials that will not be done with the formal protocol**
- 4. Compile data in a dedicated database and make them available to ACAC.**
- 5. To harness global participation.**

Why the Sub-group?

- ❖ Compliance to global requirements in CPA usage of paramount importance
- ❖ Green movement gaining momentum
- ❖ Increasing shortage of conventional CPAs due to withdrawals and bans





Activities (June 2018 – October 2022)

- ✓ **June 2018 – Jan 2019:** Survey questionnaire on the extent of use and registration of biological and eco-friendly CPAs
- ✓ **June 2019:** Compilation of global biological and ecofriendly CPAs
- ✓ **June 2019:** Protocol formation and Sub-group website page
- ✓ **October 2019:** Standardisation of protocols and harnessing of global participation
- ✓ **Jan 2020:** Revision to further simplify
- ✓ **Jan 2020 to date:** Efficacy trials/data (Japan, Zim, USA, France)
- ✓ **Sept 18th 2020:** Online meeting
- ✓ **Feb 2021:** Amendment of objectives and submission to SC
- ✓ **June 2022:** Activities update for Scientific commission meeting, data availed to Commission
- ✓ **Currently collating trial data and that which is already existing**



Trials done with the CORESTA formal protocol (Amended objectives - #1)

CPA active ingredient	Target Pest/s	Country	Year
Trichoderma spp.	Fusarium/ Pythium / Sclerotium	Zimbabwe	2021
Bacillus subtilis	Rhizoctonia / Pythium	Zimbabwe	2020-21
Beauveria bassiana	Aphids	Zimbabwe	2020-21
Azadiractin (Neem)	Aphids	Japan, Zim	2021
Bacillus firmus	Root-knot nematode	Zimbabwe	2021
Beloukha (Pelargonic Acid)	Suckericide	Zimbabwe	2020



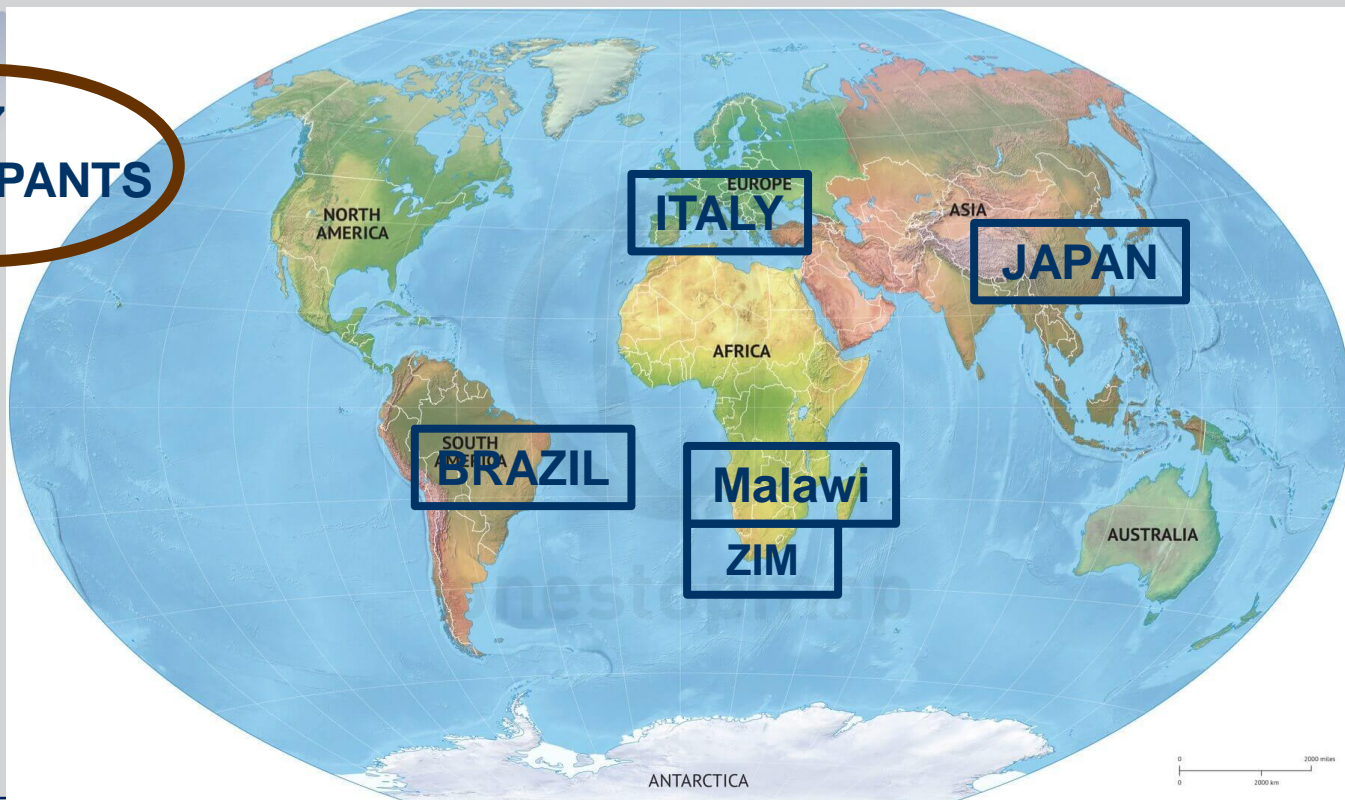
Trials done with an in-house protocol (amended objectives - # 2 and 3)

CPA active ingredient	Target Pest/s	Country	Year
Trichoderma spp.	Fusarium/ Pythium / Sclerotium	India	Before 2020
Bacillus subtilis	Rhizoctonia / Pythium	India/Zim	Before 2020
Beauveria bassiana	Aphids	India	Before 2020
Azadiractin (Neem)	Aphids	India/Zim	Before 2020
Bacillus firmus	Root-knot nematode	India	Before 2020
Beloukha (Pelargonic Acid)	Suckericide	USA	2020
OTHERS Prosular oxymatrine	Aphids	Zimbabwe	2021
PLANT EXTRACT	NEMATODES	Zimbabwe	2021
DIATOMACEOUS EARTH	Aphids	Zimbabwe	2021



Participants (October 2019)

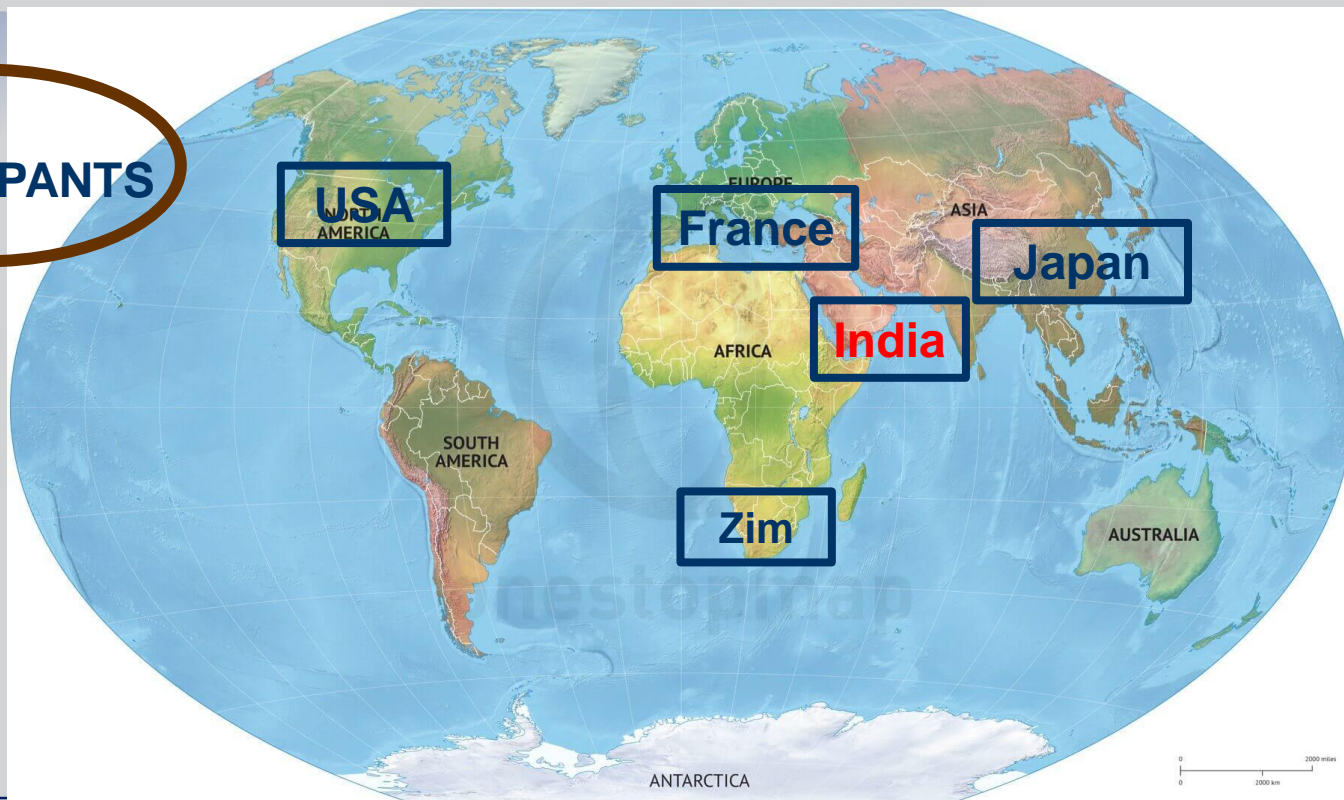
17
PARTICIPANTS





Final Participants: Sept 2020

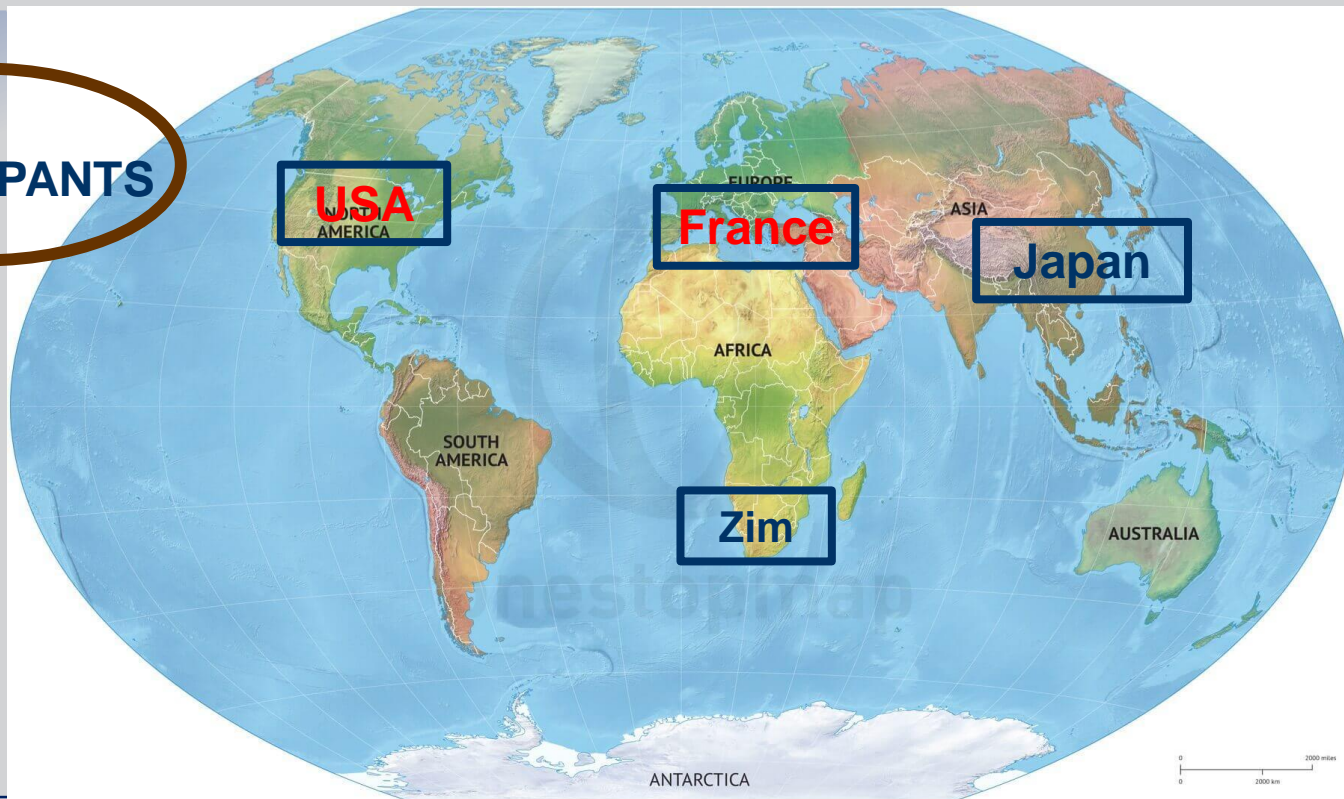
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PARTICIPANTS





Final Participants: Sept 2020- 2021

4
PARTICIPANTS





Final Participants: Sept 2021- 2022

2
PARTICIPANTS





Deliverables

Last meeting: **18/09/2020**

Completed deliverables

1. To test biological and eco-friendly CPAs as alternatives to traditional CPAs with CORESTA formal protocol and collate related results (**Zim & Japan**)
2. To collate results and protocols from trials already conducted with biological and eco-friendly CPAs (**India, USA**)

Main challenges

- Very low participation and responses.
- Numerous emails with no response

Planned deliverables

1. Compile data in a dedicated database and make them available to ACAC (**Data collected, database to be advised on how to compile with CORESTA**)

Overall



- ❖ **Continue with efficacy trials in Zim and Japan**
- ❖ **Double up efforts to extract already existing data from countries**





Acknowledgements

- ❑ Tobacco Research Board
- ❑ ACAC
- ❑ Participants