

Side Event at Japan Pavilion
COP23

November 15th, 2017

The Private Sector in Action for Adaptation

Sharing Experience from Business Perspective - Chemical Industry -

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Sumitomo Chemical Co., Ltd.



Responsible Care[®]
OUR COMMITMENT TO SUSTAINABILITY

Net Sales FY2016 Total : JPY 1,954billion



Pharmaceuticals Sector

Supporting people's health and bettering their lives on a daily basis.



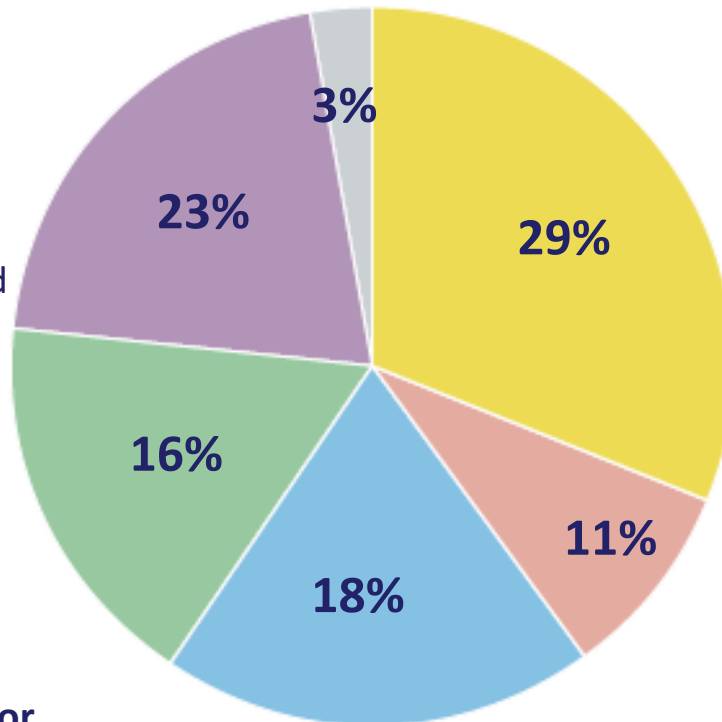
Health & Crop Sciences Sector

Contributing to the stable supply of more abundant, sustainable food as well as to people's health and protection of the environment.



IT-related Chemicals Sector

Responding to an IT society that is becoming increasingly more sophisticated with cutting-edge technologies.



Petrochemicals & Plastics Sector

Providing basic petrochemical feedstock and synthetic resins that help realize abundance and prosperity while supporting people's lives.



Energy & Functional Materials Sector

Helping to resolve environmental, energy, and other global-scale issues through functional materials.

https://www.sumitomo-chem.co.jp/english/ir/library/annual_report/docs/ar2017e.pdf

“Sumika Sustainable Solutions”

- ◆ Sumitomo Chemical Group is offering solutions that will help build a sustainable society, with the aim of contributing to the SDGs.



<Our aim>

- Further enhance the Company's proactive contribution to solving vital challenges facing human society throughout our business
- Encourage all employees by showing company's contribution for building sustainable society with clear data
- Proper disclosure of relevant information, amid the growing public interest in the SDGs and ESG

"Sumika Sustainable Solutions"



Integrated Vector Management:
Package of Solutions helping reduce
Malaria, Dengue, Zika etc.



PERVIO™, lithium-ion secondary
battery separator for the expanded
use of electric vehicles



Microbial pesticides, plant growth
regulators, microbial agricultural
materials, promoting sustainable
agriculture



SUMIMET™, feed additive
methionine, Reduce N₂O

34 products (293 bil. Yen in Sales, 2016) ⇒ 560 bil. Yen in 2020

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Contribution of Chemical industry for Adaptation (Examples)

1. Water Supply

- Desalination of sea water (membrane)
- Materials for irrigation

2. Prevention of infectious diseases

- LLIN (Olyset Net, Olyset Plus)
- Vector Control Chemicals

3. Food

- Draught resistant plants/Chemicals

Contribution of Sumitomo Chemical for Adaptation

1. Prevention of infectious diseases

- **Integrated Vector Management**
 - ✓ LLIN (Olyset Net, Olyset Plus)
 - ✓ Vector Control Chemicals

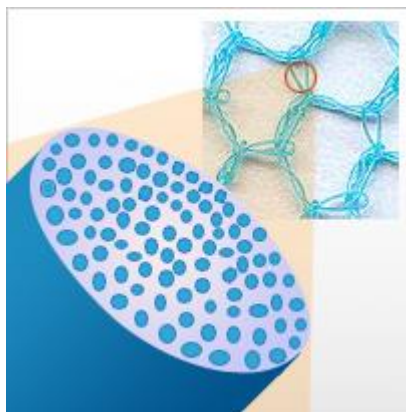
2. Food

- **Microbial Agricultural Materials**

Olyset™ Net



In contrast to previous polyester mosquito nets, Olyset™ Net is made from polyethylene, with thicker, more durable fibers.



Olyset™ Net retains insecticidal efficacy for over five years even with repeated washings because the insecticide migrates to the surface of the fibers gradually through controlled release technology.

Preventing Malaria

A Long-Lasting Insecticidal Mosquito Net to protect people from malaria-carrying mosquitoes.

Direct Effect

3 GOOD HEALTH AND WELL-BEING



Reduce Maternal and Infant Infection and Mortality

13 CLIMATE ACTION



Strengthen Adaptive Capacity to Climate-Related Expansion of Infectious Diseases

Secondary Effect

2 ZERO HUNGER



Improve Nutrition for Children

4 QUALITY EDUCATION



Increase the Number of Children who Receive Education

8 DECENT WORK AND ECONOMIC GROWTH



Generate Employment through Local Production

1 NO POVERTY

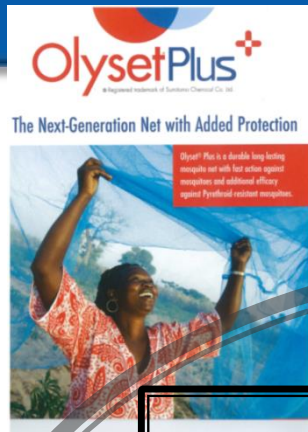


Decrease Poverty



Challenges facing Olyset Net

1. LLIN has become a Commodity.
 - New Suppliers in a Market
 - Concerns in their Quality
 - Concerns in Sustainability of Business
2. Insecticide-Resistant Mosquitos
 - Need to Develop new generation LLIN



LLINs
Olyset Net
Olyset Plus



Indoor Residue Spray
SumiShield

- **Malaria, Dengue, WNF, Zika, etc**
- **SCC: Chemical, MGK: Botanical, VBC: Biorational Solutions**
- **Package of Solutions covers mosquito adult/larvae and indoor/outdoor**

Larvicides
SumiLarv 2MR



Space Spray, Misting
MGK's Botanical solutions
SumiPro



<http://sumivector.com/>

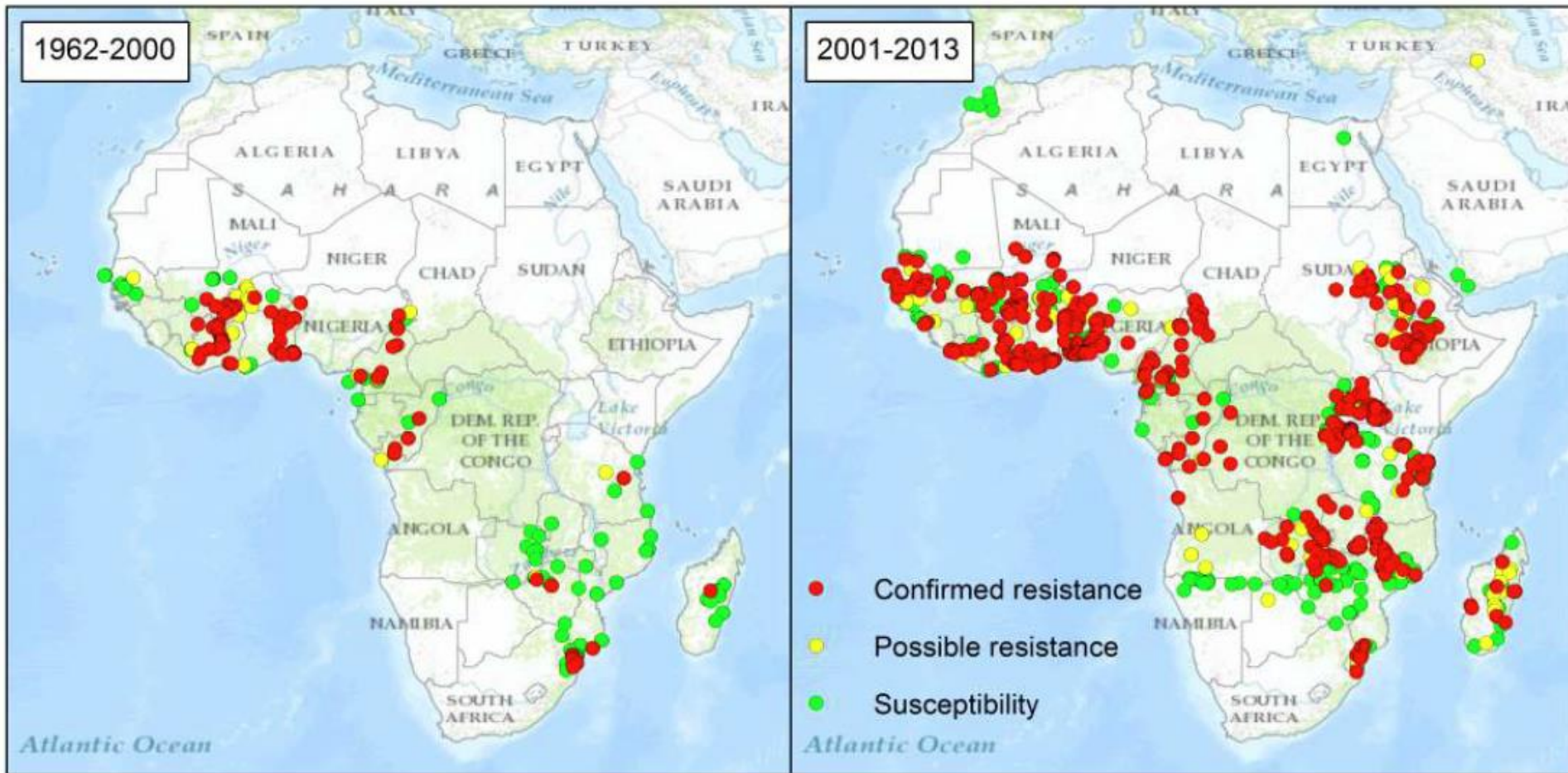


SumiShield[®] 50WG

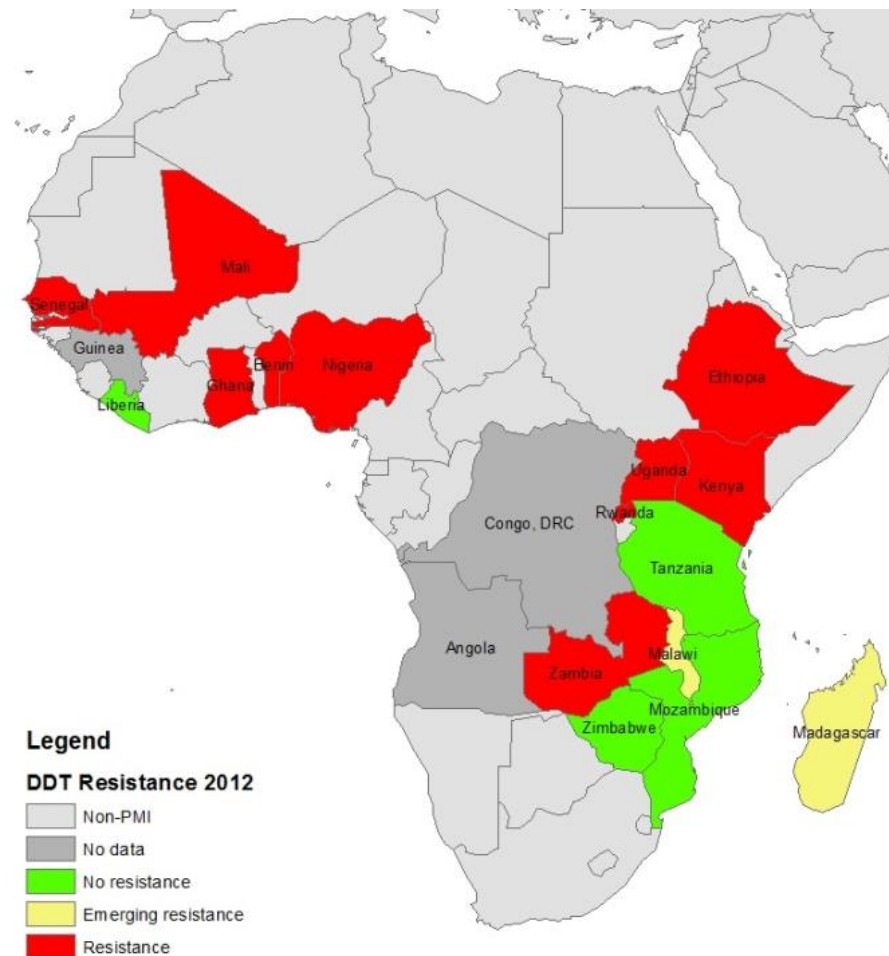
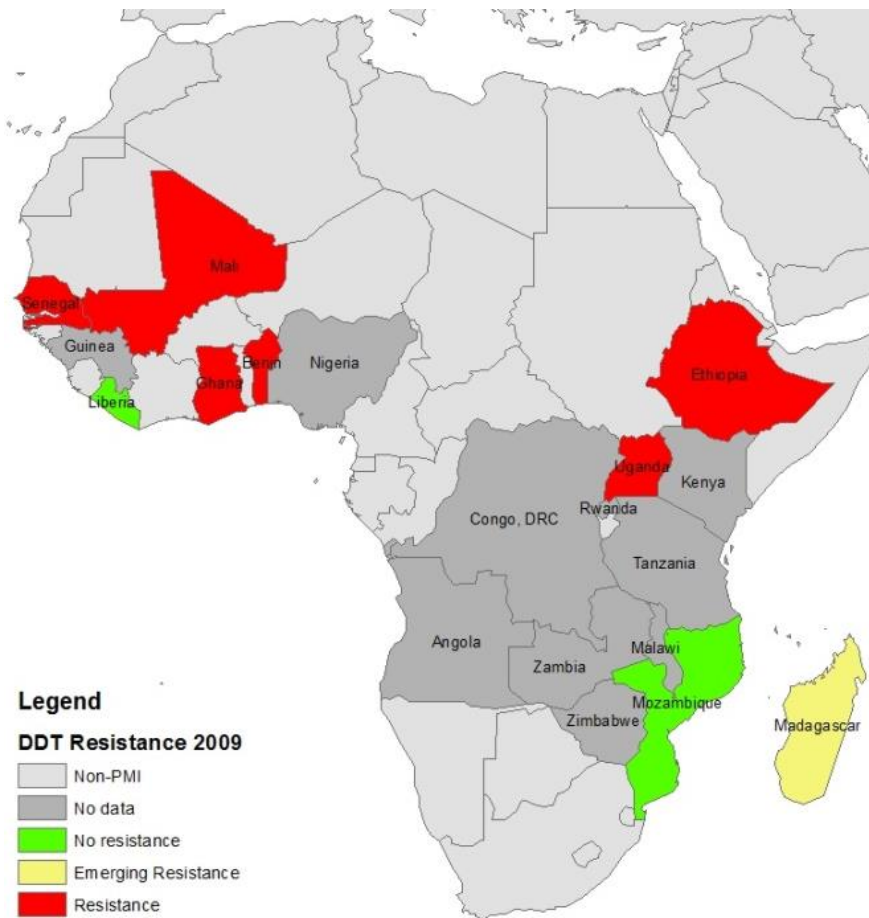
A breakthrough for resistance management in Vector Control



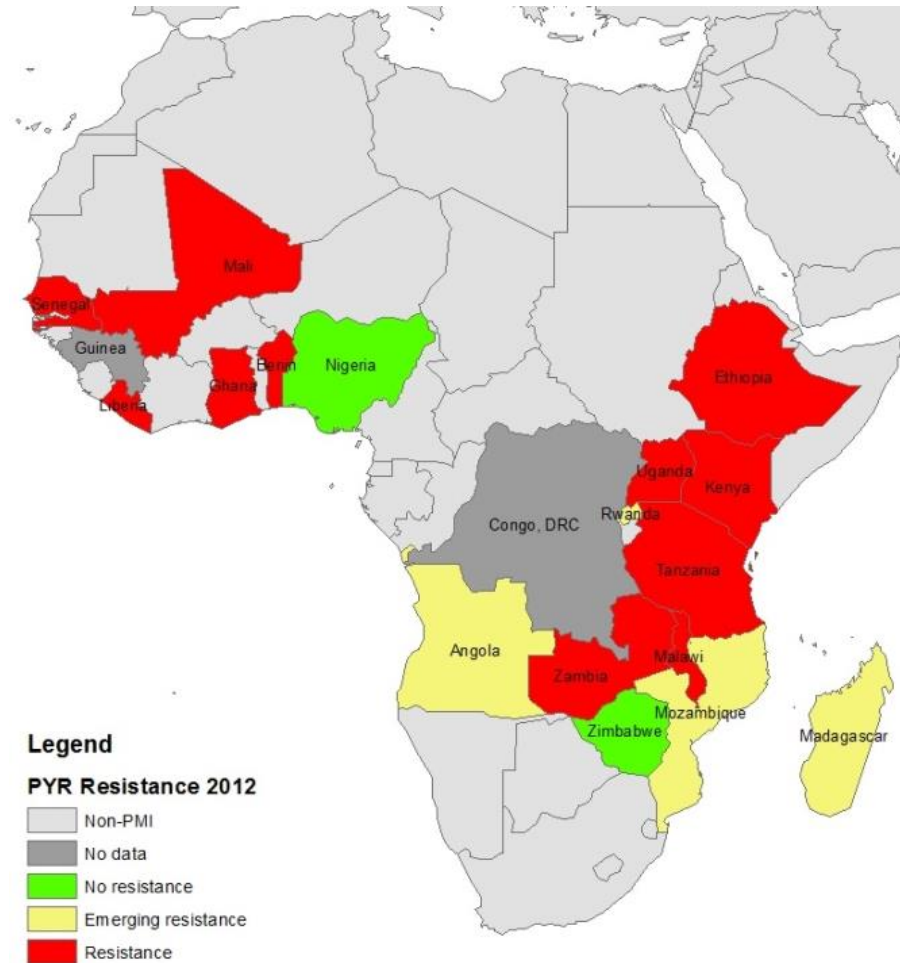
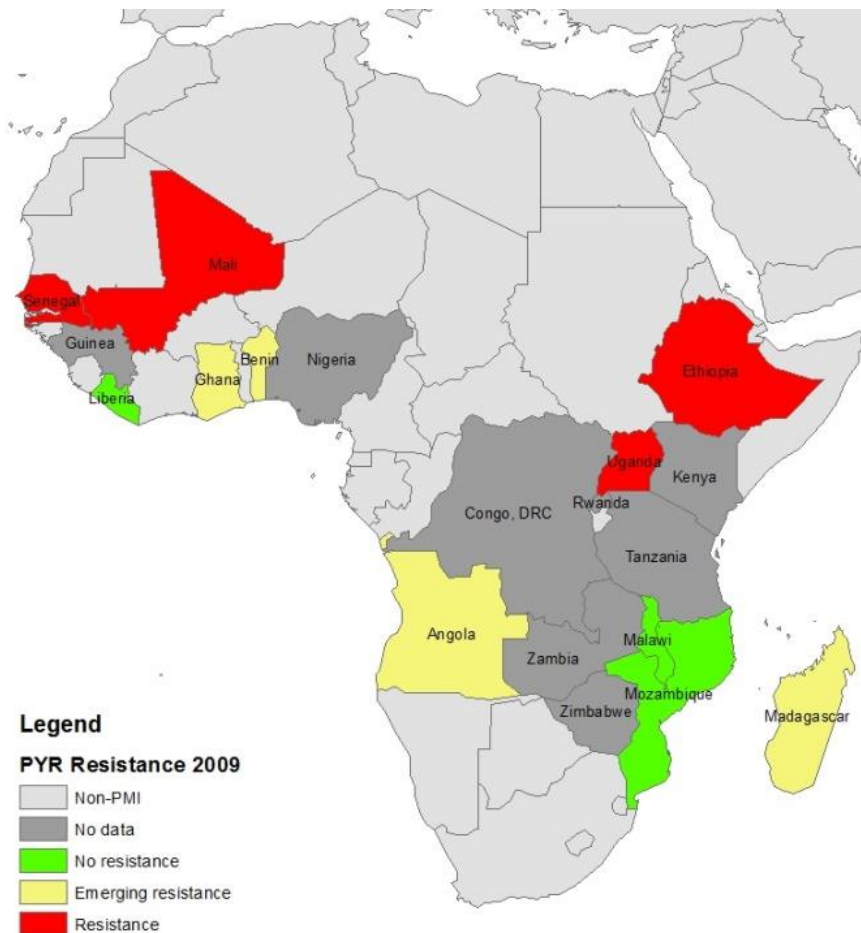
Resistance in *Anopheles* is increasing:



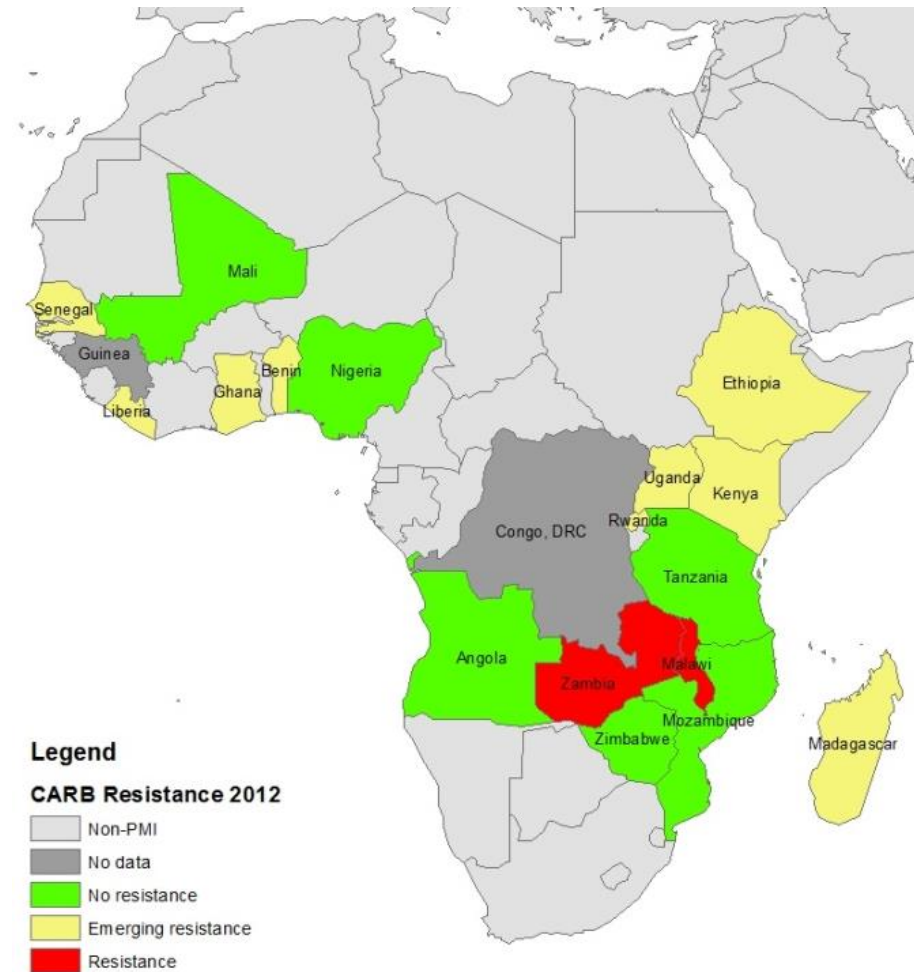
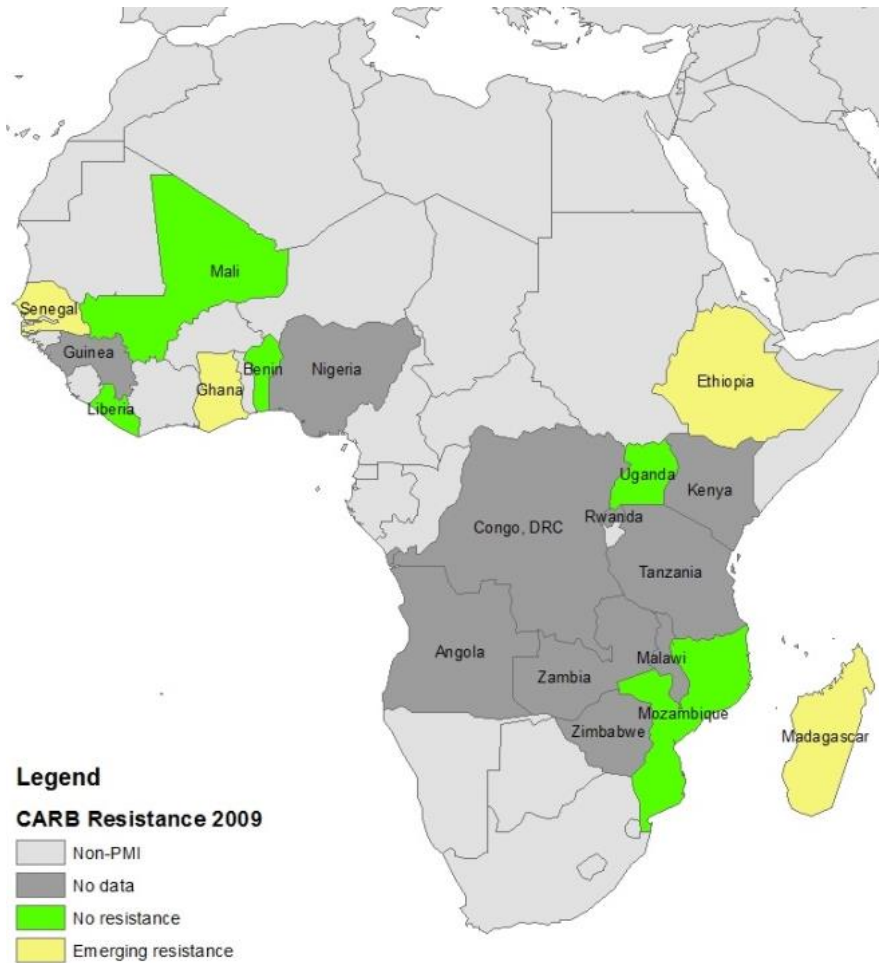
DDT Resistance



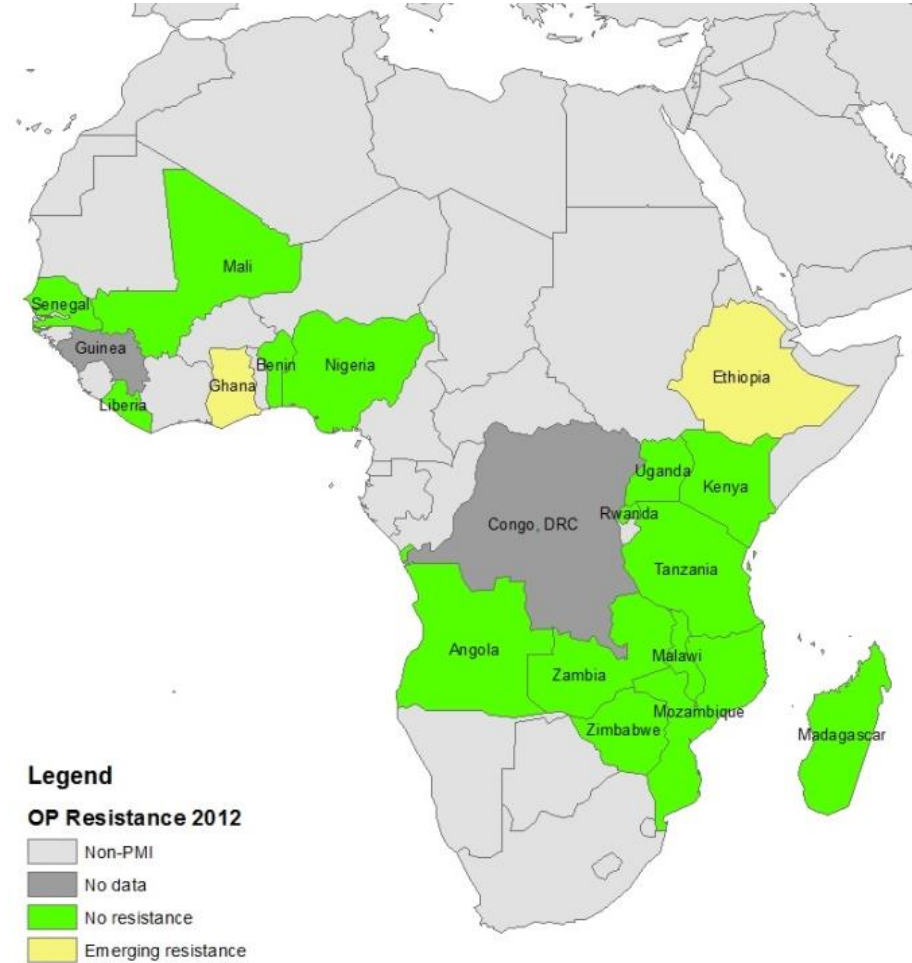
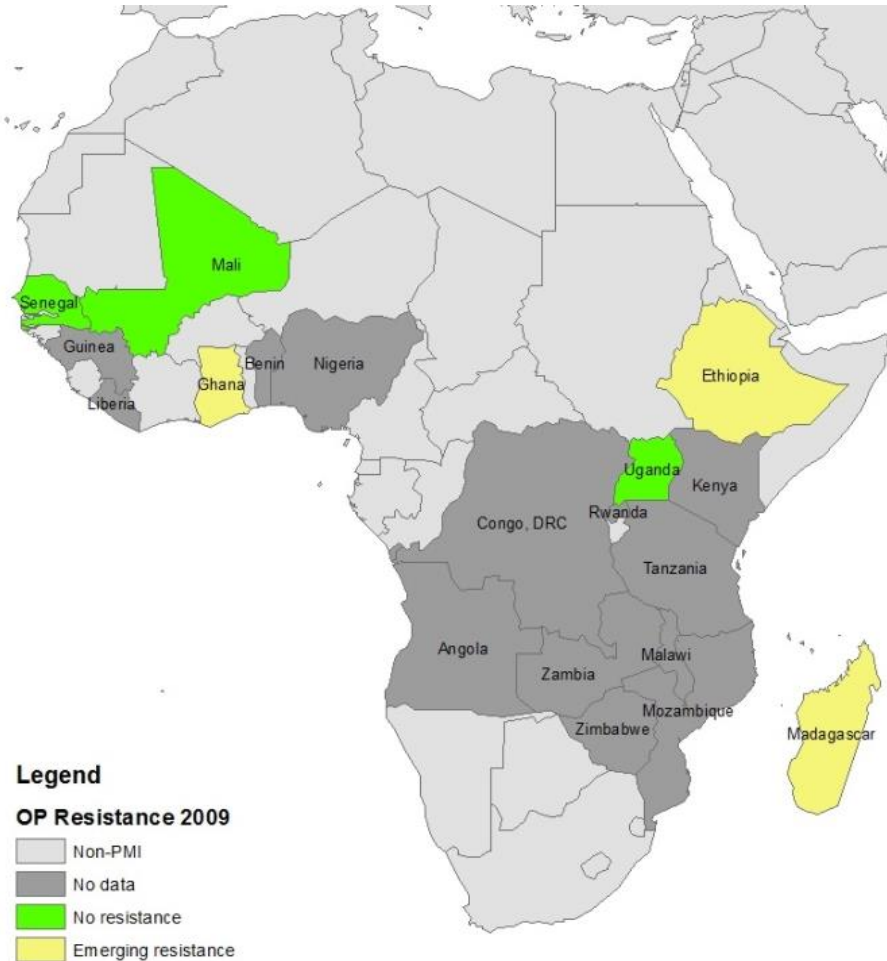
Pyrethroid Resistance



Carbamate Resistance



Organophosphate Resistance





SumiShield[®] 50WG

A breakthrough for resistance management in Vector Control

Key features

- New mode of action insecticide for vector control.
- 6-9 months duration of activity under field conditions.
- New intervention for use in resistance management programs.
- Submitted for evaluation under the WHO Pesticide Evaluation Scheme (WHOPES).
- Water Dispersible Granule (WG) formulation - readily dilutes in water.
- Easy to use unit dose sachets.
- Odorless and dust free.
- Good contact activity due to low repellency.

Microbial Agricultural Material (EndoPrime)

ROOT MASS EXPANSION SUPPORTS YIELD POTENTIAL



Untreated



Treated

Moffatt Farm Trial 2014

ENDOPRIME PROTECTS CORN FROM DROUGHT STRESS



Untreated



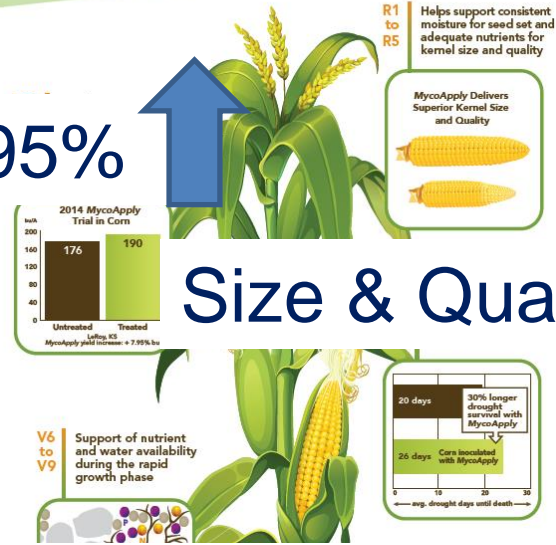
Treated

How MycoApply™ EndoPrime™ boosts plant health.

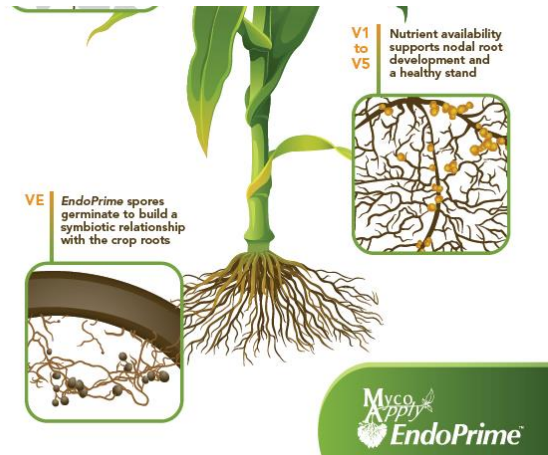
Yield 7.95%



Size & Quality



Drought Survival 30%



Innovation and Cooperative action

1. Innovation

- Needs
- Incentives

2. Cooperative action

- International organizations
- Governments
- NGOs

Thank you very much.



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