



COTTON MADE IN AFRICA

Cotton Crop Protection by Local Means

AbTF's approach to crop protection in the 3P context



With its' sustainability standard "Cotton made in Africa" AbTF works along the 3 P's of People – Planet – Profit.

Strategies in Crop Protection follow these principles.

People

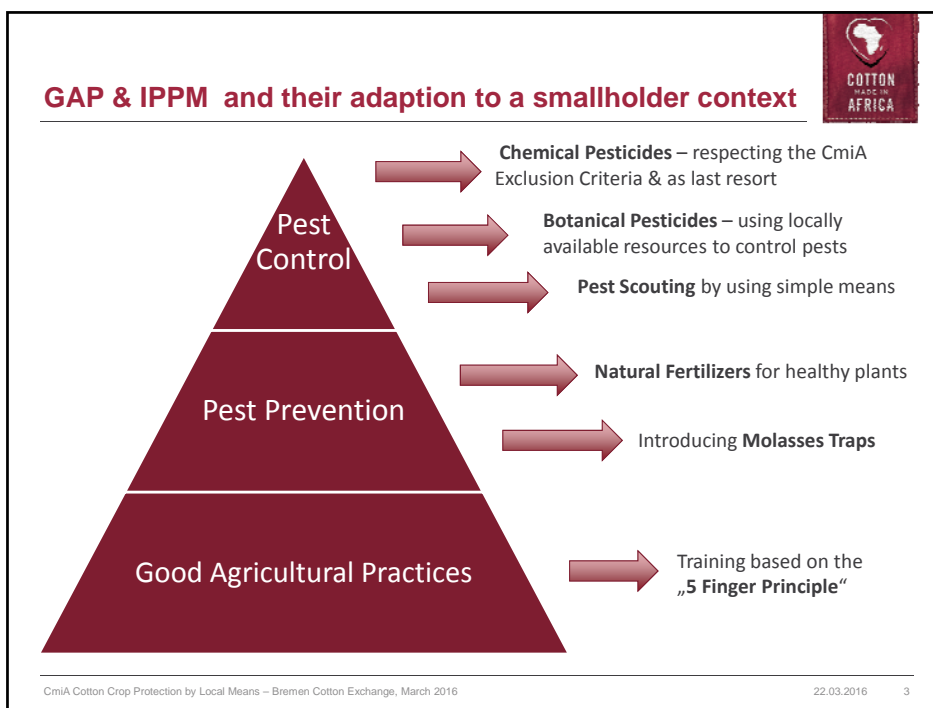
Reducing health risks for farmers

Planet

Reducing toxicity for the environment

Profit


Reducing input costs
Protecting yields



Effects on People - Planet - Profit

	People	Planet	Profit	Challenge
GAP / 5 Finger	(+) includes training on safe pesticide use		+++ major driver to maximize yields	Continuous training required
Pest Scouting	None	(+) pesticide application based on assessment	+ potential to reduce input costs	Ready for use in smallholder context
Natural fertilizers	None	(+) maintain soil fertility	+ increase yields compared to untreated plots	Access to cow urine; cultural barriers
Molasses Traps	(+) reduced pesticide application possible		+ yields protected at low costs	Access to molasses
Botanical Pesticides	+ most botanicals are less toxic - labour intensive	+ less harmful to beneficials	+ low/no costs for locally available plant material	Innovation how to reduce labour
Chemical Pesticides	- Negative health effects	- Negative effects on beneficials, water bodies, etc.	+ protecting yields - Inputs on loan	PPE; Long-term use of same substance groups leading to pest resistance


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Economic Implications – Conservative Projection

Molasses traps

- 1 Bollworm moths can lay **up to 1.000 eggs**
- 1 Larva can attack **up to 10 squares/bolls**
- Calculation: One moth laying 400 eggs turning into 200 larva (50% survival rate), each attacking only 5 squares, will lead to a yield loss of 3 kg
- Molasses trap data from **Zambia** (2014/15 season): Average weekly moths catches/trap: **155**



31.000 larvae
attacking
each 5
squares/bolls
= 155.000


×

Estimated
yield per boll
= 3 gram

=

Potential loss
465 kg

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Economic Implications


Cow urine as foliar fertilizer

Advantages: locally available
no costs (currently)
good source of nitrogen
additional effects in pest management

Challenges: not all farmers have cattle
cultural barriers to overcome (witchcraft)

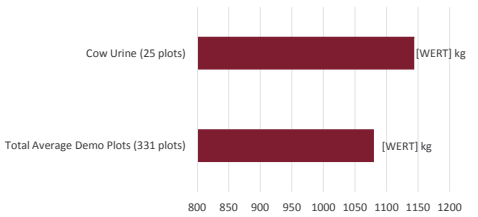


A



B

Zambian CmiA Partner
Yield Comparison 2014/15 season



Category	Yield (kg)
Cow Urine (25 plots)	[WERT] kg
Total Average Demo Plots (331 plots)	[WERT] kg

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Application and Roll-out of IPPM in 2016



- **GAP & pest scouting** applied by all CmiA farmers (670.000) in all countries
- **Molasses traps:** applied by farmers in
 - Côte d'Ivoire,
 - Ethiopia (> 15.000),
 - Malawi,
 - Mozambique,
 - Tanzania,
 - Uganda,
 - Zambia (>20.000*),
 - Zimbabwe
- **Natural Liquid Fertilizers** cow urine and/or manure/compost teas applied by farmers in
 - Côte d'Ivoire,
 - Tanzania(>600*),
 - Zambia (>700*)
 - other natural fertilizers (compost, manure) in all CmiA countries
- **Botanical Pesticides** applied by farmers in
 - Côte d'Ivoire,
 - Tanzania (>600*),
 - Zambia (>700*)



■ CmiA / SCS verified
 ▨ planned verifications

* Detailed result data collected for the indicated nr of farmers

