Pesticides: Growing Coffee without Endosulfan

Dr. Stephanie Williamson,
Staff Scientist, PAN UK
Coffee berry borer control using traps
PAN = Pesticide Action Network

PAN International: set up 1985 to address pesticide poisoning concerns in developing country agriculture

Coordinates >200 groups in 60 countries via 5 Regional Centres.

Official observer status with UN: Food & Agriculture Organisation (FAO); Basle, Rotterdam & Stockholm Conventions; FAO/WHO Joint Programme on Pesticide Management; Strategic Approach to International Chemicals Management (SAICM)

PAN UK: founder member of 4C in Civil Society chamber, involved in technical guidance since 2005.

More recent work helping to revise 4C pesticide lists.
Endosulfan phase out challenge


Endosulfan is first pesticide in current use to be added to both Conventions- cotton and coffee sector concerns. Mainly against Coffee Berry Borer beetle, causing quality damage to beans.

Different supply chain actors: producers need alternatives, traders & roasters need supplies to be legally compliant & avoid reputational risks.

BUT other standards had already prohibited endosulfan in their supply chains, e.g Fairtrade, Rainforest & Utz: > good stories of how farmers already managing coffee without using this Highly Hazardous Pesticide (HHP).

Project support from:
- 4C, with public-private funding, via IDH Sustainable Coffee Program.
- FAO via close links with PAN UK
- ISEAL Alliance
Compiling farmers’ experiences

22 farms visited during 2013 in two regions:

- Colombia - continuous flowering & harvesting
- Central America (El Salvador & Nicaragua) - defined flowering + one main harvest period

Farm size range: from 1.5ha smallholding to 350ha estates

Certified standards:
- Fairtrade certified (10 farms)
- Rainforest Alliance (8)
- Utz Certified (4)
- 4C licensed (3)
- Organic (4)
- Uncertified (1)

Local collaborators

Colombia: Fundacion Natura (SAN); National Coffeegrowers Federation (FNC)

Nicaragua: contacts with co-ops, NGO

El Salvador: 4C Regional Manager; research centre PROCAFE; member Coex; NGO
Broader collaboration

Expert scientific inputs

Dr Peter Baker, CABI Bioscience, UK
(Coffee Berry Borer IPM)

Dr Bernard Dufour, CIRAD, France
(trapping)

Dr Carmen Gongora, Cenicafe,
Colombia (IPM and biocontrol)

Dr Adan Hernandez, PROCAFE, El Salvador (trapping & biocontrol)

Stakeholders’ criteria for assessing IPM methods

☐ How effective is method x in controlling CBB?

☐ How much does it cost?

☐ How much labour time is needed?

☐ How easy is it to implement?

☐ Does it need much training?

☐ Other key points for each method

Global survey respondents

50 useful responses & feedback from producer organizations, development agencies, coffee estates, traders and NGOs

‘sister’ project in Brazil by P&A Marketing (supported by IDH): raise producer awareness of endosulfan ban & identify possible alternatives for the Brazilian context
Main outputs for practical guidance

- Set of 4 YouTube videos (12 mins) on Farmers’ Experiences in Managing Coffee Berry Borer:
  - Cultural Controls; Using Biopesticides; Use of Trapping; Monitoring & Decision Making
- Interactive comparison of CBB IPM methods
- Guidance documents on using the methods
- Farmer case studies
- Presentations from lesson-learning workshop (Bogota Oct 2013)

Hosted on 4C & Sustainability Xchange websites; linked from PAN UK, IDH, FAO sites

http://www.4c-coffeeassociation.org/resources?category=endosulfan-project

Doña Maritza Colindres, 2.8 ha farm in Nicaragua Organic & Fairtrade certified since 1999
Key findings

CBB control without endosulfan is perfectly feasible:
Good CBB control across different farm sizes; climate zones & altitudes: pest pressure levels; production systems; farmer ages & educational levels.

Cultural controls form the backbone of good CBB management: sanitary picking of bored berries + collecting fallen berries and dried berries left on trees after harvest. Field hygiene essential to reduce pest breeding sites & CBB levels in following season.

Field monitoring is an important tool for CBB decision-making: farmers monitor their plots for pest presence/level, identifying ‘hotspots’, for optimum timing of controls.

Successes in reducing or eliminating insecticide use for CBB: replacing other HHPs with effective IPM methods, some farms achieved zero use in 2013 season, incl. 3 large estates

It is a myth that endosulfan alternatives are always more expensive: Farmers view labour costs of cultural controls + other IPM methods as investment to guarantee good coffee quality.

Phasing out endosulfan use is possible with public and private sector support:

- governments + coffee sector need to support training & advice for farmers.
- Farmer support organisations, standards & research institutes play essential role in phasing out & replacing with safer, IPM methods
Dissemination & Follow-up

Project materials enthusiastically received, esp. videos: farmers talking convincingly & spontaneously, showing that alternatives exist, are practical & affordable

Key recommendation from project lessons workshop to disseminate to govt decision makers

FAO: videos shown at meetings of Rotterdam Convention technical committee in 2014. Project proposal for COTTON without Endosulfan.

2015 activities:

short leaflet (in 7 languages) for national decision makers and chemical Conventions delegates, disseminated at BRS Conventions Conference of the Parties, May 2015 + presentation at parallel Science Fair

Video versions produced in Portuguese & French. New video on farmers‘ problems using HHPs.

UN Environment Programme: 3 webinars shared project findings on IPM methods, in English & Spanish sessions, as part of capacity-building for national decision makers on implementing the BRS Conventions

Now invited to repeat webinars in French & Portuguese
Collaboration value & next steps

Value brought by 4C

✓ Convening partners
✓ Giving business ‘credibility’ to PAN UK among the coffee sector
✓ Involving coffee stakeholders, via survey, lessons workshop, incl. key 4C members & countries
✓ Liaising with other standards, under ISEAL umbrella (project development workshop hosted by ISEAL)
✓ Facilitation of funding, via 4C link with IDH
✓ Dissemination of results

Further actions

Pesticides Database- to adapt PAN International HHP List into interactive form on-line: click to see status in different standards, hazards summary + link to practical information on IPM alternatives.

Further webinars targeting Brazil

Coffee without HHPs...

How to make use of the project lessons in context of the newly revised 4C Red and Yellow Lists?

How to manage coffee weeds without herbicides on the HHP list?
Thanks for your interest!

My questions to you

- Any practical use of videos & guidance materials to support farmers to stop using endosulfan?
- What has been most useful & why? What is not relevant?
- To what extent has endosulfan usage been reduced?
- Who needs to take action to eliminate endosulfan usage? How?
- What barriers are preventing action?

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