



Mitigating the risk of the coffee berry borer in Colombia: using smart technologies and greener science

STDF webinar series - Exploring the Impact of Climate Change on the Global Food System

Climate Change and Plant Health

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Biopesticides at <https://www.cabi.org/> applied research and extension

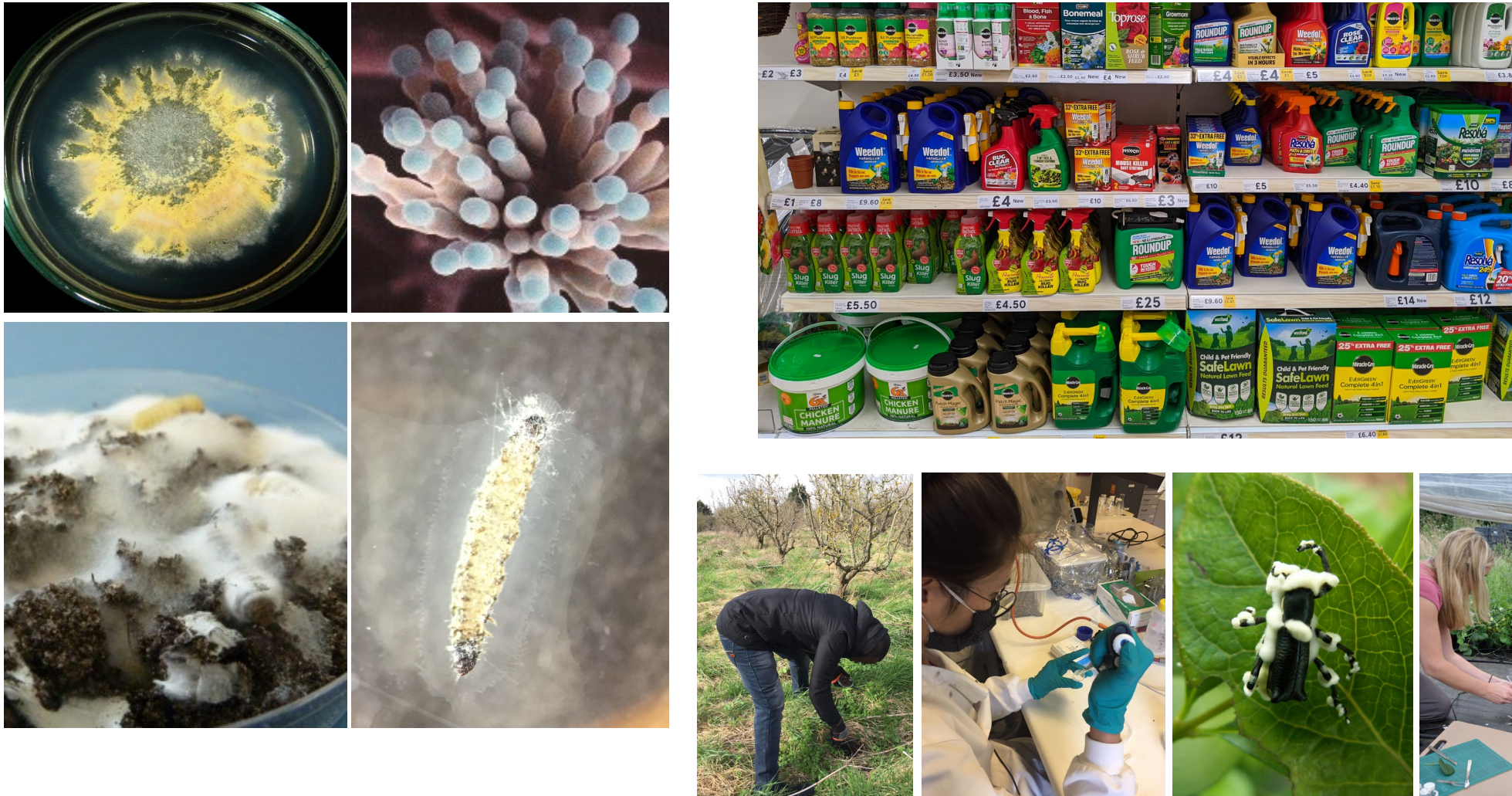


Image: Wikimedia Commons

Chemical PPPs: issues

- Repeated use of specific PPPs leading to increased pest resistance
- Serious issues of biodiversity loss and soil degradation, fewer natural enemies, soil microbiology damaged, poorer growth less resilient farming ecosystems
- Some PPPs are particularly toxic to humans, compounded by bad storage and disposal
- Policy pressure to make a change
- Consumer pressure to make a change
- Various PPPs being withdrawn and rate of replacement slowing down
- Lack of information and knowledge and ultimately trust on alternatives
- Lack of alternatives

The coffee berry borer: spreading but still hiding



Reaching higher altitudes as temperatures rise: increasing spray frequencies, deforestation as farmers look to escape it, but still the borer thrives

Image: CIFOR

There needs to be a shift to nature-based controls for coffee berry borer – which do exist in the Colombian market

But to make this change we must understand the needs of the farmer and then respond to these needs



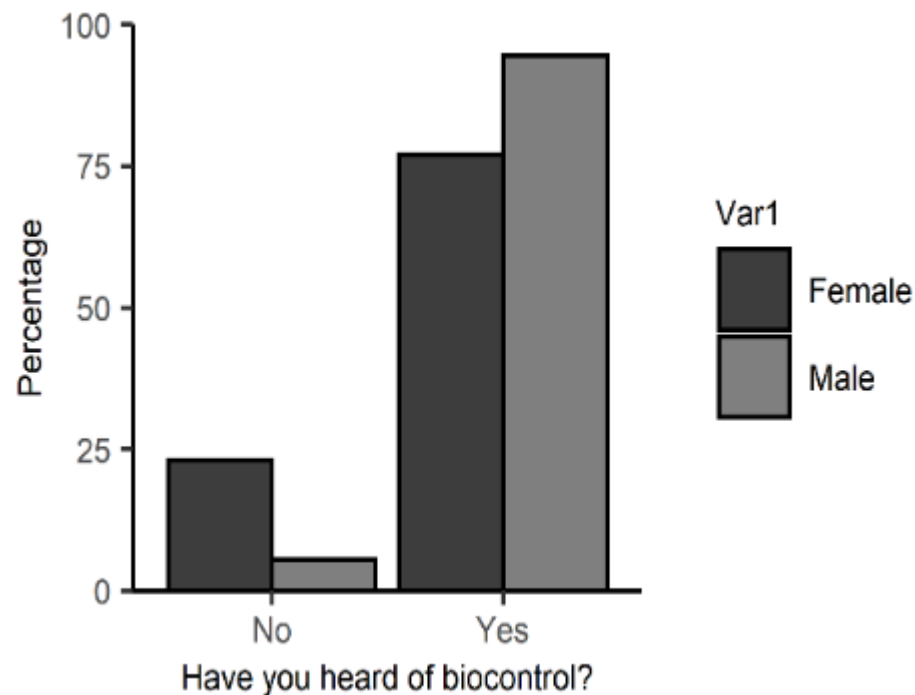
Quantitative baseline survey

- Face to face; on farms, at homes and at market places, over several months
- 126 farmers interviewed, 52 females, 74 males
- Knowledge of pesticides, biopesticides, where farmers get information, who they trust, the decision makers

Quantitative baseline survey

Results – Quantitative data

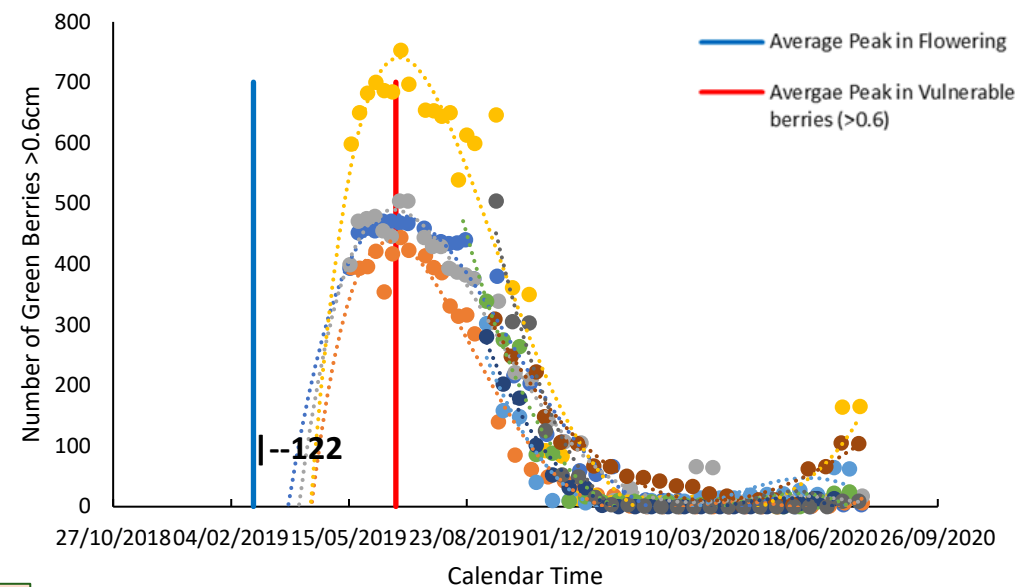
- Coffee berry borer is their no. 1 pest
- 95% of males had heard of biopesticides vs 76% of females
- 49% said they didn't know of any advantages of biopesticides
- 1% said they were not economical (i.e. cost not seen as an issue)
- Farmers said reduced efficiency of biopesticides vs chemicals was the main disadvantage
- 95% of male farmers knew tradenames of biopesticide products vs 38% of female farmers
- Most popular source of info is the agronomist; though younger females less so than older females
- All farmers felt SMS would be a useful mechanism to provide information



Our female farmer champion group

- Weather stations installed on their farms (20)
- Provide the farmers with an alert of when the borer will be outside the berry and hence best time to spray a biopesticide
- Weekly visits to each farmer for 18 months
- Provide complementary biopesticide info via SMS
- Established a Colombia site on the CABI BioProtection Portal





El moho puede ser eliminado en un lugar fresco y seco, evitar lugares húmedos y siempre fuera del alcance de personas no autorizadas para su manejo

E. Adecuada calibración del equipo

- **Hongo vencido.**
Siempre revisar la fecha de vencimiento del producto.
- **No se hacen Pre-inoculaciones.**
El producto se debe mezclar y dejar reposar por dos horas.
- **No se calibra adecuadamente el equipo de aplicación**
- **Se aplica cuando el daño de la broca es muy severo**

Usar máquina fumigadora en buen estado, puede ser convencional, fumigadora de palanca para que mantenga el nivel de presión.

Usa una boquilla de baja descarga, de 180 a 400 cc/min; buscando aspersión de gota pequeña tipo nebulización.

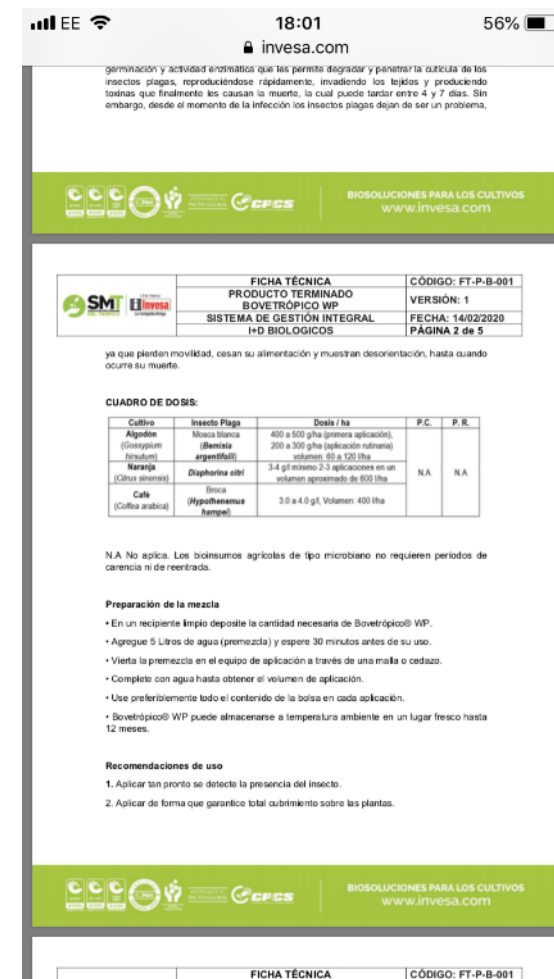
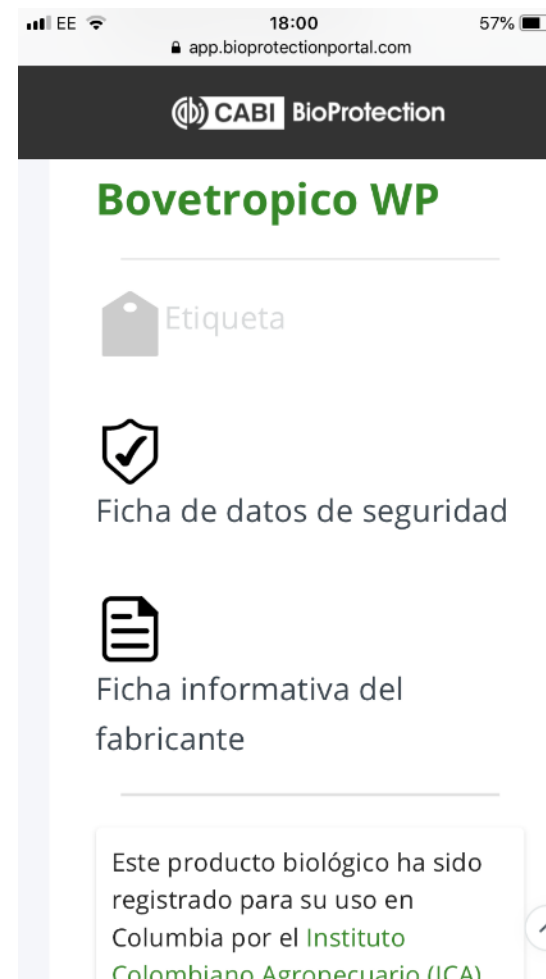
Usar boquillas como la TK5, HC3 o las boquillas graduables que existen en el mercado funcionan muy bien, siempre y cuando se respete el flujo anteriormente recomendado.

CONOZCA MÁS SOBRE ESTA SOLUCIÓN PREGUNTÁNDOLE A SU EMBAJADOR NESPRESSO

PREVENCIÓN INTELIGENTE, SEGURA Y SOSTENIBLE DE PLAGAS

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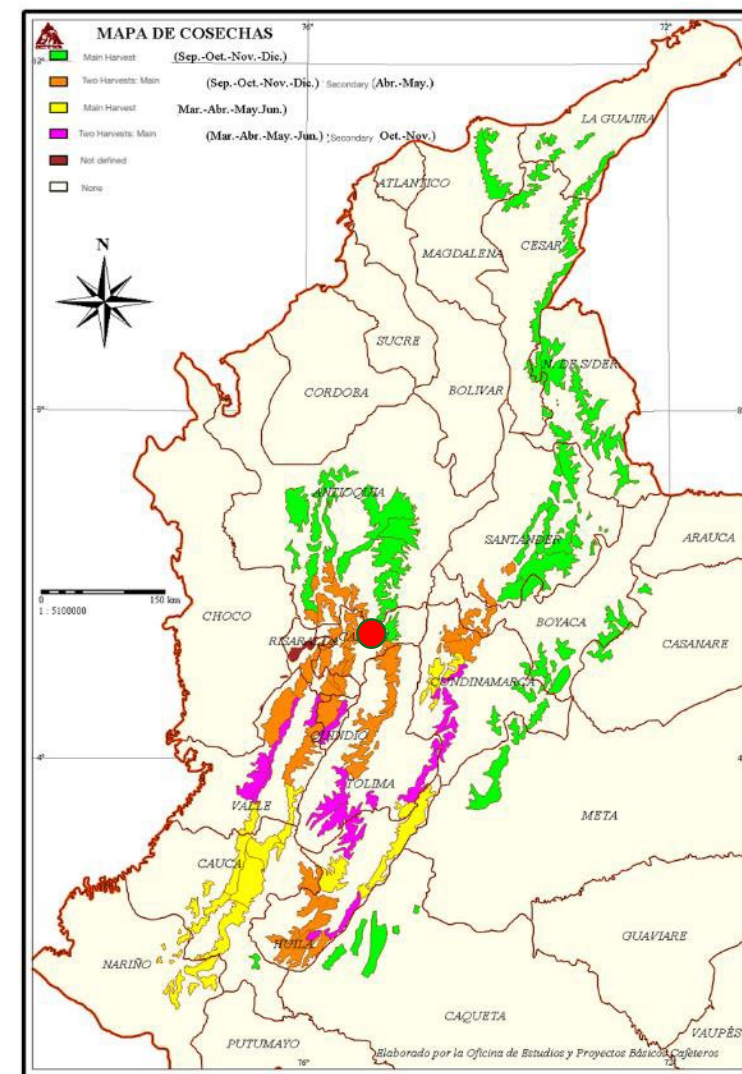
CABI BioProtection Portal <https://bioprotectionportal.com/>



Scale-out and key messages

Potential to reach 000's farmers in Colombia and beyond

- CBB remains a major threat to livelihoods and, indirectly, to ecosystem services and resilience
- Biopesticides can support CBB control and will help protect ecosystems
- In Colombia CBB biopesticides are there in the market
- Farmers will need support to trust and to deliver biopesticides
- With pockets of new data the CBB alert can be scaled-out across a wide geography in Colombia (then further)
- SMS and a 'coffee advice' area on the BioProtection Portal should be used to deliver key information
- Long-term, a clear pathway for sustainability of the CBB alert is needed



Thank you to our partners, sponsors and donors





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