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XII International Symposium on banana:
Celebrating banana organic production

A paradox: mercantile organic against sustainability

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Recognition is not synonymous with credibility

- **Unbelieving** consumers *(Worldpanel, 2017)*
  - Recognition of the Organic label: 95%
  - Respect for the environment: 63%
- They look for reasons to believe in the "**promise of difference**" *(Velly, 2018)*
- Consumers are divided between *(Velly, 2018)*
  - **Believers**: accepts the controlled imagination of the actors of the offer;
  - **Reflexive**: capable of criticism in relation to practices and discourses.

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Stronger competition from alternative labels to organic

- The best-to-eat segment is crowded: local, "without", social inclusion, etc. *(Soudron, 2022)*

www.frc.ch/labels-alimentaires-evalues/

www.stripfood.fr/manger-bio-aura-t-il-encore-du-sens-demain/

www.gerbeaud.com/bio/re-local-produits-bio-locaux.php

www.mangeons-local.bzh/quest-label-biobreizh/

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The rules of European organic:
two systems, one economic space

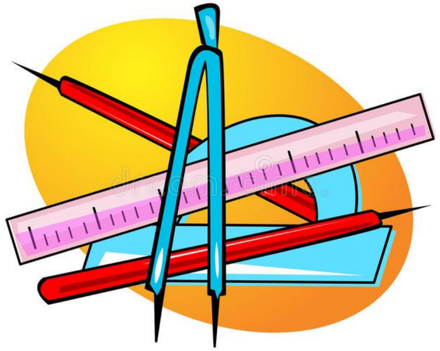
Salon de l'Agriculture, 2017

Recall that French producers had alerted in 2017 on the fact that the products labeled Organic Agriculture offered to European consumers did not have to respect the same constraints whether they are produced in the EU or imported from third countries.

- **Regulation 2018/848 in a few words...**
  - Either the products come from third countries whose regulation has been assessed as equivalent to that of the EU (12 equivalence agreements) → **COMPLIANCE: no later than January 1, 2027**
  - Either the products have been checked and certified by a recognized body and supervised directly by the European Commission of America → **COMPLIANCE: no later than January 1, 2025**

European Mirror Clauses: in response, in particular, to a distortion of competition... except that the devil is in the technical (and political) details

Tested by analytical tools



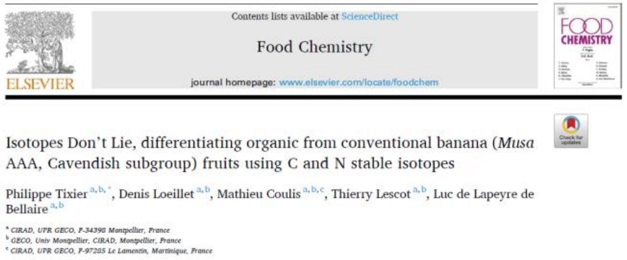
Pesticide residues

- **Consumers can be reassured in terms of health risks**. MRLs are respected in 99% of cases (organic or not)... *even if we only find what we are looking for.*
- **BUT NOT** on **actual cultivation practices**
  - The organic control system is "highly perfectible";
  - Plant protection products not authorized in Europe can be used:
    - If import-specific MRL still exists;
    - LRM on arrival below the detection limit.

Example of **Mancozeb**: banned in the EU, almost undetected on fruit on arrival, import MRL at 2 ppm → very widely used in production areas

Nutrition: mineral versus organic

- One of the least respected organic principles
- Now an analytical solution: Isotopic analysis (Tixier, 2022)
- To be deployed in *in situ* production and on import (on the fruits themselves)



Contents lists available at ScienceDirect

Food Chemistry

journal homepage: www.elsevier.com/locate/foodchem

ELSEVIER

Isotopes Don't Lie, differentiating organic from conventional banana (*Musa* AAA, Cavendish subgroup) fruits using C and N stable isotopes

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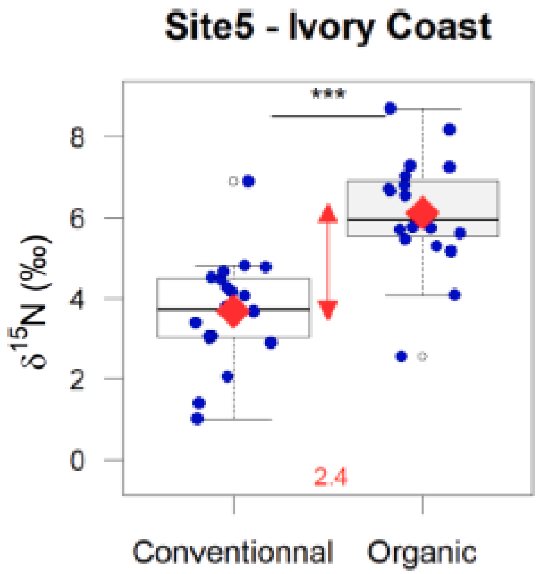
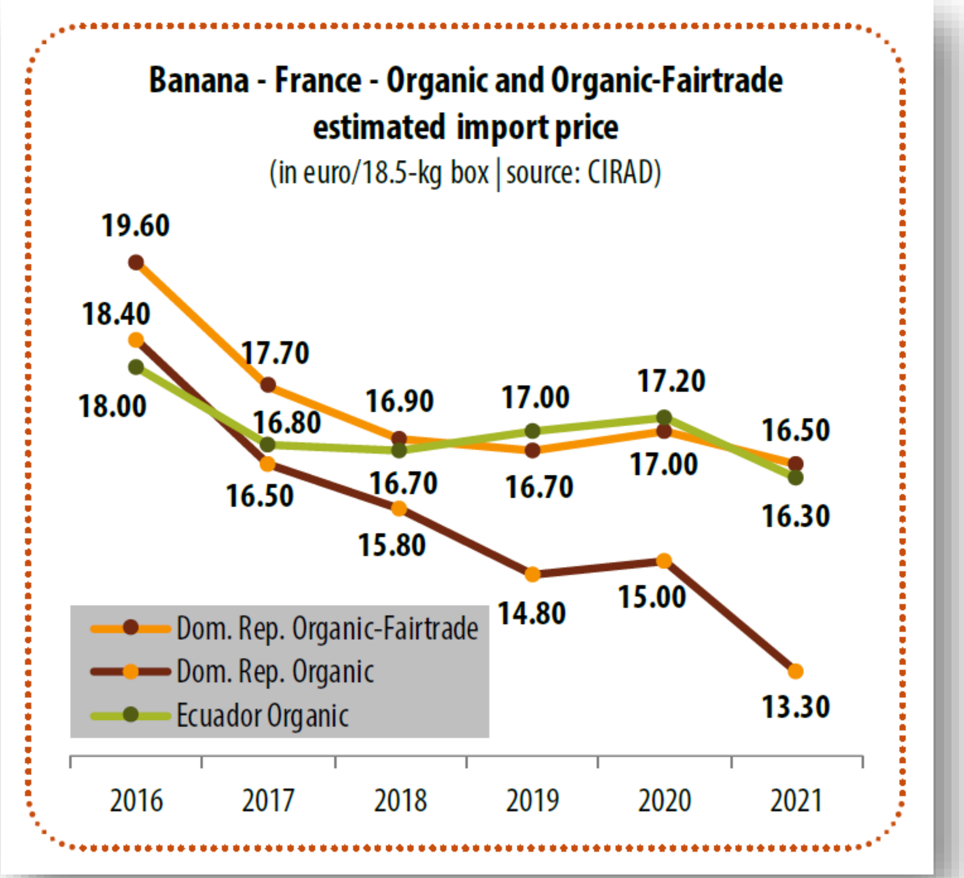


Added value: impoverishment of organic

- An increase in the supply of organic (true or false);
- A low-cost organic offer, boosted by mineral fertilizers;
- Increased competition in the segment;
- A collapse of added value.



An impossibility to valorize bananas from the 3rd way, agroecological

We come to this paradoxical situation...

ORGANIC

NON-ORGANIC

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Can we feed the world with organic production?

- A uniquely organic food system
  → **- 30 to 41% of the world food offer** *(Barbieri, 2021)*
- One of the limiting factors: the nitrogenous resource
  - **A so-called autonomous system**: 1 productive hectare = 3 to 18 outdoor hectares *(Masson, 2018)*
  - **Nitrogen requirements of one hectare of banana plantation is 300 units** (intensive production system):
    - 7,000 chickens per hectare or 13 cows *(Lakhia, 2022)*
    - for Guadeloupe and Martinique: 61 million chickens...
  - **Cameroon banana plantation:** if partial substitution of conventional fertilization by local sources of organic matter (all minerals) *(Lescot after Sotamenou 2010)*:
    - On 3,000 hectares = 340,000 tons of compost or 61,000 tons of manure
    - +/- 200 people assigned exclusively to spreading
    - A high cost and high carbon footprint
    - In condition of unlimited access... but this situation doesn't exist!

Compost for banana plantation, Ghana, 2016

Harmful effects of the fake-organic…

Three victims

- Producers & workers
- Consumers
- Natural and cultivated environments

Three problems

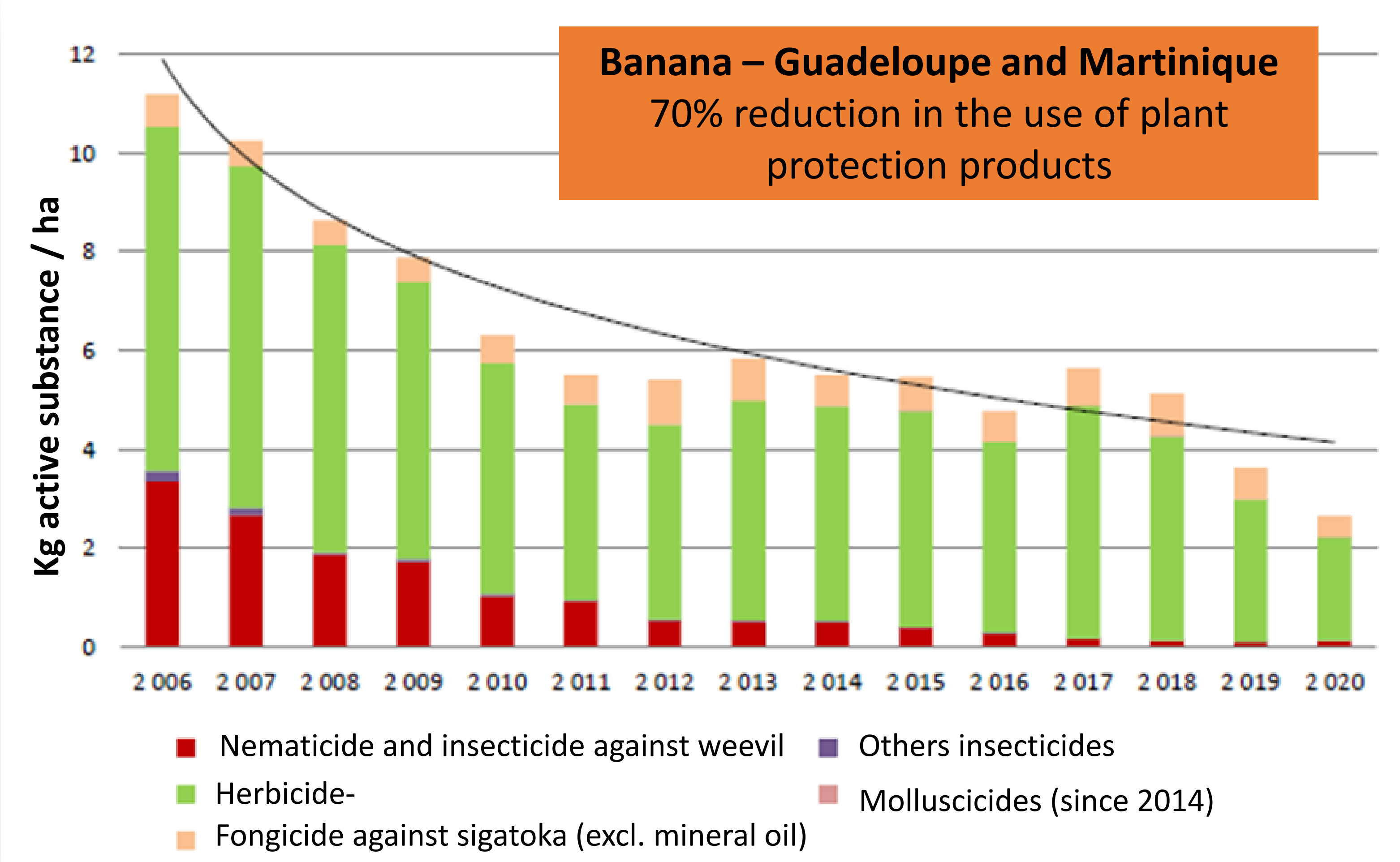
- Broken promise
- Unfair competition
- High pressure on banana added-value for <u>all segments</u>

Even though alternative systems exist: the 3rd way or so called **Agroecological intensification.**

At the end, Organic is **the tree that blots out the forest of agroecology**

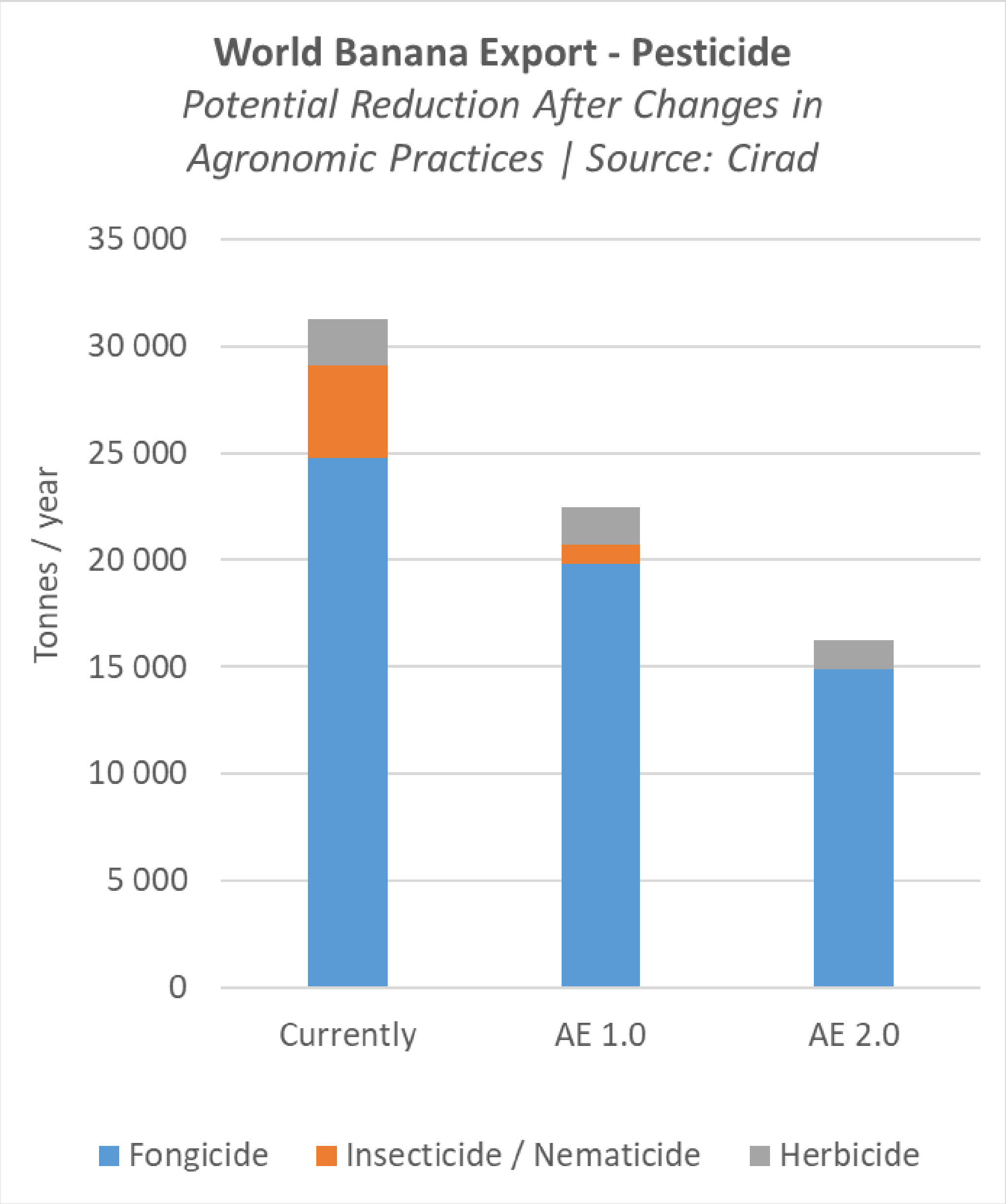
Proof of concept: French West Indies, Africa

- Mature techniques
- A medium-term zero pesticide target
- Combining techniques and varietal diversification



The promise of a “3rd way”

- In the short term: elimination of nematicides and insecticides throughout the world banana plantation
- The most toxic and eco-toxic
- It concerns 500,000 hectares
- 16,000 tons of active ingredient saved






The 3rd way is invisibilized

Organic captures all the light

- Concept presented as simple
- Powerful marketing at the service of organic
- Plenty of offers
- In a perspective of "Share the stomach": difficult to release the same linear for the "3rd way" (agroecological intensification)

The concept of agroecology

- Not easy
- “A knife without handle”
- Difficult to value
- Everyone can claim to take part in “sustainability"
- Retailers seem interested but they do not imagine creating a 3rd way market

Research has a central role to play

Strengthening the credibility of organic

- Build a certification system that focuses on practices and not just on residue results
- Develop analytical methods
- Multiply the impact assessment in situ

Giving 'weapons' to agroecology

- Assessment of economic costs/benefits of the transition
- Proof of concept: reduction of chemical loads, biodiversity, impacts (environments, workers, local residents)
- Choosing our fights... those who have meaning
- Develop relations with upstream and downstream sectors

Merci

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