The world of organic bananas
a review of production, markets, sustainability and current and future trends

Carolina Dawson, CIRAD
Hans-Willem van der Waal, Agrofair

Contact: carolina.dawson@cirad.fr
hans-willem.van.der.waal@agrofair.nl
Outline

• 1) Developments in world production
• 2) The development of consumer markets
• 3) Trends and challenges facing the organic banana industry
Developments in the world production
Main organic banana production areas

1 – Dominican Republic
2 – Ecuador
3 – Peru
4 – Mexico
5 – Colombia
6 – Cote d'Ivoire
7 – Ghana
### Table 1: Summary of estimated organic banana surfaces in the main exporting countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimated Organic banana certified hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominican Republic</td>
<td>20,000</td>
</tr>
<tr>
<td>Ecuador</td>
<td>18,830</td>
</tr>
<tr>
<td>Peru</td>
<td>11,000</td>
</tr>
<tr>
<td>Mexico</td>
<td>4,184</td>
</tr>
<tr>
<td>Colombia</td>
<td>4,000</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>700</td>
</tr>
<tr>
<td>Ghana</td>
<td>600</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>59,154</strong></td>
</tr>
</tbody>
</table>

*Sources: Agrocalidad, Dawson and Lescot, FIBL, professional sources.*
Main organic production areas

Organic banana production remains a niche, as almost 60,000 hectares of organic certified bananas were planted in the world, vs 500,000 ha for conventional export bananas.

We estimate that nearly 1.35 million tons of organic certified bananas were traded in 2021. It represents 6% of world banana trade.

Consumer markets remain very concentrated in Europe and North America.
Main organic production areas

Future developments

Continued production growth... but limitations for future developments?

- Production only possible under specific Agro-climatic conditions --> low pest and disease pressure, dry areas with less than 600 mm of rainfall per year. Availability of local organic fertilizers

- The spread of diseases such as TR4, already present in 2 major organic production areas

- Crop profitability: higher costs, lower yields, lower prices, high quality standards in import markets

- Evolution of consumer demand and markets
Development of consumer markets

Europe and North America
North-American market


- Organic bananas hold a market share of around 12% over the total banana supply

- In 2021 organic banana sales grew by 5% compared to year 2020 and 12% over the 2-year average.

- Organic banana sales are, by far, the driving force behind sales of the fresh organic produce section in the United States
North-American market

Organic banana - USA & Canada
Market shares of main supplier countries in 2021
(source: US Customs | processed by CIRAD)

- Ecuador: 43%
- Colombia: 19%
- Mexico: 25%
- Peru: 13%

Organic banana - USA & Canada
Imports by supplier country
(in tonnes | source: US Customs | processed by CIRAD)
European market

- Nearly 790,000 tons of organic bananas were imported in Europe in 2021.

- After a very strong growth phase between 2015 and 2019, growth has become more moderate since 2019.
European market

• The market share of organic bananas has remained stable at 12% for the past 3 years

• The annual growth rate has been decreasing since 2018, and reached its lowest point, 2%, in 2021.

• The sector seems to be stalling
European market

The Dominican Republic and Ecuador account for 80% of the market share with volumes close to 320,000 tonnes each.

Peru comes in third position with supplies of around 100,000 tonnes, a market share of 12% and a dynamic that has been losing momentum since 2018.

Colombia accounts for 4% of market share (over 30,000 tonnes)

African countries (Ghana and Cote d’Ivoire) are developing with also a combined market share of 4%.
European market

At the retail stage, the differential in prices between organic and conventional bananas is becoming narrower.

[Graph showing retail prices of organic and conventional bananas in Germany (source: TWMC)]

[Graph showing banana retail price differential between organic and conventional bananas in Germany (in euro/kg, Source: TWMC)]
European market

As for conventional bananas, organic import prices are under pressure and keep on decreasing year-on-year.
European market

Why is organic banana consumption growth slowing down in Europe? Why is it lower than in North America?

- During years 2020 and 2021 – pandemic – most commercial stakeholders were very cautious with their supply and stocks, facing unprecedented and unpredictable governmental lockdown measures

- New consumption trends...
Trends and challenges
Growth drivers

“The results show that among individual factors like health concern, environment concern, knowledge and awareness, eco-labels and price followed by trust in organic food are the most important factors in organic food purchase.”

Conventional bananas: price inelastic
Organic bananas: price elastic – 1% price increase, 3% demand decrease.

“organic-plus” certifications increasingly popular, especially Demeter

- Demeter: the farm as an organism, holistically and circularly incorporating nature, human beings and animals.
- It contains a social standard
- Founded on the anthroposophical principles of Rudolf Steiner.
- It is known for its use of “preparations”.
- A limit on nitrogen input to the farm.
• Biosuisse:
  • Comprises a social standard such as Fairtrade
  • Devotes 7% of land to non-agriculture, as biodiversity space
  • Prohibits air freight of produce
• Naturland
  • Additional restrictions on nitrogen
  • Includes a social standard
Evolution of organic regulations

- From equivalence to conformity (unless there is a bilateral trade agreement recognizing equivalence). Control bodies can no longer set their own interpretations.
- Restrictions on plant protection products – only those on the positive list – no “equivalency”-permissions by control bodies any more.
- New rules for small farmer group certification
- Increased pre-shipment residue testing
Loss of value

- Not specific to organic bananas
- High oil prices -> transport, inputs (irrigation pumps)
- Shipping lines favouring higher-paid cargo
- Increased fraud susceptibility (high cost of Spinosad e.g.).
- Commoditisation of organic bananas
Organic banana outlook

- Organic Fairtrade banana sales worldwide seem to reach a plateau
- Will this trend continue?
- Will increasing prices also affect non-Fairtrade organic bananas?
- Demand for conventional bananas: inelastic
- Demand for organic bananas: elastic (-3%) (Lin et al, 2009)
Conclusion

New trends and challenges are emerging for organic bananas

- the EU regulation is becoming tougher
- new private certifications are gaining popularity amongst consumers but remain niche and have high requirements difficult to meet by all producers

--> it is hard for producers to adapt to these tougher requirements and other agro-climatic limitations appear which further limit the crop's development.

Moreover, although consumption has grown in the main consumer markets, the loss of value (commoditization) leads to a lack of profitability for the different stakeholders of the value chain.

If consumption in the North American market seems to still be very active, some warning signs appear in Europe, where consumption growth is slowing down.