Andres Saenz
Biologist and Microbiologist with an MSc in plant pathology

Driving the research for plant health, growing systems, post-harvest, logistics, and marketing for the Colombian fresh cut flower industry
FRESH CUT FLOWER INDUSTRY
Fresh cut flower exporters around the world

2020

<table>
<thead>
<tr>
<th>Country</th>
<th>Export Action (millions USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>8.376</td>
</tr>
<tr>
<td>Colombia</td>
<td>8.677</td>
</tr>
<tr>
<td>Colombia</td>
<td>9.008</td>
</tr>
<tr>
<td>Colombia</td>
<td>9.341</td>
</tr>
<tr>
<td>Other countries</td>
<td>7.503</td>
</tr>
</tbody>
</table>

Total Fresh Cut Flower Market
US$ 9.3 Billion Industry

Holland 49%
Colombia 16%
Ecuador 9%
Kenya 6%
Ethiopia 3%
Other countries 17%
Fresh cut flower importers around the world

2020

- United States: 19%
- Holland: 14%
- Germany: 14%
- United Kingdom: 10%
- France: 4%
- Other countries: 39%

Total Fresh Cut Flower Market
US$ 9.3 Billion Industry
Colombian Fresh cut flower industry
By production areas

- Antioquia: 33%
- Cundinamarca: 66%
- Others: 1%

> 1400 flower varieties
> 7700 Ha for production

Source: ICA 2018 – Calculations: Asocolflores
Colombian Fresh cut flower industry

By species

- Rose: 23%
- Carnation: 14%
- Chrysanthemum: 9%
- Hydrangea: 4%
- Alstroemeria: 5%
- Lily: 1%
- Others: 44%

US$ 1.4 Billion Industry

95% Air freight
5% Sea Freight

Source: ICA 2018 – Calculations: Asocolflores
Colombian Fresh cut flower industry

By destination

- United States: 80%
- Holland: 2%
- Canada: 3%
- United Kingdom: 3%
- Japan: 3%
- Spain: 2%
- Others: 7%

Source: ICA 2018 – Calculations: Asocolflores

Colombian Fresh Cut Flower Industry
US$ 1.4 Billion Industry

100 countries
80% of national air cargo exports.
During 2020 > 5.6 Billion stems were exported around the world.

Miami Airport Fresh Cut Flower imports
Week 1 – 52 between 2018 and 2020

During 2020 > 5.6 Billion stems were exported around the world.
CAUSAL AGENTS FOR MAYOR PROBLEMS
Thrips: Frankliniella occidentalis Pergande, Frankliniella panamensisis Hood and Thrips palmi Karny
Noctuidae Moths: *Copitarsia* sp.
Mites: *Tetranychus* sp.

Video: Relea E. (2014)
Leafminer fly: *Liriomyza* sp.
Chrysanthemum White Rust:
*Puccinia horiana* Henn
PLANT HEALTH IN OUR INDUSTRY
The Crop
The post harvest
The packing
NPPO inspection at border (Airport of Harbour)
Transport
We take plant health seriously

- Colombian fresh cut flower industry complies with the regulation of each destination. They might vary from country to country.

- Some regulations are tougher than others. (Australia vs USA)

- We live in the tropics. No season to stop or block biological cycles. Paradise for us and for the pests.

- We need to fight against co evolution that has been there for millions of years.

- Low biological control strategies. Not enough local production, impossible to import.

- We do have some interceptations along the year long.

- We have a rather limited NPPO, CENIFLORES acts as the voluntary phytosanitary agency. Training, teaching and encouraging our growers to keep it up with the high standards.

- FLORVERDE SUSTAINABLE FLOWERS
The future

• To achieve an innovative sector we need access to plant material

• Phytosanitary requirements have to be met

• Colombia lacks agility in establishing the phytosanitary requirements

• Global plant trade is happening, let's be responsible but let's make it happen

• Clients are asking for more innovation, new things, rare things

• More flowers are being consumed during the pandemic. Joy and Hope

• Horticultural production will grow in the tropics, we need the tools
  Biological strategies and New healthy plant material