Adapting to climate change - a ‘fresh’ perspective

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Let’s start with the best news

PRODUCE IS THE MOST HEALTHY & SUSTAINABLE FOOD CATEGORY!

Source: Barilla center for food & nutrition

Climate services conference - 14 Nov 2019
Our vision is “to make lives healthier by helping people enjoy fruit and vegetables at any moment, easy, fast and pleasurable, whilst fostering nature”.
A global player in fruits and vegetables, active in all segments

**FRESH**
- # 1 in Europe
- # 3 globally
- Sourcing & sales of Fresh F&V
- ≈ 5,700 employees
- 30 distribution centers
- Active in 20 countries

**FROZEN**
- # 2 in Europe
- Production & sales of Frozen F&V
- ≈ 1,900 employees
- 10 facilities
- Active in 7 countries

**PREPARED**
- # 5 in Europe, # 1 in mushrooms globally
- Production & sales of Prepared F&V
- ≈ 1,100 employees
- 3 facilities
- Active in 8 countries
Extreme weather events already affect our industry

**Drought threat to EU processors**
A sustained period of drought this summer has resulted in sharp declines in EU vegetable yields, leading to smaller, less regular deliveries to processors

**Dry weather hits Greenery results**
Extreme weather and increased competition are behind a drop in the Dutch company’s yearly net profit

**Climate change threat to veg**
A study focusing on the impact of climate change on leafy greens, vegetables and legumes has highlighted the severe threat posed to yields if no action is taken

**Weather hits Greenyard with €113m loss**
First half of 2018 was one to forget for Greenyard who laboured in the sun under drought conditions and falling prices

**Drought, debt battles push Costa Group into $176m equity raising**
Fruit and vegetable giant Costa Group has unveiled a $176 million equity raising at a deep discount to the company’s most recent share price

October 28, 2019 by Darren Gray
Geographical spreading as main mitigation tool

Footprint processing plants

Worldwide sourcing reach

Over 90 countries constitute our sourcing base, as close as possible as far as necessary.
Dealing with a fragmented supply base and a large variety in product categories

FROM SMALLHOLDERS PRODUCING SEASONALLY TO HIGH-TECH GREENHOUSES GROWING YEAR-ROUND
Prioritising water stewardship as mitigation tool

FOCUS ON DROUGHT RESILIENCE AND SUSTAINABLE WATER USE

• Support producers and producer organisations
  • Investing in efficient irrigation systems (e.g. drip irrigation tests in onion production in Poland)
  • Investing in protective cropping (e.g. vertical farming trials)
• Provide training on efficient water management to smallholder farms overseas
• Supply treated wastewater (effluent) from our processing plants for irrigation where possible

• Understanding our water risk
  • Assessment of our grower base => 90% by 2022
  • Trials of water management audits on avocados in Chile and other countries

Overall water risk Greenyard volumes (based on score country of origin)

<table>
<thead>
<tr>
<th>Lower risk</th>
<th>Higher risk</th>
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<tbody>
<tr>
<td>11%</td>
<td>21%</td>
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<tr>
<td>33%</td>
<td>0.36%</td>
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Values: 1.2 - 2.2 | 2.2 - 3.2 | 3.2 - 3.4 | 3.4 - 3.8
Short-term needs

FORECASTING TOOLS ADAPTED TO THE NEEDS AND REALITY OF THE HORTICULTURAL SECTOR
Short-term needs

FORECASTING TOOLS ADAPTED TO THE NEEDS AND REALITY OF OUR COMPANY

• Develop future agro farming management software connected to weather stations (+ drones/satellites) and multiple sensors including tensiometers for soil moisture monitoring to decide when and what practices to apply during the phenology of the crops

• Simplified tools to track crop progress worldwide and allow timely decision-making in terms of quality specifications, promotions, emergency sourcing

Source: AgriPulse
Long-term needs

STRATEGIC SOURCING OUTLOOK IN VIEW OF CLIMATE CHANGE

Decision-support tools to assess:
• Where will we source our products in 5-10 years from now?
• Fruit (multi-annual trees) versus vegetables (annual crops)
• Where do we expand or build new processing plants?
• Guaranteed water availability both for crops and factories
Thank you for your attention!

To make lives healthier by helping people enjoy fruit and vegetables at any moment, easy, fast and pleasurable whilst fostering nature.

GREENYARD for a healthier future