It looks OK, but can you really eat that?

What the rise of alternative proteins means for the meat industry

Gilles Boumeester
February 2018
The disruptive consumer world
“I know protein is good for me”

*Worldwide google searches show how eating protein is connected to good intentions*

Source: Google; Rabobank, 2018
But protein is no longer just about meat

**Worldwide google searches show how 'flexitarian' is increasingly popular**
Re-thinking meat consumption has become a global trend
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Source: WildAid, 2017
Three types of alternative proteins – at different stages of market maturity

- Meat substitutes
- Emerging alternatives
- Lab-grown meat products

Source: Rabobank 2017
Alternative proteins are gaining market share – from a small base

The market in the US and Canada is still small, but is growing fast

The growth of alternative proteins is minor compared to animal protein growth

Source: Rabobank 2017
Strong per capita consumption

US per capita protein consumption approaching record levels

Sources: USDA; Rabobank estimates, 2018
Alternative proteins are poised to steal ‘our’ growth in Europe

The growth rate is slightly higher in the EU

One third of growth in Europe will go to alternative proteins

Source: Rabobank 2017
Alternative proteins are also gaining market share as feed ingredient

**Insect based proteins**
- Black soldier fly
- Larvae: 14-day feeding cycle
- Protein-rich meal, potentially used in aquatic feeds
- Very quick lifecycle, sustainable, hypoallergenic, high protein, limited land use

**Algal proteins and oils**
- Sustainable, cost efficient, reliable, good for consumer and animal health

**Bacterial proteins**
- Sustainable, scalable, reliable, non-GMO, high protein, low lipid

Source: Calysta, Rabobank, 2018
What is driving consumer interest in alternatives to meat?

**Push drivers**
- Health concerns
- Animal welfare and ethics
- Sustainability

**Pull drivers**
- Investors
- Growth of alternative proteins
- Personal nutrition
- Curiosity
- Convenience

*Source: Rabobank, 2017*
US consumers go lean and less, before going without meat

Millennials are much more inclined to go meatless

<table>
<thead>
<tr>
<th>Activity</th>
<th>Millennials</th>
<th>Baby boomers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose leaner cuts of meat</td>
<td>50%</td>
<td>41%</td>
</tr>
<tr>
<td>Limit second helpings</td>
<td>37%</td>
<td>30%</td>
</tr>
<tr>
<td>Cut down on portion sizes</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>Eat more fish or seafood</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Choose cholesterol-free or low-cholesterol options</td>
<td>22%</td>
<td>12%</td>
</tr>
<tr>
<td>Eat more meatless meals/meat alternatives</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11%</td>
</tr>
</tbody>
</table>

Source: NAMI; Rabobank, 2017
Animal welfare concerns are insatiable

Philip Lymbery, Compassion CEO

On Friday, fast food giants McDonald’s announced their new global welfare standards for broiler chickens. I am disappointed to say that it completely ignores key principles of broiler welfare such as the problems with fast growth breeds and enough space for them to move freely.

The industry has recently seen leading companies tackle these very issues by signing up to the US or European ‘broiler asks’ which demand compliance to these crucial standards.

Source: Compassion in World Farming, 2017
Sustainability concerns are growing

THE TOP 20 MEAT AND DAIRY CORPORATIONS EMIT MORE GREENHOUSE GASES (GHGs) THAN CANADA

Source: IATP, GRAIN, Heinrich Boell Foundation, 2017, Rabobank 2018
Investor signals are mixed

- USD 13 bn
  - M&A activity in alternative **food** companies since 2014

- USD 20 mn – 400 mn
  - Investments in leading alternative **protein** companies

- USD 50 mn – 1 bn+
  - Valuations of leading alternative **protein** companies, at very low or no revenue

Source: Anterra Capital; FAIRR, 2017
"Dude, where's my consumer?"

Consumer preferences are changing quickly, and the meat industry needs to keep up!

Q: Who is driving consumption trends?
A: Millennials!

Q: When will they eat?
A: Any time!

Q: Where will they buy their food?
A: Everywhere!

Source: Rabobank, 2018

180+ million millennials in the US and Europe
Personalised nutrition

23% protein

11% protein

25% protein

10% protein

Find out what foods your body needs to be its best.

Now you can get a personalized nutrition plan to match what you eat to your body’s unique make-up.

Source: Walmart, Habit, 2017
Product quality is already acceptable – and the only way is up...
Successfully navigating a future with alternative proteins
How can we be successful, given the growth in alternative proteins

- Follow or lead the trend to alternative proteins, and learn
- Re-position meat in the consumer market
- Take the lead on health and sustainability
Tyson Foods is the best known of many investors in alternative proteins

Tyson CEO on sustainability: 'Big food has to get in the ballgame'

Jim Cramer sat down with Tom Hayes, the CEO of Tyson Foods, to talk about the future of meat products and sustainability.

Source: CNBC, 2017
Get (back) on-trend with consumers

Source: Carnivore Club; Eataly, 2017
Hybrid product opportunities exist – it’s easy to follow the trends

Source: ABP, 2017