Calculation and communication of meat consumption in Sweden

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Before we go into the details of meat consumption, some basic facts about the Swedish meat market...

...which also answers the question why it is so important to have good information about our meat consumption!
Swedish meat consumption took off in the beginning of the 1990’s (change 1990-2016)

**Why more meat on our plates?**
- EU membership, meat prices fell
- reduced tax on food in 1996
- food trends, protein diets
- economic prosperity and traditions
- product development
- fast food & eating at restaurant
- the vegetarian trend is mainly talk?

From a low level:
- Pork: 7%
- Beef: 51%
- Poultry: 300%
- Lamb: 126%
- Other Meat: 45%
- Total: -43%
- Egg: 10%
Market share for Swedish meat
- started to fall after EU-membership, upward trend from 2014
(Swedish values as low use of antibiotics and animal welfare rules)

Swedish producer price for young bulls (R3) about 20% higher than the EU average!

Swedish producer price for pigs (class E) stable on a volatile EU market!
Consumer price development in Sweden
- one reason for increased meat consumption

Today: beef & eggs more expensive, poultry & pork cheaper!

Meat prices fell after EU-membership!

2017-10-04
In 2014 the average Swede consumed in total for about 18 700 euros - 12 percent on food & nonalcoholic beverages (=2 244 euros)
Expenditure on food & all beverages 1994-2014  
(share per group in current prices)

ANIMAL PRODUCTS: Relatively high prices per kg
ALCOHOL: High Swedish taxes

For every 10 euros of disposable income in 2014 the average Swede spent, on all consumption:
- 2,60 euros on housing
- 1,30 euros on transports
- 1,10 euros on recreation
- 1,20 euros on food and non-alcoholic beverages
- 0,22 cents on meat (=2,2%)
- 0,20 cents on dairy/eggs
- 0,20 cents on alcohol
The interest in meat consumption is growing and almost everybody has an opinion – but why?

Horse meat scandal - who can we trust?  
Climatic stress - how much meat, kind of meat and origin of meat matters!
We eat only 25% of live cattle (pig a little more, lamb a little less)

Health focus - 10% of Swedes state they are vegetarians!
MRSA, antibiotics, animal welfare - Swedish values are hot!

Dietary advice by the Swedish Food Agency - does it have an impact?

All these factors should logically lead to a decreased meat consumption…
… but what happened last year?

"Swedish total consumption of meat at new record level in 2016"

Total consumption of meat: 87.7 kg/capita
Pork -3 kg, poultry +3.3 kg since 2013
First six months of 2017: poultry equals beef for the first time (12 kg/capita each)
Time to talk about Swedish meat consumption in detail…

Meat has to take its responsibility like all kinds of food production, when it comes to sustainability, human health and ethical issues. However, the image of meat has suffered some damage mainly due to poor information about consumption & resource management!
Meat "consumption" in five steps

1. LIVE WEIGHT

2. TOTAL CONSUMPTION

3. RETAIL SALE

4. CONSUMPTION "RAW WEIGHT"

5. CONSUMPTION "ON THE FORK"

Steps 1 and 3: Accepted conversion ratios that are applied on total consumption

Steps 2: Official statistics (slaughter+imports-exports)

Steps 4 and 5: Survey in 2011 on actual intake of food among adult Swedes, done by the National Food Agency. Step 5 is what the survey shows, then recalculated to raw weight (before cooking and adjusted for underreported q’s).

This is no rocket science - only a simple method to collect & process available figures and to put them in a context!
From pasture & barn to fork
- based on total consumption (cwe) 87,7 kg/capita 2016
- two groups that match survey on food habits & dietary advice

<table>
<thead>
<tr>
<th></th>
<th>KG/CAPITA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RED MEAT</strong></td>
<td></td>
</tr>
<tr>
<td>Live weight</td>
<td>107,5</td>
</tr>
<tr>
<td>Slaughtered</td>
<td>64,1</td>
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<tr>
<td>Retail weight</td>
<td>49,0</td>
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<tr>
<td>Raw &quot;ready to</td>
<td></td>
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<tr>
<td>&quot; ready to cook&quot;</td>
<td>42,0</td>
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<tr>
<td>Consumed &quot;on</td>
<td></td>
</tr>
<tr>
<td>the fork&quot;</td>
<td>32,5</td>
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<tr>
<td>Dietary advice</td>
<td></td>
</tr>
<tr>
<td>versus real</td>
<td></td>
</tr>
<tr>
<td>consumption:</td>
<td></td>
</tr>
<tr>
<td>difference=25%</td>
<td></td>
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<tr>
<td><strong>POULTRY</strong></td>
<td></td>
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<tr>
<td>Live weight</td>
<td>29,9</td>
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<tr>
<td>Slaughtered</td>
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<tr>
<td>Retail weight</td>
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<td>&quot; ready to cook&quot;</td>
<td>10,5</td>
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<tr>
<td>Consumed &quot;on</td>
<td></td>
</tr>
<tr>
<td>the fork&quot;</td>
<td>7,8</td>
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</tbody>
</table>

**RED MEET TOTAL**
- Minus 69% pasture/barn to fork
- Minus 49% cwe to fork
- Minus 40% pasture/barn to cwe
- Minus 23% raw weight to fork
- We *eat* 32,5 kg/capita (=625 g/w)

**POULTRY**
- Minus 74% barn to fork
- We *eat* 7,8 kg/capita (=150 g/w)
**Consumption “on the fork” versus dietary advice**

- *the average Swede ate red meat at or under recommended level up until 1993*

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**Assumptions:**

- The dietary advice not to eat more than 500 grams of red meat per person and week, launched by the Swedish Food Agency in 2015, applies for the whole period.
- The real consumption of red meat ("on the fork") corresponds to 50 percent of the total consumption (cwe) for the whole period.

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"on the fork" - Dietary advice from 2015

Goes down as more poultry in our diet!
From pasture & barn to fork based on 1 kg/species

Main conclusion: 4 kg live weight = 1,127 kg on the fork = 28% is eaten
Shares of live animals that end up as:
1) ABP/losses in food chain at slaughter level,
2) ABP/losses in food chain between slaughter and ”fork”,
3) ”on the fork”
(still at a concept stage, looking for more figures and information…)
ABP/losses in food chain:
slaughter level
- Hides and skins
- Intestines
- Bones, horns and hooves
- Blood
- Fat
- Feathers (poultry)

Areas of use
- Feed
- Organic fertilisers
- Energy through incineration
- Biogas (= energy & organic fertilisers)
- Biodiesel
- Fat for technical use
- Leather and skins

ABP/losses in food chain:
cutting plants, food industry,
wholesale/retail level, households
- Remaining bones from carcases
- Tendons
- Fat on carcases
- Pure meat

Areas of use
- Feed
- Organic fertilisers
- Energy through incineration
- Biogas (= energy & organic fertilisers)
- Biodiesel
- Fat for technical use

- Not much is completely wasted but more can be done
- There are no detailed figures - big variation
- Challenge for smaller slaughterhouses/enterprises
Is our information good enough?
- we still get many questions about…

1. Regional differences in meat consumption?

2. Differences in origin of meat consumed in public kitchens, private restaurants & households?

3. How can I avoid meat from animals that have not been anesthetized before slaughter?

4. Sustainable meat - how should I argue (origin, kind of meat, amount of meat)?

5. How do I handle conflicting objectives (ecosystem services versus climate impact)?
Thank you for listening!
If you want more information about Swedish meat consumption, don’t hesitate to contact me!

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