

**State of the art**  
**– Digestate used as valuable organic fertiliser in Sweden**

Caroline Steinwig, 9 April 2019



**AVFALL SVERIGE**

# I will talk about...

- The Swedish QAS “Certified Re-use” and current production of digestate
- Drivers for using digestate in organic farming
- Market value of digestate



# Avfall Sverige – The Swedish Waste Management Association

- The municipalities' organisation for waste management and recycling
- About 400 members (public and private)
- 19 employees
- Our vision is "Zero Waste"
- The owner of the QAS "Certified Re-use"



# Why a need for a quality assurance scheme (QAS)?

- Sewage sludge used as fertiliser regulated in Sweden, no regulation for digestate
- No End of Waste criteria
- Sewage sludge debate in the 90s

→ **Birth of the Swedish QAS “Certified Re-use”**



# Certified digestate (biofertiliser)

- "Certified Re-use" launched in 1999
- Product certification system (also process requirements)
- Positive list for substrate groups possible to use
- Separate rules for digestate (SPCR 120) and compost (SPCR 152)
- Independent certification body certifies and controls the plants
- A steering committee responsible for development of the system – experts, stakeholders, authorities
- Certification mandatory when using digestate based on source separated food waste in organic farming

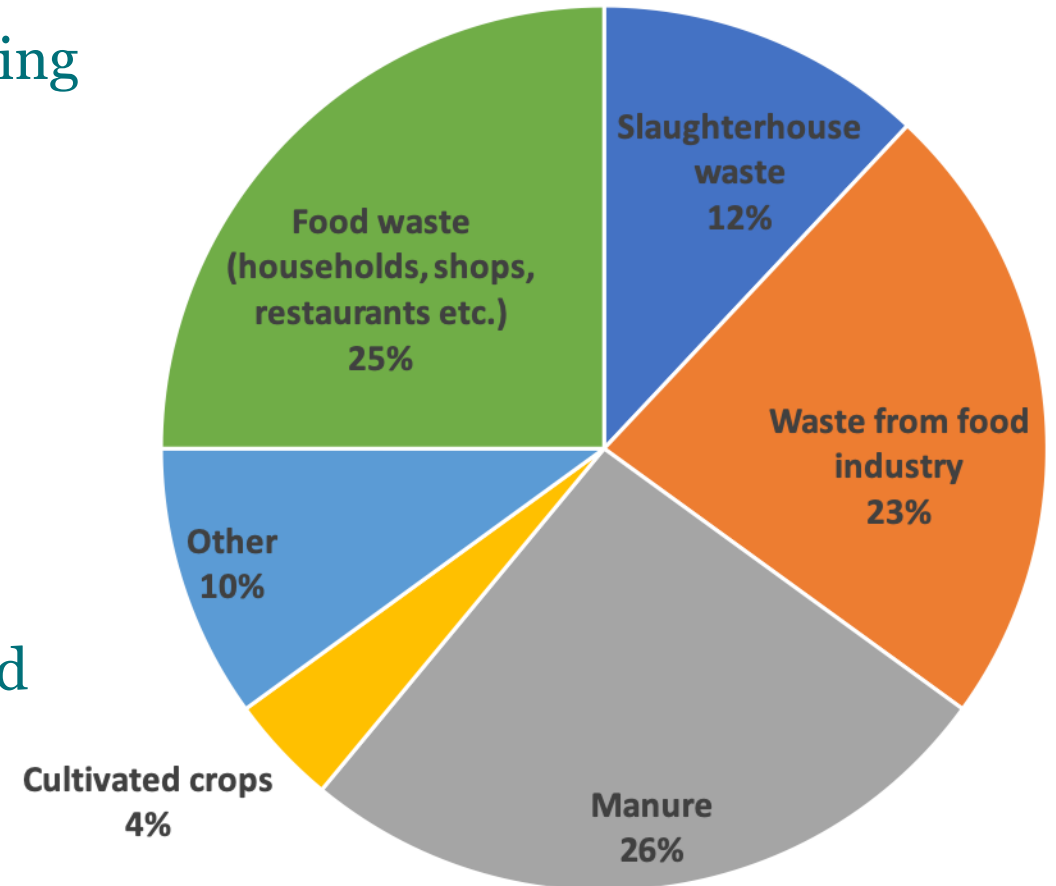
No material from waste water sector – only substrate from **food and feed chain** allowed!



# Substrates in certified digestate, 2017

- **19 plants** with SPCR 120-certificate producing **1,3 million tonnes** (wet weight)
- **100 %** used in agriculture as fertiliser
- Almost all digestate spread as liquid (average **4,3 % DM**), no post-composting
- **23 %** of total\* digestate in 2017 was approved for organic farming

\* total = certified + non-certified digestate from co-digestion plants



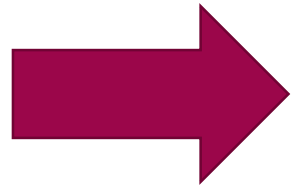


**Drivers for  
digestate in  
organic farming**



# A long term food strategy for Sweden

- The Government's target is that **30 per cent** of the Swedish agricultural land should be certified organic farmland by 2030
- **60 per cent** of public food consumption shall consist of certified organic products in 2030

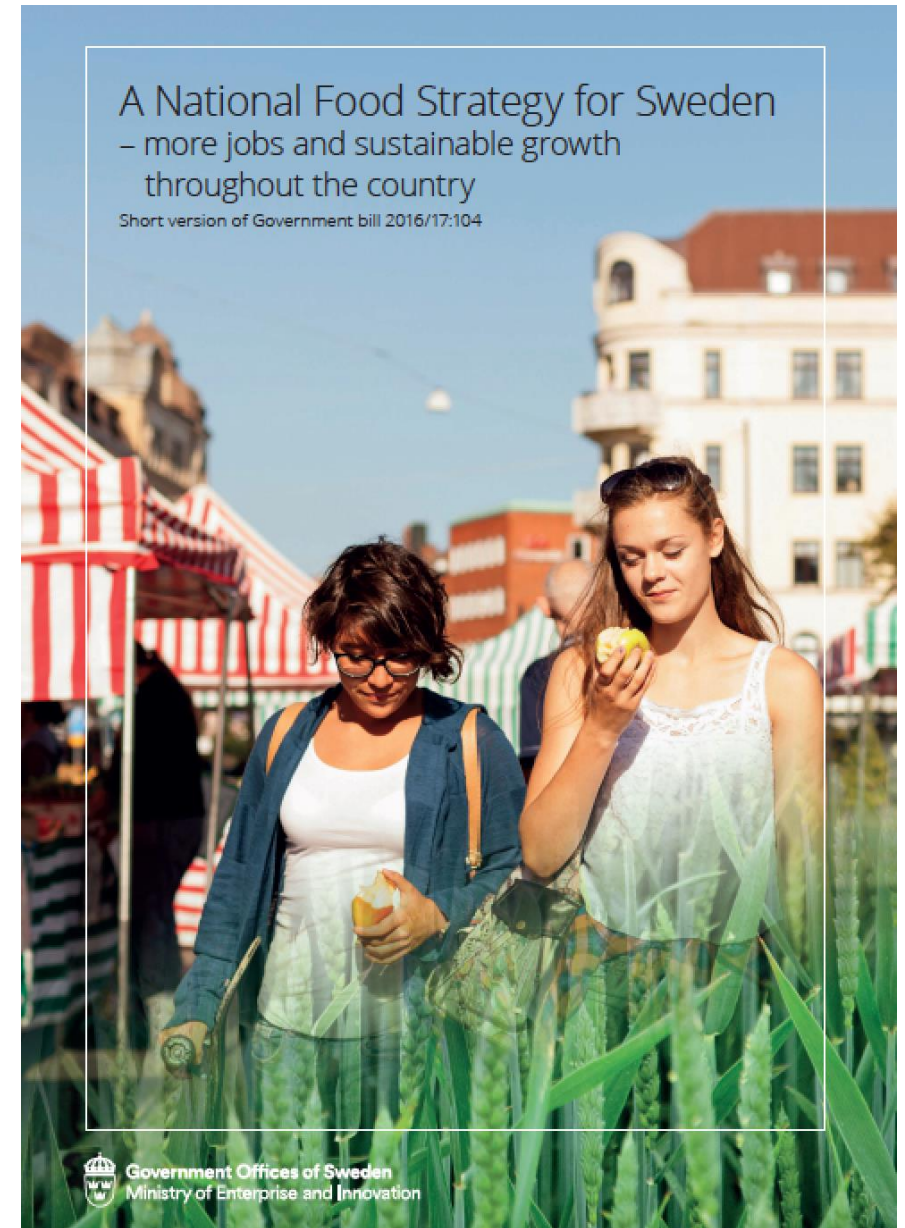


Political will to increase the production and consumption of organically certified food

- The market for organic products is growing in Sweden (4 % up in 2018, total share 9,6 %)
- Leading market players are demanding more organically grown products, e.g. Lantmännen, Sweden's largest purchaser of grain

 Lantmännen

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# This is how digestate can contribute to more organic food!

- The availability of approved and affordable **nitrogen fertilisers** is the limiting factor for the expansion of organic farming
- Digestate is primarily a **nitrogen fertiliser** and can be approved for organic farming!!!
- Digestate is already available today and can be relatively quickly available as organically approved fertiliser



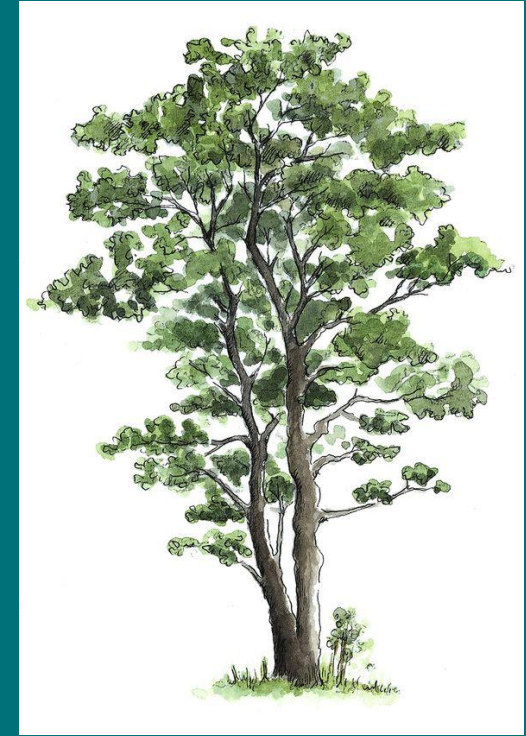
# But what about the market value?

- Generally no problem to find customers – high confidence in digestate
- Certified digestate (SPCR 120) is often considered “license to operate” among food buyers
- Digestate is most often an expense for the plant owner
- A shift towards better economy due to:
  - Better marketing
  - More knowledge about the “product”
  - Product development
- Digestate approved for organic farming very interesting!
  - Effective logistic and high demand (functioning market) → possible to turn from expense to income!



## To sum up...

- High confidence in certified digestate
- Organic farming an interesting opportunity
- Need for increased marketing and development of new products from digestate to turn expense into profit





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THANK YOU

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**THANK YOU**

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