Innovation Centre for Organic Farming

# Organic farming as promotor for AD of agricultural residues

Erik Fog, Senior Advisor



# Innovation Centre for Organic Farming

A centre for the development of organic farming in Denmark.

A more sustainable agriculture in accordance with the four organic principles.

Promoting research, trials and development within organic production.





Established in 2021 as an independent nonprofit company by Organic Denmark and the Danish Agriculture & Food Council

# Synergy between biogas and organic farming

Biogas plants

**Organic farmers** 

Sustainable substrates

Land for digestate utilization

Efficient organic fertilizer
Recycling of nutrients

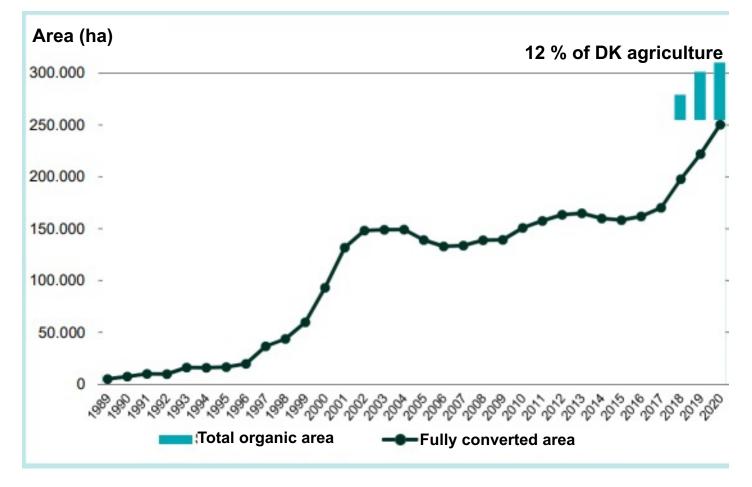


#### Increasing organic production in Denmark

- Continuous growth for 30 years.
- Current fast increase.









Source: Danish Agricultural Agency

#### An atractive market for organic produce

 Denmark world leading in organic consumption
 12,1 % of food retail sales

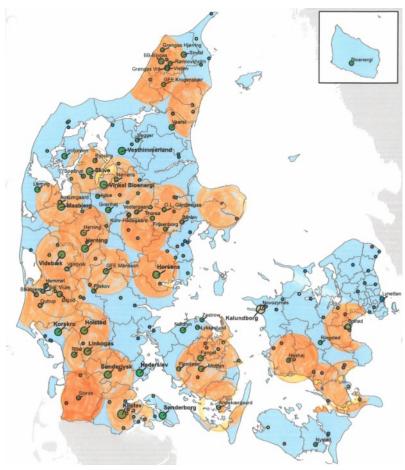
Source: The World of Organic Agriculture, 2021, FiBL / IFOAM Organics International





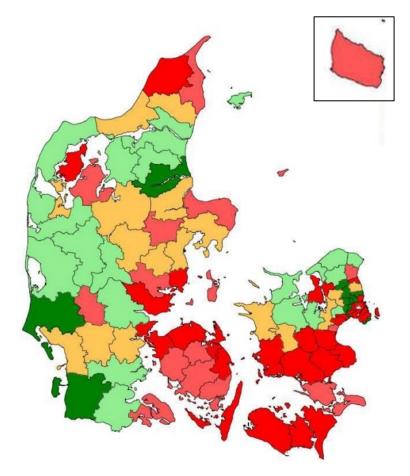
Photo: Jacob Brandt

# Promotion of "organic" biogas production





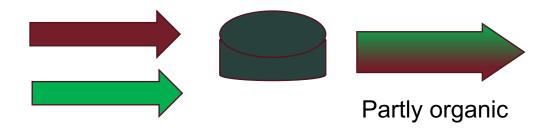
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Source: Danish Agricultural Agency

#### Two levels of "organic" biogas plants

A. Organic certified by Danish Agricultural Agency



B. Not certified but all biomasses in line with organic guidelines





## Requirements for the biogas plant

 The digestate must be acceptable to be used on organic land

- All biomasses used in the biogas plant must be covered by Annex II in the EU regulation on Organic Production.
- Annex II lists the allowed products for supplementary fertilizers in organic farming.
- Keep separation between organic and non-organic production lines.





# Advisory service to the biogas plants

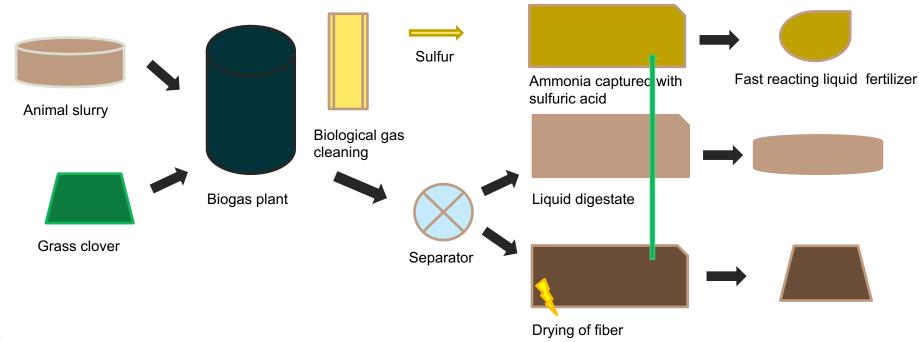
 To avoid confusion and economic losses advise is offered from the agricultural advisory service, Biogas Denmark and Danish Agricultural Agency.





#### Developing more efficient digestate

- The ClimOpic project develops digestate fertilizers for organic farming.
- Next challenge: Concentrating the liquid fertilizers.





## NEW: Grass protein residues for biogas production

- Protein concentrate from grass clover and alfalfa - an important new and local feed source.
- Produce huge amounts of liquid and fiber suitable for biogas production.
- Organic feed for pigs and poultry is the driving market.





# Innovation Centre for Organic Farming

We are interested in international cooperation in improving the synergy between biogas production and organic farming.

Erik Fog, Senior Advisor

E-mail: <u>eikf@icoel.dk</u> Phone: +45 51 80 86 69



