

# Obstacles for phasing out conventional inputs in organic farming in Norway

29.10.2019, Kjersti Berge

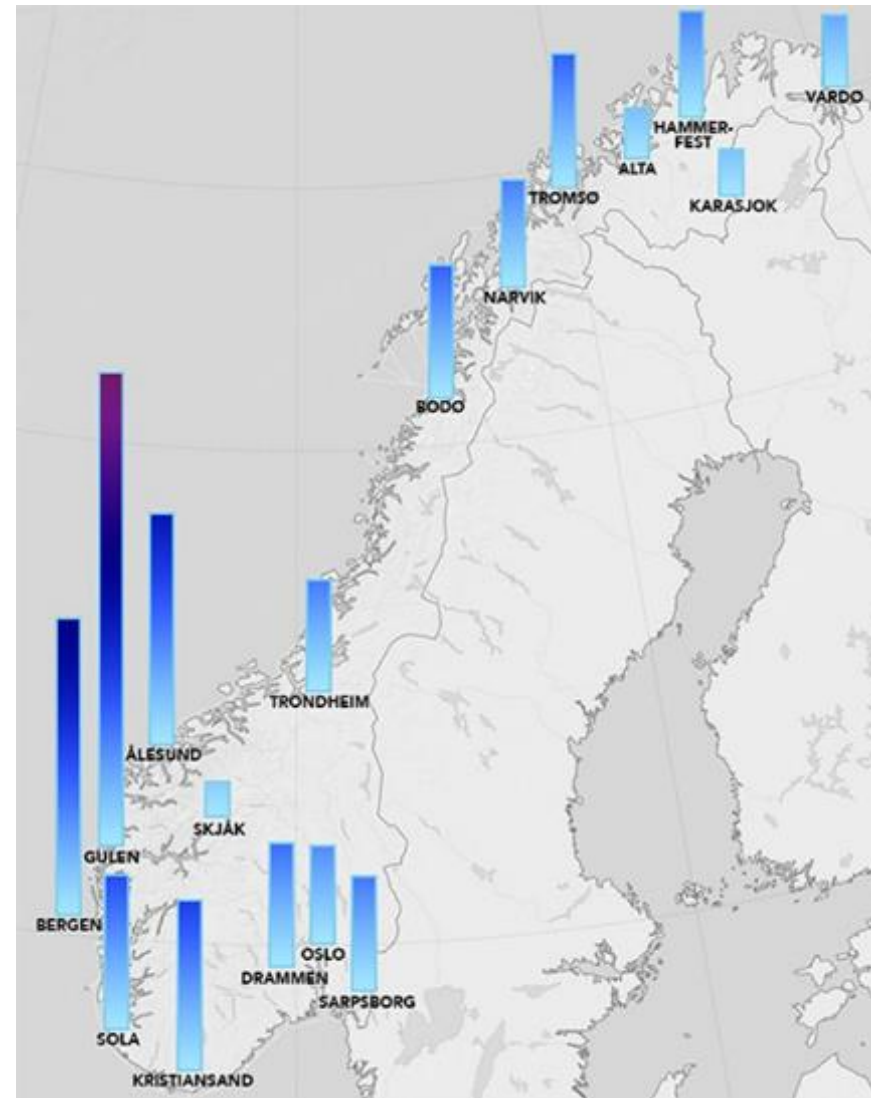
# Norsk Landbruksrådgiving

- 10 regions
- 1 central unit
- 26 000 members
- 330 advisors
- 700 trials



# Farming in Norway in various conditions

- Altitude (meters above sea level)
- Latitude (from south to north) gives different daylengths
- Soils (from rich organic soils on clay to shallow peat)
- Rainfall per year: 285 mm to 3575 mm



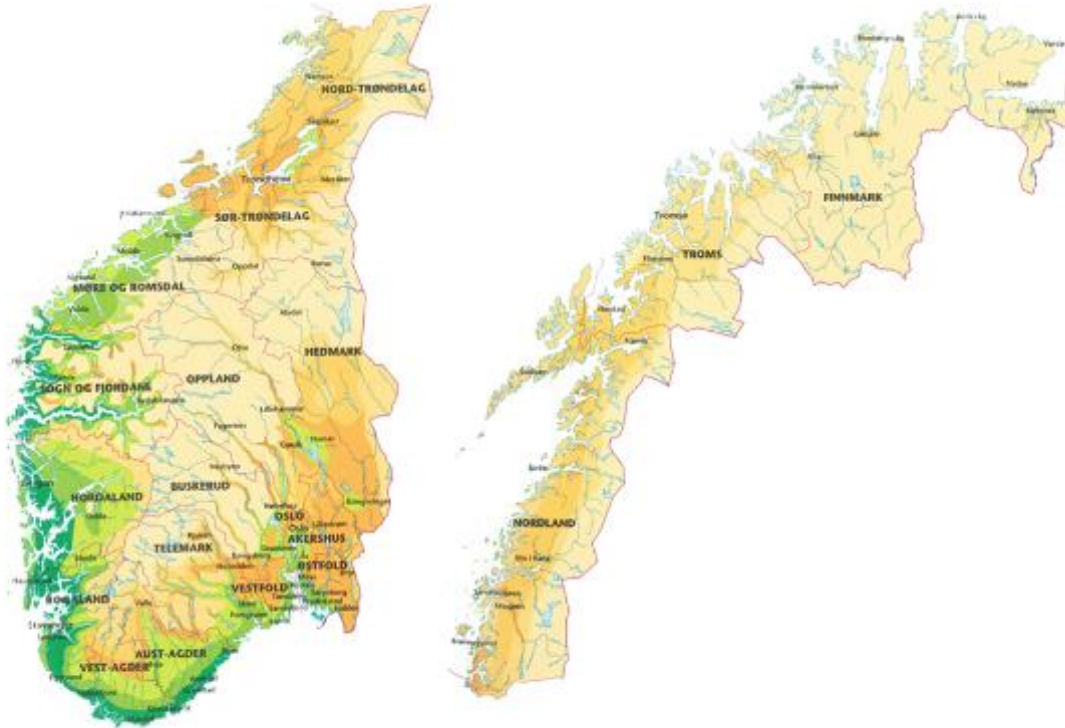
8 different climate zones in Norway

3 % of our total area is farmland

5 % of our farmland is organic

NORGE

- Sone 1
- Sone 2
- Sone 3
- Sone 4
- Sone 5
- Sone 6
- Sone 7
- Sone 8



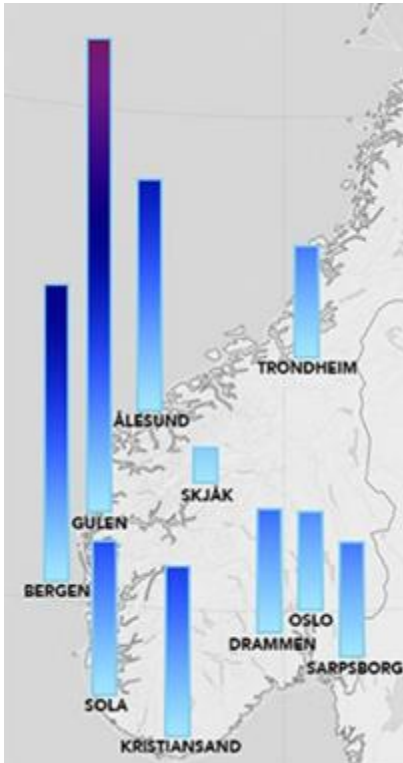
# Only 1/3 of our 3 % farmland is suited for grain and vegetable production



# Fruit production in the fjords and in south-east



# Marginal contidions



# 2/3 of our farmland is only suitable for grassproduction

- Concentrate is imported from the grain regions or from other countries
- Grassland is not always suited for plowing og crop rotation





# Animal density is seldom optimal

extensive or intensive



# Natural pastures

- Almost all norwegian sheep and goats and some cattle are grazing on natural pastures from 2 to 6 months of the year.
- Use of antibiotics is very low on both conventional and organic farms
- High trust among consumers



# What do we consider conventional or contentious inputs?

Different points of view, different degrees of knowledge and different focus areas

- Farmers
  - Consumers
  - Advisors
  - Researchers
- 
- Animal welfare
  - Climate
  - Soil
  - Quality

## An everlasting but important discussion

# Conventional inputs – fertilizers

Manure

- Slurry from conventional farms in the neighborhood
- Dried manure from poultry (Mariehøne og Grønn FK or foreign brands)

Minerals such as Polysulphate and an increasing number of others

Compost from what and in what condition?

Products from biogas plants

And so on.....increasing number of fertilizers

Dilemma: The need to think nutrition balance and nutrition cycling

When nutrition is exported from a farm, nutrition also needs to be imported in some degree.

How can nutrition be recycled back to the farm in a best possible quality?

Who can work on this issue?

And how?

# Factors influencing the need of conventional fertilizers

- Soil and local climate
- Balance between number of animals and hectares or cooperation between plant farms and animal farms
- Focus on soil quality /soil health: drainage, structure (minimum packing), organic matter, microbiology and chemistry to optimize the plantgrowth and the natural mineralization.
- Crop rotation and biodiversity
- Legumes in grassmixtures as undercultures or green fertilizer

# Different productionsystems will need different solutions

- Intensive and highly specialized production - high risk –high yield
- Extensive productions with low input - low risk - low yield
- Is it possible to develop more natural, balanced but still effective productionsystems?

# We need more knowledge and development

- Researchers need to look for the good questions and interesting issues together with farmers and advisors
- Focus on possibilities and innovation – but also economy
- Show the value of research on organic farming for organic and conventional farming
- Cooperate with neighbours with similar conditions! - and maybe with different traditions.

Takk for meg!

