

main factors of plant health (abstract)

<u>crop rotation and cultivation break</u>

- ~6 year crop ratation seems to have advantages in relation to plant diseases
- fitting combination within the rotation, taking account on different plant families, e.g. legumes and grain

Soil and nutrient management

- build up and maintenance of topsoil
 - legumes in rotation

plant health

choice of variety

- plant breeding with focus on resistance against seed-borne diseases
- Varities from replica or certified origin

<u>cultivation measures</u>

- seed rate,
 - timing
- mechanical weed control

direct plant protection measures

- Few active ingredients in organic production, very expensive
- Active ingredients not suited for most arable crops
- Few organic farms still own a spraying machine, e.g. negative public perception

data collection



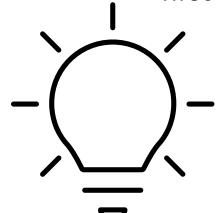
 organic production needs precise documentation of used argiculture resources, e.g. fertilizer, plant varieties, etc. in line with organic production

 more frequent use of digital tools, e.g. field recordings, digital consoles on tractors, smartphones, etc.

intermediate results



first idea: to export related data, and we are done!





but wait: what about interactions between these different factors ?!

intermediate results: we need a system approach to pay attention to all single factors combined



Bioland



System Cameleon https://lyckegard.com/en/

products/cameleon/

- 8 m working width,
- seeding equipment, and chopping equipment combined in one machine

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