

Circular Flanders: algae grown in poultry farm wastewater

Introduction



Water used to clean poultry stables (N and P rich) => algae => feed for chicken
(Liquid manure)



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Contaminants and safety issues: Wastewater

Prior to growth of microalgae

- Liquid manure N&P (not allowed to use by law)
- Presence of microorganisms
- Heavy metals (below threshold)
- Toxins (?)
- Pretreatment of the water to remove solids: what is the status of these solids? Can be used for?
- If we are allowed to use the wastewater, which parameters need to be checked for?

Poultry wastewater after growth of microalgae

- Status of the water after growth of microalgae? N & P largely removed => still liquid manure?
- Microorganisms => significantly reduced (below threshold)
- Heavy metals => no problem (below threshold)

Contaminants and safety issues: Microalgae

Microalgae (quality):

- If microalgae are grown in the wastewater: what is the status of these microalgae? => For what can they be used? Food? Feed? Fertiliser? Biostimulants? Biomass for energy?
- What parameters (quality/safety) need to be tested? E.g. microorganisms? Pollutants? Toxins?
- When do we need to test for the above parameters? In liquid phase? Pasta? Dried end-product?

