Grass Protein – local and climate friendly

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Reasons for Grass Protein

• Grass-clover can produce more than 1 ton of protein concentrate per hectare
• Grass Protein concentrate hold a protein concentration of approx. 50 % with a high content of methionine – very similar to soy cake.
• Pigs fed with grass protein grow as fed with soy protein – and deliver the same meat quality.
• Feeding trials with hens and chicken show similar results.
• Residues from protein extraction are very suitable for cattle feed and biogas production.
• Grass-clover for protein production is an attractive crop in organic farming.
• Grass-clover sequester more carbon in the soil and have less problems with plant diseases than other protein crops.
• Grass Protein concentrate can be produced to prices comparable to organic soy cake.
Production of Grass Protein

- Grass protein is produced in green biorefineries

Grass harvest → Screw press → Protein precipitation (heat or acid) → Centrifugation → Protein concentrate (feed for monogastrics)

- Press cake: Cattle feed (or biomass for biogas production)
- Brown juice: (biogas production or further valorization)

- Grass harvest:
  - 70% of DM
  - 50% of protein

- Screw press

- Protein precipitation (heat or acid):
  - 18% of DM
  - 47% of protein

- Centrifugation

- Protein concentrate
  - 18% of DM
  - 47% of protein

- Press cake
  - 12% of DM
  - 3% of protein

- Brown juice
  - 12% of DM
  - 3% of protein
Danish research in Grass Protein

- Bioref, BioValue Spir, BIOBASE, MultiPlant, OrganoFinery, SuperGrassPork, Subleem 1 & 2, Green Eggs, Bioraf-Business, Green Bioraf, Inno-Grass, Græs-Prof and TailorGrass (Ausumgaard)

- Video on the grass protein process: