



The EU Protein Deficit





- Europe imports ~ 15 mt soymeal per year
- This meets 60% of our demand for animal feed protein



- Aquaculture is the fastest growing food producing sector in the world
- Europe produces ~ 10% of the 5mt of fishmeal produced globally every year

Can insects help ?



Protein Yields

Protein crops: soya **2.5 t/ha./year** = 0.9 t protein

Fly larvae potential (non-optimised)

25 t/ha./8-10 days = **1000 t/ha./year** = 125 - 150 t protein

Nutritional quality

Protein content (45-60 % DM) similar to soy (40% DM)

Amino acid profile similar to fishmeal €€€ !!

Why manure ?



Europe produces 89 mt of food waste per year



14 000 mt of manure per year

**Evidence for safe
use is key**

Sustainable Development Goal: target to reduce food waste
Increasing pressure to reduce food waste may lead to direct competition for use for insect and livestock production

Protein potential ?

 If we used just 10% of the manure produced in the EU to rear fly larvae this could provide ~1.75 mt of insect protein

 This is > 10 % of the amount of soy protein EU imports annually or 50% of protein from global fishmeal production

Can insect protein help meet the growing global demand for animal feed protein ?

Thank you for listening

Acknowledgement and thanks to all PROteINSECT project partners



The research leading to these results has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 312084