

# Martin Alm



## **European Fat Processors & Renderers Association Germany**

Dr. Martin Alm is technical director of the European Fat Processors and Renderers Association, as well as director of Dr. Alm Research and Consulting.

He is a consulting board member of the German Renderers Association and member of the Research Committee of the Fat and Protein Research Foundation.

Alm started his career at SARIA Bio-Industries, a leading European rendering company, where he was responsible for research and development and regulatory affairs.



# Rendered Products Worldwide

Dr. Martin Alm  
European Fat Processors and  
Renderers Association



# WRO

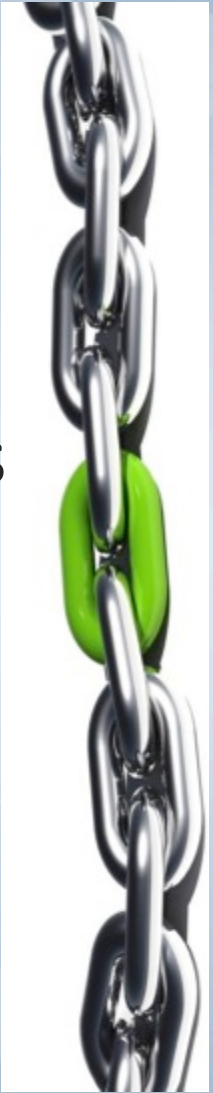
WORLD RENDERERS ORGANIZATION

**Dr Martin Alm**  
**EFPRA Technical Director**  
**WRO Scientific Advisory Panel**

[WWW.WORLDRENDERERS.ORG](http://WWW.WORLDRENDERERS.ORG)

# WRO & the World of Animal by-Products

- ✓ Renderers are a vital link in the Food Chain
- ✓ Renderers collect animal by-products [ABP] from livestock production [farming]
- ✓ Animal by-products contain natural resources Proteins, Fats, Minerals BUT are also highly degradable... due to presence of water and natural microflora.
- ✓ Renderers process ABP by evaporation, sterilisation and stabilisation of products.
- ✓ Rendered products... are valuable resources





# WRO position in Foodchain [simplified]

Assume Feed is start of chain ←

**Livestock Production**

Meat

Milk ~ Eggs

**ABP [75\*]**

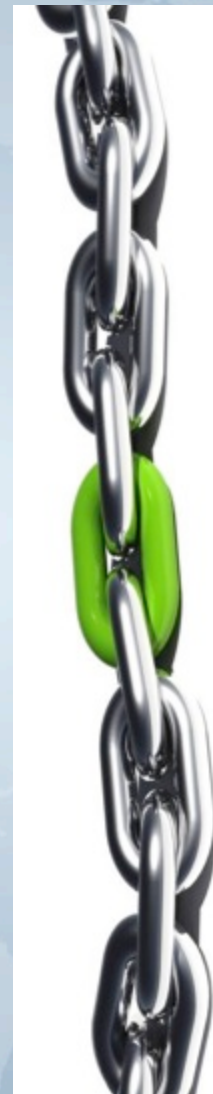
**...WRO members...**

**Proteins [15\*]**

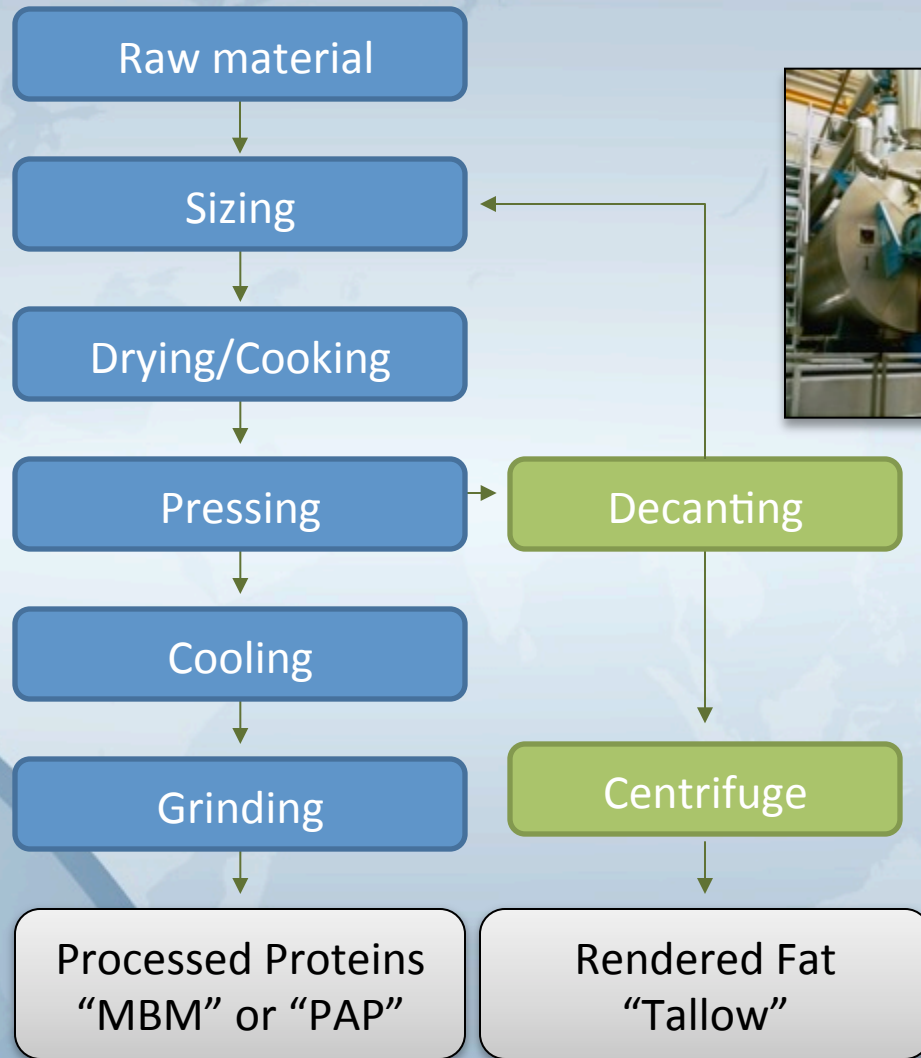
**Fats [10\*]**

\* million  
tonnes pa

Non animal  
feed uses



# Rendering: Simplified Process Flow diagram





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# Rendered Products



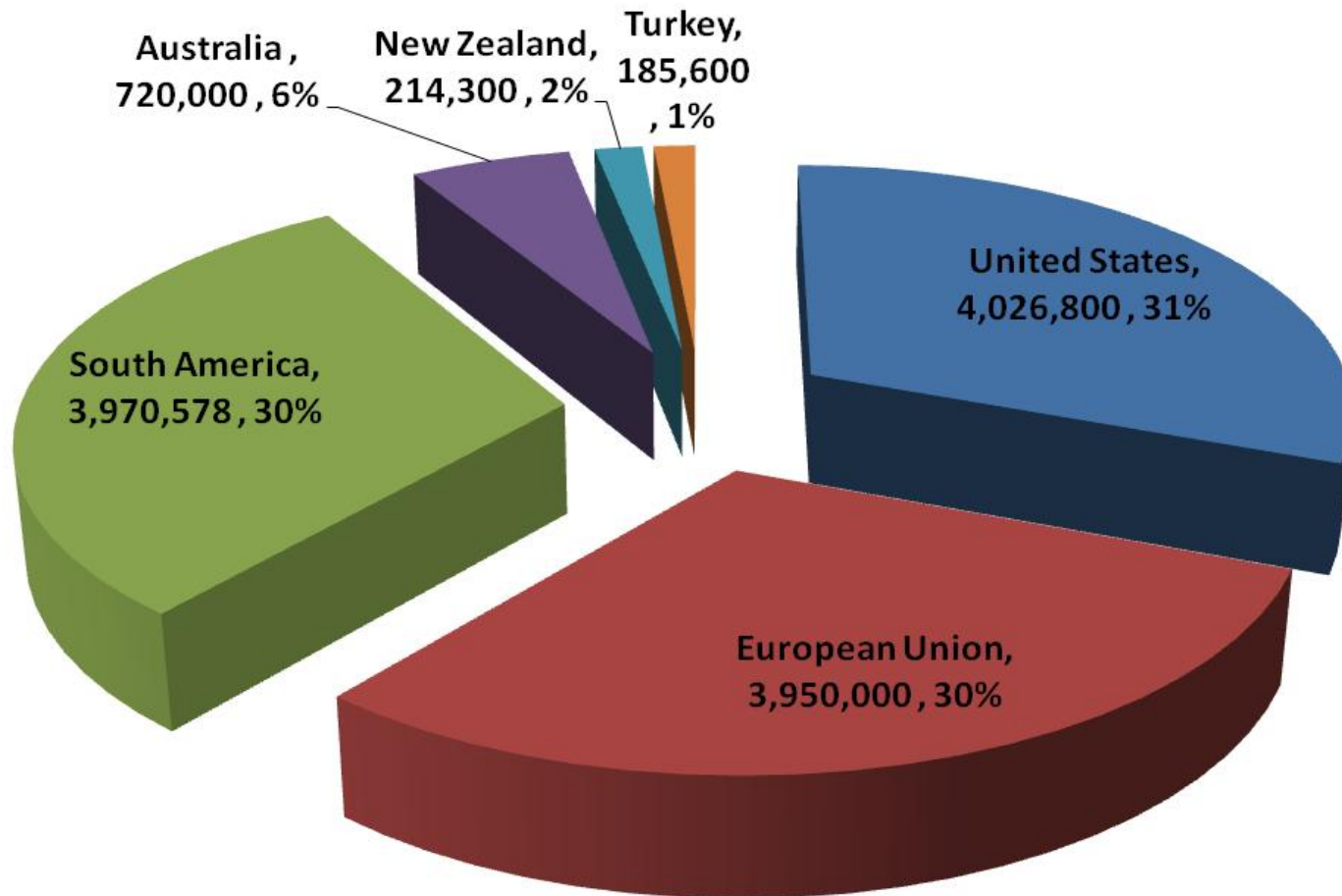
Rendered Animal Protein Meal [MBM or PAP]  
and Rendered Animal Fats [Tallow]



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## Processed Animal Protein Meal Production Estimates



Total Global Production: 13+ million metric tons

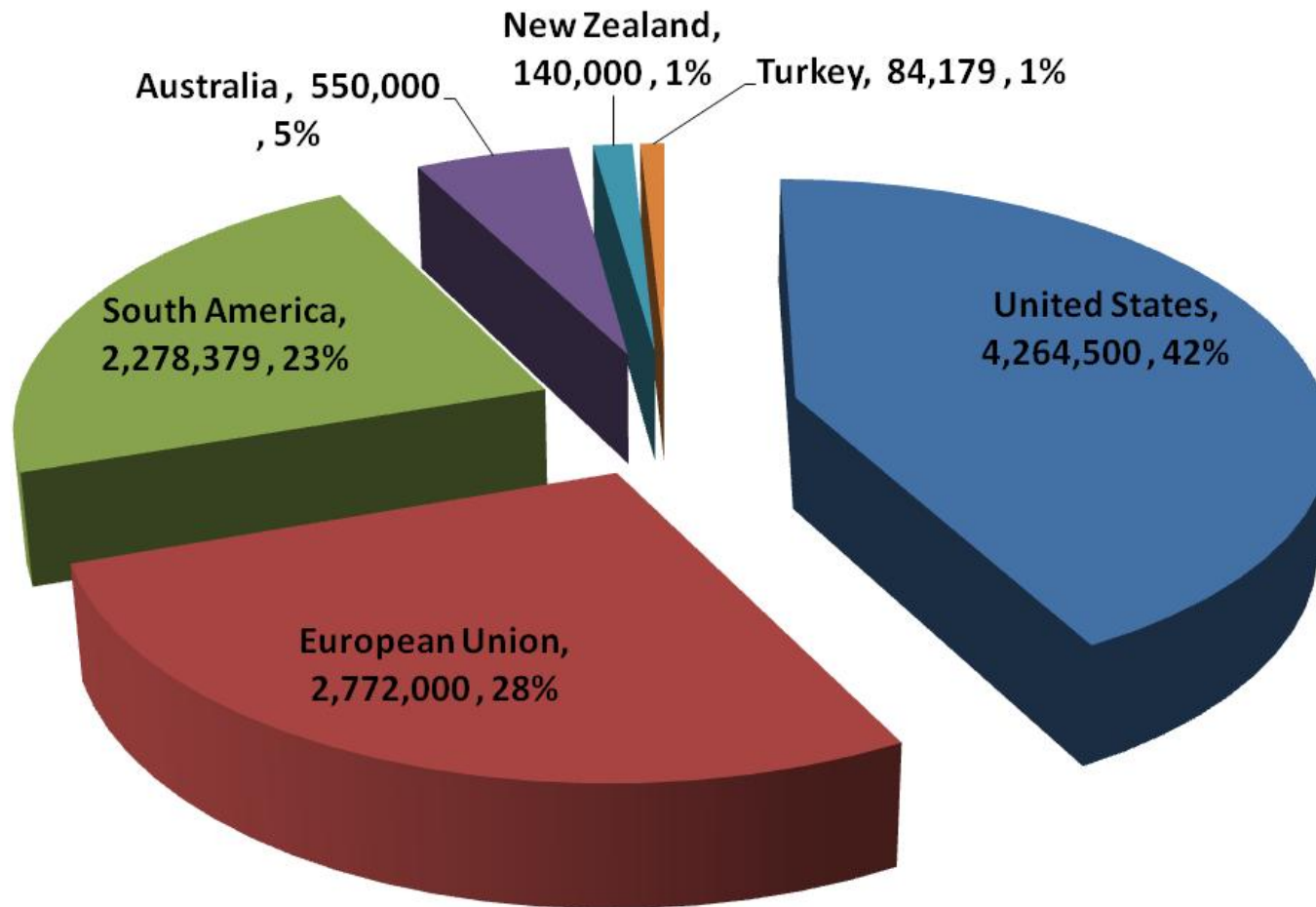


# Protein Meals

- **Processed Animal Proteins**
- **50% Meat & Bone Meal**
- **Porcine Meal**
- **Poultry By-Product Meal – Feed Grade**
- **Poultry By-Product Meal – Pet Food Grade**
- **Feather Meal**
- **Blood Meal**
- **Greaves Meal**
- **Fish Meal**



## Global Animal Fat Production Estimates

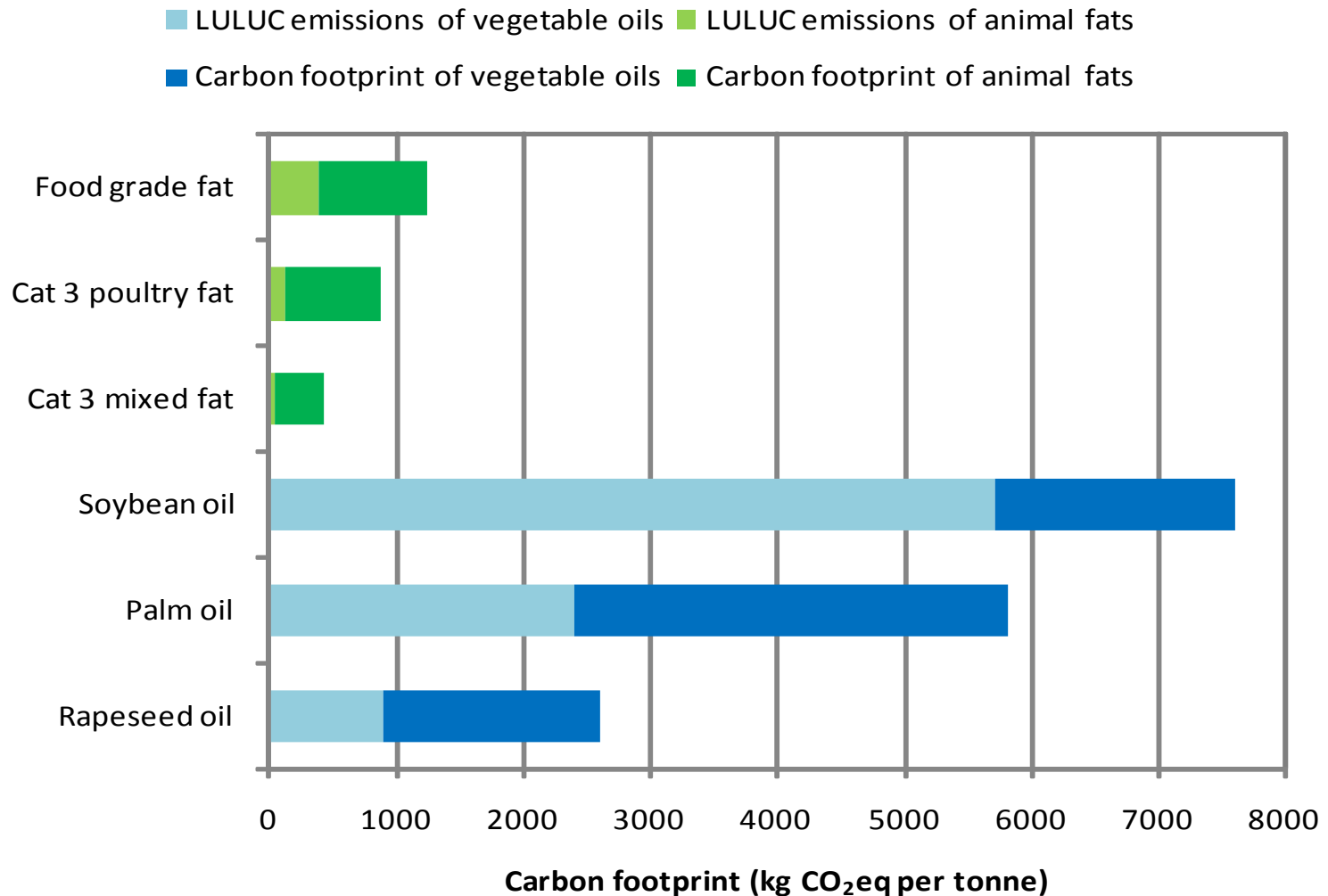


Total Global Production: 10+ million metric tons

# Rendered Fats & Oils

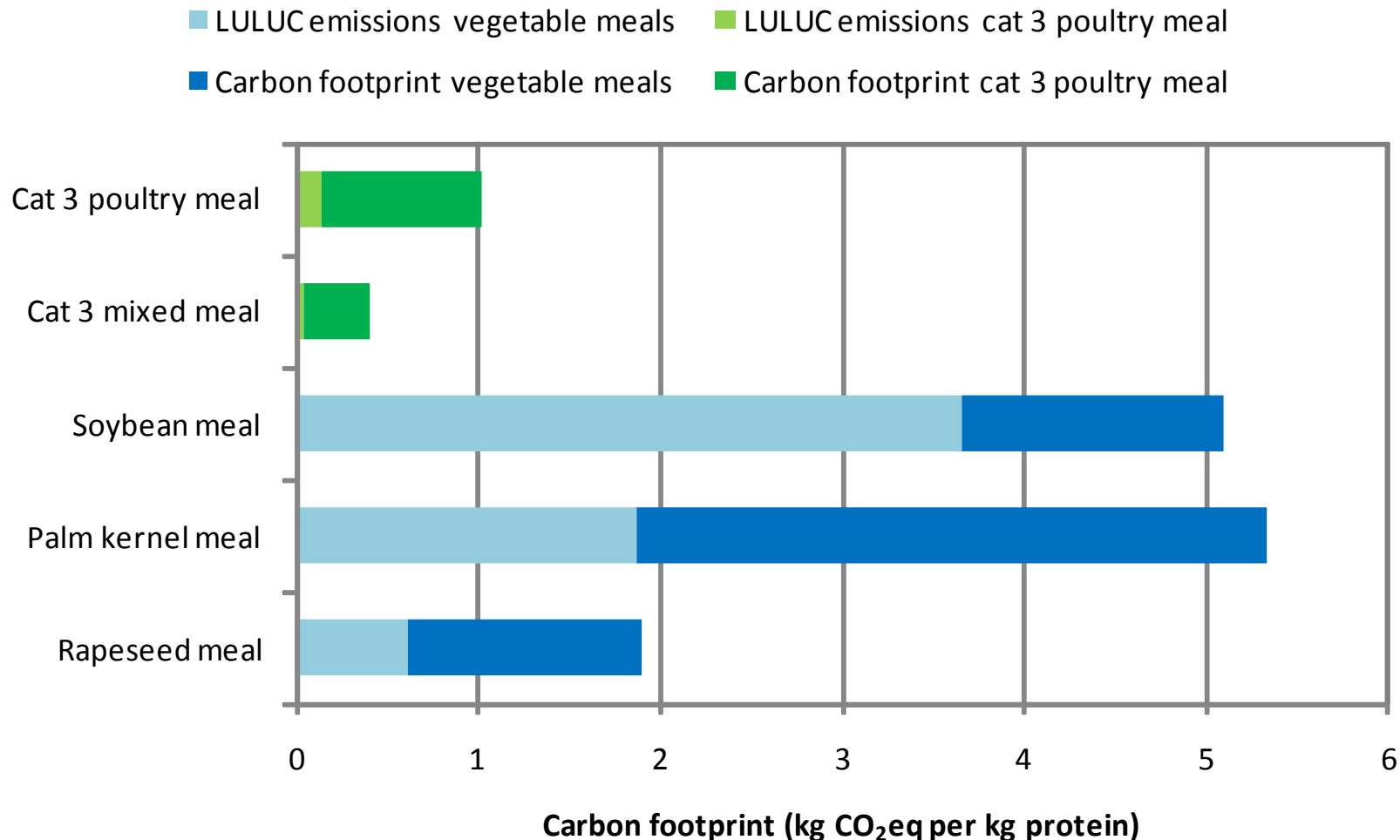
- **Edible Tallow**
- **Edible Lard**
- **Tallow, Bleachable Fancy Tallow (BFT)**
- **Choice White Grease (CWG)**
- **Poultry Fat (PF)**
- **Yellow Grease (YG) (UCO)**
- **Brown Grease**
- **Listed in order of highest quality and price to lowest.**

# CFP of different fats and oils





# CFP of different proteins



# Focus on key areas

- ✓ **Biosecurity:** Key step for reducing the potential  
....for livestock diseases
- ✓ **Nutrition:** Optimum for farmed livestock & companion (pet) animals
- ✓ **Environment:** Minimise environmental pollution of the air, water, earth.
- ✓ **Sustainability:** Maintain the natural production capacity without adverse environmental impact
- ✓ **Biofuels:** Utilisation non-(human food)resources

# *Thank you*

## Contacting WRO

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