



Challenges and potential of biomass & biofuels for the European Oleochemical industry

- Feedstocks for oleochemicals
- Applications for oleochemicals
- The Issue
- Conclusion



Types of Feedstocks

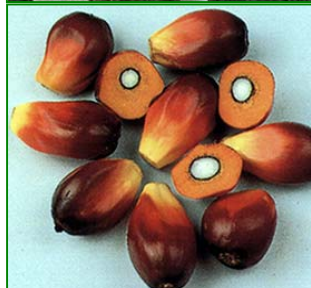
- **Animal fats**

- Tallow
- Lard
- Poultry



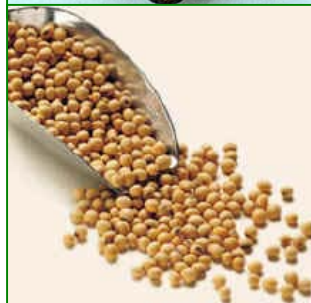
- **Tropical oils**

- Palm kernel oil
- Coconut oil
- Palm oil



- **Soft oils**

- Soya oil
- Sunflower oil
- Rape oil





Few products have a wider range of applications than **Oleochemicals**



Animal feed:

- Nutritional supplements
- Emulsifiers for calf milk replacers



Electronics:

- Wire insulation
- Insulating varnishes
- Special-purpose plastic components



Food:

- Emulsifiers & specialties for bread, cakes and pastries
- Margarine
- Ice cream and confectionery



Healthcare:

- Tableting aids
- Drugs



Industrial lubricants:

- General and specialty lubricants
- Base oils for non-toxic biodegradable lubricants



Leather:

- Softening, dressing, polishing and treating agents



Metalworking & foundries:

- Cutting oils
- Coolants
- Buffing and polishing compounds



Mining:

- Froth flotation of ores
- Surface-active





Few products have a wider range of applications than **Oleochemicals**



Personal care:

- Shampoos
- Soaps
- Creams & lotions
- Make-up



Paints & coatings:

- Alkyd and other resins
- Drying oils
- Protective coatings



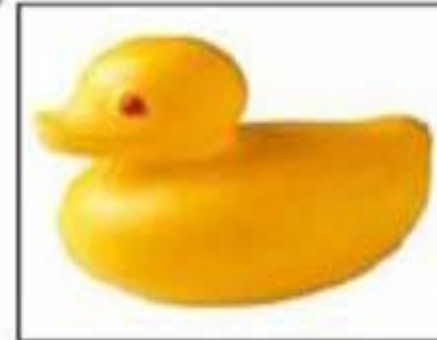
Paper recycling:

- Removal of printing ink



Plastics:

- Stabilisers & plasticisers
- Mould release agents
- Antistatic & antifogging aids
- Polymerisation emulsifiers



Printing:

- Printing inks
- Paper coatings
- Photographic printing



Rubber production:

- Vulcanising agents
- Softeners
- Mould release agents



Soaps & detergents:

- Industrial and domestic



Waxes & Candles:

- Ingredients in waxes and polishes





THE ISSUE

The European oleochemical industry is under threat. An unintended threat of the current EU Renewable energy policy has led to an unprecedented increase in glycerine production and to a significant threat to the availability of animal fats as raw material for the European oleochemical industry



THE ISSUE

Raw Materials Availability:

- *Due to their classification as biomass, animal fats and vegetable oils are increasingly burned or used in Biofuel production to access “credits” under the Emission Trading Schemes or incentives intended to promote biofuels or renewable energy*



THE ISSUE

Market Distortion for glycerine

- ***Biodiesel/Glycerine***: the production of methyl esters from vegetable oils & fats for use as biodiesel has increased doubled the production of glycerine – by-product in the production of oleochemicals – 300 000 T of subsidised glycerine has appeared on the market and we expect this to reach 500 000 T before 2010.



THE ISSUE

Market Distortion for glycerine- consequences

- Glycerine prices dropped from 1.500 Euro/mt to below 500 Euro/mt
- This has decreased the income of the European Oleochemical industry by 300 Mio/year
- Industry could only react by rationalising, closures, 1000 people lost their jobs.



THE ISSUE

Raw Materials Availability:

- Historically, the European Oleochemical industry has always been a net importer of animal fats mainly from North America and Canada. Imports of animal fats into Europe stopped when the BSE crisis materialised and the exporting countries did not wish to remove the Specific risk materials from the raw materials. Europe is too small a market for the major exporting countries such as USA.



THE ISSUE

Raw Materials Availability:

Animal fats cover more than 50 % of the raw material requirements in the European Oleochemical Industry **AND ENABLES** the European industry to compete with Asia producers sourcing their raw materials from tropical oils



THE ISSUE

Raw Materials Availability:

Animal fats, being a side stream from the meat production, have a limited availability.

The availability of animal fat in Europe has been seriously affected by the BSE legislation and has been further affected by the animal by-product regulation restricting the quantities available for use.



THE ISSUE

Raw Materials Availability:

- Subsidised burning of animal fats will disrupt completely the supply/demand balance and the European Oleochemical Industry, using the animal fats in an unsubsidised way, will find itself without its main raw material at competitive pricing. Furthermore, if all available European animal fats would be used in the production of energy, it would only be sufficient to supply one medium sized power plant generating 1.000 megawatt per year.



THE ISSUE

Raw Materials Availability:

Only by importing palm oil from South East Asia, would the European Oleochemical industry have enough raw materials to maintain its production level and maintain its supply position to the European Industry as a whole.



THE ISSUE

Raw Materials Availability:

Only by importing palm oil from South East Asia.....

This position is unfavourable because South East Asian producers , with a rapidly increasing oleochemical industry, have access to raw materials at the cheaper price (export duty 15% for European importers) ; This measure subsidises the exports of their oleochemical derivatives and causes a distortion of competition for the European Oleochemical Industry.



THE ISSUE

Raw Materials Availability:

The European Oleochemical industry will not be in a position to survive as a manufacturing industry IN EUROPE if it does not have access to tallow.

As said earlier, *if all available European animal fats would be used in the production of energy, it would only be sufficient to supply one medium sized power plant generating 1.000 megawatt per year*



THE ISSUE

Raw Materials Availability:

As a consequence, European Oleochemical Industry will be forced either to close down their operations in Europe or move its production facilities to the SEA region. A first impact will be the loss of 10.000 jobs in Europe and the departure to the SEA of more industries from Europe causing further job losses and putting in danger the supply of critical products in highly specialised branches of the European Industry.



WHAT IS OUR INDUSTRY SEEKING

The European oleochemical industry wishes to secure the availability of animal fats as competitive feedstock for the European Oleochemical Industry. To achieve this, animal fats should be taken out of the EU definition of biomass and/or no tax incentives should be given for the use of animal fats in the generation of green electricity, heat or production of Biodiesel.



WHAT IS OUR INDUSTRY SEEKING

In addition, we request that animal fats remain in the waste regime as currently required by the animal by-products legislation and the waste framework directive. Consequently, burning of animal fats should only take place in facilities that comply with waste incineration directive.



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