

Bedeutung von Palmöl für die Margarineindustrie – Herausforderungen und Perspektiven

BUNGE

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Margarine Business Bunge in Europe

- **Market Volume** – Central and Northern Europe of table and consumer margarine and fat spreads represents 900 KT volume
- **Bunge Europe is a leading supplier** – vertically integrated in the agribusiness – food chain
- **Cost competitive** – efficient, large scale facilities

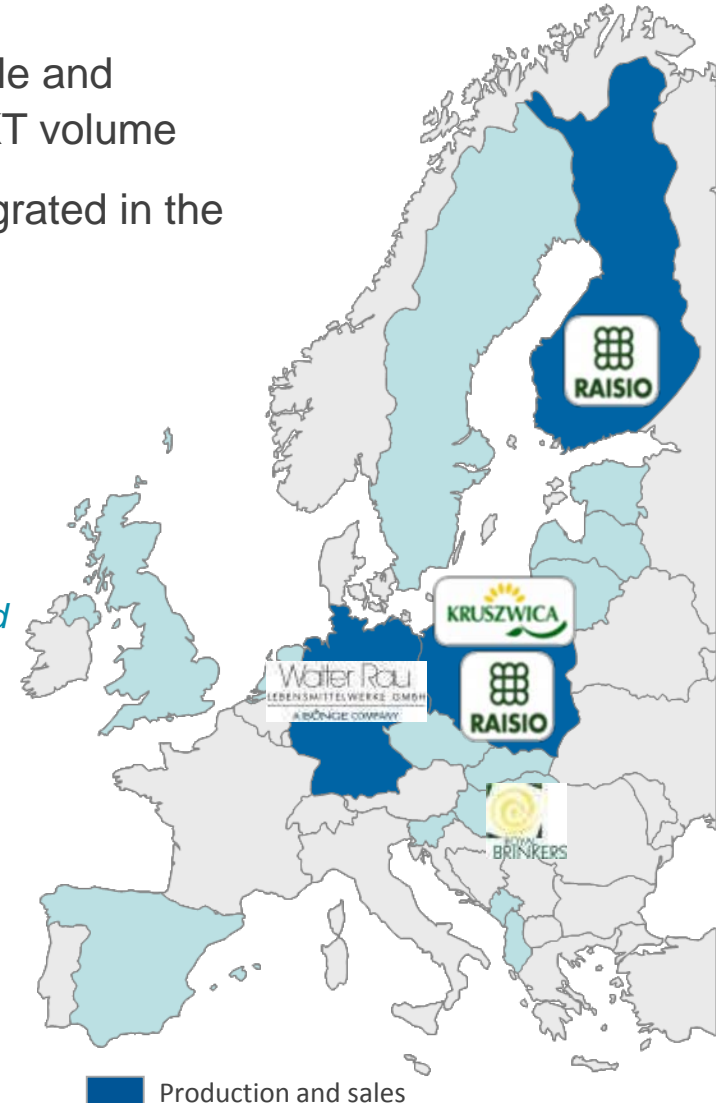
Our Leading Margarine Brands

➔ *Smakowita, Maslo Roslinne, Manuel and Masmix in Poland*

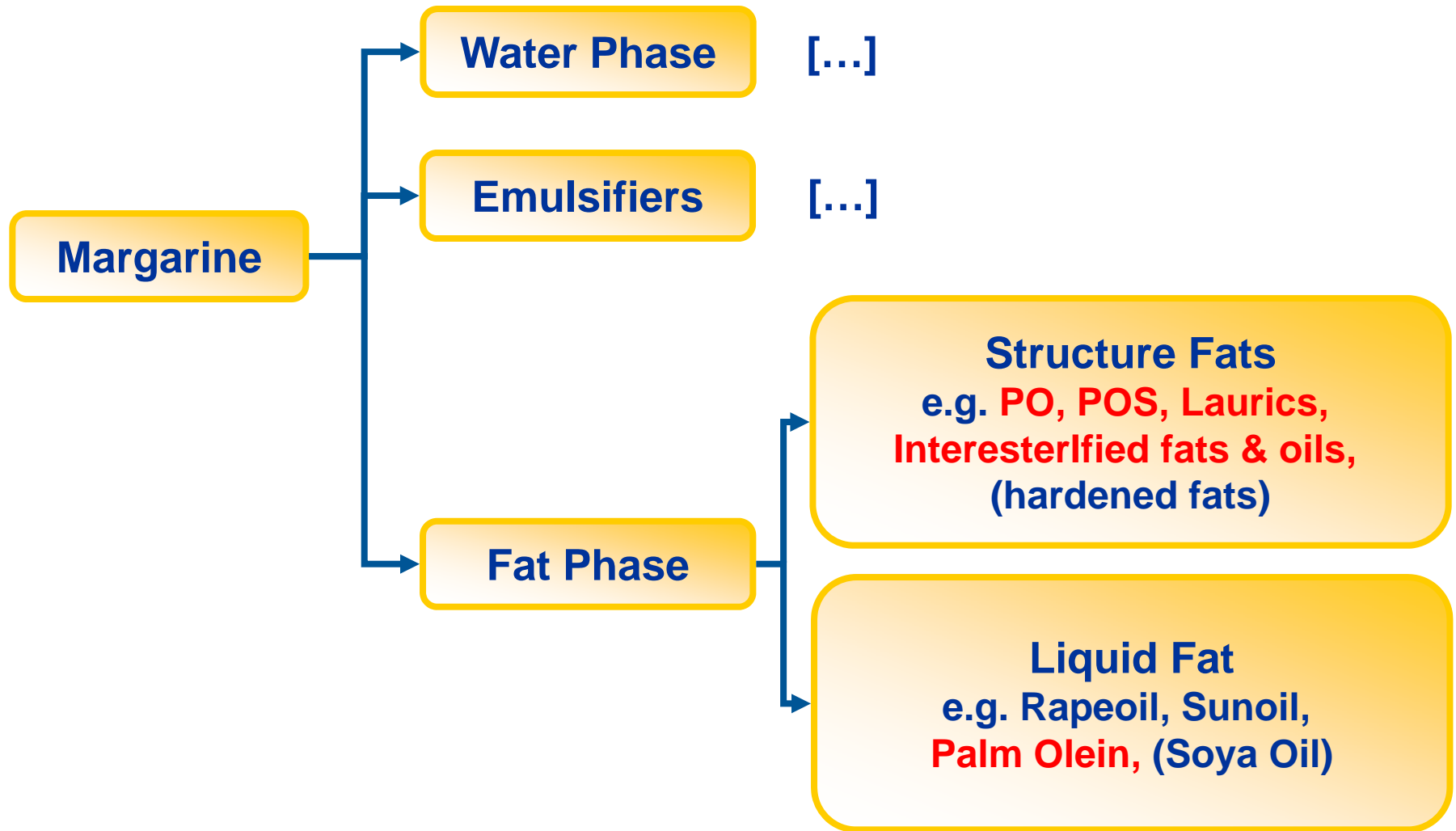
Deli Reform in Germany

Keiju in Finland

Benecol in Poland and in Finland



Margarine Dependence on Structure Fats

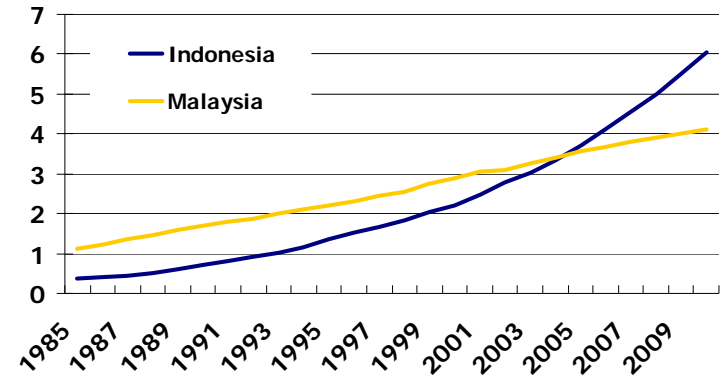


Palm Oil in the Margarine Industry

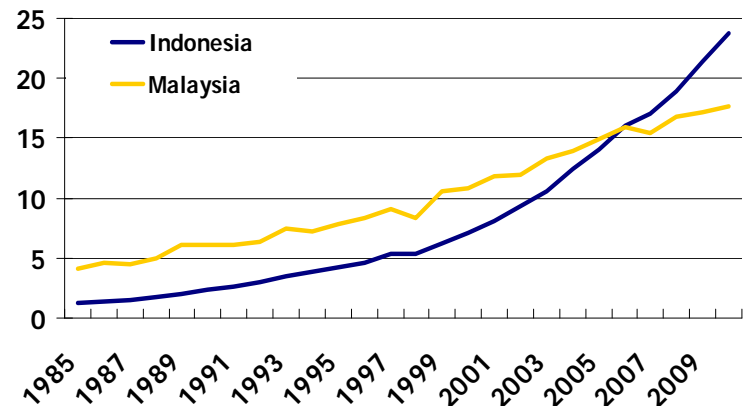
- Palm Oil as an excellent supply base for basic food products
- Palm Oil industry did an excellent job in the past 25 years to develop a huge, internationalized down-stream processing industry
- By development and optimization of technologies like dry fractionation and double fractionation resulted in major achievements like:

- ➔ Significant reduction of the utilisation of hydrogenated oils and fats
- ➔ Significant reduction of trans fatty acids
- ➔ Improved product quality and improved physical properties in many end products

Palm Oil Mature Area (Mn HA)

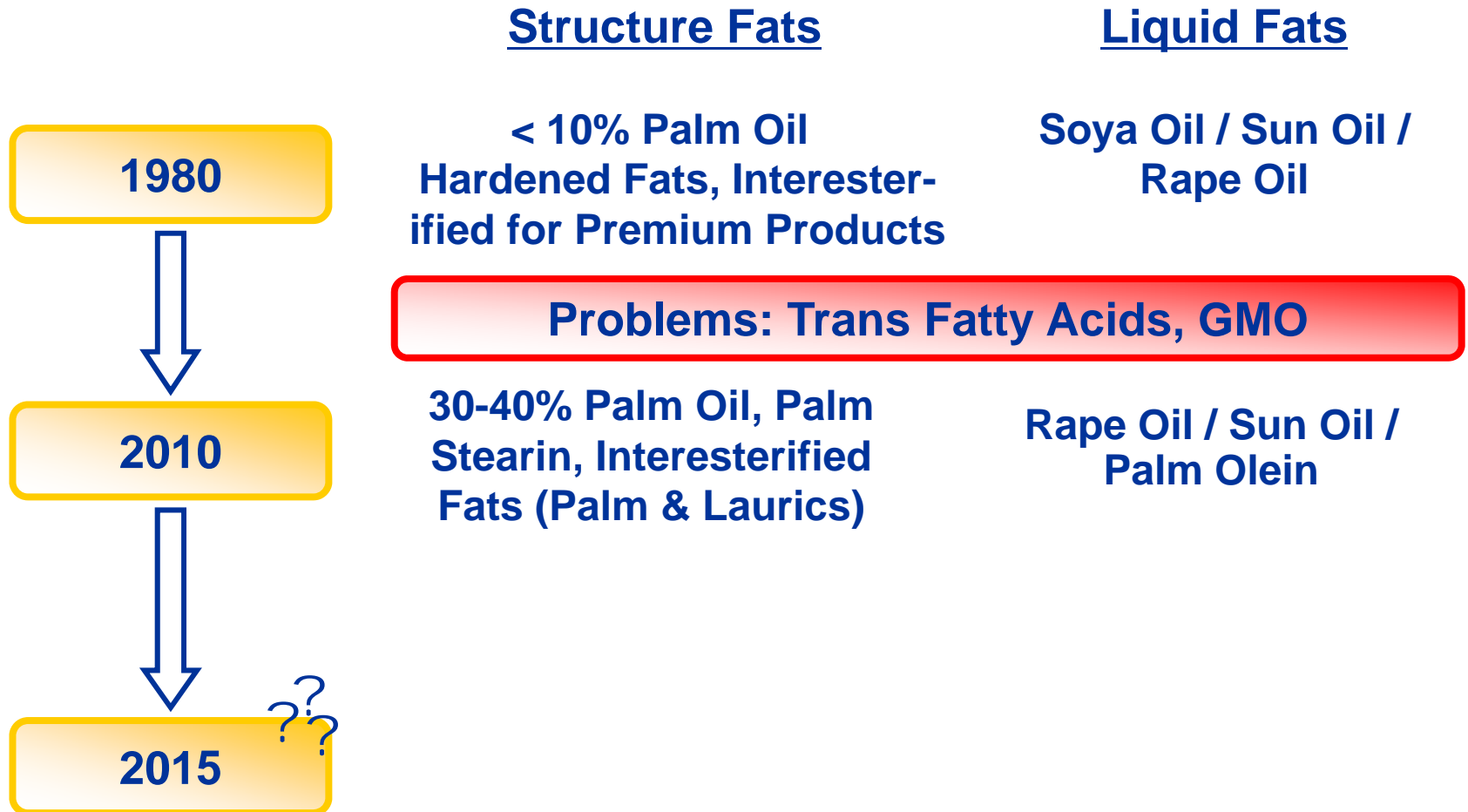


Palm Oil Production (Mn T)

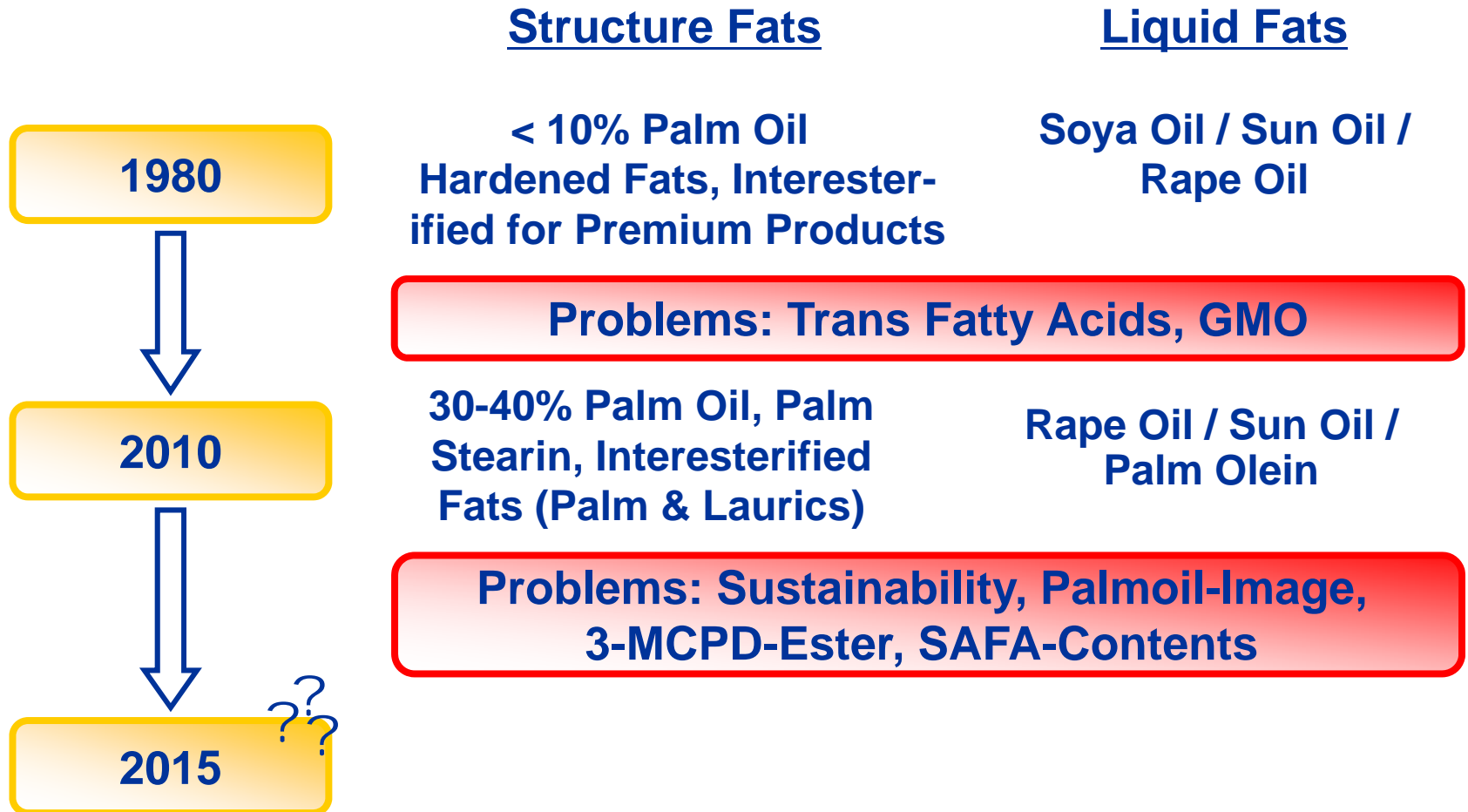


Quelle: ISTA Mielke GmbH

Development of Palm Products for the Margarine Industry



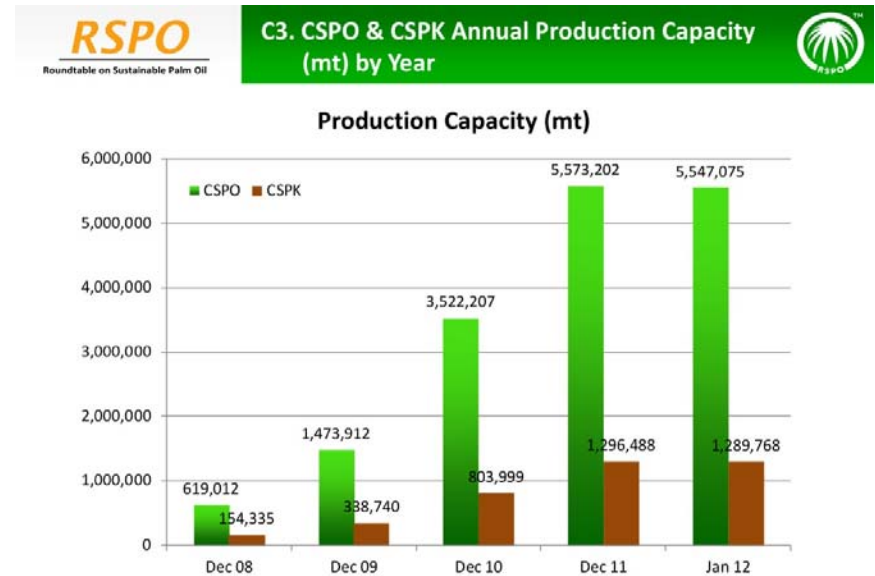
Development of Palm Products for the Margarine Industry



- Standard for the production and certification available
- > 300 facilities certified
- Greenpalm and Mass Balance for most of the products available

Challenges Ahead

- ➔ Further continuation of certification process of plantations needed
- ➔ Further development of sustainability criteria
- ➔ Consider down-stream products (especially Stearin / Palmkernel Oil) for the supply of segregated material
- ➔ Further advertising on benefits of palm oil and support improvement of general image of palm oil is needed



3-MCPD-Esters / Glycidyl-Esters

- 3-MCPD-Esters and Glycidyl-Esters are seen critical and are supposed to be harmful for health.
- Some smaller adaptations at refinery stage implemented
- Levels of 3-MCPD-Ester / Glycidyl-Esters in different Oils (ppm):
 - Rapeseed Oil 0,2 ... 0,5 / 0,1 ... 0,2
 - Sunflower Oil 0,1 ... 0,2 / 0,2 ... 0,7
 - **Palm Oil** **3,0 ... 7,0 / 3,0 ... 10,0**

Challenges Ahead

- ➔ Formation mechanisms of ME / GE to be clarified
- ➔ Influence of production area / harvesting / processing of FFB at mill to be clarified and optimized
- ➔ Reduction technologies while or after desodorization to be developed (mainly for GE)

Development of Palm Products for the Margarine Industry

Liquid Fats

1980



2010



2015

< 10% Palm Oil
Hardened Fats, Interesterified for Premium Products

Soya Oil / Sun Oil / Rape Oil

Problems: Trans Fatty Acids, GMO

30-40% Palm Oil, Palm Stearin, Interesterified Fats (Palm & Laurics)

Rape Oil / Sun Oil / Palm Olein

Problems: Sustainability, Palmoil-Image, 3-MCPD-Ester, SAFA-Contents

- Usage of more expensive Interesterified Products
- Palm Oil loosing Attractiveness vs. Liquid Oils
- Palm Compounds loosing market share
- Palm losing market share against milk fat