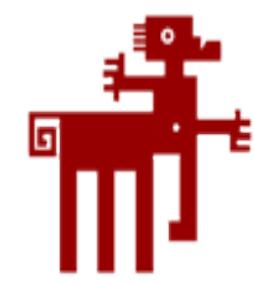


# PALM OIL: Uses, problems and possible alternatives

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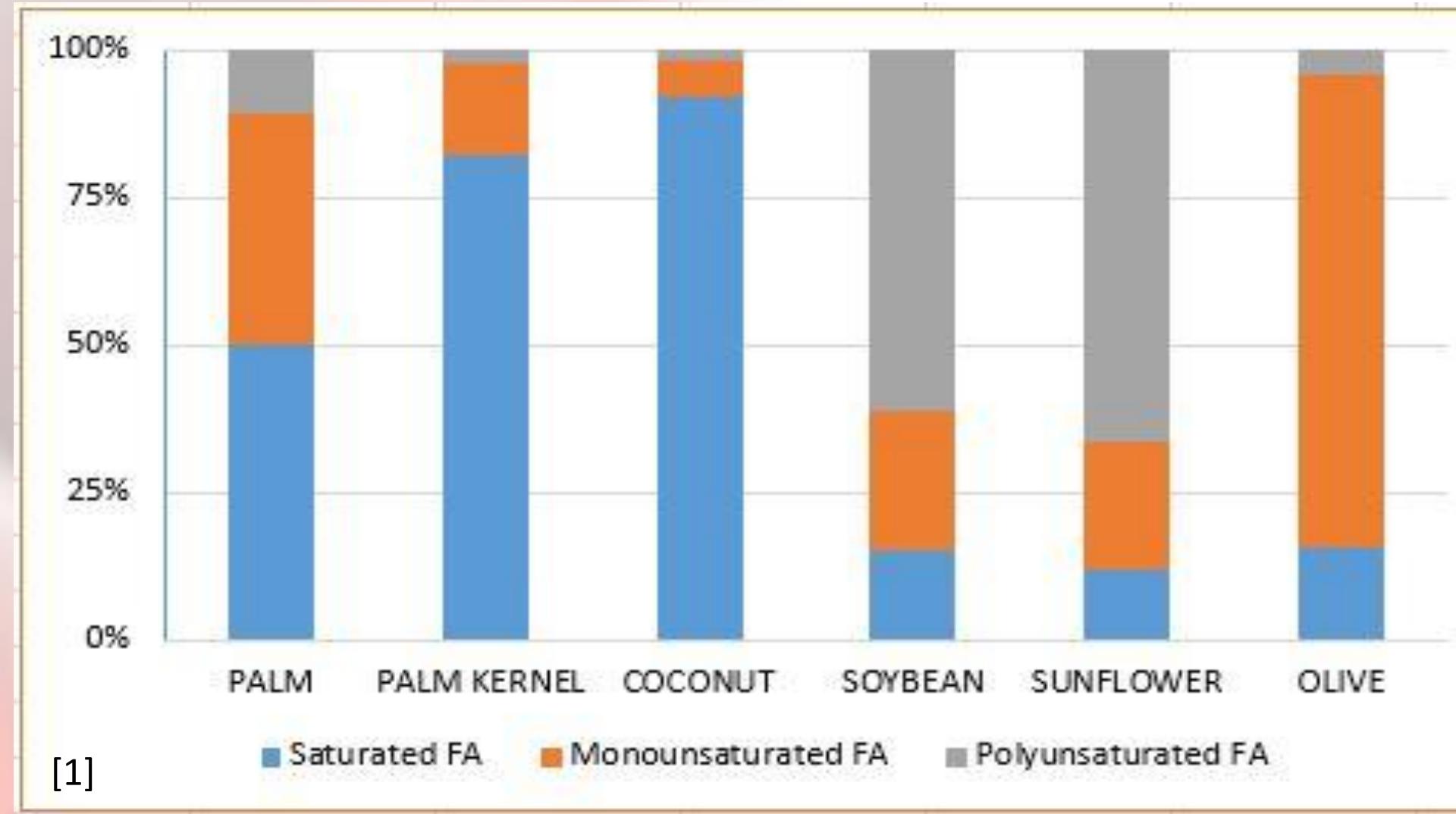
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## OBJECTIVES



To give a global view about palm oil:

- *Uses and applications*
- *Properties given to foods*
- *Problems*
- *Alternatives*



## PROBLEMS



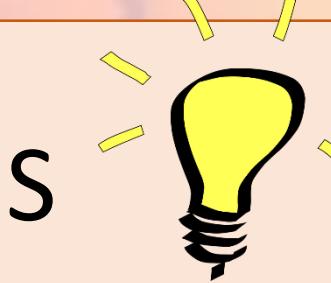
### Health:

- Compounds formed during refining
- % saturated fatty acids (palmitic)

### Environmental:

- RSPO certification

## CONCLUSIONS



- Increasing use of ecological palm oil
- Difficulties in replacing palm oil with other oils
- Decreasing harmful compounds as 3-MCPD and GE
- Balanced diet and moderate palm oil consumption



## USES



### Human nutrition:

- Margarines
- Cookies
- Industrial bakery (frying oil)
- Others

### Other applications:

- Animal nutrition
- Technical uses:
- Biodiesel
- Others

## POSSIBLE ALTERNATIVES



- Fully hydrogenated oils (FHO)
- Mix of FHO and lauric acid-rich oils (coconut, palm kernel)
- "Exotic" oils (shea, illipe, kokum, mango pit)
- Liquid oils (soybean, rapeseed, sunflower)

## SOURCES



- [1] Edited figure: % of fatty acids (FA). Edem, 2002. *Plant Foods for Human Nutrition*, 57: 319-341.
- [2] Edited figure: hectares to replace palm. Soler, 2018. Seminario Aceite de palma. AIQS, Barcelona.
- [3] EL PAÍS: <https://elpais.com/sociedad/2013/07/24/actualidad/1374673768403623.html>
- [4] EPOA (European Palm Oil Alliance): <https://www.palmoilandfood.eu>
- [5] CSPO (Certified Sustainable Palm oil): <http://www.aceitedepalma.org/cspo>