

Global BioFuels Specifications Overview



Prepared by

**Tim. Blegenhout
Product Engineering Specialist
Chevron Strategy, Technology and Commercial
Integration**

What drives specifications?



- Climate.
- Available feedstocks
- Politics (Geo, National and regional/provincial)
- Social
- Technology (Process, Vehicle and Lubricants)
- Economics (Geo, National and regional/provincial)
- Distribution chain

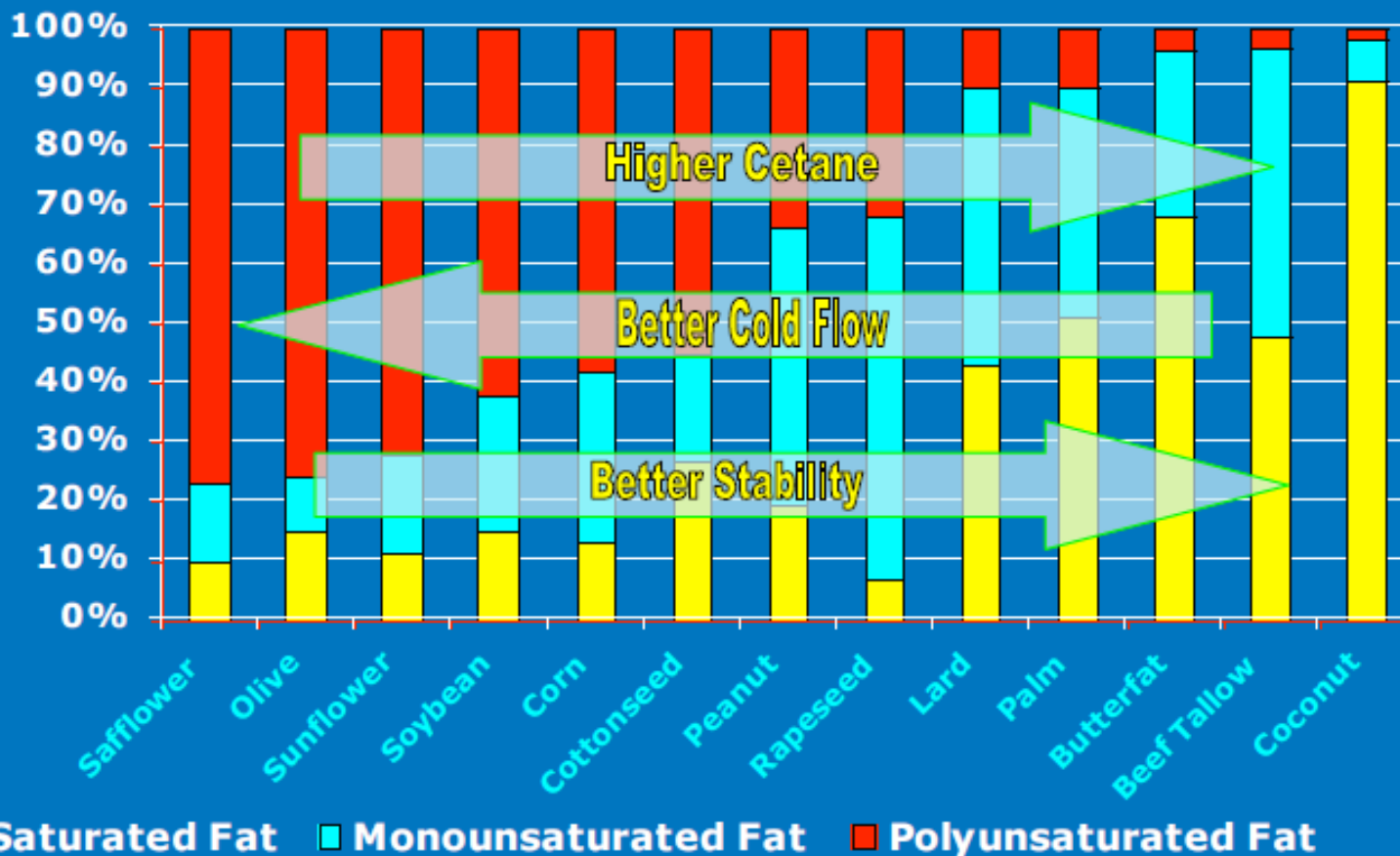
All fit together to drive a specification that is fit for purpose to ensure safety and reliability of machinery and minimise harms to the environment.

What are the feedstocks in current use?



- Rape Seed / Canola
- Soy bean oil
- Palm oil
- Coconut
- Sunflower
- Jatropha
- Animal fats / Tallow
- Used Cooking oil

Some performance differences



Biodiesel Feedstock Composition Impacts Performance

International BioDiesel Specifications Overview



[BioFuels workshop\fuel specs report.xlsx](#)

Where are the challenges?



- Higher cost
- Lower energy content
- Poor Cold flow properties
- High solvency effects
- Materials compatibility
- Low Oxidation Stability
- Increased NOx
- Political concerns
- Impact on Food pricing
- Glycerol content and type



Conclusion



- Bio Diesel specifications need to be carefully considered to mitigate the challenges
- Stakeholders need to be carefully considered in the specification setting process to ensure all challenges can be worked
- Alignment on Glycerol is a work in progress.
- Specification needs to cater for varying feedstocks.