JANUARY
2017

YOUR BROKER FOR
WASTE-BASED FEEDSTOCK AND BIODIESEL

Market Watch

Every month, **GREENEA** provides our clients and partners with reliable and up-to-date information about feedstock and biodiesel markets. All the information in our monthly Market Watch is based on the last traded prices.

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- Physical veg-oil
- UCO
- Animal fat cat 1 & 2
- Glycerine
- Physical biodiesel

DOUBLE COUNTING INDICATORS

DOUBLE COUNTING	PRICE TREND	DOUBLE COUNTING	PRICE TREND
UCO - EU		UCOME EU	
TALLOW CAT 1 & 2		TME EU	

VEG-OIL: 2017 MAY END THE STRONG BULLISH TREND

Palm oil prices increased sharply over 2016 and closed at $795 per MT on average in Rotterdam which represents a raise of nearly 26% year-on-year. This trend continued over the first three weeks of January when prices gained around 3.3% and reached $822 per MT on average in Rotterdam. Last week palm oil declined slightly due to a bearish soybean complex.

In the first 20 days of January 2017, CPO exports from Malaysia were up by 21% year-on-year showing a **strong demand from the biggest buyers like China and Europe.** Chinese buyers anticipated their purchases before Lunar New Year holidays. **Over 2016, CPO stockpiles in Malaysia decreased by 26%** on average to around 969 KT.

In Europe, the lack of vegetable oil remains significant despite production recovery. In the last week of January, Europe imported around 100 KT of crude palm oil to narrow this gap.

In 2017, improved palm crops and increased competition from soybean oil following good US crops should put palm oil prices under pressure. In order to maintain its market share among major Asian buyers such as China and India, palm oil will have to keep a sufficiently large price gap to soybean oil. There is also prediction that supply will surpass demand but the final effects of all these factors on the price of palm oil will be visible only in the second half of the year when the stocks in Malaysia and Indonesia are confirmed.

In 2016, soybean prices performed at their best since 2012 increasing 14% year-on-year. This trend is unlikely to repeat in 2017 since production is expected to grow significantly. The USDA announced a rise of 1.8 million acres compared to last year in the US where farmers expect better profitability of soy than corn. Production in Argentina is also predicted to recover from last year.

In the last days of January, the soybean complex from seed to oil fell sharply. Improving forecasted weather conditions in South-America contributed to the bearish trend on the market.

On CBOT market, soybean prices fell by around 2% on the 30th of January. The closure of Asian markets due to Lunar New Year festivities reduced the trade activity and contributed to the sluggish market.

Due to disappointing crops in Europe and a bullish oilseed complex driven mainly by palm and soybean oils, **rapeseed oil prices gained around 12% year-on-year.** The International Grain Council forecasts that the 2016/17 season should bring further decline in the world rapeseed / canola output. They expect the demand to surpass the supply by the highest margin in the last four years. According to the estimations of the USDA, the ending stocks should go down to 5,294 million MT which represents a decline of 21.4%.

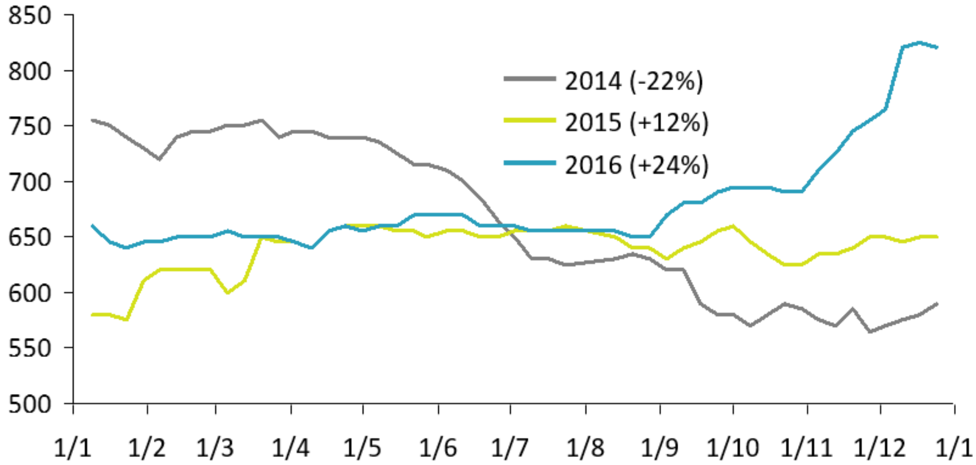
In January, rapeseed prices stabilized with a drop last week due to price decrease of the soybean complex. The price of rapeseed oil closed last week at the level of $915 per MT on average in Rotterdam.

Sunflower oil continues to be more and more attractive in Europe. Since mid January prices

CIF Rotterdam have been seen around $815 per MT. This is lower than palm oil and enables arbitrage between the two commodities for the first time since 2014.

UCO: 2017 BRINGS A PRICE STABILIZATION

2016 is the year of rebound for the used cooking oil market. During the first 9 months, the market remained relatively stable at the level of 650/660 euros per ton DDP NWE. We saw lack of volatility between March 2015 and September 2016 (average price between March - Dec 2015 = €648 // Jan / Sept 2016 = €655). However, only in September last year, the price of UCO went up by €30 per ton. **The price increase between end of August and end of December 2016 reached €170 per ton (+26%).** Will this upward trend continue in 2017 or will we see a price stabilization on the UCO market?



Price trend of the European UCO DDP NEW (euro)

The first weeks of 2017 already saw a sudden stop in the price increase of UCO in Europe due to a significant drop in the price of UCOME for February / March (-50 euros per ton). However, the decline on the UCO market was less harsh and prices went down only by around €15 per ton. However, we expect that the downwards trend should continue in the next weeks following the prices of biodiesel.

Importation is relatively safe due to the Euro going up which helps negotiations in USD. The prices in USD continue to rise while competition is becoming more and more fierce. Moreover, **there are still markets in Europe like Portugal where UCO is sold at outstandingly high prices** to the regret of the Spanish UCOME producers.

In 2014 and 2015 the spread between UCOME/UCO was on average at 207 euros per ton and went up to €232 in 2016. The spread starts the new year with a bearish trend.

During the last few months the tensions on the UCO market became stronger as the collectors are very firm with their prices while traders are becoming more and more aggressive in order to secure the supplies. This trend should be closely monitored over the next months to see if the margins of UCOME producers will be impacted and revised further downwards in 2017.

Shortage of UCO on the market will be one of the key issues to face this year. In order to compensate for the low supply of UCO on the European market biodiesel producers are turning to imports. However, the supply overseas is also not sufficient to cover both local and EU demand. In China, for example, the demand for UCO is growing rapidly with more and more UCOME and HVO producers appearing on the market. All the investments in Asia will have an impact on the volumes of UCO available for export to Europe.

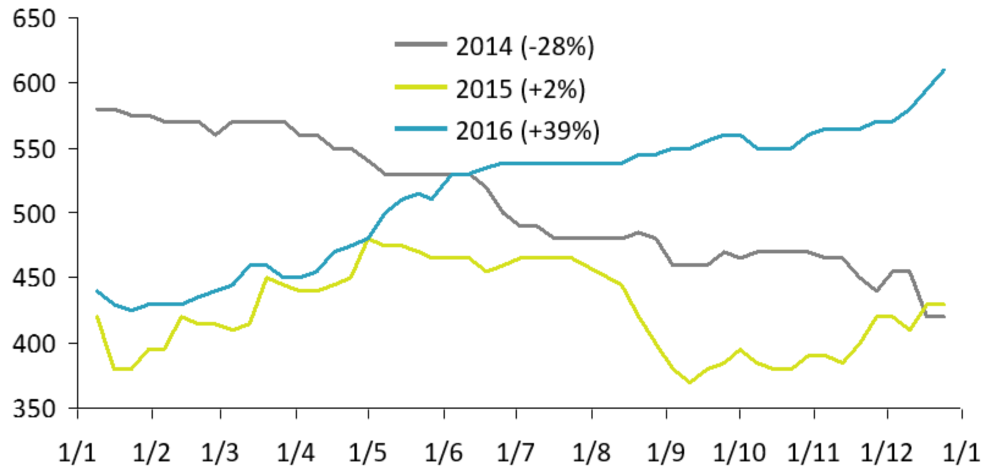
ANIMAL FAT: MARKET ON THE RISE

The animal fat market grew steadily in 2016 (+39% between January and December) after a relatively stable 2015 (annual average price of €425 per ton) and after a sharp decrease of -28% in 2014 (-160 euros per ton over the year).

The market for animal fat cat 1 sees very limited supply while the demand is increasing. In 2017, there will be a new production unit in England and in 2018 the expansion of the BDA plant is expected to be completed. All of the European TME plants are operating at full capacity. This, in turn, is expected to keep the pressure between supply and demand. As a result, the long-term price outlook for TME is positive in spite of a decline at the end of the year.

Despite the rising demand and favourable prices the European animal fat market is not open to international competition due to strict veterinary restrictions. This is a great loss for animal fat exporting countries such as Australia, Canada, New Zealand, etc.

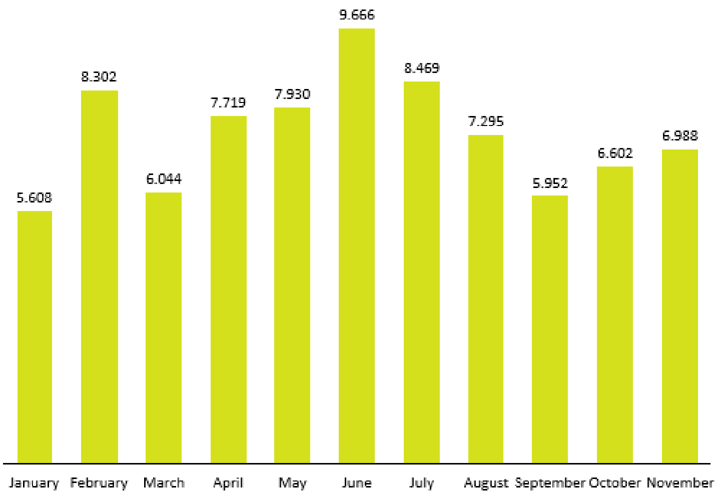
With Brexit happening in the next years, Canada is counting on a new trade agreement with the UK and opening up of the British market to animal fat imports



Price trend of the animal fat cat 1 DDP NEW (euro)

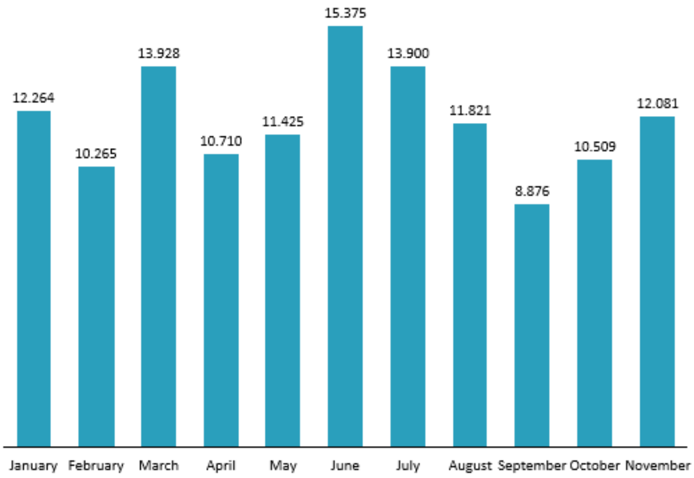
GLYCERINE: CONTINUOUS MARKET GROWTH

By 2022, global glycerol market is estimated to surpass 4 billion USD with CAGR at 6,6%. European consumption should exceed 1,190,000 MT by 2022 and the biggest source of glycerine there will remain biodiesel production. At the same time, the biggest outlet for glycerol is personal care and pharmaceuticals which took 38% of the output in 2015.



2016: Glycerine imports to India (in MT)

The **imports of glycerine to India went up by 35%** in the period between January and November 2016 as compared to the same months in 2015. The graph shows Indian imports by month in 2016.



2016: Glycerine imports to China (in MT)

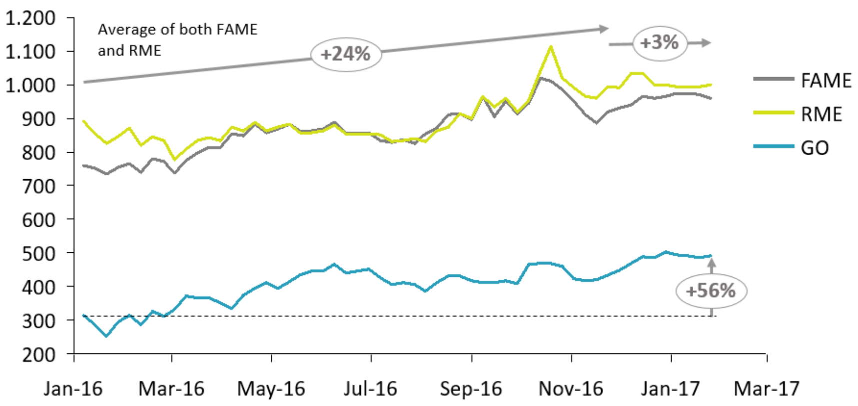
At the same time, **China decreased its glycerine imports by around 30%** in the first 11 months of 2016 as compared to the same period the year before. This has been attributed to a slowdown in demand from some branches of the oleochemicals industry.

The situation on the **glycerine market in Asia in 2017** will largely depend on the implementation and execution of biodiesel mandates in Malaysia, Indonesia and Thailand. Numerous biodiesel investments in China should bring additional glycerine supply to the market and further pressure the prices. However, in January, the biodiesel production in South-East Asia was low (due to temporary closure of some of the plants in China caused by pollution) which decreased the supply while the demand remained stable or increased. This gave **some support to the prices which were seen at the levels between 280 and 290 USD per ton FOB South-East Asia for crude 80%.** In the longer run, a stabilization of price is expected.

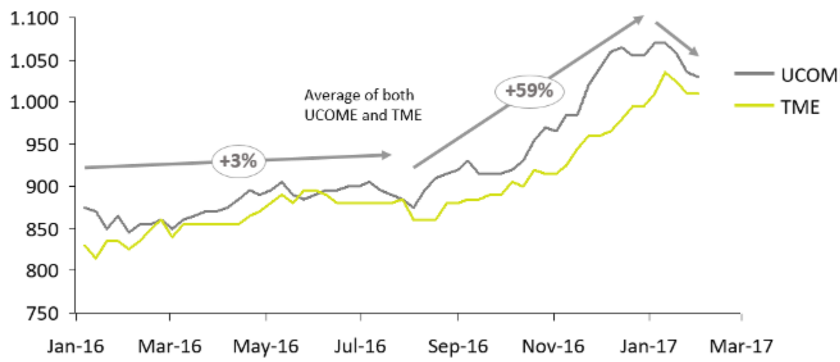
In Europe, at the end of January, the prices of crude glycerine veg-oil based 80% were around 220 euros per ton in NWE. Mixed feedstock glycerine was seen around 40 euros lower while UCO based product was seen between 150-170 euros per ton. Glycerine with 60% of glycerol was priced between 85-110 euros per ton in NWE.

BIODIESEL: QUIET START OF THE YEAR

In 2016, the biodiesel market experienced a continuous price increase during the year with a peak in August and prices shooting up in September following the trend of veg-oil prices. FAME 0°C prices went up by +8.6% between January and July and by 14% from August to December with an annual increase of +26.9% (+139USD/MT).



UCOME price trend FOB ARA (USD)



TME price trend FOB ARA (euro)

Low GO prices (below 500USD/MT during all the year) compared to high biodiesel rates and bullish veg-oil market supported the appetite for DC products. **UCOME and TME prices increased by around €200 over the year.** Nevertheless, the real challenge for waste-based producers among this bullish tendency was to secure their feedstock at reasonable prices. We can observe that waste-based feedstock producers are getting more and more information about the fluctuation of the UCOME market and become more reactive to price increases.

At the beginning of 2017, market experienced a slow-down in demand for biodiesel. The period of January and beginning of February is always pretty quiet as most of the buyers and traders already covered their short in December for the beginning of the year. The weak demand can be also explained by a historical low level of the Rhine reducing by 2/3 the traffic and the delivery of barges of biodiesel to the main refineries.

On the DC side, that can also be explained by the postponing of the increase of the UK mandate from 4.25% to 4.75% from April 2017 to Q4-2017 if not Q1-2018. **Prices of UCOME and TME dropped by around 50€/MT from the beginning of the year to 1030€/MT and 1010€/MT respectively.** This is putting pressure on the biodiesel producers' margins as price of feedstock tends to remain stable.

However, the global demand for 2017 should increase. We expect the demand to pick up again around the end of February. In Germany, biofuels are set to benefit from the country's 'climate protection rate' that will raise to 4% in 2017 from 3.5% in 2016, meaning oil companies will have more interest for waste-based and high GHG saving materials.

In terms of regulation, we will have to monitor whether Italy will decide to ban mass balance between palm oil and PFAD. The market would be short in DC material and bullish for TME and UCOME compliant with Italian legislation.

Then, we will have to follow how the discussion goes between producers' association and the EU commission concerning the new RED Directive after 2020 to see how the caps for each category (first generation, waste-based, advanced biofuel) will be set up. However, a lot of countries are still far from meeting the 2020 objectives.

In the US, the uncertainty of Trump government and its scepticism for climate change (freezing all policies from the Environmental Protection Agency) impacted significantly the prices of the RINs. In January, prices of D4 (Biomass Based Diesel RIN) and D6 (Renewable Fuel RINs) went down by 13% and 50% respectively.

ONCOMING EVENTS: FEBRUARY

2nd Biomass Trade & Power Europe Conference
13-14 February
Copenhagen, Denmark

Indonesia Renewable Power
27 February -1 March
Jakarta, Indonesia

3rd Biomass & BioEnergy Asia Conference
27 February -1 March
Jakarta, Indonesia

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