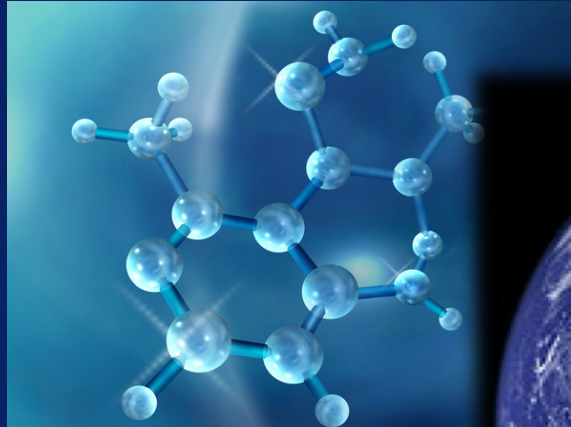


Brainfood for the Plastics Industry

Issue 22.21 – Oct 2022



Market Update

Plastics Feedstocks (Naphtha, Ethane, and Propane)

- Naphtha prices (CIF Japan) are lower by 2% over the past two weeks to a spot price of \$670/mt.
- Propane prices are down about 6% from our last report to 83cpg (cents per gallon) in Mont Belvieu, TX.
- Ethane prices decreased to a spot price of 37.25cpg from 42cpg two weeks ago.

Ethylene

- Ethylene prices in the Enterprise system in Mont Belvieu, TX are slightly lower at 19 cents per pound (cpp).

Propylene

- Physical PGP prices in Enterprise's system settled at 30cpp on Tuesday October 25th. While this is up from 29.25cpp two weeks ago, physical PGP prices dipped dramatically over that time frame.
- On Monday Oct 17th, physical PGP traded 23.75cpp, which was the October month to date low price.
- The current estimated monthly average for physical PGP in Mont Belvieu, TX is 28.3cpp.
- BlueClover's estimate for October contract PGP remains the same, a decrease of 10cpp resulting in an Oct contract price of 34cpp.
- Gross profit margins for Gulf Coast PDH units are up from 4cpp two weeks ago (a PnL loss for the assets) to a spot spread of 6.5cpp today.
- What we wrote two weeks ago: *"While physical pricing for PGP may slide into the mid 20s, BlueClover believes this is a good buying opportunity. Our reasons include: a strengthening global PP market after a massive correction, potential reduced capacity from the PGP supply side, and a strengthening crude oil market that has started to take hold these past two weeks."*
- BlueClover expects the rally in physical PGP to continue at a moderate pace in November. However, given that physical PGP prices have already rallied 33% in one week, a pullback in pricing is certainly possible. The PP market remains well supplied but we do not believe physical PGP will repeat its monthly low price of 23.75cpp.
- BlueClover is guessing that November contract PGP will come in around 36-38cpp (unchanged from estimate in the last Brainfood) and December contract PGP will come in around 40-42cpp (revised down 2 cpp from our last brainfood).

Polypropylene

- Polypropylene material remains well supplied. BlueClover believes significant amounts of PP production was exported in September to help alleviate the long market here domestically. We expect this trend to continue in October as pricing and demand in the international market has stabilized after falling for several consecutive months.
- Operating rates for PP producers have fallen below 80% signaling the important step of producers pulling back the supply of PP.

Crude Oil

At a current price of \$85.26/barrel, WTI crude oil prices are lower by about 5% from two weeks ago. WTI crude prices have been retreating since their early October highs of around \$91-\$92/barrel.

As anticipated in our last report, Brainfood 22.20, the Biden administration did go ahead and approve the release of another 15 million barrels of crude oil from the strategic petroleum reserve. The additional oil supply will be sold into the market in December and is meant to counterbalance the supply cuts announced by Saudi Arabia and their fellow OPEC members. Currently there is about 400 million barrels of oil in the strategic oil reserve, which is the lowest inventory level since 1984.

Certain groups are criticizing the Biden administration for playing politics with the oil reserve. The critics claim Biden is tapping the reserve too frequently in times where there is not a national emergency. These critics argue that Biden should be putting in place policies where oil companies are incentivized to drill for more oil (less redtape through leasing on gov't lands along with approving oil pipeline permits).

On a bullish note, in September China's crude oil imports reached 9.83 mil barrels/day which is the highest since May 2022. This is a result of China's crude oil refining sector returning from seasonal maintenance.

There remains great uncertainty both globally and domestically regarding the availability of refined products this winter. Europe will need to import significant amounts of heating oil from countries like China and India (in an ironic twist both countries will be buying their feedstock oil from Russia). The United States has a 26 days of supply level for heating oil. That is the smallest inventory amount this time of year in at least 30 years. (See trader toolbox on page 5 to see the impact on pricing).

The need for refined products is one major reason oil analysts are calling for oil to break north of \$100/barrel this winter.

BlueClover currently holds a constructive view on crude oil with greater upside pricing than downside.

Natural Gas

Natural gas prices are lower by about 20% from two weeks ago at \$5.17/mmbtu in Henry Hub, LA. Much of this is due to Europe stockpiling inventories and having milder weather so far this fall.

Feedstock “Spot” Prices:

<u>Product</u>	<u>Location</u>	<u>Price as of Oct 24</u>	<u>Price as of Oct 11</u>	<u>Unit</u>
Brent Crude	North Sea, Europe	93.81	94.56	USD/barrel
WTI Crude	Cushing, OK	85.26	89.49	USD/barrel
Natural Gas	Henry Hub, LA	5.17	6.49	USD/MMBtu
Naphtha	C&F Japan	670	688	USD/mt
Ethane	Mont Belvieu, TX	37.25	42	Cents/Gal
Propane	Mont Belvieu, TX	83.125	88	Cents/Gal
Ethylene (Enterprise system)	Mont Belvieu, TX	19.125	20.625	Cents/Lb
PG Propylene (Enterprise)	Mont Belvieu, TX	30	29.25	Cents/Lb

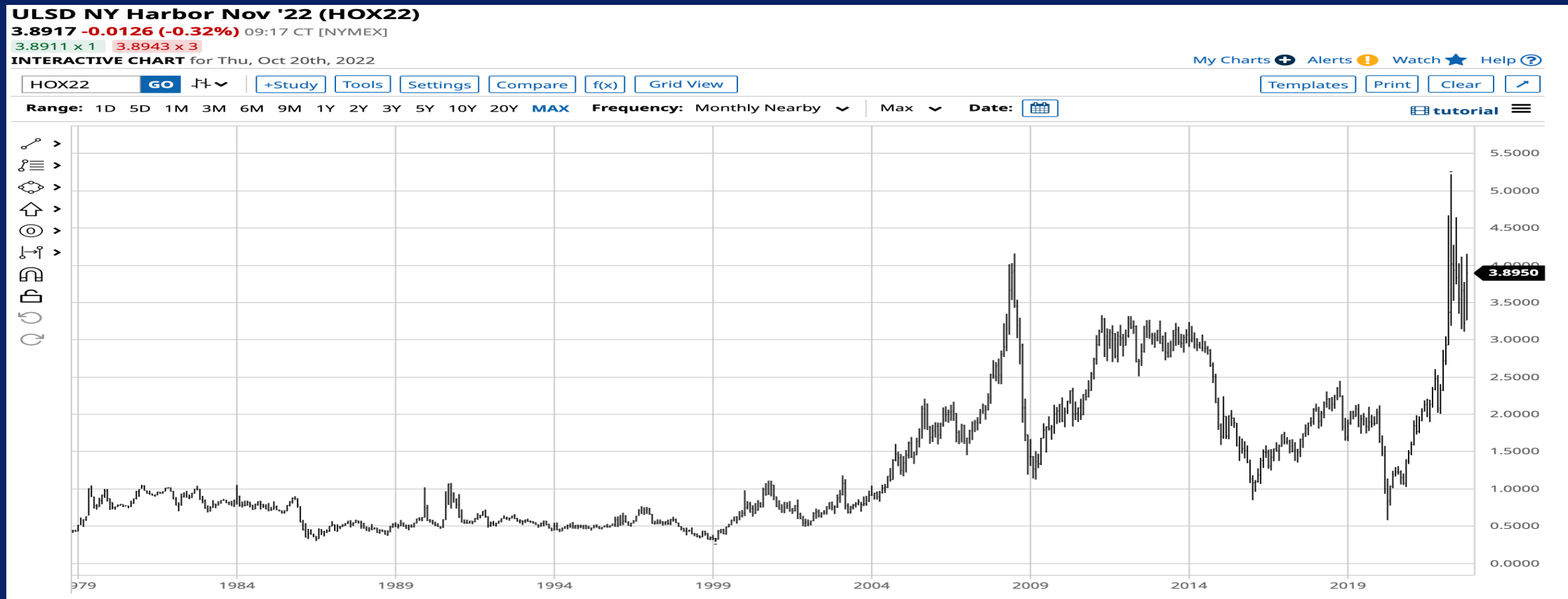
* Sources – CME, Bloomberg

Inventory

HERO GREEN™ (Post Consumer PP Repro)		
Grade	Description	Location
HG3GR1	3 melt HomoPP - Grey	Midwest
HG16GR1	16 melt HomoPP. Grey	Midwest
HG22GR1	22 melt HomoPP - Grey	Midwest
HG6GR1	6 melt HomoPP - Grey	Midwest
HG3GR3	3 melt CoPP 3.6 izod - Grey	Midwest
HG35GR3	35 melt CoPP 1.4 izod - Grey	Midwest



Trader Toolbox - The Cost of Heating Oil!



Heating Oil prices rose to a record high of \$5.22/gallon in April 2022, shortly after Russia invaded Ukraine. The previous high was \$4.16/gal in July 2008. Heating Oil prices have since pulled back to \$3.90/gal but remain near multi-decade highs.

Regions like New England, which rely on heating oil more than other parts of the country, have inventory levels that are less than 33% of what those regions normally hold at this time of year.

Given the need for refined products around the globe this winter, even though its more expensive than years past, it may be prudent to lock in your heating oil prices now for the winter to not get hit with any crazy price spikes.



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