

# BlueClover

All Things PP

Brainfood for the Plastics Industry

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# Market Update

## Plastics Feedstocks (Oil, Naphtha, Propane)

- All upstream polypropylene feedstocks are up big the past two weeks!!
- WTI crude oil prices shot up 8% the past two weeks after a 7% rally the previous two weeks. WTI Crude Oil currently sits at \$81.63/barrel, an increase of almost 16% from June 20<sup>th</sup>. Supplies in the USA and Europe for both crude oil and refined products such as fuel have fallen in both regions. Crude oil inventories in the primary storage hub in Oklahoma fell by 2.9 mil barrels the week ending July 14<sup>th</sup> and then decreased again by 2.6 mil barrels the following week. All of this while driving and air travel demand has held steady despite talks of a recession. Inventories of gasoline currently sit at lower levels than any of the previous five years. We have been wrong about crude oil breaking below \$70/barrel for any sustained period.
- Naphtha prices (CIF Japan) are up 16% the past two weeks to a spot price of \$655/mt.
- Propane prices are up 19% to 73.25 cents per gallon (cpg) in Mont Belvieu, TX. Propane prices are up almost 27% from June 20<sup>th</sup>.

## Propylene

- Physical PGP settled at 31.25cpp on Monday July 31<sup>st</sup>. This is a modest decrease from 33cpp in our last Brainfood report two weeks ago.
- BlueClover's estimate for July contract PGP at 35cpp was correct. This is two straight months of correct estimates for contract PGP. Either BlueClover is getting better at this or it helps that the PGP market has been trading between 32cpp and 35cpp for two straight months. We'll let you decide..haha. The physical PGP monthly average for July was 32.25cpp.
- BlueClover has held a bearish view of PGP for several reports. We expected prices to drop from 36cpp on our June 21<sup>st</sup> report and they fell to 33cpp by July 19<sup>th</sup>. In our last report from two weeks ago (the July 19<sup>th</sup> report) we estimated a further price drop from 33cpp and today its 31.25cpp. So directionally we have been correct but where we have been wrong is the price delta so far this summer. We have been expecting physical PGP prices to drop below 30cpp. Reasons included solid PDH operating rates along with PP producers not wanting to sell millions of pounds of PP at a loss to PGP feedstock economics. However, now all of the upstream energy products (crude, propane, and naphtha) are creating higher price floors for PGP.
- We still expect physical PGP to drop below 30cpp this summer, We expect it may temporarily reach 28-29cpp but not get into the mid 20s like we may have assumed in the past. For this reason we are revising our August contract PGP price estimate from 31cpp to 33cpp. We do think PGP prices increase after August and the PGP market will experience the lag effect from the upstream energy prices.
- In industry news and helping out from a PGP supply standpoint, Enterprise announced the start of service at its 2<sup>nd</sup> PDH plant called PDH 2 in Chambers County, TX. The plant can produce 1.65 bil lbs of PGP/year.

## Polypropylene

- The price spread between PGP and PP increased throughout the month of July. Compared to June 2023, most PP prices were up anywhere from 2cpp to 6cpp by the end of July while physical PGP prices fell slightly while contract PGP stayed the same.
- Homopolymer PP price increases were on the lower end of the range (2 to 3cpp) and Copolymer PP price increases were on the higher end of the range (3cpp to 6cpp). Currently all grades of both widespec and prime Copolymer PP are difficult to source.
- According to data from the American Chemistry Council,
  - PP inventories have moved lower for two consecutive months as a result of stronger demand and large volume exports of PP.
  - USA PP Demand in June was the strongest its been since Feb 2022 adjusted for number of days in a month.
  - Days of supply of inventory are down to a healthy 35 from a high of about 43 earlier this year.
  - All of these signs point to a tighter PP market compared to what we have been used to in the April through June months.

## Feedstock “Spot” Prices:

<u>Product</u>	<u>Location</u>	<u>Price as of Aug 1</u>	<u>Price as of July 18</u>	<u>Unit</u>
Brent Crude	North Sea, Europe	85.17	79.67	USD/barrel
WTI Crude	Cushing, OK	81.63	75.48	USD/barrel
Natural Gas	Henry Hub, LA	2.55	2.60	USD/MMBtu
Naphtha	C&F Japan	655	565	USD/mt
Ethane	Mont Belvieu, TX	31	38.75	Cents/Gal
Propane	Mont Belvieu, TX	73.25	61.625	Cents/Gal
Ethylene (Enterprise system)	Mont Belvieu, TX	16.25	16.75	Cents/Lb
PG Propylene (Enterprise)	Mont Belvieu, TX	31.25	33	Cents/Lb

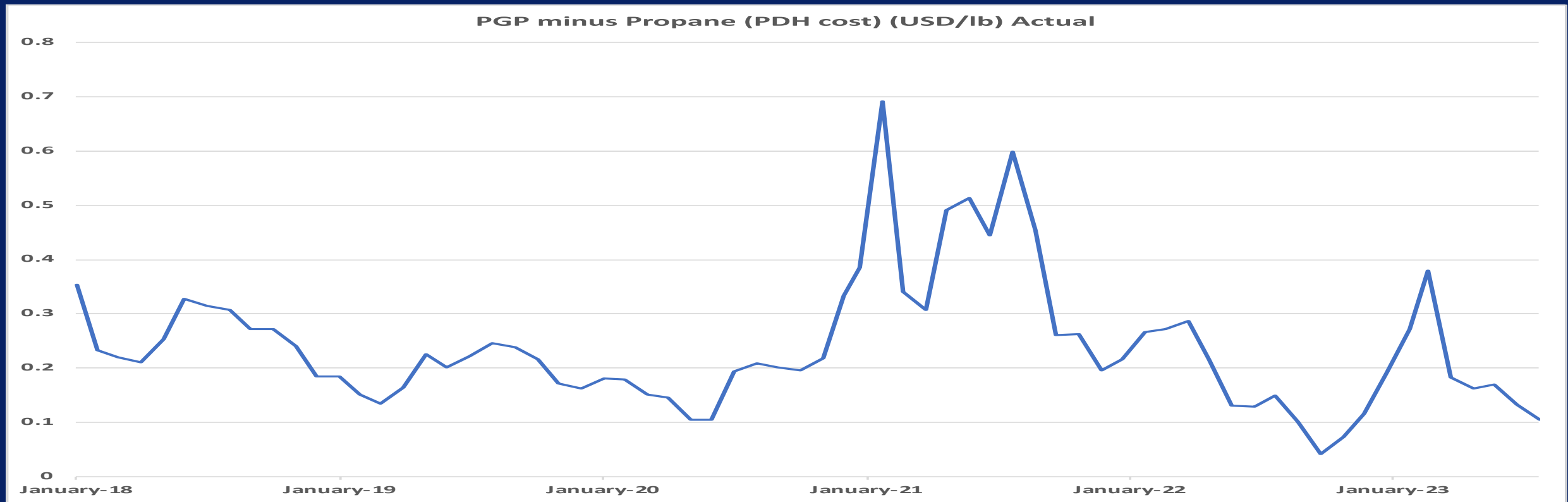
\* Sources – CME, Bloomberg

## Repro Inventory



HERO GREEN™ (Post Consumer PP Repro)		
Grade	Description	Location
<del>HG3GR1</del>	<del>3 melt HomoPP - Grey</del>	<del>Midwest</del>
HG16GR1	16 melt HomoPP - Grey	Midwest
<del>HG22GR1</del>	<del>22 melt HomoPP - Grey</del>	<del>Midwest</del>
HG3GR3	3 melt CoPP 3.4 izod - Grey	Midwest
HG8GR3	8 melt CoPP 1.5 izod - Black	Midwest
HG35GR3	35 melt CoPP 1.1 izod - Grey	Midwest
HERO GREEN™ (Post Consumer HDPE Repro)		
Grade	Description	Location
HG6GRPE	6 melt HDPE Grey - 0.94 - 0.954 density	Midwest

## Trader Toolbox - PDH Economics – Only below 10cpp for 2 months in last 5 years



The above graph is a 5 plus year chart of PGP (PetroChem Wire Monthly Average) minus Mt Belvieu Propane as a PDH feedstock cost. We have shown it in Brainfood before and it measures the gross profit (output minus feedstock costs without accounting for any fixed or variable costs to run the asset). As you can see this line started trending lower in the 2<sup>nd</sup> half of 2022 and had a pop in the 1<sup>st</sup> quarter of 2023 but has since retreated.

The current spread is 10cpp using spot propane price of 73 cents per gallon and spot PGP of 31.25cpp. In the past 10 years this monthly spread has averaged below 10cpp only twice, once in Oct 2022 and once in Nov 2022. In Oct 2022, the propane price was about 13 cents per gallon higher than today and the physical PGP price that month was about 28.5 cpp. So, there is recent precedent where propane prices may rally even more, and spot PGP can fall.



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