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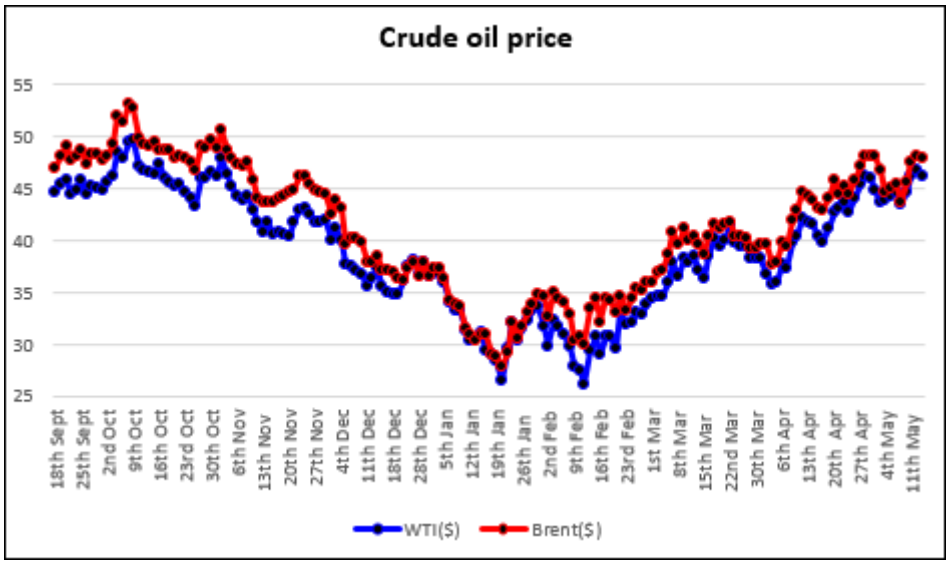
Some of the news items for this week are as follows:



1. The oil price this week has fluctuated between $44 and $47, and this has been due to a number of reasons.
2. Wild fires in Alberta have resulted in almost 40% reduced production from oil sands. Now that the fires are under control, efforts are underway to get back the production to the previous levels in about a week. Suncor Energy, Royal Dutch Shell and Husky Energy are the companies that had either shut down their plants or had reduced their production. There is very little damage to oil sands facilities. Some of the oil companies had evacuated their employees, and thus it could take a little longer than a week to get back to previous production. Over 2400 homes got destroyed and 88,000 people were evacuated. No deaths due to the fires were reported, but 2 people died due to road accidents during evacuation.
3. The US stockpiles are at a record high 543.4 mb as per the EIA, which is an increase of 750,000 barrels last week.
4. The US oil production has dropped, but OPEC production increased to 33 mb/d as a result of increased production levels from Iran and Iraq.
5. Shell Nigeria closed its oil exporting terminal following a renewed militant attack on its facility. Chevron closed their Escraves oil and gas facility in Nigeria last week after a bomb attack. As a result Nigeria's oil production has been reduced from 2.2 mb/d to 1.68 mb/d.

6. Saudi Aramco appointed Amin Nasser as its CEO, who said earlier this week that the country planned a significant growth in 2016. The company's previous CEO, Khalid Al-Falih has been appointed as the country's oil minister, who also said last week that he planned to keep Saudi oil policy unchanged.
7. The strong price of the US dollar, the currency in which oil is traded, firmed up, leading to a drop in the oil price Friday. This has been balanced somewhat by the declining US production, which has fallen by 4.7% from its January 2016 levels, as per the EIA.
8. The Russian oil minister, Alexander Novak said on Thursday that the global oil surplus stood at 1.5 mb/d, and this may not get balanced until the first half of 2017. In a similar vein the EIA has said that the global surplus may be less than the global surplus may be less than 1.5 mb/d due to the strong oil demand by India and some other emerging nations.

So much for the industry news this week.

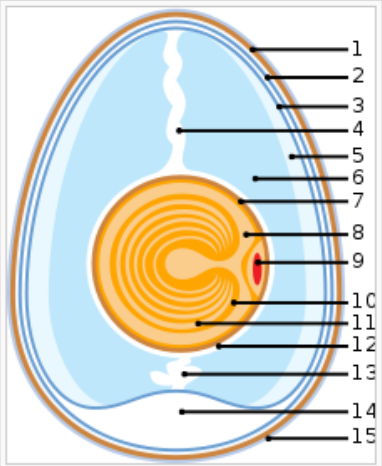
For the lighter side this week

I may have mentioned before somewhere in my posts that we have a professional chef in our office, who serves fresh hot breakfast and lunch every working day for the employees, and it is all on-the-house. You could say it is a good perk. At times I notice when the chef serves hard boiled eggs, some of them are cracked. On peeling and cutting through the egg, sometimes I also see a dark green colour around the yolk. This morning sitting at home at our breakfast table, our daughter happened to mention in some context that if salt is added to the water in which eggs are boiled, they don't crack. And then I have also heard that if a hole is made in the round side of the egg with a thumb tack, it prevents the egg from cracking. So, today somehow I decided to find the answers to all these questions. Here is what I was able to gather.

First let us understand the structure of the egg. The following picture illustrates it well.

Fresh eggs (a day or two old) have the membrane sticking tightly to the shell, making peeling a fresh boiled egg difficult. A fresh egg also has some carbon dioxide present inside the albumen, which gives it a kind of cloudy appearance, if held against a light bulb. The egg shell is porous and with time starts absorbing air and diluting the carbon dioxide.

As the egg gets older, it loses moisture through the porous shell, and the air space between the membrane and the egg shell gets bigger. Consequently, a fresh egg sinks in water, and an older egg floats. An egg that stands on one end is useable or edible. Also, as the egg gets older the egg white becomes thinner.



Schematic of a chicken egg:
1. Eggshell
2. Outer membrane
3. Inner membrane
4. Chalaza
5. Exterior albumen
6. Middle albumen
7. Vitelline membrane
8. Nucleus of pander
9. Germinal disc (nucleus)
10. Yellow yolk
11. White yolk
12. Internal albumen
13. Chalaza
14. Air cell
15. Cuticula

(https://en.wikipedia.org/wiki/Egg_(food))

Inside the round part of the egg there is a small air bubble. As the egg is heated, the air expands and forces its way through it by putting pressure on the egg shell and thus cracking it. If a small hole is made in the egg with a thumb tack it serves as a vent for the expanding air and so prevents cracking.

Adding a teaspoon of vinegar or ½ teaspoon of salt to the water helps with peeling of the eggs. Even if the eggs crack, the egg white coagulates quickly with vinegar/salt and prevents the white from flowing into the water. Usually, if the eggs are boiled for 10-12 minutes and left in the hot water for another 5 minutes or more according to the type you like, the eggs are not overcooked.

Addition of salt to the water creates a higher salt concentration in it and due to this the moisture inside the egg tends to flow through the shell to the salt water. Remember, the process of osmosis? As this moisture inside the egg does not change into steam, (which in the absence of salt would), the cracking is prevented. For eggs taken out of the refrigerator, a good practice to prevent them from cracking is to submerge them in warm water for 5 minutes before they are heated. This helps cracking with the extremes of temperature.

When hard boiling eggs, if they are boiled for long, or you overcook them that leads to the dark green colour around the yolk. The Sulphur present in the amino acids in egg white, reacts with the iron in the yolk and forms a film of ferrous sulphide on the yolk's surface. As the egg is heated for a longer time, this reaction is speeded up and thus hard boiled eggs heated for longer times will display this darkish film on the yolk. This also explains why rotten eggs smell of hydrogen sulphide (H_2S) as ferrous sulphide reacts with the acidic components to produce the gas.

Did you know?

.. that if you try and suppress your sneeze, you can rupture your blood vessel in your head or neck and it could be dangerous? Never try and play against the natural process. For example, if you try and keep your eyes open forcefully when you sneeze, your eye ball can pop out. Similarly, if you sneeze too hard, you can fracture your rib. So, take it easy while sneezing!

I hope you find these interesting.

So much for this week! Till the next post, stay safe and happy!