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Argus North American Fertilizer

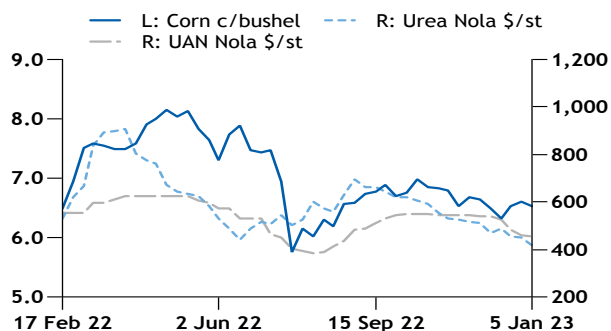
Formerly Argus FMB North American Fertilizer

Issue 23-1 | Thursday 5 January 2023

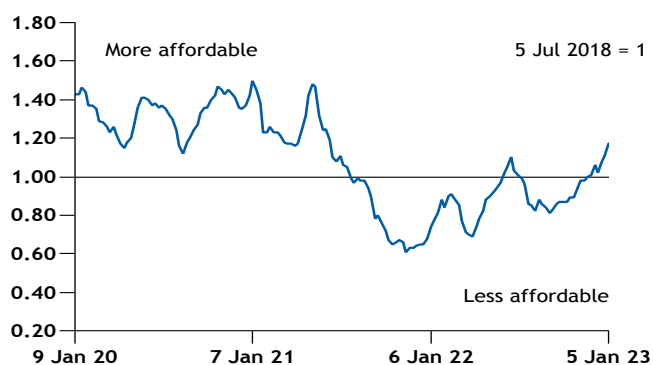
HIGHLIGHTS THIS WEEK

- Nearby urea barges trade lower
- Urea depreciation maintains pressure on UAN
- Tampa ammonia settles lower for January
- MOP values slip, market awaits additional winter fill
- Thin DAP trade continues, MAP buyers remain absent

Corn vs nitrogen



US NPK affordability index



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MARKET SNAPSHOTS

Fertilizers	5 Jan	Prior week	±
Urea (g) fob Nola	416.0-420.0	445.0-455.0	-32.0 ▼
Urea (g) North Plains truck del	525-540	605-615	-78 ▼
UAN 32pc fob Nola	450-455	455-460	-5 ▼
Ammonia Tampa cfr \$/t	975-975	1030-1030	-55 ▼
DAP fob Nola	620.0-620.0	600.0-625.0	+8 ▲
MAP fob Nola	600-605	600-620	-8 ▼
MOP (g) fob Nola	445.0-450.0	447.0-480.0	-16 ▼

Spot freight from Nola	5 Jan	Prior week	±
St Louis	33.00	33.00	nc ◀ ▶
Inola	39.00	39.00	nc ◀ ▶
Cincinnati	45.75	45.75	nc ◀ ▶
St Paul	50.50	50.50	nc ◀ ▶

Crop fundamentals, Cbot	Prompt month	±	New crop	±
Corn	6.53	-0.01	5.91	-0.04
Wheat	7.47	+0.01	7.79	-0.01
Soybean	14.67	-0.12	13.83	-0.08

Related markets	5 Jan	Prior week	±
WTI month \$/bbl	77.51	76.21	+1.30 ▲
Henry Hub \$/mmBtu	4.191	6.193	-2.002 ▼
Copper \$/lb	3.800	3.78	+0.02 ▲
Ethanol Chicago ¢/USG	230.70	217.62	+13.08 ▲
Ethanol Cbot crush spread \$/bushel	-0.65	-0.50	-0.15 ▼

Global fertilizer freight				
Loading	Destination	Tonnage <i>'000 t</i>	Low	High
Urea				
Mideast Gulf	US Gulf	40-45	33.00	35.00
Algeria	US Gulf	30	22.00	24.00
Phosphate				
Tampa	Brazil	25-35	29.00	31.00
Potash				
Baltic Sea	US Nola	50-55	24.00	42.00

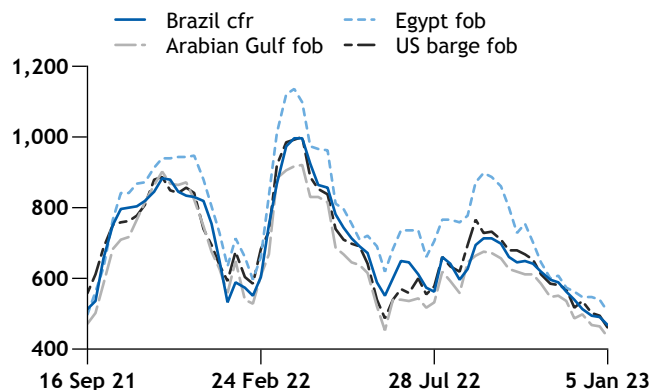


View the methodology used to assess fertilizer prices at www.argusmedia.com/methodology.
Your feedback is always welcome at fertilizer@argusmedia.com.

North American price list											
	5 Jan	Prior week	±	Year ago			5 Jan	Prior week	±	Year ago	
Urea (g) \$/st						DAP \$/st, unless noted					
Nola* barge fob	416.0-420.0	445.0-455.0	-32.0	▼	615-725	Nola barge fob	620.0-620.0	600.0-625.0	7.50	▲	720.0-730.0
Nola barge prompt fob	416.0-420.0	445.0-455.0	-32.0	▼	615-725	Nola fob t export eq	698-698	676-704	+8	▲	809-820
Nola barge VWA	418.00	450.00	-32.00	▼	674.14	Tampa fob t (ex-ports)	670-670	670-670	nc	◀ ▶	810-810
Nola barge weighted average Dec	418.00	450.00	-32.00	▼	674	Nola barge import eq (ex-Mor)	656-724	657-725	-1	▼	850-872
Nola barge weighted average Jan	418.00	457.50	-39.50	▼	674	Central Florida rail	650.0-650.0	630.0-650.0	10.00	▲	785.0-785.0
Nola cfr t import eq	453-457	485-496	-36	▼	672-794	Inola/Catoosa fot	670.0-680.0	685.0-685.0	-10.00	▼	755.0-775.0
Northern Plains rail del	515-530	560-565	-40	▼	750-760	St Louis fot	670.0-680.0	670.0-680.0	0.00	◀ ▶	750.0-775.0
Northern Plains truck del	525-540	605-615	-78	▼	750-760	Cincinnati/Jeffersonville fot	665.0-680.0	710.0-725.0	-45.00	▼	770.0-780.0
Inola/Catoosa fot	505-530	530-540	-18	▼	725-750	Twin Cities fot	680.0-695.0	685.0-685.0	2.50	▲	775.0-780.0
St Louis fot	500-520	520-525	-12	▼	705-740	MAP \$/st, unless noted					
Cincinnati/Jeffersonville fot	505-530	530-540	-18	▼	695-750	Nola barge fob	600.0-605.0	600.0-620.0	-7.50	▼	750.0-760.0
Twin Cities fot	530-540	530-540	nc	◀ ▶	725-800	Nola fob t export eq	676-682	676-698	-8	▼	842-853
Corn Belt producer fot	500-510	520-530	-20	▼	850-850	Nola barge import eq (ex-Russ)	576-580	560-569	+14	▲	778-783
Southern Plains producer fot	530-540	530-540	nc	◀ ▶	725-750	Inola/Catoosa fot	660.0-680.0	680.0-685.0	-12.50	▼	795.0-795.0
Urea (p) \$/st						St Louis fot	660.0-680.0	675.0-685.0	-10.00	▼	790.0-795.0
Nola barge fob, dry	655-660	660-675	-10	▼	780-785	Cincinnati/Jeffersonville fot	675.0-680.0	680.0-710.0	-17.50	▼	800.0-805.0
UAN \$/st 32%, unless noted						Twin Cities fot	680.0-690.0	675.0-685.0	5.00	▲	810.0-815.0
Nola barge fob	450-455	455-460	-5	▼	545-560	Potash-MOP (g) \$/st, unless noted					
Nola cfr t import eq	489-495	495-500	-6	▼	594-610	Nola barge fob	445.0-450.0	447.0-480.0	-16.00	▼	680.0-685.0
St Louis fot	480-490	480-490	nc	◀ ▶	575-590	Corn Belt fot	500-545	525-550	-15	▼	710-725
St Louis \$/unit N	15.00-15.31	15.00-15.31	nc	◀ ▶	17.97-18.44	Vancouver fob t std (exports)	457-541	451-589	-21	▼	522-730
Cincinnati/Jeffersonville fot	480-500	480-500	nc	◀ ▶	575-605	Potash-SOP (g) \$/st					
Cincinnati/Jeffersonville \$/unit N	15.00-15.63	15.00-15.63	nc	◀ ▶	17.97-18.91	West coast fca	1000-1000	1000-1000	nc	◀ ▶	840-840
Dubuque/Winona fot	495-510	495-510	nc	◀ ▶	615-615	Pacific Northwest del	1050-1050	1050-1050	nc	◀ ▶	760-760
Dubuque/Winona \$/unit N	15.47-15.94	15.47-15.94	nc	◀ ▶	19.22-19.22	Sulfur (formed) \$/t					
Illinois river fot	495-510	495-510	0	◀ ▶	580-595	Vancouver fob	148-150	156-162	-10	▼	270-289
Illinois river \$/unit N	15.47-15.94	15.47-15.94	nc	◀ ▶	18.13-18.59	Sulfuric acid \$/t					
East coast cfr t	606-639	606-639	0	◀ ▶	625-625	US cfr vessel import	100-110	100-110	nc	◀ ▶	245-255
East coast terminal fot	550-580	550-580	0	◀ ▶	585-620						
Ammonium nitrate (p) \$/st							4Q'22	Prior quarter	±	Year ago	
Nola barge fob	580-600	580-600	nc	◀ ▶	685-700	Sulfur (molten) \$/lt					
Nola cfr t import eq	632-654	632-654	nc	◀ ▶	748-765	Tampa del qtrly, 05 Jan	90	352	-262	▼	183
Mid South fot	600-620	600-620	nc	◀ ▶	675-700						
Ammonium sulfate (g) \$/st											
Nola barge fob	350-355	365-390	-25	▼	575-580						
Houston/Pasadena fot	375-420	375-420	nc	◀ ▶	450-500						
Corn Belt fot	395-410	415-455	-32	▼	600-640						
Twin Cities fot	450-460	450-460	nc	◀ ▶	610-615						
Ammonia \$/st, unless noted											
Tampa cfr t contract	975-975	1030-1030	-55	▼	1115-1115						
Caribbean fob (Tampa netback) t	935-935	990-990	-55	▼	1078-1078						
Nola barge fob	875-885	920-935	-48	▼	1235-1245						
Ammonia production cost	164.25	277.77		▼	169.53						
US Gulf cfr t	975-980	985-1030	-30	▼	1100-1120						
Oklahoma ex-works	875-950	875-950	nc	◀ ▶	1225-1275						
E Corn Belt fot	1050-1050	1050-1050	nc	◀ ▶	1375-1400						
W Corn Belt fot	925-950	925-950	nc	◀ ▶	1350-1350						
g = granular, p = prilled						Argus NPK Affordability Index					
t = metric tonne							5 Jan			22 Dec	
st = short ton						NPK Affordability index, points	1.17			1.11	
std = standard						Argus NPK Affordability Index is a composite based on Argus assessments of nitrogen, potash and phosphates against corn, soybean and wheat prices from the CME. The index is calculated such that 5 July 2018 = 1.					
* = short for New Orleans											
fob = free on board											
fot = free on truck											
lt = long ton; eq = equivalent											

NITROGEN HIGHLIGHTS

- Urea for January delivery trades lower
- March urea barges change hands from \$425-455/st fob Nola
- Inland urea values fall on reduced late-week offers, indications
- UAN indications slip amid large premium to urea, urea barge depreciation
- Amsul values slide on thin trade at the US Gulf coast
- India's IPL to close 600,000t urea tender on 23 January
- Brazilian urea falls to \$460-475/t cfr

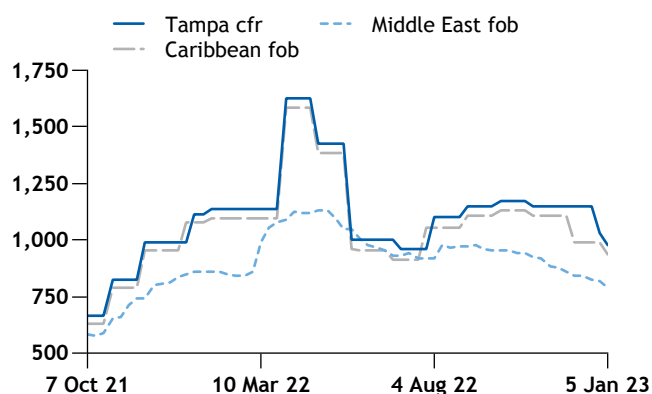


Outlook: Stable

Slim market engagement and weakened sentiment are weighing on nearby values, but rising demand as the spring application season draws near should support values at the US Gulf coast.

AMMONIA HIGHLIGHTS

- Softness expected for first quarter as global prices fall
- January Tampa settlement falls by \$55/t
- Prompt delivery pricing in Corn Belt unchanged
- Buyers reluctant to commit to second quarter tonnage
- Nola barges fall to \$875-885/st fob
- Weakening global ammonia markets could pressure US pricing further
- Suppliers maintain offers for prepaid ammonia tons

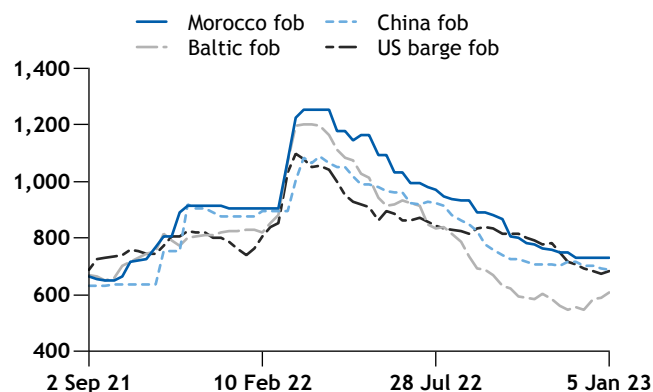


Outlook: Weak

Falling European natural gas prices are expected to reduce export opportunities for US producers and pressure ammonia pricing into the spring, increasing hesitancy among buyers in the Corn Belt.

PHOSPHATE HIGHLIGHTS

- DAP premium to MAP at Nola widens on trade
- January DAP trades at \$620/st fob Nola
- MAP offers heard at \$605/st fob Nola
- Trading remains muted, but sellers still expect an uptick in demand this quarter
- Suppliers wary of logistics complications this spring as barge transit delays continue
- Warehouse prices fall across most regions, with Cincinnati/Jefferson values dropping the most
- Brazilian MAP climbs to \$645-650/t cfr from \$640-650/t

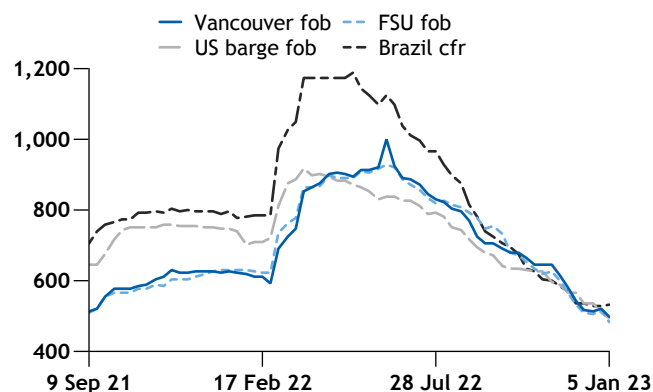


Outlook: Stable

Nearby demand remains limited, but a projected rise in demand closer to the spring could support values after tight inventory management in the fall vastly reduced phosphate carryover among buyers.

POTASH HIGHLIGHTS

- Nola barge prices continue to trend lower amid muted buyer interest
- Range dips to \$445-450/st fob Nola from \$447-480/st on offers
- Some buyers likely staying out of the market in anticipation of Nutrien's winter fill program
- Warehouse values dip to \$500-545/st for Corn Belt from \$525-550/st on limited demand, lower offers
- Brazilian MOP ticks up to \$525-540/t cfr from \$520-540/t



Outlook: Weak

Potash demand remains weak despite some suppliers slashing prices in seek of liquidity. But a recovery in demand is still anticipated ahead of the spring application season.

NITROGEN

Urea (g)

Nola urea values fell for nearby delivery on thin trade surrounding the holidays, while most deals this week concentrated for March.

Barges for delivery in January transacted at \$420/st fob Nola mid-week to frame the high end of the week's \$416-420/st range, while an end-week deal for the same period supported the low end. Six barges for delivery in March sold from \$425-455/st fob Nola.

An additional March barge changed hands at \$440/st fob Nola after the close of the assessment window, alongside a sole February sale at \$425/st fob.

But recent holidays limited activity at the US Gulf coast, while lower energy costs weighed on market sentiment despite significant import needs remaining ahead of the upcoming spring application period. Market sources remain torn on whether a substantial price rally is needed to attract the necessary shipments, with Brazilian prices this week falling to about \$467.50/t cfr.

Inland values for the most part tracked the downward trend at Nola and declined through the week on lower offers, drifting into the low-\$500s/st fob at most locations.

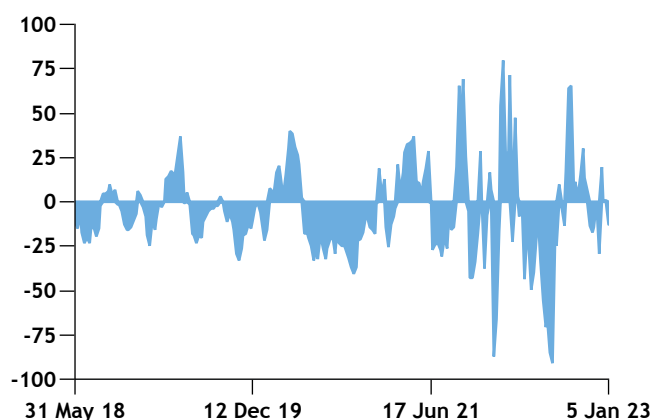
Warehouse tons were offered as low as \$505/st fob Inola/Catoosa and Cincinnati/Jeffersonville, and down to \$500/st fob from St Louis and across the Corn Belt.

International urea highlights

- India's department of fertilizer plans to call the next spot purchase tender in late-January for shipments in February 2023. Indian Potash (IPL) will also on 23 January close a tender for the supply of 600,000t of urea between March 2023 and February 2024.
- Indonesia's urea exports totaled 92,500t in November 2022, down by 47pc from the previous year.
- Brazilian urea values fell to \$460-475/t cfr this week.

Urea premium for US Gulf over Brazil

\$/t cfr



Urea barge business				\$/st
Price	Volume	Loading	Product	VWA
416	1	Jan	non-Chinese/non-Russian	yes
420	1	Jan	non-Chinese/non-Russian	yes
425	1	Mar	non-Chinese/non-Russian	
430	1	Mar	non-Chinese/non-Russian	
435	1	Mar	non-Chinese/non-Russian	
438	1	Mar	non-Chinese/non-Russian	
438	1	Mar	non-Chinese/non-Russian	
455	1	Mar	non-Chinese/non-Russian	

Estimated incoming urea vessels				
Month	Origin	trader	'000t	Comments
Jul			160	actual
Aug			130	actual
Sep			229	Actual
Oct			197	Actual
Nov	Oman		50	Nola
	Qatar		50	Texas
	Saudi Arabia		66	Nola
	Bahrain		36	Nola
	Baltic		13	East coast
	Algeria		22	Nola
	Oman		45	Nola
	Qatar		50	Nola
	Algeria		28	Texas
Dec	Trinidad		10	Norfolk
	Baltic		34	Nola
	Oman		45	Nola
	Baltic		3	Norfolk
Jan	Bahrain		40	Nola
Jul-Dec '23			1168	
Jul-Dec,			1698	
change			-530	
% change			-31	

UAN

Thin demand and lower urea values at the US Gulf coast continued to pressure Nola UAN values, although prices remain broadly untested.

No barge sales were confirmed this week, but industry participants agreed that an interested buyer would have likely been successful with a sub-\$455/st fob Nola bid, informing this week's \$450-455/st fob range.

UAN's atypically wide premium to urea on a nitrogen basis continues to weigh on market sentiment, with buyers uncertain whether correction to the spread will come from higher urea values closer to spring or further depreciation on UAN and other nitrogen products. Argus estimates UAN barge values this week represented a nearly \$0.25/lb nitrogen premium to Nola urea prices, about \$0.05/lb wider than the same time last year and a sharp reversal from discounts in January 2020 and 2021.

Deliveries of pre-sold tons comprised most barge activity this week, sources said, while new spot sales were focused

Ammonium sulfate Import Lineup						
Month	Origin	Grade	000t	Destination	Vessel	Comments
Jul			28			actual
Sep	Belgium	granular	30	US Gulf coast		
Dec/Jan	Belgium	granular	30	US Gulf coast		

inland. Tons for delivery in the first quarter sold from \$490-500/st fot Cincinnati/Jeffersonville, with indications in the region as low as \$480/st fot, on par with recent values.

Prices on the east coast were flat from \$606-639/t cfr basis regional warehouse values, which ranged from \$550-580/st fot depending on location.

Ammonium nitrate (p)

Ammonium Nitrate values remained steady heading into 2023.

Barge prices ranged from \$580-600/st fob Nola and from \$600-620/st fot in the Mid-South on market indications, and no trades were confirmed this week. Weak demand is persisting as buyers are said to be delaying purchases in anticipation of lower prices.

Ammonium sulfate (g)

Ammonium sulfate values were stable-to-lower this week as thin demand persisted through the holiday season.

Nola amsul values dropped to \$350-355/st fob, from \$365-390/st fob before the holidays, on lower trade and indications. Prices in the Corn Belt followed suit with a decline to \$395-410/st fot, from \$415-455/st fot two weeks ago.

Suppliers this week continued to cite price pressure from lower urea values, which have exacerbated seasonally low amsul demand. Sellers expect an uptick in demand later this quarter as downstream buyers prepare for the upcoming spring application season.

AMMONIA

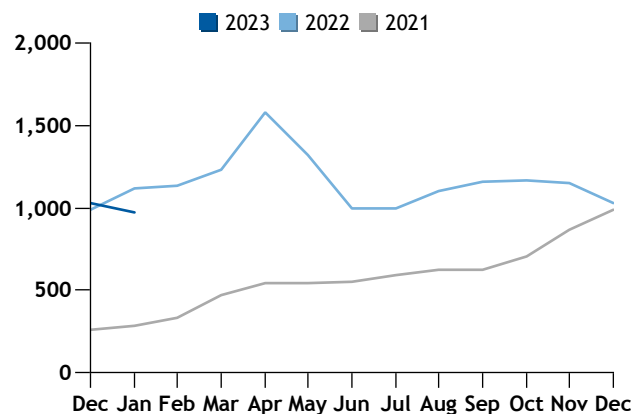
The US ammonia market softened this week as downstream demand waned into the winter offseason and the January Tampa settlement fell below \$1,000/t cfr for the first time since July 2022.

Reflecting overall softness in global ammonia markets, the January Tampa settlement dropped by \$55/t from the previous month to \$975/t cfr this week -- the lowest since July 2022. Nola barge values also fell, ranging from \$875-885/st fob as upriver demand remains thin while buyers expect further depreciation in the first quarter.

Spot ammonia pricing across the Corn Belt was un-

Ammonia Tampa cfr price history

\$/t



changed from the previous assessment at \$1,050/st fot in the east Corn Belt, while offers for prompt delivery ranged from \$925-950/st fot in the western part of the region. Spot purchases, though, have been sparse as global ammonia markets continue to soften, increasing reluctance among end-users as spot price ideas for the spring decline.

But market sources also said suppliers so far have resisted lowering ammonia offers for second quarter delivery, despite lackluster interest from buyers as some market participants expect further softening into the first quarter.

Market sources speculated that import pricing will decline further, reducing opportunities for US Gulf coast-based exporters, if European gas prices begin to stabilize and producers increase ammonia output on the continent. This possibility could ultimately pressure US ammonia values as the spring nears.

Elsewhere, offers for prompt shipment from suppliers in Oklahoma were stable from the last assessment, ranging from \$875-950/st ex-works as spot demand fizzled and sales slowed from the initial weeks of discounted pricing.

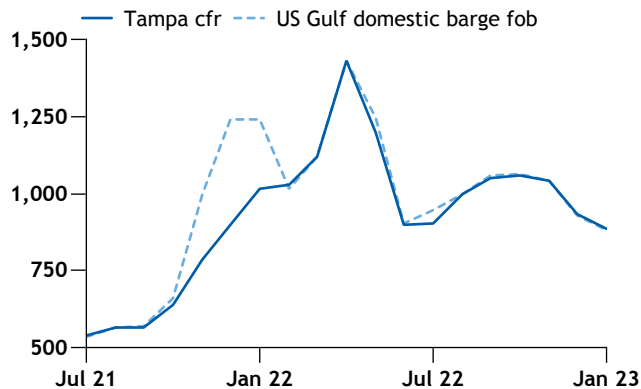
International ammonia highlights

- Norwegian fertilizer producer Yara plans to modify its ammonia terminals in Brunsbüttel and Rostock, Germany, to expand import capacity to 3mn t/yr.
- Falling European natural gas prices continue to put downward pressure on northwest European ammonia values, which have fallen to \$1,000/t cfr duty paid/free.
- The start-up of the Indonesian ammonia plant Kaltim-5

could provide at least 40,000-50,000t of spot ammonia to sell in the first quarter while government-led urea export restrictions could prompt producers to export surplus ammonia.

Tampa vs Nola ammonia

\$/st



PHOSPHATE

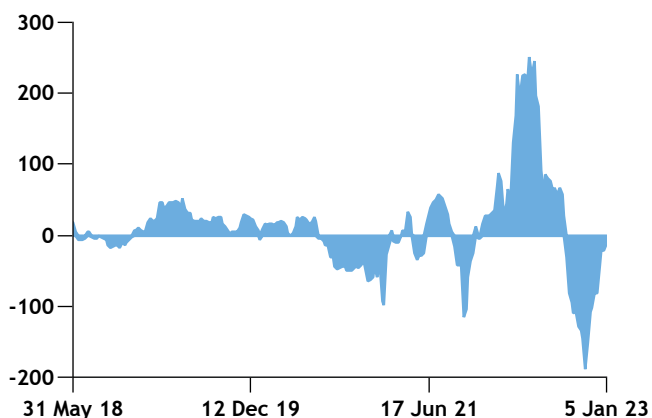
Nola phosphate prices were mixed this week amid limited trading activity.

Trades and offers framed this week's DAP assessment at \$620/st fob Nola, a \$7.50/st increase from Argus' prior assessment. DAP for late January changed hands at \$620/st fob Nola early in the week, while trade for delivery beyond the assessment window was indicated as high as \$630/st fob Nola.

MAP demand also remains weak. The high end of the range for the product dropped by \$15/st to \$605/st fob Nola based on offers heard for January. The low end held steady at \$600/st fob Nola, contributing to a widening MAP discount to DAP.

Price spread between US Gulf cfr, Brazil cfr MAP

\$/st



US phosphate import tracker

Arrival	Origin	DAP est. '000t	MAP est. '000t	Trader	Comments
Jul		26	48		Actual
Aug		56	27		Actual
Sep		89	147		Actual
Oct		62	139		Actual
Nov			64		Total estimated
	Saudi Arabia		40		
	Baltic		24	Sabrina	
Dec		40	60		Total estimated
	Baltic		30		
	Baltic		30		
	Australia	40			
Feb		40			Total estimated
	Saudi Arabia	40			
Jul-Dec		273	485		
Jul-Dec		681	548		
change		-408	-63		
%		-60	-11		

Phosphate barge business

Price in \$/st fob Nola	Number of barges	Loading	Product
620	1	LH Jan	DAP

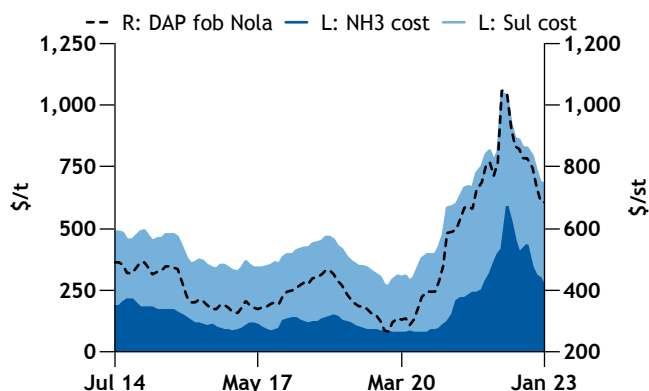
Market participants say MAP is more readily available than DAP, but supply could tighten over the next couple of months as buyers prepare for spring, potentially supporting prices. Sources maintain that reduced buyer inventories following the fall application cycle will support demand this quarter, potentially drawing additional volumes from some buyers deferring typical December purchases into the new year.

But barge availability on the lower Mississippi river remains tight and was worsened by dense fog early this week. Major barge carrier American Commercial Barge Line estimated a two-three day impact to boat timings because of significant delays caused by the fog.

Warehouse phosphate values also declined this week across most regions. DAP prices in Cincinnati/Jefferson fell the most, by \$45/st from the prior range to \$665-680/st fot. A trade framed the low end of the range, while earlier indications supported the high end. Other inland DAP values ranged from \$670-695/st fot based on trade and indications.

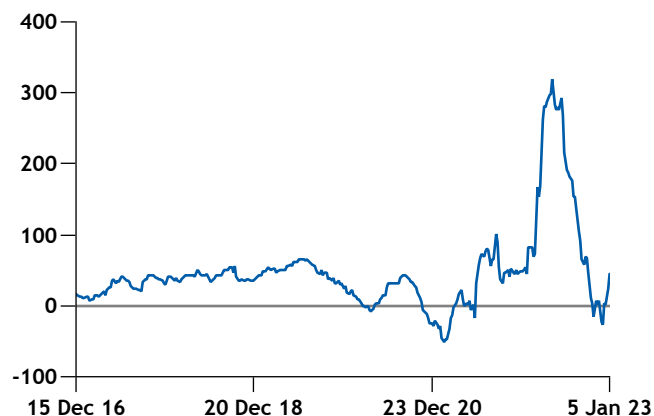
Warehouse MAP prices fell in all regions but the Twin Cities, where the product changed hands this week at \$690/st fot and \$680/st.

Variable costs of DAP production



MOP premium for Brazil over US Gulf

\$/t cfr



International phosphate highlights

- Brazilian MAP values rose nominally to range from \$645-650/t cfr on a mix of Russian sales and higher non-Russian offers.
- Front-month European natural gas price futures fell sharply to €65/MWh yesterday, before rallying to around €70/MWh today.

POTASH

MOP prices dipped again this week as availability continued to outstrip demand.

Offers supported this week's range from \$445-450/st fob barge, down from the prior range of \$447-480/st in late December. No trades or bids were confirmed during the week.

Market participants continue to cite lower pricing from some suppliers seeking near-term liquidity. But market

sentiment is bearish in the near term as buyers remain on the sidelines, with ample availability and expectations for another domestic winter fill program minimizing the urgency to secure additional tons.

Nutrien said on Wednesday that it did not yet have anything to share on the program, but sources this week speculated it will arrive within the next 1-2 weeks.

Nutrien and other suppliers still expect a rebound in potash demand this quarter following reduced inventories during the fall application season, although Mosaic on 28 January lowered its guidance for fourth quarter potash sales to 1.8mn-2mn, from 2mn-2.2mn previously.

In the Corn Belt, trading activity was also limited this week. Offers and indications framed the range for warehouse values from \$500-545/st for Corn Belt, down from the prior assessment of \$525-550/st.

MOP Import Lineup

ETA	Origin	Destination	MOP est. '000t	Trader	Vessel Name	Comments
July			74			World less Canada
August			131			World less Canada
September			164			World less Canada
October			49			World less Canada
November	Baltic	Nola	40		Alanya	
	Baltic	Nola	35		Sintra	
	Baltic	Nola	36		Artemis	
December	Israel	Nola	18		Anatoli	
	Baltic	East coast	17		Skywalker	
January	Israel	Nola	20		Andros Island	
Jul-Dec 22			564			
Jul- Dec 21			889			world less Canada
change			-325			
% change			-37			

International potash highlights

■ The Chinese government has removed a 1pc import tariff on MOP and SOP as of 1 January 2023. The move will help to reduce the purchasing cost for importers but also provides a signal to the market that the government is seeking to secure ample and affordable potash for Chinese consumers.

■ Shipowners transiting the Black Sea will no longer be insured against fallout from the conflict in Ukraine, beginning 1 January, which may reduce available vessel supply for some potash producers, including Belaruskali. Eurochem also exports out of the Black Sea but its vessels are thought to be insured by a Russian state-owned company, and so far, it is still able to charter vessels out of the Black Sea without issues.

SULFUR AND SULFURIC ACID

Sulfur

Sulfur pricing fell to open the year as markets remain soft and buyers recede in anticipation of the the settlement of the Tampa sulfur contract.

Sulfur values at the US Gulf coast ranged from \$149-151/t fob this week as market participants look ahead to the upcoming Tampa sulfur settlement and business remained quiet to kick off the year.

Many participants expect a bump to the first quarter sulfur settlement to bring it more in line with recent business in the region, with price ideas among sources ranging from \$110-140/long tonne (lt) delivered. But consumers in the region continue to report increased sulfur availability stemming from elevated refinery rates, which could limit gains despite the rebound in spot pricing during the fourth quarter.

Refinery utilization in the US Gulf coast averaged more

than 92pc during the fourth quarter last year according to data from the Energy Information Administration (EIA), with frigid temperatures and inclement winter weather during the week ending 30 December reducing utilization rates to 77.7pc. But a loss in output similar to winter storm Uri in February 2021 is not expected, as widespread impacts to operations were not nearly as severe and reductions in throughputs were largely taken as precautionary measures, market sources said.

Spot business this week was subdued, though, as demand slogs into the new year, but some participants expect purchases from phosphate fertilizer producers to ramp up as the first quarter ticks on, potentially supporting price appreciation into the spring.

West Coast sulfur prices ranged from \$145-150/t fob amid falling offers and netbacks from importing regions as market participants report a slow to start the year. Ideas of softness also persist in the region with buyers largely absent from the market this week.

In Canada, Vancouver sulfur prices ranged from \$148-150/t this week, down by \$10/t from the most recent assessment as activity was subdued and markets continue to soften following the holidays.

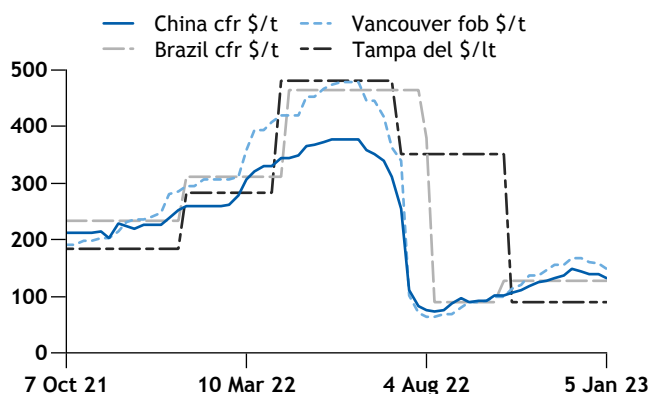
Participants indicate that sulfur markets could remain somewhat soft through the early first quarter until phosphate fertilizer producers begin to secure tonnage in preparation for spring deliveries. But phosphate fertilizer export quotas in China could reduce demand for imported sulfur, particularly as the country continues to re-open from strict Covid-19 restrictions and sulfur output from domestic refineries increases.

International sulfur highlights

■ Abu Dhabi's state-owned Adnoc announced its January official sulfur price (OSP) applicable for the Indian market at \$160/t fob Ruwais, down by \$20/t from December's OSP of \$180/t fob.

■ Kuwaiti state-owned sulfur producer KPC has set the January Kuwait sulfur price (KSP) at \$154/t fob Kuwait, down by \$29/t from December's KSP of \$183/t fob.

Global sulfur prices



Sulfuric acid

Domestic sulfuric acid markets remained quiet this week, with spot import pricing into the southeast stable from previous assessment at \$100-110/t cfr as many participants await the settlement of the first quarter Tampa sulfur contract.

Market participants generally expect a bump to the first quarter Tampa sulfur settlement, up from the \$90/lt value agreed to in the fourth quarter 2022. Price ideas have ranged from \$110-140/lt delivered from various sources,

which would make the benchmark more competitive to recent sulfur spot business.

But some suppliers have noted a slower ramp-up in bids for spot volumes from previous years, with some consumers reducing inventories ahead of the new year. Industry participants expect the price volatility experienced since 2021 to fade and for supply to rebalance with demand as economic uncertainties persist in the US and abroad.

Few outages stemming from the recent cold snap across the US Midwest and Gulf coast were heard this week, with sources indicating an interruption in output from a Midwest-based supplier, while another in the US Gulf coast experienced a short outage.

Spot imports into the southeast US remained quiet again this week despite some potential impacts to supply from production outages.

International sulfuric acid highlights

- Japanese sulfuric acid exports in November 2022 rose by 44pc year-on-year to 207,300t on increased shipments to India and the Philippines, while deliveries to Chile and the US fell to zero according to data from Global Trade Tracker.
- Indian fertilizer producer Fact awarded a purchase tender for two shipments of sulfuric acid for February arrival at Kochi port to metals producer Hindalco in the mid-\$80s/t cfr.

FUNDAMENTALS

Agriculture

Weather: Above-average temperatures are forecast for most of the country over the next couple of weeks, while the probability of rain in the western and central US is expected to be higher than normal, according to the National Weather Service (NWS).

The only regions of the US that do not have a high chance of warmer-than-usual weather are parts of California and the southeastern US. Near-normal temperatures are predicted for those areas.

The east coast and western US have the highest chance of above-normal levels of precipitation for 11-19 January, according to NWS. The Plains also have an above-normal chance of rainfall.

For 13-19 January, unseasonably wet conditions are forecast everywhere except for along the US Gulf coast and across the northern-most portion of the US, including North Dakota and most of Minnesota.

Crop prices: Prices declined across key crops this week amid falling natural gas prices and improved drought conditions.

Corn prices fell by 4pc this week, closing at \$6.52/bushel

from \$6.82/bushel the week prior. Front month soybean futures decreased to \$14.66/bushel from \$15.06/bushel, an almost 3pc drop. Wheat futures fell to \$7.46/bushel from \$7.85/bushel.

Feedstock

US natural gas futures tumbled Thursday, ending at a 12-month low below \$4/mmBtu, on forecasts for mild weather and a government report showing a smaller-than-expected draw from gas storage.

Nymex gas for February delivery at the Henry Hub fell by 45.2¢/mmBtu, or 11pc, to settle at \$3.72/mmBtu. The 12-month strip dropped by 7.1pc to \$3.804/mmBtu, while the 2024-calendar strip was down by 4.7pc to \$3.973/mmBtu.

Prompt-month prices faced downward pressure Thursday from a US government report showing that US gas inventories in the week ended 30 December declined by 221 Bcf. The draw was larger than the five-year-average draw for the week of 98 Bcf and the year-earlier decline of 46 Bcf. But it fell short of analyst expectations for a decline of 228 Bcf.

Total US gas inventories last week dropped to 2.891 Tcf – 6.7pc lower than the five-year average and 9.6pc lower than a year earlier, according to the US Energy Information Administration (EIA). Low inventories can bolster prices by stoking concerns about spikes in demand or supply shortfalls.

Inventories, though, should start moving closer to average levels in the coming weeks as mild weather crimps gas demand for heating. Forecasters are predicting widespread above-normal temperatures through the middle of January, typically the coldest month of the winter.

The weather outlook on Thursday showed slight gains in expected heating demand during the next two weeks but still favored a warmer than normal pattern through 19 January. The forecast trended modestly cooler in the midcontinent and east next week and in the southeast and Texas on 15-19 January, according to the private forecaster Commodity Weather Group.

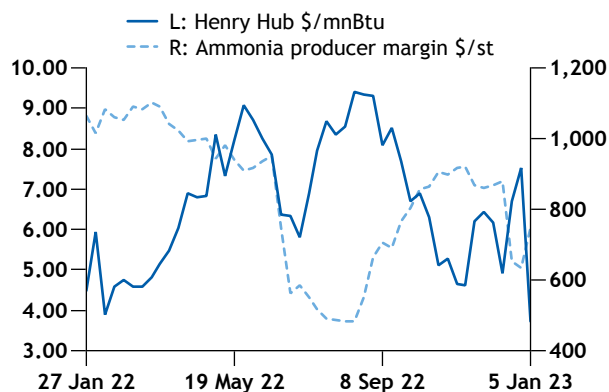
In addition, this week's mild weather will likely lead to a small draw from storage when the EIA releases fresh inventory data next week. Traders pay close attention to those inventory reports because they provide the US gas market's best weekly indicator of the balance between supply and demand.

The EIA has said that it expects draws from gas storage to outpace average levels this winter on colder weather, the typical seasonal decline in gas output and the return of the 2 Bcf/d Freeport LNG export terminal in Texas, which shut in June following an explosion. The terminal restart has faced some delays but is scheduled to restart this month.

The shuttered terminal has backed gas into the US mar-

ket, leaving more supply available to meet winter heating needs.

Ammonia margin vs natural gas



Freight

Barge freight rates were unchanged this week amid limited interest in spot deliveries.

No bids, offers or deals were reported. Carriers and shippers have spent the past month focusing on annual freight contracts, and most negotiations appear to have been concluded. One carrier noted annual rates climbed by about 15-17pc from 2022 because of higher fuel and labor costs, although the increase was widely expected.

Market participants anticipate spot barge availability will remain thin for at least a couple more months, but demand for northbound spot freight is usually weak early in the year. The lack of spot barges was amplified this week by transit delays caused by dense fog. Major barge carrier American Commercial Barge Line estimated a two-three day impact to boat timings.

The carrier had also reported significant effects on barge movement from the storm that swept across most of the US from 21-26 December. The river system is still recovering from the storm, and barge availability will be impacted through mid-January, the carrier said.

But other industry participants said the storm had little to no effect on their operations. They also noted rainfall and snow melt has led to improved river conditions. National Weather Service data show water levels on the Mississippi river near Memphis rising by nearly 16ft over the next week, to 17.5ft from 1.8ft.

Spot freight barges		\$/st	
	Timing	Latest rate	Prior rate
Mississippi river			
Old River through Cairo	5 Jan	26.50-36.00	26.50-36.00
St Louis	5 Jan	27.50-38.50	27.50-38.50
Louisiana thru Clinton*	10 Nov	41.00-46.00	41.00-46.00
Dubuque*	10 Nov	43.00-48.00	43.00-48.00
Winona*	10 Nov	46.00-50.00	46.00-50.00
St Paul*	10 Nov	49.00-52.00	49.00-52.00
Arkansas river			
Pine Bluff thru Little Rock	5 Jan	26.00-29.00	26.00-29.00
Inola/Catoosa	5 Jan	38.00-40.00	38.00-40.00
Ohio river			
Paducah	5 Jan	37.00-39.00	37.00-39.00
Mt Vernon thru Owensboro	5 Jan	37.00-39.00	37.00-39.00
Jeffersonville thru Louisville	5 Jan	37.00-47.00	37.00-47.00
Cincinnati	5 Jan	42.50-49.00	42.50-49.00
East Liverpool	5 Jan	53.00-56.00	53.00-56.00
Illinois river			
Naples thru Peoria	5 Jan	35.00-48.00	35.00-48.00
Hennepin thru La Salle	5 Jan	34.00-48.00	34.00-48.00
Ottawa	5 Jan	37.00-51.00	37.00-51.00
Joliet	5 Jan	39.00-54.00	39.00-54.00
Demurrage \$/day (midpoint)	5 Jan	500.00-750.00	500.00-750.00

Northbound rates originating from miles 90-184 for dry, bulk fertilizers.

* No freight rates available during the winter because of seasonal river closure.

FERTILIZER NEWS

Mosaic lowers fourth quarter sales outlook

North American fertilizer producer Mosaic lowered its fourth quarter 2022 sales guidance amid slowed demand.

The company said today it expects to sell 1.8mn-2mn metric tonnes of potash this quarter, down from the previous outlook of 2mn-2.2mn t. Mosaic also cut the MOP sales price range for October-December to \$560-600/t fob mine from \$580-630/t.

Click [here](#) for more information.

Pending STB changes could reshape rail sector

The US rail industry could change dramatically this year if the Surface Transportation Board acts on long-pending proposals.

US commodity shippers are eager for the agency to issue a final rule on a 2016 proposal to allow widespread reciprocal switching. The plan would allow shippers reliant on a single railroad to switch carriers at a point enroute if such a change would be practical and in the public interest or necessary to provide rail competition.

STB said in October that it expected to move forward on the plan in February 2023. The agency missed an August

2022 deadline after reallocating staff to focus on last year's massive rail service crisis.

Click [here](#) for more information.

US EPA revises clean-water rule

A US Environmental Protection Agency (EPA) rule, finalized today, restores water protections that existed before federal oversight was expanded in 2015.

EPA said [the final rule](#) establishes a durable definition of US waters "to reduce uncertainty from changing regulatory definitions, protect people's health and support economic opportunity."

"The rule returns to a reasonable and familiar framework founded on the pre-2015 definition with updates to reflect existing Supreme Court decisions, the latest science and the agencies' technical expertise," EPA said.

Click [here](#) for more information.

US rail traffic declines in harsh winter weather

Total US carload volume last week was the lowest for any week since February 2021 when traffic was affected by harsh weather conditions across much of the country.

Extreme winter weather impacted portions of railroads' network in the US last week. Some customers on 20 December were notified that railroads expect extended delays on shipments in the affected areas until weather conditions improve. Union Pacific (UP) and CSX additionally notified

customers on 28 December to expect shipment delays, and CSX indicated that those delays could last through the New Year's weekend.

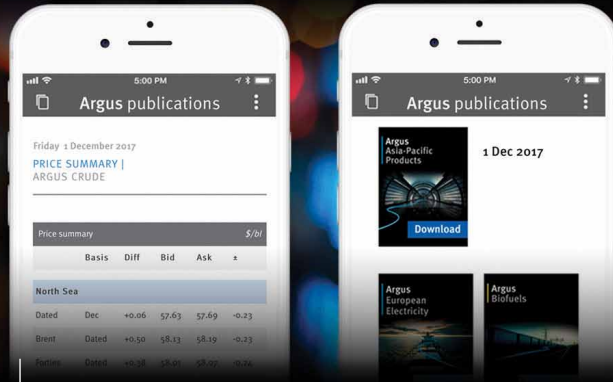
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