

## UREA

Urea is the most widely-produced and commonly-traded nitrogen fertilizer. Production amounts to around 150m tonnes a year, of which about 40m tonnes are traded internationally. It is produced in nearly 50 countries worldwide and consumed in every developed agricultural market. The largest producers are Chinese and Indian companies, who have massive domestic markets to serve. The main exporters are producers in areas where feedstock costs are lowest, notably the Middle East, Russia, Ukraine and Caribbean.

An estimated 10-15% of urea manufactured is used in industrial processes, mainly the production of melamine and resins and as an animal feed. The balance is used in agriculture.

Due to primary use being in agriculture, demand for urea is very seasonal. Application takes place either at the time the crop is planted or during the growth phase of the crop, generally this is during the spring season. In the northern hemisphere, this leads to a significant peak in demand in March-April, with a smaller southern hemisphere peak in October-November. The main exceptions to this are in tropical agriculture and the Indian subcontinent, where application follows rainfall patterns. The main application periods in India, for example, are July-September, following the monsoon, and November-December.

Urea contains 46% nitrogen by weight. It is made by combining anhydrous ammonia and carbon dioxide produced in the manufacture of the ammonia. For this reason, urea plants are always located adjacent to upstream ammonia units. The production of one tonne of urea requires 0.58 tonnes of ammonia and 0.76 tonnes of CO<sub>2</sub>.

Urea is produced initially in liquid form and then generally solidified either through granulation or prilling. Prilled urea is still the most widely-produced form of the fertilizer, but virtually all new urea plants are designed to make granular material. Granular production is expected to outpace prilled production in the next decade. Granular urea has superior handling, storage and spreading characteristics.

Where urea is kept in liquid form it is normally combined with ammonium nitrate to produce a urea ammonium nitrate solution (28-32% nitrogen) for sale to the agricultural sector.

Urea is not considered to be a hazardous substance at normal temperature. It is not flammable and no special precautions are necessary in handling.

### **Frequency:**

The Market quotes urea prices on a weekly basis **worldwide** on Thursdays.

Market Updates are published on Mondays, Tuesdays and Wednesdays

ICIS pricing quotes urea in **China** on Thursdays; **Europe** and the **USA** on Fridays

## **THE MARKET**

### **Urea prilled bulk**

#### **Weekly price assessments**

##### *Urea spot prices*

- FOB YUZHNY (USD/MT)
- FOB ROMANIA (USD/MT)
- FOB BALTIC (USD/MT)
- FOB ARAB GULF (USD/MT)
- CFR SE ASIA (USD/MT)
- FCA NW EUROPE (EUR/MT)
- FOB BAGGED China (USD/MT)

## Urea granular bulk

### **Weekly Price Assessments:**

- FOB ARAB GULF (USD/MT)
- FOB ARAB GULF US NETBACK (USD/MT)
- FOB IRAN (USD/MT)
- FOB YUZHNY (USD/MT)
- FOB SE ASIA (USD/MT)
- FOB CHINA (USD/MT)
- CFR SE ASIA (USD/MT)
- FOB EGYPT (USD/MT)
- FCA NW EUROPE (EUR/MT)
- FOB CARIBBEAN (USD/MT)
- FOB NOLA BARGE (USD/ST)
- FOB USG (USD/ST & conversion to USD/MT CFR)

## **ICIS PRICING**

### Urea (Europe)

#### **Weekly price assessments**

##### *Urea spot prices*

- FOB YUZHNY (USD/MT & conversion to US CTS/LB)
- FOB BALTIC (USD/MT & conversion to US CTS/LB)
- FOB MIDDLE EAST (USD/MT & conversion to US CTS/LB)
- FOB MIDDLE EAST GRANULAR (USD/MT & conversion to US CTS/LB)
- FCA NWE (EUR/MT & conversion to US CTS/LB)
- FCA NWE granular (EUR/MT & conversion to US CTS/LB)

### Urea (USA)

#### **Weekly Price Assessments:**

- GRANULAR FOB USG (USD/ST & conversion to USD/MT)
- GRANULAR FOB ARAB GULF (USD/MT)

### Urea (China)

#### **Weekly Price Assessments:**

##### *Export spot prices*

- FOB CHINA (USD/MT)

##### *Ex works spot prices*

- NORTH CHINA (CNY/MT & conversion to USD/MT)
- EAST CHINA (CNY/MT & conversion to USD/MT)
- SOUTHWEST CHINA (CNY/MT & conversion to USD/MT)
- NORTHEAST CHINA (CNY/MT & conversion to USD/MT)
- CENTRAL CHINA (CNY/MT & conversion to USD/MT)
- NORTHWEST CHINA (CNY/MT & conversion to USD/MT)
- SOUTH CHINA (CNY/MT & conversion to USD/MT)

*Ex warehouse spot prices*

- NORTH CHINA (CNY/MT & conversion to USD/MT)
- EAST CHINA (CNY/MT & conversion to USD/MT)
- SOUTHWEST CHINA (CNY/MT & conversion to USD/MT)
- NORTHEAST CHINA (CNY/MT & conversion to USD/MT)
- CENTRAL CHINA (CNY/MT & conversion to USD/MT)
- NORTHWEST CHINA (CNY/MT & conversion to USD/MT)
- SOUTH CHINA (CNY/MT & conversion to USD/MT)

**Assessment window:** The domestic China assessments are based on information supplied by market participants through the week up to close of business on Thursdays at 1800 hours in China.

All other price assessments are based on information supplied by market participants from the previous Friday through the week up to close of business on Thursdays at 1700 hours in London.

**Specifications:** Prices are published both for prilled and granular urea, except domestic China price assessments which refer to prilled urea.

**Timing:** Cargoes loading prompt to eight weeks forward. Typically, spot cargoes are sold with a 2-3 week forward loading window. Nola barge prices refer to prompt to one month forward.

In the China domestic market, delivery is within 7 days from the publication date.

**Terms:** These vary between supply sources. Producers in Ukraine, Russia and some other East European countries sell the majority of their urea to traders on the basis of 100% prepayment. Special arrangements do exist, though, where one or more traders have built up a long relationship with a producer and will be granted more favourable terms.

In the Middle East, Egypt and Libya, traders buy through letter of credit, generally payable at sight on the b/l date. Contract shipments from the Middle East are usually on open terms, for payment at a specified date after vessel loading/arrival.

In the China domestic urea market, transactions are based on cash on delivery.

**Standard cargo size:** Urea is shipped in vessel sizes ranging from small container shipments of 2,000-3,000 tonnes to panamax (50,000-60,000 tonnes). In most cases, spot cargoes below 5,000 tonnes are considered too small for ICIS assessments. The US barge market is an exception to this as here urea is transported in 1,500 short ton barges.

The main determining factor on vessel size is draft of LOA at the discharge port. Typically, short sea routes in Europe employ vessels of 3,000-10,000 tonnes. Deep sea voyages from Black Sea and Baltic ports generally employ handysize vessels of 20,000-30,000 tonnes. Occasional panamax cargoes load in Yuzhny for Asian markets.



Arab Gulf shipments range from 12,000-15,000 tonne vessels for markets in the Indian subcontinent to 50,000-60,000 tonne vessels for the US. Most deep sea shipments employ vessels in the range 20,000-40,000 tonnes.

Most Egyptian cargo sizes are in the range 5,000-35,000 tonnes. Shipments within Southeast Asian markets are normally 5,000-25,000 tonnes. Caribbean exports normally range 15,000-45,000 tonnes.

Chinese export shipments range from 5,000-60,000 tonnes. The standard cargo size included in the domestic China price assessments is 100-3000 tonnes.

**Assessment basis:** Information about new deals, changes to supply/demand and any other factors that can have an impact on the urea market is collected through the week up to press time on Thursday evening, through telephone calls with producers, end-users, traders and shippers, plus email correspondence and web searching. Information received is carefully counterchecked with other sources to make sure the information is true and accurate and not in any way misleading.

Price assessments are based on confirmed deals through the week, adhering to the methodology requirements, but in the absence of new business assessments are made using netbacks and bids and offers and other market intelligence.

The main reference prices in the urea market are the FOB Yuzhny (prilled urea) and FOB Arab Gulf (prilled and granular urea) quotes. These are frequently used in contract price formulae. Together, these two sources account for more than one third of global urea trade.

The Arabian Gulf FOB price is based on spot business and netbacks from contract business, except in the US. The Arabian Gulf quotes do not include Iranian prices. The Arab Gulf US netback FOB price uses the US Gulf CFR metric tonne equivalent price minus freight for a 35,000-45,000-tonne vessel.

Russian urea is also shipped from Novorossisk or Tuapse in the Black Sea and through Baltic ports for European and Latin American destinations. Spot prices ex-Baltic Sea ports are based on a range of prices. The low end is generally set by the FOB St Petersburg price, because loading rates are lower and freight rates higher there, and the high end from so-called fast ports, such as Riga and Muuga/Tallinn.

Granular urea trade is growing in importance. Apart from the FOB Arab Gulf price, the other key quotes are FOB Egypt, FOB US Gulf short ton and CFR SE Asia. The US is the largest import market for granular urea by some distance. Currently, imports are about 5-6m tonnes a year. All the main granular urea producers supply the US market. The majority of urea imports enter the US via the Mississippi River, being transhipped from ocean-going vessels to barges (1,500 short tons) in the New Orleans area.



Thailand, Korea and the Philippines are the largest markets for granular urea in Asia and take cargoes from Arab Gulf suppliers regularly. However, the FOB SE Asia granular price has become a key indicator for the region in recent years as Indonesian and Malaysian producers have increased exports. Vietnamese exports are also expected to increase due to new production capacity which came onstream in 2012<sup>3</sup> and is expected to outpace domestic demand.

China has emerged as a major urea exporter since 2000. The FOB China assessment takes into account exports to south Asia, particularly India, Pakistan and Bangladesh, as well as exports to the US and the nearby southeast Asian region.

The Market reports on the major worldwide markets for prilled and granular urea, while ICIS pricing offers regional reports covering Europe, US and China. The Market analyses the events of the preceding seven days and assesses the impact on pricing. The Market also publishes daily updates to report deals concluded and price changes.

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