

StapleScene

Topical analysis of food prices

August 2023

Is onion the next tomato?

An expected supply crunch could help farmers, but hurt retail buyers in the second quarter of this fiscal

In February this year, a Japanese discount store announced it would be accepting sibuyas (onions) as payment in a few of its stores on select dates.

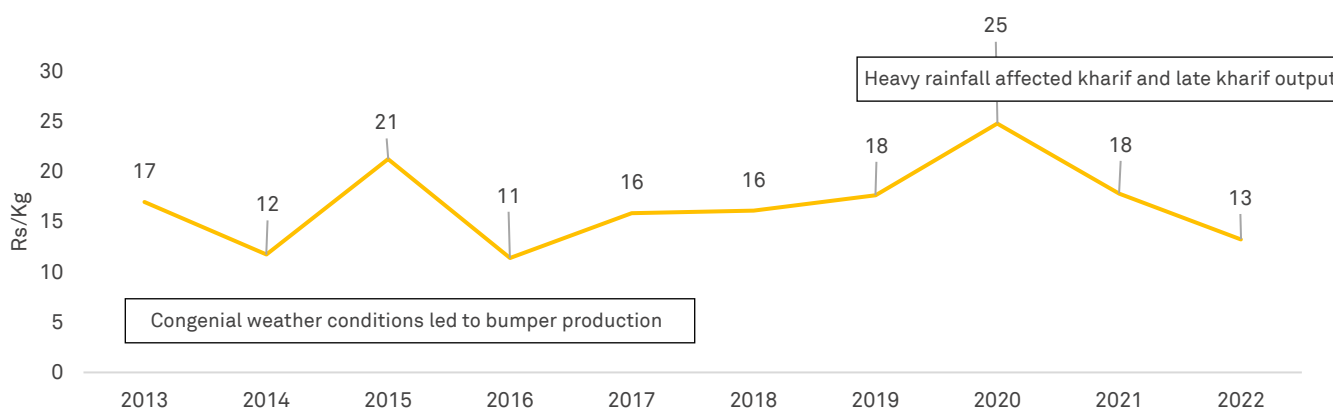
Understandably, onion had attained currency status as its prices had skyrocketed due to supply crunch.

Long story short, onion has had a long history of price

fluctuations caused by demand and supply across the globe.

Data for the past decade shows how onion prices have been volatile in India as well, largely owing to climatic conditions that have played now-an-ally, now-a-foe to the crop.

Figure 1: Weighted average mandi price of onion over the decade, 2013-2022



Source: AGMARK, CRISIL MI&A Research

Unravelling the volatility shows there are three onion-growing seasons in India – kharif, late kharif and rabi. Rabi contributes the lion’s share (~70%) of the total onion produce and feeds our population from March through September, while the kharif produce comes to the rescue during the lean patch from the end of September to December.

Thus, the rabi onion, with a longer shelf life (5-7 months) compared with kharif/ late kharif onions (1-1.5 months), has the larger onus of maintaining supply-demand dynamics. However, the kharif onion often succumbs to climate vagaries and has been a critical determinant of price fluctuations over the years.

Figure 2: Onion crop calendar

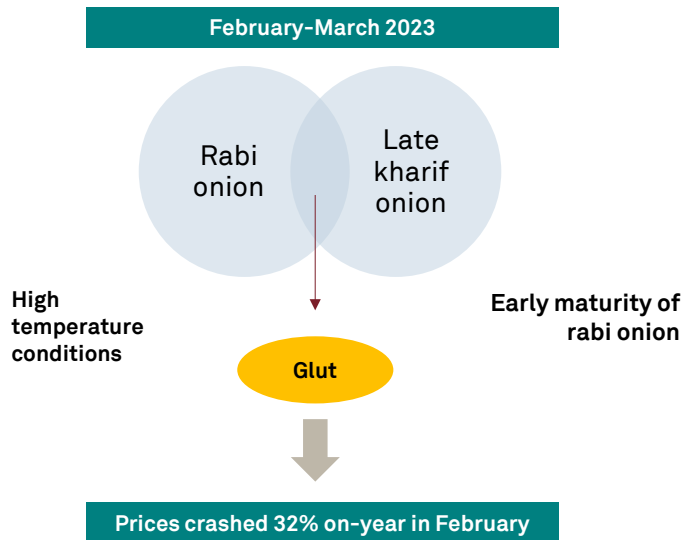
| Season | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|---------------|------------|------------|------------|------------|-----|---------------|---------------|-----|---------------|---------------|---------------|
| Kharif | | | | | | | Transplanting | Transplanting | | Harvesting | Harvesting | Harvesting |
| Late kharif | Harvesting | Harvesting | Harvesting | | | | | | | Transplanting | Transplanting | |
| Rabi | Transplanting | | Harvesting | Harvesting | Harvesting | | | | | | | Transplanting |

Source: National Horticulture Board of India

Legend: ■ Transplanting ■ Harvesting

The story so far in 2023 – higher supply, lower prices

When rabi and late-kharif onion supplies converged



The acreage under onion in rabi 2023 (December 2022-January 2023) is estimated to have been lower on year by 3-5%, led by 25-27% lower realisation witnessed by farmers in the previous season (January-December 2022). This is estimated to have resulted in ~6% lower output on-year.

In February, when the rabi crop was in the later stage of bulb development across key growing states such as Maharashtra (49% of the total share), Madhya Pradesh (22% of the total share), and Rajasthan (6% of the total share), high temperature conditions reportedly led to early maturity of crop in the field.

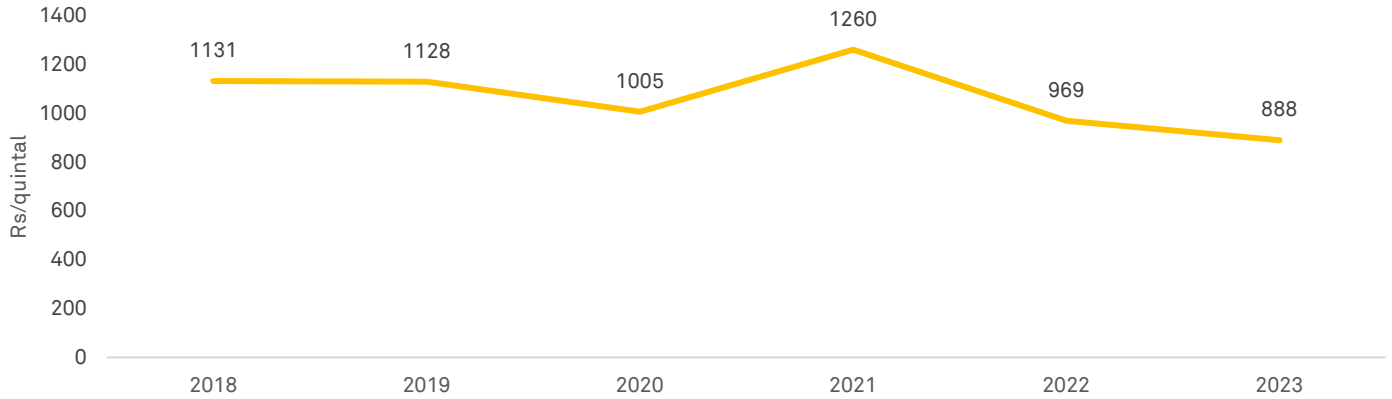
Furthermore, unseasonal rainfall in the key growing regions during March affected the quality of onions and reduced the shelf life of rabi onion from 6 months to 4-5 months, raising storage concerns and induced panic selling among farmers.

Thus, the rabi crop, which is conventionally scheduled to be brought in the market from March, was harvested early and started trading in February, coinciding with late kharif supplies, leading to a supply glut in the market. This is reflected in the surge in arrivals in February, which was 12% higher on-year, eventually leading to prices crashing 32% on-year during the month.

Similarly, prices were also lower on-year by 21%, 13% and 2% in March, April, and May, respectively. In June, though, prices witnessed a slight growth on-month with 17% lower arrivals on-year, reportedly led by hoarding of the produce.

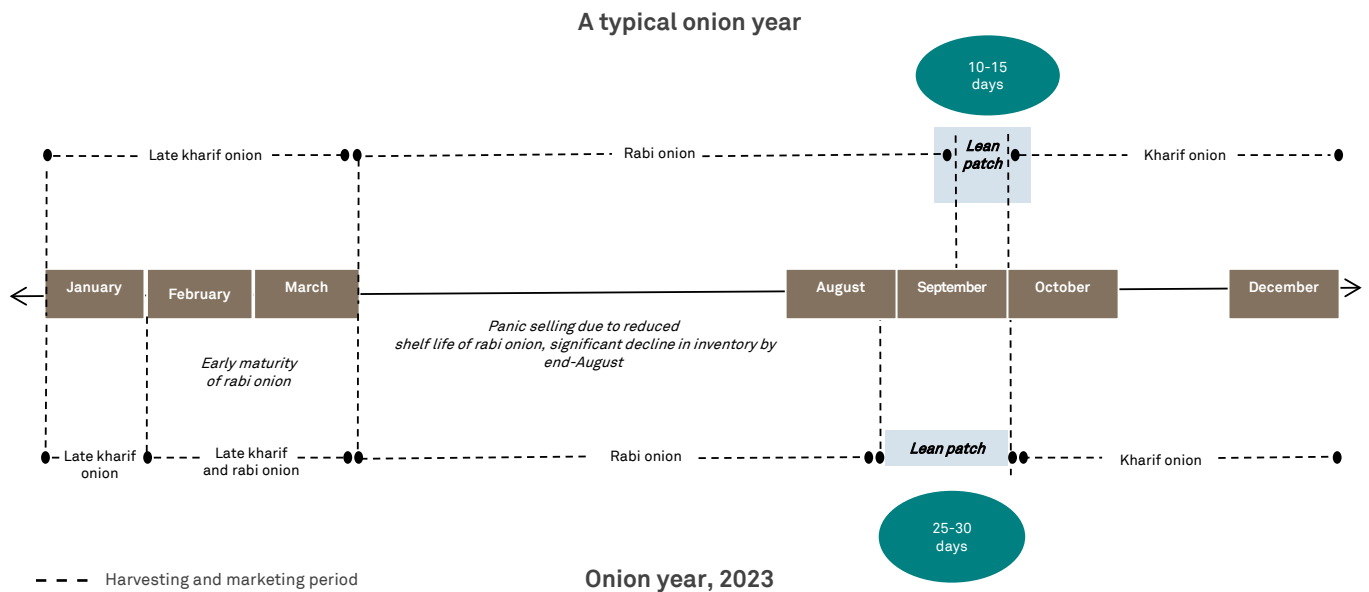
For the rabi season (January-June) overall, the rabi and late kharif crops together caused market prices to crash by ~18%. As can be seen in figure 3 below, the glut in the market led to the lowest onion prices in five years during the second quarter of the calendar year.

Figure 3: Weighted average price of onion in April-June 2023



Source: AGMARK, CRISIL MI&A Research

Prices to rebound in early September given shorter shelf life of 2023 rabi stock



Source: CRISIL MI&A Research

Low shelf life of 2023 rabi onion to extend lean season

Conventionally, the stored rabi stock caters to demand until end-September, post which the kharif arrival comes in to fill the gap. But the tale might not be the same this year.

Owing to reduced shelf life of rabi onion by 1-2 months and panic selling that ensued in February-March 2023, rabi stocks in the open market are expected to decline significantly by the end of August instead of September, extending the lean season by 15-20 days, which is likely to expose the market to tightened supplies and high prices.

The supply-demand imbalance is expected to reflect in onion prices towards end-August. As per our ground interactions, prices are expected to show significant increase from early September in the retail market, reaching up to Rs 60-70/kg during the lean patch. However, prices will remain below the highs of 2020.

Expectations October onwards, after the lean season

Tight onion supplies in September will ease once kharif arrivals start from October, leading to softer prices.

During January-May this year, a fall in onion prices had offered some relief to consumers facing significantly costlier cereals, pulses and other vegetables.

But this lower realisation in onions has created a negative sowing sentiment among farmers for the kharif 2023 onion crop.

As a result, we expect acreage to decline ~8% this year, and kharif production of onion to fall ~5% on-year.

However, annual production is foreseen at ~29 million metric tonne (MMT), ~a good 7% higher than the average of the past five years (2018-2022).

So a major supply crunch is unlikely this year despite lower kharif and rabi output.

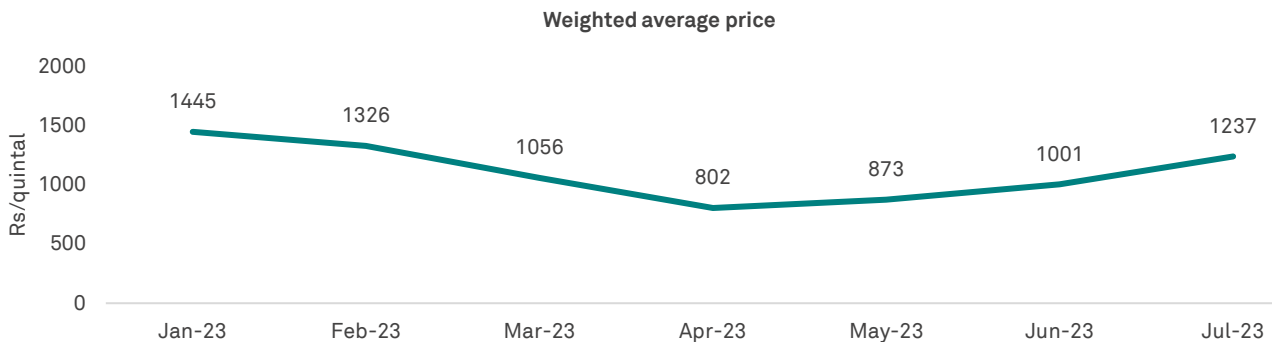
How the rainfall pans out in August and September will determine transplantation and bulb development of the onion crop.

The price movement in the festive months (October-December) is expected to stabilise, compared with high prices in September.

Trade sources said in view of the expected demand-supply gap, government procurement agencies such as NCCF, MMTC and NAFED, together with farmer producer organisations and cluster-based business organisations, are expected to release 3-4 lakh metric tonne of onion stock in the market to temper prices.

The prices, however, are expected to remain elevated on-year until the arrival of late kharif varieties in the market, in a throwback to the tomato story for Indian households.

Figure 4: Monthly trend of onion prices in 2023



Source: AGMARK, CRISIL MI&A Research

Analytical contacts

Pushan Sharma
Director
Research, CRISIL Market Intelligence & Analytics
pushan.sharma@crisil.com

Priyanka Uday
Manager
Research, CRISIL Market Intelligence & Analytics
priyanka.uday@crisil.com

Media contacts

Aveek Datta
Media Relations
CRISIL Limited
M: +91 99204 93912
aveek.datta@crisil.com

Riddhi Savla
Media Relations
CRISIL Limited
M: +91 98199 57423
riddhi.savla1@crisil.com

Roma Gurnani
Media Relations
CRISIL Limited
M: +91 78754 32131
roma.gurnani@ext-crisil.com

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