

Onionomics

As rains drop, fears of tears

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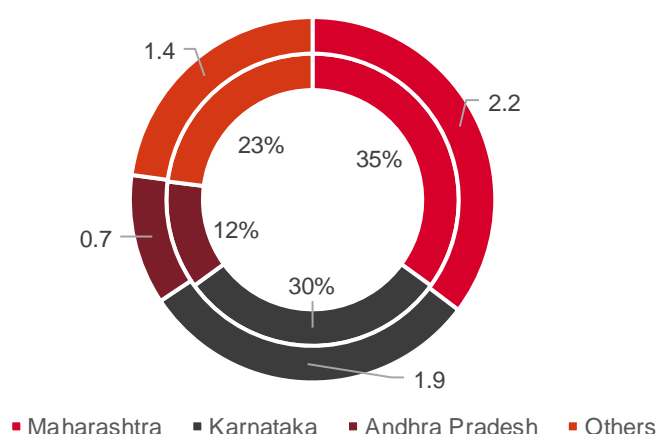
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Bulbs, buffers and breaks in monsoon

Onions, a staple in most Indian households, are likely to make consumers cry again with erratic monsoon leading to an eventual delay in harvest. Delay in arrival of the kharif crop and shorter shelf life of the buffer stock because of Cyclone Tauktae are likely to fuel a rise in prices.

On average, India consumes an estimated 13 lakh tonne of onion every month. To meet this demand, the crop is grown in three seasons: Kharif, late kharif and rabi. This makes it available for most of the year.

Share of key kharif onion-producing states



Maharashtra, Karnataka and Andhra Pradesh are major kharif onion-producing states, contributing over 75% of total kharif onion production.

The bulb's supply and price dynamics are largely dominated by climatic conditions, especially the southwest monsoon. While rabi onion contributes to 70% of the total onion production, the kharif onion plays an important role in maintaining supply during the lean period of September-November, which is a major festive season for India.

Note: The inner circle represents the share of key kharif onion-producing states, whereas the outer circle provides the production numbers of kharif onion in the state in million MT.

Growth stages of onion	Establishment	Vegetative growth	Bulb initiation	Bulb development	Maturation
Description	Seed to 1-2 leaf stage	4-7 true leaves, leek stage	8-12 true leaves, bulb diameter twice of neck	Total leaf area and number remains same, but leaves elongate	Bulb enlargement is almost complete
Duration	30 DAS	45-60 DAS	75-90 DAS	120-135 DAS	135-150 DAS

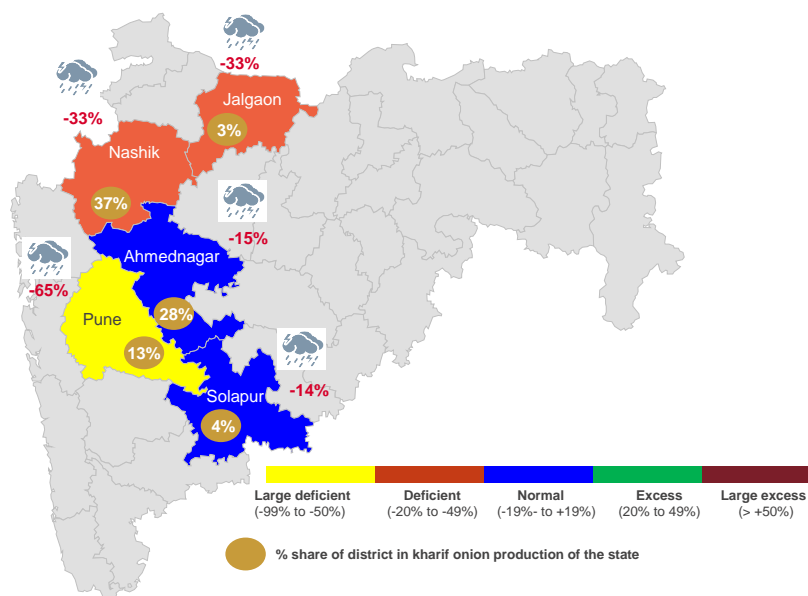
* DAS – Days after sowing

* Transplanting is done before vegetative stage at 35-40 DAS

In the corresponding festive season last year, prices had doubled compared with the normal year of 2018 – mainly due to supply disruption caused by heavy and erratic monsoon that damaged the kharif crop in Andhra Pradesh, Karnataka and Maharashtra.

This year, the southwest monsoon kicked in on June 3, signalling a good start to the kharif season, and farmers have preferred crops such as onion and chilli over highly perishable ones such as tomato. CRISIL Research's analysis and on-ground interaction suggests onion acreage is expected to increase ~1% on-year in marketing year (MY) 2021 (kharif marketing year 2021 includes kharif crops sown from April to August 2021 and harvested and sold in July to December 2021).

That said, July witnessed a prolonged monsoon break with rainfall at a cumulative 2% deficit of the long period average (LPA) pan-India. To add to it, August, the key month for transplantation, did not see any recovery in rainfall. Deficit stood at cumulative 9% as on August 30, 2021.



Rainfall is particularly critical during the transplanting process as it allows the seedling to root firmly in the soil and ensures good bulb development. Fluctuating monsoon is expected to pose challenges in transplanting the crop in Maharashtra, which accounts for 35% of the total kharif onion produced in the country. With Nashik (which contributes 37% of the kharif onion produced in Maharashtra) facing a rainfall deficit of 33% as of August 30, followed by Pune (which contributes 13% of the kharif onion produced in Maharashtra and was facing a rainfall deficit of 65% as of

August 30), many farmers who had set up nurseries in anticipation of good returns have been unable to transplant owing to the erratic monsoon. This is likely to delay the process and may result in late arrival of the onion crop, thus widening the supply-demand gap during the lean months (September to November).

Rainfall status in key regions of Karnataka and Andhra Pradesh

Major onion-producing districts in Karnataka	District share in kharif onion production	Actual rainfall (as on August 30) mm	Normal rainfall (as on August 30) mm	% departure
Chitradurga	24%	90.8	63.5	43%
Bagalkot	24%	89.6	72.4	24%
Gadag	16%	81.1	78.1	4%
Davangere	6%	119.4	93	28%
Dharwad	4%	82.9	114.7	28%
Belgaum	4%	85.8	126.3	32%
Haveri	4%	88.9	122.5	27%

Major onion-producing districts in Andhra Pradesh	District share in kharif onion production	Actual rainfall (August)	Normal rainfall (August)	% departure
Kurnool	86%	69	125.4	-45%
Anantapur	7%	86.1	81.9	5%
Kadapa	4%	86.1	106.6	-19%

Karnataka contributes 30% of the total kharif onion produced in India. North Karnataka accounts for the bulk of the total kharif onion production in the state, contributing ~70%. Onion transplanting in few of the onion-growing districts of the state has been delayed due to poor monsoon whereas in Chitradurga, as per our on-ground information, farmers have opted for direct seeded crop after the district received surplus rainfall (+43% of normal as on August 30). With the monsoon spell reactivating in major districts such as Bagalkot, Gadag and Davangere, Karnataka is expected to become the saviour.

In Andhra Pradesh, as per our on-ground reports, almost 70% sowing of onion has been completed owing to 17% higher rains (June 1- August 25) in the state. However, August saw deficit rainfall, with Kurnool, which accounts for

86% of the total onion produced in the state, having a deficit of ~45%. This is expected to impact timely transplantation of the crop.

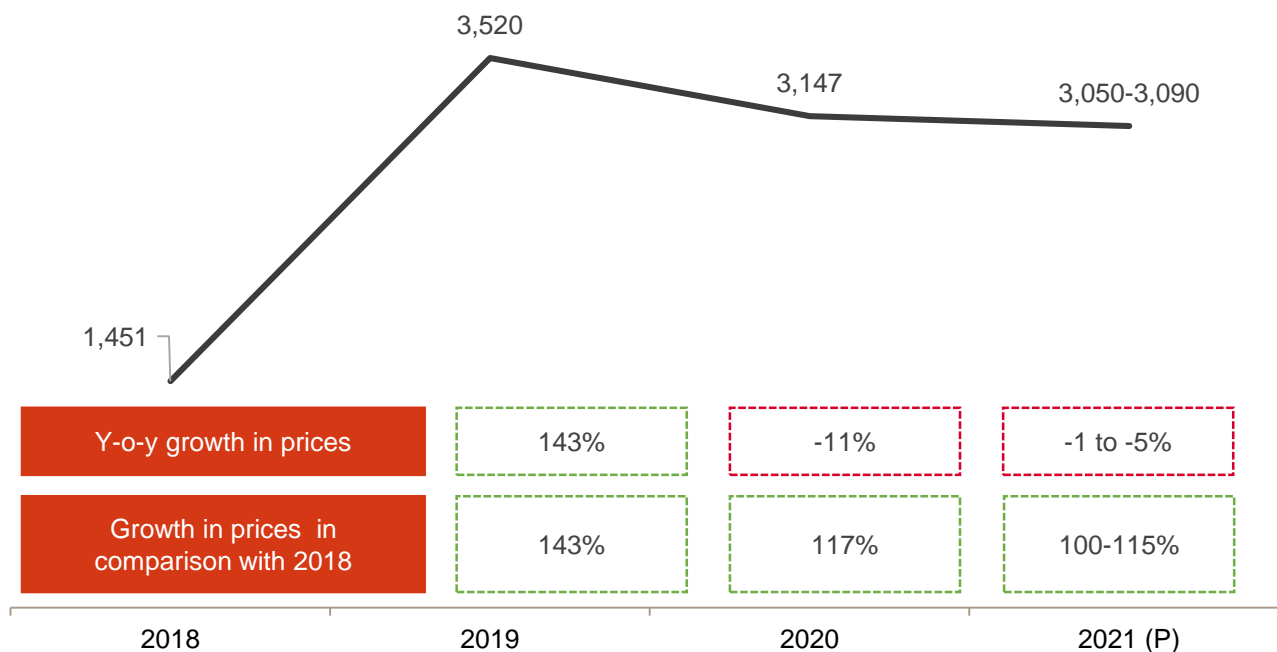
Thus, the vagaries of monsoon are expected to delay arrivals of kharif onion in the market by 2-3 weeks to the end of October or beginning of November. Prices are likely to be elevated until then.

Onion prices likely to remain high

The trend of the past two years shows untimely rains in August-September hampered onion harvest, and prices doubled compared with 2018, when conditions were normal. CRISIL Research forecasts an increase of more than 100% in onion prices this year as well, compared with 2018. Prices are expected to cross Rs 30 per kg for kharif 2021 because of the challenges faced in transplanting the crop in Maharashtra, though this will be slightly lower on-year (1-5%) on a high base of kharif 2020.

Additionally, natural calamities (Cyclone Tauktae) have led to increase in moisture content in the stored rabi crop, thereby shortening its shelf life. This is expected to prepone the arrival of stored rabi crops before the lean season, adding to supply woes.

Weighted average onion (mandi) prices (Rs/quintal) for September-November

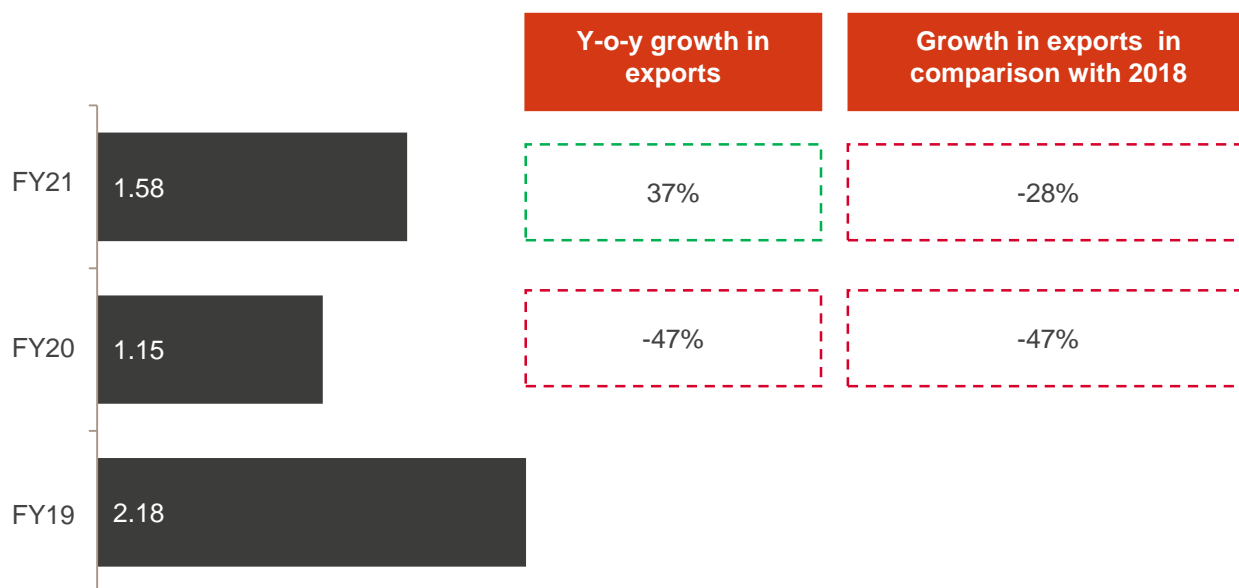


Keeping prices in check

The government has taken measures to curb the rise in onion prices. A buffer stock of 2 lakh metric tonne has been set for onion for fiscal 2022. Almost 90% of the planned buffer stock for onion has been procured, with the highest contribution coming from Maharashtra (~0.15 million MT). Additionally, the government has also advised increase in kharif onion acreage in the traditionally non-onion-growing states of Rajasthan, Haryana, Madhya Pradesh, Gujarat and Uttar Pradesh from 41,081 ha to 51,000 ha.

Exports (8-10% of total produce is exported) is another major factor that drives the pricing of onion. While fiscal 2021 showed an increase in exports by 37% on a low base, exports could not recover to levels seen in fiscal 2019 on account of the export ban imposed from September to December 2020. Exports are unlikely to be meaningful this year as well and restrictions may continue to support domestic supply and prices.

Export of onion, quantity (million MT)



Overall, CRISIL expects kharif 2021 production to increase by (~3%) on-year. Though the onion crop from Maharashtra is anticipated to arrive late, additional acreage, better yields, buffer stocks and the expected export restrictions are expected to lead to a marginal decline in prices.

That said, monsoon remains the key monitorable.

If untimely rains lash the key producer states in September and October, the crop could bring more tears with price inflation and reduced supplies.

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