



# **BASAI News Updates**

**Sept. 18, 2022**

# LATE MONSOON REVIVAL BOOSTS FARM OUTLOOK

**NEW DELHI:** A late revival of the monsoon has brightened farm prospects, enabling a swift catch-up in sowing deficits of kharif crops that supply half of India's annual food output, data from the farm ministry show. The overall area planted with a range of crops, which was smaller due to erratic rains just weeks ago, now stands slightly above the normal limit, which is an average of the past five years. At 109.2 million hectares, acreage has surpassed the average of 108.5 million hectares, the data show as on September 16. To be sure, the area under rice, oilseeds and pulses is still lower than last year as heavy rainfall in some states and dry conditions in others hammered crops. But the sowing deficits in each of these have narrowed. As rainfall recovered, farmers acted swiftly to sow crops, especially

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## Late monsoon revival may help recover deficit in kharif output

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**NEW DELHI:** A late revival of the monsoon has brightened farm prospects, enabling a swift catch-up in sowing deficits of kharif crops that supply half of India's annual food output, data from the farm ministry show.

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The area under rice remains lower than last year. PTI FILE

millet, whose area has jumped 4.2% to 18 million hectares.

The area under pulses stood at 13.1 million hectares, the data showed, bridging the deficiency of about 6% in August to 4.1% now.

The sowing deficit in paddy, which was nearly 18% in July, has been gradually tapering, and narrowed to 4.5% at 39.9 million hectares. The shortfall in oilseeds is just 0.6% now, to stand at 39 million hectares.

The paddy gap will remain because not much rice can be grown in August. The country is

unlikely to see any serious shortage of key items as kharif acreage in most states is at normal levels, a farm ministry official said, requesting anonymity.

"The revival in monsoon is very good news not just because it narrowed sowing gaps, but also because large reservoirs are getting filled, soil moisture is being replenished and this is crucial for the rabi season," said KK Singh, head of agricultural meteorology at the India Meteorological Department.

The Reserve Bank of India, in a report released on Friday, said: "With the late revival and spread of the monsoon to the deficit regions and predictions of a delayed withdrawal, kharif sowing is set to exceed last year's acreage. Even paddy and pulses are swiftly catching up."

Extreme weather this year hit farm output prompting the country to ban export of the grain in May and put restrictions on shipments of rice this month.



# Paddy season set to begin, Palwal admn gears up to check farm fires

**BIJENDRA AHLAWAT**  
TRIBUNE NEWS SERVICE

**PALWAL, SEPTEMBER 17**  
With paddy harvesting set to begin, the district authorities have announced a drive to curb incidents of stubble-burning, claimed to be one of the main causes for the generation of the bad quality of air in the region.

“Though a total of 96 vil-lages where paddy is grown will be on the radar, the authorities will give special attention to 18 vil-lages included in the “red” and “yellow” zones respectively,” said an official of the Agriculture Department here.

He said “red” and “yellow” zones were those from where a majority of the incidents of stubble burning were reported. While three vil-lages of Baswa, Biduki and Khambi had been cate-gorised to be in the “red zone”, 15 vil-lages, identified as Mandkol, Alawalpur, Badram, Janoli, Khajurka, Kithwari, Rasulpur Asawa-ta, Chajjunagar (Palwal block) Sondh and Sewali of



**24X7 SURVEILLANCE**

- 96 vil-lages where paddy is grown to be on the radar
- Special focus on 18 vil-lages included in ‘red’ and ‘yellow’ zones
- Agriculture, police, pan-chayat depts and remote-sensing teams to be on job

« A hoarding asking farmers not to burn stubble put up ain Palwal district. TRIBUNE PHOTO

Hodal Block and Hassanpur, Pinghor and Raidaska vil-lages of Hassanpur block, were in the “yellow” zone.

“Besides keeping a check through the images collected by the Haryana Space Appli-cations Centre (HARSAC), a nodal agency of the Citizen Resources Information Department, Haryana, for Remote Sensing and Geo-graphic Information System (GIS), physical patrolling will be carried out 24X7 by teams the agriculture, police and panchayat departments to check the menace,” said Dr Pawan Sharma, Deputy

Director, Agriculture (DDA). Adding that the teams might have to halt in vil-lages, he said monitoring would be done on a daily basis by a committee headed by the DC. He said as paddy harvesting was expected to start within a week and continue till Octo-ber-end, swift action would be taken against the viola-tions, which include the iss-uing of challans and registra-tion of FIRs.

The district has a total of 25,000 hectares of area under paddy, which includes 22,000 acres under basmati and 3,000 hectares under the non-

basmati variety of the crop. Around 78 cases of stubble burning had been reported in the district last year in which a penalty of Rs 2.02 lakh was imposed, along with the lodg-ing of four FIRs. ‘Over 110 and 210 incidents were recorded in the district in 2020 and 2019, respectively, according to officials.

“As a violation invites a fine of Rs 2,500 for each acre, an amount of Rs 1,000 per acre is also given to those farmers who adopt proper measures for the proper disposal of the stub-ble,” said the DDA.



To improve air quality, the Palwal administration has decided to launch a drive to curb stubble-burning incidents in the district. FILE



# My miracle rice



GURDEV SINGH KHUSH

COME from a farming family. While I was studying, the opportunities were very limited and I always wanted to go abroad for higher studies and do research. In this, I was encouraged by my father, who was my first mentor. Interestingly, he was the only one from his village, Rurkee, 7 km from Phagwara, to pass from a high school. After graduation from Punjab Agricultural University (PAU), Ludhiana, in 1955, I borrowed money from a relative and went to England. There, while I worked in a factory at night to return the borrowed sum, I'd apply for admission to various universities during the day. I was fortunate to get admission with scholarship in three universities in the US. In 1957, I joined the University of California, Davis, which offered me admission to PhD in Genetics with half-time assistantship. After completing my PhD in 1960, I worked as a faculty member in the same university for seven years.

I was researching on tomato there when the chairman of my department recommended my name to the director of the International Rice Research Institute (IRRI) in the Philippines; when he had come to our university looking to hire a young rice breeder. I joined the IRRI in 1967, from where I retired in 2002. Thereafter, I rejoined the University of California as adjunct professor and worked for another 13 years.

I worked on rice breeding for 35 years and developed more than 300 high-yielding rice varieties, which later came to be known as miracle rice. These were widely adopted and planted all over the world, particularly in Asia. In India, this gave impetus to the Green Revolution. From being food insecure and on the verge of famine in the 1960s, India has not only become self-sufficient but has also become a food surplus country. It is the second largest producer of foodgrains, the largest milk producer, and the second largest producer of vegetables in the world. It has 70-million tonnes of buffer stocks of rice and wheat and is the largest exporter of rice in the world. Because of the Ukraine-Russia conflict, India has become a major exporter of wheat. Yet, 200 million Indians are food insecure and 40 million children below five years of age are stunted. This dilemma of food surplus and food insecurity at the same time is due to poverty and lack of employment for the food insecure people.

I come to India almost every year and meet my brother, who still lives in our village. I also visit my alma mater, PAU, in relation with philanthropic activities of my foundation which offers scholarships to the needy students. PAU is doing good work in farm research. But research on cellular and molecular biology (biotechnology) is advancing rapidly and we need to invest in new areas of research and make attempts for breakthroughs in increasing food productivity. Countries like China are already investing heavily in basic research. Young scientists should aspire to become world-class profes-



**RICE AND SHINE:** (From left) Dr Gurdev Singh Khush, Dr Norman Borlaug and Dr MS Swaminathan, the agricultural scientists who played a seminal role in the Green Revolution. PHOTO COURTESY: THE WRITER

sionals. It is vital to keep our country food secure through farm research. Our scientists should aim to do research worthy of a Nobel Prize. The breakthroughs in technology should go hand in hand with a rise in GDP and higher income for farmers.

The base of the agricultural sector in India is that the farm size is very little. Nearly 80-90 per cent farms in our country are less than 2 hectares. Besides, the input costs have been increasing rapidly. Too many people are dependent on farming. Slowly and slowly, we have to move more people away from farming and create alternative employment opportunities.

Also, the water table is going down due to too much area under rice cultivation. We need to diversify and grow crops that require less water. The area planted for rice should be reduced progressively to less than half of what it is at present. At present, the country spends more than \$2 billion in importing edible oils. Alternative crops such as soyabean and other pulses and sunflower should be grown instead. Small farmers should grow high-value crops and vegetables. They could invest in animal farms. This will help increase production in poultry and fisheries sectors.

Indian scientists have paid less attention to resource management. Efforts should be made to develop newer technologies for water and soil management. Indian soils have, on an average, 0.5 per cent of organic matter, whereas for high productivity, there should be at least 1.5 to 2 per cent organic matter. Because of low organic matter, fertiliser-use efficiency is also low. Not much attention has been paid to practices 'conservation agriculture' which should help improve soil fertility.

Water use in agriculture is treated as a free and unlimited resource. Flood irrigation is now the norm all over the country, and a very limited area is under water-saving methods such as sprinkler and drip irrigation.

Already, climate change is affecting productivity. Last season, because of high temperature, the production of wheat was 10 per cent less than normal. Bigger dangers lie as the glaciers are melting very fast. A recent consequence has been the floods in Pak-

istan. Our farm production is also dependent on the water from glaciers that melt in summers. The faster melting of our glaciers would lead to flooding of the Ganga and Sutlej basins. There will be lesser supply of water left for irrigation during summer, eventually affecting food production.

Indian farmers should aim to produce healthy food free of chemicals and other contaminants. Less attention has been paid to improving the micronutrient content of cereals. Thus, the poor in India suffer from a lack of adequate amounts of zinc, iron and Vitamin A in their diet. On the other hand, we have changing food habits, which are a natural outcome of urbanisation and improved living standards. An increasing number of Indians can now afford high-value foods such as meat, milk, fruits and vegetables. They derive fewer calories from cereals such as wheat and rice. Thus, greater amounts of wheat and rice are now available for export.

Urbanisation leads to the consumption of processed foods. This, combined with over-consumption, are contributing to the increase in obesity. It is estimated that 70 per cent of Indians will live in urban areas by 2050. This will impact the incidence of obesity, and healthcare costs will increase.

I have mixed feelings about subsidies. Some of the subsidies are necessary. For example, fertiliser subsidy was required during the food deficit decades of 1960s and 1970s. The Green Revolution may not have happened if there had been no subsidy for fertiliser. At the same time, higher levels of fertiliser subsidies have led to overuse of fertilisers, leading to water and air contamination. The provision of free electricity for tubewells in Punjab is a bad use of subsidy.

I have worked for almost 60 years now. Though I no longer hold any office, I continue to work with young scientists who are doing research work. The best thing I can do is share my experiences and work with younger people.

— Based in California, the writer is an acclaimed agronomist and geneticist (As told to Seema Sachdeva)



Biological Agri Solutions Association of India



# Modi to meet Union ministers, secys on economy, commerce

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**NEW DELHI:** Prime Minister Narendra Modi will meet the council of ministers and all secretaries later this month for a threadbare discussion on the issues of economy and commerce, officials familiar with the matter told HT.

One of the officials mentioned above said the meeting is of "utmost importance" as it takes place in the backdrop of the World Bank's latest report which indicates that the world could face a recession next year amid simultaneous tightening of monetary policy by central banks.

"Also, for a long time, economy and commerce have not been discussed at such meetings," the official added.

With just 20 months left for the next general election, the meeting is also intended to identify priority areas and political tasks, said the official.

## THE MEET COMES IN THE BACKDROP OF THE WORLD BANK'S REPORT HINTING AT A GLOBAL RECESSION NEXT YEAR

The meeting, to be held either on September 28 or 30, is likely to see a stock-taking of the outcomes in the two sectors.

"All participants have been verbally informed, but no agenda of the meeting has been circulated so far to ensure free-flowing discussions on the two vital topics," said the second official.

Another looming issue is the soaring retail inflation that has grown to 7% in August — the eighth consecutive month when the Consumer Price Index remained above the 6% mark,

which is the upper limit of the Reserve Bank of India (RBI)'s tolerance band.

Opposition parties have been targeting the government on the issues of price rise and spiralling fuel prices, including cooking gas.

Discussions are also likely to be held on further ways to attract fresh investment and rejuvenate efforts for domestic production under the Make in India programme, said the second official.

"The Free Trade Agreements are a major area for the government and we are trying to push many of our traditional products, such as AYUSH components, into the WTO mainstream," said the official.

So far, India has signed 13 FTAs across the world and is now eyeing such agreements with the UK and Canada. Negotiations are also on for an FTA with the European Union.



Biological Agri Solutions Association of India



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# Super bowl: It's a high score for the ultimate wholegrain

Swetha Sivakumar



In 1994, Rickard Öste, professor emeritus with the department of food technology at Lund University, Sweden, invented an oat-based drink he called Oatly. It was meant as a milk substitute for the lactose-intolerant, and for nearly 20 years it remained a niche product.

Then Oatly's new CEO Toni Petersson launched "the barista blend", in 2014. Company reps were sent to high-end coffee shops across New York City to convince baristas to recommend it to their customers. The baristas loved it because the plant-based milk had a rich texture that made frothing easier.

The brand became so successful, mainly via cafés, that it debuted its IPO on the Nasdaq valued at \$10 billion, in 2021. The company has gone on to launch oat-based creamers, ice-cream, yoghurt. There's talk of oat-based cheeses next.

The oat breakfast beyond Oatly, meanwhile, has evolved too. You can now buy oat groats, rolled oats, instant oats. All this starting a grain that was viewed with disdain for centuries. Samuel Johnson's Dictionary of the English Language (1755) defined the oat as "A grain, which in England is generally given to horses, but in Scotland supports the people." (The UK is one of the world's largest consumers of oats today.)

Yes, oats are a late bloomer compared to staples such as rice and wheat. There's a reason for this. Oats carry two to three times more fat than wheat. They contain a fat-digesting enzyme, lipase, that makes the grain go rancid quickly unless inactivated by heat treatment. It's also a hard grain to cook. Whole groats (oats with just the husk removed) take up to four hours. Grinding the grain is an option, but that yields a pulpy porridge with an admittedly unlikeable texture.

One of the first breakthroughs in cooking time was achieved by chopping up groats using steel blades, a technique first used in 1877. Steel-cut oats

cook in an hour. Another significant improvement came when the Nagel brothers (John and Henry, from Illinois) were able to produce oat flakes by pressing oat groats with rollers. This technique, invented in 1900, dropped the cook time to 10 minutes or less.

The thing about oats is that they're really good for you, precisely because they are so hard to process. Unlike rice and flour, oats cannot have their fiber refined away. The oat grain does not break cleanly into bran, germ and endosperm. Food manufacturers (for once!) cannot separate it into its components. Oats remain technically wholegrain, even when steel-cut or chopped up. This means that they are able to retain their minerals (calcium, iron, magnesium, phosphorous, zinc etc) to a far greater degree.

Oats are also rich in soluble fibers called beta glucans, which are said to lower cholesterol levels in the body. One theory is that beta glucans do this by absorbing water to form a gel in the stomach. This gel acts like a net that traps bile and pushes it through the intestines and out of the body, preventing reabsorption. The body then makes up for the lost bile by converting existing cholesterol into bile. Beta glucans also have anti-inflammatory properties, boost the growth of good gut bacteria and some studies suggest they may help lower the risk of heart disease.

Meanwhile, unable to break down the grain, food technology has focused instead on ancillary products such as oat milk. This is good news too. Try making oat milk at home. The moment you heat it, it gets goeey and viscous. This is because of the presence of a starch called amylose, which gets thick and pasty when heated.

How does "barista oat milk" prevent this? Öste figured out that if enzymes were added to oat milk, they would break down the main starch components (amylose and amylopectin) into smaller carbohydrates such as dextrin and glucose. As a bonus, they make the oat milk taste sweet with no added sweeteners. Whichever way you cut it, oats are a sweet deal.

(To reach Swetha Sivakumar with questions or feedback, email [upgrademyfood@gmail.com](mailto:upgrademyfood@gmail.com))



**F.No. 2-5/2022-NRAA**  
**Government of India**  
**Ministry of Agriculture & Farmers Welfare**  
**Department of Agriculture & Farmers Welfare**  
**(National Rainfed Area Authority)**  
**NASC Complex, 2nd Floor, Dev Prakash Shastri Marg, Pusa**  
**New Delhi-110012**

**Subject: Engagement of Senior Technical Consultant, Technical Consultant and Young Professional on contract basis in National Rainfed Area Authority.**

National Rainfed Area Authority (NRAA) invites applications for engagement against one position each of **Senior Technical Consultant (Forestry/Agro-forestry), Senior Technical Consultant (Watershed Development), Technical Consultant (Watershed & Community Management), Technical Consultant (Horticulture) and Young Professional (Water Management), Young Professional (Forestry) on contract basis.**

2. For further details relating to eligibility and other terms and conditions, the applicants may visit NRAA official website [www.nraa.gov.in](http://www.nraa.gov.in) under the link [www.nraa.gov.in/Recruitments.aspx](http://www.nraa.gov.in/Recruitments.aspx). The last date for receipt of applications is up to **21st October, 2022.**

Sd/-  
**(Bikram Singh), Section Officer**

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