

ACFI NEWSLETTER

JULY 2025

Prosperous farmers essential for goal of developed India: Shivraj Chouhan

PRESS TRUST OF INDIA

■ Bareilly

Union Agriculture Minister Shivraj Singh Chouhan on Monday stressed that a developed agricultural sector and prosperous farmers are essential to achieving the goal of 'Viksit Bharat' (developed India).

Speaking at the 11th convocation ceremony of the Indian Veterinary Research Institute (IVRI) here, the minister emphasised the importance of taking up integrated farming, which combines crop cultivation, animal husbandry and related agri activities, to make agriculture profitable.

"Prime Minister Narendra Modi has resolved to build a developed India and under his leadership, a massive campaign is underway to build a grand, glorious, prosperous and developed India.

"But to achieve 'Viksit Bharat', a developed agriculture sector and prosperous farmers are essential in which animal husbandry has a very big contribution," the minister said.

Chouhan, who is popularly



known as *mama* (maternal uncle), addressed the passing out students as *priye vidyarthee bhaanje aur bhaanjiyo* (dear nephews and nieces).

"IVRI is not just an institute, but (it is) the base of India's rural lifestyle, animal husbandry culture and scientific advancement... "Scientists who passed out from here have given direction not only to the country but also to the world in the field of veterinary science, rural development, livelihood, milk production, vaccine research, disease diagnosis and biosecurity," Chouhan said. He called upon the students to use

their education for the country's growth and development.

"Agriculture cannot become a profitable business without animal husbandry. Only crops will not suffice. A new concept of integrated farming in which animal husbandry is done along with farming. There are other dimensions to it too.

"Therefore, animal husbandry is very important even today and therefore there is no doubt that we have done amazing work in this field, but there is a need to keep working continuously in the future," the Union minister asserted.

Later, in a post on X in

Hindi, Chouhan said, "Toda I had the privilege of participating in the convocation ceremony organised at ICAR - India Veterinary Research Institute (IVRI) located in Bareilly, Uttar Pradesh, in the dignified presence of the Honourable President Droupadi Murmu Ji... "I extend my heartiest congratulations and best wishes to all the newly initiated students for a bright future. The nation will surely benefit from your knowledge, your spirit of service and your energy," Chouhan said on X.

He added that animal husbandry is extremely important for the rural economy.

"Even today, a large part of livelihood in villages depends on animal husbandry and related activities. Without this farming cannot become a profitable business.

"I am confident that all of you will play an active role in the resolution of 'Viksit Bharat' (Developed India) and 'Viksit Krishi' (Developed Agriculture) and will make the vision of respected Prime Minister Shri @narendramodiji a reality," Chouhan said on 2

Announce co-op policy by Jan: Shah to states

TIMES NEWS NETWORK

New Delhi: Union home and cooperation minister Amit Shah Monday said a national cooperative policy will soon be announced, which will be effective from 2025 to 2045 — ending ahead of India centenary of Independence in 2047.

Addressing the 'Manthan Baithak' meeting of ministers of cooperation of all states and UTs here, Shah said under the national cooperative policy, each state will formulate its own cooperative policy as per local needs.

Suggesting that every state announce its cooperative policy before Jan 31, 2026, he said Model National Cooperative Policy Act will bring discipline, innovation and transparency to the cooperative sector across the country.



Amit Shah chairs a 'Manthan Baithak' with cooperation ministers of all states and Union territories in New Delhi on Monday

The purpose of the 'Manthan Baithak', marking the celebration of the International Year of Cooperatives (IYC) 2025, was to review ongoing schemes to strengthen the cooperative movement in India, assess achievements, and provide a dynamic platform

to promote collaboration.

Speaking about expanding the footprints of cooperatives in the country, Shah said the Modi gov't's goal is that there should not be a single village in the country without a cooperative within the next five years, and the

newly created national cooperative database should be used to achieve this goal.

The meeting focused on comprehensive evaluation of initiatives taken by the ministry of cooperation to facilitate meaningful exchange of best practices, policy suggestions and implementation strategies among states and UTs. The main points discussed included progress on setting up of two lakh Multi-Purpose Primary Agricultural Credit Societies (M-PACS) and promotion of dairy and fisheries cooperatives to enhance rural service delivery.

On a goal to establish two lakh PACS, Shah said the target for the financial year 2025-26 should be completed by Feb next year itself, only then the ambitious goal can be achieved on time.

India refuses to give in to US demand on farm in trade talks

FINAL PUSH. If two sides are unable to reach deal by July 9, exporters may face 26% tariffs

Amiti Sen
New Delhi

India has refused to give in to the US demand for market access in sensitive agriculture sectors, including dairy and GM crops, in the on-going trade negotiations in Washington DC where the two sides are trying to strike an interim deal by the deadline of July 9, sources have said.

"New Delhi has hardened its position on agriculture as it is a redline and it is not possible to meet many demands from the US. If a deal is not struck by July 9, India may face the full brunt of 26 per cent reciprocal tariffs on its exports to the US," a source tracking the matter told *businessline*.

TRUMP TARIFF

However, efforts are still on to reach a pact, and the Indian negotiating team will stay back in Washington DC for the next few days to see if



EFFORTS ON. India's negotiating team will stay back in Washington DC for the next few days to see if a deal could emerge by the D-Day

a deal could still emerge by the D-Day, the source added.

On April 2, US President Donald Trump announced reciprocal tariffs on most countries with which US had a trade deficit and paused them for a 90-day period that expires on July 9. The tariff rates differed for different countries mostly depending on the deficit levels.

Trump declared a 26 per cent reciprocal tariff on Indian goods, of which a baseline tariff of 10 per cent was already imposed in April.

It was being hoped that if an interim trade deal, to be later absorbed into a full-fledged comprehensive bilateral trade agreement (by the designated timeline of Fall 2025), could be carved out by July 9, it could benefit both sides. "India wanted that the interim deal should not only result in roll back of the entire 26 per cent reciprocal tariff but the US should also withdraw the sector-specific duties on steel & aluminium and automobiles. If the two sides fail to clinch a deal by

July 9, none of that is going to happen," an industry source said.

SENSITIVE ITEMS

While India has in the past offered some duty cuts to other trade partners in items such as fruits, nuts and meat, there are many sensitive items, including dairy products, that the government cannot open up. "Genetically modified crops grown in the US, such as soya and corn, that America is keen to sell to India, is yet another redline that cannot be crossed," the industry source. Neither can India provide market access in foodgrain sensitive to India's food security such as rice and wheat, the source added.

"One hopes that the US understands India's position in agriculture and a deal is reached by July 9. If that turns out to be difficult, one could wish for a postponement of the reciprocal tariff imposition date," the source said.

Fake fertiliser menace adds to farmers' woes in Haveri

HANS NEWS SERVICE
HAVERI

EVEN as farmers in Haveri district are still grappling with poor-quality seeds, a new crisis has emerged with the sale of spurious fertilisers. With the monsoon showing promise this year, demand for DAP (Di-Ammonium Phosphate) fertiliser soared, creating an opportunity for unscrupulous traders to cash in by selling fake or substandard supplies.

In Masanakatti village of Hanagal taluk alone, over 28 farmers reportedly purchased 50 kg bags of DAP at ₹1,400 each from two local shops. Farmers from neighbouring Dyana Kopp and nearby villages also bought the same stock for sowing maize. However, a month after sowing, the maize crops failed to grow properly — germination occurred but growth remained severely stunted. Suspicious, the farmers got the fertiliser tested and discovered they had been supplied fake DAP.

Accusing the shop own-



ers of cheating them during a crucial stage of cultivation, farmers expressed anger and despair.

“After being hit by poor-quality seeds, we are now cheated with fake fertiliser. We are left with nothing but debt and despair — this is pushing us to the brink of suicide,” a farmer lamented.

Farmers allege that the traders sold fertilisers worth over ₹3 lakh without any valid licence or certification.

They are now demanding strict action against fake fertiliser companies and immediate compensation from the government and district administration to offset the

losses caused by failed crops.

Acting on the complaints, Hanagal agriculture officials have filed an FIR at Adur police station against two shopkeepers — Shankrappa Angadi and Siddappa Gurusiddappanavar — from Masanakatti village.

Police have arrested the accused and further investigation is underway. Farmers’ organisations and local leaders have urged the administration to crack down on the network supplying counterfeit fertiliser and ensure no repeat of such incidents, which threaten the livelihood of already distressed farmers.

HINDUSTAN TIMES, ND 02-07-2025

Niti Aayog's paper called for lower agri tariffs

Zia Haq & Vrinda Tulsian

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A paper on US-India farm trade by Niti Aayog, now withdrawn, suggested a selective lowering of tariffs to the country's advantage, including on genetically modified (GM) soyabean and corn, apart from creating liberal domestic farm markets, a key provision of the farm laws repealed by the Modi government following a backlash from farmer unions.

The paper authored by economists Ramesh Chand and Raka

Saxena, acknowledged challenges posed by Trump's reciprocal tariffs announced in April, but identified areas where India could gain while recommending reforms to enhance acceptance of Indian produce in the US. It was first uploaded on the think-tank's website on May 30, and withdrawn in the following week.

Ongoing negotiations between the two nations present "clear opportunities for reform and mutual benefit", the authors said. Chand is member and Saxena a senior adviser at the Niti



Niti Aayog's paper on US-India farm trade was withdrawn. PH

Aayog, the state-run think tank. Washington's demand that India open its markets for GM

soyabean and corn, which the US produces in excess, has been a key sticking point in talks for a bilateral trade agreement, according to a person familiar with the matter, who asked not to be named. India doesn't allow GM foods and has steered clear of home-grown GM technologies in crops, such as mustard.

The paper however said India could look at lower tariffs on GM produce from the US. "India is the largest importer of edible oil in the world and the US has huge export surplus of soybean which is GM. India can offer some con-

cessions to US in import of soybean oil to meet US demands to reduce trade imbalance, without harming domestic production," the authors wrote.

The US wants greater market access for its farm produce in India, which enjoys a large agricultural trade surplus, with total farm exports valued at nearly \$5.7 billion in the three years ending 2024, as per the paper.

If a trade agreement isn't concluded before July 9, a date set by Trump, then higher US tariffs of 26% on India's exports will kick in.

China fertilizer curbs test India's resilience

BY NANDITA VENKATESAN

China is flexing its trade muscles again by reportedly limiting the export of speciality fertilizers to India. Besides diammonium phosphate (DAP), China has also restricted the export of rare earth materials. The curb on speciality fertilizers has made India vulnerable due to its import dependence, even as China's role has seen a decline in recent years.

India meets 75-80% of its total consumption needs through local production, data available until 2023-24 by fertilizer ministry showed. Trends vary by fertilizer: India has met 77% of urea needs and 84% of nitrogen, phosphorus and potassium (NPK), locally between FY20 and FY24. However, domestic production covered only 40% of DAP consumption and muriate of potash (MoP) is 100% import dependent.

Speciality fertilizers are advanced fertilizer products designed to provide targeted nutrients to specific crops. They can contain components of urea, DAP and NPK. The good news is India has reduced its reliance on China for overall fertilizer imports, even as a large part of the decline in 2024-25 came due the latter's supply squeeze on DAP. Nevertheless, supplies from Russia and other countries offer India some buffer against China.



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Geopolitical Winds Set to Sweeten India's Apple Harvest

As importers look to steer clear of Turkey, Iran, and Afghanistan, price of produce from Kashmir, Himachal Pradesh likely to rise

Shantanu Nandan Sharma

New Delhi: An apple a day—but at a price set by geopolitics. With Turkey, Iran and Afghanistan emerging as the top three apple import sources for India, shifting geopolitical dynamics are expected to play an outsized role in shaping prices this harvest season, beginning in August.

At Delhi's Azadpur Fruit and Vegetable Market—arguably Asia's largest—traders may continue to

steer clear of imports from Turkey, which was India's largest apple supplier last fiscal year with shipments worth \$97 million. The reluctance stems from prevailing negative

sentiment toward Ankara over its active support for Islamabad during the recent India-Pakistan conflict, two traders have told ET. Compounding the challenge is the continued closure of the Attari-

Wagah border between India and Pakistan since May 1.

This has effectively halted the entry of apples from Afghanistan—typically the most affordable among all imported varieties—

into the Indian market. The disruption may contribute to a rise in prices of domestic apples from Kashmir and Himachal Pradesh, whose harvest peaks between August and October, when traders will buy and store the apples for the months to come.

"Apples from Afghanistan, which are sold for Rs 40-65 per kg in the wholesale market, are cheaper than Kashmir or Himachal apples, which cost between Rs 60 and Rs 90 per kg," says Pawan Chhabra, fruit merchant and owner of Adarsh Fruits.

Premium Segment May not be Hit ►► 7



Slice of Pie
INDIA'S APPLE IMPORTS:
TOP 5 SOURCES (IN \$ M, 2024-25)



Source: DGCIIS, GTRI, Interactions with traders in Azadpur Mandi

CHALLENGES

Some traders may avoid imports from Turkey due to its support for Pak

Imports from Iran opting for safer bets

Imports from Afghanistan have halted with the Wagah border closure



AI pest control to be widened

Vijay C. Roy

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NEW DELHI

India plans a nationwide roll-out of its artificial intelligence (AI)-driven pest detection scheme to help farmers, agriculture and farmers welfare secretary Devesh Chaturvedi told *Mint*.

The National Pest Surveillance System (NPSS), launched on 15 August, 2024, has seen a limited roll out for around 30,000 users so far, including farmers and extension workers.

But it will ultimately be made available for around 146 million farmers. The scheme uses images of pests to help farmers mitigate pest attacks and reduce crop losses.

The development assumes significance given that average crop losses are estimated at 10-35% annually due to weeds, pests and disease.

Losses due to pest and diseases are not static and vary from year to year depending on temperature, humidity, rainfall, susceptibility of the crop variety and agronomic practices.

Chaturvedi said NPSS currently covers pests and dis-



The scheme uses images of pests to help farmers mitigate pest attacks and reduce crop losses.

MINT

eases in 61 crops and will be expanded.

"We plan to bring more farmers and extension workers under its ambit taking it to 50,000 users initially. Further, the idea is to extend it to all farmers," added Chaturvedi.

The agriculture ministry plans to take the technology to the farmers so that they can communicate with experts directly by uploading images of affected crops or pests.

Agriculture contributes around 18% to the Gross Domestic Product (GDP) and 46% of the country's popula-

tion is engaged in it. Any disturbance in the sector pertaining to productivity not only acts as a stumbling block in taming inflation but also affects the farmer's livelihood.

"AI's computer vision model has the capability to identify and differentiate between farmer-friendly insects and pests. The latter are harmful to crop growth which eventually adversely affects farmers income. Once the pest is detected, these models can be clubbed with pest management advisories, which can reduce indiscriminate use of pesticides.

Illegal HT cottonseeds flood the market, again

KV Kurmanath
Hyderabad

Illegal herbicide-tolerant (HT) cottonseeds have hit seed companies hard. Even before seed companies could place their seeds in the market through retail channels, illegal players have already sold huge quantities, leaving them in disarray.

HT seeds, a third-generation Bt technology, are not permitted by regulators in India.

When farmers spray herbicides over the crop, it will kill the weed and not the plant as it is protected with the HT attribute.

As a result, the industry faces a challenging situation with the seed companies staring at huge inventories. Against the market size of 4-4.5 crore packets (of 450 g

each), the industry has an inventory of about 7 crore packets, threatening to impact bottomlines and margins. The fact that seed inventories are facing this situation even after the completion of sales for the kharif season reflects the severity of the problem. The woes don't stop there.

MORE PRODUCTION

Seed companies went in for largescale production, expecting a rise in demand. This is because the industry has to plan production a year ahead to ensure the availability of seeds for the following year.

"Fresh seed production could well increase the inventory to 8-8.5 crore by the beginning of the next kharif marketing season. It is a tough time for seed companies," a top executive of a seed

company told *businessline*.

ACREAGE MAY RISE

Despite setbacks due to prolonged dry spells in a few pockets like Telangana and Andhra Pradesh at the beginning of the season, cotton acreage looks comfortable. It is expected to increase by 7-8 per cent this year compared with the 113.60 lakh hectares last year.

"Large quantities of seeds are expected to be available for the coming year, as production has already been organised. Specifically, an estimated 4 crore packets are expected from fresh production, combined with an anticipated carryover of 3.5 crore packets, leading to a total expected availability of 7.5 crore packets for sales during 2026 and 2027," M Ramasami, Chairman of Rasi Seeds, said.

HIGHER SALES

"Earlier, they used to sell 30-40 lakh packets (of illegal HT seeds).

"This year, they sold one crore packets. This is one-fourth of the aggregate sales of 4-4.5 crore packets in a good year. The challenge of illegal seeds is huge," an industry source said.

"The incidence of illegal HT seeds is very high. Sales of these seeds were completed before the seed companies started their placement.

"We have no clue as to how many packets of illegal HT seed packets were sold. Companies routinely placed their seeds in the market but the sales did not meet expectations, resulting in a large amount of unsold stocks, which gives the impression of excess inventory," Ramasami said.

Micro fertilizer makers seek single pan-India licence

Avinash Nair
Ahmedabad

Voicing disapproval at "over-regulation" and "multiple inspections carried out on micro-fertilizer manufacturers in India", the Indian Micro Fertilizers Manufacturers Association (IMMA) on Thursday sought "one licence" that is valid pan-India.

"The Fertilizer Control Order (FCO) has perhaps run its purpose. The origins of this order was at a time when fertilizer quality was a problem, shortages were there and food shortages were rampant. In this context, controlling fertilizers was perhaps important. In today's context, managing the fertilizers is important. The element of control needs to become management. Just like in FERA (Foreign Exchange Regulation Act), where the regulation of foreign exchange became management, because things became much more open

and transparent and that is the kind of era we need to bring in terms of fertilizers," said Rahul Mirchandani, President of the Indian Micro Manufacturers Association (IMMA), a body representing manufacturers of micro-fertilizers.

The association advocates for government policies and advises on fertilizer laws.

Mirchandani was participating in a panel discussion on "Fertilizer Control Order - Non Subsidised Fertilizers - Ease of Doing Business" organised by the Soluble Fertilizer Industry Association (SFIA) at Mahatma Mandir in Gandhinagar.

"Today, if you look at the consumption of micronutrients in India, we are looking at a CAGR of 7.1 per cent, which is higher than most other categories. When you talk of sustainability, chelated or inert fertilizers, which deliver micro-nutrients, to crops has become one of the fastest growing segments in the country," Mirchandani said.



COST BURDEN. Over regulation added a compliance cost of 8-15% to the product price, which was passed on to the farmers

Pointing out that 65 per cent of the micro-nutrients are used in cereals and grains, he said "over regulation" was adding a compliance cost of 8-15 per cent to the product price, which was being passed on the farmers. In FY25, the volume of consumption of micronutrients stood at 6.35 lakh tonnes.

FACING ODDS

Citing the challenges faced by manufacturers, he said, "Despite being a very innovative and forward looking in-

dustry, we struggle with various issues. We need a separate licence in every State for the same product. We have physical depots in every State which adds cost to the product. We are today in an IGST regime where we can build and produce anywhere. What is the purpose in having a depot in every State and adding to the overheads. Multiple product registrations are taking place for every formulation. IGST billing exists, but movement control persists."

"Multiple inspections are taking place and inspectors at the local level are given sweeping powers. When we look at FCO as part of the Essential Commodities, even a minor variation — for instance, a spelling mistake on the label — are subject to criminal provisions. There is a need to simplify it. We need to move towards a one nation, one licence policy. It will ease regulation," he said, seeking a licence that is valid pan-India, elimination of State-wide sale permission and a centralised digital product registry.

Moderating the discussion, Rajib Chakraborty, President of SFIA, said, "Fertilizer industry is the most inspected industry in the country. Such inspections are not even seen in drugs and pharmaceuticals or food industries.

This is probably a distrust of the authorities on the manufacturers. How will we counter China's dominance in specialty fertilizers in such a situation?"

India, Argentina to diversify trade basket

Vow closer ties in defence, energy, agri & minerals

BUENOS AIRES, PTI

Prime Minister Narendra Modi and Argentine President Javier Milei on Saturday agreed to diversify India-Argentina trade basket and vowed to expand cooperation in a range of critical areas such as defence, security, energy and minerals.

In their wide-ranging talks, the two leaders emphasised on boosting defence cooperation between the two countries as it will serve each other's strategic interests.

Modi arrived in Buenos Aires on Friday on a two-day trip in the third leg of his five-nation tour. Though Modi visited Argentina in 2018 to attend the G20 Summit, it is the first bilateral visit to the South American country by an Indian prime minister after a gap of 57 years.

In a social media post, Modi said he and President Milei dis-



Prime Minister Narendra Modi with President of Argentina Javier Milei during his ceremonial welcome at Casa Rosada, in Buenos Aires on Saturday. PTI

cussed ways to diversify trade ties and enhance cooperation in sectors such as agriculture, defence, security and energy.

"There is immense scope in areas like pharmaceuticals and sports as well," he said.

The prime minister described his meeting with Milei as "excellent".

"We are marking 75 years of India-Argentina diplomatic relations and 5 years since we elevated our relationship to a Strategic Partnership. We have covered significant ground in our bilateral relations, but we

agree that the journey ahead is even more promising," the prime minister posted on X.

Secretary (East) in the Ministry of External Affairs Periasamy Kumaran said the two leaders agreed to enhance India-Argentina collaboration across a range of sectors, including trade and commerce, technology, defence, space, health and pharmaceuticals.

Strategic partnership

Modi and Milei also agreed to further deepen the strategic partnership, he said adding

BILATERAL BOOST

■ India and Argentina elevated their relationship to a strategic partnership in 2019.

■ Bilateral trade between the two countries more than doubled from 2019 to 2022, peaking at \$6.4 billion.

■ In 2024, total trade stood at \$5.23 b, making India Argentina's fifth-largest trading partner and export destination.

they discussed the necessity to expand and diversify trade.

At a press conference, Kumaran said Prime Minister Modi sought Argentina's support in expanding the India-MERCOSUR trade agreement, noting that it could deepen trade ties between the two nations as well.

The preferential trade agreement (PTA) is aimed at expanding economic ties between India and the MERCOSUR bloc that includes Argentina, Brazil, Paraguay, and Uruguay.

No FTAs at expense of India's core interests: Piyush Goyal

Goyal stresses FTAs must ensure mutual market access, rejects any one-sided benefits for foreign countries

STATESMAN NEWS SERVICE
NEW DELHI, 6 JULY

Union Minister for Commerce and Industry Piyush Goyal stressed that India's free trade agreements (FTAs) will never come at the cost of national interest.

During a meeting with representatives of the Jammu-Kashmir Fruits and Vegetable Processing and Integrated Cold Chain Association (JKPICCA) in Srinagar, the minister said the government is committed to ensuring that all trade deals are reciprocal and the interests of Indian traders and manufacturers are protected.

The meeting focused on strategies to sustain industrial development in the cold



Union Minister of Commerce and Industry Piyush Goyal in a group photo with the delegation from the Kashmir Chamber of Commerce and Industry, in Srinagar on Sunday. ANI

chain and agro-processing sectors, crucial for strengthening J-K's agricultural economy and boosting exports.

"Today, I met with representatives of the Jammu-Kashmir Fruits and Vegetable Processing and Integrated

Cold Chain Association (JKPICCA) in Srinagar. During this, discussions were held on strategies to sustain industrial development in the cold chain and agro-processing sectors, which are extremely important for strengthening

J&K's agricultural economy and boosting exports," Minister Goyal wrote in a post on X.

"An FTA is signed so our local goods have duty-free access to other countries and to resolve barriers in accessing other markets. But it's natural that an FTA will have two-way trade. It can't be that they open their markets to our goods while we don't," he pointed out.

The minister emphasised that the Centre would not compromise on sensitive sectors or regional concerns while negotiating market access with foreign partners. "Traders need not worry. Whatever FTA we sign will keep the interests of Jammu & Kashmir and the entire country in mind," he said. He promised to work for

a reduction in the Goods and Services Tax (GST) imposed on handicrafts and handloom products to help promote the sector.

"The issue of GST levied on handicrafts and handlooms was brought to my attention by two or three system delegations. I have suggested that they submit an application regarding this matter to the Finance Ministry as well as to me so that we can explore what relief can be provided."

"We will try to reduce the GST rate from 12 per cent to 5 per cent on these items, which would help promote the handloom and handicraft sectors -- especially in Jammu & Kashmir. We will make efforts to find a way forward in this regard," he added.

'Excessive use of fertiliser reducing soil nutrients in Malnad'

Experts blame farmers for not taking advice seriously

SHIVAMOGGA, DHNS

With excessive usage of fertiliser, nutrients in soil is waning in many parts of Malnad region further reducing the yield. Farmers who would get at least 40 quintal of yield in an acre of land, some years ago, are now getting a reduced yield.

Besides, agriculture experts are of the opinion that farmers are slowly quitting organic manure and switching to chemical fertiliser for faster yield and also to prevent the crop from diseases. As a result, nitrogen-potassium in the soil is dipping and there is no sufficient nutrients to protect the crops from diseases, they pointed out.

Pointing at the change in crop pattern in Malnad region, experts said that majority of the farmers want to grow arecanut and ginger from paddy. As compared to paddy, areca

'Use complex fertiliser'

Ginger and maize growers have been asked to grown pulses in summer to allow the soil to rejuvenate. They have also been asked to use organic manure. But, they do not take these guidance seriously. Instead of overly depending on DAP fertiliser, farmers must make use of various complex fertilisers that not only enhances soil nutrients but also be assured of good yield, said Agriculture Department Joint Director M Kiran Kumar.

and ginger promise good returns. The nutrient-rich manure from their cowshed that



Rampant use of fertiliser is decreasing nutrients in soil in many parts of Malnad region.

DH PHOTO

they would use it for paddy is now being used for areca and ginger. Besides, some of the growers who grow maize are into rampant usage of fertiliser to keep diseases at bay. As a result, the nutrients in soil is waning. Farmers need to adopt organic farming methods.

In fact, use of fertiliser is not the only reason for losing nutrients in soil. Farmers are ignoring traditional farming

methods and they do not follow guidelines issued by agriculture scientists and officials, said Agriculture University Soil Science Department head B C Dhananjay. Besides, without conducting soil test, farmers are using fertiliser which has affected the soil fertility, he pointed out.

Besides, farmers need to use other manure apart from urea and DAP to enhance dis-

ease-resistant in crops. For urea and DAP do not have potassium that help the plants to grow lush and also increase the weight of pulses, he said.

According to agriculture officer D P Ravikumar, continuous use of imbalanced fertiliser has reduced nutrients in soil. Soil tests have confirmed lack of nitrogen and potassium nutrients in disease-hit ginger and maize crops.

Min: Haryana opens grain market in Gurugram to boost natural farming

STATESMAN NEWS SERVICE
CHANDIGARH, 6 JULY

Haryana Agriculture and Farmers' Welfare Minister Shyam Singh Rana said on Sunday that to facilitate the purchase of crops grown using natural farming methods, the state government has established a grain market in Gurugram.

A laboratory has also been set up in the market to test the quality of the produce. Once the quality is assessed, a committee will determine the price and purchase the crop accordingly. The agriculture minister was addressing a gathering as the chief guest at the 7th Fruit Festival Mela, organized at the Subtropical Fruit Centre in Ladwa on Sunday.

He formally inaugurated the event by lighting the cere-



monial lamp and planted a mango sapling on the centre's premises. On the occasion, he felicitated 10 progressive farmers from the horticulture sector with 5,100 each, along with a trophy and a certificate of appreciation.

The minister inspected various stalls at the Mela and gathered information from experts on different mango

varieties. Rana said the state government's goal is to promote natural farming on one lakh acres of land in Haryana. Currently, natural farming is being practiced on 10,000 acres, and this number is steadily increasing.

He informed the audience that the Subtropical Fruit Centre in Ladwa was established in 2016 under Indo-Israeli col-

laboration. Starting with 10,000 saplings, the centre now prepares one lakh saplings annually for distribution to farmers.

Research is being conducted on six crops, including mango, litchi, pear, peach, and chikoo. Scientists at the centre are also working on developing a mango tree whose fruit could fetch around 1 lakh per kilogram in the market. The minister further said that to increase farmers' income and encourage a shift from traditional farming, 17 such centres will be established across the state, of which 11 have already been completed. Sub-centres for litchi in Ambala and strawberries in Yamunanagar will be set up soon. He emphasised the need for farmers to diversify beyond wheat and paddy cultivation into horticulture, fisheries, beekeeping, dairy farming, and other allied sectors.

He noted that the state government consistently formulated new schemes for the benefit of farmers. If any issues arise during implementation, the schemes are revised to ensure maximum benefit to the farming community.

Calling farmers a crucial pillar of the nation, he encouraged them to adopt modern and diversified agricultural practices. Under the Bhavantar Bharpai Yojana, if farmers receive a price below the Minimum Support Price (MSP) in the market, the government compensates the difference to protect them from financial losses. He concluded by stating that with new schemes aimed at boosting income across all sections of society, India is on track to become the third-largest global power by 2027 under the leadership of Prime Minister Narendra Modi.

Implementation of QCO for cotton bales postponed to 2026

The Hindu Bureau

COIMBATORE

The Bureau of Indian Standards (BIS) has postponed the implementation of Quality Control Order (QCO) on cotton bales to August 2026 from August this year. The Cotton Bales (Quality Control) Order, 2023 has been amended for implementation from August 27, 2026.

Industry sources said the textile industry, the main cotton consumer, welcomed the move.

However, the sources said the Centre should withdraw the QCO as the BIS specifications for cotton bales do not have norms for contamination levels permitted for cotton.

The contamination levels are high in Indian cotton and the industry imports high-quality cotton that is contamination free. Cotton growers in other



The textile industry welcomed the Centre's move.

countries will not go in for BIS stamp.

Further, overseas garment brands are nominating raw material suppliers now and the Indian textile industry sources substantial quantity of cotton or yarn from the nominated suppliers.

They will miss the orders as these suppliers will not have BIS registration.

Since there are several practical challenges in implementing the order, the government should withdraw it, they said.

New age tech traps pests, doesn't harm beneficial insects

iTrapper uses ultraviolet and visible light to target and eliminate pests

KV Kurmanath
Hyderabad

Hyderabad-based start-up Delta Things Private Ltd, in association with scientists at the Prof Jayashankar Telangana State Agricultural University (PJTSAU), has developed an advanced light trap, iTrapper, designed to help farmers tackle the challenge of insect infestations, including the notorious pink bollworm.

iTrapper sets itself apart from conventional light-based traps by operating for extended periods, without harming beneficial insects. "Light traps generally don't distinguish good and bad insects. This one is different as it excludes beneficial insects. It works far longer than the normal light



FARMERS' FRIEND. iTrapper operates for extended periods without harming beneficial insects

traps," Ramgopal Varma, Principal Scientist (Entomology) at PJTSAU, said.

Rajashekar Reddy Palla, Founder of Delta Things, funded the university-led project at its incubator AgHub for two years to study the phototactic behaviour of major pests in crops like cotton and paddy. iTrapper utilises both UV and visible light to target and eliminate harm-

ful pests without harming beneficial insects. By using crop-specific, variable light frequencies, it offers a sustainable pest control solution for farmers.

GOOD VS BAD

The IoT-enabled light trap features a specialised multiwavelength LED bulb and an integrated microcontroller. "The device emits only the specific

wavelength of light that attracts the majority of pests for a selected crop, and it operates only during the precise times when those pests are active," Rajasekhar said. "Depending on the crop, it will switch on differently and emit different wavelengths," he said. The iTrapper is programmed to automatically switch off when beneficial insects are active.

Delta Things has sold over 15,000 trappers, registering revenue of about ₹50 lakh. For the international market, an advanced export variant of the iTrapper includes features like bluetooth connectivity, mobile app, cloud integration and a camera that captures hourly images to provide analytics and predictive advisories.

India, Brazil eye markets beyond US

New Delhi plans to increase cooperation in oil & gas, critical minerals and defence

ARCHIS MOHAN
New Delhi, 8 July

India and Brazil, both wary of the tariffs that US President Donald Trump has threatened to impose, looking beyond America for markets for their respective produce, are set to sign almost half a dozen agreements aimed at increasing their bilateral trade during Prime Minister Narendra Modi's meeting with Brazilian President Luiz Inacio Lula da Silva. At the time of writing of this report, the meeting was ongoing.

India's trade with Brazil is the largest compared to its trade with any other country in Latin America. However, it is far below Brazil's trade with China, the US, Argentina, and Germany. India-Brazil bilateral trade had reached \$16.6 billion in 2022-23, and following the drop in oil and gas prices, it is now around \$12.2 billion.

India enjoys a trade surplus as it exports goods worth \$6.7 billion to Brazil and imports goods worth \$5.4 billion. Modi and Lula set a



Prime Minister Narendra Modi being welcomed by Brazilian President Luiz Inacio Lula da Silva and First Lady Rosângela at the Alvorada Palace in Brasilia

PHOTO: REUTERS

bilateral trade target of \$20 billion during their last meeting in November 2024. Brazil is looking to diversify exports to India beyond sugar and crude oil that dominate current sales. Earlier this year, Brazil's Embraer SA, the world's third-largest aircraft manufacturer, set up a subsidiary in India. Brazil is also looking at finding a market in India for its

agricultural and dairy products.

At a recent event, Lula observed that he only recently discovered that Modi didn't eat meat. Brazil is the world's topmost beef exporter. "Our trade relationship is just \$12 billion, it's nothing," Lula said. "So please, arrange a box of cheese. I want it on the table, so he (Modi) never complains about Brazilian food and, who knows,

maybe he'll start buying Brazilian cheese," Lula added.

Hours before he met the Indian PM in Brasilia for a bilateral meeting on Tuesday evening (India time), Lula joined his South African counterpart Cyril Ramaphosa in criticising Trump for his threat to slap extra tariffs against Brics member countries. On the final day of the two-day Brics Summit, which Brazil had hosted, Lula said the US President was "irresponsible for threatening tariffs on social media".

In their Rio de Janeiro declaration, Brics members expressed "serious concerns" over tariffs, slammed soaring defence spending, and condemned airstrikes on Brics member Iran, but the group did not mention the US by name. The grouping also tasked its finance ministers and central bank governors to continue the discussion on the Brics Cross-Border Payments Initiative, and appreciated the progress made by the Brics Payment Task Force in identifying possible pathways to

support the continuation of discussions on the potential for greater interoperability of Brics payment systems. The effort has been to reduce the dominance of the US dollar.

Brazil is also keen to increase its sesame exports to India, which have grown significantly since the Indian market opened to Brazil in 2020. It is also eyeing expanded ethanol exports. In Brasilia, the two countries are expected to ink deals on renewable energy, counter-terrorism, and cooperation on agricultural research, and agree on a framework to protect confidential information.

India is looking at increasing its cooperation with Brazil in oil & gas, mining and critical minerals, defence and security. The two leaders are expected to discuss ways to strengthen and diversify bilateral trade, including through expansion of the India-MERCOSUR Preferential Trade Agreement as Brazil is holding the chairship of MERCOSUR from July 1, 2025.

Shivraj Chouhan bats for new laws to tackle duplicate fertilisers issue

STATESMAN NEWS SERVICE

NEW DELHI, 7 JULY

Calling for a unified and collaborative approach to develop agriculture, Union minister Shivraj Singh Chouhan on Monday said a national team should be formed under the principle of "One Nation, One Agriculture" and "One Agriculture, One Team".

Addressing the 11th Maize Summit, organised by the Federation of Indian Chambers of Commerce and Industry (FICCI), he said: "I wanted to request FICCI to discuss intensively and send me recommendations. We want to create a team for farming. We need to work in different directions, including the state government, central government, scientists, farmers, agricultural universities, and industry." "I believe in 'One Nation, One Agri-

culture,' and 'One Agriculture, One Team.' With everyone's effort, a single team should be formed that works in one direction. Then we can develop rapidly. That's why, when FICCI's recommendations arrive, I will take them seriously. But there should be a win-win situation. Farmers should also benefit," the minister said. Earlier on Sunday, Chouhan had said that the government was preparing a new, stricter law to address the problem of duplicate fertilisers and seeds. The current law imposes only a small fine of around Rs 500, allowing offenders to escape easily, he had observed.

"We are working on bringing a new law to tackle the issue of duplicate fertilisers, seeds. The law will be strict as the present law is not that strict," he told reporters after the function.

'India's agtech investments may rise to \$500-800 m this year'

Vishwanath Kulkarni
Bengaluru

Investments in Indian agtech, which rebounded during 2024, are seen improving further this year, driven by investor interest and with some start-ups eyeing a path to profitability.

Agtech investments rebounded to \$411.74 million during 2024, from the previous year's \$320 million, according to ThinkAg, which recently came out with a report *AgFoodTech in India 2025*, which highlights the innovation and investment trends in the sector.

DEAL VOLUMES

The year 2023 was a rough one for Indian agtech as in-



FOCUS SECTORS. During 2024, downstream agtech continued to attract the largest chunk of funding, while precision agtech emerged as a new category of interest

vestments plummeted 65 per cent from the previous year's \$901 million. The decline was broadly in line with

the moderation witnessed across various sectors during the year. Though deal volumes

dropped to 61 during 2024, investors remained focused on existing portfolio companies with limited fresh investments, and follow-on funding stayed cautious, the report said.

About 82 per cent of the deals were follow-up funding raised by existing firms and only 15 per cent of the companies received cheques exceeding \$15 million in 2024.

"There will be some improvement this year. I am hopeful that investments in this year could be in the range of \$500-800 million, depending on the few late stage rounds," said Hemendra Mathur, Co-founder, ThinkAg.

The moderation witnessed during 2023 made

valuations more realistic and resulted in focus on capital efficiency, Mathur said.

"2024 became a better year with investors returning and of course, the discipline in investments have gone up even as we talk in 2025 now. There's no over-emphasis on growth as it was earlier and that the growth at any cost paradigm has more or less died down. The path to profitability and the path to IPO are becoming more and more important," he said.

AREAS OF INTEREST

During 2024, downstream agtech continued to attract the largest chunk of funding, while precision agtech emerged as a new category of

interest, attracting substantial investor interest.

Foodtech saw an 18 per cent investment increase, primarily driven by follow-on deals.

New wave foodtech dominated the landscape, benefiting from strong consumer demand and investor confidence in India's brand narrative.

The emerging category of agri-food wastech gained traction with \$6.25 million invested across five deals, reflecting growing recognition of India's massive food loss challenge, the report said, adding that the cautious approach to investment in the sector witnessed during 2024 is expected to continue this year.

Fertiliser Cos Turn to EU, Russia & W Asia as China Halts Exports

Strike deals for raw materials at higher price due to limited availability, rise in shipping charges

Shambhavi Anand

New Delhi: With China halting specialty fertiliser exports to India for two months now, Indian companies have turned to Europe, Russia and West Asia to import raw materials for manufacturing specialised fertilisers at significantly higher prices. China was the preferred source for these imports due to higher availability, shorter sailing time, and affordable prices, industry insiders noted.

"Imports from China were cheaper and imports from other countries are at 15-20% higher prices already," said Yogesh Chandra, vice president at Transworld Fertilisers, maker of Nutrifed brand of fertilisers.

Around 80,000-100,000 tonnes of raw materials are expected to reach India from alternate sources to replace the 150,000-160,000 tonnes of specialty fertilisers believed to be stuck at Chinese ports, according to estimates by the industry.

While there is no official export ban, Chinese authorities have

New Sources



stopped inspecting India-bound consignments, which is mandatory for export clearance. China is the largest exporter of specialty fertilisers with about 32% share in global trade. It continues to export them to other nations. India imports about 80% of its supplies of these chemicals from China.

Imports from other countries are costlier due to limited availability

and higher shipping charges.

Companies expect prices to go up further, particularly those of two important nutrients—mono ammonium phosphate (MAP) and calcium nitrate (CN).

"The prices are going to go higher as Russia also has a limited supply," said Sanket Pawar of Aries Agro, a manufacturer of micronutrients.

As Russia has a limited supply of

MAP, companies are also exploring imports from Morocco. While Israel also has some of these chemicals, companies are avoiding it because of the West Asia conflict, industry insiders said.

Specialty fertilisers are used to increase the yields of fruits, vegetables and other remunerative crops.

Chandra of Transworld Fertilisers said India is going to face tough times ahead as these products also help with productivity of horticulture plants that earn import revenue for the country.

China has been restricting exports of key raw materials such as rare earth magnets—where it controls about 90% of global production and supplies—in apparent retaliation for US tariffs and other curbs.

It has particularly targeted critical exports to India amid worsening diplomatic relations in recent years while India has restricted Chinese companies' access to domestic markets and has made government approval mandatory for investment by countries that share a land border with India.

Committee constituted to assist farmers in controlling pest spread in maize crop

TRIBUNE NEWS SERVICE

SOLAN, JULY 10

To control the possible outbreak of fall armyworm in maize crop in Solan district, a pest control committee has been constituted at the district and block level to assist farmers in monitoring and controlling the insect pest.

Originally from South America, the fall armyworm entered Karnataka via African countries a few years ago. Elongated papery windows spreading all over leaves on a plant

appear when the pest attacks maize crop. This symptom is caused by the larvae of the worm.

Dr Arun Kumar, District Agriculture Officer, Solan; Dr Anurag Sharma, pest scientist, Krishi Vigyan Kendra, Kandaghat; subject specialists (agriculture) from Kandaghat, Solan, Kunihar, Nalagarh and Dharampur, agriculture development and extension officers of all five blocks of the district, block technology manager and assistant block technology manager

will help the agrarian community in preventing the disease outbreak.

Dr Dev Raj Kashyap, deputy director, agriculture, Solan, informed that the control committees will provide assistance and guidelines for pest control on receiving complaints or information from farmers. The officials will inform the Deputy Director Agriculture every week about the work undertaken to keep strict surveillance over the scenario.

At the block level, the

farmers can also seek the help of agriculture development and extension officers besides the subject experts to tide over the problem.

A slew of interventions like organising camps for assistance in undertaking pest control for clusters, self-help groups, panchayats, women's groups, progressive farmers, revenue officials and employees of crop insurance scheme would be undertaken. A team of field officials has been authorised to monitor their work.

HTBt cotton gets positive report, one step away from commercial cultivation

TIMES NEWS NETWORK

New Delhi: An expert committee, appointed by central biotech regulator to review biosafety data of transgenic cotton, has submitted a favourable report on genetically modified HTBt cotton, paving way for Genetic Engineering Appraisal Committee (GEAC) to take a final call on its commercial cultivation.

Though transgenic Bt cotton is being cultivated in the country after getting approved in 2002, the herbicide-tolerant Bt (HTBt) cotton could not get the mandatory GEAC nod despite long-pending demand of cotton farmers. As a result, its illegal variant is reportedly being used without quality check in many cotton-producing states.

Sources said the expert committee's report has giv-

en an all clear to HTBt cotton but the final decision would be taken by govt after getting regulator GEAC's nod.

The demand for legal use of HTBt is expected to be raised again on Friday when Union agriculture minister Shivraj Singh Chouhan visits Coimbatore for a crop-specific meeting on cotton.

BIOSAFETY DATA

Since the ministry has invited suggestions from farmers ahead of the meeting amid reports of declining Bt cotton productivity in the country due to a newly emerging disease, tobacco streak virus (TSV), demand for allowing another transgenic variety — HTBt — for commercial cultivation at the earliest is expected to be the key takeaway.

Deepak Fertilisers signs pact with Petronet LNG



DEEPAK FERTILISERS AND Petrochemicals Corporation's group firm, Performance Chemiserve, has signed a 5.5-year Liquefied Natural Gas regasification pact with Petronet LNG.

'Is the Centre directive to States on fake fertilizer masking issue of non-availability?'

Prabhudatta Mishra
New Delhi

Union Agriculture Minister Shivraj Singh Chouhan's recent directive to Chief Ministers, urging strict action against sub-standard fertilizers, appears to be a calculated deflection from a more pressing issue: A growing shortage of crop nutrients across the country.



Union Agriculture Minister Shivraj Singh Chouhan

RISING STATES' PLAINTS

While the Minister's letter frames the problem as one of "fake fertilizers" and "black marketing," it conspicuously sidesteps the real and mounting complaints from States like Punjab, Telangana, and Rajasthan, all clamouring for increased supplies, say sector observers.

The timing of this communication is particularly telling. On the one hand, the government is pushing a narrative of curbing malpractices; on the other, it's grappling with a significant surge in fertilizer demand. During the April-June quarter of the current fiscal year, sales of key fertilizers —

urea, DAP, MOP, and complex — collectively jumped 12.5 per cent to approximately 121 lakh tonnes. This includes a 10 per cent increase in urea sales and a remarkable 31 per cent rise in complex fertilizers, with MOP more than doubling. This spurt in demand, fuelled by a favourable monsoon, directly contradicts the government's ongoing campaign to reduce chemical fertilizer use and promote 'natural' or 'organic' farming, said some experts.

The core of the problem, however, lies in supply-side management and distribution. While the Minister's letter stresses the States' responsibility to ensure "adequate availability of fertilizers at the right places and locations," it overlooks the Centre's pivotal role in production, import, and

overall allocation. States are not merely battling black marketing; they are facing a fundamental lack of sufficient supply, they said. Evidence of this underlying shortage is abundant. Telangana Chief Minister A Revanth Reddy recently met Fertilizers Minister J.P. Nadda and demanded uninterrupted supply of urea for July-August.

Similarly, Rajasthan Agriculture Minister Kirodi Lal Meena urged Minister Chouhan for higher supplies, even as he exposed a large-scale fake fertilizer operation. Uttar Pradesh is also implementing measures like monthly caps on farmer purchases, an indicator of strained availability.

NADDA IN SAUDI ARABIA

That Nadda was in Saudi Arabia last week, exploring immediate

supply possibilities for urea and DAP underscores the severity of the shortage. His appeal to Saudi companies to invest in India's fertilizer sector speaks volumes about the long-term challenges in domestic production and securing international supplies.

India Inks DAP Fertiliser Deal with Saudi

The agreement for 3.1 million MT will help increase availability of crucial inputs to farmers

Our Bureau

New Delhi: Indian fertiliser companies IPL, KRIBHCO and CIL have signed an agreement with Saudi Arabian mining company Maaden for supply of 3.1 million (metric ton) MT of DAP fertilizer per annum for five years beginning this fiscal, with provision for extension of five years with mutual consent.

This agreement was signed in the presence of chemicals and fertilisers minister JP Nadda, who is on an official visit to Saudi Arabia.

India is facing a shortage of DAP (di-ammonium phosphate)—the second most used fertilizer after urea—as China has imposed restrictions on export of phosphate, a key ingredient for DAP, to India. This has affected the production of DAP in the



country. The agreement will help in increasing the availability of the crucial fertiliser to Indian farmers.

A shortage of DAP from the beginning of the ongoing kharif

season can affect crop production as the fertiliser is used right after sowing.

China has also stopped the shipment of specialty fertilisers from June 26. Specialty fer-

tilisers are used to increase the yield of fruits, vegetables and other remunerative crops.

During the visit, Nadda held discussions with the Saudi Minister of Industry and Mineral Resources, Bandar bin Ibrahim Al Khorayef, on facilitating mutual investments, with a focus on exploring the opportunities for Indian public sector undertakings (PSUs) to invest in the Saudi fertiliser sector; and reciprocally, Saudi investments in India. Both countries agreed on broadening the scope of bilateral relations to include other key fertilisers such as urea along with DAP, aiming to further ensure India's fertiliser security.

In fiscal year 2025, India's imports of DAP from the Kingdom of Saudi Arabia stood at 1.905 MMT, reflecting around 17% increase over the 1.629 MMT imported in FY24.

Pests, diseases pose threat to greengram, soybean crops

Common garden snail emerges a serious menace causing concern among farmers

SRINIDHI R
DHARWAD, DHNS

Farmers across Dharwad district, who were initially hopeful after timely monsoon rains enabled kharif sowing, are now grappling with a threat to their crops due to pest infestations and disease outbreaks.

The common garden snail (locally known as Basavana Hula) has emerged as a serious menace, damaging standing crops and causing widespread concern among farmers. The infestation has been reported in several villages including Yadwad, Uppinbetageri, Ga-

rag, Timmapur, Amminabhavi, and nearby areas, where farmers have cultivated greengram, blackgram, soybean, and other crops.

Farmers are now appealing to the Agriculture Department and scientists from the University of Agricultural Sciences (UAS) in Dharwad for assistance to protect their crops and prevent yield losses.

In fields where crops are around 25 to 30 days old, garden snails have been actively feeding on the plants. Farmers fear that if left unchecked, more than 30% of their yield could be lost.

Mrityunjaya Hiremath, a

farmer from Yadwad, said: "The snails devour greengram and blackgram crops during the early morning hours and shift to soybean and groundnut in the afternoon. They appear in thousands. It's nearly impossible to control them."

Agriculture Department Assistant Director Rajshekhar Anagoudar confirmed that the snail infestation is widespread in Dharwad taluk, especially in greengram and blackgram fields. "The only effective way to control these snails is through the timely and proper application of pesticides. Our department is conducting demonstrations in affected villages to educate farmers on control measures," he said.

Yellowing of saplings

In addition to pest attacks, greengram growers are facing

Heavy rainfall

This kharif season, the Agriculture Department had targeted 2.81 lakh hectares for sowing.

Of this, greengram accounts for nearly 1 lakh hectares, followed by blackgram (10,000 hectares), soybean (35,000 hectares), and groundnut (25,000 hectares). Early sowing meant

that many crops are now nearing harvest stage, with harvesting expected to begin in the next two to three weeks. However, heavy rainfall in June and early July has led to excess moisture and soggy field conditions, which in turn have delayed sprouting and weakened plant growth in several areas.

farmers in an effort to curb the spread.

The recent spell of light rain and overcast conditions across the district has further aggravated the situation. Eerappa Lakundi, a farmer from Dubbannamaradi, said: "I have cultivated greengram on two acres. I have spent around Rs 25,000 per acre on seeds,



A farmer plucks disease-hit green gram plants at Dubbannamaradi in Dharwad taluk following the spread of Yellow Mosaic Virus. DHNS PHOTO

fertilisers, and labour. Even after spraying pesticides twice, there's no improvement. I have lost hope of recovering my investment."

UAS agriculture expert Dr Basavaraj Enagi said, "The Yellow Mosaic Virus is transmitted by whiteflies that suck sap and spread the infection from plant to plant. Early detection and control are crucial. Infected plants should be uprooted and destroyed immediately. Farmers must apply pesticides promptly."

Will not allow sale of biostimulants without scientific nod: Agri minister

PNS ■ NEW DELHI

Concerned over irregularities in the biostimulant market, Agriculture Minister Shivaraj Singh Chouhan on Tuesday said the government will not allow the sale of such products without scientific approval.

In a review meeting, Chouhan pulled up the ministry and ICAR officials for watching with closed eyes the rising sale of biostimulants amid farmers' complaints about their quality and ineffectiveness.

The minister directed his ministry officials to permit the sale of those biostimulants which are effective in the farm field and meet the quality parameters, according to an official statement.

He also directed ministry officials to prepare a standard of procedure (SOP) by setting rules and regulations.

"Now, permission will be



given only after it is scientifically approved and the entire responsibility for this will be with the concerned officials," he said.

Biostimulants are substances or microorganisms (such as beneficial bacteria, fungi, or plant extracts) that, when applied to seeds, plants, or soil, stimulate natural plant processes.

Expressing concern over irregularities in the sector, Chouhan said biostimulants have been sold in the country for many years and the permission

period for the sale is being extended one year after another, but many times complaints come from the field that there is no benefit from it, still it is being sold. "It is necessary to review biostimulants thoroughly to see how much benefit the farmers are getting from it; if not, then permission to sell it cannot be given," Chouhan said.

Thousands of companies started selling biostimulants without any rules, but the government will not let this happen at any cost, he said.

The government will take action against suspicious manufacturers of biostimulants, he noted.

Currently, there is a comprehensive regulatory framework for biostimulants through amendments to the Fertiliser (Inorganic, Organic or Mixed) (Control) Order, 1985 (FCO), with recent updates in 2024 and 2025.

New rice variety promises double yield, diabetic-friendly health boost

Rice has long been a staple food across southern India, deeply woven into the region's cultural and culinary traditions. However, with rising awareness of diabetes and health concerns, many are switching to alternative cereals. But now, scientists at the Indian Institute of Rice Research (IIRR), Hyderabad, are working on a game-changing rice variety—one that could benefit both farmers and diabetic patients.

The new variety under development promises double the yield of current strains while featuring significantly lower glucose content, making it safer for diabetics. Still in the research phase, the project is expected to take another two years before reaching the market.

Currently, most rice varieties yield between 3 to 5 tonnes per acre. But

What makes this rice special
Promising traits of the upcoming IIRR variety

- Each plant can bear around 1,000 grains
- Expected yield: 9-10 tonnes per acre
- Naturally resistant to pests
- Adaptable to varied climates and soil types
- Lower in glucose-spiking starch
- Suitable for quality seed production

this new strain could potentially produce up to 9 to 10 tonnes per acre—nearly double the output. Along with high productivity, the rice will have reduced glycemic properties, a critical benefit for those managing diabetes.



Rice revolution underway—scientists target 1,000 grains per plant, offering new hope for diabetic-friendly, high-yield harvests in fields like these

For many, rice is a dietary challenge due to its high glycemic index. Some opt for expensive alternatives like Rajamudi rice, which can cost up to ₹100 per kg. The new variety aims to

bridge this gap by being both nutritious and affordable.

Developed by cross-breeding traditional rice strains, the upcoming variant is expected to offer enhanced

nutritional value and greater resilience. IIRR scientists say the goal is to combine farmer-centric outcomes with public health priorities.

While popular varieties like DRR Dhan-75 and DRR Dhan-76 currently yield 3.5 to 4.5 tonnes per acre and carry around 450-500 grains per plant, the new breed is being designed to yield over 1,000 grains per plant.

"This could truly be a breakthrough not just for agriculture, but for public health," said a senior scientist involved in the project. Once field trials are complete, the rice will be formally named and prepared for commercial release. For a country where rice continues to be the heart of every meal, this innovation could mean a healthier future without giving up a cherished tradition.

—BMB

Chouhan questions Bt cotton efficiency as production dips following pest attack

Our Bureau
New Delhi

Agriculture Minister Shivraj Singh Chouhan on Wednesday questioned the efficacy of Bt cotton as the production of the fibre crop has declined due to a slew of issues, including the pink bollworm attack. He asked the Indian Council of Agricultural Research (ICAR) to introspect why the country's cotton production has dropped despite the release of several varieties.

Speaking at the Foundation Day event of ICAR, Chouhan raised several concerns that farmers had been raising with him and asked officials to address those issues. His views come on the



heels of his comments at a productive meeting on cotton in Coimbatore on July 11.

At the meeting, Chouhan acknowledged the challenges in cotton production in India. The Bt cotton variety, once developed to increase yields, is now facing a threat from diseases, resulting in declining productivity, he said, adding that the country must take every possible step to improve cotton productivity using modern tech-

nologies and by developing virus-resistant, high-yielding seeds.

Taking exception to the practice of tagging other products with fertilizers, the Minister asked the Secretary to start a helpline where farmers could directly complain and action can be taken against the retailers. Tagging of nano fertilizers with subsidised urea and DAP had become a common practice in the last few years with little action from the Fertilizer Ministry, except sending letters to the States and companies to check the practice.

The Minister asked officials to review and examine if there could be price control on bio-stimulants, as farmers feel they are getting cheated with high rates and a

promise of a huge jump in yield, without any credible verification of the products. He asked scientists to do research on farm machinery which could be suitable for small land holdings.

10-POINT AGENDA

ICAR's Director-General M L Jat outlined a 10-point agenda for the future where it would re-orient itself.

ICAR would convert vision documents, prepared by its over 100 research institutes, into action this year and also create synergy among all institutes. Research areas will be prioritised and target-oriented while making it demand-driven with a State-wide action plan as outlined by the minister, said Jat.

Fungal invasion: Popular mushroom poses threat to native biodiversity

AISHWARYA VEERABAHU

New research warns that an invasive mushroom species is disrupting forest ecosystems worldwide

GOLDEN oyster mushrooms, with their sunny yellow caps and nutty flavour, have become wildly popular for being healthy, delicious and easy to grow at home from mushroom kits. But this food craze has also unleashed an invasive species into the wild, and new research shows it's pushing out native fungi. In a study we believe is the first of its kind, fellow mycologists and I demonstrate that an invasive fungus can cause environmental harm, just as invasive plants and animals can when they take over ecosystems. Native mushrooms and other fungi are important for the health of many ecosystems.

They break down dead wood and other plant material, helping it decay. They cycle nutrients such as carbon and nitrogen from the dead tissues of plants and animals, turning it into usable forms that enter the soil, atmosphere or their own bodies. Fungi also play a role in managing climate change by sequestering carbon in soil and mediating carbon emissions from soil and wood.

Their symbiotic relationships with other organisms also help other organisms thrive. Mycorrhizal fungi on roots, for example, help plants absorb water and nutrients. And wood decay fungi help create wooded habitats for birds, mammals and plant seedlings. However, we found that invasive golden oyster mushrooms, a wood decay fungus, can threaten forests' fungal biodiversity and harm the health of ecosystems that are already vulnerable to climate change and habitat destruction.

The dark side of the mushroom trade: Golden oyster mushrooms, native to Asia, were brought to North America around the early 2000s. They're part of an international mushroom culinary craze that has been feeding into one of

the world's leading drivers of biodiversity loss: invasive species. As fungi are moved around the world in global trade, either intentionally as products, such as kits people buy for growing mushrooms at home, or unintentionally as microbial stowaways along with soil, plants, timber and even shipping pallets, they can establish themselves in new environments.

Many mushroom species have been cultivated in North America for decades without becoming invasive species threats. However, golden oyster mushrooms have been different. No one knows exactly how golden oyster mushrooms escaped into the wild, whether from a grow kit, a commercial mushroom farm or outdoor logs inoculated with golden oysters – a home-cultivation technique where mushroom mycelium is placed into logs to colonise the wood and produce mushrooms. As grow kits increased in popularity, many people began buying golden oyster kits and watching them blossom into beautiful yellow mushrooms in their backyards. Their spores or composted kits could have spread into nearby forests. Evidence from a pioneering study by Andrea Reisdorf (née Bruce) suggests golden oyster mushrooms were introduced into the wild in multiple US states around the early 2010s. Species the golden oysters pushed out. In our study, designed by Michelle Jasino and Mark Banik, research scientists with the US Forest Service, our team went into forests around Madison, Wisconsin, and drilled into dead trees to collect wood shavings containing the natural fungal community within each tree. Some of the trees had golden oyster mushrooms on them, and some did not. We then extracted



DNA to identify and compare which fungi, and how many fungi, were in trees that had been invaded by golden oyster mushrooms compared with those that had not been. We were startled to find that trees with golden oyster mushrooms housed only half as many fungal species as trees without golden oyster mushrooms, sometimes even less. We also found that the composition of fungi in trees with golden oyster mushrooms was different from trees without golden oyster mushrooms. For example, the gentle green "mossy maze polypore" and the "dm oyster" mushroom were pushed out of trees invaded by golden oyster mushrooms.

Another ousted fungus, *Nematia serpens*, is known for producing diverse arrays of chemicals that differ even between individuals of the same species. Fungi are sources of revolutionary medicines, including antibiotics like penicillin, cholesterol medication and organ transplant stabilisers. The value of undiscovered, potentially useful chemicals can be lost when invasive species push others out.

The invasive species problem includes fungi. Given what my colleagues and I discovered, we believe it is time to include invasive fungi in the global conversation about invasive species and examine their role as a cause of

biodiversity loss. That conversation includes the idea of fungal "endemicism" – that each place has a native fungal community that can be thrown out of balance. Native fungal communities tend to be diverse, having evolved together over thousands of years to coexist. Our research shows how invasive species can change the makeup of fungal communities by outcompeting native species, thus changing the fungal processes that have shaped native ecosystems. There are many other invasive fungi. For example, the deadly poisonous "death cap" *Amanita phalloides* and the "orange ping-pong ball" *Favolaschia calocera* are invasive in North America.

The classic red and white "fly agaric" *Amanita muscaria* is native to North America but invasive elsewhere. The golden oyster mushrooms' invasion of North America should serve as a bright yellow warning that nonnative fungi are capable of rapid invasion and should be cultivated with caution, if at all. Golden oyster mushrooms are now recognised as invasive in Switzerland and can be found in forests in Italy, Hungary, Serbia and Germany. I have been hearing about people attempting to cultivate them around the world, including in Turkey, India, Ecuador, Kenya, Italy and Portugal. It's

possible that golden oyster mushrooms may not be able to establish invasive populations in some regions. Continued research will help us understand the full scope of impacts invasive fungi can have. What you can do to help Mushroom growers, businesses and foragers around the world may be asking themselves, "What can we do about it?" For the time being, I recommend that people consider refraining from using golden oyster mushroom grow kits to prevent any new introductions. For people who make a living selling these mushrooms, consider adding a note that this species is invasive and should be cultivated indoors and not composted.

If you enjoy growing mushrooms at home, try cultivating safe, native species that you have collected in your region. There is no single right answer. In some places, golden oyster mushrooms are being cultivated as a food source for impoverished communities, for income, or to process agricultural waste and produce food at the same time. Positives like these will have to be considered alongside the mushrooms' negative impacts when developing management plans or legislation.

In the future, some ideas for solutions could involve sporeless strains of golden oysters for home kits that can't spread, or a targeted mycovirus that could control the population. Increased awareness about responsible cultivation practices is important, because when invasive species move in and disrupt the native biodiversity, we all stand to lose the beautiful, colourful, weird fungi we see on walks in the forest.

(The writer is a doctoral student at University of Wisconsin-Madison)

As panel clears 80 cotton varieties, Minister questions ‘uncontrolled release’

Prabhudatta Mishra

New Delhi

The Variety Identification Committee (VIC) headed by ICAR's Deputy Director General (DDG) is said to have recommended release of 80 varieties of cotton, as many as 78 by the private sector, out of the 91 varieties it received for approval.

However, the final approval for their release for commercial cultivation will depend on what the Agriculture Secretary, as Chairman of Central Seed Committee, decides amid objections raised by Agriculture Minister Shivraj Singh Chouhan about such ‘uncontrolled’ release.

The 11 varieties not recommended by the VIC included Bollgard II technology seeds of Rallis India, Rasi Seeds, Indo American Hybrid Seeds (India) and Veda Seeds. The list of rejected varieties also includes two seeds, each developed by ICAR's Central Institute of Cotton Research (CICR) and Vasant Rao Naik Marathwada Krishi Vidyapeeth (Parbhani, Maharashtra) using Bollgard I.

Except Veda Seeds and



Minister of Agriculture
Shivraj Singh Chouhan ANI

CICR, some other varieties of these companies have also been approved. Among those cleared are one from Crystal Crop Protection, two of Nuziveedu Seeds, five of Ankur Seeds, seven of Mahyco, and eight of Kaveri Seed Company, sources said.

CATER TO NEEDS

Experts said that the system of seed approval itself is faulty as the DDG (Crop Science) of the ICAR or his nominee chairs the VIC whereas he also heads the Central Variety Release Committee for agriculture crops. While the VIC recommends to the CVRC, the latter further recom-

mends to the Central Seed Committee under the Agriculture Secretary.

At the stakeholders meeting, Chouhan had said: “We want cotton productivity to increase, we should reach the world average and we should be able to produce the kind of cotton that the industry needs today — long staple.”

He had said that there were good results from the high density cotton farming and the country would move towards it more rapidly.

“ICAR will do research as per the requirement of the farmers, the type of seeds required and the type of cotton required by the industry. Research will be done only for such seeds, for such varieties,” he said adding that production of seeds has to be increased based on the demand of the cotton industry.

India's cotton production dropped to 30.69 million bales (of 170 kg each) in 2024-25 from 35.25 million bales in 2020-21. While a key factor for the decline was a fall in the area as farmers shifted to other crops, there are also issues of crop damage due to pest attack, lowering yield.

Paddy, cotton, sugarcane crops hit by infestations across state

Scientists raise red flag over falling yields, urge timely intervention

PARVEEN ARORA
TRIBUNE NEWS SERVICE

KARNAL, JULY 19

Farmers across Haryana are facing a serious agricultural crisis as multiple crop diseases have struck simultaneously, affecting paddy, cotton and sugarcane fields in different parts of the state. Alarming reports of viral, fungal and pest infestations have raised concerns about crop losses and falling yields during this kharif season.

In Karnal and nearby districts, paddy crop, particularly hybrid and high-yielding parml varieties, are showing signs of Southern Rice Black Streaked Dwarf Virus. The disease causes severe stunting, twisted dark green leaves, blackened roots and ultimately unfilled grains.

"The virus reduces nutrient uptake and leads to poor grain development, significantly impacting yield," said Dr Maha

PADDY HIT BY BLACK STREAKED DWARF VIRUS

- In Karnal and nearby districts, paddy crop, particularly hybrid and high-yielding parml varieties, are showing signs of Southern Rice Black Streaked Dwarf Virus.
- The disease causes severe stunting, twisted dark green leaves, blackened roots and ultimately unfilled grains.

Singh, senior coordinator, Krishi Vigyan Kendra (KVK), HAU Uchani. He urged farmers to remain vigilant and report any unusual symptoms.

Dr Wazir Singh, Deputy Director Agriculture, Karnal, confirmed detection of the disease in patches and said the department is actively monitoring affected fields. The Rice Research Station, Kaul, Kaithal, has warned that the virus is transmitted by white backed plant hoppers and issued a preventive advisory.

"I spotted the disease in my field and immediately sought help from agriculture officials who advised proper sprays," said farmer Vikrant Chaudhary.

Meanwhile, Sirsa district's cotton fields, especially in Dabwali tehsil, are witnessing an early-stage infestation of pink bollworm, a pest that can devastate yields if left unchecked. Affected villages include Chautala, Bharukhera and Asakhera, where agriculture officials have launched inspections and awareness drives.

"Begin with organic methods like neem-based sprays. Use chemical pesticides only under expert guidance," advised Dr Sukhdev Singh, Deputy Director Agriculture, Sirsa. Farmers have also been asked to install pheromone traps, bird perches and inspect bolls regularly.

In Yamunanagar, sugar-

cane farmers are battling a triple blow of pokkah boeng, top borer and sap-sucking insects. A joint inspection by agricultural scientists from HAU's Regional Research Centres and KVK Damla found the most severe damage in sugarcane varieties CO-0118 and CO-0238.

"We're advising fungicides like carbendazim (0.2%) and propiconazole (0.1%) for pokkah boeng," said Dr Sandeep Rawal, KVK Coordinator. Dimethoate (Rogor) 30 EC is being recommended for sap-sucking pests. For Terai borer prevention, he suggested releasing Tricho cards four times between August and September.

Yamunanagar alone has nearly 45,000 acres under sugarcane cultivation and growing pressure from crop diseases is causing increasing anxiety among farmers.

(Inputs from Anil Kakkar and Shiv Kumar Sharma)

{ **WHITE GOLD** }

Rain brings relief to cotton growers, but pink bollworm threat looms

Vishal Joshi

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BATHINDA : After nearly a month of dry weather, recent rainfall across southwest Punjab has brought relief to cotton farmers, raising hopes for a better kharif season.

The showers have helped reduce the risk of whitefly infestation, a major pest concern for the crop, but experts warn that vigilance is needed against the looming threat of the pink bollworm.

Pink bollworm is a pest of the cotton crop, particularly in Punjab, causing yield losses. In Punjab, pink bollworm infestations have led to significant economic

FIELDS HAVE SHOWN SIGNS OF PINK BOLLWORM, THOUGH THE SITUATION IS CURRENTLY MANAGEABLE, SAY AGRI EXPERTS

losses for farmers, even impacting Bt cotton, a genetically modified variety designed to be pest-resistant.

Teams from Punjab Agricultural University (PAU) and Krishi Vigyan Kendras (KVKs) are actively inspecting cotton fields

in the region. PAU's principal entomologist Vijay Kumar said the rain has washed away the adult whitefly population, removing the immediate danger. "Based on field reports and our own surveys, whitefly infestation is not a threat at present," Kumar said.

However, the humid conditions created by the rain are favourable for pink bollworm attack. Kumar noted that early-sown fields have shown signs of pink bollworm, though the situation is currently manageable. He urged farmers to remain alert and follow recommended pest management protocols, especially as the pink bollworm population is expected to rise over

the next two to three weeks.

State agriculture officials report that cotton has been planted over about 1.2 lakh hectares this season, with Fazilka district alone accounting for half of this area. This represents a significant increase from the 96,000 hectares recorded in the previous kharif cycle, reflecting renewed interest among farmers in cultivating cotton.

Fazilka's chief agriculture officer Rajinder Kumar said that cotton plants have thrived due to proper nutrient application and favourable weather conditions. "We are optimistic about the upcoming harvest, as no major pest outbreaks have been reported so far," he said.



Team of Punjab Agricultural University led by its principal entomologist Vijay Kumar inspects cotton fields in Abohar.

Dwarf virus hits paddy crop on 400 acres in Ambala villages

NITISH SHARMA

TRIBUNE NEWS SERVICE

AMBALA, JULY 21

The spread of Southern Rice Black Streaked Dwarf Virus has made paddy farmers in the district anxious.

As per the Agriculture Department, the spread of the disease has been reported in nearly 400 acres especially in the Saha, Naraingarh and Mullana areas of the district. As per the paddy farmers, the hybrid, Permal varieties and early sown crops have shown signs of dwarf virus.

As per agricultural experts, the virus is transmitted by white-backed plant hoppers. Plant growth is stunted by the virus, resulting in poor nutrition intake and poor development, which leads to yield loss. The Agriculture Department has issued an advisory to farmers to uproot and bury the affected plants, ensure proper drainage in the fields and regular monitoring. The farmers are also advised to use the recommended insecticides to control the spread.

Former Sarpanch of Hamidpur village and paddy farmer Jasbir Singh informed that he has grown paddy on nearly 54 acres. Of that, crop on 14 acres has been affected by dwarf virus. The affect is visible on the early sown varieties. Even



Agricultural scientists inspect a disease-hit paddy field in Ambala. TRIBUNE PHOTO

in 2022, the disease had badly affected the paddy crop.

White-backed plant hoppers are visible in the fields and teams of experts from the Rice Research Station Kaul, Indian Institute of Rice Research Hyderabad, Krishi Vigyan Kendra Tepla have visited the fields and taken the samples of plant hopper and the affected plants for testing.

The farmer said the scientists have recommended some insecticides to control the spread of the disease. However, it will put a financial burden of around Rs 2,000 per acre on the farmers.

As per the information avail-

able, the teams have visited agricultural fields in various villages, including Hamidpur, Nohni and Brahmin Majra, and took samples for testing.

Parmjit Singh, a paddy farmer from Garna village, said, "I have sown paddy on 18 acres and there are symptoms of dwarfism in the crop. The Agriculture Department has issued advisory but there is not much effect of the insecticide. The department has also advised to uproot the affected plants, but it is not feasible. We have adopted the wait and watch policy."

Deputy Director Agriculture (DDA) Ambala Dr Jasvinder

Saini said the Southern Rice Black Streaked Dwarf Virus poses a serious threat to crop productivity. If not controlled timely, the disease can affect the yield of the crop by 80-90 per cent. Following the reports, the experts and agricultural scientists have visited the fields. There is preliminary report of the signs of the virus on nearly 400 acres, majorly in the areas of Mullana, Saha and Naraingarh. The farmers are advised to keep a close watch, approach the department if the signs of virus and white-backed plant hoppers are witnessed and use the recommended insecticides.

What are biostimulants, now under Agri Ministry's scrutiny?

HARIKISHAN SHARMA
NEW DELHI, JULY 22

UNION AGRICULTURE Minister Shri Singh Chouhan last week wrote to Chief Ministers of all states to immediately stop the "forced tagging" of nano fertilisers or biostimulants along with conventional fertilisers.

Chouhan highlighted complaints from farmers who said that retailers were not selling subsidised fertilisers such as urea and diammonium phosphate (DAP) to them, unless they purchased biostimulants.

He added that many farmers had recently raised concerns about the inefficiency of biostimulants. It is necessary to review biostimulants thoroughly to see how much benefit farmers are getting from it; if not, then permission to sell it cannot be given," he said.

What are biostimulants?

Biostimulants stimulate physiological processes in plants and help enhance the

yield from a harvest. The substance can be produced using plant-derived waste materials, seaweed extracts, or other materials. Officially, the Fertiliser (Inorganic, Organic or Mixed) Control Order, 1985, which regulates the manufacturing and sale of biostimulants, defines it as "a substance or micro-organism or a combination of both whose primary function... is to stimulate physiological processes in plants and to enhance its nutrient uptake, growth, yield, nutrition efficiency, crop quality and tolerance to stress... but does not include pesticides or plant growth regulators which are regulated under the Insecticide Act, 1968."

How big is India's biostimulant market?

Market research firm Fortune Business Insights noted, "The India biostimulants market size was valued at USD 355.51 million in 2024. The market is projected to grow from USD 410.78 million in 2025 to USD 1,335.96 million by 2032, exhibiting a CAGR of 15.64% during the forecast period."

Chouhan said that around 30,000 biostimulant products had been sold unchecked for several years, and that even in the last four years, around 8,000 products remained in circulation. "After I enforced stricter checks, the number has now come down to approximately 650," he said on July 15.

Why did the government start regulating biostimulants?

As biostimulants did not fall under the existing fertilisers or pesticides categories, they were sold in the open market without government approval for a long time.

In India, fertilisers and pesticides are governed by the 1985 Fertiliser Control Order and the Insecticides Act, 1968 respectively. The Union Ministry of Agriculture and Farmers Welfare issues the Fertiliser Control Order (FCO) under the Essential Commodities Act, 1955, and occasionally makes changes to it.

However, in 2011, the Punjab and Haryana High Court made an observation on the subject. Any manufacturer producing a bioproduct claiming to be a substitute for insecticides or fertiliser, but not covered under the rules, was to apply to the respective Director General of Agriculture in Haryana and Punjab. This paved the way for states to check the products before allowing their sale to farmers. As the sale of biostimulants increased over the years, it caught the Centre's attention. In 2017, NITI Aayog, the government's think tank, and the Agriculture Ministry started work on a framework for biostimulants. Finally, in February 2021, the Ministry amended the 1985 FCO and included biostimulants, paving the way for their regulated manufacturing, sale and import.

EXPLAINED AGRICULTURE

What does the FCO say?
The inclusion of biostimulants empow-

ered the Central government to fix specifications. The FCO classified biostimulants specified in Schedule VI of the FCO in eight categories, including botanical extracts (as well as seaweed extracts), bio-chemicals, vitamins, and antioxidants.

Every manufacturer or importer of a biostimulant shall make an application to the Controller of Fertilisers along with the requisite product information. The product's chemistry, source (natural extracts of plant/microbe/animal/synthetic), shelf-life, and reports of bio-efficacy trials and toxicity must be submitted, along with other data.

Additionally, in 2021, the Agriculture Ministry constituted the Central Biostimulant Committee for five years to advise the Centre, with the Agriculture Commissioner as its chairperson and seven other members.

What is the latest government action?

According to the FCO order, amended in 2021, manufacturers could make and sell

biostimulants for two years if they applied for provisional registration. Sources say that the Agriculture Ministry kept extending the two-year deadline, which allowed most manufacturers (as of 2021) to continue making and selling biostimulants based on provisional registration. Whereas, under the regular registration, companies have to submit testing protocols to the government.

On March 17, as the latest extension of the provisional certificate facility, the Ministry allowed biostimulants' sale for three months until June 16. It applied to all companies manufacturing or importing a biostimulant as of March 17. With the notification having expired, the companies having provisional certificates and biostimulants stocks can no longer sell their products in the market, said a source.

The Agriculture Ministry also notified "Specifications of Biostimulants" on May 26 for several crops, including tomato, chili, cucumber, paddy, brinjal, cotton, potato, green gram, grape, and onion.

India set to overtake China to become largest cotton producer by 2034

Vishwanath Kulkarni
Bengaluru

India is set to become the world's largest cotton producer by 2034, overtaking China, on improving yields, according to the OECD-FAO Agricultural Outlook 2025-2034.

Over the next decade, India's cotton production is projected to grow at an annual rate of around 2 per cent, driven primarily by productivity gains rather than area expansion, the outlook said. Global cotton production over the same period is expected to grow by 1.3 per cent annually and touch 29.5 million tonnes (mt) by 2034. As per the International Cot-



ton Advisory Committee, the output during the 2024-25 season is projected at 25.68 mt.

RAW COTTON

India is expected to account for 30 per cent of the global increase in cotton output over the outlook period by 2034, followed by Brazil (27 per cent) and the US (23 per cent).

India's raw cotton pro-

ductivity has remained stagnant in recent years, ranking among the lowest globally, with yields significantly below those of China and Brazil.

By 2034, yields in India are expected to considerably increase from their current low levels but remain under the world average of 0.8 tonnes/ha. Average global yields are projected to increase by 15 per cent compared to the base period.

To boost the yields, Indian researchers are promoting high-density planting systems, which involve closer plant spacing to maximise output and facilitate mechanised harvesting.

Pest-resistant genetically modified (GM) cotton, in-

cluding Bt cotton, has also helped reduce pest-related yield losses. Government agencies and research institutions are actively involved in varietal development and integrated pest management initiatives to raise productivity.

"Based on these considerations, the outlook assumes a high yield growth potential at 1.7 per cent per annum over the next decade, enabling India to surpass China as the world's largest cotton producer by 2034," it said.

Global cotton trade is projected to grow steadily at 1.6 per cent annually, reaching 12.3 mt by 2034. India's cotton consumption is projected to grow 1.3 per cent annually over the next decade.

SOWING SUSTAINABILITY

Parliamentary committee charts roadmap for climate-resilient and organic agriculture

SIMONTINI BHATTACHARJEE

NEW DELHI: Indian agriculture is at a turning point. Climate change, soil erosion, and excessive dependence on chemical inputs have collectively produced an unstable environment, where the very basis of rural livelihoods and food security hangs in the balance.

The Sixth Report of the Committee on Estimates (2024-25), a Parliamentary committee, was presented on Wednesday, providing both a timely diagnosis and a realistic path ahead. It envisions a transformational journey driven by climate-resilient agriculture, revitalising natural and organic farming, and enhancing 'Krishi Vigyan Kendras' (KVKs) as key rural institutions.

India's vulnerabilities are stark. "Climate change is projected to lower yields by about 4.5 to 9 per cent in the medium term, affecting around 310 highly vulnerable districts," the report notes. These are not abstract numbers—they

Key Points

» 'Climate change is projected to lower yields by about 4.5 to 9 per cent in the medium term, affecting around 310 highly vulnerable districts,' the report notes

» At the centre of India's approach is the National Innovations in Climate Resilient Agriculture (NICRA), a programme of the Indian Council of Agricultural Research

mean more pain for farmers, increased food insecurity, and an escalating economic cost to an already weakened rural economy. Alarmingly, "with 109 districts 'very high risk' and 201 'highly vulnerable' under the Intergovernmental Panel on Climate Change (IPCC) protocol," the challenge requires prompt, systemic transformation.

At the centre of India's approach is the National Innovations in Climate Resilient Agriculture (NICRA), a programme of the Indian Council of Agricultural Research. NICRA is more than a technology intervention—it is a comprehensive mission to strengthen Indian farm-

ing systems against weather extremes. The results have been impressive.

In the past decade, over 2,900 new crop varieties have been bred, such as drought-tolerant rice and heat-tolerant wheat. "Reports from NICRA-adopted villages in Telangana and Karnataka state that farmers' revenues have gone up by 35-40 per cent compared to non-NICRA villages," the report points out. Just as good are the "productivity increases of 28-37 per cent for crops and 10-12 per cent for livestock," states report.

All this would not have been possible without the extensive chain of Krishi Vigyan Kendras. These local enti-

ties are bridges connecting research with practical application. "KVKs play a crucial role in building capacity. Improving climate literacy and empowering farmers with the skills to adopt sustainable practices," KVKs have brought natural and organic farming practices into being through an equivalent number of demonstrations, workshops, and trainings.

Natural farming, as per the Bharatiya Prakritik Krishi Padhati (BPKP), is a paradigm shift. Based on traditional Indian knowledge, the system "seeks to enhance soil health, lower farmers' input costs, and build climate resilience." With farm-made inputs such as jeevamrit and beejamrit, natural farming slashes expenses by half—between 12 per cent and 45 per cent according to the report—and enhances the micro-environment of the soil. Together, organic agriculture provides a more organised and verifiable route for green farming. The Committee finds that "farmers who practice organic

farming get about 20 per cent-30 per cent premium prices for their produce compared to conventional farming produce," showing that the market is increasingly inclined to pay a premium for sustainable growing.

Yet, the change is not problem-free. The initial years of transition to organic or natural farming from traditional methods inevitably come with yield and income uncertainties. The Government has reacted with direct benefit transfer, market connectivity, and assistance for Farmer Producer Organisations (FPOs) to reduce such uncertainties. For example, "under PKVY, farmers are supported with Rs 31,500 per hectare in three years... Rs 15,000 of which is paid directly through DBT for organic inputs." In the North-East, where the geology and agricultural culture are conducive to organic agriculture, MOVCDNER has developed institutional and market infrastructure, which is now being replicated across the country.

Parl panel: Check production, sale of fake agro-chemicals

PNS ■ NEW DELHI

Concerned over sale of fake pesticides, a parliamentary panel has asked the government to tighten regulations to check production, sale and use of counterfeit agro-chemicals with provisions of stringent penalties. A Committee on Estimates on Wednesday presented a report on Promotion of Climate Resilient Agriculture, Natural and Organic Farming Through KVKs.

The panel raised "serious concerns about the widespread issue of counterfeit pesticides and their harmful effects on agriculture".

The committee stressed on the need to increase the number of insecticide inspectors at the state level and strengthening the capacity of overseeing officers at the central level.

It also suggested expanding and improving testing facilities to ensure supply of quality pesticides. The panel noted that penalties for offences related to "misbranded" insecticides under Section 29 of the Insecticides Act are insufficient to deter offenders. It also expressed concerns over low conviction rate.

Between 2019-2020 and 2023-2024, of the 3,60,614 samples analysed, 9,233 were found to be misbranded, leading to 2,588 prosecutions and

only 185 convictions.

"The committee is very concerned over the low conviction rate and stressed the urgent need for stronger regulations to tackle violations under the Insecticides Act," the report said. The panel recommended that regulations should be tightened to curb the production, distribution, and use of counterfeit pesticides by "amending the Insecticides Act, 1968 to include provisions for stringent penalties to ensure repeat offenders are held accountable."

The panel sought clarification from the agriculture ministry about steps taken to address this problem. The ministry informed the panel that there are 11,080 state-level insecticide inspectors across 25 states and two Union Territories, with an annual testing capacity of 77,040 samples. The Centre deploys 207 central insecticide inspectors, and there are two regional pesticide testing laboratories in Chandigarh and Kanpur with a combined annual capacity of 3,100 samples.

Any disputed samples are sent to the Central Insecticides Laboratory (CIL) in Faridabad, which processes 1,600 samples annually. If samples fail to meet the required standards, prosecution is initiated.

China supply cut gets India to step up specialty fertilizer production

Vijay C Roy
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NEW DELHI

The Centre is looking at ways to step up the production of specialty fertilizers for high value fruit, vegetables and flowers, amid a supply disruption from China, a senior government official told *Mint*.

Preliminary discussions have already been held between the government and leading state-owned, cooperative and private sector fertilizer producers, the official said.

Specialty fertilizers include

polymer-coated urea that is released slowly into the soil and is available to plants over a long period, chelated micronutrients that are effective in alkaline soil, water-soluble fertilizers such as monoammonium phosphate and potassium nitrate, and stabilized nitrogen fertilizers with urease inhibitors (NBPT) which allow efficient nitrogen use on soil.

"We have asked the manufacturers including companies in public sector and private sector to increase availability of specialty fertilizers," said the person quoted above, who spoke on condition of not being named.



The development assumes significance given India's heavy reliance on China for supplies of specialty fertilizers.

The development assumes significance given India's heavy reliance on China for supplies of specialty fertilizers.

Nearly 80% of India's specialty fertilizer imports including water-soluble nutrients, liquid foliar sprays, slow and con-

trolled-release formulations, and bio-stimulants are sourced from Chinese manufacturers, according to industry estimates.

Chinese supplies have been disrupted for the past two months with authorities in that country using various procedures to block exports to India without imposing a ban. *The Economic Times* reported on 26 June.

Nishant Kanodia, promoter and chairman, Matix Fertilisers & Chemicals Ltd, said, "India's growing focus on sustainable and high-efficiency agriculture is creating a meaningful shift in the fertilizer

landscape. While our entry into this segment is recent, we are committed to building capabilities that contribute to India's long-term self-reliance and soil health goals."

An IFFCO (Indian Farmers Fertiliser Cooperative Ltd) spokesperson said that the cooperative started production of water soluble and specialty fertilizers since 2011. The current capacity is 15,000 tonnes per annum.

Queries emailed to other leading producers—Kribho, Coromandal International Ltd, Zuari Farm Hub, Deepak Fertilisers, Yara fertilisers—Department of Fertilizers and

Department of Agriculture and Farmers Welfare on 21 July, remained unanswered at the time of publishing.

India is significantly dependent on raw materials and finished specialty fertilizers from China, Russia, Norway, Tunisia and Morocco.

"For WSF, the country is heavily reliant on imports, lacking significant production capacity due to the products being blended mixtures of various chemicals that are not readily available in India," said Pushan Sharma, director, Crisil Intelligence.

For an extended version of this story, go to livemint.com.

Godrej Agrovet eyes big oil palm plantation potential in N-E

bl.interview

Prabhudatta Mishra
New Delhi

Godrej Agrovet, which has set a target to bring in additional 60,000 hectares area under oil palm by 2030 from current 70,000 hectares, expects half of the increased coverage to be contributed by north-eastern States like Assam, Tripura and Nagaland, said Sougata Niyogi, CEO of oil palm plantation division of the company.

Godrej Agrovet's turnover was about ₹9,600 crore last year in which the oil palm business contributed about ₹1,500 crore. With an assured and sustainable income for farmers, shifting to oil palm is taking shape, though slowly, Niyogi said in an interview. Excerpts:

What is the current capacity of Godrej

Agrovet in domestic palm oil production? Is there any plan to increase it?

We have 6 mills in the country having total capacity of 2 lakh tonnes (lt) per year whereas currently we are crushing 1.25 lt of crude palm oil (CPO). We aspire to grow to 2.5 lt by 2030.

In terms of area coverage, what is the plan?

Currently, we have covered oil palm plantation in 70,000 hectares in nine States. We have a target to add additional 60,000 hectares by 2030, out of which 30,000-40,000 hectares will be only in the North-East.

Are these oil palm areas owned by Godrej Agrovet?

No. We have signed MoUs with State governments under the National Mission on Edible Oil (Oil Palm) scheme in which we have to buy whatever produce farmers sell to us within the allotted



We have a target to add additional 60,000 hectares by 2030, out of which 30,000-40,000 hectares will be only in the North-East

SOUGATA NIYOGI
CEO - Oil palm business,
Godrej Agrovet

geography. The government has also set target for each company to help farmers plant oil palm in those areas.

How do you convince the farmers to shift to oil palm?

First couple of years, they are choosing their own inter-crop.

They are going for maize, paddy, banana, turmeric, vegetables because the canopy is very less, hardly one metre.

But, as farmers have a spa-



year, five rows in the second year and four rows in the third year between the trees.

It is said that oil palm is a costly affair for farmers to adopt. How do you work out the cost?

We bear the sapling cost, which is re-imbursed by the government and farmers do not have to pay.

The government subsidy covers almost 90 per cent of costs of drip irrigation, which is mandatory in the South for oil palm. Government is also paying an assistance of ₹25,000 for four years to cover fertilizer costs.

For tech know-how, we are building Samadhan Centres in States where we want farmers to come with problems and walk away with solutions.

Only the cost for fencing is higher compared to subsidy. But, it is true that first four years of getting into oil palm is difficult, especially for marginal and small farmers.

Fake seeds: BJP urges Karnataka govt to file criminal case

BENGALURU

ACCUSING the ruling Congress of "failing" Karnataka, state BJP President B Y Vijayendra on Sunday urged the Siddaramaiah-led government to file a criminal case and take strict action against companies that are supplying fake seeds and fertilisers to farmers. He said a police vigilance team should be formed to take strict action against the networks that cheat farmers.

Vijayendra later also said that BJP's farmers' wing will hold a state-wide protest on Monday, as he accused the state government of creating "artificial shortage" of urea in various parts of the state because of its "mismanagement", leading to "panic" among farmers. He also alleged that brokers

and traders hold stocks.

The BJP chief was responding to reports about fake seeds and fertilisers being supplied to farmers in some parts of the state, and protests by farmers in various places alleging a shortage in the supply of urea. "The efforts to trouble the food providing farmers and exploit them within the system have been ongoing for a long time. Companies supplying fertilizers and seeds are engaging in the despicable act of sabotaging agricultural activities by providing fake seeds to the enthusiastic farming community that is expecting a good harvest in the backdrop of a promising monsoon this time," Vijayendra said. "I urge the government to file a criminal case against such companies in



this regard and take strict action, and also to take all necessary measures to ensure that the farming community gets quality seeds and necessary fertilizers in

a timely manner," he said in a post on X.

Vijayendra said, in this context, Prime Minister Narendra Modi-led central government, along with agricultural incentive schemes, had taken precautionary measures to protect farmers. "The state government too needs to take committed steps in this regard, so that the lives of farmers are not affected," he said.

To strengthen the Agriculture Department and to take strict action against the networks that cheat farmers, a police vigilance team should be formed, the BJP leader said.

Later speaking to reporters here, Vijayendra said, monsoon started early and even though Chief Minister Siddaramaiah and Ag-

riculture Minister N Chelvarayaswamy were aware, the proper stocking and timely supply of fertilisers to various districts were not ensured, leading to shortage.

Alleging that an artificial shortage has been created despite the central government having given sufficient quantities of urea to the state, he said, more than 8,70,000 metric tonnes of urea had been received by Karnataka from the Centre, but only about 5, 30,000 metric tonnes is available in the market.

"What about the rest? The fear is that somewhere there is some kind of hand-in-glove. Brokers and traders are keeping the stocks; it has to be released. The state government is trying to create an artificial shortage.

This will not help farmers and that's the reason farmers are upset," he said.

Targeting the Congress government, citing media reports about farmers' protest against urea shortage, BJP leader and Leader of Opposition in the Legislative Assembly R Ashoka said, the government should have been alert and paid attention towards ensuring storage of necessary amount of fertilizer and its timely distribution, when the monsoon arrived a month in advance this time.

Instead, those in the government completely neglected the farmers in the heat of factional fights for power or chair, Ashoka said in a post on X. "The curse of the farmers will affect this Congress government," he added.

Punjab government caught in tug-of-war over pesticide ban



SAFE FARMING. A total of 12 pesticides were banned recently as they were identified as a major reason for rejected export shipments of basmati rice. SHIV KUMAR PUSHPAKAR

Our Bureau
New Delhi

Within days of banning 12 pesticides, the Punjab government is under pressure to lift restrictions on two chemicals — thiamethoxam and tebuconazole, according to sources. The initial ban on 12 pesticides was implemented because they were identified as a significant reason — presence of residue — for rejected export shipments of basmati rice.

Punjab Agriculture Secretary Basant Garg, in a gazette notification on July 15, said the ban was essential to ensure the production of high-quality, residue-free basmati rice that meets global standards and facilitates a smooth export process.

The ban on the sale, distribution and use of these pesticides is slated for enforcement during the months of August and September.

The other 10 banned pesticides are acephate, buprofezin, chlorpyrifos, propiconazole, profenofos, carbendazim, tricyclazole, carbofuran, imidacloprid and hexaconazole. The State government said safer alternatives, recommended by the Punjab Agricultural University, Ludhiana, are available and are less likely to leave harmful residues.

However, representatives from the pesticide industry

reportedly told the State government that the European Union is relaxing its maximum residue limit (MRL) for thiamethoxam and the US is in advanced stages of lifting restrictions on tebuconazole. Exporters, however, insist that no such moves are underway; instead, more countries are considering reducing MRLs for harmful chemicals. Trade sources indicate that the EU's MRL for thiamethoxam in basmati rice is 0.01 mg/kg.

THREAT TO EXPORT

These pesticides are now considered a potential threat to the safe export and consumption of basmati rice due to increasing rejection rates. In fact, the July notification added hexaconazole to the list of 11 items previously banned by a notification issued in May.

According to the notification, multiple samples of basmati rice tested by the Punjab Rice Millers and Exporters Association were found to have residue levels significantly above the maximum permitted levels. The association had appealed for a ban on these pesticides.

Meanwhile, the Crop Care Federation of India and Crop Life are reported to have filed an application with the Punjab and Haryana High Court, seeking a stay against the ban. The application is scheduled for hearing on July

Licences of 8 agro agencies cancelled for overpricing fertilisers

KALABURAGI

IN a major action against exploitation of farmers, agriculture authorities in Kalaburagi have cancelled the licences of eight agro agencies for selling fertilisers at rates far above the Maximum Retail Price (MRP). The action follows multiple complaints from farmers that agencies were charging exorbitant prices for essential agricultural inputs. "DAP fertiliser priced at ₹1,350 was being sold for ₹1,600–₹1,800, and urea, which costs ₹266, was reportedly being sold for as high as ₹900," farmers alleged. Raising the issue, Karnataka State Farmers' Association president Mahantagouda Nandihalli urged the district in-charge minister to take strict action. "A price list must be mandatorily displayed, and measures must be taken to ensure farmers are not cheated. Timely availability of fertilisers, seeds, and pesticides at proper prices should be guaranteed," he said. Joint Director of Agriculture, Samad Patel, confirmed the action, stating that licences were revoked due to violations including overpricing and issuing fake bills without proper GST documentation. "Agencies were issuing unofficial bills and charging inflated prices for seeds and fertilisers, violating regulatory norms," he added. Patel warned that further violations would not be tolerated. "We have already taken action against eight agencies. If such malpractice continues, more licences will be

Tropical Agrosystem expands SmartFresh InBox rollout in India

Our Bureau

Mangaluru

Tropical Agrosystem (India) Pvt Ltd, a player in India's crop protection and plant nutrition sector, is expanding the reach of SmartFresh InBox, a post-harvest solution from AgroFresh Inc, USA.

A media statement said SmartFresh InBox technology extends freshness and reduces post-harvest losses.

The innovation is powered by 1-methylcyclopropene (1-MCP), a plant growth regulator that delays ripening and slows the ageing process by blocking the effects of ethylene, a natural hormone that accelerates fruit softening and spoilage.

It stated that SmartFresh InBox comes in easy-to-use sachets that are placed directly into produce boxes at

storage in farmers' backyards, controlled atmospheric stores, ports or during transit. SmartFresh InBox has been approved for use on apples in India, with trials underway for a range of fruits and vegetables, it said.

KEY MARKET

K Venkatasubramanian, General Manager-Post Harvest Business, Tropical Agrosystem (India) Pvt Ltd, said in a press statement, "This partnership empowers our farmers and the agri-supply chain with a reliable, scalable freshness solution to help optimise resources and maximise returns."

Sanjoy Kumar Kundu, Account Manager at AgroFresh Inc in India, said, "With their extensive reach and commitment to farmer empowerment, SmartFresh InBox is poised for great success here."

US slaps 25% tariff on India; New Delhi keeps BTA focus

Trump cites India's high tariffs and Russian ties to impose tariffs; India won't retaliate for now

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Indian goods arriving in the US will face a 25% tariff plus a penalty due to India's high tariffs, trade barriers and Russian links, US President Donald Trump said, two days before the pause on reciprocal tariffs comes to an end.

"While India is our friend, we have, over the years, done relatively little business with them because their tariffs are far too high, among the highest in the world, and they have the most strenuous and obnoxious non-monetary trade barriers of any country," Trump said on his social media platform Truth Social.

The Trump administration's move is expected to hit Indian sectors such as apparel, auto components, leather goods, and certain food exports to the US, where India has built strong market share over the years.

The Union commerce ministry said New Delhi is studying the implications of Trump's remarks. "India and the US have been engaged in negotiations over the last few months to conclude a fair, balanced and mutually beneficial bilateral trade agreement (BTA). The government remains committed to this objective," the ministry said in a statement.

"The welfare of farmers, entrepre-



TARIFF IMPACT

INDIA is assessing its options and reviewing implications of the duty

IT is expected to hit sectors like apparel, auto and leather goods

A US delegation is scheduled to visit New Delhi from 25 August

PARAS JAIN/MINT

neurs and MSMEs remains of utmost importance. The government will take all necessary steps to secure our national interest, as has been the case with other trade agreements, including the recently concluded Comprehensive Economic and Trade Agreement with

the UK," it added.

Talks had stalled around agriculture, dairy markets and genetically modified (GM) foods, with India standing firm against opening them to US corporations.

In the last month, the US has actively

Tariff cloud over exports, growth

The latest US tariff on Indian exports has cast a shadow over bilateral trade, creating fresh uncertainty for exporters. The potential penalty over India's Russia ties may also cloud pricing strategies and disrupt supply chain planning. **P2**

Market stares at short-term jitters

Stocks of textiles, pharmaceuticals and automotive component companies are likely to be hurt the most from the Trump tariffs, experts said. However, they also expect the fall to be short-lived on hopes of a trade deal eventually being struck. **P4**

reshaped its trade landscape. It has finalized trade deals with several countries, including the European Union and Japan, both accepting a 15% US import tariff on most goods. Other agreements

TURN TO PAGE 8

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