

ACFI NEWSLETTER

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Centre restricts use of herbicide glyphosate over health hazards

Allows use only by authorised Pest Control Operators

Topics Health hazard in India | central government | farmers

By [Sanjeeb Mukherjee](#) | New Delhi | Last Updated at October 27 2022 15:28 IST

“The biggest concern now is that there's no [pest control](#) operator system available in the cultivation area and inevitably this order is going to create chaos on the ground. Second, the involvement of PCO would add additional cost to a large extent, so this is not at all a farmer centric step,” said Kalyan Goswami, director general of Agro-Chemicals Federation of India (ACFI).

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Use of Glyphosate restricted in agriculture due to safety concerns

New Delhi: The government has restricted use of herbicide Glyphosate and its derivatives, fearing health hazards and risk to human beings/animals, a move opposed by an industry association AGFI citing endorsements from global studies and regulatory bodies.

Glyphosate and its formulations are widely registered and currently used in more than 160 countries, including the EU and the USA. Farmers across the globe have been using it for safe and effective weed control for over 40 years.

“The use of Glyphosate is hereby restricted and no person shall use Glyphosate except Pest Control Operators (PCOs),” said a notification issued by the agriculture ministry on October 25.

Opposing the move, Agro-Chemical Federation of India (ACFI) Director General Kalyan Goswami said, “Glyphosate-based formulations are very much safe to use. This has been tested and validated by leading regulatory authorities worldwide including India.”

He also said it makes “no logic to restrict the use of Glyphosate only through Pest Control Operators which are non-existing in rural areas”.

Restricting its use through PCOs will make it inconvenient to farmers and also add to cost of cultivation, he added.

According to ACFI, the industry has already planned a label extension for use of Glyphosate 41 per cent SL formulation in six crops (cotton, grape, pomegranate, mango, and tomato). It is seeking permission for label extension on cotton and grape and the data generation is ongoing in other crops.

सरकारी योजना

पीएम किसान

रबी फसलें

कृषि मशीन

Home / News / Glyphosate Ban: केंद्र सरकार ने ग्लाइफोसेट खरप

Glyphosate Ban: केंद्र सरकार ने ग्लाइफोसेट खरपतवार नाशक के प्रयोग पर लगाया प्रतिबंध, एग्रो-केमिकल संघ ने की आलोचना

केंद्र सरकार ने खेती-बाड़ी में बड़े पैमाने पर खरपतवार नाशक के रूप में प्रयोग होने वाले रसायन ग्लाइफोसेट के फसलों पर सीधे इस्तेमाल को प्रतिबंधित कर दिया है. सरकार ने हवाला दिया है कि का प्रयोग कर रहे किसानों और उनके मवेशियों के स्वास्थ्य पर हानिकारक प्रभाव पाए गए हैं.

Updated on: 27 October, 2022 4:30 PM IST

By: मनीष कुमार



एसीएफआई के महानिदेशक कल्याण गोस्वामी ने सरकारी आदेश पर प्रतिक्रिया देते हुए कहा है कि देश में खासकर चाय उत्पादक राज्यों के पास कोई प्रभावी कीट नाशक या खरपतवार नाशक उपलब्ध नहीं है. यह फैसला किसानों पर अतिरिक्त श्रम और आर्थिक बोझ डालेगा. (प्रतीकात्मक फोटो-सोशल मीडिया)

किसानों के लिए बड़ी खबर! खेती-किसानी में बंद होगा इस केमिकल का इस्तेमाल, जानिए सरकार ने क्यों उठाया ये कदम?

बढ़ जाएगी खेती की लागत
इस कदम का विरोध करते हुए, एग्रो-केमिकल फेडरेशन ऑफ इंडिया (ACFI) के महानिदेशक कल्याण गोस्वामी ने कहा, ग्लाइफोसेट-आधारित फॉर्मूलेशन उपयोग

Restriction on use of glyphosate, derivatives in farming

PTI

feedback@livemint.com
NEW DELHI

The government has restricted the use of the herbicide glyphosate and its derivatives, fearing health hazards and risks to humans and animals, a move opposed by an industry association which cited endorsements from global studies and regulatory bodies.

Glyphosate and its formulations are widely registered and currently used in more than 160 countries, including the EU and the US. Farmers across the globe have been using it for weed control for over 40 years.

"The use of glyphosate is hereby restricted and no person shall use glyphosate except pest control operators (PCOs)," said a notification issued by the agriculture ministry on 25 October.

Companies have been asked to return certificates of registration granted to glyphosate and its derivatives to the Registration Committee for incorporation of the warning in bold letters, "the use of glyphosate formulation to be allowed through PCOs" on the label and leaflet, it said.

Companies have been given three months to return the certificate or face strict action under the Insecticides Act, 1968.

State governments should take steps for the execution of this order, it added.

The final notification restricting glyphosate use comes more than two years after a draft was issued by the ministry.

The draft was issued following a report from the Kerala government for prohibiting the distribution, sale and use of this herbicide.

Opposing the move, Agro-Chemical Federation of India (ACFI) director general Kalyan Goswami said, "Glyphosate-based formulations are very much safe to use. This has been tested and validated by leading regulatory authorities worldwide including India."

He said it makes "no logic to restrict the use of glyphosate only through PCOs which are non-existent in rural areas".



Govt restricts use of Glyphosate in agriculture due to safety concerns; industry body opposes it

Opposing the move, Agro-Chemical Federation of India (ACFI) Director General Kalyan Goswami said, "Glyphosate-based formulations are very much safe to use. This has been tested and validated by leading regulatory authorities worldwide including India." He also said it makes "no logic to restrict the use of Glyphosate only through Pest Control Operators (PCOs) which are non-existing in rural areas".



होम ताजा राष्ट्रीय स्पेशल शेयर बाजार दुनिया शि

हिंदी न्यूज़ / व्यापार / biz

Glyphosate: किसान अब नहीं कर सकेंगे इस केमिकल का इस्तेमाल, सरकार हुई सख्त, इस वजह से लिया गया फैसला

इस कदम का विरोध करते हुए एग्रो-केमिकल फेडरेशन ऑफ इंडिया (एसीएफआई) के महानिदेशक कल्याण गोस्वामी ने कहा कि ग्लाइफोसेट-आधारित फॉर्मूलेशन सुरक्षित है। भारत सहित दुनियाभर में नियामक प्राधिकरणों द्वारा इसका परीक्षण और सत्यापन किया गया है।

Bayer signs pact with SFAC to form 50 FPOs

Our Bureau
Bengaluru

The Small Farmers' Agri-Business Consortium (SFAC) and Bayer CropScience Limited have signed a Memorandum of Understanding to form and promote 50 specialised Farmer Producer Organisations (FPOs).

In collaboration with SFAC, Bayer has identified clusters in 10 States and will aim to assist smallholder farmers with business planning, identification of key enablers, creation of market linkages and knowledge transfer, while working to establish 50 FPOs.

SFAC's partnership with Bayer will help strengthen grower collectivisation and support farmer collectives to evolve as profitable and self-reliant business entities, the company said in a statement.

GLOBAL COMMITMENT

Simon-Thorsten Wiebusch, Country Divisional Head, Crop Science Division of Bayer for India, Bangladesh & Sri Lanka, said, "We as Bayer, are grateful to SFAC for giving us this opportunity of forming 50 FPOs. It brings to life our global com-



mitment of empowering 100 million smallholder farmers by 2030 and providing them necessary resources to enhance their productivity and livelihoods."

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'Rising Imports a Concern, But Imposing Curbs Not the Solution'

'While high tariffs look like a good short-term solution, they make us uncompetitive'

Kirtika.Suneja@timesgroup.com

New Delhi: Rising imports are a concern but there should not be any curbs on them to check the burgeoning trade deficit, said BVR Subrahmanyam, who retired as commerce secretary on Friday (September 30). He will take charge as chairman & managing director of the India Trade Promotion Organisation (ITPO).

While higher tariffs look like a good short-term solution, in the long run they make industries uncompetitive, he said in an interview to ET.

"Tariff as a trade policy tool is an obsolete ideology," he said, adding that India is on track to achieve \$470 billion merchandise exports this fiscal though there are headwinds from the disruptions caused by the Russia-Ukraine war; China's negligible growth, high inflation in the



UK and the US and effects of Covid. India's goods exports slowed to 1.62% in August and the trade deficit more than doubled to \$27.98 billion from the year-ago period. Imports rose 37.26% to \$61.9 billion in August this year.

"Imports are a concern," he said, adding that a lot of imports such as fuel, fertilizer, coking coal, edible oil and pulses are inelastic.

"If you take them out, then 70% of imports are capital, raw material and intermediate products. A lot of manufacturing strength is dependent on im-

ports which is a sign of a healthy economy."

Asked if discussions are on between various ministries to restrict imports, he said: "There are constant talks going on but at the moment I don't think there is any cause for worry. Services are going to bail out the country massively."

To address the trade gap, he said either exports can be increased, or imports can be squeezed through restrictions or tariffs which are useful in the case of gold but add to inflation in other cases.

"The second-order effects of tariff

protection in the medium term and long term are not beneficial because industries become uncompetitive. Also, 70% trade happens on global value chains which want free movement of goods," he said.

Despite the restrictions on export of rice, wheat and sugar, he said that India will clock \$60 billion of agriculture exports this year as against around \$50 billion in FY22.

"It's going to be made up with coffee and marine products," he said.

TRADE PACTS

Subrahmanyam said India and the UK are in the process of exchanging tariff offers for a trade pact which is 80-90% complete and on track to be signed around Diwali. The pact will have 27 chapters including goods, services, environment and labour. "We are engaging with our whiskey industry and are on verge of making an offer in a week."

While the UK manufactures 800,000 cars, India makes 3.5 million. However, the UK exports 80% of their cars, with the bulk of shipments going to Europe, while India exports 15%. Subrahmanyam said India is also of the view that European products are not treated as UK products. India is also in talks with the EU for a trade pact and the next round will take place next week.

Ex-principal scientific adviser backs nod to GM Mustard

Vishwa.Mohan
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New Delhi: Backing the central biotech regulator's move on allowing environmental release of GM mustard for its seed production and testing that may eventually lead to its commercial cultivation, the former principal scientific adviser (PSA) to the government K Vijay Raghavan has said the "mustard farmers are ready for a change" as the transgenic variety would provide them higher yield with low input costs.

Referring to history of its development and processes involved in certifying its safety aspect, Raghavan in a series of tweets on the Genetic Engineering Appraisal Committee (GEAC) decision flagged records of safe consumption of GE rapeseed oil and meal in many



'READY FOR A CHANGE'

countries.

Citing global examples to address concerns over the biosafety aspect, he on Wednesday tweeted that rapeseed hybrids based on barnase/barstar system have been released and grown in Canada since 1996, the USA since 2002, and Australia since 2007. "No ill effects have been reported since the first release in 1996," said the former PSA, noting that Canada alone exported 7 million tonne of seed and 2.3 million tonne of oil.

He also explained how it would be beneficial for farmers in terms of higher yields without any additional input of water, fertiliser, or pesticides.

Allaying concerns of farm activists, even the GEAC in its note on October 18 said the approval would be revoked if there was any evidence regarding harmful effects of the approved GE mustard comes to its notice.

"The approval may be revoked under Rule 13(2) of Rules, 1989, if any evidences regarding harmful effects of the approved GE mustard, such as damage to the environment, nature or health, as could not be envisaged when the approval was given, comes under notice of GEAC and on noncompliance of any condition stipulated by GEAC," said the regulator.

New licences for fertiliser, pesticide sale banned

RUCHIKA M KHANNA
TRIBUNE NEWS SERVICE

CHANDIGARH, OCTOBER 26

The Punjab Government has imposed a ban on issuing of new licences for sale and manufacture of pesticides and fertilisers in the state. The ban has been imposed reportedly to check the sale of spurious pesticides and fertilisers.

The orders in this regard have been issued to all Chief Agriculture Officers in the state, asking them not to issue any new licences at the district-level as a decision in this regard has been taken by the state government. "If it is absolutely necessary to issue a licence, the permission for it should be taken from the



YOUTH, FARMERS AGAINST DECISION

The move has not gone down well with farmers and youths, who feel that the move will kill employment opportunity for many. Gurbakshish Singh, a farmer from Nabha, said many youth had applied for the licence, after having completed a one-year diploma course in agriculture sciences.

head office of the Agriculture Department," read the orders issued by the Joint Director of the Agriculture Department.

The ban is on issuing of licences to small retailers, manufacturers and also for those who get licences for sale across the state. Top officials

in the department say that the decision has been taken in order to regulate the sale of pesticides and fertilisers. "There are already too many licence-holders and it is difficult for the state to regulate them. As a result, too many spurious pesticides and fer-

tiles are now finding their way to farmers, posing risk to the farming operations," said a top officer. It is learnt that there are close to 20,000 retailers of pesticides and fertilisers in the state.

The move has not gone down well with farmers and

youth, who feel that the move will kill employment opportunity for many. Gurbakshish Singh, a farmer from Nabha, said many youth had applied for the licence, after having completed a one-year diploma course in agriculture sciences. "They study for the course to become eligible for obtaining these licences. They now feel let down," he told *The Tribune*. Being a graduate in agriculture sciences, science or a diploma in agriculture is a must to obtain this licence.

The issue of imposing a ban on issuing of new licences was reportedly also discussed in a meeting of Agriculture Minister Kuldeep Singh

Dhaliwal with the fertiliser and pesticide dealers' association last month, said Gokal Prakash Gupta, a leading fertiliser dealer in the state. Many of the dealers are reportedly against the grant of new licences, and had also said so in the meeting.

Sukhdev Singh Kokrikalan, general secretary, BKU Ekta-Ugrahan, said the need of the hour was to change the model of agriculture — from a chemical-based agriculture to natural farming. "Instead of banning the issuing of new licences, the government should look at minimising the use of the chemicals and fertilisers, and move towards bio chemical usage on crops," he said.

Is drone-based pesticide spraying safe?

More detailed studies are required to assess the damage from pesticides drift (the movement of pesticide droplets to an unintended area) and thereby the damage increased pesticides sprays will cause to human health, environment and the ecosystems



DEVINDER SHARMA

A day after the Finance Minister Nirmala Sitharaman, in her Budget 2022 address, announced the launch of 'Kisan Drones', it was quite intriguing to read a comment by an Ernest & Young executive saying this technological intervention will raise the GDP by 1.5 per cent. It took me sometime to realise that in a consumption-driven economy, the expected hike in GDP calculation, was essentially based on the number of drones that the industry was hoping to sell.

No wonder, the Drone Federation of India had even worked out that the use of drones will help facilitate the vision of 'one-village-one-drone' in the next three years.

Anyway, a few months after the Budget speech, first the Central Insecticides Board and Registration Committee granted an interim approval for spraying 477 registered chemical pesticides, including pesticides, fungicides and also plant growth regulators with drones for a period of two years. Later, the Agriculture Minister, Narendra Singh Tomar, announced that a subsidy of 75 per cent will be provided to Farmer Producer Organisations (FPOs) for purchase of a drone and its demonstration to farmers. For farmers, a financial assistance of 40 per cent to a maximum of Rs 4-lakh is being provided. In the month of July, media reports said the pesticides major Syngenta India received permission to spray a fungicide on paddy. Reports also say that in addition, Big Agrichemical companies like Bayer, BASF, Dhanuka Agritech, UPL and Insecticides India Ltd were planning to use drones over 30,000 acres on a pilot basis during the kharif season that just ended. It is believed that such measures will surely enable companies to monitor the spray results, and fine

tune the technological innovations, like the spray nozzle size, chemical composition to reduce drift etc, and thereby understand various aspects of the drone technology when it comes to practical application in field operations. So far, what the pilot studies conclude is not known, but it will surely be interesting to evaluate the results and the methodology used.

While I can understand the excitement over introducing new technological tools like drones, which for the drone manufacturers and pesticide companies is a huge business opportunity, more detailed studies are surely required to assess the damage from pesticides drift (the movement of pesticide droplets to an unintended area) and thereby the damage increased pesticides sprays will cause to human health, environment and the ecosystems. Although the drone manufacturers will deny it, and so will the pesticides industry, but the fact remains that even for a popular herbicide – glyphosate, assumed at one stage to be not spreading with air, subsequent studies have shown that the herbicide residues have been detected at all locations where it was possible to measure the toxicity limits.

Already, studies of 'long-range pesticides transport' have shown that pesticides travel from a few hundred metres to more than 1,000 kilometres. To illustrate, remember the peoples' resistance to continued aerial spraying of Persistent Organic Pollutant, Endosulfan, on cashew plantations in Kasaragod district of Kerala that resulted in an alarming damage to human health, soil and water. A report in Washington Post (Feb 8, 2011) had said that the aerial sprays resulted in more than 550 deaths and serious health problems, including crippling disability, to over 6,000 people.

The villagers eventually forced the Kerala government to impose a ban on aerial spraying in 2004. As if this is not enough, the Environment Science & Technology journal had way back in 2008 published research findings that showed presence of the pesticide DDT in Antarctic Penguins. "DDT, along with a lot of other organic pollutants, actually travels through the atmosphere ... towards the polar regions by a process of evaporation, and then condensation in cooler climates," the researchers had concluded. This study conclusively established not only the possibility but the reality of

long-distance travel of pesticide aerosols, even able to cross the mighty Indian and Antarctic Oceans. In America, a 2021 study found more than one million acres under soybean to be affected with dicamba herbicide from nearby fields.

Considering that occupational poisoning globally has risen over the years, from about 25 million in 1990 to 385 million now, I



thought the effort in India would have been to reduce the application of pesticides.

Whether by drones or by manual spraying, better approach would be that farmers should be provided with safer biological alternatives and doing away with consumption of pesticides.

The Community Managed Natural Farming System (CMNA) that Andhra Pradesh promotes, aiming to convert the entire farming population from chemical to non-chemical farming by the year 2030, through a government legislated and funded programme is a lesson for the rest of the country to follow. Similarly, the European Commission's Farm to Fork and Biodiversity strategy includes converting 50 per cent of its land free of chemical pesticides by 2030. Already the European Union has decided to use 20 per cent allocations to be made till 2024, under the Common Agricultural Policy, for ecological support.

Now let us revert back to the regulations that have been put in place for the use of drones. According to the Hyderabad-based researcher and activist, Narasimha Reddy Donthi, a conflict of interest was clearly visible in the way the Standard Operating Procedure (SOP) for drone applications were prepared by the Ministry of Agriculture & Farmers Welfare. The committee that worked on it was loaded with experts from the drone manufacturing industry and from the pesticides companies. In his communi-

cation to the Ministry, he has brought attention to numerous visible gaps in formulating what could have been still tighter SOP measures.

One of the standards that have been suggested pertains to informing the Gram Panchayat and Panchayat Samiti at least 24 hours in advance by the drone operator before a drone spray is to be conducted.

The Samiti is then expected to inform neighbouring farmers to take adequate precautions when the spraying is being done. In other words, this essentially means that the possibility of pesticides drift to the neighbouring crop fields is already acknowledged. Knowing that 97 per cent increase in quantity of pesticides used has happened in Asia, of which 40 per cent is in India, I suggest first setting up a facility for air monitoring of pesticides, which only Sweden has put in place. Secondly, even though the priority should be to phase out the application of chemical pesticides, till the time this is done it will make absolute economic and environmental sense in educating farmers to keep the pesticide at the source of irrigation water in the crop field. Although this was the usual practice with farmers some 50 years back but with the advent of new pesticides equipment – knapsack sprayers and different nozzles – it was gradually discarded.

A study in mid-1980s by International Rice Research Institute (IRRI) in the Philippines had shown that keeping pesticide at the source of flowing water channel into the crop field is as effective as using different nozzle sprays. It is time to dig out that study.

(The author is a noted food policy analyst and an expert on issues related to the agriculture sector. He writes on food, agriculture and hunger)

'Only professional pest controllers must use glyphosate'

Prabhudatta Mishra
New Delhi

More than two years after it proposed a ban on the use of the controversial weedicide glyphosate, the Agriculture Ministry has restricted the use of the chemical in agriculture by making it mandatory to employ a professional pest controller to spray the herbicide in the field.

While the step is seen as one that increases the cost of cultivation, it will also ensure judicious use of the chemical.

In a notification pub-

lished on October 25, the Ministry said: "The use of glyphosate is hereby restricted and no person shall use glyphosate except pest control operators."

It has asked all holders of the certificate of registration granted for glyphosate and its derivatives to return the certificate of registration to the Registration Committee for incorporation of the warning in bold letters on the label and leaflets.

"If any person who holds the certificate of registration fails to return the certificate to the Registration Committee, referred to in



Clause (3), within a period of three months, action shall be taken under the provisions contained in the Insecticides Act," the Ministry

said. The Ministry said it is "satisfied that the use of Glyphosate involves health hazards and risk to human beings and animals."

KERALA'S PLEA

After it received a request from the Kerala government, the Centre in July 2020 published a draft Order declaring its intention to restrict the use of glyphosate and its derivatives through pest control operators and invited objections and suggestions, within three months, from all persons likely to be affected.

Even as the Centre

dithered the decision, Kerala and Telangana have already banned this chemical which is mainly used in herbicide tolerant (HT) Bt Cotton and some plantation crops.

Glyphosate is used in herbicide-tolerant HTBt cotton, a GM variety yet to be approved by GEAC. Still, it is widely grown by farmers in Maharashtra and Telangana.

Many farmers in India have already shifted to other alternative herbicides after prices of glyphosate have been on an upturn in recent quarters due to supply disruption from China.

Govt restricts herbicide Glyphosate use in agri

Industry body opposes it citing endorsements from global studies and regulatory bodies

NEW DELHI

THE government has restricted use of herbicide Glyphosate and its derivatives, fearing health hazards and risk to human beings/animals, a move opposed by an industry association AGFI citing endorsements from global studies and regulatory bodies.

Glyphosate and its formulations are widely registered and currently used in more than 160 countries, including the EU and the USA. Farmers across the globe have been using it for safe and effective weed control for over 40 years.

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Weed killer causing health hazards

- The use of Glyphosate formulation to be allowed only through PCOs
- The final notification restricting Glyphosate comes more than 2 years after a draft was issued by the agriculture ministry on July 2, 2020
- The companies have been given three months time to return the certificate of registration granted for Glyphosate and its derivatives
- State governments should take steps for the execution of this order, the notification said



The companies have been given three months time to return the certificate else strict action will be taken as per the provisions of the

Insecticides Act, 1968. State governments should take steps for the execution of this order, it added. The final notification restricting

Glyphosate comes more than two years after a draft was issued by the ministry on July 2, 2020.

The draft was issued following a report from the Kerala government for prohibiting the distribution, sale and use of this herbicide. Opposing the move, Agro-Chemical Federation of India (ACFI) Director General Kalyan Goswami said, "Glyphosate-based formulations are very much safe to use. This has been tested and validated by leading regulatory authorities worldwide including India." He also said it makes "no logic to restrict the use of Glyphosate only through Pest Control Operators (PCOs) which are non-existing in rural areas".

Restricting its use through PCOs will make it inconvenient to farmers and also add to cost of cultivation, he added. According to ACFI, the industry has already planned a label extension for use of Glyphosate 41 per cent SL formulation in six crops (cotton, grape, pomegranate, mango, and tomato). It is seeking permission for label extension on cotton and grape and the data generation is ongoing in other crops.

PM to launch urea under 'Bharat' brand

TRIBUNE NEWS SERVICE

NEW DELHI, OCTOBER 15

Prime Minister Narendra Modi will on Monday launch subsidised urea bags under single brand name 'Bharat' as part of the 'One Nation, One Fertiliser' scheme, release the 12th instalment of Rs 16,000 crore to beneficiary farmers and inaugurate 600 PM Kisan Samridhi Kendras as part of the PM Kisan Samman Sammelan 2022, an event jointly organised by the Agriculture and Chemicals and

To inaugurate 'Agri Startup Conclave and Exhibition'

Fertilisers Ministries.

Briefing the media, Agriculture Minister Narendra Singh Tomar said all subsidised soil nutrients — urea, diammonium phosphate, muriate of potash and NPK — would be marketed under 'Bharat' across the nation.

"The PM will inaugurate 600 PM Kisan Samridhi Kendras (PM-KSK) of the Chemicals and Fertilisers Ministry and launch 'Bharat' urea bags for

farmers," said Tomar.

He said the government was making it mandatory for companies to market subsidised fertilisers under the 'Bharat' brand as part of 'One Nation, One Fertiliser' scheme to prevent criss-cross movement of fertilisers and reduce high freight subsidy.

According to officials, 177 fertiliser manufacturers will sell their assorted products under the single brand name.

Further, the PM will also inaugurate the 'Agri Startup Conclave and Exhibition' during the event, in which 1,500 agri-startups are expected to participate and hold technical sessions.

About 300 startups will showcase their innovation related to precision farming, post-harvest and value addition solutions, mechanisation for small farmers, agri-logistics on the first day.

The platform would facilitate startups to interact with farmers, farmer producer organisations, agri experts and corporates.

Govt to develop 50 districts as export hubs

Dilasha Seth

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NEW DELHI

With exports facing global headwinds, the Union Budget is likely to announce a ₹2,500 crore scheme to develop 50 districts as export hubs.

The programme will help domestic producers in these districts to scale up manufacturing and find potential buyers outside India.

Under the proposed scheme, the government will select 50 districts through a challenge, and they will receive ₹50 crore each. The districts will be assessed on parameters such as plans for exports, efforts to plug infrastructure and logistics gaps, and cluster approach to exports.

As it will be a centrally sponsored scheme, the Directorate General of Foreign Trade (DGFT) has proposed that the Centre pays 60% of the estimated cost, with the rest borne by the respective states.

This means that the Centre will likely allocate ₹1,500 crore for the programme.

“District as Exports Hub will likely be a centrally sponsored scheme and may come up in the budget... if not before.



As a centrally sponsored scheme, the Centre may pay 60% of the cost, with the rest borne by the respective states. **BLOOMBERG**

“These districts will be selected under the challenge route, and scores will be assigned based on parameters related to their preparedness...we will invite applications, and they will be evaluated,” said a senior government official.

The Centre will receive applications from the states, and evaluation and scoring will be done by a technical advisory agency.

Only those districts having a robust plan will make it to the list.

“The idea is to support districts that have done robust planning to develop export competitiveness,” said the official.

The idea was initially proposed as a ₹10,000 crore scheme, covering 200 districts across the country

Queries emailed to the department of commerce remained unanswered till press time.

Ajay Sahai, director-general and CEO of the Federation of

Indian Export Organizations (FIEO), said that ‘District as an Export Hub’ will be a game changer for exports.

“Districts are the production centres, and focussing on them to address supply-side challenges will go a long way in boosting and facilitating exports. It’s a more granular approach of moving from states to districts, which will reap huge dividends,” Sahai said.

The scheme was initially proposed as a ₹10,000 crore scheme, covering 200 districts.

After the department of commerce prepares a cabinet note for the ‘districts as export hubs’ plan, it will be taken for Cabinet approval.

The DGFT initially proposed the scheme for 200 districts, but the department of expenditure recommended doing it in phases and mapping the actual impact first.

This comes as the government is looking at ways to boost exports amid declining global demand.

Exports growth slowed to a 19-month low in September at 4.8%.

The department of commerce has also been implementing the Trade Infrastructure for Export Scheme since FY17-18 with the objective of assisting central and state government agencies in the creation of appropriate infrastructure for the growth of exports.

Fertiliser diplomacy needed for nutrient security

India has done well in a volatile business environment, thanks to the proactive Government measures in fertiliser segment

As part of the agricultural value chain, fertilisers play a key role in ensuring the improvement in farm output and achieving food security goals for the nation. India is the second largest consumer of fertilisers globally after China, servicing over 190 million hectares of gross cropped area and reaching 140 million farmhands.

While India is the third largest producer of agri-nutrients globally, it is scarcely endowed with fertiliser raw material (rock phosphate, phosphoric acid sulphur, ammonia, natural gas, MOP, etc.) and depends on imports for meeting close to one-third of its fertiliser requirements.

In the past two years, pandemic-induced supply chain uncertainties, higher global



RK CHATURVEDI

(The author is a former Fertilisers Secretary)

demand in competing markets, protectionist measures, and disruption in supplies from Baltic region have impacted the raw material and finished product prices and availability, exposing vulnerabilities of an imperfect global market. The Fertiliser Index, as measured by the International Monetary Fund (IMF), surged by a whopping 201 per cent from January 2020 to July 2022, putting a major strain on importing nations like India.

However, India has sailed reasonably well in a volatile business environment, thanks to the proactive measures undertaken by the Government in the fertiliser segment. Recognising its importance to the farming community, the Government

has not only ensured timely nutrient availability but also contained the increase in fertiliser prices.

At the farm-gate level, the impact of the fertiliser price hike in the international markets has been absorbed by the Government through extending subsidy support to the farmers. Though the subsidy burden for the Government has gone up in the last two years—Rs 2.5 lakh crore estimate in FY22-23 and Rs 1.62 lakh crore in FY21-22 compared to an average annual outgo of Rs 80,000 crore—it has prioritised farmer welfare and food security goals for India. As a result, the fertiliser consumption has remained stable and India continues to do well in agri-production, not only addressing the nutrition-

al needs of the nation but also exporting to over 150 countries during last year.

India’s fertiliser sector is slowly turning this adversity into opportunity through strengthening its domestic operations, building capacities, and investing in backward integration projects to improve its bargaining power. In the past six months, India, has been actively engaging with resource-rich nations for strengthening its supply tie-ups. This includes Government spearheading major industry delegations for signing MoUs with partners like Jordan (for rock phosphate, phosphoric acid, MoP, DAP), Saudi Arabia (ammonia, DAP, NPKs), Russia (DAP, NPKs), and Canada (MOP).

India engaged in

Government-to-Government level negotiations with Russia for long-term supply of fertilisers that ensured DAP availability in a tight market situation. A recent instance of this has been the competitive prices at which phosphoric acid for Oct-Dec FY23 have been finalised at \$1,175/ton, down from \$1,715 that prevailed in the previous quarter. This will significantly bring down the domestic cost of manufacturing.

The Government is also encouraging industry to set up overseas joint ventures for securing raw material and there has been an active engagement at the Government level to revive the existing joint ventures. There has been an increased thrust on reviving the Single Super

Phosphate (SSP) industry, the cheapest source of phosphate providing multiple nutrients like sulphur and calcium. In the current elevated commodity cycle, SSP has emerged as a good substitute, especially for oilseeds and pulses for semi-arid and rainfed regions. The Government is promoting use of alternate fertilisers and supporting the adoption of new technology solutions like nano, liquid and bio-fertilisers. The response of nano products from the farming community is quite encouraging.

There has been an increased focus on application technologies like drone-based spraying, improving resource utilisation and driving farm efficiencies. The Government is also encouraging the adoption of aerospace and geo-

graphic information system-driven technologies in agriculture, which holds the potential of transforming farming practices and driving farm prosperity.

The participative governance approach followed by the Department of Fertilisers (DoF) has strengthened the communication and coordination between the Government and Industry. While there is still some way to go before India achieves self-sufficiency in fertilisers, the actions undertaken in the last few months have strengthened its standing in the global fertiliser supply chain. It underpins successful fertiliser diplomacy and indicates India’s strong position to deal with similar commodity shocks in future.

● FROM PLATE TO PLOUGH

WITH CLIMATE-CHANGE PORTENTS FOR AGRICULTURE IN THE BUSINESS-AS-USUAL MODE, WE MUST INVEST IN INNOVATION AND POLICIES TO BEAT CLIMATE EFFECTS

Increase agri R&D spend

OCTOBER 16 IS celebrated as the World Food Day. It is actually the foundation day of the Food and Agriculture Organisation (FAO) of the United Nations that was set up in 1945. Just out of the World War II, several nations were badly bruised and devastated, and the fear of hunger was looming large. It is against this backdrop that nations in their collective wisdom thought of establishing the FAO with a global vision to ensure enough food is produced to feed increasing population. The global population at that time was a little less than 2.5 billion and increasing at an annual rate of about 1.9% per annum. Today, there are almost 8 billion people on this planet, and there is ample food to feed them, provided they have money to buy. Access to food at affordable prices still remains a challenge for a substantial segment of humanity, which leads to malnutrition.

Nevertheless, it is time to rejoice that Homo sapiens, who learned practising agriculture only 10,000-12,000 years ago in their long journey of 200,000-300,000 years, have been able to produce so much food that the entire population can be fed. But how this became possible is a story of science and innovation in the agri-food space. Countries that are guided by scientific knowledge and spirit of innovation, instead of ideologies and dogmas, have produced ample food even in deserts (viz. Israel). And many countries have suffered terrible outcomes when they are driven by ideologies. China is a case in point; during 1958-61, more than 30 million people died of starvation during the 'Great Leap Forward' orchestrated by chairman Mao Zedong of Chinese Communist Party, who wanted to transform China from being an agrarian society to

becoming a commune-based system under the communist ideology. It failed miserably, causing extreme hardships to millions of people. Finally, it was Deng Xiaoping in 1978 who ushered in reforms in Chinese agriculture, dismantling the commune system.

India, the second-most populous country on this planet, also suffered by placing heavy industry-led development strategy as a means to wipe out poverty and become an advanced nation under Jawaharlal Nehru's leadership in 1956. The two successive droughts in the mid-1960s brought India literally on its knees for meeting the basic food requirement of its people. India was forced to rely on PL 480 food aid from the US, living from 'ship to mouth'.

Although it did not have starvation deaths at a scale anywhere near China's, India soon realised that such high dependence on others for food could lead to political compromises.

Technological breakthrough in high yielding varieties (HYV) of wheat, made by Normal Borlaug and his team in CIMMYT, and by Henry Beachell and Gurdev Khush in rice at the IRRRI, ensured that humanity can have plenty of basic sta-

ples that this planet can produce. As is well known, Borlaug received the Nobel Prize for peace in 1970, as there is no Nobel Prize for agriculture, for saving millions of lives through his scientific research. He, in turn, envisioned setting up the World Food Prize, some what equivalent to the Nobel Prize for agriculture. It was established in 1986, and was sponsored by General Foods and the

John Ruan family, and many others. The World Food Prize is given every year on October 16 in a special ceremony in Des Moines, Iowa the US. I have participated in these events, and I can safely say that the nearly-week-long programme to showcase advances in agriculture science, policies and programmes is an eye-opener, and perhaps the best in the world. Many

Indians, from MS Swaminathan to Verghese Kurien, Gurdev Khush to Rattan Lal have been recipients of the World Food Prize for their valuable contributions in improving food production. However, lately, the focus has been shifting from just augmenting food production to nutrition and climate resilience. This year's award goes to Cynthia Rosenzweig for her pioneering work in modelling the impact of climate change on

food production. Nothing can be better timed than developing tools to understand the impact of climate change when climate shocks are already knocking on our doors, with higher frequency and intensity of heat waves, droughts and untimely floods, putting millions at risk of food security.

Interestingly, while agriculture gets severely impacted by climate change, it also is the cause behind 28% of the global green house gas (GHG) emissions, contributing to global warming. So, it is time to invest not only in climate adaptation strategies but also re-work our policies that can mitigate GHG emissions within agriculture. Net zero is an ambitious resolve, though a bit late. Yet, if sincerely implemented, it can serve humanity well and this planet can still feed more than 10 billion people.

But changing the behaviour of people can not be achieved with a business as usual approach, even when you develop new technologies. One has to work on policies that incentivise people to change the way of doing things, be it agriculture or non-agriculture operations. Policies are lagging behind, while technologies are sprinting ahead. It is high time for India to wake up, and double or even triple its expenditure on agri-research, development and education. Currently, it hovers around 0.6% of agri-GDP for both the Centre and the states combined; this needs to be a minimum of 1%, but desirably anywhere between 1.5-2%, of agri-GDP. Only then India can be *atmanirbhar* in food even in the face of adverse climate change.

This World Food Day, let us commit to give our best to this planet as well as people's basic need of food. At ICRIR, we are bringing out our October issue *Af-TAB* on Synergising food and nutritional security with environment. Stay tuned!

ASHOK GULATI

Distinguished professor, ICRIR
Views are personal



India's agri R&D and education spend hovers around 0.6% of agri-GDP; this needs to be a minimum of 1%, but desirably between 1.5-2%, of its agri-GDP. Only then can there be *atmanirbharta* on food

Centre launches new scheme 'One Nation One Fertiliser'

NEW DELHI

THE Centre has started a new scheme - Pradhan Mantri Bharatiya Jan Urvarak Pariyojana - One Nation One Fertiliser - under which it is mandatory for companies to market all subsidised fertilisers under single brand 'Bharat'.

Prime Minister Narendra Modi launched the

single brand Bharat under the scheme during the two-day event PM Kisan Samman Sammelan 2022 being held here.

This is being done to prevent criss-cross movement of fertilisers and reduce high freight subsidy.

All subsidised soil nutrients - urea, di-ammonium phosphate (DAP), Muriate of Potash (MoP) and NPK - will be mar-

keted under the single brand Bharat across the nation.

Modi also inaugurated 600 PM Kisan Samruddhi Kendras (PM-KSK) that will act as a one-stop-shop for farmers who can buy products and avail multiple services related to the agriculture sector.

The Centre intends to convert more than 3.3 lakh fertiliser retail shops

in the country into PM-KSK in a phased manner.

The PM-KSK will supply agri-inputs like seeds, fertilisers and farm implements. It will also provide testing facilities for soil, seeds and fertilisers. Information about government schemes will also be provided.

During the event, the prime minister also launched Indian Edge', an

e-magazine on fertilisers. It will provide information on domestic and international fertiliser scenarios, including recent developments, price trends analysis, availability and consumption, among others.

Union Agriculture Minister Narendra Singh Tomar and Chemicals & Fertilisers Minister Mansukh Mandaviya were also present at the programme.



The One Nation One Fertiliser scheme

Syngenta, Nabard develop modern veg market in Karnataka

Our Bureau
Bengaluru

Farmers of 50 villages and agri traders will immensely benefit from a modern vegetable market developed by Syngenta India at Hirekerur, said Karnataka Agriculture and Farmer's Welfare Minister BC Patil while inaugurating the upgraded market.

The upgraded market is spread over 85,000 sq ft, with 12 platforms, 68,000 sq ft of covered roof, seven sheds, 16 solar lights, 21 roof ventilators, 130 boards with safety messages and two arches, Syngenta said in a statement.

I-CLEAN PROJECT

Susheel Kumar, Managing



NEW FACE. A view of the upgraded Hirekerur veg market

Director, Syngenta India Pvt Ltd, said the upgradation has been done under I-CLEAN (Inculcating Cleanliness, Learning, Education, Awareness and New Habits). "The vegetable market at Hirekerur has facility for 500 vendors. The weekly average footfall of over 15,000 has been factored in. We have also developed rainwater harvest-

ing structure throughout the market and the water collected is discharged to the nearby lake," added Kumar.

T Ramesh, Chief General Manager, NABARD, Karnataka, said, "our common goal is to accelerate the pace of contribution to rural economies by creating access to modern facilities for farmers and other stakeholders."

PLI scheme likely to be extended to more sectors

THE GOVERNMENT IS considering proposals to extend ₹ 35,000 crore PLI scheme to different sectors such as leather, bicycle, some vaccine materials, and certain telecom products with an aim to boost domestic manufacturing and create jobs, an official said.

PLI (production linked incentive) benefits are also being considered for toys, some chemicals and shipping containers.

"The proposals are at discussion stage. Inter-ministerial talks are going on to extend PLI benefits to all these different sectors as there has been demand from industry and certain departments," the official said. The government has already rolled out the scheme with an outlay of about ₹2 trillion for as many as 14 sectors, including automobiles and auto components, white goods, pharma, textiles, food products, high efficiency solar PV modules and speciality steel. **-PTI**

'NOW, BIO-STIMULANTS EMERGING AS NEW SECTOR'

Indian Bio-fertiliser market stands at Rs 1,200 cr

BB BUREAU
HYDERABAD

BIO-STIMULANTS is emerging as a new sector and their reputation needs to be improved as the world is looking at India for them, says Dr SK Malhotra, Project Director at ICAR Directorate of Knowledge Management and Former Agricultural Commissioner, Govt of India. He spoke as the chief guest at 2nd Edition of BioAgri Solutions Conference and Exhibition held here on Wednesday.

"India - The Global Gateway for BioAgri Solutions" is the theme of the two-day event, which was organised by the 19-year-old Hyderabad-based trade body BioAgri Input Producers Association (BIPA). Many distinguished professionals in the industry such as Sulphur Mills Ltd Chairman Deepak Shah, PJ Margo owner Pradeep Jaipuria and office bearers of BIPA took part in the inaugural function.

Addressing the gathering, Dr SK Malhotra said that the three pillars of agriculture are soil, seeds and fertilisers. Now, four more are added - machines, bio-stimulants, pollinators and agronomy & analytics. The MSME-dominated bio-stimulant market in India has regulatory framework in place. These companies are subject to regulatory pro-



Former Agricultural Commissioner S K Malhotra (C) and others inaugurating Exhibition & Trade Fair at BioAgri 2022 in Hyderabad on Wednesday

visions put forth by the Government of India.

As the bio-stimulant market is still evolving, the regulatory framework should be re-reviewed to address changing needs and challenges, he said, adding that bio-stimulants' prime benefit is they increase metabolic activity. Their cellular mechanism interaction needs to be researched. This will give strength and power to the plants and address mitigating abiotic stress.

Malhotra further said, "Bio-stimulants discussed as agri-inputs because people all over the world want safe food. Europe is a big market. There is a demand to include microbial in bio-stimulants category. So, regularly guidelines need to be

Government is planning to bring 14-million-hectare land, which is close to 10 per cent of total arable land under organic farming by 2025, whereas the current organic farming coverage is 28 lakh hectares, nearly 2 per cent of the total farmland of the country

re-visited to address these demands. The BIPA can play a bigger role in helping firm up more comprehensive policy guidelines."

During the event, Dr Gagnesh Sharma, Director of the National Centre for Organic and Natural Farming (NCONF), said: "Government is planning to bring 14-mil-

lion-hectare land, which is close to 10 per cent of total arable land under organic farming by 2025, whereas the current organic farming coverage is 28 lakh hectares, nearly 2 per cent of the total farmland of the country."

NCONF is a nodal organisation for the promotion of organic farming under the Department of Agriculture, Government of India. It came into existence for implementing National Project on Organic Farming (NPOF). Sharma spoke about the government's initiatives to popularise bio-fertilisers in India. The country has 537 bio-fertiliser units with an installed capacity of 3 lakh metric tonne.

Biotech Consortium of India's report indicates three times the requirement of bio-fertilisers in the country by 2025 in comparison to the present installed capacity, to cater to the growing demand for organic products. There are 34 quality testing laboratories in India and the bio-fertiliser market stands at Rs 1,200 crore, he said, revealing about various schemes for the promotion of organic farming.

BioAgri 2022 brings the National and International BioAg inputs manufacturers under one roof on recent technologies, delivery systems, and business opportunities in India and across the globe.

Safex Chem Buys UK's Briar Chem for £73 m



NEW DELHI Agro-chemical firm Safex Chemicals India on Tuesday said it has acquired UK-based

Briar Chemicals for £73 million to expand its business globally. Briar Chemicals is the UK's leading agro-chemicals Contract Development and Manufacturing Organisation (CDMO). In a statement, Safex Chemicals said that it has acquired Briar Chemicals from Germany-based investment firm AURELIUS Equity Opportunities for £73 million

Exporters seek GST exemption on freight

Has also urged the government to extend the rupee payment mechanism



MIHIR MEHTA

We have come a long way from the fundamentals of farming, and specifically organic farming, is a new development in this space.

What is Organic Farming? Originally in India, organic farming was defined as the growing of crops through natural means without the use of chemicals produced industrially, but this has changed recently. Today, organic farming is characterised as using unaltered plant, animal, or earth-based inputs in the soil. Utilising natural ingredients for organic growth has several levels incorporated in the modern day. Crop rotation, green manures and compost, biological pest management, and mechanical cultivation are the main techniques used in organic farming.

Organic farming is like dealing with a newborn. It requires hard work but is definitely worth it. Here are a few important pointers to keep in mind are:

Organic farming demands attention

It is a labour-intensive and time-bound activity that has more stringent rules than tradi-

tional farming. But better returns and healthier soil are assured if everything goes right. All one has to do is pay close attention to the crop when it comes to immunising the crop against diseases and deficiencies. Like an infant requires the love of parents, so does Organic Farming. Although the investments in an Organic Crop double in terms of labour, money and time but the returns do!

Don't rush, take one step at a time

If your land has seen complete use of chemicals over time, it won't be wise to just switch to organic farming in one go. Systematic planning and integrated management are important for a step-by-step transition. If you are an obese person who's planning to lose fat, you can't change your diet in one go. You have to let your body adapt to the change in mindset, diet, exercise and circumstances. You have to make your body resistant and stronger to be able to adapt. Similarly, you have to start by using organic

products in small proportions for your land to be able to adapt to changes and then depending on factors like Geography, Temperature, Crop, Soil and many more you have to keep increasing the intensity and proportion for a healthy crop. It is about adapting to the 'Lifestyle' of the land so a systematic long-term plan will be beneficial.

Make it cyclical

Organic farming practices need to be repeated over and over again for the land to be adapted to the process. The cyclical process of creating compost from manure then using manure to farm and finally using it in the crop ensures your crop gets all the necessary nutrients to grow. And the process ensures that the crop is adjusted to the process.

Making the process full-proof

Even after such hard work and planning, there are chances of occurring unforeseen challenges. But there are steps one can take to avoid the pitfalls and succeed in growing Organic Crops. These are as follows:

- Minimise the risk of disease or deficiency with a constant watch and going by the book
- Employee-trained professionals who can guide you step-

The right way to adapt to organic farming



by-step
Adopt community farming because if one person decides to grow organic crops in the neighbourhood, it can fall due to water spillage or chemical spillage from neighbours. If a community adopts it as a whole they can help harvest healthy and prosperous produce together. It also has sub-advantages:

- Seeds become cheaper when a community demands for

them together
Organic fertilizers become more affordable and approachable.
Pooling means constant guidance as well as more eyes on the crops so shared labour and time.
Another cheat-code one can utilise to be able to grow a good quality crop is to consider 'No Chemical Residue' farming. By definition, it is not just organic

but a mix of both the practices to be able to produce the right crop. You get the flexibility to use chemicals on your crop but in a systematic way and with measured quantities such that the end product has no chemical residue left. For this, the farmer has to be understanding of the crop, the timing and the quantity. For instance, if a crop takes 150 days to harvest, there should be a 21-week schedule

that should be maintained by the farmer that defines the systematic steps for its life cycle. Chemicals should be administered within the 6-8 weeks period within its Maximum Residual Limit (MRL) in order for it to be off by the 21st week of harvest. This planning is necessary for modern-day farming and can be utilized for better results by those who plan to implement it.

Need farm mechanisation *atmanirbharta*



HEMANT SIKKA

President, farm equipment sector, Mahindra & Mahindra Ltd.

Domestic farm machinery prowess is intrinsic to the idea of *atmanirbhar krishi*. The government must prioritise India-made farm machinery for its procurement scheme, while encouraging local production with PLIs

INDIA IS ONE of the largest agricultural economies in the world with low levels of mechanisation due to factors like affordability and accessibility of expensive machinery, being a deterrent to the use of such technologies. Hence mechanisation on farmlands holds the key, for sustainable and efficient development of this sector, as well as that of the rural economy.

So far growth of India's agri sector has been on account of several positive factors related to the rural economy, including progressive policies towards agriculture, also leading to growth of the domestic tractor industry. Farm mechanisation in India may have made strong strides in recent years, with India as the largest tractor market in the world, which has had a significantly positive impact on the use of machinery on farmlands in India including output value, income and return rate of all types of crops.

Despite being highly organised, there is a long way to go. While there is some level of mechanisation beyond tractors, it is largely skewed toward land preparation. For many other operations, simple implements are used, or the tasks are done by manual labour. Mechanisation also varies greatly by region, with states in north India having high levels of mechanisation due to highly productive land in the region, as well as declining availability of labour force.

Beyond tractors, Make-in-India farm machinery holds the key to enable India to realise its dream of *atmanirbharta*.

Creating self-reliance in farm machinery manufacturing is a critical step towards ensuring mechanisation of India's farms, and we need a range of farm products to increase productivity.

The use of modern machinery is currently being promoted both by the private and public sectors, with several initiatives being taken by the government, such as the Sub-Mission on Agricultural Mechanisation (SMAM) under National Mission on Agricultural Extension and Technology, Rastriya Krishi Vikas Yojana (RKVY) and Mission for Integrated Development of Horticulture (MIDH).

Prime minister Narendra Modi's mission of making India *atmanirbhar* is closely linked with creating *atmanirbhar krishi*, and this includes empowering farmers with efficient, technology-driven systems to improve productivity and efficiency. However, the farm mechanisation sector has a far more complex structural composition, with the performance of the sector dependent on financial aspects, such as capital and rate of interest, lack of data, small landholdings etc.

To effectively mechanise India's farmlands, we need to innovate and make farm machinery domestically.

The government can support India's farm mechanisation programme by initi-

ating a series of reforms, including promoting indigenous R&D, and extend support for crop-specific mechanisation technologies. This will also boost India's competitiveness at the global level.

Restrict imports of farm machinery

Import data shows that in eleven months of FY21 (April 2020 to February 2021) the value of farm machinery imported was around ₹1,185 crore compared to ₹477 crore in FY18, i.e. 148% growth in three years. In FY21, 63% of imported farm machinery by value came from China, making manufacturers there significant beneficiaries of the SMAM (Sub-Mission on Agricultural Mechanism) scheme.

Fully imported products dominate two categories of farm machinery, crawler type combine harvesters and rice transplanters both of which are major beneficiaries of SMAM. In FY21 around 70% of crawler type combines harvesters sold in India were imported. In the case of rice transplanters around 60-70 % were imported. Global manufacturers were major beneficiaries in both categories.

Need for procurement assistance

The various government-run (states and

the Centre) schemes that provide financial assistance for procurement of farm machinery (like SMAM) provide no distinction between a product fully designed and developed in India for Indian farm conditions and a product designed and developed abroad and imported into India. These schemes provide equal amount of subsidy to all products and thus do not incentivise businesses who have invested in India, to design and develop these products.

Need a farm-machine PLI

India is "tractorised", not "mechanised". Globally, the tractor industry is only 38% of the total industry (tractor + farm machinery); here, it is 80% of the total industry. There is a need for incentivising the farm machinery industry through a PLI scheme to deliver "best in class" products for domestic and export markets.

In conclusion, the Indian tractor industry has been at the forefront of efforts to achieve self-reliance in mechanisation. We may have progressively built an entire ecosystem, while launching strategic finance and rental initiatives to make tractors more accessible and affordable to farmers. However, going forward and with the right approach, farm machinery, a \$100-plus billion global industry, has enormous potential and scope to realise PM Modi vision of 'Atmanirbhar Bharat' with farm products made and developed in India for India.

In FY21, 63% of imported farm machinery by value came from China, making those manufacturers large beneficiaries of the SMAM

3 Basmati rice varieties with bacterial resistance developed

Reduced Input Cost, Increased Global Acceptability To Revolutionise Cultivation

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New Delhi: Indian Agricultural Research Institute (IARI), the public sector farm research body under the Indian Council of Agricultural Research (ICAR), has developed three improved Basmati rice varieties with inbuilt resistance to bacterial blight and blast diseases.

Farmers using the seeds of these new varieties for the first time this season have claimed that this would revolutionise Basmati cultivation in terms of reduced input cost and increased global acceptability due to pesticide residue-free produce.

The improved varieties — Pusa Basmati 1847, Pusa Basmati 1885 and Pusa Basmati 1886 — developed in 2021 are expected to pave the way for sustaining India's leadership in Basmati rice exports as field results, conducted by the ICAR-IARI during the current season show that these varieties have the potential to address concerns raised by importing nations, especially the European Union (EU), about the use of some chemicals in Basmati rice. These nations had even



Photo for representation

Bacterial blight and blast are the most devastating diseases in Basmati rice which cause significant yield losses as well as affect the quality

rejected some Basmati consignments, raising those concerns in the past.

During recent years, the EU has reduced the MRL (maximum residue limit) of tricyclazole (one of the most commonly used fungicide in managing neck blast disease) to 0.01ppm. Therefore, there was an urgent need for India to address this issue in order to maintain its leading position. India during 2021-22 earned Rs 25,053 crore through Basmati exports.

"These varieties armed with resistance to bacterial leaf blight and blast diseases will reduce expenditure on pesticide and thus cost of cultivation by Rs 2,000 per acre, help produce pesticide resid-

ue-free Basmati rice leading to better price realisation and regaining our export market particularly in EU," said A K Singh, the lead breeder of these varieties and director of IARI, New Delhi, the seat of country's Green Revolution.

Since bacterial blight and blast are the most devastating diseases in Basmati rice which cause significant yield losses as well as affect the grain and cooking quality, the acceptability of the three new varieties will replace the existing ones. Conventionally, the diseases in the existing varieties are managed by use of chemicals like streptomycin and tricyclazole.

Singh told TOI that the ICAR-IARI developed the

three new Basmati rice varieties with the aid of molecular marker-assisted breeding.

The current season saw their adoption by more and more farmers in Basmati paddy grown areas of Punjab, Haryana and western Uttar Pradesh. "Our input cost has reduced substantially this year as we don't need to spray fungicide to deal with Bacterial blight and blast. It will also reduce our labour cost," Pritam Singh Hanjra, a basmati paddy grower from Urlana Khurd village of Haryana's Panipat district, told TOI. He used the new varieties in 60 acres — 20 acres each under Pusa Basmati 1847, Pusa Basmati 1885 and Pusa Basmati 1886.

Another Basmati paddy grower of village Gehlan in Sangrur district of Punjab, Gurmail Singh, said though he opted for the new variety, Pusa Basmati 1847, in only four acres this year, its result would encourage farmers in his village and nearby areas to go for new varieties in a big way next season. "Ye nayi varieties Basmati kheti me kranti le aayegi (new varieties will revolutionise the Basmati farming)," he said.

Lack of adequate mechanisation hurting horticulture

Vijay C Roy
TRIBUNE NEWS SERVICE

CHANDIGARH, OCTOBER 7

Despite horticulture output contributing around 30% to the agriculture GDP, one of the biggest deterrents to the growth of horticulture in India is the lack of adequate mechanisation in the crop care stage, which primarily involves weeding and spraying. Currently, there is an intense involvement of manual and animal labour in this segment in the absence of mechanisation solution in this sector.

Mechanisation in horticulture can act as the biggest

asset for farmers as the use of machines not only improves the output and quality but also saves the labour cost during weeding.

According to horticulture experts, there is a tremendous scope for enhancing the productivity of horticulture produce in India which is imperative to cater to the country's estimated demand of 650 MT of fruits and vegetables by the year 2050.

As far as mechanisation in the horticulture sector is concerned, very few players are operating in this segment and mainly concentrating on

Swaraj Tractors has introduced multi-purpose ride-on machine Code.



manual equipment. There are also few players who are manufacturing machines where the operator has to walk behind it.

According to experts, the adoption of walk-behind machines such as power

tiller or power weeder has been low because it isn't very user-friendly, causes operator fatigue and has safety concerns. Also, there is no suitable mechanisation solution which could operate within the narrow row spaces

of horticulture crops.

Realising the opportunity, Mohali-based Swaraj Tractors, a part of the Mahindra Group, has introduced Code, a multi-purpose ride-on machine, to suit the specific needs of horticulture farming.

The company claims that it is the narrowest and the lightest ride-on prime mover ever made, which eliminates the dependency on labour or animal power for carrying out inter-row operations. The farmer can perform crop care operations while enjoying the comfort and safety of a ride-on machine.

"We are trying to bring

new solutions in the area of horticulture where currently there is not much mechanisation. With the help of mechanisation, more land could be cultivated which could lead to increase in farmers' income," said Harish Chavan, CEO-Swaraj Division, M&M Ltd.

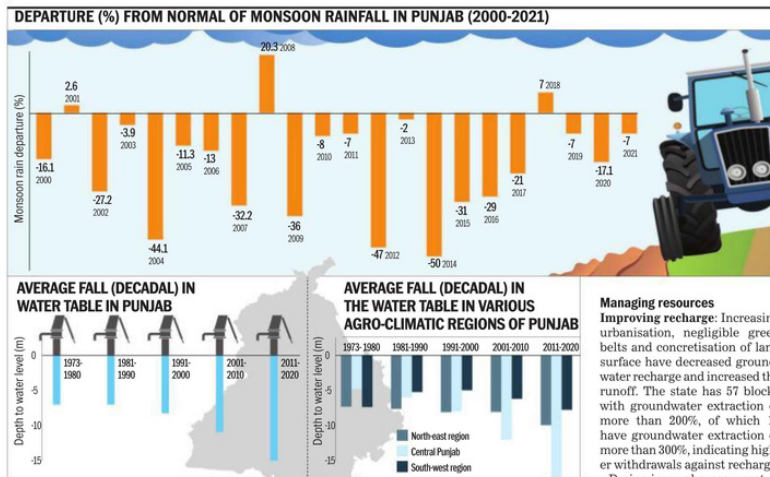
The company has witnessed significant demand for its machines in Gujarat, Karnataka, Andhra Pradesh and Telangana, where it has launched initially and adopted in various horticulture crops such as areca nut, coconut, mango, pomegranate, dragon fruit and flowers.

Sensitise, incentivise farmers to conserve water

SURINDER S KUKAL AND PAUL S SIDHU

Farmers in some canal command areas, especially in central Punjab, prefer using tubewell water for irrigation. They have installed automatic starters on tubewells, leading to large-scale wastage of water. Farmers should be sensitised about the use of canal water, especially in the head and middle reaches of irrigation channels. Farmers who save irrigation water with techniques like micro-irrigation or through crop diversification should be given benefits.

PUNJAB is a water-stressed agrarian state. The water demand of the agriculture sector (66 billion cubic metres, or BCM) has surpassed its availability (53 BCM); this has resulted in excessive mining of groundwater resources. Of the total water use in the state, the agriculture sector consumes 94.3%, followed by the domestic sector (3.7%), industry (1.7%) and livestock (0.3%). Climate change resulting in rising temperatures and high frequency of extreme weather events such as droughts and high-intensity rains, coupled with ever-increasing population, are expected to accentuate water demand of the industrial and domestic sectors at the cost of agriculture. The average annual rainfall in Punjab decreased from 490 mm (1970-2020) to 444 mm (1998-2020); its temporal and spatial distribution became more erratic with prolonged dry spells. The average annual rainfall in the catchment area of the Bhakra reservoir has decreased from 1,124 mm (1983-2018) to 1,056 mm (2014-2018). Even with no reduction in rainfall, the actual evapotranspiration (water loss from soil, plant and other surfaces) is projected to increase by 5% and 8% by 2030 and 2050, respectively. Consequently, the water demand is expected to increase from the present 66 BCM to 70 and 72 BCM in 2030 and 2050, respectively. The popularity of the water-intensive rice-wheat system; inefficient use of water in agriculture, industrial and domestic sectors; non-recycling of wastewater; and 5.3 BCM rainwater going out of the state's



SOURCE: PUNJ AND DEPT OF WATER RESOURCES, PUNJAB

boundaries are the real challenges that have to be dealt with to ensure sustainable use of water in agriculture. This calls for a three-pronged strategy: (i) increasing water availability (ii) managing water resources (iii) judicious use of water and promoting sustainable use of water in agriculture. **Increasing availability** Rainwater harvesting: Harvesting of rainwater for storage, reuse and groundwater recharge, coupled with wastewater treatment and reuse for irrigation and/or non-drinking purposes, can increase water availability. More than 90% of rainwater amounting to around 3 BCM in urban areas runs off the surface to join streams and rivers. This water needs to be harvested for groundwater recharge or storage. A policy needs to be framed for mandatory harvesting of rainwater from rooftops in urban areas, either on an individual basis (larger buildings/houses) or on a community basis (smaller buildings/houses). The harvested rainwater can be used for non-drinking purposes. The rain-runoff water from open impervious (con-

creted) spaces needs to be diverted for recharging groundwater. This water can also be stored and diverted for various uses through separate supply pipelines. Most of the rain-runoff water in villages accumulates in ponds. In pre-1980 Punjab, the pond-bed soil was excavated as it dried completely in May-June and acted as a groundwater recharge point. With the fast pace of economic development, these ponds are now no more excavated and the seepage from the pond surface is virtually nil. Through community action, the ponds should be renovated and maintained as quality water bodies.

Managing resources

Improving recharge: Increasing urbanisation, negligible green belts and concretisation of land surface have decreased groundwater recharge and increased the runoff. The state has 57 blocks with groundwater extraction of more than 200%, of which 12 have groundwater extraction of more than 300%, indicating higher withdrawals against recharge. Drains in rural areas, most of which are presently defunct, need to be desilted and provided with gabion-type of structures at regular intervals so as to ensure natural recharge of excess runoff water, through these drains. Farmers in some canal command areas, especially in central Punjab, prefer using tubewell water for irrigation due to ease of irrigation. They have installed automatic starters on tubewells, leading to large-scale wastage of water. Farmers should be sensitised about the benefits of using canal water, especially in the head and middle reaches of irrigation channels.

Judicious use

Crop diversification: A robust strategy needs to be developed and executed for the diversification of crops. A strategy at the micro-level (a block or cluster of blocks) needs to be developed for this purpose based on water availability, niche area crops (other than paddy) and market infrastructure in that unit. Based on this strategy, a block or cluster-specific crop diversification plan should be developed. The economic benefit of alternative crops with or without value addition must be equivalent to that of paddy crop. **Rationing and credits:** The consumption of ground- or surface-water should be rationed, based on good irrigation practices as recommended by Punjab Agricultural University. The quantity of water consumed above the recommended limit should be charged at higher rates as per this proposed scheme: Farms (above 12 hectares), 400% of the nominal rates; farms (4-12 hectares), 300%; and farms (up to 4 hectares), 200%. Farmers who save irrigation water over and above the recommended allocation, either through innovative techniques like micro-irrigation or through crop diversification, may be credited for such savings at the rate of Rs 2/m³ with a specified ceiling. Thus, an integrated approach based on a three-pronged strategy, followed and executed with a dedicated timeline, can ensure sustained use of water in agriculture.

Kukal is Member, Punjab Water Regulation & Development Authority; Sidhu is former Senior Agriculturist, World Bank (South Asia Region)

Agri-biz exporters oppose GST on freight

V Sajeew Kumar Kochi

Kerala exporters' fraternity are an anxious lot over the government notification to restart GST collection on international outbound freight from October 1. They pointed out that the situation comes at a time when the sector is recovering from the Covid-induced slowdown.

Dil Koshy, Secretary, Agricultural Products & Processed Food Exporters Association, told *businessline* that the government decision has imposed unwarranted burden on exporters' business, especially with the RBI hiking the repo rate hike leading to interest rates on existing loans of exporters going up. With normalcy getting restored in many countries, many are in the process of reviving business with the starting of regular flights. However, the re-imposition



BOLT FROM THE BLUE. The re-imposition of GST will lead to working capital shortage and burden the exporters

of 18 per cent GST on air freight and 5 per cent on seaways will lead to a working capital shortage and cause a burden on the exporters, he said.

NO BENEFITS FOR GOVT

According to him, the government will not be getting any monetary benefits out of GST collections, but can only hold the funds for some time before reimbursing them fully to exporters.

Moreover, there will be an inordinate delay in getting re-funds. Kerala, before Covid, shipped around 200 tonnes of fresh fruits and vegetables from the four airports.

The average GST rate for perishable commodities like fruits and vegetables was in the range of ₹60-65 per kg by air, he added.

Munshid Ali, secretary, Kerala Exporters Forum said the GST impact on ocean freight will hit agriculture

exports, as air freights at a time will be much higher than the FOB value of exports.

The overseas freight rates are still 200-250 per cent more than at the 2019 level. Therefore, GST payments on such high freight rates will affect the liquidity of exporters, particularly when the bank interest rates have increased.

Considering India as a multi-market with a huge volume of cargo and good number of ports, CFS and ICDs, he said Kerala Exporters Forum is battling for more competitive price mechanism for ocean freight.

The government should extend the GST exemption on export freight and take the initiative to constitute a regulatory authority so that exporters can continue with the status quo without the need for arranging further funds, he said.

Karnataka is at the forefront in agriculture digitalisation: Bommai

● The CM said the nano urea is revolutionary in the field of agriculture and the first nano urea unit is in Bengaluru. It was introduced to farmers after a detailed study.

● There will be a good response and support to it in the country in the coming days, he opines

HANS NEWS SERVICE
BENGALURU

KARNATAKA has been in the forefront of digitalisation in agriculture sector and so far, 78 lakh farmers are brought under this ambit by linking farmers, survey number and Aadhaar details, said Chief Minister Basavaraj Bommai.

Participating in a video conference with Union Home and Co-Operation Minister Amit Shah regarding the natural farming and digital in farming at 'Krishna' home office here on Thursday, he mentioned about Union Agriculture Principal Secretary about Karnataka ahead in digitalisation of the agriculture sector, and said the State had already digitalised under Bhumi software and included 62 lakh landowners and 16 lakh landless farmers in the software. 'Fruits software was now being emulated by other states. This software is being improved regularly. The State has taken up the 'Swamithva' scheme of the Central Government as a campaign, he added. The CM Bommai said the Nano Urea is revolutionary in the field of agriculture and the first nano urea unit is in Bengaluru. It was introduced to farmers after a detailed study. There



will be a good response and support to it in the country in the coming days.

Bommai said through the digital technology farmers themselves are surveying their land and so far, 212 crore plots has been digitised. Farmers are doing the crop survey on their own and have done the survey of 16,584 crops of the total 212 crore. The Agriculture Department has done the survey of 1.61 crore area. To avoid any complications, steps are taken for all farmers to do the survey themselves. So far, they have done it very honestly. Natural farming is a longtime project

and the research and certification are very important.

State active in natural farming

As per the wishes of Prime Minister Narendra Modi to double the farmers' income, Karnataka, Maharashtra and Gujarat have taken up natural farming actively. The State has five agriculture and horticulture universities and natural farming has taken up 1,000 acres of land under the continuous monitoring of varsities. Everything has been taken up in the agriculture laboratories starting from the quality of crops, pro-

duction and other related testing. As many as 2.4 lakh hectare of land is being converted into natural farming from organic farming and an additional one lakh hectare will be converted into natural farming by March, 2023.

A total of 41,434 farmers were selected for natural farming and designed 1100 training programmes and 200 field visits besides workshops. In all this scheme is being pursued as a mission. Impetus has been given to protect the soil health with the use of natural manure.

Startups collaborate to produce bio-CNG, fertiliser from wet waste

R KRISHNAKUMAR
BENGALURU, DHNS

The long-held promise of circular economy solutions to Bengaluru's organic waste problem is driving a startup collaboration that converts waste to bio-CNG and organic fertiliser products.

Sustainable Impacts, a joint venture formed by Carbon Masters and Hasiru Dala Innovations (HDI), has operationalised the first phase of a 30 TPD (tonnes per day) wet waste-to-bio-CNG plant in Harohalli. Source-segregated organic waste collected from about 300 apartment and villa complexes by HDI is being processed at the plant. Carbon Masters, a climate tech company, markets the bio-CNG and organic manure as branded products.

The plant, at present, processes 15



Bio-CNG cylinders at the wet waste processing plant in Harohalli PHOTO/SPECIAL ARRANGEMENT

TPD of organic waste. While the bio-CNG produced at the plant is being supplied to local restaurants in cascade cylinders, the organic manure has found takers in local farmers.

Som Narayan, co-founder of Carbon Masters, said of the over 2,500 tonnes of wet waste generated in Bengaluru per day, only about 100 tonnes were being used in the production of bio-CNG. "Solutions like this are key to India's commitment to cut emissions to net zero by 2070. With clean energy approaches becoming increasingly critical, there is tremendous opportunity for scaling up such efforts," Som told DH.

The vision, however, has to be complemented with efficient waste collection and transportation models. With HDI as partners, the supply channel for feedstock is assured through the year, he said.

Som said collaborating with the supplier, as opposed to buying feedstock from an external source, made the model more sustainable.

Supply in place

HDI, which commenced operations in 2015, engages with 22 waste-picker entrepreneurs. It collects source-segregated organic waste from about 32,000 households across the city, with most of its work focused on Sarjapur, Whitefield and Bannerghatta Road.

It helps waste pickers and informal waste workers integrate into inclusive businesses. Shekar Prabakar, co-founder and CEO of HDI, said the company, after an unsuccessful search for land from the urban local bodies/panchayats to establish a wet waste processing plant, found a natural partner in Carbon Masters. The

plant in Harohalli, commissioned in May this year, will have its formal opening on Sunday.

Shekar said it was important to understand why biogas plants were not largely successful in India. A reliable supply of clean raw material—segregated wet waste—and assured offtake is imperative.

"HDI is assuring the supply and Carbon Masters is equipped to sell the products in a consistent manner. The coming-together made sense. The partnership is unique because it entails end-to-end capability—from the collection and transportation of waste to its processing and production of bio-CNG and the fertiliser," Shekar said.

Carbon Masters also sells its branded bio-CNG and organic fertiliser in Tamil Nadu and Telangana.

A digital solution to check fake pesticides

Our Bureau
Chennai

Bengaluru-based tech start-up Acviss Technologies has started providing digital signatures for pesticides so that consumers don't end up purchasing fake crop protection chemicals. A study by the Federation of Indian Chambers of Commerce and Industry (FICCI) says that at least 30 per cent of the pesticides sold in India are fake.

A company statement said Acviss focuses on the prevention of counterfeiting. Products in production and sold by a company are kept secure in the supply chain with Acviss software. "Our digital signatures are incorporated in the packaging so you can track and trace, get real-time updates of fake



KEEPING A TAB. Acviss' digital signature helps end-consumers verify and authenticate their product

scans or counterfeit activities and then take legal actions accordingly," it said.

CRUX OF THE ISSUE

Citing the 2020-21 Annual Report of the Department Agriculture, Cooperation and Farmers welfare, the company said that fake pesticides are a problem in agri-

culture as about 55 per cent of the total workforce in India is engaged in allied sector activities and accounts for 17.8 per cent of the country's Gross Value Added (GVA) for 2019-20 (at current prices).

The government norms stipulate that delivery firms need to check approved labels on the containers and

packets of pesticides, check the batch number, registration number, date of manufacture and expiry on the labels. "While these are the most important aspects to check, counterfeiters can still easily recreate the product packaging similar and sometimes even better than the genuine product," Acviss said.

Counterfeits and fake products can lead to fatality in agriculture as it results in contamination of the soil and putting the health of innumerable consumers at risk, the statement said. Acviss' digital signature helps consumers verify and authenticate their product. The company provides a user with proactive, real-time data which helps brands take the required legal action to bring down counterfeits.

{ STATE CABINET DECISIONS }

Natural farming board, free seeds distribution get approval

2.5 lakh mini kits of chickpea and red lentil seeds would be given to farmers affected by adverse weather conditions in the state

HT Correspondent
letters@htlive.com

LUCKNOW: Fulfilling a poll promise, the state cabinet on Thursday cleared a proposal to set up a natural farming board to be headed by the chief minister in Uttar Pradesh to promote cow-based organic farming in a big way.

Briefing the media, agriculture minister Surya Pratap Shahi said the agriculture minister will be the vice-chairman of the board.

He also said the government would distribute 2.5 lakh mini kits of chana (chickpea) and masoor (red lentil) seeds free of cost to farmers affected by adverse weather conditions this year.

"Each kit will contain 16 kg of chana seeds and 8 kg of masoor seeds. Besides, 28,000 quintals

Dairy policy seeks to attract Rs 5k crore investment, create 1.25L jobs

The Uttar Pradesh Dairy Development and Milk Production Policy-2022 aiming to attract Rs 5,000 crore investment in the sector and generate 1.25 lakh new jobs during next five years got the Cabinet's approval.

Textiles, garments policy
The cabinet also approved the UP Textiles and Garments Policy-2022 which aims to establish U.P. as a textiles manufacturing hub at the world level, get Rs 10,000 crore private investment and generate 5 lakh jobs in 5 years.

Subsidy for power looms
The three-year diploma

holders from the Indian Institute of Handloom Technology (IIHT) will be eligible for 75% subsidy of the project cost if they set up 5-10 power looms in the state.

Innovation Fund
Approval granted for constitution of UP Innovation Fund with contribution of Rs 400 crore from technical universities and other educational institutes

Centre for drone tech
An unmanned aerial vehicle (based on drone technology) centre of excellence to be set up in IIT-Kanpur premises with an investment of Rs 20.30 crore.

of seeds of pulses will also be distributed free cost, entailing an expenditure of Rs 32.64 crore," Shahi said.

All these seeds will be sown on around 2 lakh hectares of land that could not be covered with kharif crops due to scanty or excessive rainfall, the minister said.

As for the natural farming board, he said ministers of the departments of finance, agriculture marketing, horticulture, animal husbandry and dairy development, panchayati raj,

rural development, cooperative and minor and small-scale industry will be its members.

The additional chief secretaries/principal secretaries of the departments concerned will also be members.

"The chief minister will be authorised to nominate two farmers with experience in organic farming and two agriculture scientists on the board as its members," Shahi said.

He said there would be a governing body chaired by the chief secretary with the agriculture

New guest house

The dilapidated complex of the state guest house 'Gomti' on the Vikramaditya Marg to be demolished to build a new guest house in its place.

Municipal areas to be extended

Municipal areas of Barsana nagar panchayat in Mathura, Bharatkund Bhadrana nagar panchayat in Ayodhya, Subeha nagar panchayat in Barabanki, Ambala Nagar Palika Parishad in Bareilly and Nagar Palika Parishad Nawabganj to be extended.

Govt guarantee for bank loan to buy paddy

The minister said the state government would furnish credit guarantee to enable the U.P. Federation Cooperation and the U.P. Cooperative Union to take short-term loan up to Rs 4000 cr and Rs 800 crore, respectively, from the nationalised banks for the purpose of purchasing paddy from farmers during the current marketing season 2022-23.

He said the paddy procurement in the first phase began with eastern UP on October 1 and second phase would start in western Uttar Pradesh on November 1.

"The government has fixed the minimum support price for the common grade paddy at Rs 2022 per quintal and Rs 2060 per quintal for the grade-A paddy," Shahi said.

Maize, millet to be purchased at MSP

The minister further said that in view of the International Millets Year 2023, the state cabinet had approved a proposal for the purchase of maize (makka) and millet (bajra) on the MSP of Rs 1962 per quintal and Rs 2350 per quintal respectively.

production commissioner and additional chief secretaries/principal secretaries as its members. Two farmers can also be made governing body members with the agriculture minister's prior approval.

"A district-level natural farming board under the chairmanship of DM will also be set up in each district," Shahi added.

Promoting cow-based natural farming, the minister said, was part of the BJP's Sankalp Patra (manifesto) for the 2022 assembly polls.

Centre goes digital to assess crops

BUILDING MOMENTUM. Digital Agriculture Mission will help farmers select crops judiciously, says Tomar

Prabhudatta Mishra
New Delhi

Union Agriculture and Farmers Welfare Minister Narendra Singh Tomar on Wednesday said the digital agriculture mission launched by the government to help farmers plan their selection of crops more judiciously will also be beneficial for all the stakeholders. At the same time, focus should be on raising productivity amid declining farm lands.

Highlighting that the agriculture sector is the backbone of the economy, Tomar said: "During the Covid pandemic, our agriculture has shown that it can provide strong support to the country even in adverse conditions. It has not only been able to meet the

food requirements of our country but met the needs of other friendly countries."

Addressing the concluding session of a conference on "Enhancing Agricultural Productivity: Integration of Improved Seeds & Agri Inputs", organised by industry body Assocham, he said the government is starting to assess the yield of agriculture in a digital way. "It usually happens that when the price of any agricultural produce is high in the market, most of the farmers start growing the same agricultural produce in the next crop season. This invariably results in lowering the prices of that produce and leaves farmers feeling disheartened.

"To avoid this situation, the government has emphasised on the Digital Agriculture Mission, so that farming



Union Minister for Agriculture and Farmers Welfare
Narendra Singh Tomar

done in different areas can be assessed through new technology. This way all the information will be collected through satellite and agriculture will be monitored."

The minister also spoke on the importance of organic farming amid the degrada-

The government is emphasising on the Digital Agriculture Mission so that farming done in different areas can be assessed. This way all information will be collected through satellite

tion of soil. He said organically-produced agricultural products are preferred all over the world and such products have been exported from India.

EXPANDING E-NAM
Tomar explained various

steps the government has been taking to eliminate middlemen in the agri value chain and ensure better returns for the farmers. The minister said one of the challenges that farmers encounter includes fluctuations in prices and the distance they need to cover to get a better price. The electronic National Agriculture Market (e-NAM) could bring the solution, he said, adding more mandis will be connected with the platform from current 1,000 market yards.

Jaidev Shroff, chairman of Assocham's National Committee on Agriculture and Farming Inputs, said food security is a major challenge for all farmers, industries, and governments, but it also represents a significant opportunity.

Safex Chemicals Acquires UK's Briar Chemicals for £73 Million

First overseas buyout by New Delhi-based agro-chemicals firm

Press Trust of India

New Delhi: Agro-chemical firm Safex Chemicals India Ltd on Tuesday said it has acquired UK-based Briar Chemicals for £73 million to expand its business globally. Briar Chemicals is the UK's leading agrochemicals Contract Development and Manufacturing Organisation (CDMO).

In a statement, Safex Chemicals said that it has acquired Briar Chemicals from Germany-based investment firm AURELIUS Equity Opportunities for £73 million.

Safex is backed by private equity firm ChrysCapital.

Neeraj Jindal, director of Safex, has joined the Board of Briar Chemicals and will steer the future



growth of the company.

Piyush Jindal, director of Safex, said the company has entered the UK market through this acquisition.

"The addition of Briar to Safex's crop protection business strengthens our position in the global agrochemicals market," he said.

Founded in New Delhi in 1991, Safex manufactures and supplies crop protection chemicals.

Briar is Safex's first overseas ac-

quisition.

"Acquiring Briar Chemicals will fast-track Safex into becoming a fully integrated company, present in all industry verticals," said SK Chaudhary, Founder Director of Safex.

In addition to providing equity, ChrysCapital will work with management on the transition and integration of the acquisition. Safex Chemicals has six manufacturing facilities located across India.

Bayer starts commercial use of drone services in agriculture

Our Bureau

Bengaluru

Bayer said on Wednesday that it has initiated the commercial application of drones in agriculture from this kharif season. Drone services will be made available for crop protection purposes across paddy, cotton, soya-bean, corn and horticulture crops in a phased manner, the company said in a statement.

Bayer has initiated internal trials and associations with universities and research stations for technology development and regulatory data generation. The services will benefit small-holder farmers across Punjab, Haryana, Madhya Pradesh, Odisha, Maharashtra, Andhra Pradesh and



Drone services will benefit farmers engaged in field and horticultural crops

Karnataka and many other States in field crops and other horticultural crops where farmers are facing challenges, it said.

RURAL ENTREPRENEURS

Additionally, the move will also benefit Farmer Producer Organisations (FPOs) and

progressive farmers by facilitating machinery, crop and product know-how, business support, and training.

Simon-Thorsten Wiebusch, Country Divisional Head - Crop Science Division of Bayer for India, Bangladesh, and Sri Lanka, said, "This is a positive step towards sustainable agriculture and for enhancing small-holder farmers' prosperity. We are committed to bringing about a positive change by advancing digitisation and mechanisation in agriculture to spur food security."

Bayer said it supports the vision of Make-in-India and has partnered with innovative Indian drone start-ups, to make drone-based services available to farmers and create livelihood opportunities for upcoming rural entrepreneurs.

The Netherlands is India's 3rd top export destination

Rajeev Jayaswal

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NEW DELHI: The Netherlands has surpassed China and Bangladesh to become India's third top mercantile export destination after US and the United Arab Emirates mainly because of rising exports of refined petroleum products to the European country.

According to official data, India's exports to the Netherlands in the first five months of this fiscal year (April-August) was \$7.5 billion compared to \$6.82 billion to China and \$5.77 billion to Bangladesh.

Even in the current calendar year (January-August), India exported goods worth \$11.95 billion to the Netherlands, ahead of its exports to China (\$10.96 billion) and Bangladesh (\$10.90 billion). In the previous fiscal year the Netherlands was the fifth top mercantile export destination for India after China and Bangladesh.

Petroleum products are the key exports from India to the Netherlands, signifying the

European nation is getting more supply of fuel from India after western nations have imposed sanctions against trade with Russia, an official aware of the development said requesting anonymity.

"Russian crude, getting refined in India, may be finding a way to energy-hungry Europe," said another official who did not want to be named. Data show a 75.8% jump in India's exports of petroleum products during April-August, to \$41.10 billion compared to \$23.38 billion in the same period last year. According to commerce ministry data released on 3 October, India's exports of petroleum products in April-September was \$49.9 billion, over 74% up from \$28.6 billion in the corresponding period previous year.

India's mercantile exports to the Netherlands in April-August jumped 105.74% (year-on-year) to \$7.50 billion. Out of the total exports, petroleum products constitute the top item worth \$3.67 billion, followed by aluminium products (\$0.46 bil-



India's exports to the Netherlands in the first five months of this fiscal year was \$7.5 billion.

AP

lion), telecom instruments (\$0.37 billion), organic chemicals (\$0.27 billion), drugs formulations (\$0.21 billion), iron and steel (\$0.17 billion), and readymade garments (\$0.16 billion).

The commerce ministry did not respond to an email query on this matter.

Ajay Sahai, director general and chief executive of the Federation of Indian Export Organi-

sations (FIEO) said India's exports to the Netherlands grew "primarily because of a huge increase in petroleum exports" besides aluminium, electrical and electronics and pharmaceuticals. "We exported petroleum worth \$3.6 billion which was 48% of our total exports with a growth of over 225%. This increase shows the shift in imports from Russia to India, a trend which may push our

exports to Europe despite recessionary trends there."

The second official quoted above said India's exports to China and Bangladesh slumped in this period. "While Chinese slowdown has taken a toll on India's export to the country, Bangladesh is affected by foreign exchange problems. However, there are some talks between New Delhi and Dhaka to use local currencies for trade," he said.

China is, however, India's top import destination (\$43.98 billion in April-August) followed by the UAE (\$23.05 billion) and the US (\$22.46 billion), he added.

Sahai said the slowdown in exports to Bangladesh during April-August is because the country is facing huge forex constraints. "There is about a \$500 million drop in our cotton exports during this period as Bangladesh's apparel exports dropped significantly. The drop in our cereal exports, which is not much, is on account of export restrictions on wheat and rice," he said.

Farmers explore use of drones, but teething troubles persist

Use of devices in pineapple cultivation launched on experimental basis in Ernakulam district; rubber farmers yet to take up their deployment

K.A. Martin
KOCHI

Farmers, officials from the Agriculture department and the Kerala Agricultural University, Ernakulam district panchayat president Ullas Thomas, block panchayat president Jose Augustine and members of the public were all eyes and ears when the experiment using drones to spray fertilizers in pineapple fields was about to begin on Saturday.

The venue was the over 7.5 acres at Sidhanpadi in

Ayavana panchayat in Ernakulam district, belonging to George Jacob (Raju Malekkudiyil), where the new devices were being used to spray the common 19:19:19 or NPK mixture. The use of drones for farming purposes was a rare occasion, and the first in pineapple cultivation.

Paddy cultivation has seen the use of drones to spray fertilizers quite expansively in the State. But, the use of drones over pineapple fields, vastly a rubber intercrop, had been more problematic, said Mr. Jacob. However, a senior

official of the Agriculture department said the use of drones in farming would be expanded with rising labour cost and periodic shortage of hands.

Rubber cultivation, where the use of drones is considered to have great prospects, has not seen deployment of the new machines though a recently identified leaf disease, considered a big threat to the cash crop, could well be contained using drones.

Joseph Karukappally, a farmer who has vast experience in helicopter spraying of rubber fields, said

the government policies were a drawback. The limit on weight that could be carried by a drone per sortie was a problem. Owning and operating a drone is quite expensive for individual farmers with accessories such as batteries turning dearer and needing to be charged at short intervals. He said that while drones might well be suited for use in crops such as paddy and rubber, the machines might not be effective and smooth for crops such as cardamom, coffee and tea, cultivated on uneven terrains.

Kisan drones get a lending hand

FINANCING. RBI encouraging banks to offer loans for purchase of Kisan drones

G Naga Sridhar
K V Kurmanath
Hyderabad

In a move that can boost technology-driven farming, the Reserve Bank of India (RBI) has asked banks to start financing the purchase of Kisan drones.

"RBI has advised State Level Bankers Committees across the country to encourage banks to lend for purchase of kisan drones," a senior RBI official told *businessline*.

The RBI's direction to banks is in line with the Budget 2022-23, which said the use of 'kisan drones' would be promoted for crop assessment, digitisation of land records and spraying of insecticides and nutrients.

UNIT COSTS FIXED

Subsequently, National Bank for Agriculture and Rural Development (Nabard) has finalised the unit costs for kisan drones.

The banks can use the unit costs as the basis for financing drones to individuals and farmer producer organisations (FPOs) and improve access to a large number of



CONTRIBUTION. The Centre and the States would provide a 40 per cent subsidy per drone jointly as per the latest norms

farmers, the RBI advised banks. The unit cost of a drone can go up to a maximum of ₹10 lakh depending on the type of the drone.

The Centre and the State Governments would provide a 40 per cent subsidy per drone jointly as per the latest norms.

When contacted, an official of the Union Bank of India said the awareness of use of drones by farmers and the technical expertise are in the nascent stage, but some enquiries have begun for loans.

NABARD TO SUPPORT

Union Bank has recently sanctioned a loan of ₹7 lakh under the 'Union Agri Infrastructure Loan scheme' to a farmer in Haryana at 8.5 per

cent interest rate. Some banks seem to be considering an interest subvention of 3 per cent to make it easier for FPOs to acquire a drone.

As per the kisan drone scheme, Nabard would also extend necessary skill development support to the unemployed rural youth to function as drone operators.

WHY DRONES

Prem Kumar, Founder and Chief Innovator of Marut Drones, said it is quite important to have an affordable financial tool to popularise drones.

"They cost the same as a car or tractor. It will be difficult for a farmer or for an FPO or anyone who wants to start a drone servicing start-

up to offer spraying services to farmers," he said.

Besides manufacturing over 170 drones so far, the drone company is managing spraying activity on about 30,000 acres in Andhra Pradesh and Telangana for some corporate companies and FPOs. It is also into imparting training to people on how to use the drones.

"A typical agri drone can service 20 acres in a day. At about ₹500 per acre, the operators make a decent income," he said.

USEFUL, ECONOMICAL

C Sudhakar, Principal Scientist at Prof Jayashankar State Agricultural University's Research Station at Tandoor, felt that drones proved to be quite useful in spraying red gram and safflower crop.

"At times, the crops grow so tall and dense that it's very difficult to spray pesticides or fertilisers using the conventional methods.

"Besides, they prove to be economical as they cut costs by reducing physical labour and requirement of inputs," he said.

(With inputs from Subramani Ra Mancombu)

Pest attacks: Cotton output to fall in Pb, rise in Hry & Raj

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Bathinda: Hit by successive pest attacks, cotton produce in Punjab this season is expected to be far less than even the previous year, according to estimates prepared by cotton trading agency Indian Cotton Association Limited (ICAL).

The low cotton arrivals in Punjab's mandis also points to lower production, despite no change in area under cotton sowing as compared to previous year. Against the production of 7.02 lakh bales (1 bale = 170kg), estimates for this season is about five lakh bales. Arrivals are less too. Till September 30, 11,363 bales had arrived in mandis this year, against 34,928 bales in the

COTTON MATTERS

State	Production area	Production estimate
Punjab	2.48L hectares	5L bales
Haryana	6.1L hectares	16.1L bales
Rajasthan	7.85L hectares	29L bales



same time period last year. If last year the crop faced a pink bollworm pest attack, this year it was whitefly and excessive, untimely rain hit the crop. No canal water supply when sowing was at its peak also impacted production. In 2021-22, cotton production fell from 50 lakh quintals to 28.9 lakh quintal.

In contrast, cotton is estimated to witness an increase

in production in neighbouring Haryana and Rajasthan. In Haryana, against production of 14.7 lakh bales last year, the production in ongoing year is expected 16.1 lakh bales. In Rajasthan it is expected to increase to 29 lakh bales from 25.51 lakh bales in previous year. With this, production in three states is expected to rise to 50 lakh bales from 47.24 lakh bales previous year.

Magnitude of Stubble Problem Grows Larger: Govt Review

Stubble generation to go up by 1.37 MT in 2022; over 6 MT may end up in smoke even with best-laid plans

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New Delhi: Stubble generation in 2022-23 will increase by nearly 1.37 million tonnes (mt) in states adjoining the Delhi-National Capital Region and well over 6 mt may go up in smoke despite numerous measures planned for stubble management, as per the latest government review.

Stubble burning is considered a key contributor to air pollution in Delhi-NCR. Paddy straw burning is practised widely in Punjab, Haryana and Uttar Pradesh to clear the field for the next crop sowing, especially during October-November.

In the review held on Friday, environment minister Bhupender Yadav singled out Punjab, expressing his 'dissatisfaction' with the state's preparedness.

"The state government had not planned adequately for management of almost 5.75 mt of stubble which is a huge gap and is likely to have an adverse impact on the air quality in Delhi and NCR region," the minister said at the review, according to a statement put out later by the Press Information Bureau. The picture is, however, equally worrying in Haryana as well, data accessed by ET shows. Total paddy stubble generation from Punjab, Haryana and Uttar Pradesh (UP) is expected to touch 27.66 mt in



2022-23 against 26.29 mt in 2021-22, as per data shared by state governments in recent reviews held by the environment ministry, ET has gathered. This is 1.37 mt higher than the stubble generated in 2021. It has also been estimated that stubble management plans will probably address up to 20.55 mt of stubble generated in the key states of Punjab and Haryana through both in-situ and ex-situ methods. About 17.70 mt of stubble was managed in the two states last year.

However, that would still leave an estimated 6.44 mt of stubble in Punjab and Haryana alone that may end up getting burnt in fields between October and November this year. The data for stubble management in UP was not available.

Taking Stock

Paddy straw generation figures and estimates shared by states in recent central government reviews

STATE	Area under paddy cultivation (Lakh Hectares)		Stubble Generated 2021 (Million Ton)	Stubble Generation expected 2022 (Million Ton)	Total Stubble management planned so far for 2022 (Million Ton)
	2021	2022			
PUNJAB	29.61	31.44	18.74	19.99	14.24
HARYANA	13.64	13.90	6.8	7.0	6.31
UTTAR PRADESH	1.98	1.90	0.75	0.67	Not available

The figure may increase if the in-situ methods - which involve bio-decomposers and crop residue management (CRM) machines - are unable to address the significant 11.79 mt of stubble earmarked for this type of management. These figures stand against a series of measures that are underway.

These range from deploying more CRM machines to stubble collection and stubble pelletisation efforts by state-owned enterprises and through other Corporate Social Responsibility (CSR) initiatives beside stubble use by bio-ethanol plants, biomass power, paper and pulp industry. Though several of these steps have shown an encouraging uptick, the quantum of paddy stubble generated is

a clear challenge, more so this year as the overall area under paddy cultivation has increased significantly in Punjab and Haryana between 2021 and 2022.

ET gathers that recent government reviews - based on state inputs and data - indicate that the area under paddy cultivation in Punjab has risen to 31.44 lakh hectares (ha) in 2022 from 29.61 lakh ha in 2021. The basmati variety - its stubble is used up for fodder and hence not burnt - is down to 4.36 lakh ha in 2022 from 4.89 lakh ha in 2021, while non-basmati varieties have grown to 27.08 lakh ha in 2022, from 24.72 lakh ha in 2021.

Consequently, overall straw generated in Punjab is expected to touch 19.99 mt in 2022 against 18.74 mt in 2021.

Add value to agriculture for its transformation

{ GUEST COLUMN }

Suresh Kumar



Food processing is a panacea to alleviate the financial stress of agriculturalists. It transforms agriculture through value addition. It has picked up over the years but is not yet as intense as it should be in food-surplus areas of the country. The food processing industry (FPI) contributes nearly 14% of manufacturing GDP, though only 10% of food is processed. It will reach an estimated turnover of \$535 billion (₹43,000 crore approx) in 2025, with an annual growth of 11%.

The transformation of agriculture through FPI hastens diversification, creates more jobs, enhances income, and helps retain the next generation in agriculture. It also reduces the burden on the government to procure food grains, with wider choices for producers and consumers.

Private and public investments in FPI have not been enough to motivate farmers to come out of the age-old input-output functions. Despite better financial results for farmers, these are meagre, with a concentration at the primary level. In recent years, secondary and tertiary processing has also

picked up.

Among others, there are socio-cultural and economic reasons for a lesser preference for processed foods. People prefer hot cooked meals, that are considered healthy, safe, and affordable. Processed food is seen as western, though the younger generation packaged in corporate culture may not agree. It is considered low in nutritional density and expensive, too.

Food surplus in India marginal

Fresh food production has increased, making the country self-sufficient and even surplus. It was 275.1MT against an aggregate demand of 257.70MT in 2017. The agricultural exports were 22.3 million (2.23 crore) tonnes in 2018. But the country had to import substantial quantities of pulses and oilseeds to balance the food basket of the consumers, and global value chains (GVCs) helped facilitate trade from surplus to deficit economies. It had a positive impact on reducing poverty and hunger.

Food surplus in India is, however, marginal. The country was 97th in OXFAM Food

Availability Index and 103rd in the Global Hunger index in 2018. The Economic Survey 2018 stated that per capita per day availability of food grains was 487 grams, down from 510 grams in 1991.

Furthermore, nearly one-fourth of our population still faces poverty and deprivation. The improvement in income and livelihood of the deprived people and the further increase in population will increase the demand for food, leaving perhaps no surplus. The World Bank estimated that global demand for food will increase by 50% by 2050.

Notwithstanding the pressures to bridge the gap in demand and supply, the increase in agriculture production and resultant glut in the market increases farmers' woes. Agricultural produce market price declines with increased supplies at the harvesting, pushing down the net crop remuneration of the farmers. The financial constraints do not allow them to withhold the crops to

get the best market value. From 1991 to 2011, financial distress compelled nearly 1.4 crore farmers to leave agriculture, of which one lakh farmers were from Punjab.

Universal MSP not feasible

The farmers expect market interventions to ensure a minimum support price (MSP), but a universal or statutory MSP is not feasible. The government's paradox is to achieve a minimum price for the farmers without making the food unaffordable for the consumers. An attempt in this regard was made through MSP in selective original Green Revolution areas and by enforcing the PDS for those who deserve subsidised food. The PDS has improved by plugging leakages through technology (e-POS), but the farmers' unrest and economic distress still worry policymakers.

The plausible option seems to encourage processed foods that meet the requirements of

socio-economic contexts obtained in different areas and regions of the country. The increase in the sale of packaged liquid milk is an example of one such effort. The people in our country prefer to drink hot liquid milk. They boil it for consumption, and chilling and packaging are additional safety measures.

Synergy of tradition, science

A synergy of tradition and science is thus a clear signal to success. The food processing fully reflecting upon the local socio-cultural requirements without ignoring the affordability measure of different communities is a challenge for an appropriate policy ecosystem. FPI incentives should reduce the marketing agonies of the farmers and encourage contextually relevant processed food.

Public and private investments and the FDI in food processing should increase in food-surplus regions. The states with surplus fresh food should receive more public funds for food-processing industries. Investment promotion programmes such as Make in India should give greater thrust to large-scale commercial production of processed food in states like Punjab, Haryana, and western UP. The capacity of young farmers should be enhanced through the national pro-

gramme to promote startups. Second and third-generation farmers should be skilled in farm-gate processing.

Under the One-District One Product initiative, farm-gate processing units should be encouraged to produce processed food as per local context, choice, taste, and preference. Large global businesses should spearhead such a programme in a given area, engaging local youth for gainful employment without dislocating them from their socio-economic milieu.

More synergised efforts in the public and private sectors, ensuring value addition to local crops, will hasten doubling farmers' incomes, which otherwise remains an unfulfilled dream.

Agriculture diversification will reduce the damage happening now due to the non-sustainability of agriculture operations and the challenges emerging from climate change. Employment generation, technology adoption in agriculture, skill and capacity of farmers to produce qualitatively better crops for the market will also get a boost, ensuring a new direction for agriculture in the country.

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The writer is a retired Punjab-cadre IAS officer. Views expressed are personal

MORE SYNERGISED EFFORTS IN PUBLIC AND PRIVATE SECTORS, ENSURING VALUE ADDITION TO LOCAL CROPS, WILL HASTEN DOUBLING FARMERS' INCOMES. AGRICULTURE DIVERSIFICATION WILL REDUCE DAMAGE DUE TO NON-SUSTAINABILITY EMERGING FROM CLIMATE CHANGE

Agri minister's latest: Bring back APMCs, mandi system in state

Press Trust of India

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PATNA: Bihar's outspoken agriculture minister Sudhakar Singh, who recently flagged "rampant corruption" in his department, on Saturday said the decision to scrap Agriculture Produce Marketing Committee (APMC) Act and 'mandi' system in 2006 was "anti-farmer" in nature and that he will not rest till the same is restored.

Singh, an RJD leader and a first-time minister, said he will not allow the "continuation of BJP agenda" in his department with the formation of the Grand Alliance government in the state.

The Nitish Kumar government in Bihar had repealed the APMC Act and 'mandi' (wholesale markets for agricultural produce) in 2006 during the NDA rule in the state.

Sudhakar Singh, whose father Jagadanand Singh is the state RJD president, told PTI, "Being



Minister Sudhakar Singh (in white shirt) at a recent programme in Patna. HT FILE

the state's agriculture minister, I will not allow continuation of BJP agenda in the agriculture department after the formation of the 'Mahagathbandhan' government in the state. Scrapping the APMC Act and 'mandi' in 2006 was a decision that was anti-farmer in nature. The Mahagathbandhan government

in the state should work to fulfilling the promises made by our alliance partners to the electorate."

A first-time MLA from Ramgarh in Kaimur district, Singh recently stirred up a controversy when he said all his department officials are "thieves and thereby being head of the department he



Scrapping APMC Act and 'mandi' in 2006 was an anti-farmer decision

SUDHAKAR SINGH,
Agriculture minister

is head of the thieves".

The agriculture minister said he will make restoration of the APMC Act and 'mandi' system a "national issue". "I have sought an appointment with union agriculture minister Narendra Singh Tomar and union minister of chemicals and fertilizers Mansukh Mandaviya to apprise them about the need for the restoration of these two laws in the country, especially in Bihar," Singh said.

"What Bihar has gained in the last 17 years in terms of grain production needs to be ana-

lysed," the minister said.

"Despite three agricultural roadmaps, our total grain production was 1.77 lakh tonnes in 2011-12 and we produced 1.76 lakh tonnes in 2021-22. The Bihar government spent several crores over a five-year roadmap, but the achievement is nothing. Everything in my department needs to be overhauled," Singh said.

He said he will also urge the Centre to stop giving subsidies to the firms (of the central government) which supply fertilizers in the state as it creates "space for mafia and middlemen in the supply chain".

"The firms/agencies involved in fertilizer supply to the states are central government entities. It is their duty to supply fertilizers till the last point of the supply chain. But it is not being done and it is paving the way for the entry of middlemen... then why does the Centre give subsidies to them (firms)?" he asked.

A digital solution to check fake pesticides

Our Bureau
Chennai

Bengaluru-based tech start-up Acviss Technologies has started providing digital signatures for pesticides so that consumers don't end up purchasing fake crop protection chemicals. A study by the Federation of Indian Chambers of Commerce and Industry (FICCI) says that at least 30 per cent of the pesticides sold in India are fake.

A company statement said Acviss focuses on the prevention of counterfeiting. Products in production and sold by a company are kept secure in the supply chain with Acviss software. "Our digital signatures are incorporated in the packaging so you can track and trace, get real-time updates of fake



KEEPING A TAB. Acviss' digital signature helps end-consumers verify and authenticate their product

scans or counterfeit activities and then take legal actions accordingly," it said.

CRUX OF THE ISSUE

Citing the 2020-21 Annual Report of the Department Agriculture, Cooperation and Farmers welfare, the company said that fake pesticides are a problem in agri-

culture as about 55 per cent of the total workforce in India is engaged in allied sector activities and accounts for 17.8 per cent of the country's Gross Value Added (GVA) for 2019-20 (at current prices).

The government norms stipulate that delivery firms need to check approved labels on the containers and

packets of pesticides, check the batch number, registration number, date of manufacture and expiry on the labels. "While these are the most important aspects to check, counterfeiters can still easily recreate the product packaging similar and sometimes even better than the genuine product," Acviss said.

Counterfeits and fake products can lead to fatality in agriculture as it results in contamination of the soil and putting the health of innumerable consumers at risk, the statement said. Acviss' digital signature helps consumers verify and authenticate their product. The company provides a user with proactive, real-time data which helps brands take the required legal action to bring down counterfeits.

nurture.farm, HDFC Ergo in pact to offer crop cover

Our Bureau
Bengaluru

Agritech start-up nurture.farm has partnered with HDFC ERGO General Insurance Company to further enhance and expand its insurance solutions for 2.3 million farmers on its platform.

RISK MITIGATION

Most farmers do not opt for insurance due to expensive premiums and the tediousness associated with paperwork.

Owing to the widespread nature of this issue, nurture.farm aims to offer its insurance solutions to nearly 2 million farmers, and will continuously innovate to provide risk mitigation solutions to enhance farmer resilience, the company said in a statement.

"The low insurance penetration in India is a cause of



much grief for our farmers who have to face all kinds of risks. Our partnership with HDFC ERGO aims to alleviate farmers' distress associated with losses due to untimely and unfavourable conditions during the farming life cycle. This association will help us get closer to our vision of making farmers resilient and delivering sustainable outcomes to the farming community of India," said Pranav Tiwari, CTO of nurture.farm.

Jal Shakti Ministry to promote natural farming along Yamuna

NEW DELHI, OCTOBER 6

The National Mission for Clean Ganga (NMCG), an agency of the Union Jal Shakti Ministry, will promote natural farming under its Namame Gange programme in areas of the state contiguous to the banks of the Yamuna, tributary of the Ganga.

This is to help rejuvenate the Ganga and its tributaries.

The director-general of the NMCG, G Asok Kumar, said a "Vishaal Kissan Sammelan" workshop, organised in Bayyanpur village in Sonapat in this respect, was a success.

The thrust of the NMCG, which has been entrusted with the exercise to keep the Ganga clean, is to promote alternate mode of farming and diversified cropping matter other than the traditional

paddy and wheat plantations which consume more water.

With underground water depleting at an alarming rate in the state, diversified farming is of utmost importance to keep the Ganga and its tributaries clean.

The Yamuna flows through Haryana and is one of the main sources of irrigation waters. The river merges with the Ganga at Prayagraj in Uttar Pradesh. Hence, keeping the Yamuna clean and improvement of the ecosystem along its banks is integral to the exercise to keep the Ganga river and its basin clean.

A farm visit to Gurukul Farms in Kurukshetra was also organised, where the NMCG officials learned about various technologies being used for natural farming. — TNS

Farmers burning stubble to face punitive action: UP officials

MATHURA, PTI

Farmers burning stubble would face punitive action since it not only pollutes the environment but also releases methane, sulphur dioxide and other toxic gases causing skin disease, heart problems, cancer etc, a senior official said.

In a crusade against stubble burning, the district administration here has adopted a double-prong attack to counter the menace by adopting cohesive measures including felicitating the farmers donating stubble to cow shelters, the official said.

“While an awareness programme including familiarising the farmers with the nutritive value of stubble has started on September 26. It is going on in a geometrical progression in the district as the farmers themselves are educating other farmers. The violators have been warned of punitive action,” District Mag-



A farmer burns straw stubble after harvesting a paddy crop in a field on the outskirts Amritsar. AFP

istrate Pulkit Khare told PTI on Sunday.

He said the panchayat secretaries and lekhpals have been instructed to prepare a schedule of paddy harvesting in their area with the help of farmers for close watch on stubble movement.

With the use of a device attached to the cutting machine, rice is separated, and side by side the residue spreads in the field of the farmer, officials said

adding that spreading the urea after ploughing and slightly flooding the field once, will pave the way for ideal manure full of nutrients.

The farmers are unaware that by burning one ton of stubble, they lose 5 kg nitrogen, 2.5 kg phosphorus, 25 kg potash, 1.5 kg sulphur, 400 kg organic carbon etc. elements needed for the health of the soil as well as cattle, the officials said.

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