

17-03-2015

THE HINDU

Agricultural university commissions seed-vending machine in Tiruchi



Those in need of seeds of horticultural crops for raising kitchen garden or roof garden in urban areas will hereafter get quality seeds that too at an affordable price.

The Tamil Nadu Agricultural University had installed an automatic seed vending machine installed at Horticulture College and Research Institute for Women at Navalurkuttapattu on the outskirts of the city.

One can just insert Rs. 10 and choose a code number for specific seed variety and the machine drops a seed packet at the collection box right below.

The salient feature of the facility was that a customer could get the minimum quantity of seeds required for raising the garden. Normally, the customers were forced to buy a minimum of half a kg or one kg of seeds.

The TNAU had introduced the automated seed-vending machine for supply of quality seeds produced by it in major towns and cities across the State. The first machine was inaugurated in Coimbatore a few months ago. The machine had a capacity to stock 1,800 packets of seeds and the university, to start with, has stocked 460 packets each at a cost of Rs. 10.

The seeds included tomato (PKM); tomato hybrid (CO3); brinjal (CO2); Amaranthus; Bindi hybrid (OBhH1); cluster beans (PNB); chillies hybrid (CO1), and bitter gourd (CO1).

The machine would update details of sale of seeds to the Seed Centre unit of the University. In case of total sale of a particular seed, the machine would immediately alert, through an SMS, the TNAU authorities. Also, in case of any attempt to damage it, the machine would alert the police and TNAU authorities.

The machine had a video screen through which farmers and members of the public were informed about latest research and development of the university.

“The service will facilitate the residents in urban and metro cities to purchase quality seeds round the year,” said K. Ramasamy, Vice-Chancellor of the university, who inaugurated the sale. The machine was refrigerated and maintained at 4 degrees Centigrade to ensure proper preservation of the seeds.

P. Pandiarajan, Dean of the college, said the vending machine would soon be shifted to a prominent location on the highway in front of the college to attract people’s attention.

The unit had evoked overwhelming response from the members of the public in Coimbatore to such an extent that eight more units had been planned to be started — including second unit in Coimbatore, Pudukottai, Salem, Theni, Madurai, and Palani according to M. Bhaskaran, Special Officer (Seeds) Seed Centre of the University.

K.N. Mohan Das, Director, Beta Technologies, which designed the machine, said that it had an in-built message sending options in which a maximum of three mobile numbers could be registered as part of its secure maintenance.

Guaranteed income promised for farmers

The State government is committed to the agriculture development policy and will implement in stages the farmers' income guarantee programme — a key component of the policy — Agriculture Minister K.P. Mohanan told the Assembly on Monday.

The programme will be implemented by setting up a fund from the profit share of the produce. The State's annual rice consumption is about 40 lakh tonnes and by collecting Re. 1 against the profit on each kg of rice, the government expected to mobilise Rs.400 crore towards this fund, Mr. Mohanan said. The recommendation of the Dr. Swaminathan Commission that farmers be guaranteed the entire production cost as well as 50 per cent profit would thus be implemented in stages, he added.

The State was currently paying Rs.19 a kg as procurement price for paddy, the highest price in the country, the Minister said.

In the 2014-15 season, the government had paid the price of the paddy procured till February 15. An amount of Rs.98.17 crore had to be paid to farmers for the paddy procured after February 15. These payments were often delayed because of the delay in securing Central funds. To get around this problem, the Food and Civil Supplies Department was now examining a proposal to set up a revolving fund, the Minister said.

Dokka for a hectare each to landless farmers

Former Minister Dokka Manikya Vara Prasada Rao has demanded that the government provide relief and rehabilitation to more than 50,000 landless agricultural labourers who were likely to be displaced in the capital notified region under the provisions of the A.P Reorganisation Act - 2014.

“I draw the attention of Minister for Municipal Administration P. Narayana to see for himself the plight of landless labourers in the capital

notified region. They should be rehabilitated in the degraded forest land available on the stretch between Atchampet and Amaravathi.

“Each family should be provided a hectare of degraded forest land, or else it might lead to social unrest,” Mr. Vara Prasad told reporters here on Monday.

Impact study

The two-time MLA from Tadikonda constituency had earlier demanded that Amaravathi be declared the capital region.

Expressing happiness over the choice of the new capital region between Guntur and Krishna districts, Mr. Vara Prasad urged the government to conduct a detailed socio-economic impact study and help farm labourers.

“According to clause 94, sub-clause 4 of the AP Reorganisation Act-2014, the government can denotify degraded forest land. I urge the government to invoke provisions and distribute the land to landless farmers,” he said.

Mr. Vara Prasad added that he would meet Chief Minister N. Chandrababu Naidu after Ugadi and explain to him the proposal in detail.

Area under red gram cultivation increasing



Red gram cultivation has gained remarkable currency and acceptance in Thanjavur district over the past two years. From less than one hectare in 2012, red gram is occupying 39 hectares spread across the district.

Although it might seem negligible in a land where paddy was grown on thousands of hectares, red gram cultivation had been thriving for decades in the district, especially in the Budalur and Thanjavur regions.

Unfortunately, climatic conditions and producer-consumer preferences forced red gram cultivation came to a nought.

As per the records with the Department of Agriculture, red gram was cultivated on just one hectare of land in Thanjavur district and that too in Thanjavur block only.

While that is debatable as an interaction with a cross-section of farmers in Sengipatti and Tirumalai Samudram regions revealed that they had been cultivating red-gram routinely over the years but spread over restricted areas, the fact is that red gram had never been a favourite with farmers in the recent past.

“It is true that we have neglected red gram over the years but that has more to do with the climatic conditions and scarce water availability in the past decade that never aided red gram cultivation. Although it can be raised as a dry land crop, there must be rains for at least four times during the crop’s duration of almost seven months.

That was not to be resulting in the shrinking of red gram coverage area in the district,” says P. Sivakannu (76), a farmer from Sengipatti. Some determined efforts by the Agriculture Department in reviving the red gram cultivation had started yielding results as the area under the pulses crop grew in the past three years to 39 hectares at present.

Sources in the department said that in 2012-13, 21 acres of land were covered under red gram in the district.

While the pulses crop was grown on 15 hectares in Thanjavur block, Papanasam block accounts for 11 hectares of land, Budalur seven hectares, and the rest spread over Pattukkottai and Peravurani blocks. Seen from the ground zero levels, farmers' acceptance was seen as a significant step forward. Red gram is cultivated in irrigated conditions in those areas.

Although the normal average yield must be to the tune of 1.8 tonnes per hectare, the current productivity was hovering at just above 1 tonne per hectare but was bound to improve in the years to come, the sources said. Field demonstrations on red-gram cultivation had been conducted in all blocks except in Sethubhavachatram and the response had been reasonably positive, the officials say while hoping that next year would be a better one on the red-gram cultivation front.

Power supply may take a hit for a month, says KCR

Chief Minister K. Chandrasekhar Rao has warned of some disturbance to power supply in Telangana for a month from the coming few days to coincide with peaking demand in agricultural operations.

He told a press conference after a meeting with TRS leaders on Monday evening that the power situation was critical around this time in 2014 but it was not the case now. However, "there may be some difficulties for a month from March 20 to 25 ahead of crop harvest", he said.

To bail out the State from power shortage in the long-run, Mr. Rao announced some immediate steps that included laying the foundation stone for the Manuguru power plant of State-owned power generation corporation during his visit to Khammam for Sriramanavami celebrations at Bhadrachalam on April 21. The works on the 4,000 MW station of Genco at Damaracherla in Nalgonda would also be grounded in a few

days. The government will re-engineer all existing projects to get optimal results.

Faults Naidu

He blamed Andhra Pradesh Chief Minister N. Chandrababu Naidu for setting up obstacles to Telangana's development plans. The latest was Mr. Naidu's move to complain to the Krishna River Management Board on Telangana's plans to draw 100 tmcft water from Almatti for the Palamuru lift-irrigation scheme. The Centre had also ignored his activities.

Earlier, Mr. Rao reviewed with party leaders the TRS organisational elections that begin on March 24. They will culminate with the election of the party president at the extended general body meeting at Lal Bahadur Stadium here on April 24. A public meeting to mark the foundation day celebration of TRS will held at Parade Grounds on April 27.

Governor lauds KVASU tech initiatives



Governor P. Sathasivam has called upon veterinary students to render service to the country and continue to learn from their every day experience.

Delivering the convocation address in his capacity as Chancellor of universities at the first convocation ceremony of the Kerala Veterinary and Animal Sciences University (KVASU) here on Monday,

Mr..Sathasivam said education was a never-ending process and graduation marked their initiation into lifelong learning.

“As animal agriculture is moving from a subsidiary to main occupation in the country, I am happy that the university is well aware of this transition and has chalked out plans to train farmers in the latest technology in tune with the changing norms and concepts,” Mr. Sathasivam said adding that the university had already opened a separate division focusing on entrepreneurship development, extension and knowledge dissemination to support the farming community.

The Governor conferred Honorary Doctorate on P.K. Warriar, physician and trustee of the Kottakkal Arya Vaidya Sala, and Amrita Patel, former chairperson of the National Dairy Development Board., on the occasion. He said the university had showcased the importance of converting knowledge into skill and the will to perform effectively for the well-being of society. Expressing happiness at the increase in enrolment of girl students in veterinary and allied courses, the Governor said he was particularly happy to note that the enrolment of girl students had increased by about 40 per cent in the last four years.

Focussing on the new initiatives launched by the KVASU, the Governor said the university was well on the road to launch new delivery models in the areas of veterinary services, technology business incubation and startup village.

The Governor gave away the gold medals and rank certificates to the first rank holders of the various degree programmes of the university.

Pattiseema project bid awarded in a transparent manner, says Naidu

Chief Minister N. Chandrababu Naidu on Monday said tenders for the Rs. 1,300-crore Pattiseema lift irrigation project had been finalised in a transparent manner and asserted that the government would not “convert Jalayagnam into Dhanyagnam”.

Intervening during a discussion on 'River linkage in the State' in the Assembly after YSRC member Vishweshwar Reddy alleged that the bid was given in excess of 22 per cent of the project cost after just two firms participated in the bidding, Mr. Naidu hit back, saying: "Corruption is your track record. Providing clean administration is my track record."

The Chief Minister said that anybody who was capable of completing the project would be awarded the contract and added that the scheme would have a multiplier effect, and farmers would benefit hugely. Declaring that the government was determined to provide water to Rayalaseema and other drought-hit areas, he asked YSRC members if they wanted water to be provided to Anantapur.

He reiterated that injustice would not be done to East and West Godavari districts. Only after meeting the irrigation and drinking water needs of Krishna delta, water will be diverted to Rayalaseema, Mr. Naidu said.

He asserted that the State would be made drought-free in five years, and that Polavaram would be completed, and that there would be no compromise on that.

Earlier, Mr. Vishweshwar Reddy asked as to how many parties or farmers wings supported the Pattiseema project except the TDP. Quoting experts, he said the project cost was in excess of 22 per cent.

Replying to the charge, Major Irrigation Minister Devineni Umamaheshwara Rao said the whole process was done transparently through open tenders, and anybody could have participated. The government also set a pre-condition that there would not be any mobilisation advance, he added.

Water to be diverted

TDP member D. Narendra Kumar said since 3,000 tmcft of Godavari was flowing as waste into the sea, the government wanted to divert a little quantity to Krishna and provide the surplus water from Srisailam to the

drought-prone Rayalaseema. He appealed to the Opposition to keep aside politics and not to act in a manner that affected the State's interests.

Earlier, Speaker Kodela Siva Prasada Rao adjourned the House for nearly an hour after YSRC members stalled the proceedings insisting that the Opposition be allotted at least two-and-a-half hours to speak on the issue.

e-auctioning of tobacco begins on SBS platforms



Amid hopes of getting a better average price for farmers' produce, e-auctioning of tobacco, the principal commercial crop in the drought-prone Prakasam district began on Southern Black Soil (SBS) platforms on Monday.

Buyers procured 98 bales of tobacco offered by the peasants quoting a high of Rs. 126 and a low of Rs.118 in Ongole-I auction platform after inauguration of e-auctions by SBS Regional Manager G.Bhaskar Reddy.

The farmers realised an average price of Rs. 123.65 per kg on the 13,350 kg of tobacco marketed on the SBS platforms on the inaugural day with participation of five active buyers, informed Mr Bhaskar Reddy.

There was no bid for one bale of tobacco due to price disagreement between the buyers and sellers.

Reacting to the first day's trading, Virginia Tobacco Growers Association president Ch. Seshaiyah said: "It is unfortunate that though there are over

200 registered tobacco traders, only 20 of them have been provided with bank guarantee. Still worse, only five players have actively entered the market".

Farmers wanted the Tobacco Board to intervene in the market to ensure an average price of Rs. 125 per kg for their mixed crop this year, with less bright grade and more medium grade stuff in the wake of adverse climatic condition, explained former Tobacco Board member Ch. Ranga Rao. "We got a high price of Rs. 135 per kg of tobacco last year and this year it should touch at least Rs. 140 per kg, given the increase in the cost of farm inputs," Sangala Venkateswara Reddy, a progressive farmer, said.

The Union Government should allow Foreign Direct Investment (FDI) in tobacco sector and also allow international merchants to take part in auctions to turn India from an 'opportunity market' into a 'definite market', they added.

TS aims at bringing 5 lakh ha under micro irrigation

The Telangana government has decided to bring about 5 lakh hectare under micro irrigation in five years starting from 2015-16 to optimise the benefit from dwindling groundwater and conserve resources from reduced pumping of water from tube/open wells.

According to officials, only 4.8 lakh hectares is under micro irrigation in the State now, out of 14.86 lakh hectares irrigated with groundwater. The government has allocated Rs. 200 crore for micro irrigation in the budget estimates for 2015-16 to provide drip and sprinkler implements with 75 per cent to 90 per cent subsidy for different categories of farmers.

The move to cover more area under micro irrigation is aimed at making optimal utilisation of groundwater to enhance productivity and income. The yearly target for extent of coverage under micro irrigation has been 44,000 hectares for the last several years and the government decision is

intended to bring at least 50 per cent of the potential area under drip/sprinkler systems in the next five years.

Officials of the Horticulture Department stated that micro irrigation was an integral part of the government scheme to encourage poly houses in 1,000 acres in 2015-16, for which Rs.250 crore allocation was made in the budget. “The government is planning to encourage farmers to take up long-term crops such as sugarcane and mulberry and medium-term crops like maize and soybean under micro irrigation,” a senior officer said.

Micro irrigation systems are being used mainly to cultivate vegetables, fruits and flowers now, apart from poly/green houses. Apart from conserving groundwater, micro irrigation will help the government reduce the load on power grid, officials said. The restoration of minor irrigation tanks will provide more relief to the power grid.

Ooty Flower Show from May 15 to 17

The three-day 119th edition of the famed Ooty Flower Show will be held at the Government Botanical Garden here from May 15 to 17.

Announcing this here on Monday, the Director of Horticulture and Plantation Crops, L. Sitherasenan, said that it will sport a few new features.

When asked to elaborate, he said that efforts are on to display the national flowers of about 200 countries. If possible more flowers representing those countries would be obtained.

Stating that a floral model would be a major attraction, he said that a decision is yet to be taken on what it should portray.

Pointing out that the right to collect entry fees will not be auctioned this year, he said that the ticket counters and the gates will be taken care of by the staff of the Department of Horticulture. For the first time, tickets

would be sold online for the flower show. The booking would open on April 1. Counter and gate staff would be provided with uniforms.

He added that the 8th Vegetable Show at the Nehru Park in Kotagiri would be held on May 2 and 3.

The 6th Spice Show would be held at Gudalur on May 8 and 9.

The Government Rose Garden here would host the 14th Rose Show on May 9 and 10. The 57th Fruit Show would be conducted at the Sim's Park in Coonoor on May 23 and 24.

Earlier, Mr. Sitherasenan presided over a meeting of the Nilgiris District Flower and Fruit Show Committee here on Monday.

Among those who participated were The Nilgiris Collector P. Sankar, the Superintendent of Police T. Senthil Kumar, the Field Director, Mudumalai Tiger Reserve, Srinivas R Reddy and the Joint Director of Horticulture N. Mani.

Water kiosks to be set up in SC settlements

The district panchayat will set up drinking water kiosks in Scheduled Caste (SC) settlements in view of drinking water scarcity in many parts of the district.

District panchayat president K.A. Sarala said at a panchayat meeting here on Monday that the kiosks would be installed in the Scheduled Caste settlements.

She said Rs.80 lakh that remained unutilised in the housing projects for Scheduled Caste families under the Indira Awas Yojana in the current fiscal would be expended to set up the kiosks. The sum had remained unspent due to shortage of beneficiaries anticipated under the scheme, she said.

The Collector had given an assurance that the district administration would supply water if water kiosks were set up in the Scheduled Caste settlements, she said.

The meet approved the annual plan for 2015-16.

It approved the plan proposals under the general category with total outlay of Rs. 37.55 crore.

Plan fund

The meeting was told that the Plan fund sanctioned for the year under the general category is Rs. 33.66 crore. The president said that some projects had to be curtailed. She, however, said such projects could be turned into multi-year projects.



Poppy cultivation goes up as splinter groups enter business

Jharkhand's tryst with opium poppy seems to have reached a tipping point this year – police say various Left Wing Extremist (LWE) splinter groups have taken over the *business* from the Maoists, but the fear of a Maoist ambush is preventing the police from actively pursuing and destroying the cultivation of the crop.

Traditionally, the Maoists have considered opium poppy cultivation a major source of revenue and influence in the state – the latter was bought by paying money upfront to cultivating villagers. However, as the influence of CPI-Maoist declines in the state – they accounted for 42 per cent of Left Wing Extremist-related violence in 2014 – the two biggest splinter groups seems to have entered the *business* in a big way.

Anecdotal evidence from villages and interviews with police officers suggest that poppy cultivation has shot up this year. “They have diverted streams and don't let villagers graze their cattle nearby. Last year, only *small* patches were being cultivated; now it is in massive swathes,” said a resident of Chatra district's Lawalong area on the condition of

anonymity. The claims are impossible to check independently as cultivating villagers are extremely hostile to outsiders.

Chatra is also a stronghold of the Tiritiya Sammelan Prastuti Committee (TSPC). Villagers and police officers say the TSPC has begun overseeing cultivation in the Lawalong area, dealing directly with contractors from Uttar Pradesh.

Backed by satellite imagery from the Narcotics Control Bureau, police say at least 700 acres across eight of the state's 24 districts are under cultivation. "Chatra is suitable for the cultivation of poppy because of its proximity to the Grand Trunk Road. This helps the transport of the product to various town in Uttar Pradesh for processing," said S.N. Pradhan, Additional Director General-Police, CID.

That shows in the *data* too: Chatra has seen six of the 13 anti-poppy raids conducted by the state police since the turn of the year, when the plants – being cultivated since October – have begun to flower. In *all*, the police have destroyed 276 acres of poppy; 100 of it in a single raid in Dumka. There have been no arrests yet.

Dumka SP Anoop Mathew, who led that operation in the CPI-Maoist controlled area of Shikaripara, said that the patch had been smaller last year: "Locals told me that only *about* 10 acres were cultivated last year; this year, they felt confident enough to grow so much more." In 2014, the police had destroyed 81 acres across 13 raids; seven of them in Chatra.

The TSPC has also taken over the areas previously controlled by the Maoists in Latehar district. The TSPC is widely known to be working closely with the state police and the central security apparatus when it comes to anti-Maoist operations. There has been no raids yet in Khunti, where the People's Liberation Front of India began poppy cultivation in the Rania area about three years back.

Therefore, despite their diminishing presence in the business, the Maoists continue to dominate the poppy discourse: other LWE groups do not attack the police, after all. "We are now considering a model where forces that go on routine anti-Maoist ops also destroy poppy along the way," said Pradhan.

Craving for snacks all the time? Take a short, brisk walk:



The *next* time you feel the urge to have another chocolate bar, just get up and take a walk. According to a research, short bouts of physical activity can reduce the urge for sugary snacks. This study aimed to examine the *effects* of an acute exercise bout on urges to consume sugary snacks, affect as well as ‘psychological and physiological responses’ to stress in overweight individuals.

Following 3 days of chocolate-abstinence, 47 overweight, sugary snack consumers were assessed. Participants were asked to take a 15-minute brisk walk. Following which participants were asked to complete 2 tasks – Stroop color–word interference task, and handling sugary snacks. Obtained *data* show that exercise reduces urges for sugary snacks and attenuates urges in overweight people.

Research found out that opening a bag of sugary snacks and keeping it open resulted in a marked increase in the pulse rate. Exposure to high-calorie *food* stuff also caused a marked increase in self-rated craving.



THE TIMES OF INDIA

Outlook mixed for spices complex



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Over here, we look at the spices complex and how they are headed in the coming days.

Pepper

Pepper prices are under pressure now. Higher arrivals and projections of production being better this and next year are affecting sentiments. Prices in Kochi, the major spot market, are currently hovering near Rs. 545 a kg, down over 30 per cent from its record levels. Earlier, supply concerns and steady demand lifted pepper to Rs.822 in mid-2014.

Also, unfavourable weather and uncertainty over the 7,000 tonnes of tainted pepper seized by the Food Safety and Standards Authority of India on reports of adulteration too had raised concerns over the product availability.

Pepper production in India is likely to be 50,000 tonnes this season, while production in 2015-16 is expected to be around 70,000 tonnes, the highest since 2002. Global production is also expected to be on the higher side.

According to the International Pepper Community (IPC) report, global production during 2015 is pegged around 374,200 tonnes. Total production of IPC member countries is estimated at 3,44,500 tonnes –

higher than the last year's 2,88,700 tonnes. Looking ahead, the weakness will continue this year due to higher crop expectations coupled with hopes of the tainted pepper being released. This will lead to a supply glut in the market. Major rallies beyond the earlier highs are unlikely and a negative bias is likely in the near future.

Cardamom

Cardamom is trading firm in the futures market, while in the spot market, it has been under pressure. With the crop season set to end soon, quality concerns are probably lending support at the lower end. Limited availability of exchange-specific quality produce support MCX futures. However, sluggish demand weighs on market sentiments amidst ample stocks.

Production of small cardamom in the current crop is estimated to be around 20,000 tonnes, which is 2,000 tonnes lower than that in the previous season. Heavy rain in cardamom growing areas in Kerala initially raised concern over production and the crop for this season. Production in Guatemala, the top producer of small cardamom, is likely to be lower this year.

MCX cardamom is currently trading near a three-year high of Rs. 1,132/kg against last year's average of Rs.820. Average prices for cardamom have been trapped in ranges in the spot market for the last three seasons due to increased global production. The spot price outlook of the commodity is bearish, but prices on the futures market could gain momentum.

Turmeric

After witnessing steady trading last year, the outlook for turmeric since the beginning of 2015 has been optimistic. The most active NCDEX April contracts are currently trading at Rs. 8,446 a quintal against Rs.7,160 during the same period a year ago.

Lower arrivals and demand from domestic buyers are supporting prices. Availability of good quality spice is lower. According to traders, though carryover stocks are ample, traders are holding the produce on expectations of a surge in prices. Also, due to high moisture content in the newly-arrived produce, demand for the carryover stocks from last

year is on the higher side. Worries over decline in production too are weighing on the crop. Agriculture Department estimates put turmeric production this year at around 3.7 million bags compared with 5.2 million bags a year ago.

Delay in sowing due to erratic monsoon prompted farmers to plant the crop on lower area in States such as Tamil Nadu and Andhra Pradesh as well as growers turning their focus to other short-term crops owing to lower remuneration last year is pointing to a positive bias.

If the concerns over production continue, prices are likely to rise further. On the NCDEX, Rs.9,600/quintal would be a strong upside obstacle for prices, which if cleared convincingly, would be an early signal of further upside journey.

4 simple salads for a quick, healthy meal!



Ideal for breakfast

Boiled egg salad: Mix mayo, a tinge of mustard sauce, salt and pepper. Stir in coarsely chopped hard-boiled eggs and some baby corn. This tasty salad makes for a good and filling breakfast.

For the afternoon craving

Grilled chicken caesar salad: Marinate the chicken from Italian herbs and olive oil and grill it and cut it into pieces. Mix 1/4 a teaspoon pepper, vinegar, olive oil, minced garlic and mustard in a large bowl; and toss it well to coat. Add lettuce and a tablespoon cheese to top it.

Cooler for the evening

Greek cucumber salad: Mix some vinegar soaked onion slices, chopped cucumber, olives and cottage cheese. Dress the salad with olive oil and lemon juice; season with salt and pepper. Add two green chillies slit into halves, and you are all set for a tangy, spicy and fresh salad snack for evening.

For supper

Zesty pasta salad: Boil macaroni and broccoli together; drain them and rinse with cold water. Stir pasta with broccoli, boiled chicken pieces and grape tomatoes into a dressing of olive oil, vinegar and mint leaves paste. Refrigerate it for a while and a delightfully healthy dinner is ready.

THE HINDU **BusinessLine**

Slack upcountry buying grinds turmeric

Spot turmeric prices decreased by ₹100 a quintal on Monday at Erode markets for want of fresh upcountry demand.

“Traders procured only 60 per cent of the arrived 3,300 bags as only medium variety turmeric arrived for sale. Similarly, the price of the Salem Turmeric too was down ₹200. Only 50 bags arrived and 30 were sold. The new turmeric price is up ₹100 than the old turmeric,” said RKV Ravishankar, President, Erode Turmeric Merchants Association.

At the Erode Turmeric Merchants Association sales yard, the finger variety old turmeric was sold at ₹5,619-8,409 a quintal and the root variety ₹5,361-7,477.

New turmeric variety: The finger variety went for ₹6,429-8,509 and the root variety ₹6,209-7,710. Salem Turmeric: The finger variety was sold at ₹6,759-9,349; the root variety ₹6,409-7,661. Of the 934 bags that arrived, 280 were sold.

At the Regulated Market Committee, the finger turmeric traded at ₹7,409-8,409 and the root turmeric ₹6,399-7,469. Of the arrival of 574 bags, 424 were traded.

At the Erode Cooperative Marketing Society, the finger turmeric ruled at ₹7,219-8,458 and the root variety ₹6,800-7,540. All the 261 bags found takers.

At the Gobichettipalayam Agricultural Cooperative Marketing Society, the finger turmeric fetched ₹6,916-8,569; the root variety ₹6,616-7,733. All the 86 bags were traded.

Business Standard

Bursting the myths on Indian agriculture



Though the government over the past few years has been focusing on enhancing manufacturing sector's share to India's GDP, contribution of [agriculture](#) to the GDP continues to be higher than that of the manufacturing. India has in abundant four critical fundamental resources – light, land, water & labour.

Contrary to the popular narrative, Indian agriculture has been transformed in the last decade with substantial changes in food consumption habits of the people. In 2013, India ranked second globally in agricultural GDP with agricultural production contributing \$325 billion. However, this global ranking of India remains unknown and uncelebrated. Likewise, there are many other [myths](#) or misinformation about Indian agriculture and [farmers](#) that are prevalent among the general population. Given below

are some of the myths and facts about the agriculture and farming.

Myth: *Indian farmers are uneducated*

Fact: *They are multi-skilled & efficient*

It is a common belief that Indian farmers lack knowledge about the market and new farming techniques. On the contrary, Indian farmers are highly skilled and perform different roles. While India's population has grown manifold from 1970-71 to 2010-11, number of farm holdings have increased from 71 million to 138 million during the same period. As a result average size of land holdings has reduced from 2.28 ha in 1970-71 to 1.15 ha. In spite of this, India's agricultural production has kept pace with the increased food needs of growing population. This could not have been possible without farmers' gaining knowledge about modern farming techniques, crop care chemicals and other inputs. A farmer is not just expected to do a job of farming, but he/she also has to perform a role of mechanic, weatherman, veterinarian, businessman, the marketer, scientist and so much more.

Myth: *Farmlands are underutilized*

Fact: *Indian farmers use same land for producing multiple products*

In the USA, growth in agriculture led to demise of family farms and birth of large industrial type farms with inevitable mono-cropping. This has not happened in India, where farmers grow multiple crops on the same land depending upon the period of the year.

India enjoys unique agro-biodiversity in the world arising mainly from variety of agro-ecosystems, crop species, and livestock & fish species. India's diet diversity draws substantially from this rich agro-biodiversity. Both are mutually supportive. This diversity provides diverse income opportunities too which small family farm holders effectively make use of.

All these make India's farming more robust, resilient, productive and stable. Low cost mixed farming systems in the country have transformed India into world leader in agricultural production.

Aggregated agricultural production value per ha in India is higher than in the US that practices industrial type farming.

Myth: *China is an agriculture powerhouse*

Fact: *Though China leads India in terms of production and exports of agri-produce, India beats China in net agri-product trade*

China and India - once known for chronic food shortages - are now the world leaders in agricultural production accounting for two-third of world's fruit & vegetable production. In spite of being world's largest food producer, China is the net importer of food with trade deficit (in agri-products) of \$95 billion in 2013. On the other, India has been net exporter of agriculture production with trade surplus (in agri-products) of \$22 billion. In other words, India exports more agri-products, than it imports them. While in case of China, it is reverse.

Myth: *Growth in agriculture is government sponsored*

Fact: *Though government provides some subsidies to farmers, the growth has been self-driven in the last couple of deca*

India: Staple Food Grains vs Fruits & Vegetables (Mill.tons)

Year	Staple Food Grains			Fruits & Vegetables		
	Rice	Wheat	Total	Fruits	Vegetables	Total
1991-92	75	60	135	29	59	88
2001-02	93	73	166	43	89	132
2012-13	105	94	199	81	162	243
2013-14 (E)	106	95	201	84	170	254

Source: Ministry of Agriculture

Production of food grains, and fruits & vegetables

In wake of food scarcity, government embarked upon [Green Revolution](#) in 1970s to make India self-sufficient in food grain production. This was

largely government sponsored and focussed on food grain, which was the dire need of the hour at that time. However, a self-driven revolution spawned by socioeconomic mobility set in late 1990s has led to growth in the agriculture production in the last couple of decades with the focus shifting to horticulture.

High value crops (fruits and vegetables) and milk now lead production and consumption.

Improved communication, road and transport services, globalisation, urbanisation, increasing income & literacy, innovative cultivation practices and modern inputs have radically changed the structure of Indian agriculture.

Myth: *India produces more food grains than fruits & vegetables*

Fact: *Actually fruits & vegetables are grown more than food grains*

While the production of staple food grains (rice and wheat) stood at 135 million tonne (mt) in 1991-92, it grew to 199 mt in 2012-13. In the meantime, fruit & vegetable production has grown from 88 mt in 1991-92 to 243 mt in 2012-13. Hence, Indians now produce and consume more fruits and vegetables than rice & wheat. This ensures the country's nutritional security besides food security. Horticulture is now the growth driver of Indian agriculture, with India emerging as the second largest producer of fruits & vegetables in the world.

Myth: *Intensive agriculture pollutes water*

Fact: *It has been found that states leading agricultural activities are also leading suppliers of inland fish (which are very sensitive to any pollution), indicating that there is no link between excessive farming & water pollution*

It is widely claimed that increase in agriculture activity leads to deterioration of land and water bodies in the vicinity. Flourishing aquaculture in Andhra Pradesh (AP) and Punjab (two of the India's leading states in agriculture production) disproves the claim that intensive agriculture pollutes/harms the land and waters. Fish species are the most sensitive to water quality and pollution, and any increase in pollution will directly impact inland fish production. On the contrary, undivided AP has emerged as one of the leading inland fish producing states (accounting for 2 mt of the total 6.13 mt of inland fish production in the country) and Punjab has the highest fish productivity of 6560 kgs/ha.

Myth: *Indian farmers use high amount of agrochemicals*

Fact: *India uses far less amount of crop protection chemicals than developed or developing countries*

Country	Per capita consumption of pesticides (kg/ha)
Taiwan	17
China	13
Japan	12
USA	7
UK	5
India	0.6

In recent years, there have been many reports published in different publications claiming that Indian farmers use excess of chemicals for crop protection. In reality it is not the truth. In fact, India uses far less amount of crop protection chemicals compared to developed and even emerging economies. India's [agrochemicals](#) consumption is one of the lowest in the world at 0.6 kg per hectare compared to US (7 kg/ha) and Japan (12 kg/ha). China - which has less land under cultivation (156 million ha) compared to India (196 million ha), but has emerged as the leading food producer of the world – uses 13 kg of crop protection chemicals per ha.

Agriculture, the net foreign exchange earner
India in 2013 earned \$26 billion from \$ 276 billion trade in commercial services. Whereas agricultural trade of \$71 billion fetched as much as \$23 billion trade surplus. Thus, agriculture has the net foreign exchange earnings almost at par with IT service sector. With better focus and facilitation, experts believe that India's net earnings from agricultural trade can be higher than trade in services. Such export led revenues will bring in greater rural prosperity.

Sceptics believe that there is no future in agriculture. On the contrary, with more than 1.25 billion to feed, one can be rest assured that the best future is in agriculture. With right policies & regulations, farmers have the potential to position India as an agriculturally vibrant economy.