



Seed Connect

The monthly newsletter of Federation of Seed Industry of India

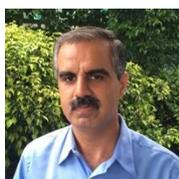
Edition 8 July 2019

In 1989, the United Nations declared July 11 as the World Population Day, to highlight the issue of growing population, uneven distribution of resources, food and water scarcity. Fast forwarding to 2019, apart from the already looming issues, we have burdened ourselves with other concerns. Extreme weather patterns and average temperature rise has put world's food security in acute danger. In July 2019, the United Nations warned that climate crisis disasters are happening at the rate of one a week. Case in point is the Middle-Eastern country, Israel, where drought has been constraining crops for years. Experts are now advising the country to prepare stocks to last it a year.

India too, is facing rising heat and extreme weather conditions, leading to decline in crop yields and nutritional value of food. To avoid the path where Israel is headed, India needs to adopt technologies and innovations to ensure food security for its citizens.

The country needs to adopt technologies that have proven to be effective and have helped farmers to increase productivity. Encouraging and incentivising small farmers to adopt innovative ways, will bridge the resource and financial gap enjoyed by farmers who own large lands translating to high yields.

Time and again Scientific community and institutions in India have supported technology (Hybrids and GM crops) for ensuring food, nutrition and economic benefits for the growing population. Food security has been achieved by developed countries by applying technology in agriculture along with well-developed infrastructure. For developing countries like India, application of GM crops has the potential to contribution to sustainable agriculture productivity, new inputs for resource-poor and small-scale farmers and to feed the ever-growing population.



Shivendra Bajaj
Executive Director
Federation of Seed Industry of India

News in India

[Haryana farmers in 7 paddy-growing districts agree to switch to maize under Government scheme](#)

(India Express)

According to the state Agriculture and Farmer Welfare department, the farmers have formally registered for alternative plantation over 40,000 hectares of land. Farmers in 7 major paddy-growing districts of the state have agreed to opt for maize and other alternatives after Manohar Lal Khattar led state government offered major incentives for crop diversification in an attempt to address the rapidly falling groundwater levels in the state

[Panel constituted to study zero budget natural farming method](#)

(The Tribune)

Moving forward on Finance Minister Nirmala Sitharaman's Budget proposal of zero budget natural farming (ZBNF), the Agricultural Ministry has formed a committee to research and meet farmers practicing the technique on ground. The Indian Council of Agricultural Research (ICAR) has also initiated, a multi-location testing to confirm its efficiency.

[Rooting for a yellow revolution](#)

(Deccan Herald)

Trinity Saioo, a school-teacher in Meghalaya is an award-winner turmeric farmer from Mulieh village. She is leading 800 women in her state to cultivate and boost the popularity of the indigenous, high-curcumin content Lakadong variety of the spice. According to the Indian Council for Agricultural Research, Lakadong has seven per cent curcumin, two per cent higher than varieties available in the Indian markets. Looking at her success, Meghalaya's Department of Agriculture is relying on Saioo's leadership to take Mission Lakadong forward to mobilise growers to expand the area of Lakadong turmeric farming in West Jaintia Hills.

[ANGRAU unveils indigenous agrometeorological app](#)

(The Hindu)

The Agriculture Research Station at Rekulakunta has developed an agrometeorological android application which provides information on weather, medium-range forecasts, agromet advisories, alerts, and archives of weather data for all the 13 districts of Andhra Pradesh. Christened 'Vyavasaaya Vathavaranam', it is the farmer-oriented agrometeorological application developed by senior scientists S.N. Malleswari Sadhineni and G. Narayaswamy for faster dissemination of weather forecast and agromet advisories.

[Drone comes to aid of Erode farmers](#)

(The Hindu)

Farmers in Erode were looking for an alternative to save their Jasmine cultivation from insects. They noticed that spraying pesticides using power sprayer manually were high and consumed a lot of their time. The farmers then approached a Salem-based company to use drones. They noticed that the drone could spray pesticides covering 40 acre a day compared to power sprayer which covered only three acre a day. The use of drone further helped them in spraying pesticides evenly over the crops and reduced the cost and time.

News Around the World

[Indonesia has successfully developed SPARS: FAO deputy director](#)

(Antara Kassel)

Indonesia has successfully developed its Strategic Plan for Agricultural and Rural Statistics (SPARS) that will serve as the foundation of its agricultural and rural statistics efforts. It will further help in accruing and providing accurate and reliable data to support evidence-based decision-making at all levels.

[Australia steps up sugar trade fight with India, seeks WTO probe](#)

(The Financial Express)

Australia along with Brazil has formally put a request to World Trade Organisation (WTO) to set up a dispute panel to probe if India was breaching its obligations. It alleged that India's continued sugar subsidies to farmers have led to glut and depressed global prices.

[Illinois corn farmers partner with NASA to address food security](#)

(Ag Daily)

Through Illinois Corn Growers Association, local farmers are taking a small step with potentially big implications to address food security and crop efficiency. The farmer-led group is working with NASA and University of Illinois researchers to develop a Farmer Data Cooperative to bring together practical farmer knowledge, internationally recognized scientists, and the most advanced technology available. The Farmer Data Cooperative is a first-of-its-kind relationship between farmers and a select group of University of Illinois researchers with special access to NASA datasets. Through this unique collaboration, researchers and farmers are working together to develop tools and assessments to predict and address inefficiencies in agricultural management practices, assist with participation in upcoming ecosystem markets, and improve management of their farming operations.

[A new way to grow crops in marginal soils could help feed the world](#)

(Stanford Engineering)

A Stanford research team led by associate professor of chemical engineering Elizabeth Sattely discovered a genetic adaptation that allows one hardy plant to thrive on marginal soils. Now, her lab has revealed more about the genetic mechanisms behind this survival trait. Although more studies are needed, Sattely believes this avenue of research will one day enable scientists to splice this adaptive mechanism into the genomes of staple crops, thus opening up more farmland for food production and leading to a new, eco-friendly form of plant genetic engineering.

New Research

[Researchers Map Vegetable Family Tree](#)

(Crop Biotech Update)

A team of scientists from different institutions led by the University of Missouri has mapped the genetic family of three vegetables — canola, rutabaga, and Siberian kale — to identify the genes selected for by early farmers. The nuclear and chloroplast genomes from 183 accessions of *Brassica napus*, including representatives from all morphotypes, as well as 174 accessions of potential progenitors. The team identified over 370,000 small variations in the genetic code, which they used to determine how the diverse accessions are related to one other as well as to *B. rapa* and *B. oleracea*.

[Yield-boosting gene identified from 118-year-old experiment in corn](#)

(Ag Daily)

A corn gene identified from a 118-year-old experiment at the University of Illinois showed signs that it could boost yields of today's elite hybrids with no added inputs. The gene, identified in a recent Plant Biotechnology Journal study, controls a critical piece of senescence, or seasonal die-back, in corn. When the gene is turned off, field-grown elite hybrids yielded 4.6 bushels more per acre on average than standard plants. Dating back to 1896, the Illinois experiment was designed to test whether corn grain composition could be changed through artificial selection, a relatively new concept introduced by Charles Darwin just 37 years earlier. Repeated selection of high- and low-protein corn lines had the intended effect within about 10 generations. As selection for the traits continued, however, additional changes were noticeable.

[Robot uses machine learning to harvest lettuce](#)

(Ag Daily)

A vegetable-picking robot named Vegebot has been developed by engineers that uses machine learning to identify and harvest a challenging agricultural crop. Developed by a team at the University of Cambridge, the Vegebot was initially trained to recognize and harvest iceberg lettuce in a lab setting. It has now been successfully tested in a variety of field conditions in cooperation with G's Growers, a local fruit and vegetable co-operative. Although the prototype is nowhere near as fast or efficient as a human worker, it demonstrates how the use of robotics in agriculture might be

expanded, even for crops like iceberg lettuce which are particularly challenging to harvest mechanically.

Upcoming Events

ASRT 2019

APISA ICRAR nsa

In association with

Asian Solanaceous Round Table III
the Sheraton Grand Bangalore at Brigade Gateway
22 – 25 October 2019

The program includes current updates, covering everything from breeding to market trends in Solanaceous crops.

The theme of main sessions are as follows:

- The modern breeding technologies for diseases and pest resistance
- Quality traits and disease resistance
- Modern production technology
- Post-harvest technology (processing and value addition)
- Market trends
- Possible collaboration with research institutes

On 25 October 2019, the field visit is hosted by the Indian Institute of Horticultural Research, Bangalore

Registration fee

• APISA member companies	: 180 USD per person
• Non-member	: 200 USD per person
• Government officials	: 100 USD per person
• Students	: 50 USD per person
• Booth Exhibitor	: 75 USD per person
• Big booth (3m X 3m)	: 500 USD
• Small booth (2m X 2m)	: 300 USD

Thank you to Platinum Sponsor 

For more information, please contact Ms. Kunaporn Phuntunil (APISA Technical Coordination Manager) at kuna@apsaseed.org or visit www.apsaseed.org



FSII is associating with The Asia & Pacific Seed Association (APSA) for the Asian Solanaceous Roundtable III at Bengaluru. The event will take place between 22-25 October 2019, at the Sheraton Grand, Bengaluru. We encourage you to start registering and share your learnings and success stories at the event.

July 2019

Plant Genome Editing & Genome Engineering

Date: July 5-6, 2019

Venue: Vienna, Austria

International Conference on Biodiversity and Ecosystems (ICBE)

Date: July 6-7, 2019

Venue: New York, USA

Southeast Asia Vegetable Symposium 2019, Melaka

Date: July 9-11, 2019

Venue: Melaka, Malaysia

International Conference on Agricultural and Biological Science (ICABS)

Date: July 13-14, 2019

Venue: Brussels, Belgium

International Conference on Agriculture, Forestry, Biotechnology and Food Science (ICAFBFS)

Date: July 27, 2019

Venue: Jaipur, India

International Conference on Recent Trends in Engineering, IT, BioTechnology & Agriculture Sciences (RTEIT)

Date: July 27-28, 2019

Venue: Taipei, Taiwan

August 2019

International Agriculture & Horti Expo

Date: August 1-3, 2019

Venue: New Delhi, India

Milan International Conference on Agricultural, Biological and Environmental Sciences (MABES)

Date: August 5-7, 2019

Venue: Milan, Italy

International Agriculture Innovation Conference (IAIC)

Date: August 8, 2019

Venue: Oulu, Finland

International Conference on Plant & Soil Science (ICPSS)

Date: August 9, 2019

Venue: Taipei, Taiwan

International Conference on Agricultural and Food Sciences (ICAFS)

Date: August 12-13, 2019

Venue: Pattaya, Thailand

International Congress and Expo on Agriculture & Horticulture

Date: August 12-13, 2019

Venue: Prague, Czech Republic

International Conference on Environment, Agriculture Biology and Natural Sciences (EABNS)

Date: August 14-16, 2019

Venue: Bangkok, Thailand

International Conference on Agriculture & Horticulture

Date: August 15-16, 2019

Venue: Rome, Italy

International Conference on Inventions and Innovations for Sustainable Agriculture (ICIISA)

Date: August 15-17, 2019

Venue: Bangkok, Thailand

September 2019

International Conference on Agriculture, forestry, Biotechnology and Food Science

Date: September 01, 2019

Venue: Vishakhapatnam, India

Bordeaux - France International Conference on Agricultural, Environmental and Medical Sciences

Date: September 04-05, 2019

Venue: Bordeaux, France

Plants, People, Planet Symposium

Date: September 04-05, 2019

Venue: Richmond, UK

International Symposium on Buckwheat

Date: September 03-06, 2019

Venue: Shillong, India

Asian Pacific Weed Science Society Conference

Date: September 03-06, 2019

Venue: Kuching, Malaysia

Congress of Agrarian Economy

Date: September 04-06, 2019

Venue: Lugo, Spain

Agri-business Conference

Date: September 05-06, 2019

Venue: Lincoln, USA

International Conference on Agriculture, Biological and Environmental Sciences

Date: September 05-07, 2019

Venue: Paris, France

International Conference on Agricultural and Food Sciences

Date: September 17-18, 2019

Venue: Istanbul, Turkey

European Conference on Crop Diversification

Date: September 18-21, 2019

Venue: Budapest, Hungary

International Conference on Agricultural and Biological Science

Date: September 23-24, 2019

Venue: Miami, USA