The ICAR-IIHR in its five decades of research on 54 horticultural crops, has released 302 varieties and licensed 104 technologies to 400 clients with 800 licenses, thus paving the way for entrepreneurship in the field of horticulture. The Institute has been popularizing the varieties by imparting training as well as by taking them to the farmers’ field through conducting demonstration and field days, the effect of which can be seen in North-Eastern region of the country, wherein almost seven states have adopted the vegetable varieties of the Institute. However, to promote entrepreneurship in the field of horticulture it was decided to display the technologies developed in one place and through virtual and physical mode. Hence, 255 demonstration plots were set up. In addition to this provision was made for stalls so that other private and public institutions could display their technology. The main theme of this fair being ‘Horticulture for Startup and standup India’ and the main objectives were:

i. to showcase the new abiotic and biotic stress resistant technologies right from seed to input production to plant protection measures including biopesticides to post-harvest, value addition and machinery for horticulture to every stakeholder

ii. to make the stakeholders aware of the benefits of integrated farming systems, urban horticulture and the digitized seed supply system adopted by the Institute to reach them to the doorstep of the farmers,

iii. to create awareness with regard to the pollination and the need to conserve pollinators and also to highlight the importance of resistant varieties in organic farming,

iv. to make stakeholders aware of the opportunities in horticulture to become entrepreneurs through ‘Atmanirbhar Krishi’,

v. provide an opportunity to expose the farmers to the entrepreneurs who are successfully running their business.

The event was organized in collaboration with the Karnataka State Department of Horticulture, Karnata State Department of Agriculture, Society for Promotion of Horticulture, Bengaluru, BESST-HORT a TBI of ICAR-IIHR, ICAR-ATARI (Zone 11) Bengaluru and The Sri Sri Institute of Agricultural Sciences & Technology Trust (AOL), Bengaluru. The modus operandi and the details of methodology followed in organizing NHF 2021 are discussed here.

**Modus operandi**

The National Horticulture Fair (NHF 2021), which was held for five days from 8th to 12th February 2021 comprised of two approaches viz., Virtual mode and the Physical mode. The success of an event depends on how well it gets publicized. Publicity was carried out both at the national as well as the state level through social, print and electronic media. Forty (40) lakh messages were sent through mKisan to reach nook and corner of the country. A brochure depicting the highlights of the NHF 2021 was prepared in Kannada, Hindi and English and were widely circulated throughout the country especially among the line departments and educational institutions. Animated films depicting the technologies developed and the opportunities for entrepreneurship were widely circulated in Kannada, Malayalam, Tamil, Telugu and Hindi. Two press conferences were held with journalists representing leading dailies of various languages. Press conference was held with the leading electronic media representatives, the news on NHF 2021 was carried during prime time. Journalists were also taken for a guided tour of the demonstration plots with emphasis on the technologies showcased.

The fair was conducted on two modes viz., Virtual and Physical. To create awareness about the Virtual mode meeting was held with the DDG (Extension), ICAR and Directors of Agriculture Technology Application Research Institute (ATARI), which was followed up with two meetings with KVK heads, where in decision was taken to identify nodal officers from each zone. A virtual meeting with all the Directors under the Subject Matter Division of Horticultural Sciences with DDG (HS) and ADG’s was conducted wherein decision was taken for cross posting the event links in their websites. Social media groups were created for KVK’s and FPO’s for each zone, which helped in the coordination of the activities.
Horticultural crops that are being cultivated in the 11 ATARI Zones, and the problems connected with these crops viz., seed, planting material to plant protection and post- harvest management were collected two months in advance. The problems thus collected were segregated and the compiled information was used for developing the technology videos, power point slides and for identifying experts connected with the crop, technology. Moderators for different languages were identified for the programme preparation. There were 11 moderators for 11 languages, because of which solution to the problems were clarified in local languages. The technical sessions in virtual mode were organized across 11 ICAR-ATARI Zones of the country covering 700 plus Krishi Vigyan Kendras and 600 plus FPO’s, 160 Sri Sri Institute of farmers training centre’s belonging to 16 states. In each login through a two-way link, around 50 to 100 farmers were mobilized at each Krishi Vigyan Kendras (KVK)/ Farmers’ Producer Organization (FPO) for participation in the live technical session of the horticulture fair 2021. The setup of the virtual mode was carried out in the following way:

**Virtual platform for two-way and one-way telecast**

Over 22 cameras were connected to live console, which were integrated with far end live feed. The master feed from PCR (Production Control Room) was broadcasted live on satellite as well as two-way feed to all the KVKs and FPO’s in the country. The entire 5-day program was live casted on all social media platforms reaching around 18.7 lakh people. Six cameras were placed in the field to show the demonstration plots of various technologies. Cross posting of one-way link was also done through the websites of 9 Institutes. One-way participant entry was through the below platform, wherein anyone who wished to view the programme were able to do so by logging in through the registration using their mobile number.

In all, there were 11 technical sessions, which were developed after collecting the problems associated with different crops from KVK Heads. Subject matter
experts from ICAR Institutes and ICAR-ATARI’s addressed the problems of the respective zones related to horticulture crops by showing the technology demonstration plots and also the videos of the farmers who have successfully grown the crop.

In different places (KVKs & FPOs) 7000 logins were observed, which accounted for 4.2 lakhs viewers, total primary source viewing being 18.7 lakhs. In all the reach from the secondary sources through the subscription to our YouTube channel (followers) was 38.2 lakhs. Hence, the total viewing was to the tune of 56.9 lakhs. The geographical reach apart from India, the programme was viewed in other countries viz., Philippines, United States, Sri Lanka, Bangladesh, Pakistan, Nepal, United Arab Emirates, Australia, Saudi Arabia, Algeria, and Kuwait.

The Physical Mode was carried out with the idea ‘seeing is believing’ and was made possible by the participation of various private and public Institutions who displayed their technologies through stalls numbering about 200. Apart from this the incubates who have taken the technology from the Institute also participated, which motivated the other farmers to become entrepreneurs. The live 255 demonstration plots having emphasis on resistant varieties and ecofriendly technologies were on display. The publicity given through the media helped in creating awareness about the NHF 2021 in the state of Karnataka and the neighboring states. The stakeholder mobilization was very effectively carried out by the State Departments. Electronic registration was also made to restrict the number of visitors.

The foot fall for the physical fair in all the five days was to the tune of 56.243. Six workshops / training programmes were conducted during the event days on; Terrace Gardening (Vegetable growing and medicinal plants for home remedies), Soilless Vegetable Cultivation, Home Scale Processing (Fruits: Lime, Orange, Vegetables: Tomato, Onion, Chilli, Flowers: Rose, Brine Preservation / Pickling), Safe Plant Health Management in Hobby Horticulture, Mushroom Products, Workshop on Hydroponics for Terrace & Peri urban horticulture, and Modern irrigation Technologies in Horticultural Crops. A total of 691 participants attended these workshops. Eleven Farmers from six different states of the country who have adopted ICAR IIHR technologies and one extension worker from Manipur who was instrumental in popularizing the ICAR IIHR technologies were felicitated during the fair.

**Technology commercialization - a goal achieved**

The ICAR-IIHR during the past five decades has commercialized its technologies to more than 400 clients. The Institute developed varieties in fruits, vegetables and flower crops are being produced through ‘Seed Village concept’ and through private nurseries. The theme of NHF 2021 being ‘Horticulture for Startup and Standup India’ , eight entrepreneurs took 15 technologies with an MOU.

The virtual mode was attended by the officials of ICAR Institutes, Horticulture and Agriculture Universities, Directors of State Horticulture Departments, Heads of KVKs and representatives from private industry, press personnel, farmers and students. The event had 255 demonstration plots of various varieties and technologies developed by the Institute. The problems related with the growing of horticultural crops in various regions of the country
were addressed by the experts through live video interaction with the help of the demonstration plots. A total viewing of 56.9 lakhs was recorded during the five days event, which included one way communication viewing through social media network (14.5 lakhs), video conference viewing through 7000 logins in various places of KVK’s, FPO’s and Sri Sri Institute of Agricultural Sciences & Technology Trust accounted for a total primary source viewing of 4.2 lakhs. The reach from the secondary sources through the subscription to our YouTube channel (followers) was 38.2 lakhs. Viewership was also noticed from 11 different countries. The footfall for the physical fair was nearly 56,000. Publicity preceding the fair by way of animated videos, press and media played a greater role in making the fair successful as commercialization of 12 technologies also took place. Various private and public institutions as well as entrepreneurs who have purchased the technology from the Institute got an opportunity to display their products.

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