

PRESS RELEASE

Resource Conservation Technologies (V16H2S2)

In the ongoing Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit, a collaborative initiative by S&T and Academic Organisations of India is going on to enable deliberations on thought process, practices and R&D culture with a problem-solving approach and bring collaborations. In this context, a Webinar Session on '**Resource Conservation Technologies**' was held on **09 October 2020 17:00-21:00 hrs** under the theme (called Horizontal) 'Sustainable and Climate Smart Agriculture' under the 'Agro-economy and Food Security', one of the 18 Verticals/Technology Focus Areas. Structured presentations by the eminent scientists were followed by a panel discussion on important need-of-the-hour theme areas. The strength/opportunities and limitations of RCTs, and the collaboration and policy interventions needs were also discussed.

The major recommendations out of the session were that under rainfed dryland agro-ecologies, multiple adaptation strategy need to be taken up for efficient soil and crop management using conservation agriculture (CA) and to adapt to climate change; farm pond technology followed by pressurised micro-irrigation system to sustain crops yield; biochar for mid-season drought management. Under irrigated agro-ecologies, the recommendations were for laser-assisted precision land levelling for impact at scale, redesigning of the cropping system under CA and CA based management for meeting up almost 10 SDGs and protein equivalent yield; long term process-based research on CA and infrastructure/ machineries/mechanization and formation of a Knowledge Network. Emphasis was made on to develop best management practices (BMPs) for safe and beneficial use of animal and poultry manure to achieve food security. Also there were highlights to promote CA with concurrent improvement of knowledge base on weed biology, ecology and competitive interactions, including herbicide resistance and their environmental footprint; interactive roles of nanotechnology, remote sensing, precision agriculture for weed suppression.

In a nutshell, this Webinar recommended to develop location/site/climate- and cropping system-specific Resource Conservation Technologies (RCTs)/ conservation agriculture, and to promote these several initiatives suggested: public-private partnership in research and extension (scale-up and out-scaling of CA/RCTs), mechanization/ machination and strong policy interventions for effective dissemination and large scale adoption by farming communities and international collaboration for partnership research, education and extension for bridging the huge gap between the current area under adoption and the potential these technologies have.

The session was chaired by Dr. J.C. Katyal, Former Vice-chancellor, CCSHAU, co-chaired by Dr. S.K. Chaudhari, DDG (NRM), ICAR. The Session was coordinated by Dr. V.K. Singh, Joint-Director (Extn.) and Head, Agronomy, ICAR-IARI. In his welcome address, Dr Ashok Kumar Singh, Director, ICAR-IARI outlined the importance of Resource Conservation Technologies (RCTs) in agriculture to sustain agricultural productivity and farmers income under climate change scenarios and highlighted the contributions of Indian scientists towards research on RCTs. The overseas speakers included Prof. Nanthi Bolan, Univ. of New Castle, Australia; Dr. Muthukumar Bagavathiannan, Texas A&M Univ, USA; Dr. K. Majumdar, APNI, Morocco; and Dr. J.K. Ladha, UC Davis, USA. Apart from these, there were two speakers Dr. Ch. Srinivasa Rao, ICAR-NAARM; and Dr. M.L. Jat, CIMMYT India. Several panellists included the present and former Vice-Chancellors of the SAUs, Directors and renowned Principal Scientists of various Institutions of India.

The month-long VAIBHAV Virtual Summit was inaugurated by the Hon'ble Prime Minister Shri Narendra Modi on 2nd October 2020, the birth day of Mahatma Gandhi (Father of the Nation) in the virtual presence of academia and researchers from across the world and is planned to be concluded on 2nd November after month-long deliberation sessions through webinar mode.