

Annual Report

2022



Lt. Amit Singh Memorial Foundation

249, Vijayee Veer Awash, Kargil Apartment, Sector-18 A, Dwarka New Delhi- 110078

Mob:-9971350110, 9810013664 ! 9871450730

Email: ltamitsinghfoundation@gmail.com

Web: www.Ltamitsingh.org



About the Lt. Amit Singh Memorial Foundation

(An organization certified for ISO 9001-2015)



Lt. Amit Singh Memorial Foundation (ASM Foundation), since its inception, in 2001, has appreciably grown in its outreach and the spectrum of activities carried out to fulfill its commitments, within the ambit of its stated aims and objectives to develop a patriotic society, through education, secured health, economic development and inculcation of ethics and values among the masses, in general, and youth in particular. To begin with, the foundation started its activities with the distribution of books and school bags amongst the poor and needy children to support their education. The Foundation is organizing health camps to improve the health status of poor and needy; scientific exhibitions and workshops to disseminate the knowledge of newly developed technologies, particularly in the field of agriculture and horticulture, to empower the farmers with up-to-date knowledge, and inspirational discourse by spiritual leaders to inculcate social ethics and values, especially among youth.

In its strive to achieve the aims and objectives, the Foundation organized the first Swadesh Prem Jagriti Sangosthi (SPJS-2009), a national level, mega event in, 2009, to commemorate the birthday of the Martyr Lt. Amit Singh, at his birth place, Mahamada, Pusa, Samastipur, Bihar. This Sangosthi which included activities like inauguration of Smriti Bhawan, essay/elocution competition and talent search for students of schools and higher secondary schools from different states, health camps, national conference on horticulture, national exhibition, farmers quiz, distribution of quality seeds and planting materials of the agricultural and horticultural crops, diversity shows, litchi/mango eating competition and spiritual discourse to inculcate ethics and values. This Sangosthi was a big success as it was a well attended event. The overwhelming response and encouraging feedback of participants of the first Sangosthi made it annual feature of the activities of the Foundation. Beside farmers, students and scientists, some prominent political personalities also attended the event. Swadesh Prem Jagariti Sangosthi and conference are an annual function. Since then, 2nd Swadesh Prem Jagriti Sangosthi (SPJS) was organised at Bangalore in 2010. Subsequently, 3rd SPJS in 2011 at Dehradun. The events was a great success. 4th Swadesh Prem Jagriti Sangosthi was organised from 27-31 May, 2012 at OUAT, Bhubaneswar, and 5th SPJS was organised on May 28-31, 2013, at JISL Jalgaon, Maharashtra. 6th SPJS was organized at NAU, Navsari and 7th SPJS was



organised at Chitrakoot, Satna, Madhya Pradesh. The 8th SPJS was organized at JISL Jalgaon, Maharashtra and 9th SPJS was organized at JAU, Junagadh, Gujarat. Subsequently 10th SPJS was organized at DRPCA, Pusa, Samastipur, Bihar, 28th to 31st May, 2018 and 11th SPJS was organized at GBPUA&T, Pantnagar, Uttarakhand. Due to Covid-19, virtual SPJS-2020 was organized from Dubai and SPJS-13 was organized at PJTSAU, Rajendranagar, Hyderabad, Telangana, from 16-19 September, 2021.

You will agree with me that during the year despite Pandemic Covid-19, the Foundation took activities with New normal of digital approaches. The Foundation organised 12th Swadesh Prem Jagriti Sangosthi in the form of webinar entitled Post Pandemic (Covi-19) challenges and options in Agriculture including horticulture on 28th May, 2020, which was well attended from across the globe by more than 1000 delegates. The conference highlighted the emerging issues, caused due to pandemic and discussed various options. The recommendations were communicated to all the stakeholder for action. The Foundation fed poor people and distributions food to large number on 3rd September an other webinar was organized on production and utilization of fruits. The ASM Foundation also supported webinar organized by CHAI and other organizations.

To inculcate the spirit of healthy and fair competitiveness and catalysing the minds of the people, to serve the society better, ASM Foundation has instituted many rewards and awards. The rewards include the cash prizes to the winners of national debates/elocution of National Talent search in Horticulture. Different awards instituted by the Foundation to recognise the outstanding contributions made by different peoples in their respective fields for the welfare of the society, at large include, **Amit Krishi Rishi Award, Amit Padma Jagriti Award, Amit Prabudh Manishi Award, Amit Swah Award, Amit Udyan Ratna Award, Amit Agrani Award, National Talent Award in Horticulture, Best All Rounder Awards** (for school students), and **Lt. Amit Singh Memorial Best Performing Centre of AICRP**. Amit Best student Award (JAU, Junagadh and DrYSRHU, Venkataramannagudem, West Godawari, AP.) The recipients of these awards are leading and distinguished educationists, corporate sectors, scientists, entrepreneurs, farmers, students and leading research institutes, which act as a great driving and inspirational force for the participants and stakeholders to work harder with full zeal in their respective fields, to be among the recipient of such awards. The activities of the Foundation carried, so far, have been very successful, as is evident from the impact on impressionable tender minds of youth to inculcate patriotism and building nationalistic fervour in them; economic empowerment of the poor farmers through innovative technologies and current knowledge disseminated through conferences and exhibitions on agriculture and horticulture.

The Foundation has expanded its activities over these years with its major focus on improving the health of children and empowerment of women. The emphasis is also given on improving the income of farmers through distribution of quality seeds and planting material, dissemination of modern technologies and techniques, knowledge and imparting training and

awareness. The Foundation is also supported few meritorious economically poor student to persue his Engineering, who has now joined the mainstream job. The Foundation brings out various publications on Topical issues for the benefit of people. The activities of ASM Foundation have been recognised by conferring Institutional Excellence Award-2016 reconstruction of Rural India through involvement of Youth in Agricultural transformation by AIASA, New Delhi. The Award carried a citation, Plaque of Honour and a Certificate is Award by the Chief Guest, Honourable Minister of State for Agriculture farmer & welfare and MOS of Panchayati Raj, Shri Parshottam Bhai Rupala, on 20th Feb., 2017. During the year, in 2018 a Foundation stone was laid for the construction of Amit Gyan Sambardhan Kendra (ASK) and office cum training centre. This training centre and office was inaugurated on 21st April, 2019. The Training centre has been operational. During the year Amit Memorial Rural Institute for Transformation have also been established.

Annual Report 2022



Lt. Amit Singh Memorial Foundation

249, Vijayee Veer Awash, Kargil Apartment, Sector-18 A, Dwarka, New Delhi- 110078

Mob:-9971350110, 9810013664

Email: ltamitsinghfoundation@gmail.com

Web: www.Ltamitsingh.org

ASM FOUNDATION ANNUAL REPORT-2022

Published by

Smt. Bimala Singh

Managing Trustee

Lt. Amit Singh Memorial Foundation New Delhi- 110078

Mob:- +919971350110;+919810013664

Email: ltamitsinghfoundation@gmail.com

Web: www.ltamitsingh.org

Compiled and Edited By

Bimsla Singh

Neeta Singh

Babita Singh

© ASM Foundation

All rights are reserved, No part of this ASM Annual Report-2022 may be reproduced, stored in a retrieval system or transmitted, by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the ASM Foundation.

Correct citation

ASM Annual report -2022, Lt. Amit Singh Memorial Foundation, New Delhi, India.

Printed At.....

FROM THE DESK OF MANAGING TRUSTEE



Lt. Amit Singh Memorial (ASM) Foundation, committed to achieve its goal and mission, is carrying out various activities since its inception, in 2001. To achieve its objectives, the ASM Foundation has instituted ten awards in various categories and is committed to give impetus to the overall growth of the society. The Foundation recognize the outstanding contributions of the leaders in the development of agriculture and horticulture, through the science, technology and policies. To recognize the industry and its leaders, the Foundation confers awards to them. The ASM Foundation is also committed for the cause of farmers in India. It is leaving no stone unturned in taking lead for motivating farmers for overall development of agriculture/ horticulture at the national level. I am happy to share with you that an **Institutional Excellence Award-2017** was conferred on ASM Foundation in recognition of outstanding contributions for reconstruction of Rural India through involvement of youth in agricultural transformation, by AIASA, New Delhi, CNRI also recognised the contribution of Lt Amit Singh Memorial Foundation in developing patriotic society by conferring Appreciation Award of CNRI-2019. To recognize outstanding contributions for transforming national agricultural scenario, awards like Amit Krishi Rishi, Amit Padam Jagriti and Amit Prabudh Manishi are given to distinguished agriculturists/horticulturists. Highly motivated innovative horticulture farmers, who are keen and receptive to learn advanced technique for technology led development and have displayed their competence by refining technologies to suit local conditions at district or state level, are conferred with Amit Udyan Ratna Award, to sustain the momentum of positive change and encourage other farmers. Amit Swah Award recognises the distinguished services of the leaders in wellness of mankind.

Innovations have no hierarchical considerations and it may come out from a person of any age and position. In fact, many a time young brains generate more useful concept to solve the long lasting research problems, given an opportunity. To encourage intelligent brains and to develop path-breaking concept note of practical relevance, Amit Agrani Award was instituted for young scientists, up to the level of senior scientists, for their creative thinking and concept conceiving. Every small bit of contribution is important to secure national level success of mega projects, but very often these contributions remain unnoticed. The Foundation has also initiated Best Performing AICRP Coordinating Centre Award for AICRPs., H. S. Mehta Award, Instituted by Mehta Foundation is also conferred through the ASM Foundation, on the occasion of SPJS. I am happy to present this book *Shodh Chintan, Vol.14*, which has contributed articles from the experts in the field of water conservation, utilization, on farm water management, water in agriculture and enhancing water productivity. The Foundation has been organizing the National International conference and Swadesh Prem Jagariti Sangosthi every year. This conference is 14th in the series. The topic is highly topical and important to address the issue. This *Shodh Chintan* has compiled and edited article on the subject from experts, which provides valuable information.

I express my sincere gratitude to, all those who have worked very hard to compile and edit this book *Shodh Chintan, Vol.14*, especially Dr. H.P. Singh, and team. I am sure this book will be of a great use to all the stakeholders, as reference book, on horticulture. Finally, I thank all those who worked hard to bring out this book.

Bimala Singh

Managing Trustee LASMF

EXECUTIVE SUMMARY

Lt. Amit Singh Memorial Foundation (ASM Foundation) established in the year 2001, as a registered charitable trust, recognises the Supreme sacrifice of Lt. Amit Singh, a Martyr, who fought fearlessly with courage and devotion, in adverse circumstances, to safeguard his motherland at Kupwara District, Jammu and Kashmir, in the year 2000. Since its inception, the ASM Foundation has been silently and meticulously carrying out several activities in the sphere of education, economic upliftment, health and social values for the betterment of society, especially for the rural youth. In this context, economic prosperity of the society, rural employment, conservation of diversity, linking farmers with market nutrition and livelihood options, water quality and management have been on centre stage. Major activities during the year were National Conference, awards to students and distinguish personality, farmers quiz, Interaction with farmers, distribution of planting material and seeds, National day celebration, construction of ASM Office cum Training Centre, and support for higher education. .The Amit Memorial Rural Institute for Transformation was also established.

The year, 2019-20 & 2020-2021 was the year of Pandemic, COVID-19, except early part of 2019, which allowed to do physical activity, but the last Quarter of 2019 brought the panic, which continued till December, 2020. First quarter of 2021 had less incidence, which subsequently became serious in second Quarter of 2021 and we have lost many of our team members. We pray to God for their peaceful heavenly abode. Due to disruption and lockdown only limited physical activities were done, and **on-line** discussion and webinar became new normal. Therefore, the annual report for the year 2019-20 and 2020-21 are combined and activities are presented together,

During the year, 2022 the ASM Foundation organised the a **NationalConference on Climate Resilient and Sustainable Development of Horticulture**, in association with **CSAUA&T, Kanpur, Uttar Pradesh**, 28-31May 2022. Recognising that, value chain management and innovations in horticulture is critical and important for food and nutritional security and environmental services this conference was supported. The purpose of the conference was to have international dialogue, for analysing past trend in innovative horticulture and value chain management, identify innovations for envisioning the task of ensuring food and nutritional security and enhancing farmers ' income. The conference was attended by over 350 delegates from across the country and abroad, including farmers and students and representatives from industries. This conference provided opportunity to all the stakeholders to share the knowledge and disseminate for the formulation of strategic recommendations. The conference was a grand success in terms of participation, deliberation, discussions and outcome.

The Lt. Amit Singh Memorial Foundation (ASM Foundation), organised a **NationalConference on Climate Resilient and Sustainable Development of Horticulture** in association with the **CSAUA&T, Kanpur, Uttar Pradesh** and Jain Irrigation Systems Limited Jalgaon on 28th May, 2022. Considering that agriculture has to play a pivotal role to achieve quantum jump in economy and providing livelihood to millions, while learning from pandemic, agriculture require to be vibrant and competitive to ensure food and nutrition beside enhanced income to farmers and better employment. Therefore, new paradigm with effective dynamics is called for changing paradigm, will demand

technological changes, upfront policy and technology led value chain management. Recognising this urgency, a dialogue with leaders and stakeholders was organised in the form of webinar. There were more than 300 participants registered for the webinar. The webinar was also going live on youtube and facebook which alone had the viewership of more than 800 stake holders. The webinar was successful and developed recommendations to address post pandemic issues in agriculture.

Recognising that fruits orchard's health are influenced by biotic and abiotic stresses, which affect production and productivity, national dialogue was considered inevitable, to understand factors associated with plant health and its management strategies. Accordingly, National Conference on Integrated Plant Health Management in Fruit Crops organized by the CHAI in association with National Research Centre on Litchi, Muzaffarpur was supported by the Lt Amit Singh Memorial Foundation at Amit Memorial Rural Institute for Transformation (AMRIT), Mahamda, Pusa, Samastipur, Bihar, on 3-4 September, 2019. This conference provided a platform to the researchers and concerned government authorities to deliberate on the issues related to biotic and abiotic stress affecting health of fruit crops. A total of 85 delegates participated in the seminar. 90 papers were presented, in five major themes during the Conference. Invited lectures and lead talks were delivered by eminent scientists and academicians.

Recognising that horticulture crops has potentiality in doubling the farmers' income and generating employment and providing the livelihood to the rural people, an interactive workshop to sensitise the farmers regarding the modern technology in horticulture, a National Workshop on Knowledge Empowering for Banana Production and Marketing– Farmer's Perspective, organised by the CHAI New Delhi at Nayanagar, Rosera, Samastipur in the farmer's field on 30th October, 2019 was partnered by the ASM Foundation. The workshop was participated by more than 300 farmers besides scientists, representatives of industries and students. The Chief Guest of the workshop was Sri Giriraj Singh, Hon'ble Union Minister of Animal Husbandry, Dairy & Fisheries, Govt. of India and was presided over by Dr. H. P. Singh, Chairman, CHAI and Former DDG (Horticulture), ICAR, New Delhi. The Convener of the workshop was Mr. Sudhanshu Kumar, Founder of PFA, Nayanagar. After in-depth discussion under the chairmanship of Honourable minister various recommendations for implementation were developed.

A National Webinar on Post Pandemic Production System Management in Fruits Crops was organised by the CHAI, on 3rd September, 2020 in association with ICAR-National Research Centre on Litchi, Muzaffarpur, was partnered by Lt. Amit Singh Memorial Foundation, Mahmada, Samastipur, Bihar at Amit Memorial Rural Institute for Transformation (AMRIT), Mahamada Pusa. Recognising that post pandemic will have new normal. On line working will be a new normal. Since social distancing will be maintained mechanisation in production system will be a new normal. Thus to discuss on the emerging issues and devise mechanism to address the challenges a Nation Dialogue through webinar was organised. The webinar identified the issues and developed recommendation for smart production system in Fruit Crops.

In the International year of Fruits and vegetables, 2021, declared by the UN, a webinar on New Paradigm in Production and Utilisation of Fruits and Vegetables for Health and Livelihood

on 11th February, 2021 by the CHAI had partnership of ASM Foundation, which aimed to create awareness about the health benefits and develop a policy for improving the accessibility and consumption of these fruits and vegetables. The webinar discussed approaches to improve awareness about health benefits, bring technology to improve the production and productivity, adopt smart system for management and reduce the losses and wastage of fruits and vegetables. It was also suggested to bring fruits and vegetables under food chain for enhanced consumption. Value chain management system has to be intensively adopted using Block Chain Technology. In his inaugural address, the honourable Union Minister of Agriculture and Farmers' Welfare, Shri Narendra Singh Tomar complimented the organisers for timely organising this conference and highlighted the initiatives taken by the Ministry for promotion of horticulture including fruits and vegetables. He also emphasised on importance of Fruits and vegetables for nutritional benefits and improving the income of the farmers. The deliberation were organised in 15 technical sessions. Based on deliberation and discussions recommendations were developed

In order to address the economic upliftment of rural people in Bihar through knowledge empowerment, one day Kisan Sangosthi of farmers was organized by ASM Foundation, in collaboration with Confederation of Horticulture Associations of India, New Delhi, at Mahamada (Pusa, Samastipur) on 21 September 2019 to commemorate the inauguration of the Office and training centre of ASM Foundation. This building has also the facility for staying of farmers. The purpose of the Sangosthi was to enrich the farmers with the new knowledge about the risk related to weather and its management-for improving the productivity of land.

Awards which recognises the leaders of par excellence, in science and technology, industry and education were conferred. **Amit Krishi Rishi Award** was conferred on Dr. S.K. Pattanayak, IAS, Former Secretary, MoA & FW, New Delhi(in absentia), **Amit Padma Jagriti Award** was conferred on M/S Pralshar Bio Products Pvt. Ltd., Jalgaon, **Amit Prabudh Manishi Award**, was bestowed on Dr. Tej Partap, VC, GBPUA&T, Pantnagar

Amit Udyan Ratna Awards were conferred on 22 farmers from across the-country. The winner of farmers quiz, and best paper in the conference were also awarded. The contribution of the volunteers was recognised by giving a certificate of appreciation. These activities resulted in catalysing the students, farmers and rural youth in achieving the goals.

In the honour of Lt. Amit Singh, "Sahid Diwas" programme was organised on 3rd September, 2021. All the participants prayed for world peace. Then there was an interaction among the participants on ethics and values. Seeds and plants of tissue culture banana and pomegranate, sapling of *jamun*, *litchi* and *bael* and seeds of improved vegetables were distributed to the farmers. The ASM Foundation Branch office at Mahamada, also executed several activities for the benefit of children by providing them educational and vocational support besides celebrating the Independence Day and Republic Day. This office is involved in several strategic activities to improve livelihood and socio-economic conditions of the rural people, notable among them are technology dissemination of improved agricultural technology, and distribution of seeds and disease free quality plants. The managing Trustee, Bimala Singh participated in International Horticulture Congress to gain knowledge, 12-16

August, 2018, Istanbul. She also guided farmers by visiting their field along with team.

These activities, demonstration and training continued to be a significant feature of the Foundation, which is benefiting farming community. The ASM foundation also participated in many conferences and workshops. The Foundation is propagating the message that **“the farmer’s field is the experimental plot and his house a laboratory,”** for the speedier dissemination of the technology. This will bring a revolution in achieving the technology-led development. During the year the Foundation also organised a spiritual meet in the village on the occasion of birth day of the Chairman Foundation continue to support the B Tech, of Mr Vikash Singh by paying his university Fee in DIT, University, Dehradun.

All the preparation, inviting lead papers, abstracts, identifying speaker, selection of candidature for awards, publication of Sodh Chintan, - Book of Abstract and Award and Awardee-2020 & 2021 have been done. With all the efforts, conference is expected to be a great success.

INTRODUCTION, MANDATE AND INFRASTRUCTURE

Gallantry Lt. Amit Singh was born at village Mahamada, District Samastipur, Bihar on May 28, 1979. Since his childhood, he displayed a unique nationalistic fervour and invariably talked of serving the Nation. As time went by, he grew up and joined the National Defence Academy (NDA) in the year 1996. After being Commissioned as Lieutenant Indian Military Academy (IMA), Dehradun, he joined 1/9 Gorkha Rifles on 3rd June 2000. Lt Amit Singh, loved by one and all, sacrificed his life for the motherland on 3rd September 2000 in Kupwara district of Jammu & Kashmir fighting against hard core terrorists. His fight was so vehement that he continued his resistance against the anti-nationals even after being shot several bullets in his body. Lt. Amit Singh, who always valued his commitment to the nation and the society, could be inspirational for umpteen numbers of people and is the inspiration for the Foundation. His sacrifice reminds us - “when you go home, tell them of us and say for your tomorrow, we gave our today”. Recognising the supreme sacrifice of the Lt. Amit Singh, a Foundation, in his name, was set up in 2001 as Lt. Amit Singh Memorial Foundation (ASM Foundation), which is headed by Mrs. Bimala Singh, the mother of the Martyr. The Foundation is not only devoted to the nation but is also committed to inculcate patriotism through education, economic upliftment, health and social values amongst the youth in particular, and masses, in general.

The four pronged objectives of the ASM Foundation are education, economic upliftment of the people, securing the health and inculcating the social values among the people. The ASM Foundation made concerted efforts in fulfilling the objectives of the foundation and made remarkable achievement in the past years. Activities of ASM Foundation towards the mandated objectives were successfully carried out.

Mandate

- Orienting the youth to the developmental process and enable them to participate in the process of nation building.
- Fostering the initiatives for unfolding the potential of youth through a constant process of self-evaluation and self- exploration.
- Enabling youth to acquire such knowledge, skills and techniques, which will help them in their personal and social growth as well as sensitizing them towards problems in the community.
- Promoting national integration and international understanding by developing youth leadership and providing a forum for youth from diverse background.
- Promoting regional cooperation and cultural exchange between people of various states.

Infrastructure

The Foundation has its Head Office at Kargil Colony, Dwarka, New Delhi. Its one branch office is at Mahamada, Pusa, Samastipur (Bihar) The existing facilities of internet and e-mail connectivity have been strengthened. The library of the Foundation has more than 750 books including international books and other relevant facilities. Recently, a ASM Office fun Training Centre has been constructed

which has facilities for workshop and training of 80 delegates beside staying accommodation for more than 30 people.

CONTENTS

Sl. No	Particulars	Page No.
I	About the Lt Amit Singh Memorial Foundation	
II	From The Desk of Managing Trustee	
III	Executive summary	
IV	Introduction, Mandate and Infrastructure	
	ACTIVITIES OF ASM FOUNDATION: 2020-2021	
1	13th Swadesh Prem Jagriti Sangosthi-2021	
	1.1 Tribute to Lt Amit Singh and Inauguration of 13 th SPJS 1.2 Inaugural Function of 13 th Swadesh Prem Jagriti Sangosthi-2021 and the Global Conference 1.3 blessing of dignitaries 1.4 Technical Deliberation and the recommendations of the conference 1.5 Farmers Quiz 1.6 Valedictory and award Function 1.7 Appreciation meeting	
2	Support in Organisation of Conferences, Workshop and Webinar	
	2.1 National Conference on Integrated Plant Health Management in Fruit Crops, 3 rd -4 th September, 2021, Mahmada, Pusa	
3	Kisan Sangosthi, 2022, Mahamda, Pusa, Samastipur, 21st April, 2022	
4	Conferment of Award and Certificate	
5	National Festival Celebration	
6	Publication of ASM Foundation	
7	Talent Search through Essay Competition and Elocution	
8	Support to the farmers by ASM Foundation	
9	Support for Higher Education	
10	Cultural Evening	
11	Participation in Conference and Workshops	
12	Financial Statement of Three Years (Balance Sheets)	
13	About the Foundation	
14	Guidelines for Award	

ACTIVITIES OF ASM FOUNDATION, 2020-2021

1. 13th Swadesh Prem Jagriti Sangosthi-2021

1.1 Tribute to Lt Amit Singh and Inauguration of 13th SPJS

After welcome of the chief guest, guests and delegates, a floral tribute to Lt. Amit Singh was offered by Chief Guest Dr. S.K. Pattanayak, Former Secretary, Ministry of Agriculture & Farmers' Welfare and all the dignitaries on the dais, who spoke about the supreme sacrifice of Lt Amit Singh and appreciated the



the contributions of his parents in taking the message of patriotism among the masses through the activities of the conference, education and health care. Lt Amit Singh has become an inspiration to many in taking up activities of the Foundation.



He welcomed Dr. H.P. Singh, the man behind the organisation of the even and is providing a leadership in agriculture, horticulture and its business. He also extended a warm welcome to Dr. V.K. Singh, Director, CRIDA, Dr. Janakiram, Vice Chancellor, Dr.YSRHU, Dr. Indermani, Head Division of Engineering, IARI, and other dignitaries including Shri Jaipal Reddy a progressive farmer. He briefly stated that after formation of Telangana State

Agriculture University, area growth increased to 42 per cent and production growth to 20 per cent and had record production. He highlighted that Telangana is one of the states which had an annual growth of 9 per cent. He also spoke about Mission Bhagirathi and mission Kakatiya and fertilizer subsidy which created enabling environment. While speaking on water productivity, he said that production per unit of water, in general is referred as water productivity, which is affected by both, plant and soil factors. All the activities which can increase the yield, affects the water productivity. Availability of

quality seeds and planting material, production system management, protection against pest and diseases, post-harvest management, are the factors which affect the water productivity besides irrigation system. He emphasized on the use of micro irrigation and fertigation to enhance productivity of water. Once again he welcomed the chief guest, guests and delegates and said that conference will be successful in providing a direction for enhancing water productivity.

Dr. H.P.Singh gave brief remarks appreciating efforts of the Dr. V. Praveen Rao, Vice Chancellor, PJTSAU and Dr. R. Jagadeeshwar, Director of Research, PJTSAU, for hosting the Global conference with genuine and challenging stewardship. He also said that Dr. V. Praveen Rao in his entire career has worked on water management, irrigation efficiency and all the programmes related to water management in Andhra Pradesh. Under his dynamic leadership, the University has achieved excellence. He also expressed his gratitude to Dr.S.K.Pattanaik, former Secretary, Agriculture, Govt. of India for agreeing to be the chief guest and gracing the conference and highlighted his contribution for the development of agriculture in the country. He paid a tribute to Lt. Amit Singh, who sacrificed fighting for the nation in 2000 and is the inspiration to all of us.



Lt. Amit Singh Memorial Foundation is an organization committed to the economic development and knowledge empowerment of people through various activities. The ASM Foundation has successfully organized various Global and National Conferences in the country and conducted farmer-friendly activities, mainly dedicated to education, health care and economic development. The Foundation also confers awards in various categories to recognize the contribution of

individuals/organizations.

1.2 Inaugural Function of 13th Swadesh Prem Jagrithi Sangosthi-2021 and the Global Conference

Lt. Amit Singh Memorial Foundation, New Delhi and Professor Jayashankar Telangana State Agricultural University (PJTSAU), Telangana, jointly organised 13th Swadesh Prem Jagrithi Sangosthi-2019 and an **Global Conference on Innovative Approaches for Enhancing Water Productivity in Agriculture including Horticulture** at Telangana, from 16th September to 19th September, 2021, in collaboration with the JISL, Jalgaon, the TAAS, New Delhi and the CHAI, New Delhi. The purpose of the conference was to have international dialogue, for analysing past trend in innovative horticulture and value chain management, identify innovations for envisioning the task for ensuring food and nutritional security and enhancing farmers income.

The conference was attended by over 350 delegates from across the country and abroad, including farmers, students and representatives from industries. This conference provided opportunity to all the stakeholders to share the knowledge and disseminate for formulation of strategic recommendations. The conference had 15 technical sessions to deliberate in thematic areas. The first technical sessions was devoted for the plenary lectures directed toward Paradigms in Improving Water Productivity in Agriculture including Horticulture - Challenges and Options. Discussion on topical issues, included Technological advancements in improving water productivity and value chain management, Innovations in Production System of Perennial Horticulture for Effective Value Chain, Innovations in Production System for Vegetables, Tubers and Spices for Effective Value Chain, Innovations for Climate Smart Production Systems in Horticulture, Varietal improvement for enhancing water productivity, Water Management for enhancing water productivity, Nutrient management for enhancing water productivity, Pest and disease management for enhancing water productivity, Field approaches for enhancing water productivity, Farmers' Participatory Discussion on Enhancing Productivity in Agriculture and. Besides the conference, farmer quiz and various competitions were also organised.



The inauguration of the conference started with university song followed by floral welcome of Chief Guest and dignitaries by Dr H P Singh, Chairman, CHAI. On the occasion school students group presented University Song. Dr. Praveen Rao, Vice Chancellor, PJTSAU, welcomed the Chief Guest and delegates and spoke about the achievements of the University directed toward enhancing water productivity. He said that this University is first university under the land grant patterns dedicated to nation and has contributed significantly in providing human resources for agriculture development in the country. Besides, the University has played a key role in green revolution through development of new cultivars and technologies. He also spoke about a role played by this university in diffusions of technologies, which has made difference in livelihood of the farmers.

1.3 Blessings of Dignitaries



Dr. Praveen Rao, expressed his gratitude to Ms Bimala Singh, Managing Trustee, Lt. Amit Singh Memorial Foundation for choosing this university to organise this important global conference on water, which is highly topical, considering that water is the most critical for agriculture. He welcomed Dr. S.K. Pattanayak, Chief Guest of the function and said that

Dr. Pattanayak has been on the forefront in the development of agriculture and has provided leadership of par excellence. He welcomed Dr. H.P. Singh, the man behind the organisation of the event and is providing a leadership in agriculture, horticulture and its business. He also extended a warm welcome to Dr. V.K. Singh, Director, CRIDA, Dr. Janakiram, Vice Chancellor, Dr.YSRHU, Dr. Indermani, Head Division of Engineering, IARI, and other dignitaries including Shri Jaipal Reddy a progressive farmer. He briefly stated that after formation of Telangana State Agriculture University, area growth increased to 42 per cent and production growth to 20 per cent and had record production. He highlighted that Telangana is one of the states which had an annual growth of 9 per cent. He also spoke about Mission Bhagirathi and mission Kakatiya and fertilizer subsidy which created enabling environment. While speaking on water productivity, he said that production per unit of water, in general is referred as water productivity, which is affected by both, plant and soil factors. All the activities which can increase the yield, affects the water productivity. Availability of quality seeds and planting material, production system management, protection against pest and diseases, post-harvest management, are the factors which affect the water productivity besides irrigation system. He emphasized on the use of micro irrigation and fertigation to enhance productivity of water. Once again he welcomed the chief guest, guests and delegates and said that conference will be successful in providing a direction for enhancing water productivity.

Dr. H.P.Singh gave brief remarks appreciating efforts of the Dr. V. Praveen Rao, Vice Chancellor, PJTSAU and Dr. R. Jagadeeshwar, Director of Research, PJTSAU, for hosting the Global conference with genuine and challenging stewardship. He also said that Dr. V. Praveen Rao in his entire career has worked on water management, irrigation efficiency and all the programmes related to water management in Andhra Pradesh. Under his dynamic leadership, the University has achieved excellence. He also expressed his gratitude to Dr.S.K.Pattanaik, former Secretary, Agriculture, Govt. of India for agreeing to be the chief guest and gracing the conference and highlighted his contribution for the development of agriculture in the country. He paid a tribute to Lt. Amit Singh, who sacrificed fighting for the nation in 2000 and is the inspiration to all of us.



Lt. Amit Singh Memorial Foundation is an organization committed to the economic development and knowledge empowerment of people through various activities. The ASM Foundation has successfully organized various Global and National Conferences in the country and conducted farmer-friendly activities, mainly dedicated to education, health care and economic development. The Foundation also confers awards in various categories to recognize the contribution of

individuals/organizations.

Dr. Singh also briefed about the role of CHAI and gave background information regarding the conference. He stated that the water is most critical for the agriculture and horticulture for food and nutritional security and is declining. Thus, the challenge is to produce more with less. Increasing production per unit of water is referred as a water productivity which can be in physical terms or economic terms. The water productivity is a holistic approach, and the maximization is to be achieved by plant factor and land factor. Plant factors are varieties, seeds and planting material, production system management, pest, and disease control and

also management of produce or a value of chain management, while field factors are soil health and water management in field. In water productivity enhancement micro-irrigation is the key and has been proved. It maximizes the synergistic effect to improve cultivars and fertilizer and could be seen as congruence of sustainability productivity, profitability, and equity.



Mr. Haokholet Kipgen, Former Minister, Govt. of Manipur, while addressing he participants, thanked the organizers for giving him an opportunity to be in the conference and for conferring Honorary Fellow of CHAI. He shared his experience in conservation of water, which is very critical in Northeastern Region. Although the region gets high rain fall, water is not available for irrigation during dry period. A lifesaving irrigation during the period of dry spell enhances the production and productivity of the

crop. He reiterated for large adoption of micro-irrigation considering that most parts of the region are hilly. He suggested for conservation of water and its effective use through micro-irrigation for enhancing the water productivity in agriculture and horticulture. He also appreciated the organisers for the conference being organized and to be deliberates and discussed in 14 technical sessions and suggested to come out with recommendation for achieving the goal to enhance productivity of water.



Dr. S.K. Pattanayak, the chief guest of the function expressed his gratitude to Dr H.P. Singh for inviting him in the conference which is highly topical and timely. He also spoke about the contribution of Dr Singh in the horticulture revolution and timely organisation of conference on the topical issues. Dr. Pattanayak briefed account of the programmes on water management in the ministry of agriculture and said that current focus

is to achieve more crops per drop, he further explained about initiatives taken for doubling the farmers income and stated that horticulture is a high value crop and it has a significance role for doubling the income of the farmers.



He also shared his experiences working on improved agriculture through micro-irrigation. He opined that with increasing production, rising income, changing dietary habits, rapid urbanization, scientific agriculture will be needed, as scenario is putting the pressure to produce more with less water. There is a need for

technological changes to maximize outcome per unit of water through development of cultivar, agronomic practices and change in irrigation format, i.e, from water the land to water the plants. The task is to understand, how to increase water productivity, which requires stakeholders to work in harmony. The potential of drip irrigation in enhancing yield and quality of produce and reducing energy needs, water loss and soluble nutrient losses, use of margin quality, water adoption of margin soils land, and in protected crops is well identified. Therefore, adoption of micro-irrigation should become mandatory. He also shared his experiences on water management.

The vote of thanks was extended by Dr. R Ramulla, Director Research, to the chief guest, dignitaries, delegates, farmers and press and media. He shared with the dignitaries that the university has done its best in hosting this valuable conference, and expressed his sincere thanks to each and every participant, for the successful organisation of the conference.



1.4 Technical Deliberation and the recommendations of the conference

The technical session included the following: Paradigms in Improving Water Productivity in Agriculture including Horticulture-Challenges and Options; Technological advancements in improving water productivity; Approaches for enhancing water productivity in crops; Approaches for enhancing water productivity in perennial horticulture; Approaches for enhancing water productivity in annual horticulture; Varietal improvement for enhancing water productivity; Water Management for enhancing water productivity; Nutrient management for enhancing water productivity; Pest and disease management for enhancing water productivity; Field approaches for enhancing water productivity; Farmers' Participatory Discussion on Enhancing Productivity in Agriculture and horticulture; Farmers' Quiz for Knowledge Empowerment of the farmers through participation and Student's Participatory Presentation and Discussion on Water Productivity besides a **National Workshop on Enhancing Water Productivity and Resilience to Climate Change in Rainfed Region**. A panel discussion for enhancing water productivity was also organized.

After deliberation and discussion in 14 technical sessions with the presentation of 9 plenary lectures, 31 keynote presentations, 65 oral presentations, recommendations were developed and were presented in valedictory session for adoption. The recommendations which emanated are:

2.1 Recommendations

1. Water productivity is a holistic approach and the maximization in productivity must be achieved by plant and land factors. Plant factors are crop varieties, seeds and planting material, management of production, pest management and disease control and management of produce - a value chain management. Land factors are soil health and water management. In field, water productivity can be enhanced using micro irrigation, which has proven its efficiency.
2. Water is a critical resource for sustainable development, which is getting scarcer and meeting multifaceted uses is a great challenge of the future. The long-lasting solution to water problems could be addressed through water governance and management. A new paradigm is encapsulated in integrated water resource management, which promotes land development and management of water and related resources, for maximizing the related economic and social welfare without compromising the sustainability of vital systems. Therefore, an integrated system of water management requires to be promoted for improved water productivity.
3. Micro-irrigation maintains the soil moisture to the level, which reduces the effects of wet and dry periods. During the drying cycle, available moisture declines while it is maximum in surface irrigation. Recognizing the likely needs for micro-irrigation, the Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, launched a national mission on micro-irrigation in 2010, which aimed at increasing water use efficiency, crop productivity, and farmer's income and now is operated under PMKSY.
4. Water and nutrients are the most critical inputs and account for a major share in the cost of production. With protective irrigation and balanced use of nutrients, production costs get reduced. The Government of India is operating the Prime Minister Krishi Sinchai Yojna (PMKSY), to achieve the convergence of investment at field level, as to enhance the productivity of water through water-saving technologies, **more crop per drop**. Therefore, there is a need for covering more areas under micro-irrigation and fertigation systems in a mission mode approach to enhance the income of the farmers and the productivity of water.
5. Water deficits are threatening the sustainability of agriculture in many parts of the world which demands efficient use of the limited water resources to avoid further expansion in water deficit areas. Increased water demand for agriculture will further stress the

terrestrial and aquatic ecosystems and intensify competition for water resources. Improving the “Water Productivity (WP)” of agriculture can reduce the need for additional water and land in irrigated and rain-fed ecosystem systems. Water saving achieved from improved water productivity in agriculture will serve the need to sustain ecosystems. Therefore, enabling policy and enhanced investment should be given priority for improved water productivity.

6. Policies in the past have invariably been for the creation of water potential, whereas utilization of created potential and enhancement of irrigation efficiency have received little attention. With current level of irrigation efficiency, even after exploitation of all the available resources, more than 50 per cent area may remain rainfed. This scenario demands for increasing water productivity in agriculture, both under irrigated and rain-fed systems, through technologies and priority investment.
7. Climate change, a cause of concern globally, will have impact on agricultural crops due to erratic rainfall, and will lead to more demand for water, and enhanced biotic and abiotic stresses. However, the changes will not only be harmful, as enhanced CO₂ concentration may enhance photosynthesis, and increased temperature may hasten the process of maturity. Innovations and concerted efforts may convert weakness into the opportunities. Thus, addressing the issue of water productivity need attention.
8. Micro-irrigation system is an irrigation system with high frequency application of water in and around the root zone of plant system, which consists of a network of pipes along with a suitable emitting device. A typical micro-irrigation system has dripper/micro sprinkler/sprayer, distribution lines and fittings, control head system, fertiliser tank and fittings. Emitters are to dissipate pressure and discharge water in micro-irrigation system. Ideally, it permits a small, uniform flow of water at a constant discharge, which does not change significantly throughout the field. Many designs have been devised which are manufactured in the country. Thus, this system adoption must be enhanced for improved water productivity.
9. Since, micro-irrigation greatly enhances water, fertilizer and energy use efficiency and promotes precision horticulture/agriculture, and the sustainability could be achieved without the burden of environment degradation. Agriculture and horticulture have to gain much for meeting the challenges of more production with declining land and water by adoption of efficient techniques like micro irrigation towards high water productivity.

10. Impact of the micro irrigation on enhancing water productivity and income of the farmers is high, especially when nutrients are applied through the system referred as a fertigation. Appreciable technological changes are taking place. Farmers are shifting to automated irrigation system for enhance precision and higher profit. This has led to improved productivity. Thus, to sustain these, many policy changes and higher investment would be needed to promote micro-irrigation and achieve enhance water productivity.
11. Research activities in the field of micro-irrigation system were conducted in ICAR institutes and State Agricultural Universities, AICRP on application of plastics in Agriculture, AICRP on water management, DRIPNET project and AP ccess adhoc schemes. The research activities are mainly confined towards crop-water requirements, crop geometry, design and layout of the system, cost-benefit analysis and evaluation studies. Results have categorically exhibited that micro-irrigation can save up to 50 to 84% water with enhancement of yield up to 60 - 100% under varied agro-climatic and crop conditions. The higher yield, under micro-irrigation system is attributed to favourable crop growth due to available soil moisture and required volume of watered soil mass, which provides optimum environment for root growth of the plant. The micro-irrigation systems could also be used with adverse soil or water conditions. Thus, this technique has to be promoted to achieve higher water productivity.
12. Impact analysis of micro irrigation revealed that farmers invariably introduced high value horticultural crops like grapes, banana, mango, cashew nut and coconut after installing the drip system, and achieved yield increment ranging between 41% (grapes) to 141% (Pomegranate) over the state average yield. Economic analysis of 695 beneficiary farmers and 76 non-beneficiary (who installed drip system without any Govt. subsidy) farmers indicated that the cost was recovered in a period of less than three seasons in majority of the cases. Therefore, this system must be promoted.
13. Micro-irrigation which includes sprinkler and drip systems has the synergistic interaction with improved cultivar, water and fertilizer and could be seen as the congruence of sustainability, productivity of water and equity. Thus, use of micro-irrigation hold key for improved water productivity.
14. The Task Force appointed by GoI, 2003 recognized that agriculture and allied sectors including horticulture will continue to be a prime mover for the growth and prosperity of the nation, which has several challenges. In the quest for improving productivity, water

would be the most critical input. Micro-irrigation has become a pivotal element of integrated water use system with many agro-ecological, socio-economic and environmental advantages. Thus, micro-irrigation could be a tool for effective management of resources, which saves water, fertilizers and electricity.

15. Technological advancement is also noted for sensor-based pulse irrigation which further saves water but needs higher investment. We have also seen successful application of integrated system of irrigation having approach of Source to Roots, and it has been demonstrated that farmers' income can be enhanced even in dry area by micro-irrigation with efficient crop management. Technological evidences are suggesting that micro-irrigation is highly beneficial for increasing yield and saving water, not only in horticultural crops but in sugarcane, cotton, pulses and cereals including paddy and wheat. Recognizing the importance of micro-irrigation in agriculture, for enhanced income and saving of water, Honourable Prime Minister of India, has emphasized, time and again for adoption of micro-irrigation not only in row crops but also in field crops.
16. Development of short duration cultivars, management practices have enhanced the yield manifold in potato, tomato, capsicum, watermelon, and banana. Therefore, a cultivar and management practice which enhances the yield per unit time has the potential to enhance water productivity. Therefore, less water requiring variety, quality seed and good agricultural practices should be adopted for improved water productivity.
17. Reducing evaporation from the soil and transpiration from weeds is an obvious way in which non-beneficial depletion can be reduced at the top boundary of the domain of interest without affecting crop yield. This could be achieved by mulching and effective weed control and thus, achieving enhanced water productivity.
18. Partial Root Drying (PRD) is an important irrigation technique that tends to decrease water use in crops. In this PRD technique, one-half of the root zone is irrigated while the other half is allowed to dry out. This treatment is then reversed allowing the previously well-watered side of the root to dry up while fully irrigating the previously dried side. This PRD technique is based on the knowledge of root-to-shoot chemical signaling in drying soil. This practice is aimed at increasing the Water Use Efficiency (WUE) and reducing the water requirement of crops, resulting in enhanced water productivity. Alternate irrigation in furrow irrigation and alternate drip in new crop are recommended to improve water productivity.

19. Crop water productivity can be increased either by increasing crop yield, or by reducing WC and maintaining the yield level, or by using both methods. Many pathways for WP improvement are directly related to improving overall farm management (irrigation, fertilisation, plant density, crop protection, etc.). Sometimes, to be more specific, Crop Water Productivity (CWP) is considered, which refers to crop yield over applied water also contribute to land productivity, thereby increasing farming revenues through its effect on input management.
20. At present, the country has coverage of about 12.5 million hectares in micro-irrigation with a plan to cover about 69 million hectares by 2030. Institutional support system linked with public and private enterprise coupled with concerted efforts with identified destination involving all the stakeholders keeping the technology at driving seat and farmers as center of attention is bound to have faster and inclusive growth with the policy of **per drop more crop** to achieve the highest productivity of water.
21. To have the optimum utilization of micro-irrigation the integrated measures such as suitable cropping pattern, use of water, seeds, fertilizer for institutional mechanism for after sales service and maintenance of the system in the field integration with solar pump requires to be adopted.
22. Artificial intelligence can play a major role for smart agriculture in decision making, yield prediction and crops surveillance. A modern artificial intelligence and cloud computing techniques can create technologies related to digital agriculture to improve the overall farm management operations of the fields, which would ultimately improve the crop water productivity; therefore, artificial intelligence technologies may be utilized.
23. Crop diversification with low water requiring crops like pulses, oil seeds, alongwith conservation on-farm field for the renovation of old and new community ponds, water conservation as well as ground water recharge is essential to improve water productivity in rain-fed area.
24. There are many agronomic practices like crop geometric, canopy management, crop sequencing and mulching, use of high yielding and much less water requiring varieties, which can improve water productivity. To achieve a rapid stride in agriculture and horticulture through technological changes, policy initiatives and investments have to be prioritized for food and nutritional security.

25. There is need for mandating micro-irrigation for high water intensive crop like oil palm, sugarcane, banana etc., to improve the water productivity. Precision leveling, alternative wetting, conservation of water, and direct seed rice are some of the practices which can enhance the water productivity and are to be promoted.
26. Although, horticulture has achieved appreciable growth (5.8%) to address the challenges, it needs innovations in technologies through institutional support, as well as import of knowledge and technological backing for the development, through skills. Development strategies should be for cluster approach, linked with post-harvest management and marketing, quality seeds and planting material, precision farming and smart horticulture, environmentally controlled horticulture, and enhanced ICT use to add efficiency for input management, knowledge transfer etc. This would help in improving water productivity.
27. Smart Horticulture is an integration of science and technology, complimented with information technology in consonance with socio-economics, can be adapted to maximize the output. These integrated approaches, with philosophy of observe, measure and respond, is a smart system of management. The dynamics of smart horticulture is a measure of changes in technologies, needed to address the challenges. There is a need for adoption of smart system of management in horticulture for enhancing farmers' income. Adoption of smart horticulture will improve water productivity.
28. There is a need to build a society of innovators, manufacturers, and technology providers, as the development demands innovation to be at the driving seat for expected output. Therefore, it would be imperative to build an atmosphere of policy framework where innovators and innovative companies make their investments in future technologies.
29. To achieve targeted growth there is a need for effective value chain, the activities starting from conceptualization till it reaches to the consumers, involving all the stakeholders in the chain of production to consumption. With enhanced efficiency of links in the chain, there is enhanced output which improves profitability. Since water is one of the link in value chain it has to be addressed appropriately. In this context utilization of Block Chain Technology holds a key, which needs to be promoted. This will ultimately result in improved water productivity.

30. Improved planting stock through high-tech nurseries and use of hybrids in vegetable must be emphasized to boost the production in horticultural crops. Tissue culture in banana and pomegranate has not only improved the production and productivity, but has multiplier effect on employment and assuring the best of quality plants. Therefore, this technology must be promoted for other horticultural crops assuring effective quality control mechanism. This efficient system will help in improving water productivity.
31. Integrated approach towards the management of pathogens is needed. Practices such as crop rotation, application of micro-nutrients, soil pH management, exploitation of bio-agents, weather-based monitoring of plant diseases and rapid diagnostics are some of the important and emerging components of this holistic approach. Therefore, strategies must be developed for smart management of biotic stress, on the principle of observe, measure and respond to achieve maximum output and results. Improved plant health will improve water productivity.
32. Modified Integrated Pest Management (IPM) technology, incorporating all possible and available pest control techniques to keep pests below Economic Injury Level (EIL) is strongly needed in climate smart horticulture, having greater emphasis on weather data, crop phenology, physical and mechanical methods, agronomic techniques, use of trap and border crops, non-pesticides management, need based chemical management and economics. Intelligent Pest Management should, therefore, be incorporated in climate smart horticulture and agriculture for improving water productivity.
33. Nanotechnology provides opportunities for the development of processes and product, which are impossible to achieve through conventional system. Therefore, use of nanotechnologies in agriculture has to be given emphasis through the appropriate investment on research and development. Diagnostic based on nanotechnology, nano-pheromone for insect, pests and nano-sheets for packing needs must be encouraged through appropriate investment.
34. Linking the farmer with markets is essential for better realization of returns from farm produce, and various models have been practiced. However, understanding the value chain and its dynamics from a small producer perspective is limited. Having the integration with farmers' producer organization is lacking. Therefore, there is a need for strengthening farmer producer organization in terms of skills and investment.

35. A concerted effort with identified goal involving all the stakeholders, keeping the technology at driving seat and farmers as centre of attention, would help in achieving faster and inclusive growth. The extension must, focus on producer aggregation at various levels and provide forward linkages. The existing system must be empowered with knowledge to serve the farmers better with not only technological changes but with new model in marketing. Therefore, there is a need for reorienting extension system.
36. Market reforms and value chain management system should be such to provide easy access to market and better realization of price for the produce. Developing markets and access to credit will be a key to ensure that India's farmers have access to affordable institutional credit for quality agricultural inputs, as well as access to adequate remuneration for the produce. This is essential to enhance farmers' income.
37. There is a need for change in land aggregation policies. The Government of India has already prepared a model act for aggregation of land, which provides opportunity for investment even on leased land. This would also help in adopting technologies and investment on infrastructure. However, it has to be implemented by the states to legalize the land leasing for promoting agriculture efficiency and for achieving needed productivity improvement in agriculture. This would enable the use of technologies which may lead to improved water productivity.
38. As horticulture provides ample opportunity for skilled employment through multiplier effect at various activities from production to consumption having the links in planting material production, input production and supply, packaging, storage, branding and its promotion. There is a strong need to address the horticulture as priority sector having the mission mode approach for value chain management to make horticultural produce more competitive and responsive enterprise.
39. Various schemes for the promotion of horticulture have provided different kind of assistance, namely micro-irrigation, planting material, nursery production, protected cultivation, mechanization, cool chain management, branding etc. However, there is a gap in needed skills and mentoring the farmers for adoptions and management of technologies. Therefore, skill development and mentoring should be a focused part of any schemes to support horticulture. This will help in improving water productivity.

1.5 Farmers Quiz

A Farmer's quiz was organised for empowering the agricultural knowledge to the farmers and updating them with the current developments in the field of agriculture. The farmer's quiz was



coordinated by Dr. Babita Singh.. Around 125 farmers from different states like Maharashtra, Gujarat, Bihar,



Uttar Pradesh and Uttarakhand actively participated in the quiz.

Questions based on various aspects of agriculture were asked and on the basis of answers given by the farmers,

points were earned by them. At the end of qualifying round, 5 farmers were selected for the next round of the quiz. Finally, 3 farmers qualified for the final



round and on the basis of marks obtained by them the first, second and third ranking of farmers was done. The winners were awarded with cash prize of Rs 5000=00, Rs 3000=00 and Rs 2000=00, respectively along with certificates in the valedictory function of the conference.



To encourage the farmers' participation and inculcate competition to acquire knowledge on technology-led development, the foundation has conducted a quiz programme under the chairmanship of Dr.Sudharani, Director of Extension, PJTSAU and Dr.Babita Singh, Senior Technical Consultant, National Rainfed Area Authority (NRAA), Ministry of Agriculture &Farmers Welfare. This programme was organized on 18.09.2021 at 12.00-13.00 A.N and presented cash or kind

with Plaque of Honour and certificate to the winners

1. Sri.K.Ramesh, Vattru, Siddipet, Bejjanki- First prize winner
2. Sri. V.Ravi Chandran, T.N- Second prize winner
3. Sri.T.RanaPratap, Vallapura,Wyra, Khammam -Third prize winner



1.6 Valedictory and Award Function



Valedictory and Award Function was organized on 18th September, 2021 wherein Mr. G. V. L. Narasimha Rao, Hon'ble M.P.Rajyasabha was the Guest of honour and Dr.V.Praveen Rao, Hon'ble Vice-Chancellor, PJTSAU presided over the function.

The Award function started with floral welcome of Guests and dignitaries on the dias. After



floral welcome, Dr.R.Jagadeeshwar, Director of Research, PJTSAU, extended a warm welcome to all the guests and participants. He briefly explained about the activities of three days conference and said that discussion in all the technical session was lively, which helped in developing recommendations.



The recommendations, which emanated from the three-days deliberations were presented by Dr.H.P.Singh, Chairman, CHAI. He briefly explained the discussion held in 14 technical sessions and in national workshop. He said in all 7 plenary lectures, 31 keynote lectures, 65 oral papers were presented and discussed.

Water is critical in agriculture for sustainability received major alteration. He explained in detail the recommendations, which revolve around enhancing irrigation efficiency,

effective fertilizer use through drip irrigation, development of less water requiring cultivars, production system management, protection against stresses and value chain management for improving water productivity. After discussion all the recommendations were adopted.

Dr. Chiranjiv Chaudhary, while speaking on the occasions, said that the conference has been highly successful in terms of content, which has enhanced the knowledge. He also shared his experiences in precision irrigation, which helps the farmers to improve the profitability, and suggested for the adoption of the technologies. He further emphasized on precision horticulture having cluster approach integrated with value chain management for monitoring the value, leading to enhanced income to the farmers and all stakeholders.

Amit Udyan Ratna Award was conferred on farmers nominated from across the country based on the excellence in adoption of modern technology. In total of 25 farmers were conferred with ASM Foundation Award, Each awardee were facilitated with the shawl and plaque of honour, citation and certificates. Citation of the each awardee farmer was read by Dr. H.P. Singh and awards were presented by the Guest and dignitaries on the dias. The list of the farmers who received awards are annexed. Subsequently, recipient of best paper was announced and the selected candidature were awarded by conferring certificate of appreciation.

Dr.V.Praveen Rao spoke on the occasion and shared his experience of interaction with the farmers in the conference and said that the farmers are ready to adopt the technologies for improving their income and profitability, provided inputs like quality seeds, fertilizer, agro-chemical are available in time and logistic are provided for linking them with the better access to market. He also spoke about contributions, made for the Kisan Mela and Krishi Vigyan Kendra for improving income of the farmers. He thanked Managing Trustee, Bimala Singh for choosing this University for hosting of this Global Conference. He emphasized on policy environment and enabling investment for improving water productivity. He said that water is most critical for economic growth and require to be used judiciously. We have to use micro irrigation and fertigation to optimize on water use for enhancing area under irrigation. He congratulated the farmers who have been conferred with Amit Udyan Ratna Award for their innovation. He also congratulated the winner of farmers quiz and also the scientists who received best paper award.



In the address of guest of honour, Dr. G. V.L.NarasimhaRao, Hon'ble M.P.Rajyasabha, emphasized on need for quality water and gave a brief account of initiative taken by the union government to take drinking water to door steps of house hold. He also spoke about PMKSY and said that emphasis has been given to conserve and use water judiciously to

achieve more crops per drop. He appreciated the efforts of organizer in organizing this conference on topical issue and ensured that he will pursue for the implementation of the recommendation. He congratulated the farmers who received the Amit Udyan Ratna award and also the scientists who received best paper award.



The session concluded with vote of thanks by Mr S S Mehta, who also shared his experience and interaction with the farmers, looking into various quality presentation and said that this conference, definitely be a way forward for improving water productivity and enhancing farmers income.

1.7 Appreciation Meeting

Appreciation meeting was organized to share the experience of the conference and appreciate the work done by the volunteers in background, by conferring certificate of appreciation. Dr. K.K. Kumar spoke on the occasion and said that the conference has been highly successful and thanked all the volunteers, who worked day and night for the success. He invited all the delegates for the fourth coming National Conference - Climate Resilient and sustainable development of horticulture, is being organized at Kanpur from 28-31st May, 2022. Dr. S.S.



Mehta also shared his experience and appreciated works done by volunteers. Mrs. Bimala Singh thanked Vice Chancellors, Deans, all the volunteers, who have been always being

contributing for the success of the programme. She specially thanked Mr Mehta, Dr. Sadamate, Mr. Ajit Jain who have been constantly associated with the Foundation. Thereafter, the



certificates of appreciation were conferred to all the volunteers, who served for the success of this conference. Dr. H.P. Singh in his concluding remarks thanked Dr. V. Praveen Rao, VC, PJTSAU, Telangana and Dr. R. Jagadeeshwar, DR, PJTSAU, Telangana for their assistance in organization of this important conference. Dr. Singh said that Dr. Rao has been on the forefront for improving

the productivity of water through promotion of micro irrigation and has been work. He expressed his sincere thanks to Dr. R. Jagadeeshwar, Director Research, organizing secretary of the conference and his team for excellent work with commitment and dedication. Finally he thanked all the faculties and students who contributed to the success of the conference and said that the event will be remembered as multistone for water productivity. The meeting extended with vote of thanks to chair and all the participants.





2. Support in Organisation of Conferences, Workshop and Webinar

Lt Amit Singh Memorial Foundation, supported The conference and workshop and also webinars organised by the CHAI

2.1 National Conference on Integrated Plant Health Management in Fruit Crops, 3rd-4th September, 2021, Mahmada, Pusa



Lt Amit Singh Memorial Foundation, supported a **National Conference on Integrated Plant Health Management in Fruit Crops** organized by Confederation of Horticulture Associations of India in association with National Research Centre on Litchi, Muzaffarpur at Amit Memorial Institute for Rural Development, Mahamda, Pusa, Samastipur, Bihar, on 3-4 September, 2021. This

conference provided a platform to the researchers and concerned government authorities to deliberate on the issues related to biotic and abiotic stress affecting health of fruit crops. A total of 85 delegates participated in the seminar. 90 papers were presented, in five major themes during the Conference. Invited lectures and lead talks were delivered by eminent scientists and academicians.



The conference was inaugurated by Dr. Ajoy Kumar Singh, Vice Chancellor, BAU, Sabour, Bhagalpur in presence of Guest of Honours, Smt. Bimala Singh, Lt. Amit Singh Foundation, New Delhi, Dr. K K Kumar, Ex Director, ICAR-NRC on Litchi, Muzaffarpur, Dr. G B Raturi, Ex Director, ICAR-CIAH, Bikaner, Rajasthan, Dr. A K Mishra, Former PC, AICRP on Fruits, ICAR-CISH,

Lucknow. Dr. Gopaljee Trivedi, Ex. VC, RAU, Pusa. Dr H P Singh, Chairman, the CHAI, presided over the function. The meeting started with welcome of chief Guest and Guests by Dr. Vishal Nath, Director, ICAR-NRCL, Muzaffarpur, who also gave a brief outline of work done at NRCL, and also spoke about aims and objectives of the conference. After a floral tribute to Lt Amit Singh by chief guest and dignitaries, Smt. Bimala Singh addressed the gathering saying that Amit Singh, her son, sacrificed his life for nation, and working for the development of the country would be a tribute to Martyr. She called on farmers to become a scientist by becoming observant and learning through experiences of others.. Mr. Surendra Prasad Singh, IAS, Director, operation, Lt. Amit Singh Foundation, Pusa, Bihar emphasised on fruit and vegetables grown in Bihar, and said that there is need for improving health of crop to improve income of the farmers. The new techniques must be disseminated on priority among the ultimate beneficiaries. Dr. Gopaljee Trivedi, stressed upon effective diagnosis and management of factor affecting crop health. He said that intensive technical knowledge have to be transferred so that farmers income can be enhanced. Dr. A K Mishra, Former PC, AICRP sub-tropical Fruits, ICAR-CISH, Lucknow, expressed concern about TR4 in banana

and said that there is need for effective management. He stressed on use of safer pesticides and emphasised on the development of Bio-control agents for pests and pathogen. Dr. K. K. Kumar, Ex Director, ICAR-NRC on Litchi, Muzaffarpur, shared his experience and methods of IPM in various fruit crops. Dr. G B Raturi, Ex Director, ICAR-CIAH, Bikaner, Rajasthan said about his association with Dr H P Singh, and stressed on plant health management with emphasis on soil health and management of biotic stress. He appreciated efforts of Amit Memorial Institute for Rural Development, Mahamda, Pusa, Samastipur.

Dr. Ajoy Kumar Singh, Vice Chancellor, BAU, Sabour, Bhagalpur and Chief Guest of the programme, in his inaugural address, briefed about the *Jalshakti Pariyojna*, nutrient deficiency in soil and bio-fortification through agronomic interventions. He emphasises on effective agriculture extension, for dissemination of new knowledge and technology to farmers. He discussed in detail on TR4 of banana wilt. Dr Singh expressed his gratitude to Dr HP Singh for his commitment to welfare of farmers and shared his experience while working with him. He also gave a brief account of work being done at BAU, Sabour, and also emphasised that there must be ground truth verification of appropriate technology and there must be innovative farmers fund.

In concluding remarks, Dr. H P Singh, Chairman, CHAI, provided a brief of activities of CHAI and said that plant health is inevitable for productivity and enhanced profitability. Plant health depends upon soil health, nutrients and water management besides, insect pests and diseases and stressed upon holistic management addressing all the factors which affect plant health. Even inappropriate drainage can cause a serious health deterioration of plants. He emphasised on use of rootstock both in fruits and vegetables to ameliorate soil borne diseases and soil salinity. He stressed on effective water and nutrient management. Dr Singh further added that with climate change new pest and diseases are becoming cause of concern and has high health risk. He appreciated Dr. A K Singh, VC, BAU, Sabour for work undertaken by him in achieving excellence for the University. He opined that people should say about true science because many farmers exaggerate about some technology. He also discussed Race-IV of banana wilt, if manageable, it should be validated. He opined that if there is menace don't grow banana in the area for next two years. He apprised audience about objective of Krishi Gyan Sambardhan Kendra, Pusa, Samstipur. During the inaugural session, Souvenir cum Book of Abstracts of the Conference was released by the Chief Guest and other dignitaries. Dr. Sanjay Kumar Singh Convener, proposed the vote of thanks.

Deliberation and discussions were held in 7 technical sessions, namely *Plant Health Issues for overcoming Physiological Disorder, low Productivity* and Farmer's Perspective in fruit Orchard; Taxonomy and Biosystematics of Pests and Diseases of Fruit Crop; IPM/IDM Modules and its feasibility to Sustain Fruit Production; Recent Advances on Pest and Disease Management Using Ecological Engineering, Varieties, Newer Molecule, Semiochemicals, RNAi, Transgenics, Irradiation, SIT etc., Molecular Approaches for Pest/Disease Diagnosis, Virus Indexing, Pest-Vector-Virus Interaction and Plant Quarantine Issues; Bio-Control Approaches within Ecosystem Services (Pollinators, Scavengers, Predators, Parasitoids etc.;

Public Private Partnership in Plant Health Research, bio-safety, Skill Enhancement and Low Cost Plant Protection. From the deliberation and discussion it became clear that biotic and abiotic factors play a significant role in plant health. Therefore, plant health has to be holistic. approach of management.

Valedictory and Award Function was organised on 4th September. The Chairman, CHAI, Dr. H P Singh, in his plenary address, said that plant health risks, caused by biotic or abiotic stresses, is on rise, due to climate change, which limits the genetic potential of fruit crops. There is a total loss, in many cases, due to abiotic or biotic stress caused by low or high temperature, flood or drought, senility, fungal, bacterial or viral diseases, and insect pests and nematodes. Risk of diseases and pests are increasing with transport of planting material and trade and change in cropping pattern. To contain these abiotic and biotic stresses, there has been a concern and the research on root stock, surveillance, diagnostics, prevention and control strategies have succeeded in containing many of these risks? But the complexity of these stresses is complicated with emergence of newer biotypes, development of resistance in insects and pathogens against the pesticide, and risk of some of the pesticides residue. Therefore, integrated pests and disease management strategies have been worked out, which includes, crop rotation, diagnostics, forecasting, use of bio pesticides and also predators and parasites. PGPRs have also succeeded in containing some of the diseases. There is risk of transboundary introduction of the diseases. Recent outbreak of banana wilt TR4 and TSR 4 are few examples which has threatened growing of cavendish group of banana. Virus diseases in citrus, banana and papaya, blight in pomegranate, borers in fruit trees have been limiting the production. Therefore, risk of plant health appear to be very high in fruit crops, which are largely perennial and needs effective health management using various strategies. This calls for deliberation and discussion to bring out an action plan of health management in fruit crops to reduce the health risks. Therefore, organisation of this conference is timely and topical. I am sure recommendations of the conference will be a way forward in reducing health risk of fruit trees for nutritional security and improved income to the farmers. He also concluded by saying that for all the research conducted, the target beneficiary should always be farmers. He emphasised that several strategies could indirectly or directly contribute to creating different habitats to support complex mixes of organisms, for example: i) landscape diversity, over space and time, can be increased by using buffer strips, small fields, contour strip cropping, crop rotation, and by varying tillage practices; ii) a changing vegetation cover and sequence increases plant diversity and the types of insects, micro-organisms and wildlife that live on the farm; and iii) crop rotations encourage the presence of a wider variety of organisms, improves nutrient cycling and natural processes of pest and disease control. The national conference concluded with vote of thanks to chair extended by Dr. R K Patel, Principal Scientist, NRCL, Muzaffarpur

From the deliberation and discussion recommendations emanated are:

1. Plant health is inevitable for productivity and enhanced profitability. Plant health depends upon soil health, nutrients and water management besides, insect pests and diseases. Therefore, a holistic approach to plant health management is needed, which addresses all the factors affecting plant health. Even inappropriate drainage can cause a serious health deterioration of

plants. Thus, planting of all the fruit crops should be done on raise beds which provides better aeration and minimises the risk of diseases.

2. Imbalance use of nutrient causes poor health and attract many ceases. Heart rot of cabbage, and cauliflowers, cracking of fruits etc are due to imbalance of boron and calcium. There are many examples of disease caused due to nutrient imbalance. Therefore appropriate nutrition including micronutrient is essential for the good health.
3. Many of abiotic and biotic stresses could be mitigated through the use of appropriate root stock. Salinity resistant rootstock in grape, phytophthora and nematode resistant root stock in citrus, dwarfing and soil born diseases resistant rootstocks in apple and salinity and drought tolerant root stock in Chiku are some of the example of mitigating biotic and a biotic rootstocks in fruit crops. Therefore, root stock research including development of new rootstock for mitigating biotic and abiotic stress may be intensified.
4. Planting material is a source of many diseases in fruit crops. Past research and past experiment suggest that disease free planting material and seed can prevent the diseases. Therefore strict quarantine system is maintained especially for imported planting material and technologies are available for cleaning plating material to make it free from diseases. Tissue culture in banana and pomegranate after screening provide disease free planting material. Growing of clean mother plant of citrus in green house and raising plants in insect proof green house is adopted. Therefore system of raising disease free planting material may be developed for all the fruit crops.
5. Risk of diseases and pest are increasing with transport of planting material and trade and change in cropping pattern. To contain these abiotic and biotic stresses, there has been a concern and the research on root stock, surveillance, diagnostics, prevention and control strangles have succeeded in containing many of these risks? But the complexity of these stresses is complicated with emergence of newer biotypes, development of resistance in insects and pathogens against the pesticide, and risk of some of the pesticides residue. Therefore, integrated pests and disease management strategies have been worked out, which includes, crop rotation, diagnostics, forecasting, use of bio pesticides and also predators and parasites.
6. One of the strategies to manage plant health should be to create different habitat to support mixture of organism be promoted . This could be achieved by using buffer strips, small fields, contour strip cropping, crop rotation, and by varying tillage practices. Changing vegetation cover and sequence increases plant diversity and the types of insects, micro-organisms and wildlife that live on the farm; and the crop rotations encourage the presence of a wider variety of organisms, improves nutrient cycling and natural processes of pest and disease control.
7. Generate new age entrepreneurship in plant health management through convergence of all ICAR institutes in the Eastern region. Diversification in component of ecological engineering for doubling-the income of farmers.
8. Commercialisation of Trichoderma, organic control measure to be standardised for fruit and vegetables. Integrated farming system should be promoted in Eastern States as cultural control of pests/hosts.

9. More emphasis should be given on tree health management practices including quarantine measures, prevention of trans-boundary diseases, disease surveillance programme in open air. Prioritisation of ecosystem based management model for reducing risk of gene pool contamination be done.
 10. Considering the impact of pesticides on human health, animal health and environment in long run, it is essential that integrated management with minimum use of chemicals is promoted. Bio-intensive disease and pest management system should be worked out for all the fruit crops and be adopted
 11. The T4 strain of banana wilt is a major problem in banana production and therefore, a collaborative project need to be initiated between BAU, Sabour, Bihar and ICAR-NRC on Banana, Trichy to address the problem.
 12. The session was of the view that release and conservation of predators and parasitoids of pests such as *Trichogramma*, lady bird beetles, lace wings and predatory mites will help in reducing pesticide load.
 13. Understanding the relationship between flower and pollinators will certainly help both growers and beekeepers. For harvesting honey, beekeepers migrates their colonies from early flowering to mid flowering and finally in late flowering orchards. Indeed, beehives are being migrated from orchard to orchard to improve the pollination of fruit crops but also to increase honey production. Well managed beekeeping programme for fruit crops should be carried out to overcome the losses caused by lack of pollination or partial crop failure due to inadequate pollination.
3. **Kisan Sangosthi, 2021, Mahamda, Pusa, Samastipur, 21st April, 2021**

One day Kishan Sangosthi for the farmers was organised by ASM Foundation, to enrich the farmers with the new knowledge and technologies on 21st April 2019 to commemorate the opening of ASM Office cum Training Centre. The Sangosthi was attended by more than 100 farmers from different districts, namely Muzaffarpur, Samastipur, Darbhanga and Patna. The Sangosthi was participated by Dr. H. P. Singh, Former DDG (Hort.), ICAR, and Chairman, CHAI, New Delhi; Dr. Gopal Ji Trivedi, Chairman, ASM Foundation; Dr. Vishal Nath, Director, NRC- Litchi, Muzaffarpur; Dr. K.K. Kumar, Former Director NRC Litchi, Muzaffarpur, Dr G Raturi, Former Director, CIAH, Bikaner, B Sri Surendra Pd. Singh, IAS, Director, Operation, ASM Foundation;; Sri Sudhanshu Kumar, Farmer cum entrepreneur, Nayanagar and many other scientists. Farmers from different districts were beneficiary. The occasion was also graced by Mrs. Bimala Singh, Managing Trustee, ASM Foundation and Dr. Babita Singh, Trustee, ASM Foundation. Dr. Gopal Ji Trivedi, spoke about the role played by ASM Foundation for improving a quality of life in rural areas through the activities of organising the conferences, distribution of quality seeds and planting



materials, honouring the innovative farmers, adopting poor students for their education and mentoring. He further emphasised on technology led development of horticulture..Dr. Vishal Nath, Director, NRC Litchi, spoke on fruits production and utilisation, with a special reference to Litchi. He emphasized on nutrient, water and pest management and also explained about handling to get better price realisation. Mrs. Bimala Singh Spoke about the activities of ASM Foundation and blessed the all the students for their activities and wished them a great successesDr. H P Singhspoke on the current development of horticulture. which has changed the life of the farmers across the country. He also shared his experiences from India and abroad, and stressed upon adoption of technology for achieving better productivity. He also urged that farmers to come forward in

taking decision with planning and monitoring of his crop acquiring new knowledge. Thereafter, **question answer sessions** by the farmers and interactions were organized and various questions on Litchi, Mango Banana were addressed by the experts. Dr. H.P. Singh, Chief Advisor ASM Foundation and Former DDG (Hort.) addressed the questions of the farmers and replied to them with all their satisfactions. He also advised them to keep in touch with the foundation regarding any problems for the solutions. The participants to sangoshthi appreciated the establishment of ASM Office cum Training Centre.

4. Conferment of Awards and Certificates

4.1 Conferment of Awards

Lt. Amit Singh Foundation Award: Lt. Amit Singh Foundation recognises the exceptionally outstanding contribution in research, education, and development by conferring various awards for leadership. Dr. Babita Singh, ASM Foundation, announced the award, read the citation of selected nominations, and requested the Chief Guest for the conferment of the awards, which carries a plaque of honour, citation and certificates. The awards were conferred by the Chief Guest and dignitaries on the dais. Lt. Amit Krishi Rishi Award was conferred on Dr Sudhir Kumar Goel, Former Addl. Chief Secretary (Agriculture & Marketing), Mumbai for his exemplary contribution in the field of agriculture and horticulture and leadership. Amit



Padma Jagriti Award for innovations and commercialisation of technology was conferred on Shri G.V. Bhaskar Rao, Managing Director, Kaveri Seeds Co. Ltd., Telangana. Amit Prabudh Manishi Award, which recognises the leadership of par excellence in academics and agriculture development, was conferred on Dr. V. Praveen Rao, Vice-Chancellor, PJTSAU, Telangana.

4.2 Award to students for elocution



To enhance competitiveness and oratory



skills in student, essay competition and elocution were organized during the conference. The students deliberated on the topic “Innovative Approaches for Enhancing Water Productivity in Agriculture including Horticulture”. **Kum. Bhavana**, College of Agriculture, Rajendranagar, Hyderabad secured first prize of Rs.15000/-. Second prize was won by **Kum. Bandari Sweta**, College of Agriculture, Warangal, Rs.10000/- and the Third was awarded to **Kum. Bindu**, College of Agriculture, Rajendranagar, Hyderabad, Rs.5000/-. **Mr.Ashmit Singh**, New Delhi, secured the certificate for appreciation. The chief guest presented the Awards to the students.

4.3 Conferment of Mehta Foundation Award: Mehta Foundation confers the award



for outstanding scientists in the field of arid horticulture, which carries citation and cash prize of Rs.21,000/-. The award was announced by Shri S.S. Mehta, who read the citation of the awardee and requested the chief guest and other dignitaries to present the award to **Dr. H. Usha Nandhini Devi, Assistant Professor, TNAU, Coimbatore** received the award for her appreciable contribution to arid horticulture.



5. National Festival Celebration

The Independence Day was celebrated on 15th August 21 at branch office of the Foundation at Mahmada, Pusa by hoisting the national flag. All the villagers as well as farming community of the area participated. A competition for the children on patriotism was also organised, who performed on the occasion, were awarded. The Republic Day, 26th January, 2022 was also organised at the branch office. On this occasion, many villagers assembled and saluted the hoisting of national flag. The sacrifice of freedom fighter was remembered and also the role and sacrifice of our soldiers for mother nation were shared to inculcate patriotism. Sweets were distributed to all the participants to celebrate the occasion.

6. Publication of ASM Foundation

Various publications of ASM Foundation were released by the Chief Guest and dignitaries on the dais, which included Sodh Chintan (ISBN:978-81-932266-7-4), a compilation of articles from the experts in the field of horticulture/agriculture/water management, a Book of Abstracts (ISBN: 978-81-932266-8-1) covering more than 365 abstracts, and a Proceeding of the ASM Conference-2019,



covering the brief of activities and the recommendations of the conference held at GBPUA&T, Pantnagar, Uttarakhand, 28-31st



May, 2019, a CD containing soft copies of Sodh Chintan, Book of Abstract, Proceedings, ASM Award and Awardees, and the CHAI-Awards and Fellowship book were also released on the occasion. A proceeding of virtual conference held on 28th May, 2020 was also released during the programme.

7. Talent Search through Essay Competition and Elocution

A national level essay and elocution completion on the topic “Innovations in horticulture for nutritional security, healthcare and economic development” was organised as a part of the

SPJS-2019. There was an overwhelming response from all over the country. Students from different universities like PAU, Ludhiana, UAS, Bangalore, Chandigarh University, Chandigarh, G.B.P.U.A.&T., Pantnagar etc. participated in the competition. Based on the writer's perspectives and writing skills, 11 essays were shortlisted by the screening committee comprising of faculty of Department of Horticulture, GBPUA&T, Pantnagar. In the second round of competition, 9 students appeared for the elocution competition, which was held in the conference hall of college of Agriculture, GBPUA&T, Pantnagar on May, 27, 2019, where they were asked to speak on the same topic for 5 minutes. The jury for the competition comprised of Dr. Jai Singh Parihar, Retd. Director, ISRO as chairman and Dr. M. Anandraj, Retd. Former Director, IISR and Dr. Mathura Rai, Retd. Director, IIVR were the members of the committee. The students were judged for their elocution skills, time management, language, style of presentation and overall performance. Based on merit, 5 students namely Mr. Amit Kumar Gaur, Mr. Neeraj Papnai, Ms. Reeba Sharma and Ms. Sheeba Sharma qualified for the next round, where they were asked for extempore speech on the topic Value chain management in horticultural crops. Three students were then selected by the jury. The jury asked all the 3 students for two minutes extempore presentation on the topic Smart Horticulture in the final round. The students were evaluated on the basis of their ability to analyse the topic, idea generation, logical thinking, communication skills and overall presentation skills. Finally, 3 students were selected on the basis of merit are **Ms. Anubhaviya Bisht (Ist)**, **Mr. Neeraj Papnai (IInd)** and **Ms. Reeba Sharma (IIIrd)**. The winners were awarded with a cash prize.



Ms Reeba Sharma receiving prize from Dr C.D. Mayee and Dr H.P. Singh

8 Support to the farmers by ASM Foundation:

Besides the organisation of conferences, workshop and conferment of awards. ASM Foundation continued to support the farmers by visiting their fields and providing them



required inputs. Mrs.



Bimala Singh, Dr. D.P. Singh visited various farmers fields along with technical experts to advise the farmers in the State of Maharashtra, Gujarat and Uttar Pradesh. The farmers were motivated by the advise of the experts from the ASM Foundation. The farmers were given quality planting material.

Mrs Bimala singh and Dr H P Singh visited the House of Late Mr Dinesh, progressive former who died few months back. A tribute was paid to him and family was assured of all the support by the Foundation.

9. Support for Higher Education :



ASM Foundation is supporting the education of Shri Vikas Kumar Singh, who is studying in Department Petroleum and Engineering Studies and perusing his B-tech Degree in DIT University, Dehradun. He belongs to State of Bihar and is a son of Debu Prasad Singh, a driver. He is meritorious but was economically not sound to Perdue his studies thus theFoundation is supporting him by meeting his tuition fee. He ha performed well and presented his work in an international conference.

10. Cultural Programme

A cultural evening by the student of PJTSAU, Hyderabad University was organized for the



benefit of the delegates. The variety programme presented by the students was of excellent quality covering various



aspects with a theme on development of horticulture. All the delegates appreciated. Dr. Singh thanked all the participants of cultural programme and presented to them a certificate of appreciation.





11. Participation in Conference and Workshops

Mrs. Bimala Singh, Managing Trustee, ASM Foundation, participated in all the conference and workshop supported by the Foundation to acquire new knowledge. She also visited farmers' field along with Dr Singh to guide them on various aspect of production to enhance their income, She also participated in many other workshops and conferences and webinar in India to promote the activities of the Foundation

12. FINANCIAL STATEMENT OF THREE YEARS

LT. AMIT SINGH MEMORIAL FOUNDATION				
249, SECTOR-18A, KARGIL COLONY,				
DWARKA, DELHI-110075				
BALANCE SHEET AS ON 31-03-2021				
Liabilities		Amount	Assets	
			Amount	
<u>CORPUS FUND:-</u>			<u>Fixed Assets:-</u>	
Opening Balance	1,13,34,549.23	1,14,74,378.99	As per Annexure-1	35,19,676.30
Add: Surplus	1,39,829.76			
<u>Loans & Liability</u>			<u>Investments:-</u>	
CHAI	695,439.00	9,11,165.30	Fixed Deposits	67,00,000.00
Bimla Singh	143,640.92			
HP Singh	72,085.38			
<u>Current Liabilities:-</u>			<u>Loans & Advances</u>	
Audit Fee Payable		59,000.00	Loans & Advances	7,79,210.00
Sundry Creditors		6,08,281.00	<u>Current Assets:-</u>	
			Debtors	10,09,400.00
			Cash in Hand	3,01,246.28
			Cash at Bank :-	4,72,114.62
			TDS Receivable	71,178.00
			Deposit for Awards	2,00,000.00
TOTAL		1,30,52,825	TOTAL	
			1,30,52,825	

<p>FOR SPMR & ASSOCIATES</p> <p>CHARTERED ACCOUNTANTS FRN No.007578N</p> <p>Santosh Kumar Prasad Mem. No.099429 (Partner)</p> <p>UDIN:21099429AAAAEF8992 Date: 20.08.2021 Place:- New Delhi</p>	<p style="text-align: center;">For LT AMIT SINGH MEMORIAL FOUNDATION</p> <p style="text-align: center;">(Managing Trustee)</p> <p style="text-align: right;">(Trustee)</p>
---	--

LT. AMIT SINGH MEMORIAL FOUNDATION				
249, SECTOR-18A, KARGIL COLONY,				
DWARKA, DELHI-110075				
BALANCE SHEET AS ON 30-03-2020				
Liabilities		Amount	Assets	Amount
<u>CORPUS FUND:-</u>			<u>Fixed Assets:-</u>	
Opening Balance	11,198,083.62		As per Annexure-1	3,774,226.60
Add: Surplus	136,465.28	11,334,548.90		
<u>Loans & Liability</u>			<u>Investments:-</u>	
CHAI	695,439.00		Fixed Deposits	6,200,000.00
Bimla Singh	143,640.92			
HP Singh	207,660.08	1,046,740.00	<u>Loans & Advances</u>	
			Loans & Advances	604,210.00
<u>Current Liabilities:-</u>			<u>Current Assets:-</u>	
Audit Fee Payable		59,000.00	Debtors	1,009,400.00
Sundry Creditors		431,065.52	Cash in Hand	495,752.80
			Cash at Bank :-	
			Indian Overseas Bank 21027	24,441.85
			Indian Overseas Bank 21588	12,080.16
			Indian Overseas Bank 9941	338,896.53
			Canara Bank 21675	341,168.48
			TDS Receivable	71,178.00
TOTAL		12,871,354.42	TOTAL	12,871,354.42

FOR SPMR & ASSOCIATES	For LT AMIT SINGH MEMORIAL FOUNDATION	
CHARTERED ACCOUNTANTS		
FRN No.007578N		
Santosh Kumar Prasad Mem. No.099429 (Partner)	Managing Trustee	Trustee
Date: 24.12.2020		
Place:- New Delhi		

LT. AMIT SINGH MEMORIAL FOUNDATION				
249, SECTOR-18A, KARGIL COLONY,				
DWARKA, DELHI-110075				
BALANCE SHEET AS ON 30-03-2019				
Liabilities		Amount	Assets	Amount
<u>CORPUS FUND:-</u>			<u>Fixed Assets:-</u>	
Opening Balance	10,983,284.23		As per Annexure-1	4,060,874.41
Less:- Adjustments	(17.70)			
Add: Surplus	214,817.33	11,198,083.86		
Loans & Liability CHAI	300,439.00	300,439.00	<u>Investments:-</u>	
			Fixed Deposits	5,700,000.00
<u>Current</u>			<u>Loans & Advances</u>	
<u>Liabilities:-</u>			Bimala Singh	6,359.08
Audit Fee Payable		59,000.00	Neeta Singh	290,000.00
Sundry Creditors		40,915.00	Rajeev Kumar	90,000.00
Salary Payable		34,420.00	<u>Current Assets:-</u>	
			Debtors	29,400.00
			Cash in Hand	487,134.80
			Cash at Bank :-	
			Indian Overseas Bank 21027	27,583.65
			Indian Overseas Bank 21588	11,692.36
			Indian Overseas Bank 9941	534,842.44
			Syndicate	343,371.12
			TDS Receivable	51,600.00
TOTAL		11,632,858.00	TOTAL	11,632,858.00

FOR SPMR & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN No.007578N

For LT AMIT SINGH MEMORIAL FOUNDATION

Santosh Kumar Prasad
 Mem. No.099429
 (Partner)

Managing Trustee

Trustee

Date: 30.06.2019
 Place:- New Delhi

13. ABOUT THE FOUNDATION



Lt. Amit Singh Memorial (ASM) Foundation, since its inception in 2001, has grown in its outreach and the spectrum of activities carried out to fulfill its commitments, within the ambit of its stated aim and objectives to develop a patriotic society, through education, secured health, economic development and inculcation of ethics and values among the masses, in general and youth in particular. ASM Foundation is registered under section 12A & 80G of Income Tax Act, 1961; registered for FCRA, Ministry of Home Affairs and also has been certified for ISO 9001:2008. To begin with, the Foundation started its activities with the distribution of books and school bags amongst the poor and needy children to support their education; organizing health camps to improve the health status of poor and needy; scientific exhibitions and workshop to disseminate the knowledge of newly developed technologies particularly in the field of agriculture and horticulture to empower the farmers with updated knowledge and inspirational discourse by spiritual leaders to inculcate social ethics and values especially among youth.

Striving to achieve its aim and objectives, the Foundation organised its first Swadesh Prem Jagriti Sangosthi (SPJS) -2009, a national level mega event in the year 2009, to commemorate the birthday of the Martyr Lt. Amit Singh, at his birth place, Mahamada, Pusa, Bihar. The village Mahamada is known to have brought modern agriculture, since the Imperial Agricultural Research Education (IARI) was established in the year 1905, now known as Indian Agricultural Research Institute (IARI), (commonly known as Pusa Institute) in Delhi. This Sangosthi, which included the activities like inauguration of Amit Smriti Bhawan, essay/elocution competition and talent search for students of secondary and higher secondary schools from different states, health camps, national conference on horticulture, national exhibition, farmers quiz, distribution of quality seeds and planting materials of the agricultural and horticultural crops, diversity shows, litchi/mango eating competition and spiritual discourse to inculcate ethics and values has moved forward in its journey. With the overwhelming response and encouraging feedback of participants of the First Sangosthi, the organisers were encouraged to make this event an annual feature as the activities of the Foundation. Besides farmers, students and scientists, some prominent political personalities also attended the event. Since then, the Foundation organised this mega event in the month of May, 28-31, every year. The 2nd SPJS was organized in the year 2010 at Bangalore, Karnataka; 3rd SPJS in the year 2011 at Dehradun, Uttarakhand; 4th SPJS in the year 2012 at Bhubaneswar, Odisha; 5th SPJS at JISL, Jalgaon, Maharashtra in the year 2013; 6th SPJS in the year 2014 at NAU, Navsari, Gujarat; 7th SPJS in the year 2015 at MGCGV, Chitrakoot, Madhya Pradesh; 8th SPJS once again at JISL, Jalgaon, Maharashtra and 9th SPJS at **Junagadh Agriculture University(JAU)**, Junagadh, Gujarat. All these events had a great success in fulfilling the aims and objectives of the Foundation.

The Foundation has instituted various awards to recognise the outstanding contributions made by the scientist, industries and farmers in Agriculture/Horticulture and allied sectors in their specialized sectors for the welfare of the society at large. These awards are given annually to selected nominations **Amit Krishi Rishi Award**;recognises a leadership of par excellence in the field of Agriculture research and development;**Amit Padma Jagriti Award**is given to the industry for their service and

industrial leadership; **Amit Prabudh Manishi Award** recognises a leader of par excellence in human resource development; **Amit Swah Award** recognises the service of individual for health, ethics and values. **Udyan Ratna Award** is conferred on farmers for adoption and dissemination of technology and for improving farm income. The award carries a plaque of honour, a citation and appreciation certificate. The recipients of these awards include leading and distinguished educationists, corporate sectors, scientists and farmers, which act as a great driving and inspirational force to work harder with full zeal in their respective fields to be among the recipient of such awards.

To inculcate the spirit of healthy and fair competitiveness, for catalyzing the minds of the people and encourage them to serve the society better, ASM Foundation has instituted many rewards and awards. The awards include the cash prizes to the winners of national debates/elocution at school level and National Talent Search in Horticulture at University level. **Amit Agrani Award**, National Talent Award in Horticulture, Best All Rounder Award (for school students). The recipients of these awards are the students, who become motivated to work harder with full zeal in their respective fields. **Lt. Amit Singh Memorial Best Performing Centre of AICRPs** are also conferred on selected nominations.

The activities of the Foundation carried so far have been very successful as is evident from the impact on impressionable tender minds of youth to in-still patriotism and building nationalistic character in them; economic empowerment of the poor farmers through innovative technologies and current knowledge disseminated through conferences and exhibitions on agriculture and horticulture. ASM Foundation has been recognized for its services towards National building activities and has been conferred **Institutional Excellence Award-2016** by AIASA, New Delhi, which was bestowed by the honourable Minister of State for Agriculture on 20th February, 2017. The Foundation has expanded its activities over these years with its major focus on improving the health of children and empowerment of women. The emphasis is also on improving the income of farmers through distribution of quality seeds and planting material, dissemination of modern technologies and techniques, knowledge and imparting training and awareness. The Foundation also implemented a programme in collaboration with Bioversity International and International Rice Research Institute for new technologies and cultivars. The Foundation has many publications to its credit, which has benefitted the stakeholders. The Foundation publishes, Sodhchintan, Book of Abstract, Award and Awardee, and Annual report, annually. Till date nine such publications have been brought. Now the Foundation is looking forward to extend its services to community for livelihood security through networking with organisation committed to the cause of humanity.

Mission: Inculcate social responsibility and patriotism among youth and farmers through economic development, value added education, health care and social values.

Vision: Transformation in rural area for improved quality of life through strategic activities in regionally differentiated manners.

Objectives:

- i) To inculcate social responsibility and patriotism through education and social upliftment for poor, youth and needy persons.
- ii) To impact, educate and inculcate the Indian values among the youths so as to develop the cultural activities aimed and channelizing youth's energy for social development and national wellbeing so that the said youths proved to be complete patriotic persons with high moral and ethics values.
- iii) To establish, promote, setup, run, maintain, assist, finance, support and help in setting up and/or maintaining and/or running schools and other educational institutions, library, training institute, hospital, health care centre, orphanages, widow homes, women welfare schemes, asylums, poor houses and other social welfare works, establishment for relief and/or help to the poor, old people and destitute.
- iv) To give, provide and/or other help and assistance in cash or in kind to poor and/or destitute people, widows and needy persons.
- v) To give, provide and /or render monetary and/or other help and assistance for the relief of persons and animals effected by natural and other calamities such as flood, fire, famine, cyclone earthquake, storm, accident pestilence, drought, epidemic and centres or persons doing relief work on such occasion.
- vi) To start, maintain and assist and relief measures in those parts which are or become subjected to natural calamities such as flood, fire, drought, famine, cyclone, earthquake, epidemic, storm, accident, pestilence etc.
- vii) To establish maintain or grant aid for the establishment or maintenance of wells, tubewells, tanks, water reservoirs, and trees and constructions of and repairs to paths, roads, bridges etc. for the welfare of the public.
- viii) To give, provide, distribute dhoties, blankets, rugs, woolen clothing, quilts of cotton, woolen, other varieties of cloth or other articles to the needy persons.
- ix) To open, found, establish, promote, setup, run, maintain, assist, finance, support and/or aid or help in the setting up and/or maintaining and/or running schools, colleges, lectures halls and other establishments or institutions for advancement of education ad or knowledge in arts, science, literature, humanities and all other use subject in all their manifestations.
- x) To take up, assist, finance, implement activities like agriculture, horticulture, poultry, piggery, dairy etc. for economic upliftment of needy persons.
- xi) To foster and encourage education and training in handicrafts, fine arts among womenfolk in general and establish and found institutions imparting such education to establish, maintain, support or help by monetary gifts or otherwise, centre and institutions for women and children and social welfare works for women, youth and children.
- xii) To grant, pay or give scholarships, stipends, prizes, rewards, allowances and other financial assistance or help in cash or in kind to students with a view to help them in prosecuting their studies.

Activities:

The ASM Foundation started working for the welfare of needy people, in 2001, by distribution of school bags, providing a scholarship to student, elocution to bring competitiveness among the students, helping the farmers by providing quality seeds, planting materials and technical guidance.

The Foundation also organised discourses for ethic and values and health camps. Thereafter, in 2009 the activities of conference, farmers quiz, competition, distribution of seeds and planting materials were done under the banner of Swadesh Prem Jagriti Sangosthi (SPJS) and many activities like distribution of blankets, women training, scholarship to youth *etc.*

Swadesh Prem Jagriti Sangosthi and Conference-2009. In its strive to achieve the aims and objectives, the Foundation organized the first Swadesh Prem Jagriti Sangosthi (SPJS-2009), a national level mega event in 2009 to commemorate the birthday of the Martyr Lt. Amit Singh, at his birth place, Mahamada, Pusa, Bihar. This Sangosthi which included activities like inauguration of Smriti Bhawan, essay/elocution competition and talent search for students of schools and higher secondary schools from different states; health camps; national conference on horticulture; national exhibition; farmers quiz; distribution of quality seeds and planting materials of the agricultural and horticultural crops; diversity shows; litchi eating competition and spiritual discourse to inculcate ethics and values. This Sangosthi with a national conference on **Horticulture development for livelihood in rural area**, was a grand success, as it was a well attended event. The overwhelming response and encouraging feedback of participants of the first Sangosthi made it annual feature of the activities of the foundation. Besides farmers, students and scientists, some prominent political personalities also attended the event. The recommendation of the conference has been adopted for rural development through interventions of horticulture.

2nd Swadesh Prem Jagriti Sangosthi and Conference- 2010: The 2nd Swadesh Prem Jagriti Sangosthi with the conference on **conservation and utilization of plant biodiversity for improving a livelihood** was organised at Bangalore, 28-31st, 2010. Besides the conference a mega exhibition was organised, which was inaugurated by the then Chief Minister of Karnataka, Shri Yadurappa. SPJS was inaugurated by Shri Shri Ravi Sankar Ji, a spiritual Guru. The conference was also inaugurated by His excellency, the then Governor of Karnataka. The conference was attended by the Ministers, Secretaries, Vice Chancellors, farmers, scientists and representative of industries. In total about 2000 delegates participated in the SPJS. The recommendations have been well appreciated.

3rd Swadesh Prem Jagriti Sangosthi and National Conference-2011: 3rd SPJS and the Conference was organised at Dehradun in 2011 with the theme **Linking the farmer with the market**. The mega exhibition was organised, which was inaugurated by the then Honorable Minister of Agriculture. The Sangosthi was inaugurated by Dr. Bhola Prasad Singh and Mr. Hukum Dev Narain Yadav, the then honourable Member of Parliament. The conference was inaugurated by Shri Harish Rawat, the then Union Minister of State for Agriculture. This conference was a grand success in terms of participation and technical content, which was participated by more than 500 delegates. The recommendation, which emerged are being used for market reform to link the farmers with market.

4th Swadesh Prem Jagriti Sangosthi and Global Conference-2012: 4th Swadesh Prem Jagriti Sangosthi along with **Global Conference Horticulture for food, nutrition and environment services** was organised from 27-31 May, 2012 at OUAT, Bhubaneswar. The Sangosthi was inaugurated by Shri Giriraj Singh, the then Honorable Minister in the state of Bihar and was presided by Minister of Agriculture, State of Orissa. Along with the conference exhibition, farmers quiz, mango eating competition, essay competition were organized. Besides, the conference three workshop was

organised. The conference was participated by over 600 delegates including farmers from across the country and abroad. The recommendations of this conference is a guiding principle for horticulture development.

5th Swadesh Prem Jagriti Sangosthi and International Conference-2013: 5thSPJS alongwith the International conference on **Water quality and management for climate resilient agriculture** was organised on May 28-31, 2013, at JISL Jalgaon, Maharashtra. The conference was inaugurated by Padma Bhusan Dr. R.S. Paroda and participated by many Vice chancellors, Directors, Farmers, students, scientists and more than 300 delegates. The Sangosthi also organised training for the farmers, farmers' Quiz, essay competition, distribution of seeds and planting material and mango competition. The recommendation of the conference has brought an insight on water quality and management.

6th Swadesh Prem Jagriti Sangosthi and National Conference, 28-31st May, 2014: 6th SPJS alongwith the Global Conference **Climate Smart horticulture for nutritional security** was organized at NAU, Navsari, Gujarat. It was inaugurated by honorable Minister of Agriculture. The conference had participation of more than 400 delegates including Vice chancellors. Other activities of the SPJS were essay competition, health camp, and exhibition, distribution of seed, farmers Quiz and conferment of awards. The recommendation of the conference has become a way forward for climate smart horticulture.

7thSwadesh Prem Jagriti Sangosthi and National Conference 2015: 7th Swadesh Prem Jagriti Sangosthi-2015 and National Conference **on Dynamics of Smart Horticulture for Livelihood and Rural Development** was organised at Chitrakoot from 28-31st May 2017. The conference was attended by all the stakeholders, which included eminent scientists, corporate representatives, extension workers, policy planners, farmers and students. There were about 175 delegates, besides guests and invitees. Many eminent personalities Scientists and farmers were present to grace the occasion, guide and participate in the deliberations. The recommendation of the conference has given inside for smart horticulture for livelihood and rural development.

8th Swadesh Prem Jagriti Sangosthi and Global Conference- 2016: 8th SPJS was organized at JISL Jalgaon, Maharashtra. **Global Conference on Perspective of Future Challenges and Options in Agriculture** was organized at Jalgaon, Maharashtra. The conference was a great success in terms of participation, technical contents and outcome. The conference was inaugurated by Shri S.K. Pattanayak, Secretary, MoAFW, Govt. of India, and was presided over by Dr. R.S. Paroda, former Secretary, DARE & DG (ICAR) and Chairman, TAAS. The conference was attended by over 300 delegates including farmers and students. Many Vice Chancellors, Directors, Dean and senior level Government officials, including Agriculture Commissioner participated in the conference. Recommendations of this Global conference have been appreciated and adopted for addressing Future Agriculture.

9th Swadesh Prem Jagriti Sangosthi and National Conference-2017: 9th SPJS was organized at JAU, Junagadh, Gujarat with the theme National Conference on **Technological changes and Innovations in Agriculture for Enhancing Farmers' Income, 28-31 May 2017, JAU, Junagadh, Gujarat, India.**The Conference was inaugurated by Padma Bhusan Dr. R.B. Singh, Chancellor,

CAU, Imphal and Former President, NAAS, and was presided over by Dr. A.R. Pathak, Vice Chancellor, JAU, Junagadh. Guest of honour in inaugural function of the conference were Dr. A.K. Srivastava, Member, ASRB; Dr. S.K. Malhotra, Agriculture Commissioner; Dr. H.P. Singh, Former DDG, ICAR and VC, RAU, Mr. Kamal Taori, IAS, Dr G. Trivedi, Chairman ASM Foundation and former VC, RAU and Dr. R.G. Agarwal, Dhanuka Agritech. Dr. H.P. Singh delivered a keynote address on the theme area of the conference. During the conference various awards of ASM Foundation were conferred on selected individuals and organisations. The conference was successful in terms of participation and technical content.

10th Swadesh Prem Jagriti Sangosthi and National Conference - 2018: 10th SPJS was organised at Dr Rajendra Prasad Central Agriculture University, Pusa Bihar, 28-31 May, 2018. The SPJS2018 has talent search, national conference, farmers Quiz, conferment of Awards, cultural programme and spiritual discourses.

Considering that Intensification and diversification in agriculture assumes much more significance for enhancing the farmers' income, as well as ensuring food and nutritional security, Lt Amit Singh Memorial Foundation organised **National Conference on Intensification and Diversification of Agriculture for Livelihood and Rural Development** at DRPCAUI, Pusa, Samastipur, 28th to 31st May, 2018, The purpose of the conference was to have national dialogue, for analysing the past trend in intensification and diversification of agriculture and identify innovations to envision strategies and task for ensuring livelihood and rural development through agriculture. The conference was attended by over 300 delegates from across the country including farmers and students, which provided opportunity to all the stakeholders to share the knowledge and disseminate for formulation of strategic recommendations. The conference was inaugurated by Dr. A.K. Srivastava, Chairman, ASRB, New Delhi and was presided over by Mr. Surjit KChaudhary, former Secretary, Govt. of India. Dr A.R.Pathak, Vice Chancellor, JAU Junagadh, Gujarat, Dr. R.C. Srivastava, Vice Chancellor, DRPCAUI, Pusa; Dr. K.P. Singh, Vice Chancellor, CCSHAU, Hisar and MPHU, Karnal; Dr. Praveen Rao, Vice Chancellor, PJTSAU, Hyderabad; Dr. B.N.S. Murthy, Horticulture Commissioner, Govt. of India & Chairman, CDB and Mr. Praveen Tripathi, Marketing Expert, Mumbai, were the guests of honour. Dr. G. Trivedi, former Vice Chancellor, RAU; Dr. H.P. Singh, Chairman, CHAI & former DDG (Hort.), ICAR and former Vice Chancellor, RAU, Mrs. Bimala Singh & Surinder Prasad Singh, former Secretary, were also present. Padmashri Dr. Brahma Singh, former Director, DRDO; Dr. Dilip Kumar, former Director; CIFE, Mumbai, Dr. P. Rethinem, former Executive Director, APCC and S.S. Mehta and many well-known dignitaries including director and scientists, participated in the Conference. In the conference strategy for intensification and diversification in agriculture for livelihood and rural development were discussed based on 15 plenary lectures, 37 keynote addresses, 85 oral presentations and many poster presentations. The conference concluded on 30th May, 2018, with Plenary and Award Function, which was chaired by Hon'ble Union Minister of State (Independent Charge) Ministry of Small, Medium and Micro Enterprises,

Government of India, Shri Giriraj Singh, as Chief Guest. The conference deliberated in thematic areas. The first technical sessions was devoted for the plenary lectures directed toward intensification and diversification in agriculture for livelihood and rural development. Discussion on topical issues, which included technological advances in production system management of crops, fruits, vegetables, spices and plantation crops, development of cultivars, strategic management of water, smart nutrients management, bio intensive production systems (organic farming), plant health management, post-harvest management and marketing and dissemination of knowledge. An open session for farmers discussed issues of the farmers, and a special technical session had presentation on topical issues. After in-depth discussion the recommendations were developed for action.

11th Swadesh Prem Jagriti Sangosthi and National Conference- 2019: 11th SPJS

During the year, 2019 the ASM Foundation organised the **International Conference on Innovative Horticulture and Value Chain Management**, in association with GBPUA&T, Pantnagar, Uttarakha, 28-31 May 2019. Recognising that, value chain management and innovations in horticulture is critical and important for food and nutritional security and environmental services this conference was supported. The purpose of the conference was to have international dialogue, for analysing past trend in innovative horticulture and value chain management, identify innovations for envisioning the task of ensuring food and nutritional security and enhancing farmers' income. The conference was attended by over 350 delegates from across the country and abroad, including farmers and students and representatives from industries. This conference provided opportunity to all the stakeholders to share the knowledge and disseminate for the formulation of strategic recommendations. The conference was a grand success in terms of participation, deliberation, discussions and outcome.

12th Swadesh Prem Jagriti Sangosthi and Global Conference- 2020:

The Lt. Amit Singh Memorial Foundation (ASM Foundation), organised a webinar on Post Pandemic (COVID-19) Challenges and Options in Agriculture including Horticulture, organised, in association with the Prof. Jayashankar Telangana State Agricultural University (JTSAU), Rajendranagar, Hyderabad and Jain Irrigation Systems Limited Jalgaon on 28th May, 2020. Considering that agriculture has to play a pivotal role to achieve quantum jump in economy and providing livelihood to millions, while learning from pandemic, agriculture require to be vibrant and competitive to ensure food and nutrition beside enhanced income to farmers and better employment. Therefore, new paradigm with effective dynamics is called for changing paradigm, will demand technological changes, upfront policy and technology led value chain management. Recognising this urgency, a dialogue with leaders and stakeholders was organised in the form of webinar. There were more than 300 participants registered for the webinar. The webinar was also going live on youtube and facebook which alone had the viewership of more than 800 stake holders. The webinar was successful and developed recommendations to address post pandemic issues in agriculture.

Institution of Award

ASM Foundation has instituted many awards which includes (1) **Amit Krishi Rishi Award** - This award recognizes exceptionally outstanding contribution and leadership in agriculture for transformation. (2) **Amit Padma Jagriti Award** - This award recognizes exceptionally outstanding contributions of the industry in transformation of agriculture/horticulture. (3) **Amit Prabudh Manishi Award** - This award recognizes exceptionally outstanding contributions to human resources development and leadership in agriculture. (4) **Amit Swah Award** - This award recognises exceptionally outstanding contribution in health care of the people in rural areas. (5) **ASM Udyan Ratna Award** recognizes the innovation of farmers in adoption of technology. Besides, the above award, Amit Agrani Award, National Talent Award in Horticulture, Best All Rounder Awards (for school students), **Lt. Amit Singh Memorial Best Performing Centre of AICRP** *etc.* has also been instituted to be given from time to time. The recipients of these awards are leading and distinguished educationists, corporate sectors, scientists, entrepreneurs, farmers, students and leading research institutes, which act as a great driving and inspirational force for the participants and stakeholders to work harder with full zeal in their respective fields to be among the recipient of such awards. The activities of the Foundation carried so far have been very successful as is evident from the impact on impressionable tender minds of youth to instill patriotism and building nationalistic character in them; economic empowerment of the poor farmers through innovative technologies and current knowledge disseminated through conferences and exhibitions on agriculture and horticulture.

Other activities

The Foundation is providing scholarships to meritorious students. Supports organization of conference and workshops. Organizes Kisan Sangosthi and distributes seeds and planting material to farmers and blankets to poor people in rural areas. Besides, Independence and Republic Days, World peace prayer is also organized. Health camp, spiritual discourse and training for women and youth is also organized by the Foundation from time to time.

14. GUIDELINES FOR AWARD

Amit Krish Rishi Award

Amit Krish Rishi Award has been instituted to recognise the world leader in the agricultural research and development, who has led the national agricultural horizon from the front. These personalities are known for their longer than life image for taking the frontier of agricultural knowledge and development to a newer height otherwise might not have been attained. Distinctively unique personality from public or government sector recommended by duly constituted search committee is conferred on this highly prestigious award on yearly basis during Swadesh Prem Jagriti Sangosthi.

- High power national level search committee is constituted.
- A national level consultation is undertaken on extraordinarily accomplished personality in the field of agriculture/horticulture research and development, entrepreneurial exceptionalities

and educational exemplary who has made the difference and provided the leadership in shaping Indian agriculture.

- One unique name is recommended unanimously to the Managing Trustee for Final approval.

Amit Padma Jagriti Award

Amit Padma Jagriti award has been instituted to recognise extra ordinary entrepreneurs in the field of Agricultural development in India, has immeasurably contributed by visionary entrepreneurship in professional manner. Contribution of these legendary personalities in modernising the fields of poor Indian farmer and improving the livelihood, as well as standard of living is in no way less important than government initiatives. Therefore, this award has been instituted to recognise the world class entrepreneurs, devoted for the cause of Indian agricultural and horticulture, and who has dared to take high level risk to take the national agricultural to a new firmament. Unparalleled leader entrepreneur of the era who brought technology led prosperity to the nation recommended by duly constituted search committee is conferred with this highly prestigious award on yearly basis during Swadesh Prem Jagriti Sangosthi.

- High power national level search committee is constituted
- A national level consultation is undertaken on extraordinarily accomplished personality in the field of agriculture/horticulture entrepreneurial exceptionality making a sea change in the livelihood of farmers by improving their income and having national impact.
- One unique name is recommended unanimously to the Managing trustee for final approval.

Amit Prabudh Manishi Award

Amit Prabudh Manishi award is instituted to recognise exceptional contribution for world leader in the field of education particularly human resource development in agriculture and horticulture. Places of learning in the field of agriculture form the nucleus or centre of origin of all recent and advanced development in this field. This is not only the place where young goons are imparted with basic and advanced knowledge in their specialisation but are trained professionally which further impacts the scenario of national agriculture research and development. These knowledge generating rather worshipping centres have key responsibility to produce highly motivated and energetic human resources to lead the nation's agriculture at internationally competitive environment. Person in command of these centres has stupendous task not only to provide a very positive and motivated environment for healthy development but to train the young growing brains in a disciplined manner. There is imperative need to recognise the contribution of these educational leaders enormously as their devotion to the development of society is no manner less than high-level planner or entrepreneur. Therefore, a duly constituted high-level search committee in national consultation decides on uniquely distinguished educationist academicas human resource development for this award.

- High power national level search committee is constituted.

- A national level consultation is undertaken on extraordinarily accomplished personality in the field educational exemplary who has made the difference and provided the leadership in shaping educational system of agriculture and allied sector at national level.
- One unique name is recommended unanimously to the Managing Trustee for final approval.

Amit Swah Award

One of the objectives of the Foundation is secured health for the people. The foundation wishes for physical, mental and intellectual health which bring wellness to the people. Therefore, it is imperative to recognise the services of leaders who have made difference for the wellness of mankind. Amit Swah Award recognises the outstanding contribution and visionary approach for the total health of the people. Unparallel leader in the field of wellness who brought revolution, is recommended by duly constituted search committee conferred with this prestigious award on early basis during the Swadesh Prem Jagriti Sangosthi. Based on national level consultation and recommendations of the committee, Board of Trustees approves for conferment of the award.

Amit Udyan Ratan Award

Recognizing the contributions of farmers in the development of Agriculture/ Horticulture, which have hardly been noticed, Lt. Amit Singh Memorial Foundation instituted an annual award “Udyan Ratan” for inspiring the farmers for their innovations, adoption and dissemination of technologies. The award was constituted to recognize their outstanding contributions for exemplary farming, which is an attribute of a farmer in the area of horticulture/agriculture. Selection of farmers for Udyan Ratan from different corners of the country is a herculean task. Consequently, nominations are sought annually from SAUs, ICAR institutes, departments and from persons of repute.

India has taken big strides witnessing 8 times growth in horticultural production during the last 60 years. Besides, the technologies development by prestigious research institutes of ICAR, farmers too have played key roles in the refinement of technologies. This has lead to the adoption of technologies resulting in the overall manifold growth of horticulture. Irrespective of their contributions, they have been rarely been recognized and appreciated for their extraordinaire work.

The Foundation, in course of its movement, sincerely contemplated on this issue and made efforts to encompass progressive farmers who have deviated from the beaten track for faster growth of horticulture. In recognition of the contributions made by illustrious and innovative farmers, the ASM Foundation has instituted the “Udyan Ratan” award which is conferred on the farmers on the occasion of “*Swadesh Prem Jagriti Sangoshthi*” to provide them their deserved recognition. The award consists of a Plaque of Honour, a Citation and a Certificate.

Nomination: Person must be nominated by a responsible authority of his area like:

- Head of any agriculture/horticulture institute/university/research organization/state government department of agriculture/horticulture.
- President/Vice presidents of societies like Agriculture/Horticulture/related fields.

- Awardees of Padma Bhushan, Udyan Ratan or other reputed awards of the country.

Judging Criteria

The nominations shall be judged by the committee on the basis of contributions made by the farmer in the field of horticulture. Nominations received will be examined by committee comprising of distinguished personalities in the sector which shall be constituted by the Foundation for this purpose. Reviewed by the subsequent committee the decision of the jury shall be final. The successful farmers will be communicated well in advance and have to come and receive the award in person at the place notified by the foundation at their own cost.

General Guidelines

- Applicants must be a resident of India. Eligibility for award is limited to farmers, agricultural leaders and allies of the agricultural industry who have made outstanding contributions to horticulture and for the enhancement of the quality of rural life.
- A nominal entry fee in the form of Demand Draft in favour of Lt. Amit Singh Memorial Foundation payable at New Delhi.
- The submissions are welcome from throughout the country.
- The applicants must have derived a majority of their income from farming at least for the past ten years.
- The farmers awarded previously for this award, need not be nominated. However, farmers who have not been selected previously but were nominated can be re-nominated.
- The nominations should be forwarded by the Head of any Research Organization of ICAR, SAUs or State Horticulture/Agriculture development authority.
- Citations will be presented to the selected 25 award winners at the valedictory function of the Sangothi.
- Three copies of nominations with passport size photographs should be submitted.
- Adherence to the guidelines is important **AMIT AGRANI AWARD**

Innovations have no hierarchical considerations and it may come out from a person of any age and position. In fact, sometimes young brain generate more useful concept to solve the long standing research problems when given the opportunity. To encourage juvenile intelligent brains to develop ground-breaking concept note of practical relevance **Amit Agrani Award** is given for creative thinking, concept conceiving and presenting to young scientists upto the level of senior scientists and is given to one or two best performing scientist based on their performance in presentation before a panel of judges. The objective of the Amit Agrani Award is to enhance the capability of young scientist in creativity, concept development and communication skill in different Institutes of Horticulture. The award consists of a certificate and a token cash prize of Rs. two thousand only.

Rules and Regulation

- Concept notes from young scientists up to the level of senior scientist are invited from selected ICAR Institutes.
- Short listed concept notes are presented before a jury.

- Jury evaluate the concept note based on importance of the problem originality and practicability of the concept, presentation and communication skill.

Jury unanimously recommend the best concept note for the award to the Managing Trustee of the

National Elocution/Essay Competition for College Students

The ten best essays out of the entries received will be screened based on their content by the jurists. These selected contestants will be called for the group discussions and will be evaluated by the jury consisting of **educationists and eminent personalities to select first, second and third for the award of** cash prizes of Rs. 15,000, Rs. 10,000 and Rs. 5000, respectively and a certificate of award during Swadesh Prem Jagriti Sangosthi. The remaining contestants shall receive a certificate of participation. All the ten participants called for group discussion will be paid travel expenses *i.e.* sleeper class train fare by the shortest route. Lt. Amit Singh Memorial Foundation may assist in arranging reasonable accommodation for the participants.

Eligibility: Students of class XII or undergraduate are eligible to participate in the competition.

Prizes

First	:	Rs. 15,000
Second	:	Rs. 10,000
Third	:	Rs. 5,000

General Guidelines for Essay Competition

The medium of essay can be either English/Hindi.

- The essay should preferably be typed in Times New Roman, Size: 12 formats with spacing 1.5, single sided on A4 size paper or can be neatly hand written.
- There will be a entry fee of RS. 200.00, which may be submitted in the form of Demand Draft.
- The essay must not exceed 1000 words with a summary of 250 words. Quotes and references must be clearly marked throughout the essay and properly cited.
- Each participant must submit one entry only.
- Each entry should be certified by the Head of School in original.
- Essay to be sent in hard copy by registered post and soft copy by Email at ltamitsinghfoundation@gmail.com
- Every entry should carry the following information: Name, Class, School, Phone No., e-mail and Complete Address of the Institute
- The decision of the Jury is the final and is not subject to any legal appeal.

H.S. Mehta Memorial Award

The Foundation has instituted the “**H.S. Mehta Memorial Award**” for the “**Best Young Scientist**”. He/she should be below 50 years of age. The award is given every year, which consists of a Plaque, a Citation and a Cash Award of Rs 21000/-. The applicant should be the citizen of India, below 50 years of age, working in recognized institutions/universities in Horticulture and the work must have intellectual or practical usefulness. The applicant should have outstanding scientific contribution in

the development of new technology or product for accelerated growth of horticulture and allied fields. The committee involving eminent personalities in the sector makes selection of the best candidate.

Application should be duly recommended by distinguished scientist of repute or by head of the organization, giving detailed curriculum vitae and a summary of specific achievements deserving the merit, along with supporting relevant data and documents in triplicate should reach the office of the Foundation at 256, Advaita Ashram Road, Fairlands, Salem-636 016, Tamil Nadu, **latest by 31st** March of the year.

