



Krishi Manthan

NATIONAL AGRI BUSINESS SUMMIT 2017

For Farmer Producer Organization, Start-Up, Agri Enterprise & Academia
(Business Innovation & Collaboration Meet)



Hon. Minister Suresh Prabhu
Minister of Commerce and Industry



Date: 9th and 10th December, 2017

**Venue: State Institute of Agriculture Extension &
Training
(SIAET)**

Powered by:



Asian Consortium of Farmers Producer Company Limited

Associate Organization:



Department of Farmer Welfare & Agriculture Development,
Government of Madhya Pradesh



Department of Horticulture and Food Processing,
Government of Madhya Pradesh



NABARD

National Bank for Agriculture and Rural Development

Organized by:



Integrated Socio-Economic Development Services
(A section 25 non-profit company)

Sponsored by:



ITSC Technologies Private Limited, Bhopal, Madhya Pradesh

National Bank for Agriculture and Rural Development



Our Mission: Promotion of sustainable and equitable agriculture and rural prosperity through effective credit support, related services, institution development and other innovative initiatives.

- **Research and Development on matter of importance pertaining to agriculture, agricultural operations and rural development including the provision of training and research facilities.**
- **Consultancy services related to Agriculture & Rural Development through subsidiary (NABCONS).**

Our Functions:

- Provide Credit/Refinance for production credit and investment credit to eligible banks and financing institutions.
- Development functions undertaken through Farm Sector Promotion Fund (FSPF), Financial Inclusion Fund (FIF), Watershed Development Fund (WDF), Tribal Development Fund (TDF) Rural Infrastructure Development Fund, (RIDF) etc.
- Supervisory functions in respect of Cooperative Banks and Regional Rural Banks.

Head Office Plot C-24, 'G' Block Bandra Kurla Complex, Bandra (East) Mumbai - 400 051

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Taking Rural India >> Forward

ABOUT OUR DISTINGUISH SPEAKERS



Hon. Minister Vishwas Sarang,
State Minister Cooperative (Independent Charge)
and Rural Development,



Hon. Minister Gauri Shankar Bisen
Minister of Farmers Welfare and
Agriculture Development government
of Madhya Pradesh



Dr. Vijay Agrawal
Department of Horticulture
Govt. of Madhya Pradesh



Dr. Niranjana Mishra
Principal Scientist,
Veterinary Microbiology
ICAR- National Institute of High Security
Animal Diseases



S. Firoz Ahmed
Business Head
Geolife Agritech India Pvt Ltd,



Dr. Shallini Chakrabarty
Scientist,
Fruit Research Station,



Mr. Vinayak Narawade
Aai Goat Farm,
Pune



Dr. Sunil Nahatkar
Associate Director of Research Services & Nodal
Officer of Business Planning & Development
Directorate of Research Services
J.N.K.V.V. Jabalpur,



Mr. Khalid Ansari
National Bank for Agriculture
and Rural Development
Madhya Pradesh



A.B. Singh
Sr. Scientist,
Indian Institute of Soil Science



Sourabh Sharma
National Bank for Agriculture and
Rural Development
Madhya Pradesh



Murli Dhar Iyer
Jain Irrigation



P.P Ambalkar
Sr. Scientist,
Central Institute of Agriculture
Engineering



Mr. Sunil Kumar Keshri
Regional Manager (MP & CG)
Harvel Azud India Private limited



Satyajit Kitture
Present Director
Mark Agri Genetics Private Limited
Mumbai



NAVEED HAMID
Assistant Professor
Agri Business Management
SKUAST Jammu



Dr. Vijay Athawale
Consultant,
Small Farmers Agri-Business
Consortium (SFAC)



Surajit Sinha
Source Trace



Pragati Gokhale
Principal of Scientific Officer (MIGRI)
Micro, Small and Medium Enterprise
(MSME, Nagpur)



Santosh Kumar Jha
Director,
Agri Sensors and Controls,



Dr. Piyush Kumar Soni
Research Coordinator
Sagar Group of Institutions
(SIS-TEC)



Dev Bhardwaj
Managing Director
Kisan Manch



Sudhakar Ganesh
Meenakshisundaram
TATA Consultancy Services



Prabuddha Mishra
Vanporz



Piyush Raj Saxena
Start-Up



Tausheef Khan
Gramophone



Swapnil Shrivastava
Organic Madhya Pradesh



Ganga Prasad Swami
Agrita Solution Pvt. Ltd.



Vijay Kumar
Start- Up
Moradabad

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Participants

The National Agri Business Summit For Farmer Producer Organization, Start-Up, Agri Enterprise & Academia (Business Innovation & Collaboration Meet) has achieved its objective by active participation of all the key stakeholders. The list of various groups of participants is as follows.

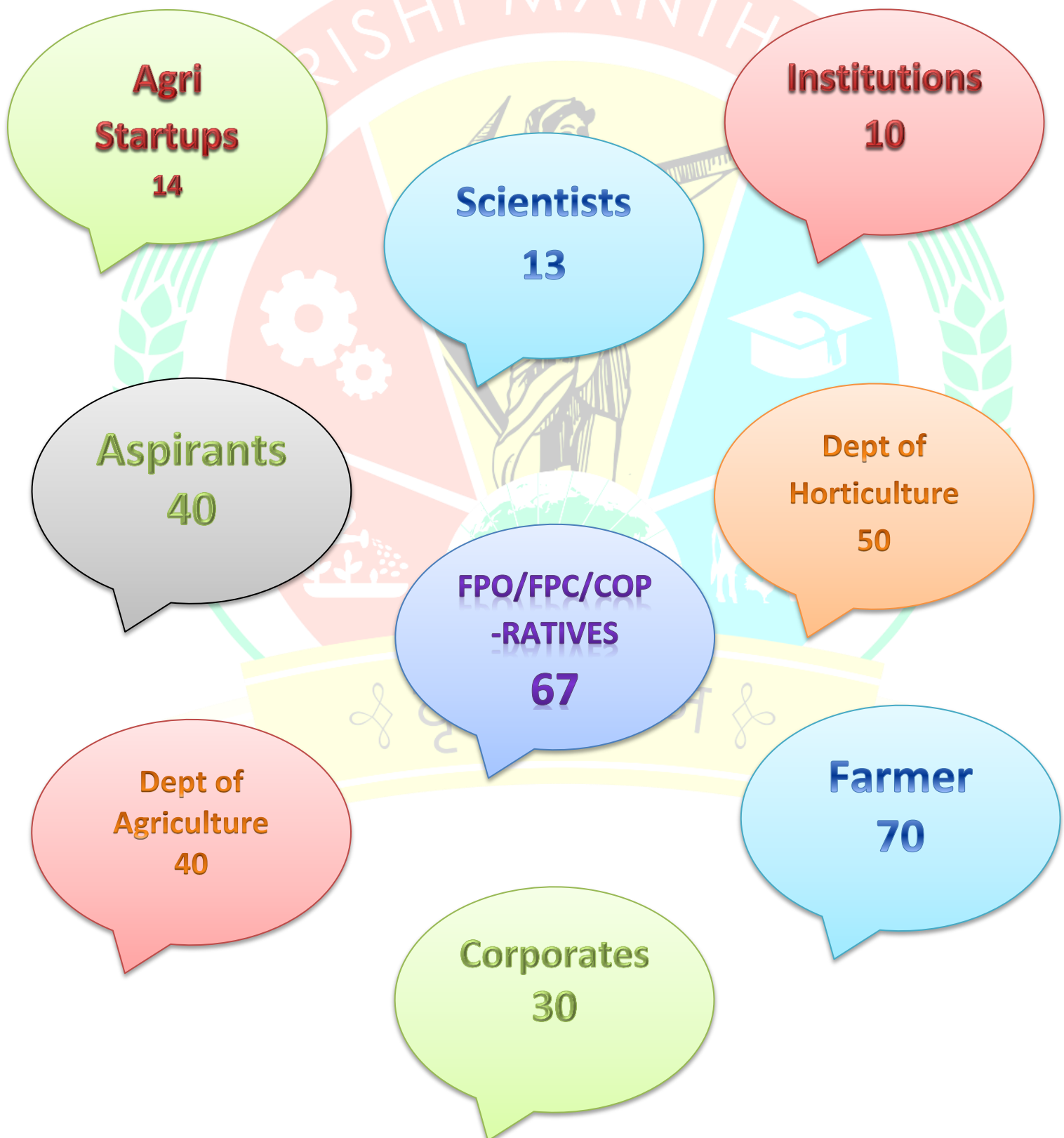


**Indian States
Coverage
8 States**

Key Business cities of India

Pune, Bangalore, Mumbai Delhi, Nagpur, Lucknow,
Jaipur, Jammu & Kashmir, Ahmedabad, COIMBATORE,
Indore, Bhopal.

Number of Participants in National Summit 2017



Name of Participants in National Summit 2017

Government Departments Participated

- Department of Horticulture and Food Processing, M.P.
- Fruit Research Station Entkhedi
- Micro, Small and Medium Enterprise, (MSME, Nagpur)
- Madhya Pradesh Minor Forest Produce Federation.
- National Seed Corporation
- Small Farmers' Agri-Business Consortium (Consultant)
- National Bank for Agriculture and Rural Development Madhya Pradesh
- Madhya Pradesh State Cooperative Seed Federation.
- Seed Corporation
- Department of Farmer Welfare and Agriculture Development, M.P.
- Madhya Pradesh State Seed Certificate Agency
- Madhya Pradesh State Rural Livelihood Mission
- Khadi and Village Industries Commission

Corporates Participated

- Eicher Tractor
- Siddharth Bio Pvt. Ltd
- Dawat Foods
- Nature Bio Foods
- Aditi Organic
- Great Kissan
- Krishi Bio Products
- Narmda Valley Greens
- Mark Agritech Genetics Pvt. Ltd
- SUNRITA Solar Energy Pvt. Ltd.



- IBA Solution
- Biocert International
- Fair Farming Foundation
- Urja Bio System Pvt. Ltd.
- Global Green India
- BKPCL
- Geo Life Agritech India Pvt. Ltd.
- Kissan Bharti Agro Pvt.Ltd.
- AGRO Purpus Cooperative Society Ltd.
- Satyendra Organic Faming
- Vinayak Group
- Advance Crop Care India Pvt. Ltd.
- Reliable Agro
- Seed House
- Shree Balaji Poly Film
- Tata Consultancy Service (TCS)
- Jain Irrigation
- Harvel agro India p Ltd.
- Krishi Veda
- Grasim Industries

Institutions Participated

- Indian Institute of Soil Science
- Central Institute of Agriculture Engineering
- Indian Institute of Forest management(IIFM)
- Jawaharlal Nehru Krishi VishwaVidhyalaya (JNKVV)
- Rajmata Scindhia Krishi VishwaVidyalaya
- Mahatma Gandhi Institute For Rural Industrialization
- Sagar Group of Institution (SISTech)Bhopal
- College Of Agriculture Indore
- International Center for Agricultural Research
- Sher-e-Kashmir University of Agricultural Sciences and Technology

NGO's Participated

- Satpura Vigyam Sabha
- VRUTI NGO
- Lakshya NGO
- ATMA
- PRADAN NGO



Startup's Participated

- Agri system pvt ltd.
- Kisan Bharti Agro
- Kisan Manch
- VIJENDRA INDUSTRIES
- ITCO Group
- JYOTI AGRO SOLUTION
- VANPROZ NARSINH PHARMA & LACTOBAR
- Gramophone
- Organic Madhya Pradesh
- Agreeeta Solutions Pvt. Ltd.
- NARSINH PHARMA & LACTOBAR
- GRAMOTTHAN AGRI HERB AND MARKETING
- Tridhman Exim Pvt.Ltd.
- Aai Goat Farm



KRISHI MANTHAN



Cooperatives /FPO's Participated

- 
- HARIOM AGRO PRODUCER COMPANY LIMITED
 - JOYFUL FARMERS PRODUCER COMPANY LIMITED
 - SHREE MAHAGANPATI AGRO PRODUCER COMPANY LIMITED
 - Gupteshwar Swavlambi Kisan Pro. Co. Ltd., Dewas (MP)
 - Krishakotsav Farmers Pro. Co. Ltd
 - Jabera Krishek Producer Co. Ltd
 - Gondia Vibhag Farmers Pro. Co. Ltd.
 - NUS Shetkari Producer Co. Ltd
 - Vindhyanchal Crop Producer Co. Ltd
 - भोले बीज उत्पादक सहकारी समिति मर्या., ग्राम पंचायत अगडाल,
 - अरिहंत शेतकरी गट, ग्रा.पो. कपिलापुरी, ता. परंडा, जिला-उस्मानाबाद
 - सिद्धनाथ बीज उत्पादक सहकारी समिति मर्यादित, ग्रा. रमपुरा, पो. राजापुर, त. नागौद जि. सतना (म.प्र.)
 - Kinhavali Division Farmer Producer Co. Ltd
 - Bhatsa Shetkari Producer Co. Ltd., At. Andad, Tal. Shahapur.
 - Rukmini Agrotech Producer Co. Ltd., Gat No.-308, Bawachi Road, At.Post Paranda, Tahsil-Paranda, Distt. Osmanabad
 - Krishnabhumi Farmer Producer Co. Ltd., Ward No.1 At.Post -Seloo, Tahsil : Seloo, Distt. Wardha
 - Annadata Shetkari Utpadak Producer Co. Ltd.
 - Bhandara Vibhag Farmers Producer Co. Ltd.
 - Vindhya Sabji Evam Producer Co. Ltd.
 - Unibase Herbal India Pvt. Ltd., House No. 533, Village-Shuklaha, Anagarh Road, Distt. Mirzapur (UP)
 - Yashaswi Farmer Producer Co. Ltd., At. Malegaon (Kali), Pole No.6, Tal. Karanja, Dist. Wardha (MH)
 - Dham Valley Farmers Producer C. Ltd., At. Morangana, Tal. Arvi, Dist. Wardha (MH) 442106
 - Krishonnati Shetkari Producer Co. Ltd., At. Post- Waigaon, Block-Samudrapur, Dist. Wardha (MH) 442305
 - Wagheda Farmer Producer Co. Ltd., At. Post- Wgheda, Block-Samudrapur, Dist. Wardha (MH) 442305
 - Aakaji Maharaj Shetkari Producer Co. Ltd., At. Ekbargi, Post-Mandwa, Tal. Arvi, Dist. Wardha
 - Samagra Gram Farmer Producer Co. Ltd., At. Brahmanwada, Post- Masod, Tal. Karnja, Dist. Wardha
 - Sonanchal Sabji Evam Beej Producer Co. Ltd., Village-Kamhriya, (UP)

- GRAMOTTHAN AGRI HERB AND MARKETING
- BHARTI AGRO COMPOST AND FERTILIZERS
- UNNAT KRISHI ABHIYAN PARISHAD
- CANSON BIO TECHNOLOGIES LTD
- BANBHATTA BEEJ UTPAT SHAHKARI SAMIT DEOLAND
- KRASHAK MITRA
- TUMEN KISAN PRODUCER COMPANY LIMITED
- UNIVES HERBAL
- NAMAN SEVA SAMITI
- CHAURAS FARMER PRODUCER CO. LTD
- SONANCHAL SABJI EVAM BEEZ PRODUCER COMP LTD
- BHATSA SHETAKARI COMPANY ANELAD
- KINHAVALI DIV. FARMERS PRODUCERS COMPANY LTD.

- NARSINH PHARMA & LACTOBAR
- VIPGAN SHAHKARII SANGH BARELI
- ARHIHANT SHEJKARI
- MAIKAL BEEJ UTPADAK
- ANNAPURNA BEEJ UTPADAK
- BHARTIYA KISAN SANGH
- CHATERPATI SHIVRAY SETHKARI GUT
- VAGHEDA FARMER PRO.CO.LTD.
- ANNADATA SETHKARI UTPADAK PRO.CO.LTD.
- SIDDHNATH BEEJ
- SEED PRODUCTION
- KISSAN BHARTI AGRO PRODUCER COPERATIVE SOCIETY LTD
- UTPANN SEEDS
- HANUMAN
- CHATRAPATI SHIVAJII
- KHETKISAN PRODUCER CO. LTD.

Participants over the Globe

Message from FPO

राष्ट्रीय शिखर सम्मेलन के द्वारा नयी
Farmer Producer Company
जो **Startup** करती है उसको एक
दिशा और राह मिलती है किस प्रकार
शासन की किसान हितेशी योजनाओं
का लाभ लेकर किसानों को कृषि के
लाभ का धंधा बना सके एवं किसानों
की आय दुगुनी की जा सके उस और
ये कार्यक्रम मार्ग दर्शन देता हैं।

Ashok Patel
FPO

Madhya Pradesh	40
Maharashtra	50
Gujrat	10
CG	01
Karnataka	05
Uttar Pradesh	01
Tamil Nadu	02
Jammu & Kashmir	01

No. of
Experts/Consultants
Participated 17

No. of Individuals
Participated 78

Message from Speaker

It was my pleasure to hear such a wonderful speakers during the conference. It was a memorable experience from me during the conference to interact with the intellectuals and corporate personalities and discuss very informative issues in order to found various alternatives to various issues particularly to the Agri-Business arena. The points covered were so interesting that it has opened my eyes as well as mind. I truly appreciate the way you covered each and every topic in detail and also cleared our doubts on the same. I, once again, would like to express my sincerest gratitude towards you for such a commendable job and hope to get a chance to hear such great experiences from you in future also.

NAVEED HAMID
Assistant Professor
Agri Business Management SKUAST Jammu

Message from Delegate

It was a great summit, beautifully organized keeping balance of content, innovations networking opportunities and business collaborations. I have really enjoyed the opportunities for interaction with experts during the session and sufficient time allotted for presentations & discussions. This summit has provided opportunities for networking with experts, FPO, startups, academia, government & innovator along-with sharing the innovative work done by them. The good mix of topics presented was very informative & beneficial for the participants. Farmer, FPO and Agri-startups are natural partners and can become a wheel for overall growth of the agriculture sector. The organized exhibition of innovative product & services of various organizations was also a great exposure to participants.

Thank you so much for all your thoughtful and effective organization

Vijay Kumar
JICO GROUP

Program Schedule

Day -1 Commercialization Model for Farm activities

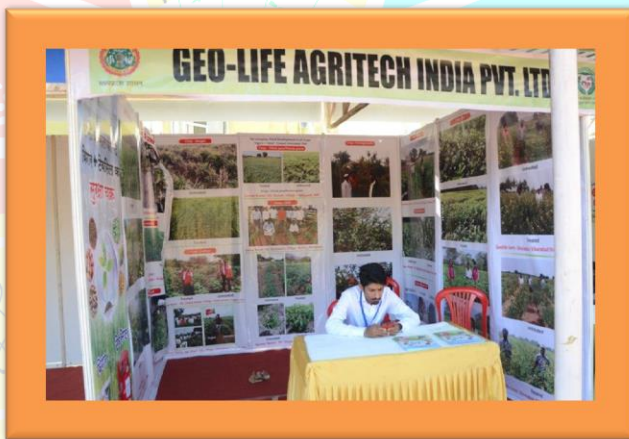
- Innovation in Production
 - Protected Farming in MP.
 - Innovation in Animal Health for Sustainable live stock in India
 - Role of Agri-Input Cos in Value Addition of Farm Produces with High quality Organic Inputs.
 - Nursery Management in Horticulture Crop.
 - Animal Husbandry



- Agriculture Machinery and Agribusiness Services
 - Entrepreneurship in Food Processing : Ideas and Realization.
 - Opportunities for Agri- Business and facilities
 - Innovation in Micro- Irrigation.
 - Seed Processing in integrated agriculture and aquaculture.
 - Food Processing and preservation through agricultural Engineering technology
 - Innovation on Organic Input Production



- Farmer Producer Organizations
 - Various Intervention of NABARD in Support of FPOs across Country
 - Support of SFPC to FPO Banking Services.
 - Credit Linkage support to FPOs from NABKISAN Finance Ltd..
 - Role of FPOs in uplifting of Farmers standards of living
 - New untapped area for agri- business start-up.



Day -2 Commercialization Model for Non-Farm activities



Digital Agriculture

- Smart Agriculture.
- ICT Tools for sustainable Agriculture full visibility of agriculture value chain
- New Disruptive Model in Agri Sector / New Disruptive ICT Models for sustainable grass root development.
- Eco – friendly Artificial Ripening of Fruits & Vegetables with Non-Hazardous Characteristics.

Start -ups

- Transforming Rural India with TCS Pride
- Support of SFSC to FPO Banki Services.
- Vanproz.
- Gramophone.
- Organic Madhya Pradesh
- Agrita Solutions Pvt. Ltd







Sessions Analysis, Conclusion and Potential

Deliverables

Session-0: Inaugural Session

Speaker

Gauri Shankar Bisen	Hon. Minister Gauri Shankar Bisen Minister of Farmers Welfare and Agriculture Development government of Madhya Pradesh 	
Vishwas Sarang	Minister of MP Government 	
Dwarika Singh	Chairman of ACFPCL 	

highlight

KRISHI MANTHAN “The National Agri-business Summit 2017 for FPO & Agri-Startups (innovation and collaboration meet) was jointly Inaugurated with lighting the lamp by the Chief Guests Shri Gauri Shankar Bisen Hon. Minister Farmer Welfare & Agriculture Development, Government of Madhya Pradesh and Shri Vishwas Sarang, Hon. State Minister Cooperative (Independent Charge) and Rural Development, Government of Madhya Pradesh. The summit was also addressed by Shri Suresh Prabhu Hon. Minister, Commerce & Industry, Government of India, through specially sent video by them.

The chief guests and VIPs were greeted by the representatives of FPO, Cooperatives, Startups and Farmers. Thereafter, the chairperson of ACFPCL had welcomed the chief guests and all the delegates. He has given the brief about the program objective and also briefed about the compliance achieved for the recommendations of the previous two summits. In his inaugural address, chief guest has appreciated the objectives of the summit and highlighted the need of such program for the development of the rural India. He had emphasized on the commitment of the government for development of the farming community and rural India. He had also emphasized the need of continued work throughout the year on the findings and recommendations of the summit. He had shared his experience & priorities to ensure the overall development of the agriculture sector for the prosperity of the farming community. Both the chief guest had highlighted the need of development of cottage industries as non-farm activities along with the innovative farm based activities. Both the dignitary asked the summit organizers to work on the promotion of cottage industries, custom processing units and innovative agro-practices in the villages. Both the dignitary had also assured for his all-around facilitation and support for implementation of the summit outcomes and recommendations.

Both the dignitary has raise the curtain for a integrated and unified on-line market place www.fpoasia.com for agricultural activities and stakeholders interaction & engagements.

Findings:

- Development of innovative agro-practices among the farmers
- Innovation on quality food production at minimum cost and transferring maximum value to farmers
- Integration of startups and innovations in the agriculture sector
- Development of cottage industry in the villages
- Development of custom processing units in the villages
- The need of continued working on the findings of the summit
- Integrated and unified on-line market place www.fpoasia.com for the business engagements of the agriculture stakeholders





The need of continued working on the findings of the summit:





Session-1: Innovation in Production

Speakers

Dr. Vijay Agrawal	Department of Horticulture, Government of Madhya Pradesh	Topic : Protected Farming in MP	
Dr. Niranjana Mishra	Principal Scientist, Veterinary Microbiology ICAR- National Institute of High Security animal Diseases	Topic: Innovation in Animal Health for Sustainable Live Stock in India	
Mr. S. Firoz Ahmed	Business Head Geolife Agritech India Pvt. Ltd	Topic : “ Role of Agri- Input Cos in Value Addition of Farm Produces with High quality Organic Inputs”	
M. Vinayak Narawade	Aai Goat Farm	Topic : Animal Husbandry	

highlight

The key highlights of the session was that, the future is going in the direction of protected farming, Integrated Farming system, diversified organic farming, nutrition sensitive agriculture, high return agriculture etc., it can only be achieved through adoption of innovative techniques & technologies, maintaining adequate soil health, organically supplying nutrition to soil, proper integration of animal husbandry, promotion of horticulture (fruit, flowers & vegetables etc.), adoption of need based poly houses/ shed-net etc. the speakers highlighted about the current needs, benefits to farmers & farmers organizations,, new technologies, innovative practices in there respective presentations. They have also highlighted about the proven technologies and practices available in the market which can drastically change the future of the farmers.

Dr. Vijay Agrawal has given a detailed presentation on protected farming and highlighted the needs, benefits, available technologies and support & facilitation services available from the government.

Dr. Niranjana Mishra has given detailed presentation on innovation on animal diseases and how it can help the farmers for getting quality & high value output by adopting the innovative animal husbandry practices and disease control.

Mr. S. Firoz Ahmed has presented about the innovation in organic input which can drastically enhance the quality of production and also drastically reduce the input cost for production. He has also highlighted the production of proven input at local level with assistance from the scientists. He has given insight about how farmers can go for export quality production and get benefits.

Mr. Vinayak Narwade has given in depth presentation about the benefits of goat keeping, demonstrated the various product from goat milk. He has also presented the available good goat breeds most suitable and profitable. He has given a profitable model of goat keeping to farmers .

The experts realized that farmers can be benefited with these available innovations in production with due support from government and integration of various stakeholders like research institution, private entrepreneurs, Financial institutions, extension functionaries, farmers and experts. There are immense possibilities of generation of rural entrepreneurship in agriculture productions like protected farming, poly-house, nursery, animal husbandry, vet clinic, AI, Organic fertilizers; Organic Pesticides, seed production etc. provided government facilitate in validation of the available technologies, techniques and practices with the help of universities and research institutions. Bank can support the financing of production units based on the validated technologies & practices. Extension people can support the same in terms of knowledge & technology information disseminations.

Findings:

Promotion of Input products at cluster/village level (organic fertilizers, pesticides, cultures etc.) and integration with universities, research institution and certified master formulators.

Policy based time bound organized effort should be initiated by the government with the help of financial institutions for promotion of the production of the identified input material through local entrepreneurs.

A proper online market place should be created by government under PPP mode to ensure the proper distribution and marketing of the input products and output produce.

Animal husbandry & horticulture must be scientifically & effectively integrated with the agriculture plan for future agriculture “ The nutrition sensitive agriculture”

Integrated Veterinary services, technology and veterinary product marketing place should be enabled under PPP mode.


Innovation, excellence, skilling & entrepreneurship should be promoted in Agriculture production in most organized and effective way.



Session-2: Agriculture Machinery and Agribusiness Services

Speakers :

Dr. Shalini Chakarbarty	Scientist, Fruit Research Station.	Topic: Entrepreneurship in Food Processing: Ideas and Realization.	
Dr. Sunil Nahatkar	Associate Director Of Research Services & Nodal ,Officer of Business Planning & Development Directorate of Research Services J.N.K.V.V. Jabalpur	Topic: Opportunities for Agri-business and facilities provided by BPD~JNKVV	
Dr. Murley Iyer	Jain Irrigation	Topic: Innovation in Micro-Irrigation	
Dr. P.P. Ambalkar	Sr. Scientist Central Institute of Agriculture Engineering	Topic: Seed processing in integrated agriculture and aquaculture. Food processing and preservation through agricultural Engineering technology	

Dr. A.B. Singh	Sr. Scientist Indian Institute of Soil Science	Topic: Innovation on Organic Input Production	
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highlight

The speakers have highlighted the need of the innovative & smart equipment's & machineries most suitable to small & marginal farmers for increasing the production, productivity and value additions.. The speakers have given the insight about the innovative equipment's & machineries available for the production, harvesting and post harvesting areas. Speakers have given presentation about primary processing machineries, culinary processing machinery as well as processing of ready to eat machineries. They have presented about the innovations in mechanized composting, culture production machineries, organic fertilizer production, smart irrigation & fertigation machineries, smart ripening chambers, smart hatchery, poultry, dairy & milking equipment's, drier & pulverize, pulping & juicing machineries, various packing & pouch making machineries. The speakers highlighted the need of IOT(internet of Things) based smart equipment's for remote handling and operations more specially in the sector of irrigation, warehouse, paste control and food processing. Speaker has highlighted the need of smart humidity control and temperature control for production, warehousing & paste control. They have highlighted how the electronics is making the equipment's intelligent and making them more efficient. Experts have also demonstrated the products through video as well as physically. Audience found many interesting equipment's suitable for their work which they can integrate into their business model. Food processing & packaging equipment's, compost & culture making equipment, smart irrigation & fertigation equipment's and smart paste control equipment's has drawn the attention of the audience.

Findings:

Small Input production equipment's like compost making, organic fertilizer production and culture production should be provided to village level entrepreneurs.

Small, smart, cost effective & efficient planting and harvesting equipment are the need of the Indian farmers. They also felt need of digital Insect/pest control/management equipment's that can reduce the need of the pesticides.

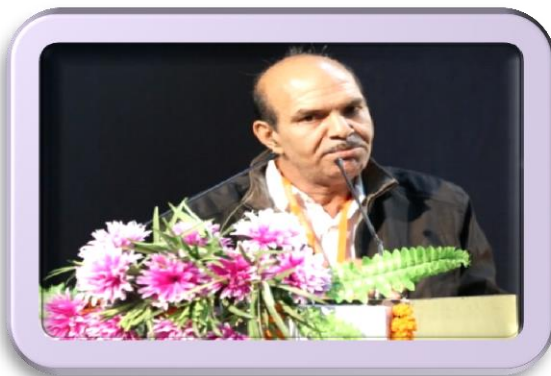
Small and smart ripening chambers can be provided to small entrepreneurs especially in the city area i.e. at consumption end.

Smart irrigation equipment's capable of fertilizers management and remote operation & management should be provided to ensure available to farmers at cost effective way. It can become a business model to FPO.

Digitally controlled small food processing machines should be made available to farmer entrepreneurs at village level and it should be integrated directly with consumers or processors.






FPO, startups and entrepreneur farmers are highly interested for machineries to help in processing & monetizing the weeds and agriculture refuse


Experts recommended to setup minimum/primary processing units at village level by village level entrepreneurs with direct linkage to marketing/processing companies.



Session-3: Farmer Producer Organizations

Speakers

Mr. Sourabh Sharma	National Bank for Agriculture and Rural (NABARD) Development Madhya Pradesh	Topic: Various Interventions of NABARD in support of FPOs across country.	
Dr. Vijay Athawale	Consultant Small Farmers Agri – Business Consortium (SFAC)	Topic: Support of SFSC to FPO Banking Services	
Mr. Khalid Ansari	National Bank for Agriculture and Rural Development Madhya Pradesh	Topic: (NABARD) Credit linkage support to FPOs from NABKISAN Finance Ltd.	
Mr. Sunil Kumar Keshri	Regional Manager (MP & CG) Harvel Azud India Private limited	Topic: Micro Irrigation Concept.	
Mr. Satyajit Kitture	Present Director Mark Agri Genetics Private Limited Mumbai	Topic : Role OF FPOs in uplifting of farmers standard of living.	

Dr. Naveed Hamid	Assistant Professor Agri Business Management SKUAST Jammu	Topic: New Untapped area for Agri- Business Start UP	
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highlight

This session was specially focusing on the product, services, support, compliances, linkages and business models required to make the FPO/FPC self-sustainable. In this session speakers were having a long term organization linkage and working with FPO/FPCs.. this session was given an utmost priority while placing the speakers. The speakers was drawn from NABARD, SFAC consultant, academia and private companies. Speakers was taken from multiple states to understand the real scenario to draw the real solutions. Speakers from NABARD has covered the two aspects, first one as support and facilitation support services provided by NABARD to FPO/FPCs and second one as the financial funding & credit facilities provided by NABARD to FPO/FPCs. Under this one very crucial thing came on surface that for availing these facilities FPO/FPCs must provide full institutional compliances like auditing, accounting, return filling etc. but most of the FPO/FPC present there said they are not having most of the compliances desired by NABARD and other Banks. They suggested the need of dedicated agency to support for ensuring their institutional compliances. Speaker also highlighted the equity grant & venture capital support available from SFAC but again compliances came into the road. Speakers from private industry expressed their willingness to work with FPO/FPCs with their business models but financial credit required from financial institution and for this again institutional compliances came into picture. For working with private companies FPO/FPCs suggested to get a product & services validation from government authorized institution for authenticity of product & services to save farmers from frauds. Academia speaker J & K given business models for Keshar product to other FPO working in other state i.e. he advocated for networking between FPO/FPCs & academia for intra-FPO/FPCs business to break the geographical business borders

Findings:

Institutional compliances must be ensured for transferring the benefits of various government schemes.

Convergence of schemes for support.

Expert advises on production, processing and marketing.

Dedicated portal and mobile application for FPO/FPC, Startups, input providers, processors and all other agri-business stakeholders.

Dedicated e-commerce portal.

Financial support, credit limits, tax exemptions etc. at low interest rate.

Development of support infrastructure.

SFAC Guarantee cover and matching Equity Grant to be extended to all registered FPOs/FPCs.

Government to notify that CSR Funds to be extended by companies to promote and stabilize.

- FPOs/FPCs.

- Financial services, insurance services, input supply services, procurement services, technical support services, marketing & packaging services.







❧ कृषि मंथन ❧



Session-4: Digital Agriculture

Speakers

Mr. Santosh Jha	Director Agri Sensors and Controls.	Topic : Smart Agriculture	
Mr. Surajit Sinha	Source Trace	Topic : ICT-Tools for Sustainable Agriculture full visibility of agriculture Value chain	
Mrs. Pragati Gokhale	Principal of Scientific Officer (MIGRI) Micro Small and Medium Enterprise (MSME)	Topic : New Disruptive Model in Agri. Sector/New Disruptive ICT Models for sustainable grass root development	
Dr. Piyush Kumar Soni	Group Head-Corporate Relations & Researcher Sagar Group of Institutions (SIS- Tec)	Topic : Eco-friendly Artificial Ripening of Fruits & Vegetables with Non- hazardous Characteristics	

highlight

The speakers have highlighted about the digital technologies transforming the agriculture sector. Information and communications technologies (ICTs) such as mobile phones, IOT sensors, GPS, GIS and SMS messaging are changing the way farmers track weather patterns, access market information,

interaction with solution providers, interact with traders and government agencies. Digital technology is helping the farmers to get resilience to various shock through increasing their access to weather and market information along-with making more informed decisions regarding when and which crops to plant as well as when and where to sell those crops.

Speakers have pointed out that, future Agriculture will be digitally integrated at all stages i.e. right from genetics, breeding, production, logistics, processing and consumption to advisory, extension, marketing, agri-clinic and other solutions. Very soon, Agriculture sector will start using the digital innovation to improve decision making for farmers, agribusiness, policy-makers and researchers.

Speaker have also highlighted the benefits of the adoption of digital technologies like satellite imagery, high-tech sensors, mobile applications, GPS, GIS etc., for more focused, smarter, simpler and effective decision making. With the use of digital technologies farmers can save time, lower costs, increase yields and use the resources more efficiently and sustainably. Digital Agriculture will bring many other benefits also to agriculture sector like Geo-plotting of farms, Crop monitoring, input distribution, e-traceability, Advisory services, harvest planning, certification, procurement, smart solution for modern farming etc,

Speakers have demonstrated the use of digital technology, IOT, Mobile & application for farmers to have field level control from anywhere any time basis and can have timely field-level information for selecting the right varieties and accurate dosing of fertilizer or crop protection. The digital technology also suggest the ideal time for crop protection measures and recognizing plant stress factors at an early stage.

It is mentioned by speakers that the Integration of Digital Farming practices together with the modern digital innovations, smart farm machineries, agri-value chain, supply chain and market will evolve new regime in agriculture such as ecosystem simulation, crop simulation, production simulation, soil mapping, climate modeling etc. which will result more value with less input. It will also enhance the yield potentials with the smart usage of resources like fertilizers & water etc.. In the very near future, real-time analysis of farm data, simulations and mapping will help farmers to identify pests, diseases, weeds etc.. it will facilitate the farmers to get instant remedies & solutions



Findings:

- Digital Agriculture and mobile technology should be promoted for having complete visibility from field to market and also to tracks the value chain, proper traceability, accountability, value chain and export market.
- Digital Agriculture must be adopted and promoted to make farming profitable and sustainable i.e. crops production at minimum cost along-with risk mitigation
- Digital Farming combined with Artificial intelligence should be promoted to deliver area specific, field-specific, crop specific and market specific on-time solutions with quick & intelligent actions
- Adoption of modern digital technologies like satellite imagery, high-tech sensors, mobile applications, GPS, GIS etc. will enable the farming stakeholders as well as policy makers to take well informed and workable decisions
- Digital agriculture must be adopted for seamless partnering with agriculture stakeholders such as universities, research institutes, farmers, farmers organizations, members of the value chain, startups, entrepreneurs



Session-5: Start-Ups

Mr. Vijay Kumar	ITCO Group Of Companies	Topic: Startup	
Mr. Ajay Mishra	Kissan Bharti Agro Producer Cooperative Society Ltd.	Topic: Kissan Bharti Agro	
Mr. Dev Bhardwaj	Kisan manch.com	Topic: Kisan Manch.	
Mr. Sudhakara Ganesh Meenakshisundaram	TATA Consultancy Services	Topic: Transforming Rural India with TCS PRIDE™	
Dr. Vijay Athawale	Consultant Small Farmers Agri – Business Consortium (SFAC)	Topic: Support of SFSC to FPO Banking Services	
Mr. Prabudhha Mishra	Vanproz	Topic: Vanproz.	
Mr. Piyush Raj Saxena	Start-up	Topic : Startup.	
Mr. Tausheef Khan	Gramophone Startups	Topic: Gramophone	

Mr. Swapnil Shrivastava	Organic Madhya Pradesh	Topic: Organic Madhya Pradesh	
Mr. Ganga Prasad Swami	Agrita Solutions Pvt. Ltd.	Topic: Agrita Solution Pvt. Ltd.	

highlight



Key facts:

Founder: Dev Bhardwaj

Industry: IT

Founding year: 2012

Initial Investment: 2.5Cr

Present turnover: 60 Lakhs

Employment generation: 3226

Farmers/Customers outreach: 1,50,000

Visit On : www.kisanmanch.com

Kisanmanch Founder “ Dev Bhardwaj” has close to 15 years’ experience in Data Architecture Designing, Data Warehousing, Data Mining and Forecasting

Kisanmanch is a Real Time Agriculture, Horticulture & Livestock Information Management Solution for Department of Industries, Govt. of Himachal Pradesh on the one side (Supply) and will also aggregate Industry Demand of Raw Materials on the other side.

Progress: The Company has established 3 contract agriculture projects so far in last one year. Kisanmanch is working as field implementation agency (providing crop know how, on farm support , planting material, crop inputs products & secured buyback) for Stevia Biotech Private Limited to cultivate Stevia in 1200 acres in north India. Kisanmanch is in advance talk with Sukhjiti Agro through Department of Industries, Govt. of Himachal Pradesh in order to supply 100 Ton Daily Corn by aggregating Farmers Data on Kisanmanch Platform in Himachal Pradesh to process into poultry feed & Cattle Feed. Kisanmanch is also in advance talk to take up 600 acres of Corn Cultivation for Silage in Kolkata for a Leading Gaushala consisting approx. 50000 Local Indian Cattles.



Rewards & Recognitions:

- Kisanmanch Ranked among 100 Top Social Enterprises in India by Action for India at India Habitat Center, New Delhi.
- Kisanmanch received Agriprenuers Award at Constitution Club, New Delhi by EAI.
- Kisanmanch received Himachal Achiever's Award at Gaiety Theater, The Mall Shimla.
- Kisanmanch received Krishi Bhushan Award at National Agribusiness Summit for FPOs & AgriTech Startup at Bhopal, Madhya Pradesh.



DEV BHARDWAJ

mission : "Sustainable Solutions For Agriculture"

- Vanproz Agrovvet LLP is one of India's leading plant biotechnologies companies specializing in 100% natural & safe Agricultural Inputs. The company's portfolio includes disease management and nutritional products catering to a wide range of plants & animal kingdom.
- Vanproz is having collaboration with IIHR to carry out R&D for developing agri inputs & certified biotechnology start-up by Government of India. Within 1 year of inception Vanproz has applied for 2 patents.
- Research & Development is a passion at Vanproz. A strong R&D program has resulted in the development of several unique patented products and solutions for a variety of problems related to nutrition & disease in plants. The R&D program also works on the preservation and propagation methods of Seaweed aimed at conserving their natural properties and maintaining the desired quality. This aspect is taken up by self and contract farming of seaweeds and their propagation by standard techniques like raceway pond, photo-bio-reactor & in open cultivation in sea. The rigour applied to product discovery applies to formulation development and product testing too.
- Vanproz is having 2 MT per day capacity production plant at Peenya, Bangalore. Our production plant is certified by IFOAM international organic certification.
- **Innovative Products-**
- **V-Bind (Virucide)** - After three years of research, Vanproz has developed Virucide for mosaic virus management in Gherkins/Cucurbits. Trials have been done with many reputed companies in India & Abroad.
- **V-Kure (Fungicide)** - V-kure is a broad spectrum organic fungicide with zero residue benefits.
- **Immun- Immun** is a biostimulant for plants with immune enhancing properties, trials have been done in multiple climatic zones of India and satisfactory results obtained with many crops.

PRABUDDH MISHRA



Agreeta encompasses a holistic view of agriculture in India.

Our Vision is to help increase the productivity of stakeholders in agriculture by empowering them with the right tools and right information at the right time via our unique one stop Agreeta platform.

Agreeta Aims to help resolve issues in agriculture that can be controlled and managed while being aware that factors such as weather will always remain unpredictable. The Agreeta platform uses the power of internet and mobile phones to provide easy to use applications, powerful content, and implementation services to achieve its goal of increasing productivity.

AgFARM for companies enables Agreeta to reach farmers working with them to maintain farm records which helps companies provide relevant recommendations to the farmers and track and monitor their progress. AgFARM for farmers helps individual farmers maintain basic farm information themselves.

- Record Maintenance
- Document Storage
- Soil Testing Recommendations – Geographical and Yield based
- Crop Analytics
- Dashboards and Reporting
- Package of Practices (POP)

GANGA PRASAD R. SWAMI



At Gramophone we strive to create a difference in farming by bringing timely information, technology and right kind of inputs to achieve better yields for farmers. Our endeavour is to bring the best products and knowledge to the farmers. Gramophone is one stop solution for all kinds of inputs for the farmers. Farmers can buy genuine crop protection, crop nutrition, seeds, implements and agri hardware at their doorstep.

We believe that technology can remove information asymmetry in the agriculture system. Farmers can access localized package of practice, crop advisory, weather information coupled with the best products to grow. This will improve the productivity and help farmers sustainably increase the income from agriculture.

TAUSEEF KHAN

SourceTrace Systems India Pvt. Ltd.

We are from Source Trace systems a global leader in digital agriculture solutions and provide innovative CT tools for improvement of digitization of agriculture value chain. Our mobile application and solution helps organization who are involved in projects for promoting sustainability and livelihood improvement for small holders farmers.

Source Trace tools are specifically designed for smallholder's farmers indeveloping countries and so far Source Trace solution has impacted more than 500K farmers across 21 countries in Africa, Asia and Latin America.

Our solution is unique and can be widely adapted in agriculture and allied sector for improvement of the value chain.

SourceTrace application includes:

- Farmer, farm and crop enrolment with GPS mapping,
- Traceability from farm to fork
- Yield monitoring and harvest prediction
- Farm monitoring and Inputs distribution
- Digital Procurement and supply chain
- Payment processing with bank account linkages
- Monitoring and Evaluation
- Inventory tracking
- Farm/Farmer data collection & monitoring, with real time farm pictures
- Farm Area Mapping, plotting & geo location
- Internal Control System (ICS) for various certifications such as Fair Trade, UTZ, BAP
- Farmers advisory services , text and voice messaging services
- Market Linkage
- Remote sensing based crop management
- Weather forecasting



Organic Training

"Mere desh ki dharti sona ugle, ugle heere moti, mere desh ki dharti",

Our India is a country where 60% of the population is involved in agricultural activities but yet this song means worthless when our farmers are barely able to sustain themselves on farming, reason being the lack of awareness and knowledge of proper farming techniques due to which even after giving so much of hard work and time, farmers remain empty handed.

COLD STORAGE

"Prevention is always better than cure", this could be applied to our eatables as well.

Despite of being the largest producer of fruits and second largest producer of vegetables, India is still lacking behind in terms of revenue generation from these products since there is lack of awareness about post production protection of agricultural products that lead to huge losses (around 30% of production) due to rotten products and then inflation in the prices of such fruits and vegetables.

ORGANIC CONSULTANCY

"Old cannot always be gold",

With rising demands of organic products in the market, farmers need to adopt new methods to fulfill the demands and producing better products and giving maximum outputs using efficient techniques adhering to maintain quality standards of the products.

soil testing

"A little knowledge is more dangerous than ignorance",

Our farmers are still dependent on their old traditional farming methods which are not so accurate that often results in deterioration of the crops or the soil at a large scale. Lack of knowledge and awareness among our farmers lead them to disappointment, Organic MP aims to ensure that we bring in to the knowledge of our farmers/producers about the trending farming practices to avoid any sort of losses. One of the most important aspect of farming is Soil testing, which is one of diagnostic tool used to evaluate soil quality, specifically pH, and soil nutrient and organic matter levels.

Contract farming

We need to change our thinking regarding agribusiness, although it is declared as a commercial sector but at the ground level it is still considered as a family occupation.

Organic MP aims to make improvements in agribusiness by including the Contract farming that involves agricultural production being carried out on the basis of an agreement between the buyer and farm producers.

SWAPNIL SHRIVASTAVA



ITCO GROUP
A SYNONYM TO QUALITY

We take profound pleasure introducing ourselves as “ITCO GROUP”, a name that is synonym to quality, efficiency and customer satisfaction. Established in June 1996, we have a reputation of churning out quality. The companies of this group always look forward to provide the best in quality and customer satisfaction.

The companies of our group deal in handicrafts, garments, metals and construction materials. More specific examples of the products the companies of our group (our sister concerns) deal in are:

Hotel wares / Kitchenware: Stainless steel, wooden, copper dishes, dinner sets, hotel ware, cutlery spoons, forks, knife handles, deep fry pans, etc. To sum up we have a wide range of items for you to choose from.

Garments: We are the manufacturers & exporters of garments like fischerhemd, Indian traditional wear, western casuals and also deal in garment stock lots.

Food Items: **Sugar** – IC 45 (Brazil), Sugar – S 30 (India), Rice – Basmati 1121, Non-Basmati – PR11 SELLA, IR64 SELLA, Wheat, Cotton, Chicken & Meat.

Metals: Copper Cathodes (Electrolytic Copper) Sheets, Copper Scrap, Iron Scrap – HMS 1 & 2, Brass Scrap, Aluminum Scrap, etc.

VIJAY KUMAR



किसान भारती एग्रो परपज को ऑपरेटिव सोसाइटी लि.

पंजीकृत कार्यालय:- डी.ए.वी. स्कूल के सामने नया बाजार लश्कर (म.प्र.)

भारत सरकार की वर्तमान नीतियों एवं सिद्धान्तों से ही प्रेरित होकर हमने “ किसान भारती एग्रो परपज को ऑपरेटिव सोसाइटी” के रूप में यह पहल की है कृषक वर्ग को उत्साहित एवं शिक्षित करने के साथ साथ हम अपने कृषक सदस्यों की कृषक भूमि पर जैविक खाद से उत्पादन वृद्धि तो ले रहे हैं तथा साथ साथ अन्य वैकल्पिक उत्पादों पर भी उनकी रुचि जागृत कर कृषको की आय वृद्धि के क्षेत्र में भी हमें दिन प्रतिदिन सफलता मिल रही है इसी क्रम में हमारे द्वारा लगभग 10000 सदस्य बनाये जाकर लगभग 8-10 हजार एकड़. भूमि पर जैविक खाद के उपयोग से कृषको की आय वृद्धि में हमें लगातार सफलता मिल रही है।

उक्त प्रयासों में सफलता से उत्साहित होकर हमारे द्वारा कृषक सदस्यों को हम बागबानी, पशुपालन, मधुमक्खी पालन, सोलर एनर्जी, पानी की बचत आदि वैकल्पिक उपायों को प्रयोग में लाकर उनकी आय वृद्धि करने में भी हमें लगातार सफलता प्राप्त हो रही है उक्त प्रयासों के ही साथ साथ हम कृषको के छोटे छोटे समूह बना स्वरोजगार उपलब्ध करा कर हम कृषक महिलाओं को भी अपने साथ लेकर महिला सशक्तिकरण की दिशा में भी कार्य कर रहे हैं। हमें इस कार्य में भी सफलता मिली है कि हम कृषको के उत्पादन के विक्रय हेतु विभिन्न क्रय केन्द्रों से संपर्क करके उन्हें उचित मूल्य दिलवा रहे हैं।

वर्तमान में हम भले ही केन्द्रीय सहकारी अधिनियम 2002 के अंतर्गत सहकारिता विभाग भारत सरकार दिल्ली द्वारा केवल मध्य प्रदेश एवं उत्तरप्रदेश में ही कार्य करने हेतु अधिकृत किया गया है किन्तु देश की आवश्यकता, कृषको की आयवृद्धि, पर्यावरण, महिला सशक्तिकरण, जल एवं जमीनों का सदुपयोग आदि विषयों पर प्राप्त सफलता से उत्साहित होकर हम भविष्य में अन्य राज्यों जैसे हरियाणा, बिहार, राजस्थान, गुजरात, छत्तीसगढ़, उत्तरांचल एवं हिमाचल प्रदेश में भी अपना कार्यक्षेत्र विस्तृत करने की योजना बना रहे है यदि हमें भारत सरकार द्वारा पर्याप्त सहयोग मार्गदर्शन एवं उत्साहवर्धन समय समय पर मिलता रहा तो हमें पूर्ण विश्वास है कि हम अपने कार्यों में पूरी तरह से सफल सिद्ध होंगे।

AJAY MISHRA



AS AGRI SYSTEMS PVT LTD

Technology | Innovation | Sustainability

We are a technology driven Agriculture company with focus on empowering farmers with our innovative smart irrigation systems and precision farming methods for sustainable agriculture

PROBLEM STATEMENT

Low crop yield due to reliance on traditional methods of irrigation, fertigation and pest control

WHAT AS AGRI SYSTEMS DOES ?

Irrigation Automation

- Sensor based irrigation system, controlled remotely through mobile app.
- Optimal usage of water using 'soil moisture' sensor / scheduler Smart Fertilizer Management
- Controlled and convenient way of mixing fertilizers in right quantities.
- Scientific fertilizer recommendation based on multiple parameters Predictive Pest & Disease Control.
- Real time monitoring of environmental conditions to predict pest / diseases.
- Maintain historical records of parameters leading to pest growth or crop diseases.

SANTOSH JHA



Research Paper

Prosperity of farming community is possible by adopting the culture of Nutrition Agriculture for food production and “Sustainable Diet” in consumption.



“Taking nutrition via food rather supplements or medicine”

Abstract

Now a day, peoples are taking about the malnutrition and rising incidents of health related problems. It is partly due to agriculture production & processing are not having nutrient outputs as an explicit goal. A better understanding of what is required from agricultural production and food processing for healthy and sustainable diets is needed. Sustainable diet can only be possible by adopting the nutrition sensitive agriculture. To implement the Nutrition-sensitive agriculture, it is needed to consider and understand the role of biodiversity in improving dietary quality along-with dietary diversity as well as seasonality in food supply. In order to close the nutrition gap, apart from improvement in agricultural systems, efficient storage and food processing technologies to prolong the availability of nutrition along with shelf-life are required. The essential part of nutrition-sensitive agriculture is to ensure that, farmers are knowledgeable enough about production systems, which sustainably provide adequate amounts of nutritious food while conserving the environment. At the same time, for the benefits of nutrition-sensitive agriculture to be realized, it is must to educate the consumers to understand what constitutes a healthy and sustainable diet.

This article has aim to cover the gist of sustainable diet and nutrition-sensitive agriculture. It is highlighting what is needed to change in the current practices of entire food chain i.e. from production to consumption or in other words from farm to plate to enrich and preserve the nutrition for ensuring the transfer of optimal health benefits through natural way i.e. through natural food. We can say it, as change in production, processing & packaging, storage, supply chain system to attaining the goal of sustainable diets specifically suited for individual's diet & health requirements. Producing the nutrition sensitive food most suited for consumer's health will also fetch good revenue to the farmers.

Introduction:

A major part of our population is facing the problems of malnutrition which is also termed as 'Hidden Hunger'. It is partially due to agriculture production is not having nutrient output as an explicit goal and partially due to nutrition & health communities have used agriculture too little as a primary tool in their nutrition programmes. Now consumers itself have started searching for sustainable solutions to such

failures through holistic food-based systems and innovative agri-startups started focusing on linking agricultural production with improved nutrition & human health, sustained livelihood , a potential business alternative and a route for rural prosperity.

It needs coordinated work in production, harvesting, post harvesting activities, food processing, supply chain, logistics and marketing activities for ensuring the availability of food with needed ingredient for domestic as well as export markets. It needs application of due technologies and expertise at each and every level to ensure the prevention of nutrition losses

Definition of sustainable diet:

The sustainable diet can be defined as: “Sustainable diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable & accessible, economically fair & affordable, nutritionally adequate, safe and healthy while balanced & sustained utilization of natural resources”

The above definition indicates that the diversified farming is the sustainable farming and sustainable farming is the natural road for sustainable diet or nutrition-sensitive custom diet. Other than the production, when moving along the food value chain, nutrition sensitive food will encounter a big road blocks where food processing starts

Current problems

Micronutrient deficiency is a very widespread form of malnutrition, caused by inadequate intake of fruits, vegetables, animal-source products and other micronutrient-rich foods. The nutrients deficiency is the root cause of many of the health issues of common people. It is high time to ensure the nutrition access to common people and address the many of the health & nutrition issues. To achieve this a comprehensive long term policy should be implemented which can ensure a continued efforts to

increase dietary diversity in agriculture production. It will give a long-term solution to all forms of malnutrition and health issues arising due to lack of nutrition.

Solution of the problem:

In-order to address nutrition security issues and convert the concept of nutritional functional diversity into reality, the agriculture production practices should emphasize the availability of nutritionally distinct crops in a cropping system rather just looking only at the relationship between crop diversity and nutrition with the human health.

Nutrition-sensitive agriculture requires consideration and understanding of the role of agro-biodiversity in improving dietary quality and dietary diversity. It is acknowledged that the consumption of a variety of foods across and within food groups almost guarantees adequate intake of essential nutrients.

To achieve the objective, our Vision should focus on becoming a leading global player in this upcoming innovative food market and work with a mission to stay ahead in R & D, innovation, production, processing and marketing with creating long-term meaningful global partnerships with farmers, academia, industry and consumers for understanding their real needs and consistently delivering the superior quality food ingredients and services.

Although supplementation and fortification of food are well-established methods to cover the micronutrient needs in our diets. There are many such examples like iodine, vitamin A and iron. Many other well-known nutrients, such as zinc, have received less attention although elimination of zinc deficiency improves health status considerably. But the key point here is the presence of nutrition in available form and the side effect of the fortification.

What to do:

Nutrition-sensitive food production:

Agriculture practices can use several approaches to improve the nutritional quality of food crops and output of agricultural systems but to achieve this, active involvement of nutrition and health sectors with agriculture production is a must. Government policies must support these approaches and the profitability of participation in the relevant approaches must be made clear to farmers. Nutrition-sensitive agriculture package of practices needs to examine all food groups and production intensity at the regional level, especially fruits and vegetables, to ensure adequate supply in quantity and quality.

Development of integrated food system rather just agriculture system

The role that agricultural production can play in contributing to balanced nutrition is outlined but it must be understood that a multitude of effects exist along the entire food supply chain that add up to a complex model. All sectors of the food chain are not integrated in the agricultural system. At some point food processing starts and from here the responsibility of agriculture for food systems ends. No clear borders exist between the different fields of activities like food production, post harvest and food processing at household or at food industry level. Communication between the stakeholders of the different fields is an important prerequisite to understanding the different roles and responsibilities for producing and processing foods that will ensure sustainable diets (diet with required nutrition's).

Suggestive implementation strategy:

For ensuring the nutrient-sensitive customized food for consumers, it is mandatory to focus on all the areas linked to the food cycle i.e. from farm to plate (production to consumption). The major areas of food cycle which, required monitored attention are as follows:

1: input to farm:

The input supplied to soil during production is the primary factors as well as base for nutrition and contaminations of the food. Most of the input to crop should come from natural resource base like water, soil, air, climate

2: Soil fertility and quality:

Complex chemical, physical and biological processes carried out by the soil biota affect the availability of nutrients in the soil. These in turn affect the quality of the soil, the quality & yield of crops and the general health of ecosystems.

3: Integrating legumes into cropping systems:

Legumes crops are naturally supplying the nitrogen to the soil and improving the soil health so, integrating legumes into a farming system is one solution to naturally increase nitrogen inputs and recycle the nutrients as well as conserve soil resources for low input agriculture.

4: Bio-fortification of soils:

In combination with fertilizers, essential mineral micronutrients that are deficient in a population could be added to the soil, which would not be very expensive.

It is questionable how sustainable this approach is in the long term as the micronutrients have to be continuously available and affordable for farmers. There are also questions about application methods, soil composition, and mineral mobility in the plant.

5: Agro-biodiversity:

Agro-biodiversity is the basis of the food and nutrient value chain and its use for agriculture production is important for sustainability of food and nutritional security. It is mandatory to adopt the production diversification (diversified farming) to ensure the production of nutrient-dense crops and livestock

6: Food processing:

As we know nutrition starts depleting with processing and preservation. Most of the prevailing practices of processing and preservation are not made to preserve the nutrition & alkalinity of the food, they are just to increase the shelf life. The nutrition starts depleting just after the harvest and it is more in fresh

items like fruit & vegetables so, it is needed to develop most effective processing & preservation practices to protect the nutrition and alkalinity of the food so that we can say it as non-junk food.

7: Food fortification:

Food fortification is either a market driven fortification suitable for commercial choice for providing extra nutrients in food, or it is a public health policy driven fortification which aims to reduce the number of people with dietary deficiencies in a population. fortifying foods with micronutrients is a valid strategy as part of a food-based approach however, it is not an alternative to the consumption of a variety of available foods constituting a nutritionally adequate diet. fortified food are only acceptable when necessary food supplies are not available or accessible.

8: storage:

To prevent the nutrition & hygiene in the food, storage plays a crucial role and it becomes more critical in case of fresh foods like fruits & vegetables. The storage and cold chains should be designed with the prospective preserving the nutrition as well as shelf-life.

9: end point supply chain and retailing:

Contamination and loss of nutrition are more prominent while handling the end point distribution for retailing. At this point contaminations are more prominent than nutrition however end point handling may also lead to loss of nutrition along with the contaminations.

Awardees



Integrated Socio-Economic Development Services

Transformation and Development of MSME & Startup for Global Opportunities



Feedback Analysis

2017 National Summit Feedback Analysis					
S.No.	Questions	Response			Total
		Excellent	Good	Ok	
1	The speakers knowledge about the subject ?	32	23	3	58
2	Was the session useful and relevant to the topic?	19	34	5	58
3	Was the session interactive and interesting?	12	38	6	56
4	Does the session, fulfills your requirement?	16	36	5	57
5	How was the quality of session content ?	27	27	2	56
6	How was your interest held ?	23	27	4	54
Total		129	185	25	339
Average		38.0531	54.572	7.3746	100

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