CARD

Centre for Agriculture and Rural Development

Farmers Training and Inter State Exposure Visit Programs under ATMA and NHM Schemes

on

Agriculture, Horticulture and Livestock

FROM EXECUTIVE DIRECTOR's DESK

Government of India initiated the extension reforms programs in agriculture a long time ago. But it was only schemes like ATMA, NHM and HTM that really proved to be a watershed in the Agri Extension programmes. These schemes were mainly based on the concept of "Seeing is Believing". The farmers, through the medium of Demos, Melas, Training and Tours, are acquainted with the agricultural techniques practised elsewhere and based on the results they get motivated to replicate the same in their farms. So far, the Technology Exposure Tours have been found to be the best source of informal learning for the farmers. So, these schemes have helped farmers not only raising the farm productivity- both quantitatively and qualitatively, but also have become the prime reason in improving economic conditions of farmers with added advantage of capacity building.

Centre for Agriculture and Rural Development, a national level non-profit organization is on the forefront of addressing the multitude of issues concerning agriculture, environment and society at large. The organization, among many other endeavors concerning farmers, also focuses on organizing and mobilizing communities to local as well as external resources for social, educational, environmental, technological and developmental interventions. CARD also undertakes training, capacity building and exposure visits by organizing business and technical seminars, workshops, technology tours and agro fairs to different parts of the country.

CARD is the only national level organization, conducting farmers' technology tours on behalf of various State Governments and District Authorities. CARD has successfully executed a large number of farmers' exposure visits cum training programs for a number of states and agencies. CARD has developed over 45 tour modules and 12 training programs, suiting the needs of farmers belonging to different agro-climatic conditions, cropping patterns, animal husbandry practices and situations for improved cropping practices, modern technology etc. CARD has already identified Institutes of excellence, model farms and progressive/ innovative farmers for the tours, for instance Gujarat tour for cotton crop, Maharashtra tour for Horticulture, Rice tour to PAU Punjab and so on.

The Organization has been successful with its various endeavours in giving a fillip to the widening technology gap that is widely seen among practising farmers as the single most important reason for low productivity. CARD has now evolved into a beacon of knowledge for those farmers seeking information and technology and is continually striving to provide better options for farmers through farm diversification by exposing them to improved practices in organic farming, Horticulture production, Farm mechanization, Medicinal & Aromatic plants cultivation, post harvest management, value addition etc. CARD has brought out this detailed booklet furnishing all the relevant information about the tour modules which will be a valuable guide for all those seeking a betterment of their existing system of production, post harvest manegement and farm profitability. Instead of this modules we can make some more module as per the requirement or need. It is hoped that this will serve as a comprehensive guide to help bridge the technology and yield gaps and in achieving an evergreen revolution.

We therefore request all the Commissioners and Directors of Agriculture, Horticulture, Animal Husbandry and District Magistrates, Collectors, Heads of ATMA, NHM, HTM, Project Directors / concerned Agriculture officers and or Heads of various institutions, agencies to seize this opportunity for the development of agriculture, horticulture and livestock in their respective regions / districts and for a higher degree of capacity building among the farmers with exposure to the latest technology and knowledge. This will make a sure difference in the farmers' livelihood/ living standards and overall sustainable agriculture development.

Dr. M. MUKHTAR ALAM
(Executive Director, CARD)

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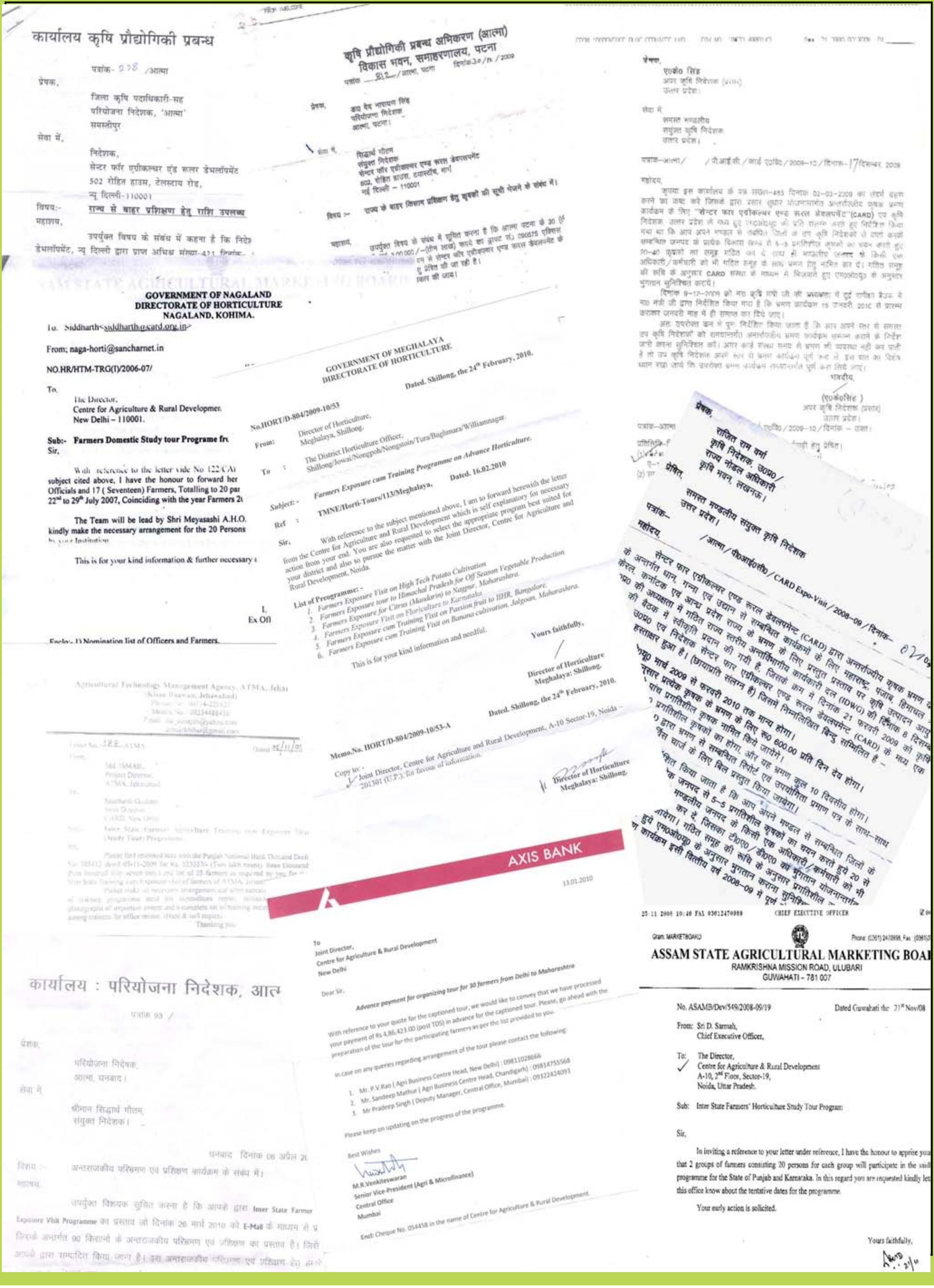
TESTIMONIALS



GOVERNMENT OF NAGALAND
DIRECTORATE OF HORTICULTURE
NAGALAND, KOHIMA.

To. Siddharth<siddharth@card.org.in>

From; naga-horti@sancharnet.in

NO.HR/HTM-TRG(I)/2006-07/

To,
The Director,
Centre for Agriculture & Rural Developmen
New Delhi – 110001.

Sub:- Farmers Domestic Study tour Programe fr

Sir,

With reference to the letter vide No 122/CA subject cited above, I have the honour to forward her Officials and 17 (Seventeen) Farmers, Totalling to 20 par 22nd to 29th July 2007, Coinciding with the year Farmers 2

The Team will be lead by Shri Meyasashi A.H.O. kindly make the necessary arrangement for the 20 Persons

This is for your kind information & further necessary

Enclo:- 1) Nomination list of Officers and Farmers.

GOVERNMENT OF MEGHALAYA
DIRECTORATE OF HORTICULTURE

Dated, Shillong, the 24th February, 2010.

No.HORT/D-804/2009-10/53

From: Director of Horticulture, Meghalaya, Shillong.

To: The District Horticulture Officer, Shillong/Jowai/Nongpoh/Nongstoin/Tura/Baghmara/Williamnagar.

Subject: Farmers Exposure cum Training Programme on Advance Horticulture.

Ref: TMNE/Horti-Tours/113/Meghalaya, Dated. 16.02.2010

Sir,

With reference to the subject mentioned above, I am to forward herewith the letter from the Centre for Agriculture and Rural Development which is self explanatory for necessary action from your end. You are also requested to select the appropriate program best suited for your district and also to pursue the matter with the Joint Director, Centre for Agriculture and Rural Development, Noida.

List of Programme:-
1. Farmers Exposure Visit on High Tech Potato Cultivation
2. Farmers Exposure tour to Himachal Pradesh for Off Season Vegetable Production
3. Farmers Exposure for Citrus (Mandarin) to Nagpur, Maharashtra.
4. Farmers Exposure Visit on Floriculture to Karnataka.
5. Farmers Exposure cum Training Visit on Passion fruit to IIHR, Bangalore.
6. Farmers Exposure cum Training Visit on Banana cultivation, Jalgaon, Maharashtra.

This is for your kind information and needful.

Yours faithfully,
Director of Horticulture
Meghalaya: Shillong.

Memo.No. HORT/D-804/2009-10/53-A
Dated, Shillong, the 24th February, 2010.

Copy to:- Joint Director, Centre for Agriculture and Rural Development, A-10 Sector-19, Noida - 201301 (U.P.) for favour of information.

Director of Horticulture
Meghalaya: Shillong.

AXIS BANK

13.01.2010

To
Joint Director,
Centre for Agriculture & Rural Development
New Delhi

Dear Sir,

Advance payment for organizing tour for 30 farmers from Delhi to Maharashtra

With reference to your quote for the captioned tour, we would like to convey that we have processed your payment of Rs 4,86,423.00 (post TDS) in advance for the captioned tour. Please, go ahead with the preparation of the tour for the participating farmers as per the list provided to you.

In case on any queries regarding arrangement of the tour please contact the following:

1. Mr. P.V.Rao (Agri Business Centre Head, New Delhi) : 09811028666
2. Mr. Sandeep Mathur (Agri Business Centre Head, Chandigarh) : 09814755568
3. Mr Pradeep Singh (Deputy Manager, Central Office, Mumbai) : 09322424093

Please keep on updating on the progress of the programme.

Best Wishes

M.R.Venkiteswaran
Senior Vice-President (Agri & Microfinance)
Central Office
Mumbai

Encl: Cheque No. 054458 in the name of Centre for Agriculture & Rural Development

ASSAM STATE AGRICULTURAL MARKETING BOARD
RAMKRISHNA MISSION ROAD, ULUBARI
GUWAHATI – 781 007

No. ASAMB/Dev/549/2008-09/19
Dated Guwahati the 21st Nov/08

From: Sri D. Sarmah,
Chief Executive Officer,

To: The Director,
Centre for Agriculture & Rural Development
A-10, 2nd Floor, Sector-19,
Noida, Uttar Pradesh.

Sub: Inter State Farmers' Horticulture Study Tour Program

Sir,

In inviting a reference to your letter under reference, I have the honour to apprise you that 2 groups of farmers consisting 20 persons for each group will participate in the said programme for the State of Punjab and Karnataka. In this regard you are requested kindly let this office know about the tentative dates for the programme.

Your early action is solicited.

Yours faithfully,

कार्यालय कृषि प्रौद्योगिकी प्रबन्ध

कृषि प्रौद्योगिकी प्रबन्ध अभिकरण (आत्मा)
विकास भवन, समाहरणालय, पटना

कार्यालय : परियोजना निदेशक, आत्

Thematic Tours

Farmers Training cum Exposure Visit on
INTEGRATED CROPPING SYSTEM

Tamil Nadu Agricultural University, Coimbatore

ICM is a system of crop production which conserves and enhances natural resources while producing food on an economically viable and sustainable foundation. It is based on a good understanding of the interactions between biology, environment and land management systems. ICM is particularly appropriate for small farmers because it aims to minimize dependence on purchased inputs and to make the fullest possible use of indigenous technical knowledge and land use practices. Modern agriculture must produce high yields. This is also possible when intensely cultivated fields alternate with natural habitats in which countless animals and plant species thrive. Integrated Crop Management aims to reconcile the economic demands on agriculture with environmental protection. The coexistence of agricultural land and wildlife sanctuaries is also an important aspect of this principle. The Tamil Nadu Agricultural University is working on the aspects of ICM for better crop yield per hectare. TNAU has also successfully implemented the nationally famous Tamil Nadu Precision Farming Project. The Horticultural Research Station, Udhagamandalam, under TNAU is engaged in production of high quality vegetables under ICS. The seed production of temperate vegetables is taken up at State Horticultural Farm, Nanjanad.

Highlights of the exposure visit:

1. To see high tech farming and use of Integrated Cropping System in Agri/Horti crops.
2. Training on new hybrids and varieties for different ecosystem.
3. Training on latest projects and research activities taking place in TNAU, Coimbatore.
4. Training and exposure to Precision Farming system

Technical Study Tour visits:

1. -Tamil Nadu Agriculture University, Coimbatore.
2. -Horticulture Research Station Vijayanagaram, Ooty.
3. -Farmers field nearby Coimbatore.
4. -Exposure visits to Tamil Nadu Precision Farming Project sites

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about Integrated Cropping System for major field crop.
3. - Awareness about the ongoing projects and research activities in various institutes.
4. -Adoption of resource management, ICT application and marketing linkages under precision farming system

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Coimbatore, Tamil Nadu.
- Overnight at Coimbatore.

Day 3: TNAU, Coimbatore.
- Visit to Tamil Nadu Agriculture University, CoimbatoreTraining on Integrated Farming Systems and their applications
- Interaction with experts on farmers queries on practices to be followed.

Day 4: TNAU, Coimbatore
- Training on agriculture extension management practices.
- Training on marketing and value chain in agri/horti sector.

Day 5: TNAU, Coimbatore.
- Training on alternate cropping system for different crops.
- Interaction with faculty and training on ongoing projects at TNAU.
- Visit to TN Precision farming Project sites

Day6: TNAU, Coimbatore.
- Training on Integrated Pest Management.
- Training on modern technologies for more productivity per hectare.
- Imparting knowledge on major crops grown in the area.

Day 7: HRS, Ooty.
- Visit to Horticulture Research Station, Ooty.
- Training on major crop grown in the area.
- Visit to botanical garden Ooty.

Day 8: Coimbatore.
- Visit to adjoining farmers fields for practical exposure to ICM.
- Interaction with farmers for packages and practices.
- Imparting knowledge on major crops grown in the area.

Day 9: Coimbatore.
- Summing up of visit.
- A day for local travel to places of interest.

Day 10: Back Journey.
- Back journey to state capital.

Farmers Training cum Exposure Visit on
INTEGRATED NUTRIENTS MANAGEMENT

Indian Institute of Soil Science, Bhopal

The combined use of different sources of plant nutrients i.e. organic, biological and inorganic amendments is essential for the maintenance and improvement of soil fertility and plant nutrient supply at an optimum level for achieving desired crop productivity. Unbalanced use of N: P: K have caused deleterious long term effects on soil fertility. In areas subjected to intensive cultivation, application of mere chemicals is not sufficient for sustaining the yields, and it also leads to deficiency of secondary nutrients and micronutrients in the soil which limits crop productivity. Use of organic manure, crop residue and biodegradable rural and urban waste will not only supplement the chemical fertilizers but also increase the efficiency in nutrient supply, leading to improvement of physical and biological properties of the soil. The IPNMS helps to restore and sustain soil fertility and crop productivity. It may also help to check the deficiency of nutrients other than NPK. It brings economy and efficiency in fertilizer use and favorably affects the physical, chemical and biological environment of soil (Singh and Yadav, 1992). It helps to produce fruits of high nutritional quality in sufficient quantity. In the future production scenario, judicious use of chemical fertilizers in combination with organic source of nutrients may play an important role in improving soil health and also sustaining optimum production of good quality fruits. In a country like India, to meet the ever increasing demand of food for a continually expanding population, we cannot depend on organic farming But use of organic and inorganic i.e. Integrated Nutrient Management is only the alternative to fulfill the target.

Highlights of the Study Tour:

--Visit of farmers to model organic farms to understand working with natural system

-To learn about biological cycles within the farming system involving microorganisms, soil flora and fauna, plants and animals.

-To maintain and increase the long term fertility of soil through INM techniques

-To learn INM applications in various agricultural/ horticultural crops and soil types

-To understand the wider social, economic and ecological impact of the INM farming system.

Technical Study Tour Visits:

-Indian Institute of Soil Science, Bhopal

-Field visits to see INM sites and organic farming models.

-Centre of Organic Farming, Ghaziabad

Expected Outcome of the event:

-Adoption of localized INM recommendations, considering available nutrient sources.

-To focus on using available nutrient resources more efficiently, effectively and sustainably than the past.

-Assessment of agronomic productivity, economic profitability and ecological compatibility of packages.

-To adopt large scale adaptive research and demonstration programs

Tentative Itinerary:

Day 1:

- Depart from state to Bhopal
- Overnight at Bhopal.

Day 2 & 3: Indian Institute of Soil Science, Bhopal

- Visit to Indian Institute of Soil Science
- Training on common package and practices followed for Integrated Nutrient Management
- Interaction with scientist for farmers' queries.
- Overnight at Bhopal

Day 4: Indian Institute of Soil Science, Bhopal.

- Indian Institute of Soil Science, Bhopal
- Training on Integrated Nutrient Management practices
- Overnight in Bhopal

Day 5: Indian Institute of Soil Science, Bhopal.

- Visit to adjoining farmer's field at Bhopal area for practical exposure
- Interaction with local farmers
- Overnight in Bhopal

Day 6: Indian Institute of Soil Science, Bhopal.

- Training on soil testing
- Visit to local farms related to INM
- Overnight at Bhopal

Day 7: Central Institute of Agriculture Engineering

- Exposure Visit to CIAE
- Discussion with Scientists
-Training on power tiller operated agricultural machinery.
- Machinery for seedbed preparation and land leveling.
-Overnight at Bhopal

Day 8: Hoshangabad

- Exposure visit to Hoshangabad to see the public privet model in extension
- Visit to agriculture mechanized farms

Day 9 &10: Back Journey

-Return journey to state capital.

Farmers Training cum Exposure Visit on

PRECISION FARMING

Jain Irrigation Systems Ltd., Jalgaon, Maharashtra

Agriculture is the backbone of the Indian economy and the villages are the life lines of growth of India. Precision agriculture is a pro-active approach that reduces some of the risk and variables common to agriculture. The concept of precision agriculture offers the promise of increasing productivity while decreasing production cost and minimizing environmental impacts. The agriculture of the forties, which was eco-friendly, has now become fully chemicalized with new farming technologies and commercialization of agriculture. The new technology may be able to harness several newer possibilities in managing the farm sector precisely. These technologies should be used to complement the traditional methods for enhancing productivity and quality, rather than to replace conventional methods. In the light of today's urgent need, there should be an all out effort to use new technological inputs for the development of our society, as well as to make the 'Green Revolution' an 'Evergreen Revolution'. Now what we require is the development of a symbiotic relationship between man and nature to harmonize the ecologic balance. Farmers can get an exposure on precision farming at JISL, Jalgaon.

Highlights of the exposure visit:

1. -To see hi tech farming and use of improved varieties and farm resources.
2. -To know the working of precision farming on farm
3. -To know about the global Positioning System (GPS), yield Monitoring, Variable Rate Technology (VRT), Remote sensing, Geographic Information system (GIS)
4. -Training on micro irrigation systems.

Technical Study Tour visits:

1. -Visit to Jain Irrigation Systems ltd. Jalgaon, Maharastra.
2. -Visit to Jain hills Jalgaon for tissue culture excellence in Banana
3. -Visits to MPKV, Banana Research Station, Jalgaon.
4. -Visit to adjoining precision model farms.

Expected outcomes of the event:

1. -Adoption of advanced practices and high tech farming.
2. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.
3. -Adoption of precision technology and micro-irrigation that can help to improve the efficiency of farm operations
4. -Adoption of PF that cover three aspects such as data collection, analysis or processing of recorded information and recommendations based on available information.
5. -Adoption of precision farming techniques to obtain highest yields and quality and reduce costs on resources

Expected outcomes of the event:

1. -Adoption of advanced practices and high tech farming.
2. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.
3. -Adoption of precision technology and micro-irrigation.
4. -Adoption of PF that cover three aspects such as data collection, analysis or processing of recorded information and recommendations based on available information.
5. -Adoption of precision farming techniques to obtain highest yields and quality and reduce costs on resources

Tentative Itinerary:

Day 1 and 2:
- Depart from the state to Jalgaon.

Day 3: Jalgaon.
- Visit to JISL, Plastic Park, Jalgaon.
- Communication session with experts on Jains Products and Services.
- Training on micro irrigation systems and their role in the booming agricultural economy of India.

Day 4: Jalgaon.
- Visit to JISL Food Park, Jalgaon.
- Training on processing of banana and fruits at Jain Food Park.

Day 5: Jain Hills, Jalgaon.
- Visit to Jain Agri Park Jalgaon.
- Training on tissue culture technology in India.
- Interaction with the bio tech experts on tissue culture in Banana.

Day 6: MPKV, Banana Research Station, Jalgaon
- Visit MPKV, Banana research Station.
- Training on high tech farming and tissue culture in Banana.
- Training on IPM practices to be followed in Banana.

Day7: MPKV, Banana Research Station, Jalgaon
- Training on nutrition and intercropping in banana.
- Training on ongoing projects at research station.
- Training on natural resource management.

Day 8& 9: Jalgaon to state capital.
-Departure from Jalgaon.

Day 10:
Back to state capital

Farmers Training cum Exposure Visit on
FARM MECHANIZATION

Central Institute of Agricultural Engineering, Bhopal

Farm Mechanization has the potential of enhancing farming efficiency, economic returns and generating employment in rural areas. Madhya Pradesh is the hub of agricultural farm mechanization activities with Central Institute of Agriculture Engineering and Central Farm Machinery Training & Testing Centers being located at Bhopal and Budni respectively. In the development of farm mechanization in India, the CIAE, Bhopal has been playing a pivotal role. The Institute has developed a large number of farm machineries and tools and it has established well-equipped research laboratories and a Model Agro-Processing Centre for demonstration of processing activities to farmers and entrepreneurs, two well-equipped workshops and prototype production centre. The institute has developed a mechanized system of rice-wheat cropping to increase the productivity and plastic mulch machine for planting in plastic mulch conditions for groundnut and vegetables. Central Farm Machinery Training & Testing (CFMTT), Budni is the centre for field testing of various farm equipments and is also providing training to develop human resources for mechanization which is indispensable for increasing the agricultural productivity and energy conservation in agriculture.

Highlights of the exposure visit:

1. -To enhance understanding on use of farm machinery and tools
2. -To create understanding on farm efficiencies and economic returns with farm mechanization
3. -To help farmers/technicians/extension workers etc. in the selection, operation, repair, maintenance, management and other aspects of mechanization.
4. -To see hi tech farming and use of improved varieties and farm resources.
5. -To encourage energy conservation in agriculture through various training programmes.

Technical Study Tour visits:

1. - Central Institute of Agricultural Engineering (CIAE), Bhopal
2. -Central Farm Machinery Training & Testing (CFMTT), Budni
3. -Public Private Partnership model of Dhanuka at Hoshangabad
4. -Field visits to see mechanized farming

Expected outcomes of the event:

1. -Mechanization of rice-wheat cropping system for increased productivity of crops
2. -Adoption of hi-tech farming and use of improved tools and farm resources
3. -Mechanization of rice cultivation
4. -Tractor mounted plastic mulch laying machine
5. -Adoption of the improved mechanized methods, techniques, tools and machineries for production and value chain in agriculture

Tentative Itinerary:

Day 1 & 2:
- State capital to Bhopal
- Arrive Bhopal
- Overnight in Bhopal

Day 3&4: Bhopal
- Expose visit to Central Institute of Agricultural Engineering (CIAE), Bhopal
- Training on power tiller operated agricultural machinery
- Machinery for seedbed preparation and land leveling
- Safety in use and operation of various agricultural machineries
- Visit to different departments of CIAE

Day 5 & 6: Budni
- Visit to Central Farm Machinery Training & Testing (CFMTT), Budni
- Selection, Operation, Safety and Maintenance of Improved Agricultural Machinery
- Training Program on Agro Processing & value addition Equipments
- Exposure to various machineries in field testing
- Visit to local farm practice and service by CFMTT - Overnight at Budni

Day 7: Hoshangabad
- Exposure visit to Hoshangabad to see the public private model in extension
- Visit to agriculture mechanized farms

Day 8:
- Site seeing in Bhopal
- Overnight in Bhopal

Day 9&10:
-Back to state capital.

Farmers Training cum Exposure Visit on

AGRICULTURE MARKETING

IARI, New Delhi and NIAM, Jaipur

The Indian Agricultural Research Institute (IARI), New Delhi is the country's premier national Institute for agricultural research, education and extension. It has served the cause of science and society with distinction through first-rate research, generation of appropriate technologies and development of human resources. In fact, the Green Revolution was born in the fields of IARI and the main extension objective is to promote client oriented on-farm research and technology assessment, refinement and transfer through participatory approaches and by promoting the Institute-Village Linkage Programme. In the development of agricultural marketing in Rajasthan, the Ch Charan Singh National Institute for Agricultural Marketing (CCS NIAM), Jaipur has been playing a pivotal role. The impact of this institution on the economy of the state is widely recognized. This institute has brought about a real revolution in agriculture marketing and has contributed to increased agriculture quality production and improved marketing channels through better coordination with vendors, farmers and agricultural scientists.

Highlights of training cum Exposure Visit:

This farmers' domestic training and exposure visit program will fulfill the objectives of:

1. -Identify location specific and economically viable different crops
2. -Adoption of mechanized farming technology
3. -Training about latest production technology developed by research institutes
4. -To learn about the various marketing aspects-
5. -Facilities available in the markets
6. -Market fees and taxes
7. -Methods of transportation
8. -Methods of packaging
9. -Marketing problems

Specialized Training

1. -Training on different channels of agriculture marketing
2. -Training on advanced cultivation practices including
3. -Green House Management and Water Conservation

Exposure Visits:

1.- Indian Agricultural Research Institute (IARI), New Delhi
2. -National Agricultural Museum (NAM), Pusa
3. -Ch Charan Singh National Institute of Agricultural Marketing (CCS NIAM), Jaipur
4. -NBPGR, New Delhi
5. -Training programme at NIAM, Jaipur
6. -Rajasthan Agriculture Marketing Board, Jaipur

Expected outcomes of the event:

1. -Adoption of the advanced practices in farming and use of improved varieties and farm resources
2. -Awareness about the use of improved quality seeds/planting material and crop diversification and their impact on income levels.
3. -Adoption of integrated farming systems, improved post harvest and processing technologies, better packaging, grading and marketing systems.
4. -Adoption of the improved methods, techniques and practices in production, extension, marketing and value chain in horticulture produces
5. -Adaptation of Agricultural Marketing Information Network
6. - Awareness about Agricultural Marketing Infrastructure

Tentative Itinerary:

Day 1 &2: Delhi
- Depart State capital
- Arrive Delhi

Day 3: IARI, Pusa
- Visit to Indo-Israel project at Pusa
- Training on Green House Management and Water Conservation
- Exposure visit to Horticulture Department of IARI, New Delhi

Day 4: NAASE, Pusa
- Exposure visit to National Agricultural Museum (NAM), Pusa
- Exposure visit to NBPGR, IARI Pusa

Day 5&6: IABM, Noida
- Training on Hi tech horticulture for qualitative horticulture production
- Training on Nursery management for commercial marketing of seedlings

Day 7 & 8: Jaipur
- National Institute of Agricultural Marketing, Jaipur - Training on Food Processing Technology

Day 8 & 9: New Delhi
- Return from Jaipur to Delhi / State Capital

Farmers Training cum Exposure Visit on
AGRICULTURE TECHNOLOGIES

IARI, New Delhi and PAU, Ludhiana

The Indian Agricultural Research Institute (IARI), New Delhi is the country's premier national Institute for agricultural research, education and extension. It has served the cause of science and society with distinction through first-rate research, generation of appropriate technologies and development of human resources. In fact, the Green Revolution was born in the fields of IARI and the main extension objective is to promote client oriented on-farm research and technology assessment, refinement and transfer through participatory approaches and by promoting the Institute-Village linkage Programme. In the development of agriculture in Punjab, the Punjab Agriculture University (PAU) has been playing a pivotal role. This university has brought about a real revolution in farming techniques and has contributed to increased agriculture production and improvement of the cultivators' economic status. This University has developed high yielding varieties of wheat, rice, bajra and developed advanced farm mechanization technology which has spearheaded Punjab's journey towards making the state and the country self sufficient in many key crops. Central Institute of Post Harvest Engineering and Technology (CIPHET), Ludhiana is continuously helping not only the state but also the country by undertaking basic, applied and adaptive engineering and technology research in post harvest sector of cereals, pulses, oilseeds, fruits, vegetables, flowers, spices, plantation crops, products of forest origin, livestock and aquaculture products including agricultural structures and environmental control.

Highlights of the Study Tour:
This farmers' domestic learning program will fulfill the following objectives-

1. - To identify location specific and economically viable different crops.
2. -Adoption of mechanized farming methods
3. -Showing advanced practices in agriculture farming and use of improved varieties and farm resources.
4. - Imparting training to the farmers about latest technology developed by research institutes for the production of different crops.
5. -To learn about the supply of quality agriculture inputs like seeds, fertilizers, pesticides, irrigation water and machinery & equipments etc.
6. -To adopt integrated farming systems approach for enhanced per unit income

Exposure Visits:

1. -To visit Indian Agricultural Research Institute (IARI), New Delhi
2. - To visit Punjab Agriculture University (PAU), Ludhiana
3. -Two days training and extension service programme at PAU, Ludhiana
4. -Field visits to see foreign projects going on at IARI and PAU
5. To visit Central Institute of Post Harvest Engineering and Technology (CIPHET), Ludhiana

Expected outcomes of the event:

1. Adoption of sprinkler irrigation techniques for green houses including drip, along with resource conservation technologies such as water harvesting.
2. -Awareness about use of improved quality seeds/ planting material and crop diversification and their impact on income levels.
3. -Adoption of integrated farming systems and improved post harvest and processing technologies along with better packaging and value addition
4. -Adoption of the improved methods, techniques and practices in production, extension and value chain
5. -Adoption of farm resource conservation and farm mechanization

Tentative Itinerary:

Day 1 &2: Delhi
- Depart State capital
- Arrive Delhi

Day 3: IARI
- Visit to Indo-Israel project at Pusa
- Exposure visit to Horticulture Department of IARI, New Delhi

Day 4&5:
- Training at Institute of Agri Business Management, Noida
- Training on agricultural resource management
- Training on Hi tech horticulture

Day 6&7: Ludhiana
- Visit to various departments at PAU, Ludhiana
- Training on Management Practices in Agriculture

Day 8: Ludhiana
- Exposure visit to Central Institute of Post Harvest Engineering and Technology (CIPHET), Ludhiana
- Discussion with experts

Day 9 & 10: Punjab
- Return from Ludhiana to Delhi / State Capital

Farmers Training cum Exposure Visit on

ORGANIC FARMING

Maharashtra

Availability of quality seeds of improved cultivars is considered crucial for realizing productivity and adoption of cultivars in different agro-climatic conditions. The quality of seed alone is known to account for at least 15 - 25% increase in the productivity. However, lack of quality seed continues to be one of the greatest impediments in bridging the vast yield gap. Therefore, to approach the potentially realizable yield of a cultivar, production and distribution of quality seeds is essential. Maharashtra Hybrid Seeds Company Limited, popularly known as 'Mahyco', was established in 1964 by Dr. Badrinarayan R. Barwale, and is a pioneer and leader in the Indian Seed Industry. The company strives to provide quality hybrid seeds to Indian farmers. Since its inception it has been engaged in plant genetic research and production of quality hybrid seeds for the farming community of India. Currently, it is engaged in the research, production, processing and marketing of approximately 115 products in 30 crop species including cereals, oilseeds, fiber and vegetables. Mahyco is also developing genetically enhanced crops with the use of gene transfer technology. Mahyco has a national presence with its network spread across the country. Mahyco is the first private enterprise in India to produce and market hybrids of Cotton, Sorghum, Pearl Millet, Sunflower and Wheat. Mahyco is the first Indian company to commercially grow and market transgenic Bollgard cotton- India's first transgenic crop in 2002. Jalna is also the head quarter of the popular vegetable seed company, Bejo Sheetal Seeds Pvt. Ltd, which is a joint venture with Bejo Zaden b.v., Holland. The vegetable seeds, specifically TPS, cabbage, cauliflowers, chilly, and brinjal produced by the company is rated as top of the line in the market.

Highlights Of the study Tour:

1 -To identify location specific and economically viable crops.
2 -Imparting training on latest practices and cultivation techniques for seed production
3 -To understand the economic importance on seeds and availability of various hybrid seeds
4 -To get training and exposure on seed production system under contract farming.

Technical Study Tour Visits:

1 -Mahyco seed company, Jalna, Maharashtra
2 - Bejo Sheetal company, Jalna, Maharashtra
3 -Seed production farms of farmers

Expected Outcome of the event:

1 - Adoption of high quality seed in major crops
2 - Taking up seed production programs at farmer level
3 -Adoption of advanced practices in seed production farming
4 -Awareness about the benefits of seed production and quality seeds use.
5 -Adaptation to better land and resource utilization.

Tentative Itinerary:

Day 1 and 2:
- Depart from state to Jalna, Maharashtra.

Day 3: Jalna
- Visit to Mahyco seed company (R&D centre)
- Training on seed production for vegetables and cereals.
- Interaction session with the breeders and technicians.

Day 4: Jalna
- Visit to Mahyco Seed Company
- Training on common package and practices followed for seed production in vegetables.
- Interaction with technical staff of seed production department for solving farmers queries on technical issues.

Day 5: Jalna
- Visit to Mahyco seed production farm for practical exposure to farm practices adopted by professional breeders.
- Interaction with local farmers about the technical issues and care to be taken during vegetable and cereal seed production.

Day 6: Jalna
- Visit to Bejo Sheetal Company and see hi-tech seed production programs
- Interaction with technical staff to get knowledge about the various hybrids of the crops

Day 7: Jalna
- Visit to farmers' fields for exposure on various crops like Cotton, Sorghum, Pearl Millet, Sunflower and Wheat
- Interaction with the technical staff for management practices to be followed.

Day 8: Jalna
- Visit to Bejo Sheetal seed production farm for practical exposure
- Overnight in Jalna

Day 9 & 10:
- Return to state capital.

Farmers Training cum Exposure Visit on
ORGANIC FARMING

Rajasthan

Organic agriculture is a production system that sustains the health ofsoils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved. Organic farming is not new to Indian farming community. Several forms of organic farming are being successfully practiced in diverse climate, particularly in rainfed, tribal, mountains and hilly areas of the country. Much of the forest produce of economic importance like herbs, medicinal plants, etc., by default come under this category. Among all farming systems, organic farming is gaining wide attention among farmers, entrepreneurs, policy makers and agricultural scientists, as it minimizes the dependence on chemical inputs (fertilizers; pesticides; herbicides and other agro-chemicals) thus safeguards/improves quality of resources and environment. It is labor intensive and provides an opportunity to increase rural employment and achieves long term improvements in the quality of resource base.

Highlights of the exposure visit:
The visit program will fulfill the objectives of:
1. -Demonstration of organic farming technologies
2. -Training on organic farming and vermicomposting
3. -Training on preparation of biodynamic compost and organic manure

Technical Study Tour visits:
1. -M.R. Morarka GDC Rural Research Foundation, Jaipur
2. -Training and extension service programme at Morarka Foundation, Jaipur
3. -Field visits to see major crops grown in the area under organic farming Like - Saharia Organic Resort, Village Maheshpura, Jaipur
4. -MP Agriculture University, Udaipur
5. -High-tech integrated organic farms in Udaipur and near by areas

Expected outcomes of the event:
1. -Diversion and adaptation towards usage of organic food
2. -Awareness about the benefits of organic food
3. - Adoption of organic farming technologies
4. - Adoption of the new growing techniques for resource savings such as soil and other resources and quality yields

Tentative Itinerary:
Day 1 & 2:
- Depart from State capital to Jaipur
- Arrive Jaipur
- Overnight in Jaipur

Day 3 & 4: Jaipur
- Visit to M.R. Morarka GDC Rural Research Foundation, Jaipur
- Training on benefits of organic farming
- Discussions with experts
- Field visits to see major crops grown in the area under organic farming Saharia Organic Resort, Village Maheshpura, Jaipur

Day 5: Jaipur
- Training on Organic Farming at Saharia Organic Resort
- Introduction on About Organic farming
- Application of organic farming in Orchids & green crops
- Discussion with experts
- Visit to the organic fields in near by areas

Day 6 : Jaipur
- Training on Plant protection measures in organic farming
- Training on Organic farming
- Visiting organic farms to see the preparation method of organic manures
- Organic farming in vegetables cultivation

Day 7 & 8: Jaipur
- Training on benefits of Organic Farming
- Discussion and Demonstration on Saharia Organic Resort
- Preparation and uses of organic materials
- Methods for making of organic farming
- Visit State Institute of Agriculture Marketing, Jaipur

Day 9:
-Visit National Institute of Agriculture Marketing, Jaipur
-Return from Jaipur to State Capital

Day10:
Back to State capital

Farmers Training cum Exposure Visit on
POST HARVEST MANAGEMENT

Central Institute of Post Harvest Engineering and Technology, Ludhiana

The totall production of fruits in the world is around 370 MT. India ranks first in the world with an annual output of 45 MT. While there are almost 180 families of fruits grown all over the world, citrus fruits constitute around 20% of world's total fruit production. Major Indian fruits consist of mango, banana, citrus, apple, guava, papaya, pineapple and grapes. In vegetable, India is the second largest producer in the world (ranks next to China) and accounts for about 15% of the world's production of vegetables. The current production level is over 100 million MT and the total area under vegetable cultivation is around 6.5 million hectares which is about 3% of the total area under cultivation in the country. In case of vegetables, potato, tomato, onion, cabbage and cauliflower account for around 60% of the total vegetable production in the country. But India looses about 25 - 30% of its produce due to improper Post Harvest Management. A loss estimated at Rs 60,000 crores per year! India wastes fruits and vegetables every year equivalent to the annual consumption of the United Kingdom. To reduce the cold chain infrastructure needs to be created along with Post Harvest Management practices. The Central Institute of Post Harvest Engineering and Technology, Ludhiana is the premier institute to undertake research, technology development, extension and industry linkages on Post Harvest Management, appropriate to agriculture production catchments and agro-industries. Farmers can be benefited by exposure visit to CIPHET and training on Post Harvest Management technologies.

Highlights of the exposure visit:

1. -Exposure to new technologies for post harvest management of fruits and vegetables.
2. -Training on ongoing research projects at CIPHET.
3. -Training on latest projects and research activities taking place in PAU, college of Horticulture.
4. - Exposure to post harvest and processing industry

Technical Study Tour visits:

1. -Central Institute of Post Harvest Engineering and Technology, Ludhiana.
2. -Visits to adjoining farmers' fields and interaction with local farmers about cultural practices followed.
3. - Visit to Punjab Agriculture University, Dept. of Horticulture and Dept. of Engineering
4. -Visit to PHM and F&V processing units in Ludhiana

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved technologies for PHM.
2. -Awareness about post harvest management losses and their impact on income levels.
3. -Awareness about the ongoing projects and research activities in PHM
4. -Adoption of PHM practices to reduce losses and improve profitability

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Ludhiana.
- Overnight at Ludhiana.

Day 3: Ludhiana.
- Visit to CIPHET campus.
- Training on latest post harvest technologies developed by CIPHET.
- Overnight at Ludhiana.

Day 4: Ludhiana.
- Visit to CIPHET campus.
- Training on ongoing research projects to combat post harvest losses for fruits and vegetables.
- Interaction with scientist and technical staff for farmers' queries

Day 5: Ludhiana.
- Visit to nearby farmers' fields to know their practices for PHM.
- Interaction with farmers of adjoining areas for better crop production and reducing losses.

Day 6: PAU, Ludhiana
- Visit to Department of Horticulture PAU Ludhiana.
- Imparting knowledge to the farmers on fruits ad vegetables grown in the area.
- Overnight in Ludhiana.

Day7: PAU, Ludhiana.
- Visit to Department of Food Technology at PAU, Ludhiana.
- Training on high tech horticulture in respect to PHM.
- Interaction with scientists and technical staff for farmer's queries.

Day 8: Ludhiana.
- Visit to Kitty Food Industries, Ludhiana.
- Exposure on food processing industry for entrepreneurship development.
- Overnight in Ludhiana.

Day 9& 10: Ludhiana to State Capital
-Return to state capital.

Farmers Training cum Exposure Visit to
PUNJAB RICE FARMING

Punjab – where farmers can learn advanced rice cultivation practices

The agriculture in Punjab is highly intensive in terms of land, capital, energy, nutrients, agriculture inputs and water etc. With only 1.5 per cent of geographical area of the country, Punjab contributes more than 70 per cent in case of wheat and 45 per cent rice to central pool and at the world level contributes 1 % of rice and 2 % of wheat. Punjab grows crops like wheat, maize, rice, bajra and in cash crop category it grows cotton, sugarcane potatoes etc. Among oilseeds, they dominate in rapeseed, groundnut, mustard and sesame. In the development of agriculture in the State, the Punjab Agriculture University (PAU) has been playing a pivotal role. The impact of this institution on the economy of the state is widely recognized. The adoption of innovative techniques like double transplanting of paddy, paddy without puddling and ridge cultivation, has made Punjab rich in their farming. The use of hybrid rice seeds by the farmers of the state has increased the rice production of the state many folds. The adoption of these techniques can be extremely useful to the paddy growing farmers in other States. It can bring huge benefits to the farmers in other States and these techniques need to be shown to farmers for large scale adoption.

Highlights of the Study Tour:
This farmers' domestic learning program will fulfill the following objectives:

1. -To learn the new paddy cultivation practices
2. -To identify location specific and economically viable paddy cultivation.
3. -Exhibiting integrated farming systems such as mixed cropping and crop rotation practices.
4. - Adoption of mechanized farming methods
5. - To learn the supply and quality of Agricultural inputs like seeds, fertilizers, pesticides, irrigation water, machinery & equipments etc. used in paddy cultivation

Technical Study Tour Visits:

1. -To visit Punjab Agriculture University (PAU), Ludhiana
2. -Two days training and extension service programme at PAU, Ludhiana
3. -To visit bio-fertilizer units, honey processing plant and IPM laboratories
4. -To visit Central Institute of Post Harvest Technologies (ICAR) Ludhiana
5. -To visit paddy farms based on new techniques

Expected outcomes of the event:

1. -Adoption of micro irrigation techniques, including drip and sprinkler irrigation along with resource conservation technologies such as water harvesting
2. -Adoption of the advanced practices in farming and use of improved varieties and farm resources
3. -Adoption of integrated farming systems and improved post harvest and processing technologies with better packaging, grading and marketing systems.
4. -Adoption of the improved methods, techniques and practices in production, extension and, marketing of paddy cultivation
5. -Adoption of the new paddy growing techniques for resource savings and extra yields
6. -Adoption of farm resource conservation and farm mechanization

Tentative Itinerary:

Day 1 & 2: Delhi/Ludhiana
1 Departure from State capital to Ludhiana
2 Shifted to PAU, Ludhiana, Farmer's Guest House
3 Evening Film show on new agriculture techniques and practices
4 Overnight in Ludhiana

Day 3: Ludhiana
1 Visit to various paddy farms
2 Training on Ladhowal Method of rice cultivation developed by Dr. Daler Singh
3 To see market linkages and marketing systems

Day 4: Ludhiana
1 Training on techniques likes double transplanting of paddy, paddy without puddling and ridge cultivation
2. Training on pest management of paddy cultivation
3. Overnight in Ludhiana.

Day 5 & 6: Ludhiana
1 Visit to progressive farmer's paddy farms
2 Training on latest techniques adopted by farmers

Day 7: Ludhiana
1 Two Days Training on double transplanting of paddy, paddy without puddling and ridge cultivation techniques
2 Discussion with experts

Day 8: Ludhiana
1. Training on ridge cultivation techniques by PAU scientists
2. Discussion cum Interaction with experts

Day 9 & 10: Ludhiana
1 Return from Ludhiana to Delhi / State Capital

Farmers Training cum Exposure Visit Programs on

Agriculture

Farmers Training cum Exposure Visit to
ANDHRA PRADESH

A hub of Advance Technologies

Andhra Pradesh is a leading State in agriculture and horticulture, having diverse agro climatic conditions suitable for cultivation of a wide range of crops. The state is having strong industrial base with agro processing, value added agriculture and agro exports. The well-developed basic infrastructure, enterprising and innovative farmers, vibrant crop based farmers' organizations are playing significant role in the regulation of market and economic valuation for farmers. It is one of India's main rice-producing states. The adoption of innovative techniques like double transplanting of paddy, paddy without puddling and ridge cultivation, has made Andhra Pradesh a significant stake in farming. The use of hybrid rice seeds by the farmers of the state increased the rice production many folds in the Andhra Pradesh. The adoption of these techniques can be extremely useful to the paddy-growing farmers in other states. It can bring huge benefits to the farmers in other States and these techniques need to be shown to farmers for large-scale adoption. The major crops grown here include paddy, sugarcane, oilseeds, beans, and pulses. Thus, farmers from different parts of the country can get quality exposure and learning by exposure visit to Andhra Pradesh and seeing high-tech farming systems, integrated cropping, resource management, drip irrigation systems, tissue culture labs, research and marketing systems.

Highlights of Training cum Exposure visit:
The farmer's domestic learning program will fulfill the following objectives -

1. -To learn the agriculture cultivation practices
2. -To identify location specific and economically viable different crops.
3. -Exhibiting integrated farming systems such as mixed cropping and crop rotation practices.
4. -To learn more about the diversification of areas from traditional crops to oilseeds and pulses crops, sugarcane, maize, cotton etc.
5. -To see the marketing systems and exports by farmers and commodity groups

Technical Study Tour visits:
The farmers would be visiting the following places and get training cum exposure through technical demonstrations at:

1. -ICRISAT: - International Crop Research Institute for Semi-Arid Tropics, Patancheru, Hyderabad
2. -DRR: - Directorate of Rice Research, Hyderabad
3. - NIRD: - National Institute of Rural Development, Rajendranagar, Hyderabad
4. -MANAGE: - National Institute of Agricultural Extension Management, Rajendranagar, Hyderabad
5. -NAARM: - National Academy for Agricultural Research & Management, Hyderabad
6. -NRCS: - National Research Centre for Sorghum, Hyderabad

Expected outcomes of the event:

1. -Adoption of micro irrigation techniques, including drip and sprinkler irrigation along with resource conservation technologies such as water harvesting.
2. -Adoption of the advanced practices in farming and use of improved varieties and farm resources
3. -Adoption of the improved methods, techniques and practices in production, extension, marketing and value chain
4. -Adoption of farm resource conservation and farm mechanization

Tentative Itinerary:

Day 1 &2:
- Departure from state capital to Hyderabad

Day 3: Hyderabad
- Visit to International Crop Research Institute for Semi-Arid Tropics, Patancheru, Hyderabad,
- Training on Management Practices in Agriculture
- Overnight in Hyderabad

Day 4: Hyderabad
- Visit to Directorate of Rice Research, Hyderabad
- Exposure visit to Central Plant Protection Training Institute
- Exposure visit to bio-fertilizers and organic field

Day 5 : Rajendranagar
- Exposure visit to National Institute of Rural Development (NIRD)
- Exposure visit to National Institute of Agricultural Extension Management (MANAGE)

Day 6: Hyderabad
- Exposure visit to R&D production and processing sites of major seeds companies like Bayer, Vibha Agroteh, Nuziveedu etc.
- Training on Hybrid Seed Processing for Cultivation.

Day 7: Fateh Maiden
- Visit to world famous Ramoji film city and interaction with Annadata publication and channel

Day 8 & 9: Hyderabad
-Return from Hyderabad to Delhi / State Capital

Farmers Training cum Exposure Visit on RICE

Directorate of Rice Research, Hyderabad

Rice is grown in States like Punjab, Karnataka, Kerala, Andhra Pradesh, U.P, Bihar and West Bengal. It is the staple food of the States in southern and eastern India. Soils suitable for rice production are those with a pH of around 6.0. This includes a wide variety of soils ranging from sandy loam to salty clay loam. The land should be ploughed at least four times to get a field with good tilth. Every third year, the farmer should apply lime @ 2t/ha around one to two weeks before the seeds are sown. While transplanting, puddling should be done around three to four times to rid the land of weeds and help the soil retain water. These were few little things which most of our farmers are ignorant in rice cultivation. Directorate of Rice Research (DRR), formerly All India Coordinated Rice Improvement Project (AICRIP), was established by the Indian Council of Agricultural Research (ICAR) in 1965 with its national headquarters at Hyderabad. DRR in its 44th year of useful existence has contributed significantly in overall rice production front which has ensured food security for the country. The Institute's research work programme aims for the welfare of the present and future generations of Indian rice farmers and consumers by ensuring food and nutritional security and to develop the technologies to enhance rice productivity, resource and input use efficiency and profitability of rice cultivation without adversely affecting the environment. Some research projects going on there can be very useful for the rice farmers.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for rice cultivation.
2. -Training on new rice hybrids and varieties for different ecosystem.
3. -Training on latest projects and research activities taking place in DRR, Rajendranagar, Hyderabad.

Technical Study Tour visits:

1. -Directorate of rice Research, Rajendranagar, Hyderabad.
2. -Visits to adjoining farmers' fields and interaction with local farmers for cultural practices followed.
3. -International Crop Research Institute for Semi-Arid Tropics (ICRISAT), Patancheru, Hyderabad

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and cultivation of rice as a major field crop in Indian Agriculture.
3. -Awareness about the ongoing projects and research activities in DRR Hyderabad

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Rajendra Nagar, Hyderabad. - Overnight at Hyderabad.

Day 3: DRR Hyderabad.
- Visit to Directorate of Rice Research, Rajendra Nagar, Hyderabad.
- Training on Integrated Farming and its Application. - Interaction with experts for farmers queries on practices to be followed.

Day 4: DRR Hyderabad
- Training on Integrated Pest Management as a plant protection measure. - Training on bio-fertilizers and organic rice cultivation.

Day 5: Hyderabad.
- Visit to local farmers' farms for practical exposure. - Communication session with the local growers for updating on latest practices to be followed.
- Awareness on market scenario and potential for rice cultivation.

Day 6: Hyderabad to ICRISAT, Patancheru**.**
- Visit to International Crop Research Institute for Semi Arid Tropics, Patancheru.
- Interaction with faculty and training on ongoing projects at ICRISAT.

Day7: ANGR Agriculture University, Hyderabad.
- Visit to ANGRAU, Hyderabad. - Training on modern technologies for more productivity per hectare.
- Imparting knowledge on major crops grown in the area.
- Overnight in Hyderabad.

Day 8: MANAGE Hyderabad.
- Training on agriculture extension management practices.
- Evening for local travel and sight seeing.
- Overnight in Hyderabad.

Day 9& 10: Hyderabad to state.
- Back journey to state

Farmers Training cum Exposure Visit on WHEAT

Directorate of Wheat Research, Karnal & Himachal Pradesh

Wheat, one of the major Indian food crops, has played a formative role in the unfolding of India's history. The northern region of India has traditionally been dominated by wheat cultivation. The northern state of Punjab and Haryana plains in India has been abundant wheat producers. Wheat is cultivated in clayey soil and is used for making bread and pasta. Today, India is exporting sufficient quantities of all types of wheat and extensive research efforts are underway for improving cereal and grain output in future. India is today the second largest wheat producer in the whole world. Wheat Research (DWR) formed in 1978 for the improvement on wheat as a commercial crop, was detached from IARI and shifted to its present location at Karnal in 1990. DWR has a mission of increasing the productivity and profitability of wheat production on an economically sustainable basis. The Directorate of Wheat Research (DWR), Karnal through its national network of research centres has developed large number of improved wheat and barley varieties and their production and protection technologies for different agro-climatic zones in the country. Despite the last few years of adverse climatic conditions like drought and terminal heat stress, the total annual wheat production still hovers around 72 MT, posing a challenge to the wheat scientists for breaking this stalemate.

Highlights of the exposure visit:

1. -To learn advanced practices of wheat cultivation.
2. -To identify different varieties resistant to various diseases and physiological disorders in wheat cultivation.
3. -To become well versed with the new technologies and practices.
4. -To learn about increasing productivity through optimization of resources (soil, water and inputs).

Technical Study Tour visits:

1. -Directorate of Wheat Research, Karnal, Haryana.
2. -Visits to local wheat farms for practical exposure on wheat industry.
3. -Visits to Regional Research Station DWR Flowerdale, Shimla.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved location specific cultivars.
2. -Awareness about physiological disorders, diseases and pests for their management.
3. -Adoption of improved methods, techniques and practices in production, extension and marketing
4. -To increase sustainable productivity under intensive agriculture.

Tentative Itinerary:

Day 1 & 2:
- Travel from state capital to Karnal.

Day 3: DWR, Karnal
- Training on multilocational and multidisciplinary research program on wheat improvement.
- Training on genetic improvement of wheat through identification and dissemination of superior germplasm.

Day 4: DWR, Karnal
- Imparting knowledge to farmers on characteristics of different varieties and cultivars.
- Training on understanding of economics, marketing and using basic levels in wheat markets.

Day 5: DWR, Karnal
- Training on sustainability of wheat based cropping system.
- Imparting knowledge to the farmers on diseases/ pests common to wheat cultivation and care to be taken to prevent them.

Day 6: Karnal
- Visit to local farms in nearby Karnal.
- Interaction with local farmers regarding technical issues in wheat production.
- Understand the factors influencing production, marketing and trade.
- Overnight in Karnal.

Day 7: DWR, Karnal to RRS DWR Flowerdale, Shimla
- Journey day from Karnal to Shimla.
- Overnight in Shimla.

Day 8: Regional Research Station DWR, Shimla
- Training and developing understanding on different type of rust common to wheat.
- Imparting knowledge on ongoing projects at DWR Shimla with respect to rust in wheat.
- Exposure to rust resistant varieties for different agro climatic conditions.

Day 9: Shimla
- Summing up of visit.
- A day for local travel in Shimla and adjoining areas.

Day 10: Back to state Capital
- Back Journey to state capital.

Farmers Training cum Exposure Visit on MAIZE

Directorate of Maize Research, Pusa Campus, New Delhi

Maize is considered a profitable option for diversifying agriculture in upland areas of India. It now ranks as the third most important food grain crop in India. The maize area has slowly expanded over the past few years to about 6.2 million ha (3.4% of the gross cropped area). Experts have predicted that this area would grow further to meet future food, feed, and other needs, especially in view of the booming livestock and poultry producing sectors in the country. Since land is limited for further expansion of maize area, future increases in maize production will be achieved through the intensification and the use of latest hybrid seeds, practices and technologies in maize production systems. Directorate of Maize Research, New Delhi, under ICAR was established in 1994 with the mandate to organize, conduct, coordinate and generate technologies for continuous enhancement in productivity and production of Maize for meeting the ever increasing demand of human food, animal feed and industrial utilization for starch, oil, and other value-added products. The DMR is entrusted with the over all responsibility of research, coordination and management of the multi disciplinary programmes at national level and maintaining linkages with International programmes on maize improvement as well.

Highlights of the exposure visit:

1. -To learn advanced practices in maize cultivation.
2. -To identify different hybrids and varieties resistant to various diseases
3. -To get well versed in new technologies and practices.
4. -To learn about increasing productivity through optimization of resources (soil, water and inputs).

Technical Study Tour visits:

1. -Directorate of Maize Research, Pusa Campus, New Delhi.
2. -Visits to local maize farms for practical exposure on maize industry.
3. -Visits to Indo-Israel project at ICAR, New Delhi.
4. -Visit to various IARI divisions and farms

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved location specific seeds.
2. - Awareness about physiological disorders, diseases, pests and resources management.
3. -Adoption of improved methods, techniques and practices in production, extension and marketing
4. -To increase sustainable productivity under intensive agriculture system.

Tentative Itinerary:

Day 1 & 2:

- Travel from state capital to New Delhi. - Overnight in New Delhi.

Day 3: DMR, Pusa

- Training on multilocational and multidisciplinary research programs on maize improvement.
- Training on natural resource management and optimum use for sustainable maize production.

Day 4: DMR, Pusa

- Imparting knowledge to farmers on characteristics of different varieties and cultivars.
- Training on understanding of economics, marketing and using basic levels in maize markets.

Day 5: DMR, Pusa

- Training on sustainability of maize based cropping system.
- Imparting knowledge to the farmers on diseases/ pests common to maize cultivation
- Overnight in Pusa.

Day 6: New Delhi

- Visit to local farms in nearby New Delhi.
- Interaction with local farmers regarding technical issues in maize production.
- Understand the factors influencing production, marketing and trade.

Day 7: IARI Pusa, New Delhi

- Visit to various departments of IARI
- Imparting knowledge on different research projects.
- Visit to IARI farms for practical exposure on different crops.

Day 8: DMR, Pusa

- Training and developing understanding on bio controls and organic production at NCIPM, Pusa.
- Exposure to disease and pest resistant varieties for different agro climatic conditions.
- Visit to indo- Israel project.

Day 9: New Delhi

- Summing up of visit.
- Daylong visit for local sight seeing in Delhi

Day 10: Back to state Capital

-Back Journey to state capital.

Farmers Training cum Exposure Visit on GROUNDNUT

National Research Center on Groundnut, , Gujarat

Groundnut is a crop of global economic significance. Low yields in Groundnut crop are however a matter of great concern for all those involved in research, extension, policy making, production and trade. The crop is grown commercially in about 8 million ha in India. Gujarat being leader in the production of the crop, accounting for over 40% of the crop produced in India. The groundnut oil production in India hovers around 1.5 million tons per year. Junagadh, Jamnagar, Amreli, Bhavnagar, Rajkot are the main groundnut growing areas in Gujarat. Groundnut crop has multiple uses. It is used as edible oil, in soap making, cosmetics, lubricants etc. National Research Institute for groundnut, Junagadh has been playing critical role in research, extension and development of Groundnut cultivation. The impact of this institution on the economy of the state is widely acknowledged. Groundnut has emerged as a crop of national importance for addressing the edible oil deficit and it also fits well in the sustainable food production system. For instance, groundnut possesses the ability to maintain or increase food production over the long term without damaging or depleting the resource base in the fragile ecosystem.

Highlights of the exposure visit:

1. -To understand the practices of modern groundnut farming and use of improved varieties and farm resources.
2. -To understand agriculture extension programmes.
3. -To learn the scientific application of inputs like seeds, fertilizers, pesticides, irrigation and machinery etc.
4. -To understand resource management and exposure to integrated farming systems.

Technical Study Tour visits:

1. - Visit to National Research Institute for Groundnut, Junagadh
2. - Visit to Gujarat Agriculture University, Junagadh
3. -Visit to Directorate of Groundnut Research
4. -Visit to Agro Processing Industries.

Expected outcomes of the event:

1. -Adoption of modern farming techniques including use of improved varieties and farm resources.
2. -Awareness about improved seeds, fertilizers and modern irrigation techniques.
3. -Adoption of the new practices in production, technology and marketing
4. -Enhancing yields and quality while reducing the input cost per unit

Tentative Itinerary:

Day 1 & 2:
- Departure from State to Junagadh
- Overnight in Junagadh

Day 3: Junagadh
- Exposure visit to National Research Centre of Groundnut
- To observe and learn their latest farming techniques.
- Visit to local farms to know their groundnut cultivation practices

Day 4: Junagadh
- Training on integrated nutrient management in groundnut.
- To learn IPM activities in groundnut cultivation.
- Overnight in Junagadh.

Day 5: Junagadh
- Exposure visit to Directorate of Groundnut Research
- To provide information on Natural resource management and crop improvement
- Imparting knowledge to farmers on characteristics of different varieties.
- Providing training on various aspects of economics, marketing and production of the crop.

Day 6: Junagadh Agricultural University
- Visit to various departments of Agriculture University, Junagadh.
- Training on management practices in agriculture.
- Training on pest management at field level.
- Visit to Gujarat State Seeds Corporation Limited to learn about high quality seeds.

Day 7: Porbandar & Jamnagar
- Visit to Porbandar fishing centres.
- Visit to mango orchard of Reliance Horticulture farm at Jamnagar

Day 8: Rajkot
- Exposure visit to Agrotech, Rajkot
- To know innovative farming technologies
- To see market linkages and marketing systems.

Day 9 & 10:
-Return from Rajkot to state capital.

Farmers Training cum Exposure Visit on RAPESEED (MUSTARD)

Directorate of Rapeseed-Mustard Research, Bharatpur, Rajasthan

Rapeseed (Mustard) is a major oil seed crop in India grown on 13% of cropped land. Mustard oil is major edible oil in India, particularly in Northern India, where it accounts over 90% of the consumption. Rapeseed and mustard has the most edible oil content, ranging from 30% - 48%. In the case of white mustard, the oil content ranges from 25 to 33 per cent. The oil obtained is the main cooking medium in Northern India and cannot be replaced by any other edible oil. The seed and oil are used as a condiment in the preparation of pickles and for flavoring curries and vegetables. Directorate of Rapeseed-Mustard Research has been established by the Indian Council of Agricultural Research (ICAR) as a national repository for rapeseed-mustard genetic resources and for undertaking basic, strategic and applied research to enhance the productivity and quality of oil and seed meal. The Centre is assigned a leadership role not only for the ICAR institutes but also for the State Agricultural Universities in developing ecologically sound and economically viable agro-production and protection technology based on location specific interdisciplinary information through multilocation testing and co-ordination. Farmers can get immensely benefited by training cum exposure visit to DRMR.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for Rapeseed-Mustard cultivation.
2. -Training on new hybrids and varieties for different ecosystem and latest practices adopted.
3. -Training on latest projects and research activities taking place in DRMR, Bharatpur, Rajasthan.

Technical Study Tour visits:

1. -Directorate of Rapeseed-Mustard Research, Bharatpur, Rajasthan.
2. -Visits to adjoining farmers' fields and interaction with local farmers on cultural practices
3. -Krishi Vigyan Kendra, Bharatpur.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and crop cultivation for Rapeseed-Mustard.
3. -Awareness about the ongoing projects and research activities in DRMR, Bharatpur.
4. -Adoption of latest pest and natural resources management practices

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Bharatpur, Rajasthan. - Overnight at Bharatpur.

Day 3: DRMR Bharatpur.
- Visit to Directorate of Rapeseed-Mustard Research, Bharatpur, Rajasthan.
- Training on Integrated Farming and its application.
- Interaction with experts for farmers' queries on practices to be followed.

Day 4: DRMR Bharatpur.
- Training on Integrated Pest Management as a plant protection measure.
- Training on bio-fertilizers and organic cultivation.

Day 5: Bharatpur
- Visit to local farmers' farms for practical exposure.
- Communication session with the local growers for updating on latest practices to be followed.
- Awareness on market scenario and potential for rapeseed cultivation.

Day 6: DRMR, Bharatpur.
- Visit to NRM section of DRMR, Bharatpur.
- Interaction with faculty and training on ongoing projects.
- Training on natural resource management for sustainable yields.
- Overnight in Bharatpur.

Day7: Krishi Vigyan Kendra, Kumher, Bharatpur
- Visit to KVK, Kumher.
- Training on modern technologies and latest practices.
- Imparting knowledge on major crops grown in the area.
- Overnight in Bharatpur.

Day 8: KVK, Kumher
- Training on agriculture extension management practices.
- Evening for local travel and sight seeing.
- Overnight in Bharatpur.

Day 9& 10: Bharatpur to state
- Back journey to state capital.

Farmers Training cum Exposure Visit on
OILSEED CROPS

Directorate of Oilseed Research, Hyderabad

The oilseed consumption pattern in India and consequently the production is undergoing visible changes in the new environment of liberalized trade. Consumption patterns are changing, as consumers are beginning to accept oils other than those consumed traditionally. To meet the changing demand, farmers have taken up the production of new oilseed crops, but India continues to be deficit in the production of oilseeds. Changes in cropping patterns have also taken place with the help of technology missions and price support by the Government and new seeds launched by the industry. Although India ranks among the largest producers of oilseeds in the world such as USA, China and Brazil, its productivity is quite low. The low and fluctuating yields are primarily due to a large part of the cultivation being on marginal lands lacking irrigation and with low levels of input usage. Three oilseeds: groundnut, soybean and rapeseed/mustard, together account for over 80 per cent of aggregate cultivated oilseeds output. Cultivation of other crops like sunflower, castor seed and safflower, olive oil, canola etc. can be equally beneficial to the farmers. Directorate of Oilseeds Research (DOR) Hyderabad is a premier organization under Indian Council of Agricultural Research (ICAR) with responsibility to plan, coordinate and execute the research programmes and has linkages with the industry and farmers to augment the production and productivity of Castor, Sunflower and Safflower. The oilseed farmers can therefore learn much from the visit to DOR, ICRISAT and oilseed production farms in Andhra Pradesh.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for oil seed cultivation.
2. -Training on new technologies and varieties for different ecosystem.
3. -Training on latest practices and exposure to research activities, seeds & technologies.

Technical Study Tour visits:

1. -Directorate of Oil Seed Research, Rajendra Nagar, Hyderabad.
2. -Visits to adjoining farmers' fields and interaction with local farmers for cultural practices
3. -International Crop Research Institute for Semi-Arid Tropics (ICRISAT), Patancheru, Hyderabad
4. -Visit to National Institute of Plant Protection and Training, Hyderabad

Expected outcomes of the event:

1. -Adoption of advanced cultivation practices
2. -Awareness about crop rotation, inter and relay cropping for high yields and best profits
3. -Awareness about the latest seeds, ongoing projects, research activities and farmers linkages

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Rajendra Nagar, Hyderabad.
- Overnight at Hyderabad.

Day 3: DOR Hyderabad.
- Visit to Directorate of Oil Seed Research, Rajendra Nagar, Hyderabad.
- Training on Integrated Farming and its Application.

Day 4: DOR Hyderabad
- Training on Integrated Pest Management as a plant protection measure.
- Training on bio-fertilizers and organic oilseed cultivation.

Day 5: Hyderabad.
- Visit to local farmers' farms for practical exposure.
- Interaction session with the local growers on latest practices
- Awareness on market scenario and potential for oil seed cultivation.

Day 6: Hyderabad to ICRISAT, Patancheru.
- Visit to International Crop Research Institute for Semi arid Tropics, Patancheru.
- Interaction with faculty and training on ongoing projects at ICRISAT.

Day7: ANGR Agriculture University, Hyderabad.
- Visit to ANGRAU, Hyderabad.
- Exposure to modern technologies for more productivity per hectare.
- Imparting knowledge on major crops grown in the area.
- Overnight in Hyderabad.

Day 8: DOR Hyderabad.
- Interaction with experts on field visits, queries and concluding discussions
- Evening for local travel and sight seeing.
- Overnight in Hyderabad.

Day 9& 10: Hyderabad to state.
- Back journey to state capital.

Farmers Training cum Exposure Visit on PULSES

Indian Institute of Pulses Research, Kanpur

Pulses complement cereals in both production and consumption. In the production process, pulses improve soil fertility; require less water than cereals and their rotation with cereals controls diseases and pests. On the consumption side, these are relatively cheaper sources of protein. Despite their importance, the per capita availability of pulses has reduced to almost half from about 60 gm/day in 1950-51 to 26 gm/day in 2000-01 as against the recommendation (43 gm/day) of the Indian Council of Medical Research. The Indian Institute of Pulses Research, Kanpur is a premier organization of the Indian Council of Agricultural Research engaged in advanced studies on pulses. Kanpur Dehat, situated in the middle of Holy Ganga & Yamuna River is agriculturally dominating district. About 83% rural population by and large depends on agriculture. Pulses ranked second to wheat in production and area in Kanpur district. Moreover IIPR Kanpur is working on refinement of the new technologies like integrated nutrient management, insect/pest management and different cropping systems for pulses. Chandra Shekhar Azad University of agriculture and technology, Kanpur is conducting research on number of viable crops like Rabi cereals, Barley, legumes, pulses and oil seed with advanced mechanization which could be very useful for farmers as they can adopt these kinds of farm practices for better production and processing.

Highlights of the exposure visit:

1. -To learn new cultivation techniques in pulses.
2. -Demonstration of integrated nutrient management in pulses.
3. -Imparting training to the farmers on insect/pest and weed management of pulses for better crop yield.
4. -Exhibiting productive cropping system such as soybeans and short duration varieties of paddy.

Technical Study Tour visits:

1 -To visit Indian Institute of Pulses Research, Kanpur.
2. -Field visits to Kanpur Dehat region to see major pulses grown in the area.
3. -Visit to Chandra Shekhar Azad University of Agriculture and Technology, Kanpur.
4. -Exposure visit to Goldiee Industries Kanpur, a leading manufacturer and supplier of spices and processed foods.

Expected outcomes of the event:

1 -Adoption of advanced practices in pulses farming and use of improved varieties and farm resources.
2 -Awareness about the benefits of pulse production and income which can be generated
3 -Adaptation to better land and resource utilization

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Kanpur.
- Overnight at Kanpur

Day 3: Kanpur
- Visit to Indian institute of Pulses Research, Kanpur.
- Training on advanced agro practices for pulses cultivation.
- Overnight at Kanpur.

Day 4: Kanpur
- Training and extension program at INPR, Kanpur.
- Interaction with Scientists and technical staff of production department for solving farmers queries on technical issues.

Day 5: Kanpur
- Visit to Chandra Shekhar Azad University of agriculture and Technology, Kanpur
- Interaction with technical staff to become well versed with technical issues and care to be taken during pulses production.
- Visit to adjoining farmer's field for practical exposure to farm practices adopted in the area.

Day 6: Kanpur Dehat Region.
- Visit to Kanpur Dehat Region.
- Training on productive cropping system.
- Training on diversification from traditional crops to pulses.

Day 7: Goldie Industries, Kanpur.
- Visit to Goldie Industries Kanpur.
- Interaction with the technicians for post harvest management practices to be followed.
- Exposure visit to processing food plant at Goldie industries.
- Overnight in Kanpur

Day 8: Kanpur
- Day for recreational visit to Phool Bagh, mall road Kanpur.
- Local travel and sight seeing.
- Overnight in Kanpur.

Day 9&10: back Journey
- Return to state capital.

Farmers Training cum Exposure Visit on COTTON

Gujarat - where farmers can learn advanced cotton cultivation practices

The major non food crop of Gujarat is Cotton and it plays a dominant role in its agrarian and industrial economy. Central Gujarat region, including Ahmedabad district, North Gujarat and Saurashtra are the main cotton growing areas in the state. Before the arrival of Bt Cotton, Gujarat produced about 30 per cent of India's total cotton output. Following the introduction of Bt Cotton, Gujarat's yield per hectare has gone up and the state now contributes to almost 36 per cent of the country's total production. With the record production, Gujarat has emerged as India's number one cotton producing state. 90 per cent of the cotton produced in the state is either exported to china or sold in the textile towns of south and north India. Gujarat is the main state of our textile industry. The cotton production and productivity in the state are 80 lacs bales and 655 kg/ ha respectively. The Cotton Corporation of India Limited is a Government Company and its main objective is to undertake price support operations and commercial operations in developing the market channels and facilitating in cotton export in foreign countries.

Highlights of the exposure visit:

1. - To see process of cotton farming and use of improved varieties and farm resources.
2. -Exhibiting integrated cotton farming systems such as mixed cropping and crop rotation practices.
3. -Adoption of mechanized farming methods
4. -Visit to textile industries in Gujarat to learn the market channels, packaging of cotton

Technical Study Tour visits:

1. -Visit to Anand Agriculture University (AAU)
2. -Two days training and extension service programme at AAU, Ahmedabad
3. -To visit high-tech integrated farms in Rajkot, and in Amreli districts
4. Visit to the cotton corporation of India limited, Ahmedabad

Expected outcomes of the event:

1. -Adoption of new cotton farming techniques and use of improved varieties
2. -Awareness about use of improved quality seeds/ planting material and crop diversification and their impact on income levels.
3. -Adoption of the improved methods, techniques and practices in production, extension, marketing and value chain in cotton produces

Tentative Itinerary:

Day 1 &2: State/Ahmedabad
- Departure from State capital to Ahmedabad
- Shifted to AAU, Ahmedabad, Farmers Guest House
- Evening Film show on new agricultural techniques and practices

Day 3: Ahmedabad
- Exposure visit to various departments at AAU, Ahmedabad
- Training on cotton crop management at field level
- Discussions with experts at AAU
- Visit to state office of Central Institute for Cotton Research (CICR), Ahmedabad

Day 4: Ahmedabad
- Exposure visit to local agriculture farms, adopting hi tech production and integrated farming systems
- Training on the variety selection criteria of cotton crop for qualitative and quantitative productivity
- Visit to the Cotton Corporation of India limited, Ahmedabad

Day 5: Junagadh
- Shifted to Gujarat Agricultural University, Junagadh, Farmers Guest House
- Training on Pest Management at field level
- Visiting mechanized farms of agriculture department at GAU, Junagadh

Day 6: Junagadh
- Training on ongoing research projects and extension programs
- Training on improved varieties and cultivars.

Day 7: Rajkot / Amreli
- To see new cotton cultivation practices at farmer's field
- Discussions with farmers
- Training on management of cotton crop for alkaline soils
- Visit to Asha Cotton Industries, Bhavnagar to see market linkages and marketing systems

Day 8: Jamnagar
- Visit to mango orchard of Reliance Horticulture Farm at Jamnagar
- Training on Orchard Management of Fruit Crops

Day 9&10: Back to State
- Return from Jamnagar to State Capital
- If stay at Delhi, a visit to IARI facilities and Indo- Israel Project at Pusa

Farmers Training cum Exposure Visit on SUGAR CANE

Maharashtra - where farmers can learn high-tech sugarcane cultivation practices

Maharashtra in tropical region, occupies the top position as far as sugarcane crop area and sugar industry are concerned. Sugarcane industry is the largest agro-based industry of Maharashtra in economic returns, employment potential and poverty alleviation through rural upliftment. The sugarcane in Maharashtra is cultivated under varied agro climatic zones with different management practices along with different input management. Jain irrigation System Private Limited, Jalgaon has developed a latest technology on drip irrigation system for sugarcane cultivation which gives an additional yield with improved juice quality, ranging from 10 to 25%. Therefore, there is tremendous interest at the farmers' level to go in for sugar cultivation. In the development of sugarcane crop in the state, the Vasantdada Sugar Institute (VSI), Pune has been playing a pivotal role. This institute brings about improvement in the socio-economic status of sugarcane grower farmers through research by providing them new and cutting edge technologies by undertaking or helping to carry on research and other scientific work in connection with the trade or industry related to sugarcane, sugar by-products and allied industries in Maharashtra. The Maharashtra State Agricultural Marketing Board (MSAMB), Pune is having an important role in developing and coordinating agricultural marketing system in the State of Maharashtra. Thus, farmers from different parts of the country can get quality exposure and learning by exposure visit to Maharashtra and seeing high-tech farming systems, integrated cropping, resource management, drip irrigation systems, tissue culture labs, research and marketing systems. Maharashtra grows sugarcane as cash crop which could be very useful for farmers to adopt this kind of cultivation and practices

Highlights of the Training cum Exposure Visit:
The farmers' domestic training program will fulfill the objectives of-

1. -To see hi tech sugarcane farming system and use of improved varieties and farm resources.
2. -Training on sugarcane cultivation practices, its management and on marketing channels
3. -To see tissue culture technology and further cultivation systems
4. -To see the marketing systems and exports by farmers and commodity groups.
8. Training at JISL on Drip Irrigation System

Technical Training Visits:
The training and exposure visit would be conducted for the farmers at the following places

1. -Vasantdada Sugar Institute (VSI), Pune
2. -Maharashtra State Agricultural Marketing Board (MSAMB), Pune
3. -Jai Research Foundation, Vapi
4. -Jain Irrigation System Pvt. Limited, Jalgaon: By demonstrating its product and service at farm level.
8. Production & Management, Sugarcane Processing and many more.
10. Participation in two days short term training program especially on Sugarcane cultivation at JISL

Expected outcomes of training cum exposure tour:

1. Adoption of micro irrigation techniques, including drip and sprinkler irrigation along with resource conservation technologies such as water harvesting.
2. Adoption of hi-tech farming and use of improved varieties and farm resources
3. Improved post harvest and processing technologies and better packaging, grading and marketing systems.
4. Adoption of improved methods, techniques and practices in production, extension, marketing and value chain in agricultural crops

Tentative Itinerary:

Day 1 &2:
- Departure from state capital to Pune

Day 3 & 4: Pune
- Exposure visit to Vasantdada Sugar Institute (VSI), Pune
- Two days training on Post Harvest management of Sugarcane and on selection criteria of best varieties
- Meeting and discussions at Maharashtra State Agricultural Marketing Board

Day 5: Pune
- Visit to national research centre for onion & Garlic, Rajguru Nagar
- Discussion with Scientist
- Training on Grafting technique for Grapes in National research centre for Grapes (NRCG)
- Visit to different departments of College of Agriculture Pune -Overnight at Pune

Day 6: Pune
- Visit at Maharashtra State Agriculture Marketing Board
- Training on use and application on Agricultural marketing in Maharashtra
- Discussion with scientist
- Local field visit and interaction with Progressive farmers
- Departure from Pune to Jalgaon

Day 7 : Jalgaon
- Visit to high tech farms of Sugarcane in Jalgaon
- Visit to Tissue culture laboratory
- Solve queries related to Sugarcane production with Scientist
- Overnight in Jalgaon

Day 8: Jalgaon
Exposure visit to Jain Irrigation System Pvt. Limited for agricultural product demonstrations
- Training at JISL on Drip Irrigation System
- Visit Jalgaon HT farm to see the demonstration of drip irrigation

Day9:
Departure from Jalgaon to their own destination

Day10:
- Back journey to respective destinations

Farmers Training cum Exposure Visit on
ADVANCED TECHNOLOGIES AND FARMING PRACTICES

G.B.Pantnagar University of Agriculture Technology

GBPUA&T is the first Agricultural University of India. It was inaugurated by the first Prime minister of India, Pt. Jawaharlal Nehru on 17 November, 1960 as the Uttar Pradesh Agricultural University (UPAU). Pantnagar University soon became a significant force in the development and transfer of High Yielding Variety (HYV) seeds and related technology which played major role in Green revolution. Being an Agriculture and Technology university, the main focus of research is on agriculture and engineering. The engineers of the university developed a 'Zero-till-ferti-seed drill' for No-till farming, which has been immensely popular in Haryana and Punjab. Uttarakhand is privileged with vast aquatic resources and potential for fish production. Fish culture being less labour intensive, has great potential for income generation even at small scale. Apart from knowledge about package of practices for culture of different fish species, know-how of aspects like farm management, feed and feeding, health and disease management is also important. Milk production in Uttarakhand has shown 71 % increase over last two decades. In Uttarakhand, average daily milk production of cattle and buffalo has been recorded as 2.30 kg and 3.71 kg respectively. So this holds a great potential for the growth of the dairy industry in the state. Farmers can get a useful exposure by this visit to university campus on advanced Agriculture, precision farming and new technologies and developments.

Highlights of the exposure visit:

1. -To learn advanced cultivation practices for Agriculture crops.
2. -To identify different location specific and economically viable crops.
3. -To learn about the precision farming techniques.
4. -To learn about seed and Fish production technology
5. -To get knowledge regarding crop production of pulses and wheat crop.

Technical Study Tour visits:

1. -G B Pant University of Agriculture and Technology.
2. -Visit to U.S. Seeds and tarai development Corporation (TDC)
3. -Visit to precision farming project
4. -Visit on Bio-fertilizer production.
5. - Visit to Animal Husbandry and Fishery Institute

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties suitable for the Farm Mechanization.
2. -Awareness about the crop production, seed production and precision farming techniques.
3. -Adoption of various techniques for bio-fertilizer production.
4. -Awareness about dairy and fish production.

Tentative Itinerary:

Day 1 &2:
- Depart from state to Pantnagar.

Day 2: G B Pant University of A & T
- Visit to GBPUAT campus.
- Visit to different departments of campus for knowing research and development activities.
- Interaction with Scientists and technical staff for solving farmers' queries on technical issues.

Day 3: G B Pant University of A & T
- Visit to various departments of Agriculture.
- Training on latest technologies and varieties developed at campus for major agriculture crops.

Day 4: US Seed and Tarai Development Corporation, Haldi
- Visit to US Seed and Tarai Development Corporation.
- Training on latest technologies and varieties developed at campus for major agriculture and horticulture crops.

Day 5: Animal Husbandry, Gopeshwar, Chamoli
- Visit to Animal Husbandry Farm, Chamoli
- Training on different aspects of animal husbandry and fisheries
- Discussions with scientists to solve the livestock problems.

Day 6: Fishery Institute, Claimant town, Dehradun
- Visit to fisheries institute Claimant Town, Dehradun
- Interaction with technical staff about fish production technology.

Day 7: G B Pantnagar University of A & T
- Visit to nearby progressive farmers to know about various techniques of precision farming.
- Interaction with local farmers and exposure to different crops grown in the area.

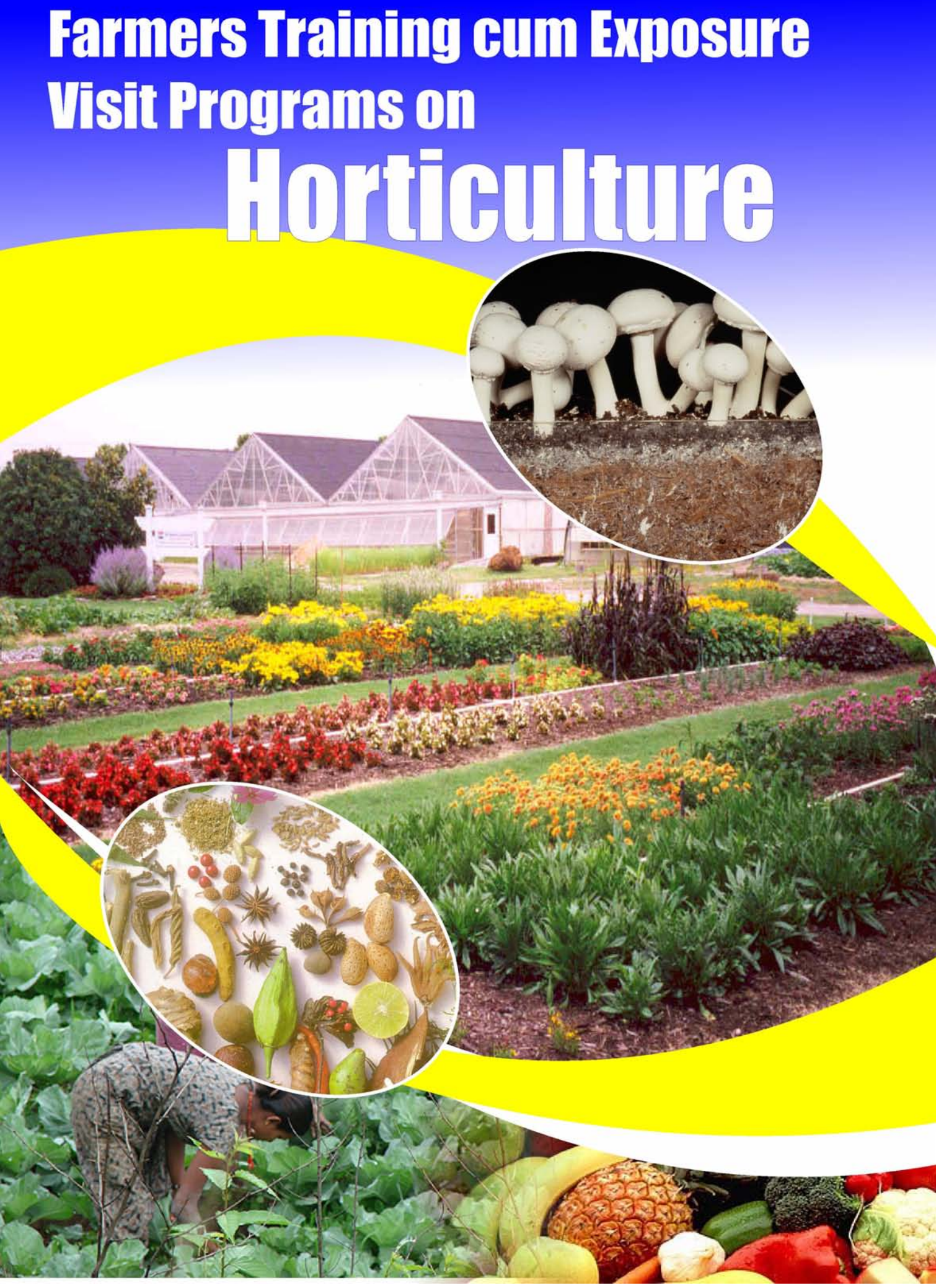
Day 8: Bio-fertilizer production centre, G B Pant University of A & T
- Visit to Bio-fertilizer production centre
- Interaction with the scientists and exposure to techniques in bio-fertilizer production.

Day 9: G B Pant University of A & T.
- Visit to various fields of progressive farmers
- Training on cultivation of various agricultural crops and its commercial aspect for near future.
- Visit to farms of progressive farmers

Day 10: Back Journey
- Back journey to respective destinations

Farmers Training cum Exposure Visit Programs on

Horticulture



Farmers Training cum Exposure Visit to MAHARASHTRA

Maharashtra – where farmers can learn advanced horticulture

Maharashtra is a leading State in horticulture crops, having diverse agro climatic conditions suitable for cultivation of a wide range of crops. The state has a well developed basic infrastructure, with enterprising and innovative farmers. Specific crop based farmers' organizations play a significant role in the regulation of markets for farmers. The predominance of cash crops in irrigated area and strong cooperative movement has helped the State to emerge as the largest producer of onion, citrus, mushroom, cashew nut, grapes, banana, orange, pomegranate, barley, sugarcane and helped in economic enhancement of farmers. The different types of soil, diverse agro climatic conditions, adequate technical manpower, and increasing trend in drip irrigation, green house and use of cool chain facilities offer wide opportunities to grow different horticultural crops in the state. Thus, farmers from different parts of the country can get quality exposure and learning by the exposure visit to Maharashtra and seeing high-tech farming systems, integrated cropping, resource management, drip irrigation systems, tissue culture labs, research and marketing systems.

Highlights of the Study Tour:
The farmers' domestic learning program will fulfill the objectives of-

1. -To identify location specific and economically viable different crops.
2. -To see hi tech farming and use of improved varieties and farm resources.
3. -To see tissue culture based cropping and use of drip systems
4. -To see the marketing systems and exports by farmers and commodity groups
5. -Training on Citriculture
6. -Training on drip irrigation technologies
7. -Training on Agricultural Marketing in Maharashtra

Technical Study Tour Visits:
The farmers would be visiting the following places and will see technical demonstrations at:

1. -National Research Centre for Citrus, Shankar Nagar Amravati Road, Nagpur
2. -Maharashtra State Agricultural Marketing Board (MSAMB), Pune
3. -National Research Centre for Grapes, Manjri Farm, Solapur Road, Pune
4. -National Research Centre for Onion and Garlic, Rajgurunagar, Pune
5. -Jain Irrigation System Pvt. Limited, Jalgaon: By demonstrating its product and service at farm level.

Expected outcomes of the event:

1. -Adoption of micro irrigation techniques, including drip and sprinkler irrigation along with resource conservation technologies such as water harvesting.
2. -Adoption of the hi-tech farming and use of improved varieties and farm resources
3. -Awareness about use of improved quality seeds/ planting material and crop diversification and their impact on income levels.
4. -Adoption of integrated farming systems and improved post harvest and processing technologies and better packaging, grading and marketing systems.
5. -Adoption of the improved methods, techniques and practices in production, extension, marketing and value chain in horticulture produces

Tentative Itinerary:

Day 1 &2:
- State capital to Nagpur

Day 3: Nagpur
- Exposure visit to National Research Centre for Citrus
- Training on Citriculture

Day 4: Jalgaon
- Exposure visit to Jain Irrigation System Pvt. Limited for agricultural product demonstrations
- Training on Drip irrigation technologies
- Exposure visit to local farm practice and service by Jain Irrigation

Day 5: Jalgaon
- Training on hi-tech horticulture at JISL
- Visit to Jalgaon HT farm , which is known for its advances in horticulture particularly bananas and cotton, especially by resorting to drip irrigation, has created a role model for cultivators in other parts of country

Day 6: Pune
- Visit to horticulture fields along the way to Pune
- Meeting and discussions at Maharashtra State Agricultural Marketing Board
- Horticulture market visit to adjoining cultivated areas of Pune

Day 7: Pune
- Exposure visit to National Research Centre for Grapes, Manjri Farm, Solapur Road, Pune
- National Research Centre for Onion and Garlic, Rajgurunagar, Pune
- Training on Grafting Technique for Grapes

Day 8&9:
- Return from Pune to State Capital

Farmers Training cum Exposure Visit to HIMACHAL PRADESH

Himachal Pradesh – where farmers can learn advanced horticulture

Himachal Pradesh has been endowed with a wide range of agro climatic conditions due to which a large number of horticulture commodities like fruit crops (from temperate to sub tropical), flowers, vegetables, mushrooms, hops, tea, medicinal & aromatic plants etc. are successfully grown. HP could play as a role model for the horticulture farmers to learn from its experience in high-tech horticulture and its well developed market linkage systems. Since most horticultural produce are perishable, they need careful handling, marketing and value addition. In this respect, HP has much to offer for the farmers to learn. Farmer - market linkages, procurement and marketing system and value chain through HPMC model can be a good learning experience for the farmers, besides study of various crops and crops management systems

Highlights of the Study Tour:

This initiative of farmers' inter-state technology exposure visit program will fulfill the following objectives:

1. -To identify location specific and economically viable different crops.
2. -Showing advanced practices in horticulture farming and use of improved varieties and farm resources.
3. -Training on Floriculture and Landscape Management
4. -Training Post Harvest Physiology of Fruit Crops
5. -Training on Nursery Management and its application
6. -Training on Cultivation of Mushroom by organic farming and exposure visit to NRC, Chambaghat

Technical Study Tour Visits:

1. -Central Potato Research Institute, Shimla
2. -Himachal Pradesh Horticultural Produce Marketing and Processing Corporation Ltd. (HPMC) Shimla
3. -National Research Centre for Mushroom, Chambaghat, Solan.
4. -Dr. Y.S. Parmar University of Horticulture and Forestry, Solan
5. -Regional Horticultural Research Station, Mashobra
6. -HPMC unit Parwanoo
7. -RHRS, Kandaghat

Expected outcomes of the event:

1. -Adoption of protected cultivation by use of low cost green house and poly house technologies.
2. -Adoption of micro irrigation techniques, including drip and sprinkler irrigation along with resource conservation technologies such as water harvesting.
3. -Adoption of the advanced practices in horticulture farming and use of improved varieties and farm resources
4. -Adoption of the improved methods, techniques used in horticulture **//**in production, extension, marketing and value chain

Tentative Travel Itinerary:

Day 1&2: Delhi/Chandigarh
- Depart from State to Delhi
- Visit to Indo-Israel project at Pusa
- Overnight at IARI, Pusa, New Delhi

Day 3: Delhi to Chandigarh via Karnal
- Depart Delhi
- Visit to KVK and NDRI facilities in Karnal
- Overnight at Chandigarh

Day 4: Departure to Solan
- Visit to HPMC unit at Parwanoo
- Visit to floriculture Nursery at Parwanoo
- Arrival at Dr. Y. S. Parmar University of Horticulture & Forestry
- Overnight at UHF, Nauni

Day 5: Solan
- Visit to Y.S. Parmar University of Horticulture & Forestry
- Visit to different departments of the university
- Overnight in Solan

Day 6: Solan / Shimla (50 kms)
- Training on Cultivation of Mushroom by organic farming and exposure visit to NRC, Chambaghat and other private mushroom growing unit (Shimla)
- Overnight at Shimla

Day 7: Shimla/Mashobra (40 kms)
- Visit to Horticulture Research Station, Mashobra
- Training on Nutrient management for apple cultivation in Hilly Regions
- Dinner overnight in Mashobra

Day 8: Mashobra / Shimla
- Visit to Potato Research Institute, Shimla
- Training on Post harvest management of potato

Day 9 :
- Arrival at Delhi
- Overnight at IARI, Pusa
- Return from Delhi to the State Capital

- Day 10:
- Return from Delhi to State capital

Farmers Training cum Exposure Visit to KARNATAKA

Karnataka - where farmers can learn advanced horticulture

Karnataka occupies a prominent place in the field of modern horticulture in the country. The diverse agro-ecological conditions prevailing in Karnataka has made it possible to grow different types of horticultural crops such as fruits, vegetables, flowers, spices, plantation crops, root and tuber crops, medicinal and aromatic crops etc. Horticulture provides excellent opportunities in raising the income of the farmers even in the dry tracts. A significant shift towards horticulture is evident in the state with an increase in area and production under horticulture crops. The best of flowers are produced in the state, which are now exported and have already established name in the international market. Around 250 established regulated markets in the state also offer opportunities to the fruit growers for marketing. Thus, farmers from different parts of the country can get quality exposure and learning by a exposure visit to Karnataka and seeing high-tech farming systems, integrated cropping, resource management, drip irrigation systems, tissue culture labs, research and marketing systems. Karnataka grows a number of seasonal cash crops and horticultural crops, which could be very useful for farmers as they can adopt this kind of cultivation and practices in their own fields.

Highlights of Training cum Exposure visit:
The farmers' domestic learning program will fulfill the objectives of-

1. -To identify different location specific and economically viable crops.
2. -To see hi tech farming and use of improved varieties and farm resources.
3. -To see tissue culture based flower cropping and use of drip systems
4. -To see the marketing systems and exports by farmers and commodity groups
5. -Training on management of grape at field sites
6. -Training on Food Processing technology and visit to food processing unit

Technical Study Tour visits:
The farmers would be visiting the following places and get training cum exposure through technical demonstrations at:

1. -Central Coffee Research Institute (CCRI), Chikmagalur, Karnataka
2. -Central Food Technological Research Institute, Mysore, Karnataka
3. -IIHR, Hesaraghatta, Bangalore, Karnataka
4. -Karnataka State Horticulture Mission Lalbagh, Bangalore, Karnataka
5. -National Research Centre for Grapes, Hesaraghatta Lake, Bangalore
6. -National Research Centre for Cashew, Puttur, Karnataka

Expected outcomes of the event:

1. -Adoption of protected cultivation by use of low cost green house and poly house technologies.
2. -Adoption of micro irrigation techniques, including drip and sprinkler irrigation along with resource conservation technologies such as water harvesting.
3. -Adoption of advanced practices in horticulture farming and use of improved varieties and farm resources
4. -Adoption of integrated farming systems and improved post harvest and processing technologies and better packaging, grading and marketing systems.
5. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain in horticulture produces

Tentative Itinerary

Day 1 &2:
- State capital to Bangalore.
- Arrive Bangalore.

Day 3 & 4: Bangalore
- Visit to Indian Institute of Horticultural Research, Hesaraghatta, Bangalore
- Two days training on Post harvest Management of Horticultural Crops
- Visit to horticulture fields to study cultivation practices

Day 5: Bangalore
- Visit to National Research Centre for Grapes, Hesaraghatta Lake, Bangalore
- Training on management of grape at field sites
- Visit to Karnataka State Horticulture Mission Lalbagh, Bangalore Karnataka

Day 6: Mysore
- Training on Food Processing technology and visit to food processing unit
- Visit to Central Food Technological Research Institute, Mysore
- Exposure visit to nearby Rubber Plantations

Day 7: Chikmagalur
- Visit to Central Coffee Research Institute (CCRI), Chikmagalur
- Visit to Tissue culture laboratory
- Training on Nursery management and its application

Day 8 & 9:
Return from Bangalore to State Capital

Farmers Training cum Exposure Visit to KERALA

Kerala - where farmers can learn advanced horticulture

Kerala is an essentially agrarian State and its vast majority of the populations are dependent directly or indirectly on agriculture for livelihood. The main crops grown in the State are paddy, coconut, pepper, ginger, cardamom, turmeric, cinnamon, tea, coffee cashew, tapioca, and arecanut and plantation crops like rubber. The Indian Institute of Spices Research (IISR) has contributed significantly by releasing around 25 different varieties of spices to the country. The Central Tuber Crop Research Institute (CTCRI) is also significantly contributing on horticultural R&D. Spices Board, Department of Spices, Department of Arecanut, Institute of Plantation Management and many private Horticulture and Plantation R&D centres are located in Kerala. Kerala is a leading State in horticulture and is endowed with tropical and temperate agro-climatic conditions suitable for cultivation of a wide range of horticulture crops. The predominance of cash crops in irrigated areas and market linkages systems has helped the State to emerge as the largest producer of rubber, tea, coffee and other spices. Thus, farmers from different parts of the country can get quality exposure and learning by visit to this State and seeing horticulture farming systems, integrated cropping, resource management and number of seasonal cash crops, which could be very useful for farmers as they can adopt this kind of cultivation practices in their respective States.

Kerala - where farmers can learn advanced horticulture

Highlights of the Study Tour:

The farmers' domestic learning program will fulfill the objectives of-

1. -To understand integrated farming systems and resource management
2. -To see process of spices farming, use of improved varieties and farm resources
3. -To see various horticultural crops being grown scientifically
4. -Training on recent innovation in Horticulture
5. -Two days training to farmer on new technological adoption in Spices cultivation
6. -Training on Harvest and Post harvest technologies of tuber crops
7. -Training on management of coconut marketing

Technical Study Tour Visits:

The farmers would be visiting the following places and will get exposure through technical demonstrations at:

1. -Kerala State Horticultural Product Development Corporation (KSHPDC), Poojappura, Thiruvananthapuram
2. -Indian Institute of Species Research, (IISR) Marikunnu, Kozhikode
3. -Centre for Water resource Development and Management (CWRDM), Kunnamangalam, Kozhikode
4. -Central Plantation Crop Research Institute (CPCRI), Kasargod
5. -Central Tuber Crop Research Institute (CTCRI), Sreekariyam, Thiruvananthapuram
6. -Centre for Water Resource Development and management (CWRDM) Kunnamangalam, Kozhikode
7. -Visit to Kerala Agriculture University, Thrissur

Expected outcomes of the event:

1. -Water and land resource management
2. -Adoption of new spices farming and use of improved varieties and farm resources
3. -Awareness about the use of improved quality seeds/ planting material and crop diversification and their impact on income levels.
4. -Adoption of the improved methods, techniques and practices in production, extension, marketing and value chain in horticulture produces

Tentative Itinerary:

Day 1&2:
- State capital to Thiruvananthapuram
- Arrive Thiruvananthapuram

Day 3:
- Visiting KSHPDC, Poojappura, Thiruvananthapuram
- Training on recent innovation in Horticulture

Day 4&5:
- Indian Institute of Spices Research, (IISR) Calicut, Kozhikode
- Visit to Agricultural Technology Information Centre of IISR and exposure to new major Spices production and processes.

Day 6:
- Central Tuber Crop Research Institute (CTCRI), Sreekariyam, Thiruvananthapuram
- Training on Harvest and Post harvest technologies of tuber crops

Day 7&8:
- Central Plantation Crop Research Institute, Kasargod, Kerala
- Centre for Water Resource Development and management (CWRDM), Kasargod ·

Day 9 and 10:

-Return from Thiruvananthapuram to State Capital

Farmers Training cum Exposure Visit on MANGO

Central Institute of Sub Tropical Horticulture, Lucknow

Mango (*Mangifera indica*) is the leading fruit crop of India and considered as the King of fruits. Besides delicious taste, excellent flavor and attractive fragrance, it is rich in vitamin A&C. The tree is hardy in nature and has comparatively low maintenance costs. Mango occupies 22% of the total fruits comprising of 1.2 million hectares, with a total production of 11 million tonnes. Uttar Pradesh and Andhra Pradesh are having the largest area under mango each with around 25% of the total area followed by Bihar, Karnataka, Kerala and Tamil Nadu. Mango fruit is utilized at all stages of its development both in its immature and mature state. Raw fruits are used for making chutney, pickles and Juices. The ripe fruits besides being used for desert are also utilized for preparing several products like squashes, syrups, nectars, jams and jellies. The Central Institute for Subtropical Horticulture (CISH) was initially set up as Central Mango Research Station in the home land of world famous Dushehari variety of mango on 4th September, 1972 under the aegis of the Indian Institute of Horticultural Research, Bangalore. On 1st June, 1984, it was upgraded to the level of a full-fledged Institute and named as Central Institute of Horticulture for Northern Plains. Farmers can be benefited by a training program at CISTH, Lucknow.

Highlights of the exposure visit:

1. -To learn advanced cultivation practices for Mango as a commercial crop.
2. -To identify location specific and economically viable varieties and cultivars of Mango.
3. -To get well versed with the new varieties and technologies for increase in production per acre.

Technical Study Tour visits:

1. -Central Institute of Sub Tropical Horticulture (CISTH) Lucknow.
2. -Visits to adjoining farmer's fields and interaction with local farmers.
3. -Visit to CDRI, NBRI and CIMAP Lucknow.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and Integrated Pest Management for impact on income levels.
3. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Lucknow.
- Overnight at Lucknow.

Day 3: Lucknow
- Visit to Central Institute of Sub Tropical Horticulture, Lucknow.
- Training on common package and practices followed for quality mango cultivation.
- Interaction with Scientists and technical staff for solving farmers queries on technical issues.
- Overnight in Lucknow.

Day 4: Lucknow
- Visit to Central Institute of Sub tropical Horticulture (CISH).
- Training on latest technologies released by CISH for mango and other sub tropical fruits.
- Training on IPM practices to be followed for mango cultivation.

Day 5: Lucknow
- Visit to Central Institute of Sub tropical Horticulture (CISH).
- Imparting knowledge to the farmers on training and pruning of mango crop.
- To introduce them with the regular bearing varieties of mango.
- Overnight in Lucknow.

Day 6: Lucknow
- Visit to National Botanical Research Institute, Lucknow.
- Interaction with scientists on the latest R & D projects running in NBRI.
- Overnight in Lucknow.

Day 7: Lucknow
- Visit to Central Drug Research Institute, Kanpur.
- Training on post harvest management practices followed for medicinal and aromatic plants.
- Overnight Kanpur

Day 8: Lucknow
- Visit to adjoining mango farms in the area.
- Interaction with local farmers on technical issues.

Day 9 &10: Return Journey
- Return to state capital.

Farmers Training cum Exposure Visit on BANANA

Jalgaon, Maharashtra

Banana is one of the most important fruit crops globally with 97.5 million tones of production. In India, it supports livelihood of millions of people in production, logistics and retailing. Banana is grown in most parts of the country, but Southern and Western regions are the major producers with total annual production of 16.91 million tones from approx. 5.25 lac hactares. The State of Maharashtra ranks first in productivity of banana with 60 T/ha, as against the national average of 35 MT/Hac. Banana contributes approx. 37% to the total fruit production in India. Banana is one of the major and economically very important fruit crop of Maharashtra. Banana occupy 20% area among the total area under horticulture in the State. Maharashtra ranks second in area and first in productivity in India. Jalgaon is the major Banana growing district in Maharashtra which occupies 50,000 hectares area under this crop. But most of Banana is grown by planting suckers. The technology development in agriculture is very fast, and the latest method of banana cultivation is by through Tissue Culture Technique. Farmers can get an exposure on modern banana cultivation at Jalgaon. Tissue culture has proven revolutionary for the banana farming in India.

Highlights of the exposure visit:

1. To see hi tech farming and use of improved varieties and farm resources.
2. Training tissue culture based cropping and use of drip systems.
3. Training on micro irrigation systems.

Technical Study Tour visits:

1. Visit to Jain Irrigation Systems ltd. Jalgaon, Maharastra.
2. Visit to Jain hills Jalgaon for tissue culture excellence in Banana
3. Visits to MPKV, Banana Research Station, Jalgaon.
4. Visit to adjoining banana model farms.

Expected outcomes of the event:

1. Adoption of advanced practices and high tech farming.
2. Awareness about tissue culture in banana at Jain, Jalgaon.
3. Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 & 2:

- Depart from state to Jalgaon.
- Overnight in Jalgaon.

Day 3: JISL, Jalgaon

- Visit to JISL, Plastic Park, Jalgaon.
- Communication session with experts on Jains Products and Services.
- Training on micro irrigation systems and there role in booming agricultural economy in India.
- Overnight in Jalgaon.

Day 5: Jalgaon.

- Visit to JISL Food Park, Jalgaon.
- Training on processing of banana and fruits at Jain Food Park.
- Overnight in Jalgaon.

Day 6: Jain Hills, Jalgaon.

- Visit to Jain Agri Park Jalgaon.
- Training on tissue culture technology in India.
- Interaction with the bio tech experts on tissue culture in Banana.
- Overnight in Jalgaon.

Day 7: MPKV, Banana Research Station.

- Visit MPKV, Banana research Station.
- Training on high tech farming and tissue culture in Banana.
- Training on IPM practices to be followed in Banana.
- Overnight in Jalgaon.

Day8: MPKV, Banana Research Station.

- Training on nutrition and intercropping in banana.
- Training on ongoing projects at research station.
- Training on natural resource management.
- Overnight in Jalgaon.

Day 9& 10: Jalgaon to state capital.

- Back Journey to state capital.

Farmers Training cum Exposure Visit on CITRUS

National Research Centre for Citrus, Nagpur

Mandarin orange (Citrus reticulata) grows successfully in all tropical and subtropical parts of the country. It tolerates more humidity in summer and winter than the sweet orange. One of well known specialties of Nagpur is the world famous Nagpur orange, the cultivation of which in Vidarbha region of Maharashtra has brought indispensable glory to the region. The orange is cultivated in 80000 hectares of area in Vidarbha with a total production of nearly 5 lakh tonnes. Nagpur orange in Nagpur district is cultivated in 20, 965 hectares area. Moreover National Research Center for Citrus, Nagpur is continuously updating farmers with latest technologies through quality research programmes. Thus farmers from different parts of the country can get quality exposure and learning by an exposure visit to Nagpur, which could be very useful for farmers from economic point of view.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for Nagpur oranges.
2. -Training on citriculture.
3. -Training on tissue culture and germplasm for developing disease resistant varieties of mandarins.

Technical Study Tour visits:

1. -National Research Centre for Citrus, Shankar Nagar Amravati Road, Nagpur.
2. -Visits to adjoining farmer's fields and interaction with local farmers for cultural practices followed.
3. -Shri. Shivaji College of Horticulture, Amravati.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and crop diversification in citrus and their impact on income levels.
3. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Delhi.
- Visit to IARI facilities at Pusa
- Overnight at IARI Pusa

Day 3 and 4: Delhi to Nagpur
- Arrival at Nagpur.
- Overnight at Nagpur.

Day 5: Nagpur
- Visit to National Research Center for Citrus.
- Training on citriculture.
- Overnight in Nagpur.

Day 6: Nagpur
- Visit to nearby farmers fields to study their cultivation practices for citrus.
- Interaction with farmers of adjoining areas for better crop production.
- Evening travel to historical places in Nagpur.
- Overnight in Nagpur.

Day 7: Nagpur to Amravati
- Visit to horticulture farms on the way to Amravati.
- Overnight in Amravati.

Day8: Amravati
- Visit to Shri Shivaji College of Horticulture Amravati.
- Training on high tech horticulture at Amravati.
- Interaction with scientists and technical staff for cultivation practices on horticulture.
- Overnight in Amravati.

Day 9& 10: Amravati to Delhi
- Arrival in Delhi
- Overnight at IARI Pusa.
- Return to state capital.

Farmers Training cum Exposure Visit on LITCHI

Tirhut College of Agriculture Dholi, Muzaffarpur

Litchi (Litchi Chinensis) is grown extensively in northern Bihar, in the sub mountain districts of western Uttar Pradesh, in Punjab and low hills Kangra valley of Himachal Pradesh. About 70 percent of all litchis produced in India are grown in Bihar. The number of farmers in the state growing litchis has increased in the last decade, especially in Muzaffarpur district. The famous shahi litchi of Muzaffarpur is an exclusive brand of Bihar. The state is moving to claim the brand name under intellectual property rights (IPR) laws. Studies shown that litchi can become a very good cash crop for farmers from other states with similar climatic conditions.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for Litchi.
2. -Training on Litchi cultivation.
3. -Training on latest projects and research activities taking place in RAU and allied institutes.

Technical Study Tour visits:

1. -Tirhut College of Agriculture Dholi, Muzaffarpur
2. -Visits to adjoining farmer's fields and interaction with local farmers for cultural practices followed.
3. -Visit RAU, Pusa Samastipur and Horticulture Research Station, Birauli, Samastipur.

Expected outcomes of the event:

1. - Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and crop diversification in Litchi and their impact on income levels.
3. -Awareness about the ongoing projects and research activities on Litchi.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Delhi.
- Visit to IARI facilities at Pusa
- Overnight at IARI Pusa

Day 2 and 3: Delhi to Muzaffarpur.
- Arrival at Muzaffarpur.
- Overnight at Muzaffarpur.

Day 4: Muzaffarpur
- Visit to Tirhut college of Agriculture Dholi, Muzaffarpur.
- Training on Litchi cultivation and interaction with concerned faculty.

Day 5: Muzaffarpur
- Visit to nearby farmers fields to study their cultivation practices for Litchi.
- Interaction with farmers of adjoining areas for better crop production.

Day 6: Muzaffarpur to RAU, Samastipur
- Visit to Litchi farms on the way to Samastipur.
- Overnight in Samastipur.

Day7: Samastipur
- Visit to Rajendra Agriculture University, Pusa Samastipur.
- Training on high tech horticulture for litchi.
- Interaction with scientists and technical staff for cultivation practices in litchi.
- Overnight in Samastipur

Day 8: Samastipur to Birauli.
- Visit to Horticulture Research Station, Birauli.
- Training on ongoing research projects and interaction with Horticulture specialists.

Day 9& 10: Samastipur to Delhi
- Arrival in Delhi
- Overnight at IARI Pusa.
- Return to state capital.

Farmers Training cum Exposure Visit on
STONE FRUITS

Dr Y S Parmar University, Solan

India produces various varieties of deciduous fruits including pome fruits (apple and pear) and stone fruits (peach, plum, apricot and cherry) in considerable quantity. These are mainly grown in the North-Western Indian States of Jammu and Kashmir (J&K), Himachal Pradesh (H.P.) and in Uttarakhand hills. The North-Eastern Hills region, comprising of the States of Arunachal Pradesh, Nagaland, Meghalaya, Manipur and Sikkim also grow some of the deciduous fruits on a limited scale. Due to introduction and adaptation of low chilling cultivars of crops like peach, plum and pear, they are also now being grown commercially in certain areas of the north Indian plains. Out of all the deciduous fruits, apple is the most important in terms of production and consumption. Pears and other deciduous fruits were domesticated successfully in the early part of the 20th century, although some of them were reported to grow under semi-wild conditions much earlier. Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan has earned a unique distinction not only in the country but also in whole of Asia to impart teaching, research and extension education in horticulture, forestry and allied disciplines with Himalayan perspective. Its milestones in teaching, research and extension education have strengthened the path of sustainable development of horticulture and forestry in Himachal Pradesh and have further presented a model of prosperity for eco-conscious development before Indian Himalayan states and entire region of Hindu Kush-Himalayas.

Highlights of the exposure visit:

1. -To identify location specific and economically viable pome and stone fruits.
2. -To familiarize with the disease and pest resistant varieties of stone fruits.
3. -Imparting training to the farmers on latest practices and cultivation techniques of stone and pome fruits

Technical Study Tour visits:

1. - Department of Fruit Science, Dr Y S Parmar University of Horticulture and Forestry, Solan.
2. -Field visit to see stone fruits grown in the area and interaction with farmers.
3. -Krishi Vigyan Kendra, Kandaghat to see peach and plum farm and nursery of stone fruits

Expected outcomes of the event:

1. -Adoption of advanced practices in stone and pome fruits farming and use of improved varieties and farm resources.
2. -Awareness about the benefits of stone fruits production.
3. -Adaptation to better land and resource utilization.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Solan
- Overnight in Solan.

Day 3: Dr Y S Parmar Solan
- Visit to Department of Fruit Science, Dr Y S Parmar UHF, Nauni.
- Interaction with faculty and lecture on stone and pome fruits cultivation
- Overnight at University campus

Day 4: Dr Y S Parmar Solan
- Training on common package and practices followed for Peach, Plum, Pear, Apricot and other stone fruits.
- Interaction with Scientists and technical staff of fruit science department.

Day 5: Dr Y S Parmar Solan-
- Field Visit to Department of Fruit Science for practical exposure to farm practices adopted in the area.
- Interaction with technical staff to know the nursery management practices.

Day 6: Solan to Kandaghat
- Visit to KVK Kandaghat.
- Training on nursery management and major insect/ pest management practices for stone fruits.
- Visit to fruit farms in Kandaghat region.
- Overnight in Solan.

Day 7: RHRS Mashobra.
- Visit to Regional Horticulture Research Station Mashobra.
- Field exposure to stone fruit cultivation in RHRS Mashobra.
- Imparting training on new varieties and cultivars for different ecosystems.
- Overnight in Shimla.

Day 8: CPRI, Kufri.
- Visit to Central Potato Research Institute, Kufri.
- Interaction with technical staff on research activities taking place in CPRI.
- Field exposure to stone fruit farms in nearby areas.

Day 9: Shimla
- Day for local travel in Shimla and Jakhu Temple.

Day 10: Back Journey
- Return to state capital.

Farmers Training cum Exposure Visit on
PASSION FRUIT

Indian Institute of Horticultural Research, Bangalore

India, for many years, has enjoyed a moderate harvest of purple passion fruit in the Nilgiris in the south and in various parts of northern India. In many areas, the vine has run wild. The yellow form was unknown in India until just a few decades ago when it was introduced from Ceylon and proved well and it adapted to low elevations around Madras and Kerala. It was quickly approved as having a more pronounced flavor than the purple and producing heavier and more regular crops within a year of planting. The purple passion fruit was introduced into Israel from Australia early in the 20th Century and is commonly grown in home gardens all around the coastal plain, with small quantities being supplied to processing factories. Passion Fruit is used in a variety of dishes such as cakes, pies, beverages, puddings, salads etc. The Indian Institute of Horticultural Research (IIHR), a premier research institute of Indian Council of Agricultural Research, in India devoted entirely to enhancing horticultural productivity in the country. In the last nearly four decades, the Institute has pioneered several mega projects that have borne rich dividends in terms of scaling up and extending the frontiers of fruit, vegetables and flower productions in this part of the Asian sub-continent.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for passion fruit.
2. -Training on IPM and multicropping in passion fruit.
3. -Training on latest projects and research activities taking place in UAS Bangalore and IIHR, Hesaraghatta, Bangalore.

Technical Study Tour visits:

1. -University of Agriculture Sciences, Bangalore .
2. - Visits to adjoining farmer's fields and interaction with local farmers for cultural practices followed.
3. -Visit Indian Institute of Horticulture Research, Hesaraghatta, Bangalore.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and high tech farming of Passion fruit and their impact on income levels.
3. -Awareness about the ongoing projects and research activities in UAS and IIHR Bangalore.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Bangalore
- Overnight in Bangalore.

Day 3: Bangalore
- Visit to UAS, Bangalore.
- Interaction with faculty of horticulture department at UAS.
- Training on passion fruit cultivation.
- Overnight at Bangalore.

Day 4: Bangalore
- Visit to local passion fruit farms and interaction with farmers.
- Training on latest package and practices followed for passion fruit cultivation.
- Overnight in Bangalore

Day 5: Bangalore to IIHR, Hesaraghatta.
- Visit to IIHR Hesaraghatta.
- Interaction with faculty and training on ongoing projects on passion fruit.
- Training on market intelligence and export of fruits, vegetables and floriculture crops.
- Overnight in Bangalore

Day 6: IIHR, Hesaraghatta
- Visit to IIHR Hesaraghatta.
- Field level exposure to the trainees on crop cultivation.
- Training on major diseases and pest associated with crop and their measures.
- Imparting knowledge to the farmers on major thrust and challenges in passion fruit cultivation.
- Overnight in Bangalore

Day 7: Bangalore
- Visit to International Flower Auction ltd. Bangalore.
- Training on online auction and export potential of floriculture industry.
- Awareness on development of cold chain in flowers.

Day 8: Bangalore
- Visit to see Lal Bagh garden Bangalore.
- Local travel to major historical places in Bangalore.

Day 9& 10: Bangalore to State.
- Back journey to state capital.

Farmers Training cum Exposure Visit on POTATO

Central potato Research Institute, Kufri, Shimla

Potato is considered as the 'King' in food staples and hardly any domestic kitchen is available where it is not used routinely in one form or the other. It contains starch, sugar, cellulose, crude fiber, pectic substances, Protein, amino acids, organic acids, lipids, Vitamin C, enzymes, minerals (P, Ca, Mg, K, Fe, S, Cl) etc. considered useful for human health. Potatoes being a fast growing crop fit well in different multiple and inter cropping systems. On account of its short duration and high yield potential character, potato is called a cash crop. Potato is the most widely grown vegetable crop in the country with a share of 25.7 per cent. The area under potato cultivation is 1.4 million ha with total production of 25mt. The main varieties of potato grown in the country are Kufri Chandramukhi, Kufri Jyoti, Kufri Badshah, Kufri Himalani, Kufri Sindhuri, Kufri Lalima etc. Central Potato Research Institute, Kufri, Shimla is a premier research institute working with a mandate of research activities in potato cultivation. Till now, the institute has come up with number of varieties which bring revolution in potato cultivation. Adjoining areas of Shimla district are very famous for quality potato cultivation. Potato grown here fetch more prices in market and usually known as 'Pahari Alloo'. Farmers can learn about quality potato production techniques along with the multiple cropping systems which can be adopted.

Highlights of the exposure visit:

1. -To identify location specific and economically viable potato crops.
2. -To familiarize with the disease and pest resistant varieties of Potatoes.
3. -Imparting training to the farmers on latest practices and cultivation techniques for Potato.

Technical Study Tour visits:

1. -Central potato Research Institute, Kufri, Shimla.
2. -Department of Vegetable crops, Dr Y S Parmar University of Horticulture and Forestry, Solan.
3. -Field visit to see vegetables grown in the area and interaction with farmers.
4. -Horticulture Research Station, Mashobra.

Expected outcomes of the event:

1. -Adoption of advanced practices in Potato farming and use of improved varieties and farm resources.
2. -Awareness about the benefits of Potato production as a cash crop.
3. -To learn about the multiple and intercropping system in Potato.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Shimla - Overnight at Shimla.

Day 3: CPRI, Shimla
- Visit to CPRI, Kufri, Shimla.
- Training on common package and practices followed for Potato cultivation in CPRI.
- Interaction with scientist for farmer's queries.
- Overnight at Shimla

Day 4: CPRI, Shimla
- Visit to CPRI, Kufri, Shimla.
- Training on high tech farming followed for Potatoes.
- Training on disease/pest management activities followed and make farmers aware about the disease resistant varieties developed in CPRI.

Day 5: Shimla to Theog.
- Visit to adjoining farmer's field at Theog area for practical exposure to farm practices adopted in the area.
- Interaction with local farmers to know the technical issues and care to be taken during Potato cultivation..

Day 6: Shimla to Solan.
- Visit to Dr Y S Parmar UHF, Nauni Solan.
- Training on nursery management and package practices for Potato cultivation.
- Visit to farmers fields in Solan region.
- Overnight in Solan.

Day 7: Solan to HRS, Mashobra, Shimla
- Visit to Horticulture research Station Mashobra.
- Visit to horticulture farm to see major crops grown in the area.
- Interaction with scientists and technical staff for imparting knowledge on farm practices.
- Overnight in Shimla

Day 8: Shimla
- Recreational tour to queen of hills town Shimla to see world famous mall road, Jakhu temple and other places of utmost importance.
- Overnight at Shimla.

Day 9 & 10: Shimla to State
- Return journey to their own destination.

Farmers Training cum Exposure Visit on
OFF SEASON VEGETABLES

Dr Y S Parmar University of Horticulture and Forestry, Solan.

Himachal Pradesh is also known as the basket of fruits and vegetables. Due to its wide range of agro climatic conditions, a number of fruits and vegetables can be grown in the region. In the last few years, farmers from mid hill region of Solan and Shimla district are fetching very good prices of their off season vegetable production. Government institution such as Dr Y S Parmar University of horticulture and Forestry, Nauni Solan is providing every possible help to the farmers for developing new technologies. Major commercial vegetable crops which are grown in the region are Capsicum, Potato, Peas, Cabbage, Cauliflower, Tomato, Radish and Carrot etc. Farmers can be benefited with the new ideas of farming system and practices undergoing in Himachal Pradesh.

Highlights of the exposure visit:

1. -To identify location specific and economically viable off season vegetable crops.
2. -To familiarize with the disease and pest resistant varieties of off season vegetables.
3. -Imparting training to the farmers on latest practices and cultivation techniques for vegetables.

Technical Study Tour visits:

1. -Department of Vegetable crops, Dr Y S Parmar University of Horticulture and Forestry, Solan.
2. -Field visit to see vegetables grown in the area and interaction with farmers.
3. -Krishi Vigyan Kendra, Kandaghat to see vegetable farm and nursery of off season vegetables.

Expected outcomes of the event:

1. -Adoption of advanced practices in off season vegetable farming and use of improved varieties and farm resources.
2. -Awareness about the benefits of off season vegetables production.
3. -Adaptation to better land and resource utilization.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Delhi.
- Visit to IARI facilities at Pusa
- Overnight at IARI Pusa

Day 3: Delhi to Solan
- Arrival at Y S Parmar
- Overnight at University campus

Day 4: Solan
- Visit to vegetable crops department of Y S Parmar University.
- Training on common package and practices followed for off season vegetables.
- Interaction with Scientists and technical staff of vegetable department for solving farmers queries on technical issues.
- Overnight in Solan.

Day 5: Solan
- Visit to adjoining farmer's field for practical exposure to farm practices adopted in the area.
- Interaction with local farmers to get aquainted with the technical issues and care to be taken during off season vegetable production.
- Overnight in solan

Day 6: Solan
- Visit to KVK Kandaghat.
- Training on nursery management for off season vegetables.
- Visit to farmers fields in Kandaghat region.
- Overnight in Shimla.

Day 7: Shimla
- Visit to off season vegetable farms in shogi area.
- Interaction with the farmers for management practices to be followed.

Day 8: Shimla
- Day for local travel in Shimla and Jakhu Temple.
- Overnight in Shimla

Day 9: Shimla to Delhi
- Arrival in Delhi
- Overnight at IARI Pusa.

Day 10: Delhi to State
- Visit to Indo-Israel Project at IARI Pusa.
- Overnight at IARI Pusa
- Return to state capital.

Farmers Training cum Exposure Visit on MUSHROOM

Directorate of Mushroom Research, Chambaghat, Solan

At present, 3 mushrooms are being cultivated in India. These are: the white mushroom (*Agaricus bisporus*), the paddy-straw mushroom (*Volvariella volvacea*) and the oyster mushroom (*Pleurotus sajor-caju*). Of these, *A. bisporus* is the most popular and economically sound to grow and is extensively cultivated throughout the world. However, due to its low temperature requirement, its cultivation is restricted to the cool climatic areas and to the winter in the plains of Northern India. In summer, the tropical paddy-straw mushroom is suitable for growing in most parts of India. Even then, it is less attractive commercially, owing to very low yield per unit weight of the substrate and for an extremely short shelf life. Solan is famous for mushroom cultivation; it is also known as mushroom city of India. Directorate of Mushroom Research previously known as National Centre for Mushroom Research and Training, NCMRT Chambaghat, Solan is working with a mandate of carrying out research, training and extension on all aspects of mushrooms in the country. The Centre besides conservation and maintenance of the germplasm of edible fungi, has strengthened its activities on improving the strains and the crop husbandry practices of the button mushrooms, accelerated the programmes on diversification of species and has generated valuable information on oyster, shiitake, black ear and giant mushroom. The Centre is also regularly conducting training and extension activities.

Highlights of the exposure visit:

1. -To identify location specific and economically viable mushroom species.
2. -To familiarize with the disease and pest resistant varieties of Potatoes.
3. - Imparting training to the farmers on latest practices, spawn production and market awareness.

Technical Study Tour visits:

1. -Directorate of Mushroom Research, Chambaghat, Solan.
2. -Department of Mycology and Plant Pathology, Dr Y S P Univ. of Horticulture and Forestry, Solan.
3. -Visit to spawn production lab in bypass road, Solan.

Expected outcomes of the event:

1. -Adoption of advanced practices in mushroom farming and use of improved strains/spawn and farm resources.
2. -Awareness about the benefits of mushroom as a cash crop.
3. -To learn about the entrepreneurship development by adopting mushroom cultivation.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Solan.
- Overnight at Solan.

Day 3: DOMR, Chambaghat, Solan
- Visit to Directorate of Mushroom Research, Chambaghat, Solan.
- Training on common package and practices followed for mushroom cultivation.
- Interaction with scientist for farmer's queries.

Day 4: DOMR, Chambaghat, Solan
- Training on spawn production technique.
- Training on disease/pest management activities followed and make farmers aware about the disease resistant cultivars for different region.

Day 5: Solan
- Visit to adjoining mushroom industry for practical exposure to farm practices adopted in the area.
- Interaction with local farmers to become well versed with the technical issues and care to be taken during mushroom cultivation.

Day 6: Solan to Nauni.
- Visit to Dr Y S Parmar UHF, Nauni Solan.
- Training on spawn production and package practices for mushroom cultivation.
- Interaction with mushroom expert in department of mycology and plant pathology.

Day 7: Solan
- Visit to spawn production lab.
- Training on spawn production technique and common practices.
- Interaction with technical staff for imparting knowledge on farm practices.

Day 8: Kandaghat
- Visit to KVK Kandaghat.
- Training on nursery management for vegetables and fruits crops.
- Visit to farmers' fields in Kandaghat region.

Day 9: Solan
- Recreational tour of mushroom city Solan to see Shoolini temple, Jawahar park, Bon Monastery.

Day 10: Solan to State
- Return journey to state capital.

Farmers Training cum Exposure Visit on MEDICINAL PLANTS

Central Institute of Medicinal and Aromatic plants, Lucknow & Kanpur

India is endowed with a rich wealth of medicinal plants. These plants have made a good contribution to the development of ancient Indian materia medica. One of the earliest treatises on Indian medicine, the Charka Samhita (1000 B.C), records the use of over 340 drugs of vegetable origin. Most of these continue to be gathered from wild plants to meet the demand of the medical profession. Thus, despite the rich heritage of knowledge on the use of plant drugs, little attention had been paid to grow them as field crops in the country till the latter part of the nineteenth century. Thus efforts were made to introduce many of these drug plants into Indian agriculture, and studies on the cultivation practices were undertaken for those plants which were found suitable and remunerative for commercial cultivation. In general, agronomic practices for growing poppy, Isabgol, Senna, cinchona, ipecac, belladonna, ergot, menthe, ashav-gandha and a few others have been developed and there is now localized cultivation of these medicinal plants commercially. Central Institute of Medicinal and Aromatic Plants (CIMAP) is a multi disciplinary multi location R & D institute dedicated to the cause of medicinal and aromatic plant research, cultivation and business. The techniques developed here can bring huge benefits to the farmers in other states for large scale adoption of medicinal and aromatic plants.

Highlights of the exposure visit:

1. -To learn advanced cultivation practices for medicinal and aromatic plants.
2. -To identify location specific and economically viable different crops.
3. -To learn about the new varieties and technologies for medicinal plants.

Technical Study Tour visits:

1. -Central Institute of Medicinal and Aromatic Plants Lucknow.
2. -Visits to adjoining farmer's fields and interaction with local farmers.
3. -Visit to CDRI, NBRI and Horticulture Institute (CISH), Lucknow.

Expected outcomes of the event:

1. - Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and crop diversification in medicinal plants and their impact on income levels.
3. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Lucknow.
- Overnight at Lucknow.

Day 3: Lucknow
- Visit to CIMAP campus.
- Training on common package and practices followed for medicinal and aromatic plants.
- Interaction with Scientists and technical staff for solving farmers queries on technical issues.
- Overnight in Lucknow.

Day 4: Lucknow
- Visit to Central Institute of Sub tropical Horticulture (CISH).
- Training on latest technologies released by CISH for sub tropical fruits.
- Overnight in Lucknow.

Day 5: Lucknow
- Visit to National Botanical Research Institute, Lucknow.
- Interaction with scientists on the latest R & D projects running in NBRI.
- Overnight in Lucknow.

Day 6: Lucknow to Kanpur
- Visit to local farmer's field in District Unnao on the way to Kanpur.
- Interaction with local farmers and exposure to different crops grown in the area.
- Overnight in Kanpur.

Day 7 & 8: Kanpur
- Visit to Central Drug Research Institute, Kanpur.
- Training on post harvest management practices followed for medicinal and aromatic plants.
- Visit to Phool Bagh Kanpur.
- Overnight Kanpur

Day 9 & 10: Back Journey
- Return to state capital.

Farmers Training cum Exposure Visit on
VEGETABLE SEED PRODUCTION

Regional Research Station, Bajoura, Kullu

Availability of quality seeds of improved cultivars is considered crucial for realizing productivity and adoption of cultivars in different agro-climatic conditions. The quality of seed alone is known to account for at least 10-15% increase in the productivity (ICAR 1993). However, lack of quality seed continues to be one of the greatest impediments to bridging the vast yield gap. Therefore, to approach the potentially realizable yield of a cultivar, production and distribution of quality seed is essential. The Regional Research Station, Bajaura was established in 1962 as a Research Station of the Punjab Agriculture University Ludhiana. It was later transferred to the Himachal Pradesh Krishi vishvavidyalaya (Himachal Pradesh Agriculture University) in 1978. The station is working on a mandate of developing improved varieties of important cereals, pulses and oilseed crops with special emphasis on the development of hybrid varieties of maize and vegetable crops. Kullu valley also include research farms of seed companies like Nun hems, Sun agro etc. Farmers can get benefited by an exposure visit to Kullu valley.

Highlights of the exposure visit:

1. -To identify location specific and economically viable crops.
2. -To familiarize with the disease and pest resistant varieties of vegetables and other commercial crops.
3. -Imparting training to the farmers on latest practices and cultivation techniques for seed production.

Technical Study Tour visits:

1. -Regional Research Station, Bajaura, Kullu.
2. -Research Station (ICAR), Katrain, Kullu.
3. -Nun Hems Vegetables seed production farm, Naggar, Manali

Expected outcomes of the event:

1. -Adoption of advanced practices in seed production farming and use of improved farm resources.
2. -Awareness about the benefits of seed production.
3. -Adaptation to better land and resource utilization.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Kullu, Himachal Pradesh.
- Overnight at Kullu.

Day 3: Kullu
- Visit to Regional Research Station, Bajaura.
- Training on seed production for vegetables and cereals.
- Interaction session with the breeders and technicians.

Day 4: Kullu to Katrain.
- Visit to Research Station, Katrain.
- Training on common package and practices followed for seed production in vegetables.
- Interaction with Scientists and technical staff of seed production department for solving farmers' queries on technical issues.
- Overnight in Kullu.

Day 5: Kullu to Naggar Farm, Manali.
- Visit to Naggar seed production farm (Nun hems) for practical exposure to farm practices adopted by professional breeders.
- Interaction with local farmers to learn the technical issues and care to be taken during vegetable seed production.
- Overnight in Manali.

Day 6: Seobagh
- Visit to Regional horticulture Sub Station, Seobagh.
- Training on irrigation practices (micro) and detail of the fruit crops grown in the area.
- Visit to apple farms and awareness about the dwarf varieties and IPM practices followed.
- Overnight in Kullu.

Day 7: Kullu to Patli Kuhl
- Visit to farmer's field in patli kuhl for exposure on various crops including vegetables and sub-temperate fruits. .
- Interaction with the farmers for management practices to be followed.

Day 8: Kullu and Manikaran
- Day for local travel in kullu and Manikaran areas, evening in dhalpur maidan famous for Kullu Dushehra, shani temple etc.
- Overnight in Kullu.

Day 9 & 10:
- Return to state capital.

Farmers Training cum Exposure Visit on

ADVANCED HORTICULTURE

G B Pant University of Agriculture and Technology, Pantnagar

Uttarakhand has almost all the different agro-geo climatic zones making it particularly conducive to commercial horticulture and floriculture. Floriculture is being developed in a big way in order to meet the demand of both - the domestic as well as foreign markets. The climate is ideal for growing flowers all round the year. Hence, it has been proposed to establish floriculture parks with common infrastructure facilities for sorting, pre-cooling, cold chain, processing, grading, packing and marketing facilities. Horticulture is also being promoted in a big way through adequate incentives and facilities to the industry. The G.B. Pant University is a symbol of successful partnership between India and the United States. The establishment of this university brought about a revolution in agricultural education, research and extension. It paved the way for setting up of 31 other agricultural universities in the country. Farmers can get a useful exposure by training cum exposure visit to university campus on advanced horticulture like floriculture, fruit science and new technologies and developments.

Highlights of the exposure visit:

1. -To learn advanced cultivation practices for Horticulture crops.
2. -To identify location specific and economically viable different crops.
3. -To learn about the new varieties and technologies for cultivation of horticulture crops.

Technical Study Tour visits:

1. -G B Pant University of Agriculture and Technology.
2. -Horticulture Research and Extension Centre, Ranikhet, Almora.
3. -Vegetable Research and Extension Centre, Gagar, Nainital.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and crop diversification in fruits, vegetables and flowers and their impact on income levels.
3. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Pantnagar.
- Overnight at Pantnagar.

Day 2: G B Pant University of A & T.
- Visit to GBPUAT campus.
- Visit to different departments of campus to learn about the research and development activities.
- Interaction with Scientists and technical staff for solving farmers' queries on technical issues.
- Overnight in Pantnagar.

Day 3: G B Pant University of A & T.
- Visit to department of Horticulture.
- Training on latest technologies and varieties developed at campus for major horticulture crops.
- Overnight in Pantnagar.

Day 4: G B Pant University of A & T.
- Visit to horticulture farm at GBPUAT.
- Interaction with technical staff and field exposure to major crops grown

Day 5: Horticulture Research and Extension Centre, Ranikhet, Almora.
- Visit to local farmer's field on the way to HREC, Ranikhet.
- Interaction with local farmers and exposure to different crops grown in the area.

Day 6: HREC, Ranikhet, Almora
- Visit to HREC, Ranikhet, Almora.
- Training on flowers and fruits cultivation and their commercial aspects for near future.
- Visit to HREC farms for practical exposure.
- Overnight Almora.

Day 7: Vegetable Research and Extension Centre, Gagar, Nainital
- Visit to farmer's field on the way to VREC, Gagar, and Almora
- Interaction with local farmers and exposure to different crops grown in the area.
- Overnight in Nainital.

Day 8: VREC, Gagar, Nainital
- Visit to VREC, Gagar, Nainital.
- Training on vegetable cultivation and its commercial aspect for near future.
- Visit to VREC farms for practical exposure.
- Overnight in Nainital.

Day 9: Nainital:
- A day for local travel in Nainital to the places of interest.
- Overnight in Nainital.

Day 10: Back Journey
- Back journey to respective destinations.

Farmers Training cum Exposure Visit on

NURSERY MANAGEMENT IN HORTICULTURE

Kullu and Manali in Himachal Pradesh

One of the most critical factors in quality management and commercial farming in horticulture is the management of nursery. A healthy plant is the most critical aspect, especially in fruit crops. With the advent of biotech tools and tissue culture, disease free planting material of highest quality can be produced in different horticulture crops. Managing a production nursery involves more than just propagating and potting plants. Even the small nursery must be able to not only produce plants, but also make it available at a pre determined cost, then sustain those plants before and during marketing. The nursery industry currently has a real need for people with skills and knowledge in managing production plant nurseries. The nursery exposure and training is a must to those involved in horticulture production for a solid grounding for developing those skills. Nursery is a place where seedlings, cuttings and grafts are raised with care before transplanting.

Advantage of raising seedlings in nursery

It is very convenient to look after the tender seedlings It is easy to protect the seedlings from pests and diseases Economy of land usage (duration in the main field is reduced). Valuable and very small seeds can be raised effectively without any wastage. Uniform crop stand in the main field can be maintained by selecting healthy, uniform and vigorous seedlings in the nursery itself.

Highlights of the exposure visit:

1. -To understand how site characteristics influence the establishment and management of wholesale nurseries.
2. -To learn management structures and work scheduling in wholesale nurseries.
3. -To learn about the management of pests and diseases and plant nutrition in production nurseries.
4. -To learn the techniques and equipment used to irrigate plants in nurseries.
5. -To know the strategies used by production nurseries to increase sales and economy involved in nursery

Technical Study Tour Visits:

1. -RHRS Bajaura, Kullu
2. -Indo Italian project under Directorate of Horticulture, Bajaura
3. -RHRS Seobagh Kullu
4. -Visits to various private nurseries in Kullu and Manali areas

Expected outcomes of the event:

1. -Adoption and management of advanced techniques in nursery for quality planting material
2. -Adoption of protected cultivation by use of low cost green house and poly house technologies
3. -Adoption of the improved methods, techniques and practices in nursery management
4. -Adoption of advanced practices and high tech farming.

Tentative Itinerary:

Day 1& 2:
- Travel from state capital to Kullu
- Overnight in Kullu

Day 3: RHRS, Kullu
- Visit to Horticulture Research Station, Bajaura
- Visit to Kesar Nursery, Panarasa and mandi
- Training on Floriculture and Landscape Management
- Visit to some fields on the way
- Overnight in Kullu

Day 4: Kullu
- Visit to Indo-Italian Project, Bajaura
- Visit to Roma and Aroma Nursery at Mohal and Shamshi, Kullu
- Overnight in Kullu

Day 5: Seobagh
- Visit to RHRS, Seobagh
- Visit to Parashar Nursery at Seobagh
- Visit to Gulab Nursery at Haripur
- Dinner overnight in Kullu

Day 6: Katrain
- Visit to Horticulture Research Station, Katrain
- Meeting with officials and see horticulture farms at Horticulture Research Station, Katrain
- Visit to Renu Nursery at Naggar
- Dinner overnight in Manali

Day 7: Manali
- Visit to Thakur Nursery at Dohlu Nala (near Raison)
- Visit to Sharma Nursery at Dhuvi
- Overnight in Manali

Day 8: Farm visit to local progressive entrepreneurs.
- Exposure visit to nearby farms near Manali
- Evening free for leisure and shopping in Manali

Day 9&10: kullu
- Summing up of visit, discussions and distribution of certificates to the trainees.
- Back Journey to state capital.

Farmers Training cum Exposure Visit on
MULCHING IN HORTICULTURE

Central Institute of Sub Tropical Horticulture, Lucknow

Mulches are materials placed over the soil surface to maintain moisture and improve soil conditions. Mulch can reduce water loss from the soil, minimize weed competition, and improve soil structure. Properly applied, mulch can give landscapes a handsome, well-groomed appearance. Mulch must be applied properly; if it is too deep or if the wrong material is used, it can actually cause significant harm to trees and other landscape plants. Organic mulches also improve the condition of the soil. As these mulches slowly decompose, they provide organic matter which helps keep the soil loose. This improves root growth, increases the infiltration of water, and also improves the water-holding capacity of the soil. Organic matter is a source of plant nutrients and provides an ideal environment for earthworms and other beneficial soil organisms. While inorganic mulches have their place in certain landscapes, they lack the soil improving properties of organic mulches. Inorganic mulches, because of their permanence, may be difficult to remove if you decide to change your garden plans at a later date. The Central Institute for Subtropical Horticulture (CISH) was initially set up as Central Mango Research Station in the home land of world famous Dushehari variety of mango on 4th September, 1972 under the aegis of the Indian Institute of Horticultural Research, Bangalore. On 1st June, 1984, it was upgraded to the level of a full-fledged Institute and named as Central Institute of Horticulture for Northern Plains. The institute has a pioneering project on Mulching in Horticulture Crops. Farmers can be benefited by a training program at CISH, Lucknow.

Highlights of the exposure visit:

1. -To learn about the use of various mulches like organic and inorganic mulches
2. -To identify location specific mulches
3. -To understand the impact of mulching on yield and quality of horticulture crops
4. -To know about the economic impact of mulching on horticulture

Technical Study Tour visits:

1. -Central Institute of Sub Tropical Horticulture (CISH) Lucknow.
2. -Visits to adjoining farmers' fields and interaction with local farmers.
3. -Visit to CDRI, NBRI and CIMAP Lucknow.

Expected outcomes of the event:

1. -Adoption of mulching in various horticulture crops
2. -Use of advanced practices in mulching in different crops
3. -Awareness about mulching techniques and types of mulches to be used for particular location
4. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 and 2:
- Depart from state to Lucknow.
- Overnight at Lucknow.

Day 3 and 4: Lucknow
- Visit to Central Institute of Sub Tropical Horticulture, Lucknow.
- Training on common package and practices followed for mulching procedure
- Interaction with Scientists and technical staff for solving farmers queries on technical issues.

Day 5: Lucknow:
- Visit to Central Institute of Sub tropical Horticulture (CISH).
- Training on latest technologies released by CISH for use of organic and inorganic mulches.
- Training on mulching practices to be followed for fruit crops

Day 6: Lucknow:
- Visit to Central Institute of Sub tropical Horticulture (CISH).
- Imparting knowledge to the farmers on mulching process and economic aspects
- To make them aware of the latest updates in mulches.

Day 7: Lucknow
- Visit to National Botanical Research Institute, Lucknow.
- Interaction with scientists on the latest R & D projects running in NBRI.

Day 8: Lucknow
- Visit to Central Drug Research Institute, Kanpur.
- Training on post harvest management practices followed for medicinal and aromatic plants.
- Overnight Kanpur

Day 9: Lucknow
- Visit to adjoining mango and guava farms in the area.
- Interaction with local farmers on technical issues.

Day 10: Return Journey
- Return to state capital.

Farmers Training cum Exposure Visit on
TISSUE CULTURE AND MICRO IRRIGATION

Jain Irrigation Systems Ltd. Jalgaon, Maharashtra

Jain irrigation systems ltd, Jalgaon is the pioneers of Micro Irrigation Systems in India. They are the only manufacturer of complete drip irrigation systems in the world. Globally second and the largest irrigation Company in India, they are also a Total Agri-Service Provider. Jain irrigation systems ltd is a One-Stop high-tech agricultural shop. It hosts a sprawling 2000 acre Hi-Tech Agri Institute. They are also the largest manufacturer of Tissue culture Banana Plants in India. They have the largest pool of Agricultural scientists, Engineers & Technicians in Private Sector. Farmers can get an exposure on tissue culture and micro irrigation systems at Jalgaon. Micro irrigation and tissue culture have proven revolutionary for the development of agriculture in India.

Highlights of the exposure visit:

1. -To see hi tech farming and use of improved varieties and farm resources.
2. -Training tissue culture based cropping and use of drip systems.
3. -Training on micro irrigation systems.

Technical Study Tour visits:

1. - Visit to Jain Irrigation Systems ltd. Jalgaon, Maharashtra.
2. -Visit to Jain hills Jalgaon for tissue culture excellence in Indian Agriculture.
3. -Visits to adjoining farmer's fields and interaction with local farmers for cultural practices followed.

Expected outcomes of the event:

1. -Adoption of advanced practices and high tech farming.
2. -Awareness about different types of micro irrigation system at Jain, Jalgaon.
3. -Adoption of improved methods, techniques and practices in production, extension, marketing and value chain.

Tentative Itinerary:

Day 1 & 2:
- -Depart from state to Jalgaon.
- Overnight in Jalgaon.

Day 3&4:
- Visit to JISL, Plastic Park, Jalgaon.
- Communication session on Jains Products and Services.
- Overnight in Jalgaon.

Day 5: Jalgaon.
- Visit to JIST Plastic Park, Jalgaon.
- Training on micro irrigation systems and there role in booming agricultural economy in India.
- Overnight in Jalgaon.

Day 6: Jain Hills, Jalgaon.

- Visit to Jain Hills Jalgaon.
- Training on tissue culture technology in India.
- Interaction with the bio tech experts on tissue culture in Banana.
- Overnight in Jalgaon.

Day 7: Jain Hills Jalgaon.
- Farms visit of Jain farms for practical exposure on fruit production.
- Training on high tech farming and micro irrigation systems at Jains Field.
- Overnight in Jalgaon.

Day 8: Jalgaon
- A day for local travel in Jalgaon and field visit to banana farms.
- Overnight in Jalgaon.

Day 9& 10: Jalgaon to state capital.
- Back Journey to state capital.

Farmers Training cum Exposure Visit on
FLORICULTURE

University of Agriculture Sciences, Bangalore

India has a long tradition of floriculture. The social and economic aspects of flower growing were, however, recognized much later. The offering and exchange of flowers on all social occasions, in places of worship and their use for adornment of hair by women and for home decoration have become an integral part of Indian living. With changing life styles and increased urban affluence, floriculture has assumed a definite commercial status in recent times and during the past 2-3 decades particularly. The commercial activity of production and marketing of floriculture products is also a source of gainful and quality employment to scores of people. The estimated area under flower growing in the country is about 65,000 hectares. The major flower growing states are Karnataka, Tamil Nadu and Andhra Pradesh in the South, West Bengal in the East, Maharashtra in the West and Rajasthan, Delhi, Himachal Pradesh and Haryana in the North. Karnataka is the leading state in terms of area and production. Farmers can learn advanced floriculture by training cum exposure visit to Karnataka.

Highlights of the exposure visit:

1. -To see high tech farming and use of improved varieties for major flower crops.
2. -Training on cut and loose flower cultivation.
3. -Training on latest projects and research activities taking place in UAS Bangalore and IIHR, Hesaraghatta, Bangalore.

Technical Study Tour visits:

1. -University of Agriculture Sciences, Bangalore. .
2. -Visits to adjoining farmer's fields and interaction with local farmers for cultural practices followed.
3. -Visit Indian Institute of Horticulture Research, Hesaraghatta, Bangalore.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved varieties.
2. -Awareness about post harvest management and crop diversification for flowers(Cut and Loose) and their impact on income levels.
3. -Awareness about the ongoing projects and research activities in UAS and IIHR Bangalore.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Bangalore.
- Overnight at Bangalore.

Day 3: Bangalore.
- Visit to UAS, Bangalore.
- Interaction with faculty of horticulture department at UAS.
- Overnight at Bangalore.

Day 4: Bangalore
- Visit to local floriculture farms and interaction with farmers.
- Training on flower cultivation.
- Overnight in Bangalore

Day 5: Bangalore
- Visit to International Flower Auction ltd. Bangalore. - Training on online auction and export potential of floriculture industry.
- Awareness on development of cold chain in flowers.

Day 6: Bangalore to IIHR, Hesaraghatta.
- Visit to IIHR Hesaraghatta.
- Interaction with faculty and training on ongoing projects for horticulture crops.
- Training on market intelligence and export of fruits, vegetables and floriculture crops.
- Overnight in Bangalore

Day7: Bangalore to Doddaballapur.
- Visit to Karuturi Global Ltd. Doddaballapur, Bangalore.
- Training on modern technologies for more productivity per hectare.
- Interaction with technical staff for cultivation practices of cut flowers.
- Overnight in Bangalore.

Day 8: Bangalore
- Visit to see Lalbagh garden Bangalore.
- Local travel to major historical places in Bangalore.

Day 9& 10: Bangalore to State.
- Back journey to state capital.

Farmers Training cum Exposure Visit on
FLORICULTURE

Sikkim and Kalimpong (WB)

With over 4,000 species of plants and shrubs, around 7,000 varieties of rare orchids, rhododendrons and mountain flowers of myriad hues and sizes, the state is not just a paradise for nature lovers, but also a very important centre for floriculture. The rich biodiversity and diverse agro climate ranging from sub - tropical to Alpine type are the two factors that make the state the most preferred destination for floriculture. The flowers commercially grown in the State are Cymbidium Orchid, Rose, Lilium, anthurium and Alstroemeria. The total area covered under different floriculture programmes at present is approximately 2500 hectares consisting mostly of gladiolus, lilium and other traditional flowers. The total production of flowers during 2007-08 is 54,000 nos inclusive of both cut flowers and plant materials (mostly bulbs). The Horticulture and Cash Crop Development Department has adopted a multi-pronged approach to bring about rapid and sustainable development of floriculture in the State. Elite planting materials imported from the Netherlands, Thailand, Korea and New Zealand are provided to farmers with technical know-how along with other inputs like fertilizers, compost materials and poly-greenhouse fitted with drip irrigation system. Kalimpong is an important destination for those interested in floriculture. Exports from these hills started 5-6 decades back. Cut flower started trade over three decades back, the primary focus being Gladiolus. Today other cut flowers, besides Gladioli are anthuriums, Orchids particularly Cymbidiums, bulbous flowers of lilies, ornithogalum and other flowers like gerberas, carnations and greens like ferns are under production.

Highlights of Training cum Exposure Visit

This farmers' domestic training and exposure visit program will fulfill the objectives of-

1. -To learn about the promising floriculture crops
2. -To identify location specific and economically viable different crops
3. -To learn about the appropriate planting material about different crops and their availability
4. -To impart training on cultivation aspects of Cymbidium Orchid, Anthurium, Gerbera and Liliums
5. -Impart training to the farmers about latest technology developed by research institutes for the production of different crops.

Exposure Visits:

1. -National Research Centre, Orchid, Sikkim
2. -Tissue culture laboratory, State Department, Horticulture
3. -Cymbidium Development centre, Rumtek
4. -Integrated Pack House, Rangpo
5. -Nagmi Farm Centre declared as Model Floriculture Centre
6. -Field visits to see major crops grown in the area.
7. -To visit hi-tech integrated farms in different districts of Sikkim
8. -Kalimpong Horticulture Society
9. Nurseries and Tissue culture laboratory, Kalimpong

Expected outcomes of the event:

1. -Adoption of tissue culture technology for planting material production
2. -Adoption of high grade planting material
3. Technology adoption for pre harvest management
4. -Adoption of improved post harvest management practices
5. -Adoption of latest technologies for pack house establishment and management
6. -Adoption of the improved methods, techniques and practices in production, extension, marketing and value chain

Tentative Itinerary:

Day 1&2: Sikkim
- Depart State capital New Jalpaiguri (NJP)
- NJP to Gangtok by bus
- Shifted to NRC, Orchid

Day 3 & 4: Sikkim
- Visit to various farms, Pack House, Green House Units, Research and Development Centre
- Exposure visit to Floriculture market
- Training on flower management at commercial level
- Discussions with experts
- Depart to Kalimpong

Day 5 & 6: Kalimpong
- Visit to various nurseries and tissue culture lab
- Visit to Kalimpong Horticulture Society
- Training on flower management at commercial level
- Discussions with experts
- Visit to flower market

Day 7 & 8: Darjeeling
- Exposure visit to Green Tea Garden
- Return to State Capital

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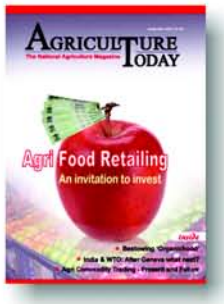

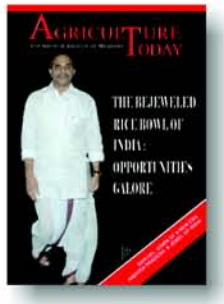

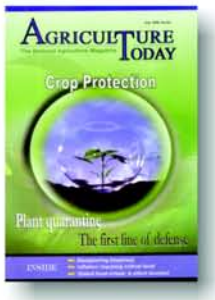

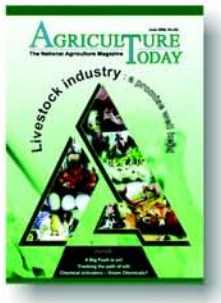

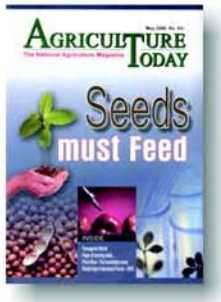

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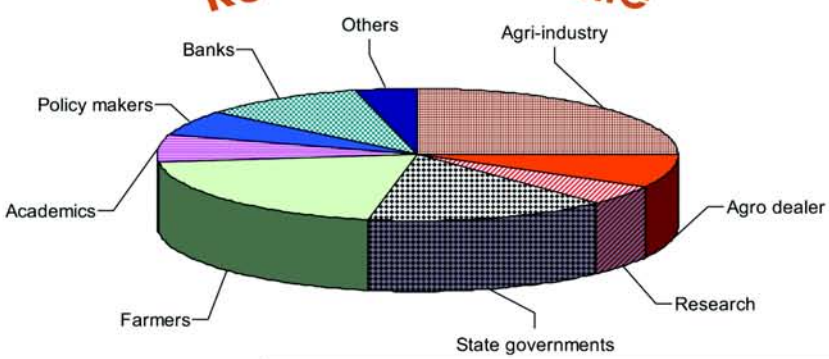

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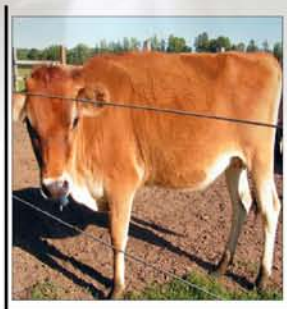
Farmers Training cum Exposure Visit Programs on

Livestock



Farmers Training cum Exposure Visit on HONEY BEE FARMING SOLAN

Dr Y S Parmar UHF, Nauni, Solan

Honey and beekeeping have a long history in India. Honey was the first sweet food tasted by the ancient Indians inhabiting rock shelters and forests. They hunted bee hives for this gift of God. India has some of the oldest records of beekeeping in the form of paintings by prehistoric men in the rock shelters. With the development of civilization, honey acquired a unique status in the lives of Indians. The recent past has witnessed a revival of the industry in the rich forest regions along the sub-Himalayan mountain ranges, Northern plains and the Western Ghats, where it has been practiced in its simplest forms. In India, beekeeping has been mainly a forest based industry, though in certain pockets it is practiced on agricultural belts. Dr. Yashwant Singh Parmar University of Horticulture and Forestry is working on research and activities related to bee farming. Farmers can get wide knowledge on ongoing research activities and exposure to practices for commercial bee keeping.

Highlights of the exposure visit:

1. -To see high tech bee farming and use of location specific bee species.
2. -Training on new bee flora and fauna for different ecosystems.
3. -Training on latest projects and research activities taking place
4. -Exposure to advanced practices of bee keeping and its management
5. -Exposure to advanced packaging, processing and marketing systems

Technical Study Tour visits:

1. - Dr Y S Parmar UHF, Solan.
2. -Visits to adjoining Bee Farms and interaction with local farmers for cultural practices followed.
3. -Beekeeping Development Office, Dolphin Lodge, Shimla.
4. -Honey processing unit and marketing systems at Solan

Expected outcomes of the event:

1. - Adoption of advanced practices and use of improved techniques for bee keeping.
2. -Awareness about Diseases and Insect pest common to bee industry.
3. -Awareness about bee nutrition and flora for bee industry.
4. -Understanding of marketing opportunities and adoption of latest packaging and marketing systems

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Solan, Himachal Pradesh.
- Overnight at Solan.

Day 3: Dr. YS Parmar, Solan.
- Visit to Dept. of Entomology at Dr. YS Parmar.
- Training on ongoing projects on bee farming at Dept. of Entomology.
- Interaction with experts for farmers queries on practices to be followed.

Day 4: Dr. YS Parmar, Solan.
- Training on organic honey production.
- Training on flora and fauna suitable for different ecosystems.

Day 5: Dr. YS Parmar, Solan.
- Visit to Bee farms at Dept. of Entomology.
- Communication session with the technicians for updates on latest practices to be followed.
- Awareness on market scenario and potential for honey as a commercial business.
- Overnight in Solan.

Day 6: Dr. YS Parmar, Solan.
- Visit to Bee farm at Dept. of Entomology.
- Training on *Apis mellifera* and *Apis dorsata* feeding and rearing practices.
- Training on insects/pests common to bee industry and their management practices.

Day7: Dr. YS Parmar, Solan.
- Visit to College of Horticulture.
- Training on modern technologies for more productivity per hectare.
- Imparting knowledge on major crops grown in the area.
- Overnight in Solan.

Day 8: BKDO, Delphine Lodge, Shimla.
- Visit to bee keeping development office, Shimla.
- Training on using of bees as a successful pollination in agri and horti crops.
- Overnight in Shimla.

Day 9: Shimla
- A day for local travel to historical places in Shimla
- Overnight in Shimla.

Day 10: Shimla to state.
- Back journey to state capital.

Farmers Training cum Exposure Visit on
HONEY BEE FARMING PUNE

Central Bee Research Institute, Pune

Honey and beekeeping have a long history in India. Honey was the first sweet food tasted by the ancient Indians inhabiting rock shelters and forests. They hunted bee hives for this gift of God. India has some of the oldest records of beekeeping in the form of paintings by prehistoric men in the rock shelters. With the development of civilization, honey acquired a unique status in the lives of Indians. The recent past has witnessed a revival of the industry in the rich forest regions along the sub-Himalayan mountain ranges, Northern plains and the Western Ghats, where it has been practiced in its simplest forms. In India, beekeeping has been mainly a forest based industry, though in certain pockets it is practiced on agricultural belts. In hills, there are short and long floral gaps. In the plains on agricultural farms, food is not available to honeybees throughout the year. Bees can get food only during the flowering season of crops. CBRTI, Pune is working with a mandate of research and development activities with respect to bee keeping. Farmers can get a wide knowledge on ongoing research activities and practices for commercial bee keeping farming.

Highlights of the exposure visit:

1. - To see high tech bee farming and use of location specific bee species.
2. -Training on new bee flora and fauna for different ecosystems.
3. -Training on latest projects and research activities taking place
4. -Exposure to advanced practices of bee keeping and its management
5. -Exposure to advanced packaging, processing and marketing systems

Technical Study Tour visits:

1. -Central Bee Research Institute, Ganesh khind road, Pune.
2. -Visits to adjoining Bee Farms and interaction with local farmers for cultural practices followed.
3. -Mahatma Phule Krishi Vidyapeeth, Pune. Visit to honey processing and marketing facilities

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved techniques for bee keeping.
2. -Awareness about Diseases and Insect pest common to bee industry.
3. -Awareness about bee nutrition and flora for bee industry.
4. -Understanding of marketing opportunities and adoption of latest packaging and marketing systems

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Pune.
- Overnight at Pune.

Day 3: CBRI, Pune.
- Visit to Central Bee Research Institute, Ganesh Khind Road, Pune.
- Training on ongoing projects on bee farming at CBRI, Pune.
- Interaction with experts for farmers queries on practices to be followed.
- Overnight at Pune.

Day 4: CBRI, Pune.
- Training on organic honey production.
- Training on flora and fauna suitable for different ecosystems.

Day 5: CBRI, Pune.
- Visit to Bee farms at CBRI, Pune.
- Communication session with the technicians for updating on latest practices to be followed.
- Awareness on market scenario and potential for honey as a commercial business.

Day 6: CBRI, Pune.
- Visit to Bee farm at CBRI, Pune.
- Interaction with faculty and training on ongoing projects at CBRI.
- Training on insects/pests common to bee industry and their management practices.

Day7: Mahatma Phule Krishi Vidyapeeth, Pune.
- Visit to MPKV, Pune.
- Training on modern technologies for more productivity per hectare.
- Imparting knowledge on major crops grown in the area.
- Overnight in Pune.

Day 8: Pune.
- Visit to local bee farms adjoining Pune.
- Evening for local travel and sight seeing.
- Overnight in Pune.

Day 9& 10: Pune to state.
- Back journey to state capital.

Farmers Training cum Exposure Visit on
DAIRY FARMING

Gujarat - Where farmers can learn advanced dairy farming

The white revolution of 70's had made spectacular land marks in Indian milk production scenario. India is the largest milk producer of the world and milk has been ranked as the number one farm commodity. Rural prosperity by dairy farming is the need of the hour. Livestock production is now turning on commercial lines, given the scope for employment, value addition and profitability in this business. The higher production potential of the cross bred animals and its strong economics is directly linked to judicious feeding and management. IRMA was established in 1979 at Anand, Gujarat with the support of the Swiss Agency for Development Cooperation (SDC), the Government of India, the Government of Gujarat, erstwhile Indian Dairy Corporation and the National Dairy Development Board to provide management education, training, research and consultancy support to co-operatives and rural development organizations in India. Farmers can be benefited by a visit to Anand, Gujarat for dairy technologies and dissemination and to IRMA for management support.

Highlights of the exposure visit:

1. -To learn advanced practices of dairy management.
2. -To identify different breeds of milk animals with respect to different agro climatic zones
3. -To learn about the new technologies and practices in dairy management
4. -To learn value chain in dairy business from fodder to consumer

Technical Study Tour visits:

1. -Institute of Rural Management, Anand.
2. -Visits to dairy farms at Anand for practical exposure on dairy industry.
3. -Visits to National Cooperative Dairy Federation of India Ltd., Anand.
4. -Visit to Amul India Plant, Anand.
5. -Visit to different famers dairy farms

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved dairy cattle breeds.
2. -Awareness about feeding, diseases and pests and their management.
3. -Adoption of improved methods, techniques and practices in production, extension and marketing
4. -To take up dairy farming on a profitable basis

Tentative Itinerary:

Day 1 & 2: State/Anand, Gujarat
- Departure from State capital to Anand, Gujarat.
- Overnight in Anand.

Day 3: IRMA, Anand.
- Exposure visit to various departments at IRMA, Anand.
- Training on different milch animals (Buffalo, Cows and Goats) for dairy industry.
- Training on genetic improvement of milch animals through identification and dissemination of superior germplasm.

Day 4: IRMA, Anand.
- Training on fodder cultivation in respect to dairy Farming.
- Imparting knowledge to the farmers on diseases/pests common to dairy industry
- Training on fodder cultivation

Day 5: NCDFI, Anand.
- Visit to National Co-operative Dairy Federation of India, Anand.
- Training on value chain and marketing with respect to dairy industry.
- Imparting knowledge on cooperative, networking and marketing of dairy products.

Day 6: GCMMF, Anand.
- Visit to Gujarat cooperative Milk Marketing Federation, Anand.
- Training on market potential of dairy industry.
- Training on working of GCMMF and its advantages to dairy entrepreneurs.

Day 7: Gujarat Agriculture University, Anand.
- Visit to different departments of GAU, Anand.
- Discussions with technical staff on dairy management
- Training on dairy products and their processing.

Day 8: Amul India Plant, Anand
- Visit to Amul India Plant, Anand.
- Imparting knowledge on dairy products like butter, cheese, paneer, curd, Pasteurized milk etc.
- Discussion with experts for taking up dairy as a profession for farmers.
- Overnight in Anand.

Day 9&10: Back to State

Return from Anand to State Capital

(If stay at Delhi, a visit to IARI facilities and Indo-Israel Project at Pusa

Farmers Training cum Exposure Visit on

DAIRY MANAGEMENT

National Dairy Research Institute, Karnal

The white revolution of 70's had made spectacular and marks in Indian milk production scenario. India is the largest milk producer of the world and milk has been ranked as the number one farm commodity. Rural prosperity by dairy farming is the need of the hour. Livestock production is now turning on commercial lines, given the scope for employment, value addition and profitability in this sector. The higher production potential of the cross bred animals and its strong economics is directly linked to judicious feeding and management. National Dairy Research Institute is the premier organization that provides technology and extension support for Dairy Development programmes to the Nation. Over the years, it has gained prominence as the front ranking research organization on global basis. The Institute works in close liaison with the farmers, dairy industry as well as various National and International developmental agencies to assist the country in its dairy development plans

Highlights of the exposure visit:

1. -To learn advanced practices of dairy industry.
2. -To identify different breeds of milk animals with respect to different agro climatic zones of India.
3. -To get well versed in new technologies and practices
4. -To learn value chain in dairy business from fodder to consumer

Technical Study Tour visits:

1. -National Dairy research Institute, Karnal, Haryana.
2. -Visits to dairy farms at Kurukshetra for practical exposure on dairy industry.
3. -Visits to adjoining farmers' fields and interaction with local farmers.
4. -Visit to milk processing centres in and around Karnal

Expected outcomes of the event:

1. - Adoption of advanced practices and use of improved dairy cattle breeds.
2. -Awareness about feeding, diseases and pests and their management.
3. -Adoption of improved methods, techniques and practices in production, extension and marketing
4. -To take up dairy farming on a profitable basis

Tentative Itinerary:

Day 1 & 2:
- Travel from state capital to Karnal.
- Overnight in Karnal.

Day 3: NDRI, Karnal.
- Training on different varieties of milch animals (Buffalo, Cows and Goats) for dairy industry.
- Training on genetic improvement of milch animals through identification and dissemination of superior germplasm.

Day 4: NDRI, Karnal:
- Imparting knowledge to farmers on characteristics of different milch animals.
- Training on understanding of economics, marketing and using basic levels in cattle markets.

Day 5: NDRI, Karnal:
- Training on fodder cultivation with respect to dairy.
- Imparting knowledge to the farmers on diseases/pests common to dairy industry and care to be taken to prevent cattle's from these natural causes.

Day 6: NDRI, Karnal:
- Visit to dairy products processing plant at NDRI.
- Training on number of dairy technologies developed at NDRI e.g. Mozzarella cheese, Paneer/channa manufacturing plant, Rasogulla ball making plant etc.

Day 7: NDRI, Karnal to Dairy Farm Kurukshetra.
- Visit to dairy farm Kurukshetra for practical exposure on dairy industry. - Interaction with technical staff on common practices and care to be taken while running dairy industry.
- Training on dairy products and their processing.
- Overnight in Karnal.

Day 8: Farm visit to local progressive dairy entrepreneurs.
- Exposure visit to nearby dairy farms in Karnal area.
- Interaction with local farmers regarding technical issues in dairy industry.
- Overnight in Karnal.

Day 9: NDRI, Karnal to New Delhi.
- Summing up of visit, discussions and distribution of certificates to the trainees.
- Journey to New Delhi.
- Overnight in New Delhi.

Day 10: Back to state Capital.

Back Journey to state capital

Farmers Training cum Exposure Visit on FISHERIES

Central Institute of Fisheries Education, Rohtak, Haryana

Harnessing the rivers for irrigation and hydro-electric power generation has been the main focus of developmental activities in India after independence. Consequently, a number of small, medium and large river valley projects came into existence with the primary objective of storing the river water for irrigation, power generation and a host of other activities. One of the direct results of these projects was the creation of a chain of man-made lakes, dotting the Indian landscape from Kashmir to Kanyakumari and Bengal to Gujarat. The man-made lakes built along traditional village ponds hold tremendous potential for inland fisheries development in India. However, this vital resource is not contributing to the inland fish production of the country to the extent it should. Unlike the rivers, which are under the increasing threat of environmental degradation, the reservoirs offer ample scope for fish yields through adoption of suitable management practices. Central Institute of Fisheries Education (CIFE), the only Deemed University for fisheries in India, is the institution of higher learning for fisheries science. CIFE has over four decades of leadership in HRD. Its Rohtak Centre is known for its expertise in research and extension of fisheries production technologies and practices. Fisheries can be a fruitful profession for small land holding farmers in most parts of the country.

Highlights of the exposure visit:

1. -To learn advanced practices for fish farming.
2. -To identify different breeds of fishes with respect to different agro climatic zones of India.
3. -To learn entrepreneurship in Fish Processing & Value Addition
4. -To successfully and profitably take up fish farming

Technical Study Tour visits:

1. -Central Institute of Fisheries Education, Rohtak, Haryana.
2. -Visits to Sultan Fish Seed Farm at Karnal for practical exposure on quality fish seed production.
3. - Visits to adjoining fish farms and interaction with local producers.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of location specific breeds.
2. -Awareness about diseases and pests common to fish industry and their impact on income levels.
3. -Adoption of improved methods, techniques and practices in production, extension, marketing and fish products.

Tentative Itinerary:

Day 1 & 2:
- Travel from state to Rohtak.
- Overnight in Rohtak.

Day 3: CIFE, Rohtak
- Training on quality enhancement of fish production.
- Training on Fisheries Genetics & Biotechnology through identification and dissemination of superior germplasm.

Day 4: CIFE, Rohtak
- Imparting knowledge to farmers on characteristics of different fish breeds.
- Training on understanding of economics, marketing and using basic levels in fish markets.

Day 5: CIFE, Rohtak
- Training on harvest and post harvest technologies with respect to fisheries.
- Imparting knowledge to the farmers on diseases/pests common to fish industry and care to be taken to prevent crop from these natural causes.
- Overnight in Rohtak.

Day 6: Rohtak
- Exposure visit to nearby fish farms in Rohtak area.
- Interaction with the progressive growers for technical issues with respect to fisheries.
- Overnight in Rohtak.

Day 7: Sultan Fish Seed Farm, Karnal.
- Visit to Sultan Fish Seed Farm, Karnal for practical exposure on fish seed production.
- Interaction with technical staff on common practices and care to be taken while seed rearing.
- Overnight in Karnal.

Day 8: Sultan Fish Seed Farm, Karnal.
- Training on fish diseases and fish nutrition to the trainees.
- Imparting knowledge on fish culture, breeding and aquaculture systems.
- Overnight in Karnal.

Day 9& 10: Karnal to New Delhi.
Back Journey to state capital.

Farmers Training cum Exposure Visit on

SERICULTURE

Central Sericulture Research and Technology Institute, Mysore

Sericulture, the technique of silk production, is an agro-industry, playing an eminent role in the rural economy of India. Silk-fibre is a protein produced from the silk-glands of silkworms. The annual production of silk in the world is estimated at 45,000 tones of which Japan and China contribute 18,936 and 13,200 tones respectively. South Korea, USSR and India are the other leading Seri cultural countries in the world. Five varieties of silk worms are reared in India for producing this natural fibre. *Bombyx mori*, the silk worm, feeds on the leaves of Morus to produce the best quality of fibre among the different varieties of silk produced in the country. Central Sericulture Research & Training Institute (CSRTI), Mysore, the pioneer research institution in the field of sericulture, was established at Chennapattana in 1961, under the administrative control of Central Silk Board, Ministry of Textiles, Government of India for the over all development of silk industry in the country. During the course of development the Institute was shifted to Mysore the princely city in the year 1963. CSRTI, Mysore can provides a golden opportunity for small landholding farmers to adopt sericulture as profession.

Highlights of the exposure visit:

1. -Training on scientific, technical, economic and social research with respect to silk production.
2. -To learn latest technologies pertaining to all aspects of mulberry sericulture suitable to different agro climatic conditions/ zones of India.
3. -Training on latest projects and research activities taking place in CSRTI, Mysore.

Technical Study Tour visits:

1. -Central Sericulture Research and Technology Institute, Mysore.
2. -Visits to adjoining sericulture farm and interaction with local farmers for cultural practices followed.
3. -Visit to Central Food and Technology Research Institute, Mysore.

Expected outcomes of the event:

1. -Adoption of advanced practices and use available resources for sericulture.
2. -Awareness about cultivation practices for different types of silk worms and their impact on income levels.
3. -Awareness about the ongoing projects and research activities in CSRTI and CFTRI, Mysore.

Tentative Itinerary:

Day 1 & 2:
- Depart from state to Mysore.
- Overnight at Mysore.

Day 3: Mysore
- Visit to CSRTI, Mysore.
- Training on major practices to be followed in Seri business.
- Interaction with technicians for farmer's queries.
- Overnight in Mysore.

Day 4: CSRTI, Mysore
- Training on how to diversify and commercialize the sericulture sector in to agribusiness.
- Training on IPM practices to be followed for sericulture.

Day 5: CSRTI, Mysore
- To learn about testing and certification centre for all mulberry sericulture industry related technologies, machineries, equipments and appliances etc.
- Training on feeding habits and nutrition of sericulture.
- Overnight in Mysore.

Day 6: Mysore.
- Visit to local sericulture farms in nearby areas.
- Interaction with local entrepreneurs on technical issues.
- Training on market intelligence and export potential of silk industry.
- Overnight in Mysore.

Day7: CFTRI, Mysore.
- Visit to Central Food Technology Research Institute, Mysore.
- Training on latest post harvest technologies for major crops.
- Interaction with technical staff for reducing post harvest losses.
- Overnight in Mysore.

Day 8: CFTRI, Mysore.
- Training on latest achievements in CFTRI.
- Local travel to the places of interest in Mysore.

Day 9& 10: Back Journey
- Back journey to state capital.

Farmers Training cum Exposure Visit on

POULTRY MANAGEMENT

Venkateshwara Hatcheries Ltd., Pune

Poultry is one of the fastest growing segments of the livestock sector in India today. While the production of agricultural crops has been rising at a rate of 1.5 - 2 percent per annum, the eggs and broilers have been rising at a rate of 8 -10 percent per annum. As a result, India is now the world's fifth largest egg producer and the eighteenth largest producer of broilers. Today poultry farming has transformed itself into an organized industry and playing a major role in the fight against malnutrition and poverty among the 'rural masses of our country. The importance of poultry sector in solving the problems of unemployment and under-employment is well-conceived by planners in the developmental programmes. Among the livestock businesses, poultry farming requires less capital investment and at the same time it ensures quick returns. Poultry farming can be taken up at all the three levels - back yard, entrepreneurship units and large farms. Venkateshwara Hatcheries Limited (VHL) began poultry farming as first timers under integration as subsidiary to marginal cropping. VHL is a pioneer company that has given a definite shape in the development of the Indian poultry industry to its present status on scientific lines. It pioneered the concept of parent franchisee operations, popularized cage farming. The VHL group was established by Padmashree Dr B.V. Rao in 1971 as a franchise of Babcock Poultry Farm Inc., USA. In 1974, it established 'Balaji Foods and Feeds Limited' for processing of eggs into egg powder. Later, the firm expanded its business and opened retail chains in major metro areas where fresh and frozen chicken and ready-to-cook frozen chicken were sold directly to consumers.

Highlights of the exposure visit:

1. -To learn advanced poultry management and economics in poultry farming
2. -To learn about common diseases and their management in poultry
3. -To learn about production performance of layers/ broilers and profitability
4. -To learn about the feed and nutrition in poultry production
5. -To get exposure to marketing and processing in poultry business

Technical study tour visits:

1. -Visit to Venkateshwara Hatcheries Ltd., and poultry units around Pune
2. -Training on advanced practices on poultry management and contract farming
3. -Visit to Dr. BV Rao Institute of Poultry management and Technology, Pune

Expected outcomes of the event:

1. -Adoption of advanced practices in poultry management
2. -Awareness about the poultry vaccines, livestock management and health care
3. -Adoption of large scale poultry farming as backyard poultry and small units
4. -Starting of small profitable village level poultry farms by farmers and un-employed youths

Tentative Tour Itinerary:

Day 1& 2

- Depart from State capital to Pune
- Overnight at Pune

Day 3 VHL, Pune

- Exposure visit to VHL, Pune
- To know about poultry vaccines
- Training on poultry management and contract farming
- Training on methods of processing and packaging.

Day 4: VHL

- To know pure line research and development.
- To learn about production performance of layers/ broilers under Indian Agro-climatic conditions

Day 5: VHL, Pune

- To know about the Specific Pathogen Free egg production facility
- Learning about combined and inactivated (killed) vaccines
- Interaction with Scientists and technical staff for solving queries on technical issues.

Day 6: VHL, Pune

- Training on livestock management and health care
- Interaction with experts on poultry rearing.
- Understanding of economic factors, cost and profit for starting small poultry units

Day 7: Dr. BV Rao Institute of Poultry Management and Technology, Pune

- Training on manufacture of automated poultry equipment
- Initiating poultry education through the Dr. BV Rao Institute of Poultry Management and Technology
- Learning about marketing systems and processing in poultry

Day8: Dr. BV Rao IPM and Technology, Pune

- Training on poultry practices and production improvement.
- Visit to Instructional Poultry Farm
- To observe and learn their latest poultry farming technologies.

Day9& 10: Journey

- Return from Pune to New Delhi / State capitals

Farmers Training cum Exposure Visit on
POULTRY FARMING

Central Avian Research Institute, Bareilly, UP

Poultry is one of the fastest growing segments of the livestock sector in India today. While the production of agricultural crops has been rising at a rate of 1.5 - 2 percent per annum, the eggs and broilers have been rising at a rate of 8 -10 percent per annum. As a result, India is now the world's fifth largest egg producer and the eighteenth largest producer of broilers. Today poultry farming has transformed itself into an organized industry and playing a major role in the fight against malnutrition and poverty among the rural masses of our country. The importance of poultry sector in solving the problems of unemployment and under-employment is well-conceived by planners in the developmental programmes. Among the livestock businesses, poultry farming require less capital investment and at the same time it ensures quick returns. Poultry farming can be taken up at all the three levels - back yard, entrepreneurship units and large farms. Central Avian Research Institute(CARI), the premiere institute of poultry research in the country, was established in 1979 to undertake basic, applied and adoptive research in all disciplines relating to production of diversified poultry, to develop post harvest technologies and to impart specialized training in poultry science in collaboration with the Indian Veterinary Research Institute at Izatnagar, and to transfer the proven technologies to the end users and to provide referral/ consultancy services.

Highlights of the exposure visit:

1. -To learn advanced practices of broiler farming
2. -To understand production of diversified poultry.
3. -To learn advanced methods of processing and packaging
4. -Providing knowledge of poultry production and marketing

Technical Study Tour visits:

1. -Visit to Central Avian Research Institute (CARI), Izatnagar
2. -Visit to local poultry farms to learn advanced poultry farming
3. -Visit to IVRI, Bareilly
4. -Visit to G B Pant agricultural University.

Expected outcomes of the event:

1. -Adoption of advanced practices in poultry farming
2. -Awareness about processing and marketing of broilers.
3. -Adoption of new management practices in disease prevention/control etc
4. -Adoption of advanced avian nutrition and feeding systems

Tentative Itinerary:

Day 1 & 2:
- Depart from State capital to Izatnagar, Bareilly
- Overnight at Bareilly

Day 3 Izatnagar, Bareilly
- Exposure visit to CARI, Bareilly
- To know about different breeds of broilers and layers
- Training on farm management and marketing
- Training on methods of processing and packaging.

Day 4: CARI, Bareilly
- Learning on avian nutrition
- Prevention and control of diseases in broilers.
- Exposure of avian medicine, experimental hatchery etc
- To learn about processing and marketing of different poultry and poultry products.

Day 5: IVRI, Bareilly
- To learn about various avian diseases and their causative factors.
- Learning of their remedial measures.
- Interaction with Scientists and technical staff for solving queries on technical issues.

Day 6: IVRI, Bareilly
- Training on livestock products and technology in different divisions of the institute.
- Interaction with experts on poultry rearing.
- Understanding of economic factors, cost and profit for starting small poultry units

Day 7: Pantnagar
- Visit to G.B Pant Agricultural University.
- Training on poultry practices and production improvement.
- Visit to Instructional Poultry Farm
- To observe and learn their latest farming technologies.

Day8: Bareilly
- Visit to local poultry farms to know their poultry management practices.
- To learn processing and marketing of broilers and broiler product in local market.

Day 9 & 10: Journey
- Return from Bareilly to State Capital

Farmers Training cum Exposure Visit on

GOATRY

Central Institute for Research on Goat (CIRG), Mathura

Goat is known as 'Poor man's cow' in India and is a very important component in dry land farming system. Marginal or undulating lands unsuitable for other types of animals like cow or buffalo, goat is the best alternative. With very low investments goat rearing can be made in to a profitable venture for small and marginal farmers. Goat is a multi functional animal and plays a significant role in the economy and nutrition of landless, small and marginal farmers of the country. Goats can efficiently survive on available shrubs and trees in adverse harsh environment in low fertility lands where no other crop can be grown. In pastoral and agricultural subsistence societies in India, goats are kept as a source of additional income and as an insurance against disaster. The CIRG is a research institute under Indian Council of Agricultural Research (ICAR) which is an autonomous body under Department of Agriculture Research and Education, Govt. of India. Makhdoom was Bull Rearing farm of Department of Animal Husbandry Govt. of UP. The Indian Veterinary Research Institute, Izatnagar, Bareilly, established a research center after taking charge of "Bull Rearing Farm" in the month of Dec. 1975. Subsequently, it was awarded the status of 'National Goat Research Center'. On 12th July 1979, it was upgraded to the level of Central Institute by ICAR, New Delhi.

Highlights of the exposure visit:

1. -To learn advanced practices of goat industry.
2. -To identify different breeds of goats for milk and meat production with respect to different agro climatic zones of India.
3. -To learn about the new technologies and practices
4. -To learn value chain in goatery business from fodder to consumer

Technical Study Tour visits:

1. -Central Institute for Research on Goat (CIRG), Mathura, Uttar Pradesh.
2. -Visits to goat farms for practical exposure on industry.
3. -Visits to adjoining entrepreneurs and interaction with local farmers.

Expected outcomes of the event:

1. -Adoption of advanced practices and use of improved goat breeds.
2. -Awareness about feeding, diseases and pests and their management.
3. -Adoption of improved methods, techniques and practices in production, extension and marketing
4. -To take up goat farming on a profitable basis

Tentative Itinerary:

Day 1 & 2:
- Travel from state capital to Mathura.
- Overnight in Mathura.

Day 3: CIRG, Mathura.
- Training on different breeds of goats for goatery
- Training on genetic improvement of goats through identification and dissemination of superior germplasm.

Day 4: CIRG, Mathura:
- Imparting knowledge to farmers on characteristics of different breeds.
- Training on understanding of economics, marketing and using basic levels in cattle markets.

Day 5: CIRG, Mathura:
- Training on fodder cultivation in respect to goat industry.
- Imparting knowledge to the farmers on diseases/pests common to goat industry and care to be taken to prevent animal from these natural causes.

Day 6: CIRG, Mathura:
- Visit to Nutrition, feed resources and products technology division at CIRG, Mathura.
- Training on number of technologies developed at CIRG

Day 7: CIRG, Mathura.
- Visit to goat health division at CIRG.
- Interaction with technical staff on common practices and care to be taken while running goat industry.
- Training on physiology and reproduction management system.

Day 8: Farm visit to local progressive entrepreneurs.
- Exposure visit to nearby goat farms in Mathura area.
- Interaction with local farmers regarding technical issues in goatery industry.

Day 9: Mathura.
- Summing up of visit, discussions and distribution of certificates to the trainees.
- A day for local travel to the places of interest.

Day 10: Back to state Capital.
- Back Journey to state capital.

CARD Technical Partners for Training and Visit Programs

Technical Association with:

- ☐ KHSPDC, Poojappura, Trivandrum, Kerala
- ☐ Directorate of Rice Research, Hyderabad
- ☐ National Research Centre for Citrus, Nagpur
- ☐ Punjab Agriculture University, Ludhiana, Punjab
- ☐ Central Plant Protection Training Institute, Hyderabad
- ☐ Indian Agriculture Research Institute (IARI), New Delhi
- ☐ National Research Centre for Grapes, Hesaraghatta, Bangalore
- ☐ Maharashtra State Agricultural Marketing Board, Pune
- ☐ Indian Veterinary Research Institute (IVRI), Bareilly, UP
- ☐ Karnataka State Horticulture Mission, Lalbagh, Bangalore
- ☐ Jain Irrigation System Pvt. Limited, Jalgaon, Maharashtra
- ☐ National Dairy Research Institute (NDRI), Karnal, Haryana
- ☐ Haryana Veterinary Training Institute, Panchkula, Haryana
- ☐ Central Institute of Agricultural Engineering (CIAE), Bhopal, MP
- ☐ Central Food Technological Research Institute (CFTRI), Mysore
- ☐ Central Coffee Research Institute (CCRI), Chikmagalur, Karnataka
- ☐ Central Farm Machinery Training and Testing (CFMTT), Budni, MP
- ☐ State Institute of Agriculture Management (SIAM), Jaipur, Rajasthan
- ☐ M.R. Morarka GDC Rural Research Foundation, Jaipur, Rajasthan
- ☐ National Institute of Agriculture Marketing (NIAM), Jaipur, Rajasthan
- ☐ National Research Centre for Onion & Garlic, Rajguru Nagar, Pune
- ☐ Directorate of Mushroom Research (DMR), Chambaghat, HP
- ☐ National Research Centre for Grapes, Manjari Farm, Solapur Road, Pune
- ☐ National Institute of Rural Development (NIRD), Rajendra Nagar, Hyderabad
- ☐ National Institute of Agricultural Extension Management (MANAGE), Hyderabad
- ☐ Chaudhary Charan Singh (CCS) Haryana Agricultural University, Hissar, Haryana
- ☐ Central Institute of Post Harvest Engineering and Technology (CIPHET), Ludhiana
- ☐ Centre for Water Resource Development and Management (CWRDM), Kasargod, Kerala
- ☐ International Crop Research Institute for Semi-Arid Tropics (ICRISAT), Patancheru, Hyderabad
- ☐ Dr. Y S Parmar University of Horticulture & Forestry, Nauni, Solan, Himachal Pradesh
- ☐ ???Central Tuber Crop Research Institute (CTCRI), Sreekariyam, Trivandrum, Kerala
- ☐ Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, UP
- ☐ Central Potato Research Institute (CPRI), Kufri, Shimla, Himachal Pradesh
- ☐ Indian Institute of Spices Research (IISR), Calicut, Kozhikode, Kerala
- ☐ Central Plantation Crop Research Institute (CPCRI), Kasargod, Kerala
- ☐ Indian Institute of Horticultural Research, Hesaraghatta, Bangalore
- ☐ Directorate of Rapeseed-Mustard Research, Bharatpur, Rajasthan
- ☐ Central Institute for Cotton Research (CICR), Ahmedabad, Gujarat
- ☐ Jai Research Foundation for Sugarcane Cultivation, Vapi, Pune
- ☐ Directorate of Oil Seed Research, Ranjendranagar, Hyderabad
- ☐ National Research Centre for Groundnut, Junagadh, Gujarat
- ☐ Anand Agricultural University (AAU), Gujarat
- ☐ Cotton Cooperation of India Limited, Ahmedabad, Gujarat
- ☐ Directorate of Wheat Research (DWR), Karnal, Haryana
- ☐ Central Soil Salinity Research Institute, Karnal, Haryana
- ☐ ???Indian Institute of Pulses Research Institute, Kanpur, UP

Vision

To play a vibrant role in the national endeavour of developing India through agriculture led transformation; and participate in addressing environment, policy, technology, resource and information related issues for livelihood security and improving the quality of life of rural masses.

Objectives

To act as a

source of information

सूचना के स्रोत

platform for rural growth

ग्रामीण समृद्धि के मंच

medium of education and awareness

शिक्षा के माध्यम एवं जागरूकता के प्रतीक

catalyst for agricultural development

कृषि विकास के उत्प्रेरक

facilitator in decision making

नीति निर्धारण में प्रभावी

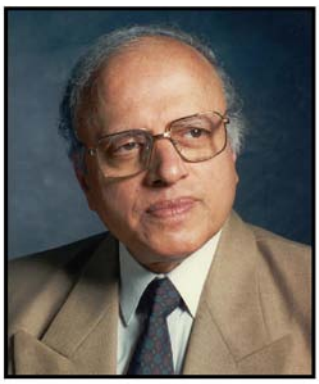
bridge between rural and urban masses

शहरी एवं ग्रामीण दूरी को कम करना

Initiative

CARD as the premier organization facilitating agricultural developments in the country, takes one more pioneering lead to organize a domestic horticultural learning and exposure tour for the farmers through inter state visit program. From the study Tour, farmers will get an exposure to the latest horticulture management practices, advanced forms of cultivation, technology employment, market chain, value addition activities etc., which they could explore applying in their farms for better resource management, productivity and quality, crops diversification, marketing and value addition. The proposed study tour includes visits to various sites of horticulture advancements, including farms, institutions, markets, research and agro processing centres.

CARD Management Board



Prof. M.S. Swaminathan
Chairman
M.S. Swaminathan Foundation

Sh. Kapil Mehan
Managing Director,
Coromandel International Ltd.

Sh. Y.C. Nanda
Chairman, Agriculture Finance Corporation

Dr. Panjab Singh
former Director General - ICAR

Dr. Purvi Mehta Bhatt
Director - Asia, International Livestock Research Institute

Sh. Suresh Prabhakar Prabhu
former Union Minister of Power, Environment & Forest

Sh. Jai Shroff
Executive Director, United Phosphorus Ltd.

Dr. P.L. Gautam
former Chairman, National Biodiversity Authority

Dr. R.B. Singh
former ADG - FAO, Asia Pacific region

Sh. J.N.L. Shrivastava
Executive Director, IFFCO Foundation.

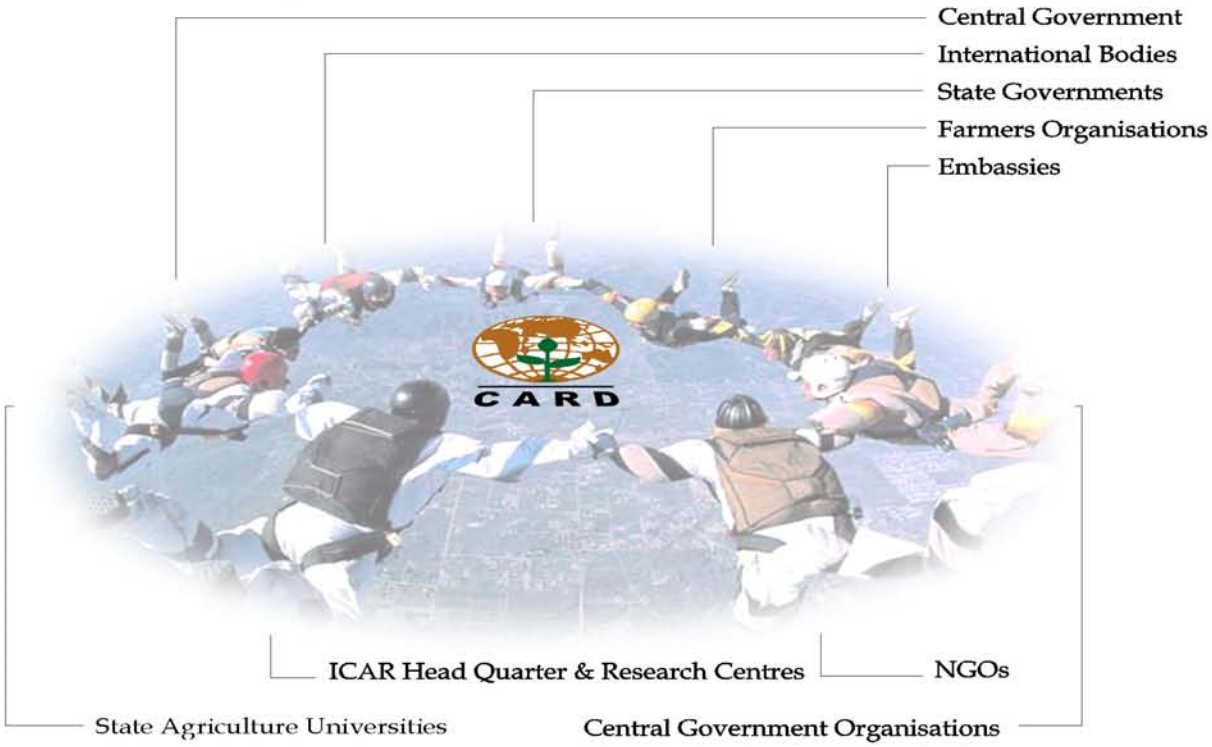
Dr. K.L. Chadha
President, Horticulture Society of India.

Dr. M. Moni
President, International Agriculture Consulting Group

Dr. MJ Khan
President, Agriculture Today Group

CARD Linkages and Network

Linkages



Nationwide network

TESTIMONIALS

To

The Director,

(CARD) centre for Agriculture and Rural Development New Delhi

Subject: (Appreciation letter)

Dear Sir,

We are pleased to inform you that the Agriculture exposure visit which has been organized by you was a grand success and I met with farmers they were very happy and they were even appreciating

Mr. Dinesh Baitha who has guided them throughout the visit

We would like to give a short detail of the programme which was under taken during the visit05 march 2012 –insect pest management for sustainable production of groundnut by sh .G. Harish ,Disease management for sustainable production of groundnut by dr. Thirumalaisamy, lab visit guided by Dr Savalia, 06 march 2012 –field visit guided by Dr. Savalia and A.M. baksaria, improved groundnut varieties suitable for chhatishgarh by Dr. A.L.Rathnakumar, management of micronutrients for sustainable production of groundnut by Dr. A . l. Singh, 07 march 2012 Role of bio-fertilizer in sustainable production of groundnut by dr. K.K. Pal, Post harvest management of groundnut: drying and Storage methods by Sh. P.V. Zala, Mechanization of groundnut cultivation by Dr. N.K. Jain.

We would also like to inform and appreciate you and Mr. Dinesh Baitha that he has taken our farmer not only to the formal programme and lab or field visit but also to the tourist places like dwarka, Nageshwr, Girinar and Shomnath Temple with quality food, transportation and well maintained accommodation.

We therefore appreciate CARD and wising all the best and hopping more programmes to be conducted by the organization for betterment of our farmer.

Thanking you.

(Project director ATMA

Raigarh, Chhattisgarh

PROJECT DIRECTOR ATMA Distt. RAIGARH (C.G.)

ATMA PROJECT

Millet Research Station, Junagadh Agricultural University, Air Force Road, Jamnagar-361 006

Ph. / Fax No. (O.) (0288) 2710470 E-mail: atma.jmn@gmail.com

P.D./ATMA/TRG./ 436 / 11 Dt: 12.12.2011

To,
The Director
CARD, New Delhi

This is to certify that the farmers Training Programme organized by CARD, Jamnagar (Gujarat) to Jaipur, Rajasthan from 6th Dec to 12th Dec, 2011. As Mr. Shahnawaz Ahmed as our Training Manager has conducted a very successful and fruitful programme in respect of giving the farmers of Jamnagar District, Gujarat a chance to learn the advance Organic farming in Agriculture and Agriculture Marketing.

We are very thankful to CARD for organizing this type of Training Programme for us. I shall continue with the CARD in future.

Project director
ATMA PROJECT
Jamnagar, Gujarat
PROJECT DIRECTOR, ATMA PROJECT, JAMNAGAR.

कार्यालय प्रोजेक्ट डायरेक्टर "आत्मा" जिला उ0 ब0 कांकेर (छ0ग0)

क्रमांक/एक्स0रि0/आत्मा/प्रशि0/2011-12/ 181 कांकेर, दिनांक 13.12.2011

प्रशस्ती पत्र

एक्सटेंशन रिफार्म (आत्मा) योजनान्तर्गत इस जिले के 20 कृषकों को दिनांक 09.10.2011 से 13.10.2011 तक प्रशिक्षण के लिए आपके संस्था *Centre for Agriculture & Rural Development (CARD) New Delhi* के तत्वाधान में जलगांव (महाराष्ट्र) भेजा गया था। Training cum Exposer Visit सम्पन्न होने के पश्चात कृषकों ने व्यक्तिगत इस कार्यालय में उपस्थित होकर Training Arrangement, Training cum Exposer Visit को Fruitfull एवं Appreciative बताया।

अतः संस्था द्वारा आयोजित प्रशिक्षण, भ्रमण एवं समुचित व्यवस्था के लिए प्रशंसनीय धन्यवाद ज्ञापित किया जाता है।

(कपिल देव द्वीवेदी)
प्रोजेक्ट डायरेक्टर "आत्मा"
पदेन डिप्टी डायरेक्टर एग्रीकल्चर
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(कपिल देव द्वीवेदी)
प्रोजेक्ट डायरेक्टर "आत्मा"
पदेन डिप्टी डायरेक्टर एग्रीकल्चर
जिला - उ0 ब0 कांकेर (छ0ग0)

कार्यालय:– कृषि प्रौद्योगिकी प्रबंधन अभिकरण (आत्मा), लातेहार
E-mail : atmalatehar@gmail.com

पत्रांक ATMA, Latehar/2011-12 दिनांक 10.06.2011

From,
Project Director
ATMA, Latehar

To,
Tabassum Parveen
Project Manager
CARD, New Delhi

Sub :- Appreciation letter regarding Training cum Exposure Tour Programme.

Sir/Madam,

At the outset, we would like to thanks to you to conducted our inter state Training cum Exposure Tour Programme at Banglore (Karnataka) on 17.05.2011 to 26.05.2011. During the exposure visit our farmers really know about advance technique of cultivation of agriculture, Horticulture, animal husbandry, Poultry, vegetable cultivation etc.

We are appreciate you to conduct such a wonderful & excellent programme for our farmers. We wish all the best for your futures programmes.

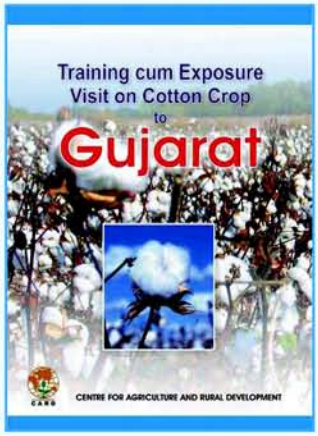
Thanking You.

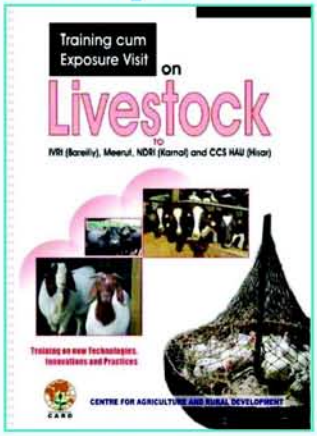
Yours Faithfully
Sd/-
S.K. Jha
Dy. Project Director
ATMA, Latehar

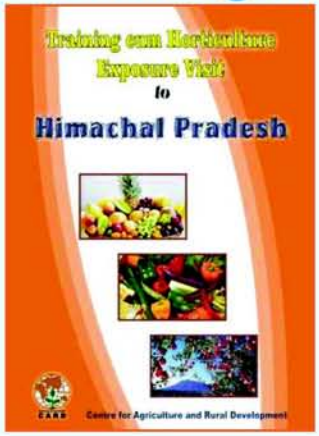
Glimpses of CARD's Exposure & Training Programs

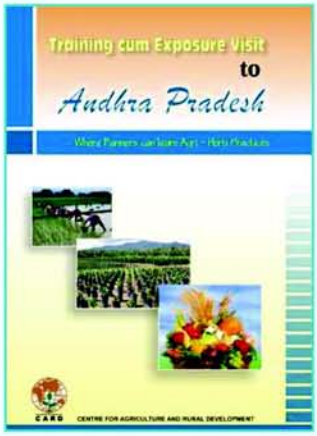
CARD

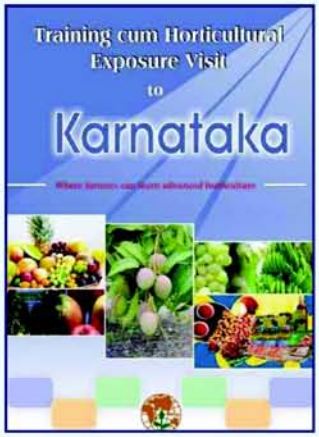
Farmers Exposure Tour Programs

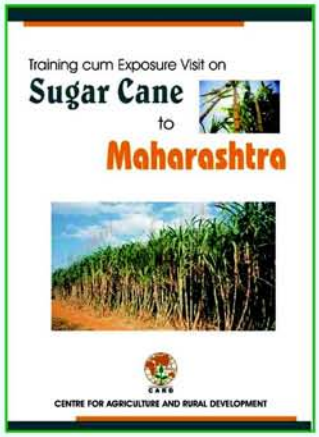


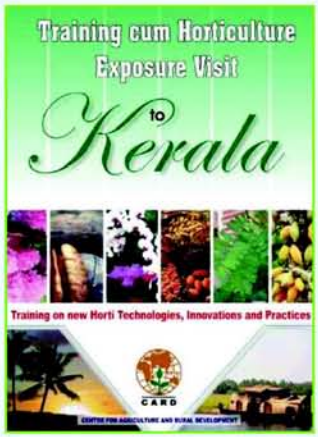


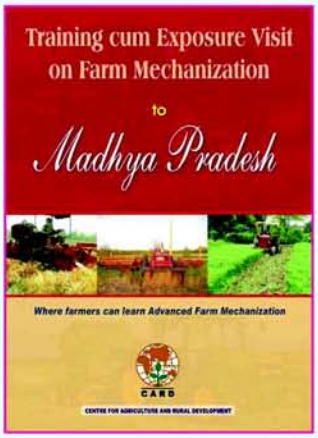


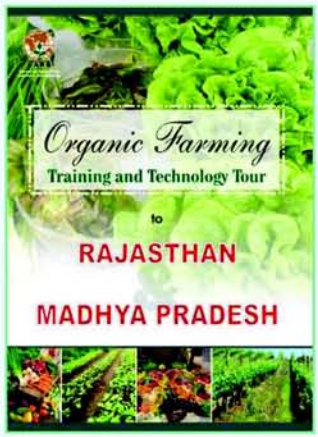


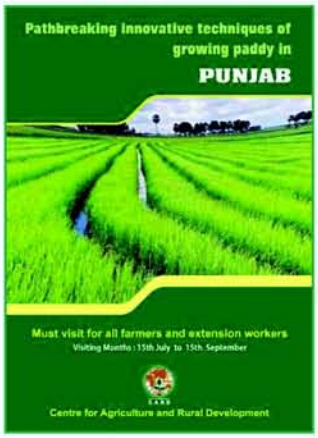












EXPLORING PLACES & TRAINING ON NEW AGRI/HORTI TECHNOLOGIES, INNOVATIONS AND PRACTICES

For details, please visit us at: *www.card.org.in*

CARD

Executive Director
Centre for Agriculture and Rural Development
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Mob : 09350694986, 09311469845
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Website : www.card.org.in