

Report of the Joint Inspection Team on its visit to Punjab during 3-9 September, 2013 to review the progress under the National Horticulture Mission



- Districts visited by J.I.T of National Horticulture Mission

Patiala, Sangrur, SAS Nagar (Mohali)



National Horticulture Mission
Ministry of Agriculture
Department of Agriculture & Cooperation
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OBSERVATIONS

1. The opinion of the JIT is that the overall implementation of the NHM programmes in the State is satisfactory.
2. There is an shortage of expert technical personnel in the Department. Insufficient staff strength is one of the major reasons for sluggish progress of mission in the state. Therefore, it is recommended that the existing staff should be provided better facilities so that they can cover more areas and vacant posts, may be filled up on priority basis.
3. After visiting the pack house, it was noticed that no standard design of Pack house developed / available to beneficiaries. It is desirable to provide design to them by SHM to districts level Officer.
4. It was also highlighted about the drip norms for high density planting, needs to be revised.
5. No diversification of agricultural land into horticultural fruit crops was noticed in the Sangrur district.
6. SHM has advocated for subsidy on flower seed production.
7. Farmers may be provided more support for high-tech horticulture viz. protected cultivation. Farmers are innovative and need regular trainings on latest technologies for management of green house, poly house, shade net, plastic tunnel, mulching in respect of high productivity of horticulture crops. Farmers are coming forward for high-tech horticulture is a welcome sign.
8. Beekeeping is found to be more beneficial in enhancing the pollination and subsequently increasing the productivity in fruit crops beside addition income to the farmer from selling the honey. Frontline demonstrations may be organized to convince the farmers about the role of bees as pollinator which will help to increase the yield of various fruit crops. This needs to be encouraged. The farmers may also be trained in the art of handling bees, transferring the hives and extraction of honey. Moreover, beekeepers stated that there is need of 8 frames bee box instead of 4 frames (presently given), may be provided to make it more economically viable.
9. Floriculture farmers are facing marketing problem, they have no access to nearby markets.

10. Rejuvenation of old & senile orchards is yet to pick up. It was observed that rejuvenation programme in mango was not properly adopted as per recommended technologies. Such programme may be initiated in large area on priority basis which will not only increase the productivity but also quality of fruits. The performance may be strictly monitored and supervised as it needs regular supervision and practical guidance to the farmers. Training and on-field demonstration need to be organized. Training manuals should be prepared for distribution to the trainers in simple language.
11. CA storage work is in progress, 2nd instalment may be released only when it starts functioning.
12. Both micro sprinkler and flood irrigation are practiced simultaneously in the same plot of vegetable. This needs to be looked into.
13. Good crop of T.C. banana (G-9) is being cultivated in the Sangrur district. The farmer is expecting bumper crop and free from Sigatoka disease.
14. There is huge short fall under various component viz. AEP of fruits, Rhizomatic spices, promotion of IPM, Organic farming and creation of PHM infrastructure. Mission Director assured the JIT that efforts are being made to step up the activities in the State.
15. The specific efforts need to be made to include more small and marginal farmers under ambit of NHM activities.

ACTIONABLE ISSUES

1. Comprehensive plan for replanting and rejuvenation of old and unproductive mango / guava plantations needs to be drawn up for implementation in the districts.
2. Incidence of die back in roses; mildew, root rot, virus in capsicums / cucumber; wilt in tomato; yellowing / blight in Gerbera under green house, plaster mould, wet bubbles diseases in mushroom were observed and necessary prophylactic measures to be taken up on priority.
3. Promotion of organic farming should be taken up in specific clusters with focus on access organic certification facilities.
4. It was observed that vermi compost units supported under NHM were not being properly managed and the layout plan was found to be faulty. Therefore, technical standards in construction of vermi compost units and training of personnel for proper maintenance is recommended.
5. Need for sensitization and training of farmers regarding use of crop specific drip and sprinkler irrigation.
6. Problems faced by beekeepers in transporting bee boxes outside the State for pollination, need to be addressed. It is suggested that necessary certificate may be issued by Department of Horticulture, for safe transit of bees.
7. Floriculture farmers are facing marketing problems; including lack of access to nearby markets. Marketing facilities needs to be created near production centres
8. To highlight activities of NHM in the State, there is need to install permanent display boards with NHM logo at sites.

Report of the Joint Inspection Team on its visit to Punjab during 3-9th September, 2013 to review the progress under the National Horticulture Mission

The Joint Inspection Team (JIT) comprising Dr. Om Prakash, Chief Consultant, National Horticulture Mission Shri R. P. Singh, AD (MI) and Shri P.S. Kohli, Senior Resource Person, National Horticulture Mission visited Punjab during 3-9th September, 2013 to review the progress under National Horticulture Mission and other programmes in the State. Dr. K.G. Singh, Senior Research Engineer, Department of Soil and Water Conservation Engineering, PAU, Ludhiana could not join the Team being away abroad. . Dr. L. S. Brar, Director Horticulture & Dr. Gurkanwal Singh, Joint Director and Mission Director, Punjab coordinated the visit of the Team in Patiala, Sangrur and SAS Nagar districts of the State.

STATE PROFILE

Geographical area of State is 5036 thousand hectares with estimated population of about 2.43 crores. The State has 20 districts and is classified as a sub tropical region. There are three types of agro-climatic zones i.e. Arid-irrigated zone, Sub mountain Zone and Central Zone. The soil is mostly sandy loam with pH range 8-9. Therefore, it has good potential for cultivation of various horticultural crops.

Potential of Horticulture in Punjab

Horticultural crops are being grown in the State in about 2.77 lakh hectares area with an annual production of 51.74 lakh tonnes. The horticulture sector is contributing significantly to GDP in agriculture of the State. Commodity-wise details are given below.

Crops	Area ('000ha)	Production ('000 MTS)
Fruits	71.47	1409.86
Vegetables	178	3674.53
Flowers (Seed Production)	2.04	10.05
Spices & Aromatic crops	18.37	68.21
Flowers (fresh fruit)	7.12	1.29
TOTAL	277.25	5173.64

The Punjab State leads in citrus production among the fruit crops with the largest production of Kinnow. This crop occupies an area of 38837 ha contributing 64.20% of the total fruit production of Punjab. Likewise Potato is the major leading vegetable crop of Punjab having an area of 84110 ha with 60.11 % the vegetable production. Apart from Kinnow, other fruit crops like Guava, Peach and Pear has significant area in the state.

Strength of Horticulture

Due to the sandy loam soil and agro climatic condition, Punjab State leads in Kinnow production. Based on the regional natural growing conditions state has established Estates of different fruit viz. Citrus Estate, Litchi Estate and Pear Estate for holistic development. End to end approach has been followed resulting in uplifting the socio economic status of the farmers. Besides this, it also leads in potato seed production and supply seed to the other states. State is self sufficient in planting material. There are 85 nurseries in public & private sector. Apart from this about 7 T.C units have been established which are supplying true to type planting material of Potato, Banana & Papaya etc.

Focus Crops of the State

Main fruit crops of the State are Kinnow, Peach, Pear & Guava. Main vegetable crop of the State is potato apart from the Pea, Cucurbits, & Carrot etc . Besides this seed production of flowers is also done which has great export potential. Flower seeds are exported to Holland. Among spices turmeric & garlic are grown. Emphasis will be given to promote high yielding and certified varieties. District-wise details of crops covered under National Horticulture Mission (NHM) are given below. Only the crops having potential are covered under NHM with end to end approach.

Approved Clusters and Crop Matrix under NHM

No.	Crop Clusters	Districts	Crops
1.	Fruits (Perennials)	Hoshiarpur, Bathinda, Mukatsar & Abohar.	Kinnow
		Jalandhar, Ludhiana, Nawan Shahr, Patiala.	Peach
		Ludhiana, Sangrur, Patiala, Mohali	Guava
		Amritsar, Tarn Taran & Jalandhar.	Pear
	Fruits (Non Perennials)	Ludhiana, Mohali (S.A.S Nagar) & Fatehgarh Sahib.	Banana
2.	Vegetables	Jalandhar, Hoshiarpur, Ludhiana & Bathinda	Potato
3.	Flowers	Patiala, Ludhiana, Mohali, Fatehgarh Sahib & Sangrur.	Gladiolus , Marigold
4.	Spices	Ludhiana, Amritsar, Hoshiarpur & Gurdaspur. Garlic & Turmeric.	Garlic & Turmeric.

Selection of Crops for Intervention under NHM and Rationale

The focus crops were selected under NHM on the basis of following parameters:

1. Market linkages (existing and potential)
2. Production advantage - potential in the domestic market
3. Export potential.

Sr. No.	Focus Crops	Market Linkages				Domestic Market Potential	Export Potential
		AEZ Export	Mandis	Processing units	Cold Storage / Ref. Van		
1	Kinnow	-		√		High	High
2	Guava	-	√	-	-	High	-
3	Pear	-	√	-	-	Medium	-
4	Peach	-	√	-	-	High	-
5	Potato	√	√	-	√	High	High
6	Flowers (fresh)	-	√		√	High	High
7	Flowers (Seed)	-	-	-	-	-	High

Export potential

Focus Crops	Relational
Kinnow	<ul style="list-style-type: none"> • Thrust on exports through improvement in pre and post harvest practices. • Strong domestic market for Kinnow from Punjab. • High nutritional value and having anti cancerous, cholesterol lowering properties.
Potato	<ul style="list-style-type: none"> • Large scope for area expansion and productivity improvement and processing. <ul style="list-style-type: none"> - increase export focus of seed potato to other countries.

Strengths <ul style="list-style-type: none"> • Soil profile as well as conditions of the state for growing different horticultural crops. • Adequacy of quality planting material from the Government as well as private registered nurseries. • The average yield of kinnow fruits of the state is substantially higher than all India average. • Farmers in the state are coming forward for huge investment for horticultural activities. • More farmer groups/farmers societies are coming forward to adopt end to end approach. • Based on natural growing climatic conditions, Estates of different fruits such as Kinnow, Litchi & Pear have been established to provide state of art machinery and technical know how under one umbrella. 	Weaknesses <ul style="list-style-type: none"> • The linkage between farmers and R&D institutions is currently weak due to shortage of technical staff. • Due to non amendment of APMC Act wholesale /terminal market could not be established • Post harvest management facilities like cold storages, pre-cooling units, grading/sorting, ripening units, processing units etc. are not being properly utilized mainly for horticultural crops. • The marketing channels are not well developed. • There is a less awareness on Hi-tech horticulture among the growers likewise, lack of awareness about quality consciousness among consumers. • Interrupted supply of electricity for irrigation is problem with the growers of the state
Opportunities <ul style="list-style-type: none"> • Scope for trial testing of new horticultural crops especially flowers & vegetable for acclimatization in the state. • Rainfed areas especially Kandi Belt can be utilized for promotion of horticultural crops such as Aonla and 	Challenges <ul style="list-style-type: none"> • Depleting water table in the state is great matter of concern to combat to save water resources in the coming years. • Sudden/Drastic changes in the climate are major challenges. Extreme hot or frost conditions cause much loss to the

<p>Peas.</p> <ul style="list-style-type: none"> • Cultivation of flowers & high value vegetables under protected conditions i.e. protected cultivation. • To impart training to staff & farmers through S.A.U. Production and productivity of horticulture crops can be increased. To promote organic farming & GAP certification for export of produce. • To set up infrastructure for post harvest management, marketing & processing industries for horticultural crops. 	<p>orchards. Need to develop varieties which can withstand extreme climatic conditions.</p> <ul style="list-style-type: none"> • Development of varieties free from diseases such as Phytophthora in kinnow, early/late blight in potato, needs to be emphasized. • To control excessive use of chemical fertilizer & pesticides in horticulture crops especially vegetables also need to be checked. • Lack of online market information.
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Strategy for Horticulture Development

The objective of the National Horticulture Mission is to double the production & productivity of horticulture crops.

There is an end-to-end approach under mission covering production, post harvest management, processing and marketing to assure appropriate returns to growers/producers; Promote Research and Development (R&D) of technologies for production, post-harvest management and processing in potential belts/clusters; Enhance acreage, coverage, and productivity in potential belts clusters. To achieve the objectives and goals of NHM, Strategy and Road Map has been prepared for next 3 years. The objective of preparing the Strategy and Road Map is to develop a demand-driven approach for horticultural products. The Strategy has been prepared based on the SWOC analysis and includes the following:

- ❖ Increase the area under horticultural crops.
- ❖ Identification of Market linkages of production areas in the State with
 - Agri Export Zones
 - Existing post harvest management infrastructure, processing facilities.
 - Whole sale/Terminal Markets, Existing Mandis.
- ❖ Mapping of production clusters of various horticultural crops with markets
- ❖ To enhance the productivity with good agricultural practices (GAP).
- ❖ Transfer of technology through exposure visits, show & seminars.
- ❖ Identify missing links between farmers and processors, traders and retailers.
- ❖ High tech horticulture under protected conditions.

Existing Planting Material Production Units (nurseries) in the State

Disease free planting material is pre-requisite for establishment of healthy orchard resulting in quality production. There are about 85 Government as well as private registered nurseries in the state from where good quality disease free planting material is supplied to the growers. Apart from this T.C. units are also proving helpful in meeting the arising demand of planting material especially tissue cultured plants of Banana.

Nursery Act & Certification of Planting Material

The Nursery Act of the State was old & needed amendments. The required amendment has been incorporated in the act. This act is submitted to the State government for approval. After renewal of the nursery act, the nursery owners could be punished with fine or imprisonment if he sells the inferior planting material. Certification of planting material has been made mandatory prior to sale of fruit plants. While procuring the planting material from private nurseries as well as Govt. nurseries, due procedure is adopted for certifying the material by a Technical Committee consists of SAU's representative.

The Directorate of Horticulture has already issued instructions to Private Nurseries/District horticulture heads to get the nurseries accredited from NHB prior to the sale of fruit plants otherwise they will not be eligible for the sale of planting material.

Certification of Planting Material

There are about 85 Government as well as private registered nurseries in the State from where good quality disease free planting material is supplied to the growers and out of these 30 nurseries are accredited with National Horticulture Board.

Nursery Act & Certification of Planting Material

This act is submitted to the State Government for approval after necessary amendments. Certification of planting material has been made mandatory prior to sale of fruit plants. Due procedure is adopted for certifying the material by a Technical Committee consisting the representative of SAU before the onset of plantation season.

Year 2013-14

Sr. No.	Name of Fruit Plant	Area (Ha)	Variety	No. of Plants required	Source of Availability			Total
					Public Sector		Private Sector	
					Deptt.	SAU	Regist. Nurseries	
1.	Citrus HDP	100	Kinnow	55000	95000	70000	1100000	1265000
2.	Citrus Normal	2000	Kinnow	550000				
3.	Guava	100	A- Safeda	27500	7000	10000	15000	32000
		50	L- 49	13750	5000	10000	10000	25000
4.	Peach	50	Shan-e- Punjab	13750	15000	10000	-	25000
5.	Pear	50	Pathar Nakh	10000	10000	7000	-	17000
		50	Punab Nakh	10000	5000	12000	-	17000

Existing Infrastructure for Post Harvest Management & Marketing in the State**Pack Houses:**

Under NHM 194 Pack Houses have been set up in the State for fruits and vegetables. These Pack Houses will reduce the post harvest losses to some extent. Pack house is the basic need of horticultural sector for collection grading & sorting of the produce. There is big potential of the activity in the state.

Cold Storages:

The total capacity of cold storage facilities was about 1393000 MT before launching the NHM scheme i.e. before 2005-06. Over 80% of this capacity is utilized by potatoes alone. Thus, at present, total 465 cold storages are available in the State. Few more projects have also been submitted to Govt. of India for sanction

Sr. No	Number of Cold Store Before NHM	Capacity (M.T)	Number of Cold Store After NHM	Capacity (M.T)
1.	425	1393000	465	1536992

Markets/Mandis

There are 110 Agriculture Produce Marketing Committee (APMC) markets/mandies in the State. The current processing is less than 2% of the total horticulture production. There is potential for increase in the number of processing units especially for Kinnow, Potato, Turmeric, Aonla, Garlic and Coriander with linkage to the proposed Food Parks.

S. No.	Name of Processor	District	Product
1.	Punjab Agro Juices Limited Village Alamgarh	Ferozepur	Kinnow Juice Concentrate, other fruits and vegetable Juice Concentrate.
2.	Punjab Agro Juices Limited Unna Road	Hoshiarpur	-Do-
3.	Farmer Agriculture produce organization, Kangmai	Hoshiarpur	Turmeric processing.
4.	Iqbal Randhawa processing unit, Phuglana	Hoshiarpur	Kinnow
5.	Kinnow Waxing and Grading Center, Badal.	Shri Mukatsar Sahib	-Do-
6.	Kinnow Waxing and Grading Center, Badal.	Shri Mukatsar Sahib	-Do-
7.	Kinnow Waxing and Grading Center, Talhiwala Jattan, Teh. Fazilka	Ferozepur	-Do-
8.	Kinnow Waxing and Grading Center, Kangmai	Hoshiarpur	-Do-
9.	Kinnow Waxing and Grading Center, Chhauni Kalan,	Hoshiarpur	-Do-

Road Map Ahead:

Progress of various activities made under NHM during 2005-06 to 2012-13 & proposal programme for next 3 years.

Based on the potential for horticulture development in the State, (area already covered, infrastructure available for PHM, Markets & Processing Units), detailed analysis has been made. In order to increase production & productivity of various horticulture crops and to assure appropriate return to the growers, it is proposed to link all the production clusters under NHM with the existing infrastructure and proposed to be created under NHM.

Status of National Horticulture Mission in Punjab

The Centrally Sponsored Scheme of National Horticulture Mission (NHM) is being implemented in 16 districts on a Mission mode approach to address all the issues related to holistic development of Horticulture in the State since 2005-06.

The programme in the State of Punjab is being implemented by the State Horticulture Development Society through District Mission Committees involving farmers, Societies, NGOs, Grower Associations, SHGs, State institutions etc. The programme is being implemented in 16 districts. The district covered under the programme includes Firozpur, Bhatinda, Muktasar, Amritsar, Hoshiarpur, Gurdaspur, Kapurthala, Ludhiana, Jalandhar, Patiala, Fatehgarh Sahib, Taran Taran, Faridkot, Nawasahar, Sangrur and SAS Nagar Mohali.

The focus crops identified under the programme includes Citrus, Guava, Ber, Pear, Grapes, Litchi, Flowers, Spices and Aromatic plants.

Major activities being undertaken in the programme are production and distribution of planting material, vegetable seed production, area expansion, rejuvenation of old and senile orchards, creation of community water resources, protected cultivation, IPM/INM, organic farming, development of post harvest management & marketing infrastructure and human resource development.

Physical Progress

Salient progress till 2012-13 is as follows:-

- An additional area of 0.38 ha of identified horticulture crops are covered.
- 4 nurseries have been established for production of quality planting materials.

- An area of 10270 ha. has been covered under rejuvenation of old and senile orchards.
- Organic farming has been adopted in an area of 6300 ha for promotion of organic cultivation of horticultural crops.
- IPM practices have been adopted in an area of 2000 ha.
- 22 IPM/INM infrastructure facilities such as Leaf tissue analysis labs, disease forecasting units have been created.
- 424 community water structures have been created.
- Under the component of Post Harvests Management, 366 units including pack houses, cold storage units, refrigerated vans, primary/ mobile processing units, ripening chambers, pre cooling units attach to cold storages and mobile pre cooling units) have been established.
- 49 market infrastructures have been set up.

Financial Progress

An allocation of Rs. 75.00 crore has been approved including GOI share of 63.75 crore for Annual Action Plan 2013-14. Funds to the tune of Rs. 30.00 crore have been released during the current financial year and out of which an expenditure of Rs. 11.29 crore has been reported.

Year wise details of Outlay, Funds Released and Expenditure under NHM in Punjab

Year	Outlay	Release	Expenditure
2005-06	60.74	28.69	6.97
2006-07	59.74	11.50	17.75
2007-08	68.54	24.10	17.14
2008-09	78.02	14.12	25.48
2009-10	38.54	25.78	36.09
2010-11	42.50	35.00	37.03
2011-12	46.75	47.02	39.57
2012-13	62.90	57.90	65.88
2013-14	63.75	30.00	11.29

Highlights of States

Punjab produces about 5.17 m. MT of horticultural produce from an area of 0.28 m. ha. accounting for 2 % of horticulture produce in the country. Major share of production is from vegetables (71%) and fruits (27.4%)

- 7.79 lakh MT of fruits have been traded in organized markets with average price of Rs. 25.36/ Kg.
- 18.14 lakh MT of vegetables have been traded in organized markets with average price of Rs. 10.67/ Kg.

Fruits

Citrus

- Punjab is ranked at third place in production of citrus in the country and accounts for 11.9% of total production of the country.
- The production of citrus forms 66.40% of total fruit production of the State. State produces 0.94 m. MT of citrus in the State in an area of 0.05 m. ha. The productivity of the crop is 20.4 MT/ha, which is second highest after Karnataka.
- Punjab is leading producer of mandarin orange and accounts for 29% of the production of orange mandarin production in the country, with productivity of 21.4 MT/ha. which is highest in the country.
- Production of orange mandarin is concentrated in the belts of Ferozepur, Hoshiarpur, Bathinda and Shri Mukatsar Sahib.
- Recommended varieties of orange mandarin in the State are Nagpur mandarin and kinnow.
- State also contributes about 1.9% of total mosambi production in the country with productivity of 8.00 MT/ha, which is the third highest after Karnataka and Andhra Pradesh.
- Major mosambi producing belts in the State are Fazilika (Abohar), Ferozepur, Faridkot and Hoshiarpur.
- The main fruit of citrus group grown in the Punjab is Kinnow.

- 1.26 lakh MT of citrus have been traded in organized markets with average price of Rs. 28.80/ Kg.

Guava

- Punjab accounts for 6.9% of total production of guava and the sixth most guavas producing State in the country.
- State produces about 0.17 m MT of guava from an area of 0.008 m ha having productivity of 22.00 MT/ha which is the highest in the country.
- Production of guava is concentrated in the belts of Patiala, Ludhiana, Sangrur, SAS Nagar, Jalandhar, Sri Mukatsar Sahib, Firozpur, Fazilika, Bathinda, Ropar and Hoshiarpur.
- Recommended varieties of guava in the state are sardar (L-49), Allahabad Safeda, Lalit, Shweta, Hissar Safeda and Hissar Surekha.
- 4127 MT of guava have been traded in organized markets with average price of Rs. 9.59/ Kg.

Litchi

- Punjab is ranked fifth in litchi producing state and is contributing about 4.6% to total litchi production in the country.
- The production of litchi is about 0.04 MT from an area of 0.002 m. ha. having productivity of 14.4 MT/ha. which is highest among the litchi producing states in the country.
- Major litchi producing belts in the State are Gurdaspur, Hoshiarpur and Ropar.
- Recommended varieties of litchi in the State are Rose Scented, Dehradun and Calcutta.

Vegetables

Cauliflower

- State produces about 2.26% of the total production of cauliflower in the country and 4.3% of total vegetable production in the State.
- The productivity is 17.87 MT/ha in the State.

- The production of cauliflower is concentrated in Gurdaspur, Fatehgarh Sahib and Hoshiarpur.
- Varieties of cauliflower recommended for the state are Pusa Deepti, Improved Japanese, Pusa Shjubra, Pusa Early Synthetic, Pusa Paushja, Pusa Snowball K-1, Snowball-KT-25, Pusa Himjyoti, Pusa Hybrid-2, Pusa Kartik Sankar, Kashi Kunwari, Hissar-1, Pant Shubra and Pant Gobhi-3.
- 1.30 lakh MT of cauliflower have been traded in organized markets with average price of Rs. 11.05/ Kg.

Peas

- Punjab is the fifth largest producer of peas and accounts for 5.4% of total production of peas in the country.
- State produces about 0.20 m MT of peas from an area of 0.02 m ha having productivity of 10.2 MT/ha.
- The major peas growing belts in the State are Jalandhar, Patiala, Amritsar, SBS Nagar and Hoshiarpur.
- Recommended varieties of peas in the State are Bonneville, Arkel, Pusa Pragati, Arka Ajit, Kashi Nandini, Pant Matar-2,3,4,5, Azad-P-2,4 and 5.

Potato

- Punjab is the fifth largest producer of potato in the country and accounts for 5 % of total production of potato in the country. The production of potato is 57% of total vegetable production in the State.
- The production of the potato in the State is 2.10 m. MT grown in an area of 0.08 m. ha. The productivity of the crop is 25.0 t/ha.
- The production of potato is concentrated in the belts of Jalandhar, Hoshiarpur, Ludhiana and Kapurthala.

- Recommended varieties of potato in the State are Kufri, Sindhuri, Kufri Chandamukhi, Kufri Jyoti, Kufri Badshah, Kufri Bahar, Kufri Ashoka, Kufri Pukhraj, Kufri Chipsona, Kufri Pushkar, Kufri Shailja, Kufri Chipsona-3, Kufri Surya, Kufri Khyati and Kufri Frysona.
- 5.86 lakh MT of potato have been traded in organized markets with average price of Rs. 6.95/ Kg.

PATIALA DISTRICT

District Patiala is prominent district of Punjab state. It shares most of its border with Haryana in south east direction. In west direction it has district Sangrur and district Fatehgarh Sahib and Mohali in north direction. Main crops are Paddy and wheat, yield of wheat per acre is second highest in state. Main fruit crops are guava, Mango, peach, ber and pear. Area under vegetables is 8% of total cultivated area. Main vegetables are potato, tomato, chillies, capsicum, peas and onion. There are four Sub divisions (Patiala, Nabha, Samana, Rajpura) and 8 Blocks in the Districts (Patiala, Nabha, Samana, Patran, Sanour, Bhunerheri, Ghanaur and Rajpura).

Blockwise detail of different area under fruits and vegetables is attached herewith:

Sr. No.	Descriptions	Area in Ha.
1	Geographical Area	322190
2	Forest Area	12410
3	Barren Land	4240
4	Non –Agricultural Use	36600
5	Net Area Sown	261400
6	Cropping Intensity (%)	198.52
7	Net Irrigated Area	261280
8	Area Under fruits	2290
9	Area Under Vegetables	17141
10	Area Under Flowers	180
11	Area Under Poly House	4.8
12	No. of Govt. Fruit Nurseries:	3 Nurseries at Patiala, Nabha, Wazidpur
13	No. of community Canning Centre cum Fruit & Vegetable Processing Laboratory	1
	No. Of People Trained During the Year 2012-13	1500
14	No. of Spawn Laboratory for providing Spawn	1
	No. of Bottles Produces	15500 Spawn Bottles

AREA AND PRODUCTION OF VEGETABLES IN DISTRICT PATIALA YEAR 2012-13

A:- Area
in Hec.
Y:- Av. Yield In
Kg.hect.
P:- Production in
M.Tonnes

Sr. No.	BLOCK		Potato	Onion	Garlic	Tomato	Brinjal	Cauli-flower	Cabbage	Okra	Chilly	Capsicum	Peas	Musk Melon	Water melon	Vine Crops	Roots Crops	Oth ers	Total
1	Bhunerheri	A	55	50	100	100	15	140	20	60	30	5	105	15	15	40	80	40	870
		Y	37500	41000	12500	62000	65000	30000	29000	19000	18500	13000	15000	20000	21000	35000	35000	29000	
		P	2063	2050	1250	6200	975	4200	580	1140	555	65	1575	300	315	1400	2800	1160	26628
2	Sanour	A	450	60	80	350	25	225	100	105	80	15	400	40	2	80	100	48	2160
		Y	36000	42000	13500	59000	67000	29000	28000	20000	17000	13000	13000	21000	20000	34000	35000	30000	
		P	16200	2520	1080	20650	1675	6825	2800	2100	1360	195	5200	840	40	2720	3500	1440	69145
3	Rajpura	A	1605	735	90	100	110	402	250	80	109	112	195	190	2	105	140	90	4315
		Y	37100	41500	13100	58500	65500	29600	28400	19200	17500	12600	14100	20400	20500	34400	34600	29500	
		P	59546	30503	1179	5850	7205	11899	7100	1536	1908	1411	2750	3876	41	3612	4844	2655	145915
4	Ghanour	A	990	519	49	80	90	240	212	40	60	28	225	30	6	40	84	45	2738
		Y	36500	41700	13400	58700	65800	29700	28500	19300	18000	12500	13800	20500	20400	34500	33500	29400	
		P	36135	21642	657	4696	5922	7128	6042	772	1080	350	3105	615	123	1380	2814	1411	93872
5	Samana	A	150	62	18	50	30	60	17	39	125	110	609	29	5	80	105	110	1599
		Y	37000	41650	13500	59600	66000	29800	28800	19500	18400	13000	15100	20800	20500	35100	34500	30100	
		P	5550	2582	234	2980	1980	1788	4896	761	2300	1430	9196	603	103	2800	3623	3311	44137
6	Patran	A	90	120	20	80	50	55	27	35	40	12	350	29	6	100	150	135	1299
		Y	36400	41800	12800	61000	65500	29500	30000	19300	18700	12700	14500	20500	21200	34600	34800	25900	

		P	3276	5016	256	48800	3275	16225	810	676	748	153	508	595	127	3460	5220	3901 5	128160
7	Nabha	A	700	50	40	210	25	201	160	55	240	100	140	105	4	155	102	40	2327
		Y	36700	41700	12900	60400	65400	29700	29500	19500	18700	13000	13800	20700	20800	35000	35100	2900 0	
		P	25340	2085	516	12684	1635	5970	4720	1073	4486	1300	1932	2173	83	5425	3580	1160	74162
8	Patiala	A	190	160	60	250	225	80	80	60	109	40	105	65	7	117	165	120	1837
		Y	37400	41200	13500	58800	67000	31000	28500	20200	19000	13500	15000	20200	21100	35500	34500	3030 0	
		P	7106	6592	810	14700	15075	2480	2280	1212	2071	540	1575	1313	148	4153	5693	3636	69384
	Total	A	4230	1756	457	1220	570	1403	866	474	793	422	2129	503	47	717	926	628	17141
		Y	36825	41569	13150	59750	65900	29788	28838	19500	18225	12912	14288	20513	20688	34763	34625	2915 0	
		P	155216	72990	5982	116560	37742	56515	29228	9270	14508	5444	25841	10315	980	24950	32074	5378 8	651403

Blockwise Area , AV. Yields And Production Of the Various Fruit Crops For The Year 2012-13

A:- Area in Hec.

N: No. of Plants per Hec.

F:- No.Of fruits/Trees

Y:- Av. Yield In Kg. tree

P:- Production in M.Tonnes

Y: Av.Yield in kgs/hect.

S.NO	BLOCK		Kinnow	Sweet Orange	Lime/ Lemon	Mango	Litchi	Guava	Pear	Peach	Plum	Grapes	Ber	Amla	Banana	Others	Total
1	PATIALA	A	13.4	7.7	16.4	83.1		162.45	25	31	5.3	3	42.2			112.2	501.75
		N	275	275	275	165		275	180	225	225	1100	115	-		200	
		F	300	250	700	500		500	900	675	552	-	5500	-		2400	
		Y	60	25	30	100		70	120	70	70	25	120	-		70	
		P	221.1	52.9375	135.3	1371.15		3127.1625	540	488.25	83.475	82.5	582.36			1570.8	8255.03 5
		Y	16500	6875	8250	16500		19250	21600	15750	15750	27500	13800	-		14000	

2	Nabha	A	14.1	2.9	16.2	101.1	1.6	131.2	26.2	30.1	2	2	17.1			98.4	442.9
		N	275	275	275	165	-	275	180	225	225	1100	115	-		200	
		F	350	200	750	400	-	515	910	700	550	-	6000	-		2500	
		Y	50	30	40	110	-	80	150	70	80	30	100	-		75	
		P	193.875	23.925	178.2	1834.965	0.0016	2886.4	707.4	474.075	36	66	1966.5			1476	9843.34
		Y	13750	8250	11000	18150	-	22000	27000	15750	18000	33000	115000	-		15000	
3	Samana	A	18.2		4.2	22		96.4	8.2	24.2	0.4		35			20.7	229.3
		N	275	275	275	165	125	275	180	225	-	-	115	-		200	
		F	260	190	530	315	340	435	536	635	-	-	260	-		2200	
		Y	57	30	30	75	70	70	115	65	-	-	115	-		45	
		P	285.285	8.247	34.65	272.25	8.75	1855.7	169.74	353.925	0.0004		462.875			186.3	3637.72
		Y	15675	8247	8250	12375	8750	19250	20700	14625	-	-	13225	-		9000	
4	Patran	A	7.6		1.8	7.5		65.4		5.6			6			6.9	100.8
		N	275	-	275	165	-	275	180	225	-	-	115	-		200	
		F	245	-	515	368	-	470	545	590	-	108	2580	-		2180	
		Y	55	-	24	75	-	60	110	64	-	22	110	-		45	
		P	114.95		11.88	92.8125		1079.1	19.8	80.64			75.9			62.1	1537.18
		Y	15125	-	6600	12375	-	16500	19800	14400	-	-	12650	-		9000	
5	Rajpura	A	6.3	13	3	66	3.5	107.6	4.2	5.9			5.5			39.8	254.8
		N	275	-	265	140	-	275	180	200	225	-	125	-		270	
		F	350	-	700	480	-	675	850	870	900	-	4800	-		350	
		Y	60	-	30	85	-	68	120	57	51	-	120	-		65	
		P	103.95	0.013	23.85	785.4	0.0035	2012.12	90.72	67.26	11.475		82.5			698.49	3875.78
		Y	16500	-	7950	11900	-	18700	21600	11400	11475	-	15000	-		17550	
6	Ghanour	A	7.55		1.5	21.3		116.4	3.9	2.25		2	17.9			20	192.8
		N	275	-	260	135	-	275	-	220	-	-	120	-		250	
		F	375	-	710	450	-	660	-	850	-	-	4900	-		360	
		Y	62	-	32	80	-	65	-	56	-	-	123	-		62	
		P	128.7275		12.48	230.04		2080.65	0.0039	27.72		0.002	264.204			310	3053.82
		Y	17050	-	8320	10800	-	17875	-	12320	-	-	14760	-		15500	
7	Sanour	A	3.3	1	8	25.1		59.4	13.3	9.8	2		16.8			22.9	161.6
		N	275	275	270	160	125	275	175	225	225	1100	110	-		200	

		F	300	340	750	400	450	510	870	660	540	-	2300	-		2250	
		Y	50	25	22	85	80	60	100	65	75	22	120	-		50	
		P	45.375	6.875	47.52	341.36	10	980.1	232.75	143.325	33.75	24.2	221.76			229	2316.015
		Y	13750	6875	5940	13600	10000	16500	17500	14625	16875	24200	13200	-		10000	
8	Bhunerheri	A	2.8	1	17.2	40.9	1.6	120	16	15.5	2.7	1	19.7			30.9	269.3
		N	275	275	275	165	-	275	180	225	225	1000	115	-		200	
		F	300	340	725	380	-	500	850	650	550	-	2400	-		2350	
		Y	55	25	82.5	80	-	60	110	65	70	25	110	-		50	
		P	42.35	6.875	118.25	539.88	0.0016	1980	316.8	226.6875	42.525	75	249.205			309	3906.57
		Y	15125	6875	6875	13200	-	16500	19800	14625	15750	75000	12650	-		10000	
	TOTAL	A	73.25	25.6	90.65	367	6.7	858.85	96.8	118.45	12.4	8	160.2			351.8	2153.3
		P	1135.6125	98.8725	562.13	5467.8575	18.7567	16001.2325	2077.2139	1861.8825	207.2254	247.702	3905.304			4841.69	36425.46

DISTRICT SANGRUR

The district Sangrur takes its name from its headquarters town, Sangrur. It is said to have been founded by about four hundred years back. The economy of the district is mainly based on agriculture and allied activities. The districts falls in the Southern part of the Punjab State & falls between 29⁰ -4 & 30⁰ -4' north latitude and 75⁰ -18 and 76⁰ -13' east latitude, the district shares its boundaries with Ludhiana district in North, Patiala district in East, Barnala district in the West & Hissar district of Haryana in its south.

The district has 6 sub divisions namely Sngarur, Sunam, Dhuri, Malekotla, Sherpur, Bhawanigarh, Lehragaga & Andana and 589 villages. The district is well connected with rail & road with all Part of the State.

District Profile

Agriculture Profile

Block	9
Village	589
Geographical Area	361542 ha
Cultivated area	311413 ha.
Soil Type	Sandy To Sandy Loam
Area under wheat	283000 ha
Paddy	262000 ha
Cotton	15000 ha

Horticulture profile.

Fruit	1756 ha.
Vegetable	7580 ha
Flowers	94 ha
Mushroom Production	24 MT
Cold storage	16 (Capacity 51550 MT)

Protected cultivation:-.

Poly Green House Area	5 2.3 Acre
Net House Area	10 1.2 Acre

Low Tunnel (Count) Area	Nil 1197 Acre
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Bee- Keeping:-

Boxes Production	20518 477470 Kg
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SAS NAGAR (MOHALI) DISTRICT

District SAS Nagar (Sahibzada Ajit Singh Nagar) is one of the 22 districts of Punjab State in North West India. Being formed in April, 2006 it is the second most recently created districted in Punjab. The district has been carved out of areas falling in Ropar and Patiala District as 18th District of Punjab on 14th April, 2006. The district includes Mohali, Kharar & Derabassi tehsils. Because of its contiguous with the union territory of Chandigarh, the district has achieved faster growth of development and this area is emerging as major IT hub, of Northern India. It is located in the north east part of Punjab and is part of Patiala division. After transfer of 28 Villages of Banur area from Rajpura to S.A.S. Nagar, Mohali, now there are 436 villages in the district. The important townships in the districts are Kharar, Kurali, Mohali, Zirakpur, Derabassi & Banur. Kharar tehsil is the largest administrative units of the district.

GEOGRAPHICAL AREA:

The district is spread over geographical area of 1110 kms. The rural area constitutes 1029 kms as compared to urban area of 71 kms.

Climate

The district SAS Nagar Mohali lies in the sub mountainous belts and is situated in the North-West side of Punjab. It lies on North latitude- and-East longitude and Mohali District is surrounded by Himachal Pradesh, Chandigarh, Haryana and district of Patiala, Fatehgarh Sahib and Ropar. The District experiences extreme climatic conditions i.e. very hot in summer and very cold in winter. The temperature ranges from 48⁰ C in May / June to 0⁰ C in December / January. The average rainfall is 761 mm. The district has sandy, loamy sand and loam clay soils.

There are three administrative sub-division viz. SAS Nagar, Kharar, Derabassi, development blocks viz. Kharar, consisting of 617 villages, out of these blocks Kurali consists of Sub mountainous area.

Horticulture

Fruits	Area	2347.7 ha
Vegetables	Area	4569 ha.
Flowers	Area	51.6 ha
Mushrooms	Area	3 units

The total expenditure of NHM for the year ended 2012-13 was Rs. 53436157 under the schemes of poly green houses (normal and fan & pad), pack houses, vermin compost units, Horticulture mechanization, new plantation of gardens, establishment of old gardens, C.A. cold storage etc.

Irrigation

The main source of irrigation is through Tube wells however Canals and other sources also contribute towards irrigation to some extent.

Field Visits

JIT made field visits to the Districts of Patiala, Sangrur & SAS Nagar from 3.9.2013 to 8.9.2013, the details are as follows:

District-Patiala

JIT visited the sites of beneficiaries of NHM in Patiala district on 4th & 5th September, 2013, the activities of NHM covered are planting material, pollination through Beekeeping, Area Expansion of Guava, Pear, creation of water resources, establishment of infrastructures under protected cultivation, establishment of vermi compost units, setting up of PHM infrastructure viz. Ripening chamber, Pack House, Cold Storage, Horticulture Mechanization, Mushroom cultivation and programmes of National Mission on Micro Irrigation (NMMI).

The visit to the respective sites of farmers was coordinated by Dr. Jagdev Singh, Deputy Director (Hort.), Dr. Kulvinder Singh, Horticulture Development Officer and Dr. Swaran Singh, Horticulture Development Officer of SHM, Patiala.

Details of beneficiaries covered during field visit are attached at **Annexure- I.**

District - SAS Nagar

JIT visited the site of beneficiary covered under NHM in SAS Nagar on 7th September, 2013. The activities of NHM covered are Area Expansion of guava, establishment of structures under Protected Cultivation, establishment of vermi compost units under organic farming component, mushroom cultivation, setting up of PHM infrastructure of CA cold storage and programmes of National Mission on Micro Irrigation (NMMI).

The visit to the sites of farmers was coordinated by Dr. Bhajneek Singh, Deputy Director (Horticulture) and Ms Amanpreet, Horticulture Development Officer of SHM, SAS Nagar.

Details of beneficiaries covered during field visit are attached at **Annexure III.**

District: Sangrur

JIT visited the sites of beneficiaries covered under NHM in Sangrur District on 6th September, 2013. The activities of NHM covered are establishment of structure under Protected cultivation component, Area expansion of Banana, TC, Pollination through Beekeeping and programme of National Mission on Micro Irrigation (NMMI).

The visit to the sites of farmers was coordinated by Dr. Jagdev Singh, Deputy Director (Hort.), and Dr. Hardeep Singh, Horticulture Development Officer of SHM, Sangrur.

Details of beneficiaries covered during field visit are attached at **Annexure II.**

JIT visited respective Offices of SHMs of Patiala, Sangrur and SAS Nagar districts.

The Cash Books of district visited were checked for 2012-13 and 2013-14. Books were properly maintained records in respect of Issue of Cheque to the beneficiaries. The balance Cash at the end of year was transfer to next year as opening balance.

Observations during visits to Districts

- Shortage of staff at block level of districts.
- No diversification of agricultural land into horticulture crops.
- Subsidy on flower seed production.
- Rejuvenation of mango, too much of branches, advised for thinning / removal.
- Farmers are coming forward for establishment of Green House etc. under protected cultivation component.
- Floriculture farmers are facing marketing problems. They have no access to nearby markets.
- Beekeeping Farmers stated that bee box of 8 frames instead of 4 frames may be provided to make it economically viable.
- Under NMMI programme, farmers may be given information about horticulture crops to be covered under drip and sprinkler separately for water use efficiency.

National Mission on Micro Irrigation (NMMI)

- Activities of NMMI are implemented by the Department of Soil and Water conservation of the state in NHM districts.
- From 2006-07 to 2012-13, 20359 farmers have been benefited under NMMI thereby area coverage of 25971 ha. in covering an expenditure of Rs. 10924.46 lakh including GOI share of Rs. 6794.63 lakh.
- During 2013-14 (upto September, 2013), an area of 474.02 ha with an expenditure of Rs. 148.20 lakh in horticulture crops and an area of 656.87 lakh in non-horticulture crops have been covered.

Implementation of NMMI in the District visited by JIT

1. District Patiala

- During 2012-13, 262 beneficiaries were covered under NMMI thereby an area of 221.58 ha has been covered with an expenditure of Rs. 203.72 lakh including GOI share of Rs. 42.69 lakh.
- During 2013-14 (Upto August, 2013), 44 beneficiaries were covered thereby covering an area of 25.04 ha under NMMI with an expenditure of Rs. 26.29 lakh including GOI share of Rs. 22.18 lakh.

2. District Sangrur

- During 2012-13, 163 beneficiaries were covered under NMMI thereby covering an area of 163.77 ha with total expenditure of Rs. 88.40 lakh included by GOI share of Rs. 47.35 lakh.

3. District SAS Nagar

- During 2012-13, in Kharar block of SAS Nagar, 42 beneficiaries were covered under NMMI thereby including an expenditure of Rs. 13.70 lakh (GOI share) for an area of 44.91 ha.
- During 2013-14, (upto Aug, 2013), an area of 12 ha has been ensured with a cost of Rs. 3.62 lakh (GOI share)
- In Majri Block of SAS Nagar, an area of 18.89 ha was covered during 2012-13 with an expenditure of Rs. 4.93 lakh (GOI share).
- In Derabassi block of SAS Nagar, an area of 43.34 ha was covered during 2012-13 with an expenditure of Rs. 13.53 lakh (GOI share).

In 2013-14 (upto August, 2013), an area of 3 ha with an expenditure of Rs. 0.85 lakh (GOI) has been covered.

Meeting with Director (Horticulture) and Mission Director, State Horticulture Mission, Punjab

A meeting of JIT held on 3rd September, 2013 with Dr. L.S. Brar, Director (Horticulture), Dr. Gurkanwal Singh, Joint Director and Mission Director, State Horticulture Mission, Punjab. Shri Mahendra Kumar, Conservator of Soil, Department of Soil and Conservation was also present. Department of Soil & conservation undertakes the implement of NMMI programme in the State.

In the meeting, Dr. Om Prakash, Chief Consultant, National Horticulture Mission (NHM), highlighted the shortfall in targets and achievements of NHM activities viz. area expansion of perennial fruits, rhizomatic spices, protected cultivation, promotion of IPM, adoption of organic farming, and creation of PHM infrastructures. Director (Horticulture) mentioned that efforts are being made to step up the activities under NHM in this State. It was mentioned that certified seeds of rhizomatic spices are not available. It was highlighted that SHM has stopped activity under adoption of organic farming during 2013-14. Beneficiaries are not coming forward to take the activity because of organic certification. It was mentioned that SHM is getting funds from ATMA for HRD activities. Efforts are being made to set up 2 refrigerated vans and 9 low cost onion storages approved under NHM.

SHM raised a query about power operated machines and power machines (upto 20 BHP) and 20 HP above. It was mentioned that for power machines, a separate power needs to be provided for their operation. A clarification in this regard needs to be given to SHM, Punjab. In case, the power to be provided from other source for their operation, subsidy under component of horticulture mechanization needs to be raised. Director (Hort.) also requested that subsidy for gladiolus; Bulbous and cut flowers need to be enhanced.

For Bio-mulching, provisions need to be included in the NHM guidelines in respect of fertility of soil, addition of organic matter, maintenance of temperature etc. It was mentioned that limit of area coverage per beneficiary under Plastic Tunnel to be increased. It was also mentioned that support for soluble fertilizer for transition (for perennial crops) may be extended.

For establishment of Citrus estates, subsidy pattern needs to be revised. Under Beekeeping component, for economic viability colonies of 8 frames instead of 4 frames may be considered.

Dr. Mahendra Kumar, Conservator, Department of soil and conservation highlighted that drip norms for high density needs to be revised.

Wrap up Meeting

A wrap up meeting of Director (Horticulture), Punjab held on 9th September, 2013. Chief Consultant appraised the observations made during JIT's visit to Patiala, Sangrur & SAS Nagar Districts. It was mentioned that SHM may look into the norms in respect of construction of green House / Shadenet by the beneficiaries himself instead of by renowned or empanelled fabricator. SHM may look into it.

PHOTOGRAPHS

JIT Visit Photographs



Bee keeping for pollination support



Embossed Honey bee box



Banana Ripening chamber



Banana transported from Maharashtra



Rose under poly house

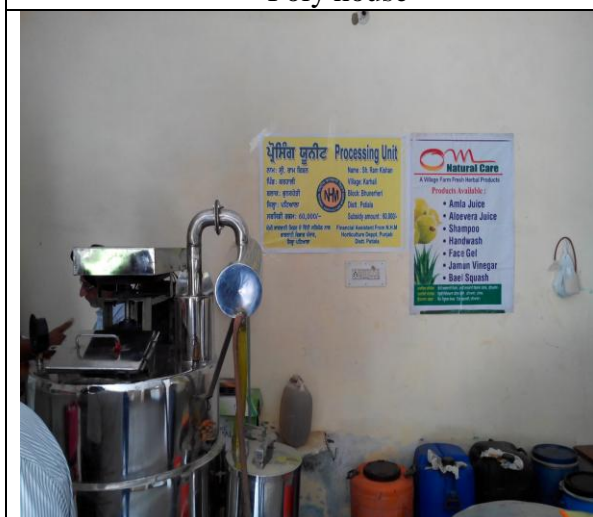
JIT Visit Photographs



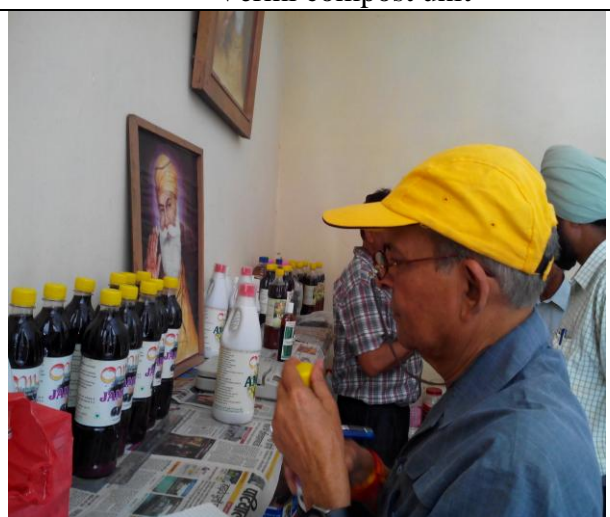
Poly house



Vermi compost unit



Om processing unit



Products prepared by Om Processing unit



Gerbera cultivation



Die back in roses

JIT Visit Photographs



Observing disease in Gerbera



Vegetable in Poly house



Poly House and Pack house



Discussion with guava growers



Guava under AEP



Cold storage

JIT Visit Photographs



Rejuvenation of mango



Thinning not done in rejuvenated tree



Gerbera cultivation



Gerbera under Poly house



Hi-tech Poly house for floriculture



Rose cultivation in poly house

ANNEXURES

Annexure I

District: Patiala

Production of Planting Material

Sr. No.	Details	Remarks
1	Name of the project	Subsidy for Planting material
2	Year of Implementation	2012-13
3	Project Period	One year
4	Name of Implementing Agency	S. Gurpreet singh
5	Location of Project	Manjal Khurd, Block:Bunerheri, Distt: Patiala
6	Total Project Cost	Rs 10 lakh
7	Amount Released by DAC	Rs 5 lakh
8	Expenditure incurred	Rs 10 lakh
9	Status of Project	
	• Name of crops	Rose(TATA)
	• Quantity produced	
	• Quantity sold	100-150 pkt of 20 roses each
	• Rate	Rs. 100/pkt.
	• Amount realized through sale	NA
	• Any other observation by JIT	NHM logo displayed Pack House recommended.

Production of Planting Material

Sr. No.	Details	Remarks
1	Name of the project	Subsidy for Planting material
2	Year of Implementation	2012-13
3	Project Period	One year
4	Name of Implementing Agency	S. Karamjit singh
5	Location of Project	Manjal Khurd, Block:Bunerheri, Distt: Patiala
6	Total Project Cost	Rs 10 lakh
7	Amount Released by DAC	Rs 5 lakh
8	Expenditure incurred	Rs 10 lakh
9	Status of Project	
	• Name of crops	Rose(TATA)
	• Quantity produced	
	• Quantity sold	100-150 pkt of 20 roses each
	• Rate	Rs. 100/pkt.
	• Amount realized through sale	NA
	• Any other observation by JIT	NHM logo displayed Pack House recommended.

Pollination through Beekeeping

Sr. No.	Details	Remarks
1	Name of the project	Beekeeping
2	Year of Implementation	2012-13
3	Project Period	One year
4	Name of Implementing Agency	Sh. Jaskaranjit Singh, Vill: Bhadson, Nabha, Patiala
5	Location of Project	Bhadson Village
6	Total Project Cost	Rs.1,50,000/-
7	Amount Released by DAC	Rs.75,000/-
8	Expenditure incurred	Rs.1,50,000/-
9	No. of Hives	50
10	No.of frames/colony	8
11	Condition of colonies	Good
12	If, logo of NHM displayed	Yes, Embossed on wood with Lot/Box No.)
13	Any other observation by JIT	Problem while migrating boxes outside the State for pollination. Certificate from Horticulture Department needs to be issued for shifting. Provision for water recommended under boxes to avoid insects/ants

Area Expansion / Rejuvenation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Satinderjit Singh, Fatehpura, Rajputan, Block Sanur, District Patiala
2	Total land available with the beneficiary (ha).	20 ha.
3	Crop Cluster under which covered.	Guava
4	Name & variety of crop planted.	Allahabad Safeda
5	Source of planting material.	RRC, Bhadurgarh, (PAU)
6	Number of planting material.	685
7	Number of plants planted/ rejuvenated.	
8	Date of plants which survived (also indicate percentage survival).	July, 2010, 650 (95%)
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs. 41155
10	Amount paid and date of payment.	3 rd installment of Rs. 8230 paid on 15.3.2013
11	Mode of payment.	By cheque/OT
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Borewell
13.	Whether Drip/ Sprinkle System in use.	
14.	Other inputs provided.	
15.	Whether assistance available for Organic Farming	
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	
19.	Other infrastructure available in the vicinity.	
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	NHM logo not displayed

Water Resources Development

Sr. No.	Details	Remarks
1	Name of the project	Gurmeet Singh & Others
2	Year of Implementation	2012-13
3	Project Period	One year
4	Name of Implementing Agency	Gurmeet Singh
5	Location of Project	Vill: Bhawalpur, Block: Ghanur, Distt: Patiala
6	Total Project Cost	Rs. 13, 90, 365/-
7	Amount Released by DAC	Rs. 9.00 lakh
8	Expenditure incurred Status	Rs. 13.20 lakh
9	Current Status of Project	
	<ul style="list-style-type: none"> Dimension (L x B x W) 	
	<ul style="list-style-type: none"> Capacity 	42,65,000 litre
	<ul style="list-style-type: none"> Command Area 	25 acres
	<ul style="list-style-type: none"> Whether linked with new plantation or old plantation 	Yes, Vegetables
	<ul style="list-style-type: none"> Whether funds disbursed 	Yes, funds disbursed on 20.6.2012
10.	Any other relevant observation by the JIT	Tank needs to be covered from all sides

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	S. Darshan Singh, Vill: Rampur Sahiwal, Block Nabha, Distt:Patiala
2	Total land available with the beneficiary (ha).	10 Acres
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Normal Green House (Floriculture)
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	4000 Sq.Mtr.
6.	Total cost	Rs 37.42 lakh
7.	Agency involved in fabrication and installation	Jain Irrigation
8.	Total subsidy paid and date of payment.	Rs. 18.71 lakh/7.1.2013
9.	Crop being grown	Gerbera, 40,000 plants
10.	Condition of Structure	Good
11.	Condition of Crop	Thrips affected
12.	Tie up with market	Chhattisgarh
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Logo displayed • Yellowing, Blight/ High Temperature • Selling rate Rs. 2/stick, Rs 10/- lakh annual earning • Pack House recommended.

Project Status of Organic Farming

Sr. No.	Details	Remarks
1	Name of the project	Vermi Compost Units (2) (4 pits each)
2	Year of Implementation	2012-13
3	Project Period	One Year
4	Name of Implementing Agency	S. Karamjit Singh/S. Gurpreet Singh,
5	Location of Project	Vill: Majhal Khurd, Distt: Patiala
6	Total Project Cost	Rs. 60,000/each
7	Amount Released by DAC	R. 30,000/each
8	Expenditure incurred Status	Rs. 60,000/ each
9	Observations by JIT	Unit in operation Worms procured from Bhatinda @ Rs. 600/kg. Selling @ Rs. 10/kg by brand Balson Vermi Compost Logo of NHM displayed Advised for vermin wash as value addition in vermin compost.

Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Details	Remarks
1	Name of the project	Ripening Chamber
2	Year of Implementation	2012-13
3	Project Period	One Year
4	Name of Beneficiary	Balaji Cold Storage
5	Location of Project	Vill: Saferan, Cheeka Road Patiala
6	Total Project Cost	Rs.411.73 lakh
7	Amount Released & date	Rs.111.42 lakh
8	Expenditure incurred	Rs500 lakh
9	Status	
	Capacity of unit	12 Chambers of 25 MT each=300 MT
	Commodity	Banana
	Equipments purchased	
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes
	Any other observation By JIT	Realizing Rs.15,000/- per month Procuring banana from Madhya Pradesh, Andhra Pradesh, Maharashtra, Capacity utilized. Vermi compost unit recommended

Area Expansion / Rejuvenation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Manreet Singh, Fatehpur, Rajputan, District Patiala
2	Total land available with the beneficiary (ha).	25 ha.
3	Crop Cluster under which covered.	Fruit
4	Name & variety of crop planted.	Pear, sand Pear
5	Source of planting material.	Government Fruit Nursery
6	Number of planting material.	1100
7	Number of plants planted/ rejuvenated.	
8	Date of plants which survived (also indicate percentage survival).	December, 2012 , 1000 (90%)
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	99000/-
10	Amount paid and date of payment.	Rs 54400/- on 28.8.2013
11	Mode of payment.	O.T.
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Borewell
13.	Whether Drip/ Sprinkle System in use.	
14.	Other inputs provided.	
15.	Whether assistance available for Organic Farming	
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	
19.	Other infrastructure available in the vicinity.	
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	NHM logo not displayed

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Gurpreet Singh, Vill: Manjal Khurd, Block: Bunerheri, Distt. Patiala
2	Total land available with the beneficiary (ha).	13 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Normal Green House (Floriculture)
4.	Year of establishment	2011-12
5.	Size of Structure (Sq. m)	2000 Sq. Mtr.
6.	Total cost	Rs.18.70 lakh
7.	Agency involved in fabrication and installation	Jain Irrigation
8.	Total subsidy paid and date of payment.	Rs. 9.35 lakh/20.6.2013
9.	Crop being grown	Rose (TATA)
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Patiala, Ludhiana
13.	General upkeep (Very good/ Good/ Average/ Poor)	Very Good
14	Any other relevant observation by JIT.	NHM logo displayed

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Karamjit Singh, Vill: Manjal Khurd, Block: Bunerheri, Distt. Patiala
2	Total land available with the beneficiary (ha).	13 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Normal Green House (Floriculture)
4.	Year of establishment	2011-12
5.	Size of Structure (Sq. m)	2000 Sq. Mtr.
6.	Total cost	Rs.18.70 lakh
7.	Agency involved in fabrication and installation	Jain Irrigation
8.	Total subsidy paid and date of payment.	Rs. 9.35 lakh/20.6.2013
9.	Crop being grown	Rose (TATA)
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Patiala, Ludhiana
13.	General upkeep (Very good/ Good/ Average/ Poor)	Very Good
14	Any other relevant observation by JIT.	NHM logo displayed

Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Details	Remarks
1	Name of the project	Pack House
2	Year of Implementation	2013-14
3	Project Period	One Year
4	Name of Beneficiary	Sh. Naresh Ghai
5	Location of Project	VPO Mallomajra, Distt: Patiala
6	Total Project Cost	Rs. 3 Lakh
7	Amount Released & date	Rs. 1.50 lakh
8	Expenditure incurred	Rs. 3 lakh
9	Status	
	Capacity of unit	610 Sq. Mtr.
	Commodity	Gerbera
	Equipments purchased	
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes, funds disbursed on 12.7.2013

Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Details	Remarks
1	Name of the project	Cold Storage
2	Year of Implementation	2012-13
3	Project Period	One Year
4	Name of Beneficiary	Mahadev Cold Storage
5	Location of Project	Vill: Ganda, Ambala Road, Rajpura, Distt. Patiala
6	Total Project Cost	Rs.247.30 lakh
7	Amount Released & date	Rs.73.08 lakh
8	Expenditure incurred	NA
9	Status	
	Capacity of unit	4 Chambers 3045 MT,
	Commodity	Potatao
	Equipments purchased	
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes, Subsidy disbursed on 20.6.2012
	Observation	Underutilized during December to January, Beneficiary not found on site Manual loading Potataoes from neighbouring villages of Rajpura.

Horticulture Mechanization

Sr. No.	Details	Remarks
1	Name of the project	Multipurpose Processing Machine
2	Year of Implementation	2012-13
3	Project Period	One Year
4	Name of Beneficiary	Sh. Ram Kishan
5	Location of Project	Vill: Karhalli sahib, Block: Bunerherri, Distt. Patiala
6	Total Project Cost	Rs.1,20,000/-
7	Amount Released & date	Rs. 60,000/-
8	Expenditure incurred	Rs. 3.5 lakh including raw material
9	Status	
	Capacity of unit	1.5 qtl/hr.
	Commodity	Amla, Aleovera, Jamun products
	Equipments purchased	
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes
	Observation	Products marketed at Kisan Huts, Nabha etc. Realizing Rs. 40,000/annum Products are sold by brand name viz. Om Natural Care Products are Amla Juice, Aleovera juice, Shampoo, Handwash Face Gel, Jamun Vinegar, Bael squash etc.

Horticulture Mechanization

Sr. No.	Details	Remarks
1	Name of the project	Horticulture Mechanization Power Weeder / Vermi compost Separator
2	Year of Implementation	2011-12
3	Project Period	One Year
4	Name of Beneficiary	Sh. Karamjit Singh
5	Location of Project	Vill: Majhad, Distt. Patiala
6	Total Project Cost	Rs.1.20 lakh
7	Amount Released & date	Rs.60,000/-
8	Expenditure incurred	Rs.1.20 lakh
9	Status	Working condition
10	Whether funds disbursed to agency	Yes, Subsidy disbursed

Mushroom Cultivation

Sr. No.	Details	Remarks
1	Name of the project	Compost making Unit
2	Year of Implementation	2010-11
3	Project Period	One Year
4	Name of Implementing Agency	Sh Mohan Singh
5	Location of Project	Vill; Ghazisalar, Block: Samana, Distt: Patiala
6	Total Project Cost	Rs. 21.58 lakh
7	Amount Released by DAC	Rs. 19 lakh
8	Expenditure incurred Status	NA
9	Observations by JIT	<ul style="list-style-type: none"> • Back ended subsidy • Production of compost is on • Advised to remove plaster mould from button mushroom/casing soil • Advised to grow milky mushroom on paddy straw. • EC of NHM approved the project of Mushroom Spawn Lab during 2013-14 with project cost of Rs 40.50 lakh with subsidy of Rs. 7.50 lakh.but training component of project not cleared so far. Needs to be looked into. • Lab. Under construction.

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Sh. Naresh Ghai, VPO Mallomajra, Distt: Patiala
2	Total land available with the beneficiary (ha).	NA
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Poly Green House
4.	Year of establishment	2011-12
5.	Size of Structure (Sq. m)	1800 Sq. mtr
6.	Total cost	NA
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	Rs.11.22 lakh
9.	Crop being grown	Gerbera
10.	Condition of Structure	Good
11.	Condition of Crop	Yellowing/alternaria disease on plants
12.	Tie up with market	Local/Patiala
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Beneficiary not available on site • Protection of plants from sunlight • Selling rate Rs. 5/stick • 2nd poly house of 1800 sq. mtr approved during 2013-14 and subsidy of Rs. 9 lakh yet to be disbursed. Gerbera plantation has been done.

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Ms. Mohinder Kaur, S. Jagdeep singh, Sikander Singh, Vill: Tohra, Tehsil Bhadson, Disst: Patiala
2	Total land available with the beneficiary (ha).	20 acre
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	3 Units of Poly Green House
4.	Year of establishment	2011-12
5.	Size of Structure (Sq. m)	4000 Sq. Mtr. Each
6.	Total cost	NA
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	NA
9.	Crop being grown	Roses, 30,000 plants in each unit (CV Bordeaux & Naranga).
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Local
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Beneficiaries not available • Dieback problem in plants • Picking season to start in October • Sell @ Rs. 5/stick. • In CV. Bordeaux die back disease noticed more as compared to Naranga.

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Avtar Singh, Vill: Ghagarsarai, Tehsil : Rajpura, Distt. Patiala
2	Total land available with the beneficiary (ha).	1.24 ha.
3	Type of MI system availed Drip/ Sprinkler	Drip- in line
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1.24 ha.
6	Crop Spacing (for drip)	1.2 x 0.6 mtr
7	Year of establishment	2011-12
8	Name of Manufacturer/ Supplier	Jain Irrigation
9	Total subsidy paid & date of payment	Rs. 102387/-
10	Mode of payment	Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Balwant Singh, Vill: Ghagarsarai, Tehsil : Rajpura, Distt. Patiala
2	Total land available with the beneficiary (ha).	1.73 ha
3	Type of MI system availed Drip/ Sprinkler	Drip- in line
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1.73 ha
6	Crop Spacing (for drip)	1.2 x 0.6 mtr
7	Year of establishment	2011-12
8	Name of Manufacturer/ Supplier	Jain Irrigation
9	Total subsidy paid & date of payment	Rs. 139564/-
10	Mode of payment	Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Ms. Karandeep Kaur, Vil: Tarkheri Khurd, Tehsil: Nabha, Distt. Patiala
2	Total land available with the beneficiary (ha).	1.00 ha
3	Type of MI system availed Drip/ Sprinkler	Sprinkler
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1 ha.
6	Crop Spacing (for drip)	1.5 x 1.5 mtr.
7	Year of establishment	2012-13
8	Name of Manufacturer/ Supplier	Automat Industries Pvt. Ltd.
9	Total subsidy paid & date of payment	Rs.50001/-
10	Mode of payment	Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Meharban Singh, Vill: Saholi, Tehsil: Nabha, Distt. Patiala
2	Total land available with the beneficiary (ha).	2.98 ha
3	Type of MI system availed Drip/ Sprinkler	Drip-in-line
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	2.98 ha.
6	Crop Spacing (for drip)	0.50 x 50.20mtr
7	Year of establishment	2008-09
8	Name of Manufacturer/ Supplier	Netafin Irrigation India Pvt. Ltd.
9	Total subsidy paid & date of payment	Rs.236767/-
10	Mode of payment	Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Karnail Singh, Vill: agol, Tehsil, Nabha, Distt: Patiala
2	Total land available with the beneficiary (ha).	2.11 ha.
3	Type of MI system availed Drip/ Sprinkler	Drip-in-line
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	2.11 ha
6	Crop Spacing (for drip)	0.6 x 1.2 mtr
7	Year of establishment	2012-13
8	Name of Manufacturer/ Supplier	Jain Irrigation
9	Total subsidy paid & date of payment	Rs.139396/-
10	Mode of payment	Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	

Annexure II

District: Sangrur

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Sh. Bhupinder Singh, Vill: Langrian, Block: Malerkotla, Distt: Sangrur
2	Total land available with the beneficiary (ha).	6 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Naturally Ventilated Green House
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	1000 Sq. mtr
6.	Total cost	R.932610/-
7.	Agency involved in fabrication and installation	Accenture Tech.
8.	Total subsidy paid and date of payment.	Rs.4.52 lakh
9.	Crop being grown	Tomato including cherry tomatoes
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Local
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Logo displayed • Wilt problem in CV cherry to moto noticed, advised accordingly.

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Sh. Bhupinder Singh, Vill: Langrian, Block: Malerkotla, Distt: Sangrur
2	Total land available with the beneficiary (ha).	6 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Naturally Ventilated Green House
4.	Year of establishment	2011-12
5.	Size of Structure (Sq. m)	500 Sq. mtr
6.	Total cost	R.544000/-
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	Rs.2.34 lakh
9.	Crop being grown	Veg, Cucumber
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Local
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Logo displayed. • Powdery mildew, Anthracnose and mosaic noticed.

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Sh. Bhupinder Singh, Vill: Langrian, Block: Malerkotla, Distt: Sangrur
2	Total land available with the beneficiary (ha).	6 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Naturally Ventilated Green House
4.	Year of establishment	2011-12
5.	Size of Structure (Sq. m)	500 Sq. mtr
6.	Total cost	R.385200/-
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	Rs.1.6 lakh
9.	Crop being grown	Cucumber
10.	Condition of Structure	Good
11.	Condition of Crop	Good
12.	Tie up with market	Local
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Root rot, Mosaic in cucumber plants • Spray of Bavistn/Radomil advised

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	S. Bharpur singh, Vill: Meemsa, Block: Dhuri, Sangrur
2	Total land available with the beneficiary (ha).	NA
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Green House
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	4000 Sq. mtr.
6.	Total cost	NA
7.	Agency involved in fabrication and installation	Self constructed
8.	Total subsidy paid and date of payment.	Rs. 18.69 lakh
9.	Crop being grown	Gerbera
10.	Condition of Structure	Good
11.	Condition of Crop	Yellowing, Fungus, bight on gerbera leaves
12.	Tie up with market	Ludhiana
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Selling rate: Rs. 4/stick • 2500 sticks on alternate days. • Beneficiary also availed subsidy of Rs. 15.50 lakh on planting material • SHM has to look into the norms laid down for self construction of Green House • Empanelment of fabricators needed.

Area Expansion / Rejuvenation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Harvinder Singh, Vill: bhadalwar, Block:Dhuri, District Sangrur
2	Total land available with the beneficiary (ha).	9 ha.
3	Crop Cluster under which covered.	Banana TC – 2 nd Crop
4	Name & variety of crop planted.	G-9
5	Source of planting material.	Nasirpur Farms, Patiala
6	Number of planting material.	1200
7	Number of plants planted/ rejuvenated.	1200
8	Date of plants which survived (also indicate percentage survival).	2012, 1100 (90%)
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs. 4160/ Second installment
10	Amount paid and date of payment.	Rs 41600/- on 10.9.2012
11	Mode of payment.	O.T.
12	Source of Irrigation Water well/ Tube well/ Canel (Bore	Tube well
13.	Whether Drip/ Sprinkle System in use.	
14.	Other inputs provided.	DAP, Urea, Potash, FYM
15.	Whether assistance available for Organic Farming	
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	
19.	Other infrastructure available in the vicinity.	
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good (In fruiting)
21.	Any other relevant observation by the JIT.	<ul style="list-style-type: none"> NHM logo not displayed Support to plants needed Pruning of leaves required Mkt: Malerkotla, Jagraon. Ludhiana, Dhuri Expected yield:150 quintal / ha At present, realized 135 qtl. and sold Rs. 10/kg. Good crop, no sigatoka disease.

Pollination through Beekeeping

Sr. No.	Details	Remarks
1	Name of the project	Beekeeping – SC farmer
2	Year of Implementation	2012-13
3	Project Period	One year
4	Name of Implementing Agency	Sh. Paramjit Kaur, Vill: Gagarpur, Sangrur
5	Location of Project	Gagarpur Village
6	Total Project Cost	Rs.1,73,500/-
7	Amount Released by DAC	Rs.75,000/- on 16.1.2013
8	Expenditure incurred	Rs.1,73,500/-
9	No. of Hives	50
10	No.of frames/colony	8
11	Condition of colonies	Good
12	If, logo of NHM displayed	Yes, Embossed on wood with Lot/Box No.)
13	Any other observation by JIT	<ul style="list-style-type: none"> • Honey worth Rs. 1 lakh sold in one year • Problem while migrating boxes outside the State for pollination. Certificate from Horticulture Department needs to be issued for shifting. • Provision for water recommended under boxes to avoid insects/ants • Beneficiary felt that subsidy for SC farmers to be enhanced upto 75%

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Sh. Mohammad Rafeek, Vill: Mahurana, Sangrur
2	Total land available with the beneficiary (ha).	2 ha.
3	Type of MI system availed Drip/ Sprinkler	Sprinkler
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1 ha
6	Crop Spacing (for drip)	NA
7	Year of establishment	2009-10
8	Name of Manufacturer/ Supplier	Automat
9	Total subsidy paid & date of payment	Rs.33120/-
10	Mode of payment	Draft
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	Logo not displayed Due to excess rain, yellowing of plants Flood irrigation

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	Ms. Ranjit Kaur, Vill: Bhagrain, Malerkotla, Sangrur
2	Total land available with the beneficiary (ha).	NA
3	Type of MI system availed Drip/ Sprinkler	Sprinkler
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1 ha.
6	Crop Spacing (for drip)	NA
7	Year of establishment	2012-13
8	Name of Manufacturer/ Supplier	Jain Irrigation
9	Total subsidy paid & date of payment	Rs. 554371/-
10	Mode of payment	Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Powdery mildew and Anthracnose in bottle gourd leaves • Flood irrigation Rs. 3 lakh as monthly income

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	S. Deewan Singh, Vill: Kheri, Sangrur
2	Total land available with the beneficiary (ha).	4.20 ha.
3	Type of MI system availed Drip/ Sprinkler	Mini sprinkler
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1 ha
6	Crop Spacing (for drip)	NA
7	Year of establishment	2012-13
8	Name of Manufacturer/ Supplier	Ajay Industrial Corporation
9	Total subsidy paid & date of payment	Rs. 53736/-
10	Mode of payment	By Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	

Annexure III

District: S A S Nagar

Area Expansion / Rejuvenation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	S. Inderjeet Singh Anand, Vill: Issapur, Block: Derabassi, SAS Nagar
2	Total land available with the beneficiary (ha).	3 ha.
3	Crop Cluster under which covered.	Area Expansion of Fruits
4	Name & variety of crop planted.	Guava , Allahabad Safeda
5	Source of planting material.	Government Nursery
6	Number of planting material.	210
7	Number of plants planted/ rejuvenated.	210
8	Date of plants which survived (also indicate percentage survival).	Above 80%
9	Total amount of subsidy assistance due to the beneficiary as (Rs.)	Rs.11852/-
10	Amount paid and date of payment.	Rs. 11852/- on 28.3.2013
11	Mode of payment.	Online Transfer
12	Source of Irrigation Water (Bore well/ Tube well/ Canel)	Tubewell
13.	Whether Drip/ Sprinkle System in use.	Tubewell
14.	Other inputs provided.	
15.	Whether assistance available for Organic Farming	
16	If so, area covered	
17.	Assistance available	
18.	Available marketing facility for the crop.	Local
19.	Other infrastructure available in the vicinity.	
20.	General upkeep of the plot; Very good/ Good / Average/ Poor.	Good
21.	Any other relevant observation by the JIT.	Healthy Plants NHM logo displayed Vegetables as inter cropping Mango area expansion in pipelinme in 1.2 ha and 120 plants of Bombay green, Dusheri, Langra planted.

Project Status of Organic Farming

Sr. No.	Details	Remarks
1	Name of the project	Vermi Compost Units (4 pits each)
2	Year of Implementation	2012-13
3	Project Period	One Year
4	Name of Implementing Agency	Ms.Maya Singhal
5	Location of Project	Vill: Jhawarpur, Block:Derabassi Distt: SAS Nagar
6	Total Project Cost	Rs. 83,560/each
7	Amount Released by DAC	R. 30,000/each
8	Expenditure incurred Status	NA
9	Observations by JIT	<ul style="list-style-type: none"> • Unit in operation • Self consumption, Compost used in vegetables, flowers • Worms procured from Agricare, Kuralli • Logo of NHM displayed • Advised for vermin wash as value addition in vermin compost.

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	S. Karam Singh, Vill: Bakarpur, Block: Kharar, SAS Nagar
2	Total land available with the beneficiary (ha).	1 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Poly House (fan & pad)
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	3292 Sq. mtr.
6.	Total cost	Rs.48.56
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	Rs. 24.11 lakh
9.	Crop being grown	Floriculture
10.	Condition of Structure	Good
11.	Condition of Crop	At present, ginger planted. No proper germination
12.	Tie up with market	
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	<ul style="list-style-type: none"> After ginger, lillium and cucumber would be planted.

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Ms. Karuna Bhandari, Vill: Bakarpur, Block: Kharar, SAS Nagar
2	Total land available with the beneficiary (ha).	1 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Poly House (fan & pad)
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	4000 Sq. mtr.
6.	Total cost	29.30 lakh
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	Rs. 24.11 lakh
9.	Crop being grown	Floriculture & vegetables
10.	Condition of Structure	Good
11.	Condition of Crop	
12.	Tie up with market	Chandigarh, Delhi and Mohali
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	

Protected Cultivation

Sr. No.	Details	Remarks
1	Name & address of Beneficiary whose field visited.	Sh. Vikas Bhandari, Vill: Bakarpur, Block: Kharar, SAS Nagar
2	Total land available with the beneficiary (ha).	1 ha.
3	Type of Protected cultivation activity (Hi-tech / Normal GH, Shade net, Plastic tunnel)	Poly House (fan & pad)
4.	Year of establishment	2012-13
5.	Size of Structure (Sq. m)	3760 Sq. mtr.
6.	Total cost	Rs 57.97 lakh
7.	Agency involved in fabrication and installation	NA
8.	Total subsidy paid and date of payment.	Rs. 27.54 lakh
9.	Crop being grown	Floriculture & vegetables
10.	Condition of Structure	Good
11.	Condition of Crop	
12.	Tie up with market	Chandigarh, Delhi and Mohali
13.	General upkeep (Very good/ Good/ Average/ Poor)	Good
14	Any other relevant observation by JIT.	Beneficiary faces problem of marketing of capsicum

Mushroom Cultivation

Sr. No.	Details	Remarks
1	Name of the project	Compost making Unit
2	Year of Implementation	2011-12
3	Project Period	Two Years
4	Name of Implementing Agency	Sh Hardeep Singh
5	Location of Project	Vill; Ambchapa, Block: Derabassi, Distt: SAS Nagar
6	Total Project Cost	Rs. 22.70 lakh
7	Amount Released by DAC	Rs. 9.96 lakh
8	Expenditure incurred Status	Rs21.71 lakh
9	Observations by JIT	<ul style="list-style-type: none"> Water bubble and plaster mould is major problem in mushroom production.

Post Harvest Management

Pack House/Cold Storage/Ref Van/ Primary processing

Sr. No.	Details	Remarks
1	Name of the project	CA Cold Storage
2	Year of Implementation	2011-12
3	Project Period	One Year
4	Name of Beneficiary	Rajiv Malhotra
5	Location of Project	Vill: sakrulapur, Block: Kharar , Distt. SAS Nagar
6	Total Project Cost	NA
7	Amount Released & date	Rs.3.20 crore
8	Expenditure incurred	NA
9	Status	
	Capacity of unit	5000 MT,
	Commodity	Vegetables & Fruits
	Equipments purchased	
	Condition of infrastructure	Good
	Whether NHM logo displayed	Yes
	Whether funds disbursed to agency	Yes, 59% Subsidy disbursed in 2012-13
	Observation	<ul style="list-style-type: none"> • Work in progress • 2nd installment may be released only when CA cold storage starts functioning.

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	S. Avtar Singh, Vill: Tirra, Distt: SAS Nagar
2	Total land available with the beneficiary (ha).	2 ha.
3	Type of MI system availed Drip/ Sprinkler	Drip
4	Crop(s) covered	Turmeric (Rajendra Sonia)
5.	Total area covered (ha)	0.40 ha
6	Crop Spacing (for drip)	1*0.3 mtr.
7	Year of establishment	2009-10
8	Name of Manufacturer/ Supplier	Jain Irrigation
9	Total subsidy paid & date of payment	Rs. 50837/-
10	Mode of payment	By Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	<ul style="list-style-type: none"> • Subsidy availed for planting material of turmeric • Seeds from Samastipur, Bihar • Harvest of 15 qtl. realized during 2012-13 • Selling rate: Rs.300/kg. • Rs 3.50 lakh earned during the year

Micro Irrigation

Sr. No.	Details	Remarks
1	Name & address of beneficiary visited.	S. Inderjit Singh, Vill: Issapur, Distt: SAS Nagar
2	Total land available with the beneficiary (ha).	2 .5 ha.
3	Type of MI system availed Drip/ Sprinkler	Micro Sprinkler
4	Crop(s) covered	Vegetables
5.	Total area covered (ha)	1.00 ha
6	Crop Spacing (for drip)	10x10 mtr.
7	Year of establishment	2012-13
8	Name of Manufacturer/ Supplier	Harvel
9	Total subsidy paid & date of payment	Rs. 61509/-
10	Mode of payment	By Cheque
11	Status of crop	Good
12	General upkeep (Very good/ Good/ Average/ Poor)	Good
13.	Any other relevant observation by JIT.	Flood irrigation