



Government of Jammu & Kashmir  
**Horticulture Department**  
Civil Secretariat, Jammu.

Subject: - Implementation of "High Density Apple Plantation Scheme" through Private Enterprise.

**Government Order No: 08-Horti of 2017**  
**Dated: 07-02-2017**

Sanction is accorded to the implementation of the "High Density Apple Plantation Scheme" by the Department of Horticulture, through Private Enterprise in the State. The Scheme document is annexed herewith.

This issue with the agreement/concurrence of Finance and Planning, Development & Monitoring Department conveyed vide UO No: PD/Agri/64/DAP-2009-10&2010-11 dated 04-08-2016.


**By order of the Government of Jammu and Kashmir**

Sd/-  
(M.H.Malik), KAS  
Secretary to the Government  
Dated: 07-02-2017

No. Horti/PC-31/2016-17

Copy to the:

1. Financial Commissioner, Planning, Development and Monitoring Department.
2. Principal Secretary to Hon'ble Chief Minister.
3. VC SKUAST-Jammu/Kashmir
4. Commissioner/Secretary to the Government, Finance Department.
5. Commissioner/Secretary to the Government, GAD.
6. Chairman, J&K Bank.
7. Director Horticulture, Kashmir.
8. Director Horticulture, Jammu.
9. Director Archives, Archaeology and Museums, J&K.
10. Special Assistant to Hon'ble MoS, Horticulture.
11. Pvt. Secretary to Secretary to Govt. Horticulture Department.
12. Govt. Order/stock file.

  
(Tahir Mustafa Malik)  
Deputy Secretary to the Government

Annexure to the Government Order No. 8-Horti of 2017 dated: 02.02.2017.

**High Density Apple Plantation Scheme through Private Enterprise.**

**1. Introduction:**

High Density Apple Plantation Scheme is 100% State funded Scheme formulated to achieve the objectives of enhanced production and productivity and raising the income of the farmers.

**2. Area to be covered:**

- i. Minimum area : 5 Kanals (1/4 ha)
- ii. Maximum area : 20 Kanals (1 ha)

**3. Duration of the Scheme:**

Three (03) years.

**4. Yearly targets:**

- i. 1<sup>st</sup> year: 60 hectares
- ii. 2<sup>nd</sup> year: 150 hectares
- iii. 3<sup>rd</sup> year: 200 hectares

The performance shall be reviewed after plantation season and target shall be revised.

**5. Funding Pattern:**

- i. 50:50 (State: Farmer)
- ii. Subsidy : Farmer share including loan

**6. Financing pattern:**

- i. Financing by Financial Institution (Bank) : 80% of farmer's share against collateral.
- ii. Equity : 20% of the farmer's contribution.

**7. Interest rate:**

As per rate structure applicable to Agriculture sector.



## 8. Repayment:

- i. Capitalization of interest for 3 years
- ii. Repayment in yearly installments from 5<sup>th</sup> year and onwards.

## 9. Options available to the farmers are:

### 9.1 Option-I:

High Density through Private Enterprise 2222 trees per hectare.

(Rs. In Lac)

S. No.	Particulars	Estimated Cost	Govt. Share	Beneficiary share
1	Land development	1.50	0.00	1.50
2	Pit digging, re-filling @ ₹.70/pit for 2222 plants (3mtr x 1.5 mtr.)	1.60	0.00	1.60
3	*Cost of plant material @ ₹.500/plant for 2222 plants	11.00	9.90	1.10
4	*Cost of Trellis System (as per estimate)	10.00	5.00	5.00
5	Cost of fencing	4.50	0.00	4.50
6	*Micro Irrigation	2.00	1.00	1.00
7	Cost of Vermi Compost/ FYM (1 cft per Pit)	0.80	0.00	0.80
8	Pesticides	0.40	0.00	0.40
9	PP Machinery	0.20	0.10	0.10
	Total:-	32.00	16.00	16.00

### 9.2 Option-II:

High Density through Private Enterprise – 3333 trees per hectare

(Rs. In Lac)

Sr. No.	Component	Estimated cost per ha (Rs. in lakhs)	State Share	Beneficiary share
1.	*Cost of plant material (3 feathered) @ Rs.500/- plant for 3333 trees (1x3 m)	16.67	13.20	3.47
2.	*Cost of 4-wire trellis system (with installation)	12.00	6.00	6.00
3.	Cost of Anti-hail net (with installation) or fencing	4.50	-	4.50
4.	*Cost of Micro-irrigation system	2.40	1.20	1.20
5.	Land Development	1.50	-	1.50
6.	Pit digging, plantation @Rs.70/- pit	2.33	-	2.33
7.	Cost of vermi compost Unit	0.80	-	0.80
8.	Pesticides	0.40	-	0.40
9.	Plant protection machinery	0.20	-	0.20
	Total	40.80	20.40	20.40
	Approximately	41.00		

\*The cost of plants shall be on actual basis which shall be communicated by Director Horticulture, Kashmir separately.

\*The farmer shall deposit his share with bank only in case of Cost of Plant Material, Cost of Trellis System and Micro Irrigation. Other activities can be undertaken and paid directly by the farmer as per the guidance of the Department/Private Enterprise

#### **10. Technical Specification:**

The technical specification of Drip Irrigation and Trellis System and anti hail net for **Option-I** and **Option-II** for 1 hectare are given in enclosed Annexure 'A'(Drip Irrigation System for Option-I & Option-II), 'B' (Trellis System) and 'C' (anti-hail net).

Specifications has been drawn and finalized by the Task Force on Horticulture Development constituted by the Government vide Order No: 168-Agri of 2015 dated 16-06-2015. Any improved version can be installed subject to its approval by the Task Force, the case to whom shall be referred by Director Horticulture, Kashmir.

#### **11. Stakeholders:**

The Scheme has the following stakeholders:

- i. State Government;
- ii. Farmers;
- iii. Financial Institutions (J&K Bank Ltd.) and
- iv. Implementing Agency (Private Enterprise).

#### **12. Role and responsibilities of Stakeholders:**

##### **State Government:**

- i. Director Horticulture, K/J shall Identify beneficiaries and provide the list to implementing Agency i.e. Private Enterprise (PE) and Financial Institution (Bank).
- ii. Provide list of varieties and specifications to PE with copy to Bank.
- iii. Provide Technical Specification of Trellis System and Drip Irrigation System to PE with copy to Bank.
- iv. Supervise operations/implementation and obtain project status.
- v. Obtain status/feedback from the farmer.
- vi. Provide necessary Technical guidance, information and awareness to the farmers/beneficiaries.
- vii. To notify the varieties of Apple/country of origin for High Density Plantation.

##### **Farmer:**

- i. Submit an application to the Horticulture Department (DHK/J) along with land details (ownership proof) to join the scheme.
- ii. Provide land and carryout such activities as are necessary before plantation.



- iii. Deposit his share (equity) with the bank and collateral to the extent of loan component plus upto 25%.
- iv. Provide labour to the implementing agency (Private Enterprise).
- v. Undergo training and attend awareness camps organized by Horticulture Department jointly with other stakeholders Financial Institution + Private Enterprise (FI+PE).
- vi. Provide periodical feedback to the Government/Financial Institutions
- vii. Repay regularly the term loan after moratorium period-from 5<sup>th</sup> years.


#### **Financial Institution – Designated Bank:**

- i. Create a Special Cells at Zonal/ Divisional level/ Headquarter to implement the scheme.
- ii. Advise the branch in the area to accept the equity from Farmer and Collateral.
- iii. Receive grant from the government which shall be apportioned and released as per the scheme.
- iv. Release mobilization advance to the Private Enterprise against bank guarantee/ any other instrument.
- v. Nominate an officer as JIT member for audit of the orchard(s) and sign work completion certificate as member of the JIT which shall be pre-requisite for releasing the payment as per the schedule.
- vi. Term loan repayment as per schedule in yearly installments.

#### **Implementing Agency- Private Enterprise:**

- i. Verify the land offered by the beneficiary to the effect whether it is suitable for High Density Plantation or not.
- ii. To provide bank guarantee against the mobilization advance.
- iii. To receive the mobilization advance as given in the scheme.
- iv. Arrange/import plant of specified qualities from the identified countries. Government can facilitate by way of certification of quality and quantity as per action plan.
- v. Arrange material for other components (Trellis system, drip irrigation, anti-hail net and other machinery/ equipment, if required) as per specification given in the scheme.
- vi. Provide training to the farmers/growers.
- vii. Nominate his representative or join himself the JIT.
- viii. Furnish the periodical status report to the Government.
- ix. Receive the balance payment/cost as per the scheme (Director Horticulture Jammu/Kashmir).
- x. Do handholding for three years by way of inspection, advice and implementation of corrective measures, if any.

13. PE shall be entitled to 1% of the total cost as incentive on successful setting up of an orchard.
14. A MoU shall be signed between the parties/ stakeholders, Horticulture Department, Beneficiary, Implementing Agency and Financial Institution clearly mentioning the role and responsibilities of all the stakeholders together with normative cost and sharing pattern and other terms and conditions strictly as per the guidelines of the scheme. MoU duly vetted by the Department of Law, Justice and Parliamentary Affairs is enclosed as **Annexure D**;
15. The farmer shall have the option of availing institutional finance depending upon his choice or provide entire share out of his own resources.
16. The Task Force constituted vide Government Order No: 168 Agri of 2015 dated 16-06-2015 shall continue to evaluate, and suggest the corrective measures, if any, during setting up of the orchard under the scheme.
17. Director Horticulture, Kashmir shall specify the varieties of plants to be imported and country from where to be imported.
18. Director Horticulture, Kashmir shall constitute a Joint Inspection Team (JIT) as per the guidelines of the scheme for in process inspection and completion inspection/report of the orchard(s).

  
Deputy Secretary to the Government



## Annexure-A

### Specification and Cost estimate for Drip Irrigation for 1 hectare for 3333 plants

Sr. No.	Item	Size	Qty	Unit	Rate	Amount
1	Pipe PVC	75 mm	120	M	105	12600
2	Pipe PVC	63 mm	280	M	80	22400
3	Bend PVC	75 mm	10	No	100	1000
4	Bend PVC	63 mm	22	No	72	1584
5	Socket PVC	75 mm	18	No	90	1620
6	Socket PVC	63 mm	25	No	81	2025
7	MTA/FTA PVC	75 mm	7	No	135	945
8	MTA/FTA PVC	63 mm	20	No	89	1780
9	Tee PVC	63 mm	10	No	92	920
10	Ball Valve PVC	63 mm	8	No	900	7200
11	End cap PVC	63 mm	15	No	135	2025
12	Reducer PVC	63-75 mm	10	No	75	750
13	Lateral	16 mm	1650	M	13.5	22275
14	Joiner	16 mm	50	No	4	200
15	Grommet	16 mm	50	No	3.1	155
16	End Stop '8' shape		50	No	7.5	375
17	Take off	16mm	50	No	6	300
18	Solvent	1 Lt.	2	Lt	400	800
19	Drippers		6800	No	4.5	30600
20	Manifold		1	No	4000	4000
21	Sand filter	10-20m3/hr	1	No	20000	20000
22	Fertigation tank	60 lts	1	No	12000	12000
23	Motor pump	3 hp	1	No	15000	15000
24	Water storage tank		6000	lt	6	36000
25	G.I Fittings				0	18446
26	Ventury Assembly		1	No	6000	6000
27	Digging of trench for main pipes to be done by farmers					0
28	Labour charges					19000
	Total amount					240000

## Annexure-A

### Specification and Cost estimate for Drip Irrigation for 1 hectare for 2222 plants

Sr. No.	Item	Size	Qty	Unit	Rate	Amount
1	Pipe PVC	75 mm	100	M	105	10500
2	Pipe PVC	63 mm	250	M	80	20000
3	Bend PVC	75 mm	8	No	100	800
4	Bend PVC	63 mm	20	No	72	1440
5	Socket PVC	75 mm	15	No	90	1350
6	Socket PVC	63 mm	22	No	81	1782
7	MTA/FTA PVC	75 mm	5	No	135	675
8	MTA/FTA PVC	63 mm	18	No	89	1602
9	Tee PVC	63 mm	5	No	92	460
10	Ball Valve PVC	63 mm	8	No	900	7200
11	End cap PVC	63 mm	10	No	135	1350
12	Reducer PVC	63-75 mm	7	No	75	525
13	Lateral	16 mm	1400	M	13.5	18900
14	Joiner	16 mm	50	No	4	200
15	Grommate	16 mm	50	No	3.1	155
16	End Stop '8' shape		40	No	7.5	300
17	Take off	16mm	50	No	6	300
18	Solvent	1 Lt.	2	Lt	400	800
19	Drippers		4550	No	4.5	20475
20	Manifold		1	No	4000	4000
21	Sand filter	10-20m <sup>3</sup> /hr	1	No	20000	20000
22	Fertigation tank	60 lts	1	No	12000	12000
23	Motor pump	3 hp	1	No	15000	15000
24	Water storage tank		5000	lt	6	30000
25	G.I Fittings				0	15186
26	Digging of trench for main pipes to be done by farmers					0
	Labour charges					15000
			Total amount			200000



## Annexure B

### Specification and Estimate for Trellis System (Training Structure) for 1 hectare

Size of angle iron 50mm x 50mm x 6mm

<b>A</b>	Size of main posts	Above ground (ft) 12	Under ground (ft) 1.5	Base Support (ft) 0.5	Total (ft) 14
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No. of Posts = 391 Total length = 5474 (ft)  
Weight of angle iron = 1.500 kg/ft  
Total weight = 8211kg  
Rate of angle iron = Rs: 55/kg  
**Total Amount = Rs. 451605**

<b>B</b>	Cross Posts	Above ground (ft) 10	Under ground (ft) 1.5	Base Support (ft) 0.5	Total (ft) 12
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No. of posts = 66 Total length = 792(ft)  
Weight of angle iron = 1.500 kg/ft  
Total weight = 1188 Kg  
Rate of angle iron = Rs: 55/kg  
**Total Amount = Rs. 65340**

**C.** Earth work in excavation to be done by farmers

0

**D** Providing & Laying of cement concrete of ratio 1:2:4

L (ft)	B(ft)	H(ft)
1.5	1.5	1.5

Total (sqft)  
3.375

No. of pits = 497 Total (cqt) = 1542.375  
Total Cum = 43.70875599

Earth work in excavation @ Rs: 5700/cum

**Total = Rs: 249139.91**

**E** Providing of wire of size (5mm)  
10800

Rate of wire @ 15/m

**Total = Rs: 162000**

**F** Nuts & Bolts

1100 No's

Rate of Nut & Bolt @ Rs: 40/no

**Total = Rs: 44000**

**G.** Miscellaneous items welding rods, cutter blade, Drill bits etc **Total Rs: 9000**

**H.** Labour charges **Total Rs: 18915**

Grand Total (A+B+C+D+E+F+G+H)= Grand Total = **Rs: 100000 (Rupees Ten Lakh only)**

No. of plants: 2222

Planting Distance: 3m x 1.5m

Post Distance: 9m x 3m.

### Annexure B

#### Specification and Estimate for Trellis System (Training Structure) for 1 hectare

Size of angle iron      50mm x 50mm x 6mm

<b>A</b>	Size of main posts	Above ground (ft) 12	Under ground (ft) 1.5	Base Support (ft) 0.5	Total (ft) 14
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No. of Posts                = 462    Total length = 6468 (ft)  
Weight of angle iron      = 1.500 kg/ft  
Total weight                = 9702kg  
Rate of angle iron        = Rs: 55/kg  
**Total Amount            = Rs. 533610**

<b>B</b>	Cross Posts	Above ground (ft) 10	Under ground (ft) 1.5	Base Support (ft) 0.5	Total (ft) 12
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No. of posts                = 66    Total length = 792(ft)  
Weight of angle iron      = 1.500 kg/ft  
Total weight                = 1188 Kg  
Rate of angle iron        = Rs: 55/kg  
**Total Amount            = Rs. 65340**

**C.** Earth work in excavation to be done by farmers

**D** Providing & Laying of cement concrete of ratio 1:2:4

	L (ft)	B(ft)	H(ft)	Total (sqft)
	1.5	1.5	1.5	3.375

No. of pits = 528    Total (ccft) = 1782  
Total Cum = 50.49939

Earth work in excavation @ Rs: 5700/cum  
**Total = Rs: 287846.5**

**E** Providing of wire of size (5mm)  
16000

Rate of wire @ 15/m  
**Total = Rs: 240000**

**F** Nuts & Bolts  
1100    No's  
Rate of Nut & Bolt @ Rs: 40/no  
**Total = Rs: 44000**

**G.** Miscellaneous items welding rods, cutter blade, Drill bits etc    **Total Rs: 9203**

**H.** Labour charges    **Total Rs: 20000**

Grand Total (A+B+C+D+E+F+G+H)= Grand Total = **Rs: 1200000 (Rupees twelve lakh only)**

No. of plants: 3333  
Planting Distance: 3m x 1m  
Post Distance: 7.60m x 3m.



## Annexure-C

### Specification of anti-hail net

12ft poles of either concrete or iron with u-channel or flexible concrete posts of approximate thickness, stainless steel wire, plant tie, accessories for anti-hail net including caps, cups, elastic bands, anti-hail net protection, anti-sinking concrete base, anchorage system with structural ropes, tension hooks for anchors, gripper for wire tension etc.

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**Annexure-D**

**Memorandum of Understanding**

This Memorandum of Understanding is made in Srinagar on \_\_\_\_\_ day of \_\_\_\_\_, 2017 and executed between:-

1. Director Horticulture Kashmir (hereinafter referred to as party No.1, which expression shall include its Administrators, successors, executors and assigns) of the first party, and
2. M/S \_\_\_\_\_ implementing Agency (private enterprise) (hereinafter referred as party No.2, which expression shall include its Administrators, successors, executors and assigns),and
3. Shri \_\_\_\_\_ Farmer (hereinafter referred to as party No. 3, of their part, and,
4. (J&K Bank Ltd)financial institution (hereinafter referred to as party No. 4, which expression shall include its Administers, successors, executors and assigns),

Whereas, the J&K Government has approved High Density Apple Plantation Scheme to be implemented in next three years on funding pattern of 50:50 basis.

Whereas, the imported apple plants shall be planted for quarantine period at Advance Centre for Horticulture Development (ACHD) Shopian or any other approved Nursery/Place and shall be planted during the next planting season,

And whereas, now the parties hereto by this indenture want to reduce into writing, the mutually agreed modalities in-respect of the scheme appearing hereinafter.

**NOW IT IS HEREBY AGREED AND UNDERSTOOD BY AND BETWEEN  
THE PARTIES.**

1. That the 1<sup>st</sup> party shall:-
  - i. provide the list of verities with complete specifications to 4<sup>th</sup> party and 2<sup>nd</sup> party.
  - ii. provide technical specifications of Trellis System and Drip Irrigation System to 4<sup>th</sup> party and 2<sup>nd</sup> party.



- iii. supervise operations/implementation and obtain project status.
- iv. obtain status/feedback from the party No. 3<sup>rd</sup>.
- v. provide necessary technical guidance, information and awareness to the party No. 3<sup>rd</sup>/beneficiaries.
- vi. notify the varieties of Apple/Country of origin for High Density Plantation.
- vii. identify beneficiaries and provide the list to the implementing agency i.e. Private Enterprises (PE) (2<sup>nd</sup> party) and financial institution (Bank) (4<sup>th</sup> party).

2. That the party No. 2<sup>nd</sup> shall:-

- i. verify the land offered by the beneficiary to the effect whether it is suitable to High Density Plantation or not.
- ii. provide e-bank guarantee against the mobilization advance.
- iii. receive the mobilization advance as given in the scheme.
- iv. arrange/import plant of specified qualities from the identified Countries. Party No. 1<sup>st</sup> can facilitate by way of certification of quality and quantity as per action plan.
- v. arrange material for other components (Trellis system, drip irrigation, anti-hail net and other machinery/ equipment, if required) as per specification given in the scheme.
- vi. provide training to the party No. 3<sup>rd</sup> (grower/farmer).
- vii. nominate his representative or join himself the JIT.
- viii. furnish the periodical status report to the 1<sup>st</sup> party.
- ix. receive the balance payment/cost as per the scheme.
- x. do handholding for three years by way of inspection, advice and implementation of corrective measures, if any.

3. That the party No. 3<sup>rd</sup> shall:-

- i. submit an application to the Horticulture Department (DHK/J) alongwith land details (ownership proof) to join the scheme.
- ii. provide land and carry out such activities as are necessary before plantation.
- iii. deposit his share (equity) with the party No. 4<sup>th</sup> and collateral to the extent of loan component plus upto 25%.
- iv. Provide labour to the party No. 2<sup>nd</sup>.
- v. undergo training and attend awareness camps organized by Horticulture Department jointly with other stakeholders alongwith party No. 4<sup>th</sup> and party No. 2<sup>nd</sup>.
- vi. provide periodical feed back to the party No. 1 and party No. 4<sup>th</sup>.
- vii. repay regularly the term loan after moratorium period – from 5<sup>th</sup> year.

4. That the party No. 4<sup>th</sup> shall:-

- i. create special cells at Zonal level/Divisional level/Headquarter to implement the scheme.
  - ii. advise the branch in the area to accept the equity from party No. 3<sup>rd</sup> and collateral.
  - iii. receive the grant from the 1<sup>st</sup> party which shall be apportioned and released as per the scheme.
  - iv. receive mobilization advance to the 2<sup>nd</sup> party against the bank guarantee/any other instrument.
  - v. nominate an officer as JIT member for audit of the orchard(s) and sign work completion certificate as member of the JIT which shall be pre-requisite for releasing the payment as per the schedule.
  - vi. make Term Loan Repayment as per the schedule in yearly installments.
5. In case of dispute between the parties, the matter shall be referred to Administrative Secretary, Horticulture for arbitration in terms of J&K Arbitration and Conciliation Act, 1997, who shall act as a sole arbitrator whose decision shall be binding upon all parties.

IN WITNESS WHEREOF,

The parties after understanding the contents of this Memorandum of Understanding have put their hands to this MoU in presence of the witnesses on the day, month and year first above mentioned.

Witnesses

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Party No. 1<sup>st</sup>

Party No. 2<sup>nd</sup>

Party No. 3<sup>rd</sup>

Party No. 4<sup>th</sup>