



BHAVANTAR BHARPAYEE YOJANA (BBY)

**A Risk Mitigation Scheme for Horticulture Producers
during Low Price in Markets in Haryana**



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Bhavantar Bharpayee Yojana (BBY) - A Risk Mitigation Scheme for Horticulture Producers during Low Price in Markets in Haryana

1. Introduction:

It has been experienced that producers are forced to sell horticultural produce like potato, onion and tomato at a through away price at different times in a year. Prices of some of the horticulture commodities especially onion and potato are highly volatile. The State Government has taken cognizance of this issues and has felt that there is need to device a mechanism to support the producers so that they are saved of losses during such situations.

Such scheme should contain short and long term solutions to support producers during distress sale and low prices periods. Upon analyzing the marketing data of produce arrival and wholesale prices during the last 10 years available on AgMarket portal and data of HSAMB and cost of production, it came out that producers suffers largely during the main harvesting period and there is need to support them during that period.

Keeping in view above factors, this scheme has been devised with the following objectives and implementation strategies.

2. Objectives:

- i. To mitigate the risk of producers by incentivizing during low prices in the market for perishable commodities like fruits & vegetables and other crops as deemed fit to be included.
- ii. To create corpus fund for facilitation of producers in marketing of their produce.
- iii. To help producers to support them in diversification in agriculture.

3. Implementation Strategy:

- 1) To fix “**Base Price**”, that will become basis of incentive when prices fall below Base Price. The Base Price shall be determined by a Committee constituted for this purpose by taking into account the production cost of a crop.
- 2) To fix “**Benchmark Period**” of produce which includes Benchmark Sowing Period and Benchmark Harvesting & Sale Period in wholesale market during which producers shall be eligible for incentives? The Benchmark Period shall be determined by a Committee constituted for this purpose by taking into account arrival of produce in wholesale market.
- 3) To fix “**Benchmark Yield**” upto which producers are eligible for incentive. The Benchmark Yield shall be determined by a Committee constituted for this purpose by taking into account potential and average yield in the State.

4. Implementation Mechanism:

- 4.1 On the basis of recommendation of Committee Base Price, Benchmark Period and Benchmark Yield shall be fixed.
- 4.2 Department of Horticulture shall prepare a scheme for budget allocation and get due approval from the Govt. The allocated funds shall be transferred into the corpus fund to be maintained by HSAMB.
- 4.3 A Corpus Fund shall be created in “HSAMB” as assessed on the basis of recommendation of Committee on fixing the Base Price, the Benchmark Period and the Benchmark Yield (pl. see Committee report).
- 4.4 An Independent Cell shall be created in HSAMB for management of corpus fund and implementation of the programme.
- 4.5 An e-portal shall be developed by HSAMB for dispersal of incentives on the produce arrived in the market. In subsequent years, it will be linked with e-girdawari for area authentication and other such portals maintained by state and GOI for monitoring and reporting.
- 4.6 Producer Registration: A farmer, the producer is eligible to take advantage of the scheme subject to following conditions:
 - 4.6.1 Only registered producer on MFMB shall be eligible under this scheme.
 - 4.6.2 The producer can be land owner, lease holder or tenant.
 - 4.6.3 Registration of producer shall be free of cost (except e-disha centres) and he/she need to register on e-portal and fill up required information viz. land details, kind of crop, area sown under crop etc. to take benefit of the scheme.
 - 4.6.4 Registration shall remain open during the benchmark sowing period and 15 days after last date of sowing mentioned in the benchmark period for that particular crop. The period shall be fixed under the scheme for a particular crop.
 - 4.6.5 Registration on MFMB Portal can be done through Common Service Centres (CSC)/ e-Disha Centres or through portals of HSAMB or Agriculture/ Horticulture departments or internet kiosks on mobile app.
- 4.7 The **area authentication** is subject to verification within 15 to 30 days (depending upon the crop) after closing date of registration by Horticulture Extension Field Officers.
 - Mobile based application shall be used for area authentication/ physical verification of registered area of crops under BBY and measurement through GPS coordinates and photo of site/ crops.
 - As the early potato has already been harvested and wheat/ other crop has been sown in that harvested area and physical verification at this stage is not feasible. However, District Horticulture Officer/ Horticulture Development Officer along with concerned revenue officer/ Patwari will authenticate/ verify such type of field, to ensuring that there was early potato crop sown in that field and upload information on portal accordingly.

- A farmer who is registered in one particular district but having land in other district; the application of such farmer shall be forwarded to DHO concerned where his/her land falls. After verification the application shall be sent back to original district.
- 4.8 Producers who don't register themselves during the opening window of registration shall not be eligible under this scheme.
- 4.9 The online processing, right from registration to disbursal of payment to producers, shall be executed by independent cell situated in HSAMB Head Quarter and shall work in close co-ordination with market secretaries in the HSAMB markets through e-Portal.
- 4.10 Determination of Benchmark Period: "Benchmark Period" of produce shall be fixed, it includes Benchmark Sowing Period and Benchmark Harvesting & Sale Period in wholesale market during which producers shall be eligible for incentives. This period shall be determined by a Committee to be constituted for the purpose on the basis of harvesting period and arrival data in the market. The Committee determined the sowing, harvesting and sale period of different crops and is as under:
- 4.10.1 The online registration, verification and sale period shall be as under:

Table-1

Crop	Registration & Verification Period		Benchmark Harvesting and Sale Period in wholesale market	
	Opening Date	Closing Date	During	
Bhindi	1 February	31 March	15 April - 30 June	15 Aug to 30 Sept
Chilli	1 February	31 March	15 April - 30 June	
Bottle gourd	1 February	31 March	15 April - 30 June	15 Aug to 30 Sept
Bitter gourd	1 February	31 March	15 April - 30 June	15 Aug to 30 Sept
Cabbage	1 October	30 Nov	1 Dec – 31 March	
Radish	1 October	30 Nov	1 Dec – 31 March	
Tomato	15 Dec	15 Feb	1 April-15 June	
Onion	15 Dec	15 Feb	1 April-31 May	1 Nov to 15 Dec
Potato	15 Sept	31 October	1 Dec-31 March	
Cauliflower	15 Sept	31 October	1 Dec-31 March	15 Aug to 30 Sept
Carrot	1 October	30 Nove	1 Dec -28 Feb	
Pea	1 October	30 Nov	1 Dec -28 Feb	
Capsicum	10 Feb	15 March	1 April – 30 June	
Brinjal	10 Feb	15 March	1 April – 30 June	15 Aug to 31 Oct
Turmeric	1 June	31 July	1 March – 30 April	
Garlic	1 October	30 Nov	1 April – 15 May	
Mango	1 March	15 May	15 June – 31 Aug	
Kinnow	1 Sept	30 Nov	1 Dec -28 Feb	
Guava	15 April	15 May	1 July - 31 Aug	
Litchi	15 th Jan	31 st March	15 May to 31 July	
Ber	15 th Sept	15 th Nov	1 Feb to 31 March	

- 4.11 Determination of Financial Implication: A ten year data of market arrival and wholesale price was studied. On the basis of lowest price in ten years and Base

Price and total arrival in the markets in Haryana, the financial liability has been estimated as under:

Table-2
(Rs. in Crore)

One Year Incentive Liability (Rs. in Crore)			
Sn.	Crop	Minimum rate in the last 10 years and last year produce arrival in the market	
		2017-18	2018-19
1	Potato	0.00	98.24
2	Onion	11.35	11.35
3	Tomato	15.64	15.64
4	Cauliflower	0.00	12.19
	Total	26.99	137.42
	Admn. Charges @5%	1.35	6.87
	Grand Total	28.34	144.29

Note: Please refer Annexure-3 to Annexure-6 for detailed calculations of liabilities.

4.12 Incentive Period: Incentives shall be given only during prescribed Sale Period for particular crop under the scheme.

4.13 Mandi Zones :Seven Mandi Zones have been identified for calculation of zone wise Mode Rate. Zone wise detail is as under:

Sn.	Name of Zone	Districts under Zone
1	Ambala	Ambala, Yamuna Nagar, Kurukshetra, Panchkula,
2	Karnal	Karnal, Panipat, Sonapat
3	Rohtak	Rohtak, Jind, Kaithal, Jhajjar
4	Gurugram	Gurugram, Nuh
5	Hisar	Hisar, Fatehabad, Sirsa
6	Bhiwani	Bhiwani, C. Dadri, Rewari, Narnaul
7	Faridabad	Faridabad, Palwal

1. HSAMB will depute Mandi wise In-charge who will ensure online entry of the “H” register on daily basis of that particular Mandi.
2. The BBY modal will be determined by the software of HSAMB on daily basis.
3. BBY rate of a particular zone will remain applicable of the produce of that particular zone only.
4. Day wise BBY rate shall be declared separately in all the above seven Mandi Zones on the basis of Mandi wise Mode rate.

4.14 Dispersal of Incentives:

- 4.14.1 Dispersal of incentive shall be managed through portal to be maintained by HSAMB.
- 4.14.2 During sale period, if wholesale price of particular commodity/crop falls below the “Base Price”, then producer get eligible for incentive. Incentive shall be dispersed on the basis of difference in average daily wholesale price in the market to be fixed and maintained by implementing cell in HSAMB and Base

Price and multiplied by sale quantity on J-Form or Benchmark
Yield per acre so fixed whichever is lower.

$$\begin{aligned} \text{Incentive} = & \text{Base Price} - (\text{minus}) \text{Daily Wholesale Price} \\ & \times (\text{multiply}) \\ & \text{Sale Quantity* on J-Form or Benchmark Yield} \\ & (\text{whichever is lower}) \end{aligned}$$

- * Only those farmers who will sale their produce on J-Form shall be considered for incentive. However, upper limit of quantity to be considered for incentive shall be either quantity sold on J-Form or Benchmark Yield so fixed whichever is lower.
- 4.14.3 Average Daily Wholesale Price shall be taken on the basis of average wholesale market rate assessed daily (of Mandi where produce has been sold and neighboring mandis) during the arrival period of produce. The data shall be maintained by the HSAMB on their portal. The payment settlement period shall be in 15 days.
- 4.14.4 The amount of compensation should be apportioned between the land owner and the tenant in ratio in which crop is shared between the two. In case, a fixed rent is payable by the tenant, the tenant will get the entire amount of admissible compensation. The payment to share croppers and *Siris* will be made as per their share of crops in the records of as per local customs. The compensation can also be disbursed on the basis of special power of attorney (SPA) available with the *Siris*/share croppers/ tenants etc.
- 4.14.5 In subsequent years, it will be linked with e-NAM wholesale auction rate.
- 4.14.6 Determination of quantity sold:
 - a. The J- Form shall be the basis of the produce sold in the market and also to determine the quantity of produce sold by the producer in Market Yards or Collection Centres.
 - b. The quantity shall also be assessed on the basis of benchmark yield. The benchmark yield fixed by the Committee is as under:

Table:3

Sn.	Crop	Benchmark Yield (qt. per acre)
1	Tomato	140
2	Onion	100
3	Potato	120
4	Cauliflower	100
5	Bhindi	70
6	Bottle gourd	110
7	Bitter gourd	40
8	Brinjal	110
9	Carrot	100
10	Cabbage	100
11	Chilli	70
12	Capsicum	80
13	Pea	50
14	Radish	100
15	Turmeric	80
16	Garlic	50
17	Mango	50
18	Guava	70
19	Kinnow	104
20	Ber	77
21	Litchi	40

c. The J-form shall be issued by purchaser and shall be generated online in subsequent years.

4.14.7 The incentive shall be released automatically in Aadhaar Seeded bank account of beneficiary through online process or payment gateway of e-portal.

4.15 Maintenance of Corpus Fund:

4.15.1 Department of Horticulture will contribute fund in the form of Grant-in-Aid towards corpus fund to be maintained by HSAMB.

4.15.2 Corpus fund shall be replenished by way of fund transfer by Horticulture Department to HSAMB and shall be assessed yearly on the basis of arrival and financial implication of previous year and/or market fees as determined and decided by the Govt.

4.15.3 The corpus fund shall be used only for incentivizing the producers under the scheme.

4.16 Default liabilities on account of producer:

4.16.1 The producer is to ensure his/her registration on e-portal, failing which he/she will not be eligible for incentive under the scheme.

4.16.2 The producer is to ensure his/her registration during scheme opening period (period fixed for registration for particular crop). Registration shall remain open during the cultivation period and 15 days after closing date of harvesting period. The period shall be fixed under the scheme for a particular crop.

- 4.16.3 The producer is to ensure his/her sale of produce during fixed sale period in the designated market places in the State.
- 4.16.4 The producer is to obtain J-Form of quantity sold so as to claim the incentives in the scheme.
- 4.17 To ensure that crop pattern doesn't largely change and mono-cropping doesn't happen, State would have following enabling provisions so that maximum no. of beneficiaries may be covered within available budget under the scheme during a year.
- State has the right to limit the Benchmark Yield and total quantity of produce and total area per producer for the purpose of incentive under the scheme.
 - State has right to fix the Base Price for determination of maximum incentive that may be provided to one beneficiary.

5. Calculation of BBY Rate:

In addition to BBY rate of the day, there shall be rate cushioning of Rs. 50/- per quintal to the nearest whole point while fixing of BBY rate of the day. The BBY rate shall be Rs. 0/ 50/ 100/ 150/ 200/ 250/ 300/ 350/ 400/ 450 per quintal and if rate falls in between the price range then rate shall be calculated to be nearest whole point. If BBY mode rate of the day for a particular zone is in between Rs. 301/- to Rs. 349/- per qtl. then BBY rate will be fixed as Rs. 300/- per qtl and if it is in between Rs. 351/- to Rs. 399/- then BBY rate will be fixed as Rs. 350/- per qtl.

6. Quality Parameters:

Quality parameters of commodities i.e. Potato, Tomato, Cauliflower & Onion available on e-NAM portal will be adopted for produce of registered farmers under BBY. In case of any issue regarding poor/ unsalable commodity quality, the quality parameters in concerned Mandis, will be assessed by Secretary (Mandi) and HDO of the block concerned. They shall physically check that commodity keeping in view of e-NAM quality parameters and will decide whether the produce is fit for sale or not.

7. Crops to be covered:

- Initially only four crops shall be taken under the scheme namely: Potato, Tomato, Onion and Cauliflower
- In subsequent years, more crops may be included based on assessment of the market rates of other crops.
- List of Crops covered under BBY: (21 crops)

Table:4

Vegetables				
1. Tomato	2. Onion	3. Potato	4. Cauliflower	5. Pea
6. Carrot	7. Bhindi	8. Bottle Gourd	9. Bitter Gourd	10. Brinjal
11. Chilly	12. Capsicum	13. Cabbage	14. Radish	
Spices				
1. Turmeric	2. Garlic			
Fruits				
1. Kinnow	2. Guava	3. Mango	4. Ber	5. Litchi

8. Cost of Cultivation, Base Prices and Benchmark Crop Yield :

- a) The “**Base Price and Benchmark Yield**” under the scheme shall be fixed and revised (as and when required) by a Committee.
- b) The Govt. vide notification dated 17.08.2016 constituted a Committee and had three meetings on 29-08-2017, 27-11-2017 and on 14.12.2017. The final report on Base Price and Benchmark Yield of identified four crops i.e. potato, onion, tomato & cauliflower determined by the Committee. 4th meeting was convened on 05-04-2019 and protected price of four crops revised on 13.05.2019, 5th meeting was held on 02-07-2019 & 6th meeting was held on 07-11-2019 Base price Bench mark yield Registration Period and Sale period of kinnow, Guava, Carrot, Pea, Capsicum & Brinjal was determined by the Committee. 7th meeting was held on 18-11-2019 Base price Bench mark yield Registration Period and Sale period of Bhindi, Chilli, Bottle gourd, Bitter gourd, Turmeric, Cabbage, Radish, Garlic & Mango was determined by the Committee, 8th meeting was held on 19.03.2021 Base price Bench mark yield Registration Period and Sale period of Litchi & Ber was determined by the Committee.

Table - 5

Sn.	Crop	Benchmark Yield (qt. per acre)	Protected Price (Rs. per qtl.)
Vegetables			
1	Tomato	140	500
2	Onion	100	650
3	Potato	120	600
4	Cauliflower	100	750
5	Bhindi	70	1050
6	Bottle gourd	110	450
7	Bitter gourd	40	1350
8	Brinjal	110	500
9	Carrot	100	700
10	Cabbage	100	650
11	Chilli	70	950
12	Capsicum	80	900
13	Pea	50	1100
14	Radish	100	450
Spices			
15	Turmeric	80	1400
16	Garlic	50	2300
Fruits			
17	Mango	50	1950
18	Guava	70	1300
19	Kinnow	104	1100
20	Ber	77	1500
21	Litchi	40	2400

9. Budget Provision:

- a. After approval of scheme from Govt., the budget shall be transferred as Grant-in-Aid to corpus fund to be maintained by HSAMB.

10. Responsible Agencies:

- a. Horticulture Department shall be responsible for seasonal assessment and data analysis based on the field survey regarding coverage of area and estimated production based on Statistical Methodology.
- b. CCSHAU, ICAR, Haryana Kisan Ayog, HSAMB and Horticulture Department shall determine the Base Price and Benchmark Yield under the scheme as and when required.
- c. Haryana State Agricultural Marketing Board (HSAMB) shall be responsible for maintaining the e-portal and that will be subsequently linked with the e-NAM/e-Girdawari. The payment to beneficiary shall be through this portal to be linked subsequently with payment gateway.

11. Market Intervention by Govt. Agencies for Procurement of Produce

HSAMB will make necessary arrangement for procurement/ disposal of unsold produce of farmer and for this they will set up a Help Desk for farmers in each Fruit and Vegetable Mandi.

1) Record of produce in H-register

- Secretary Market Committee shall ensure to record all the sale proceeds on H-register.
- Online H-register will be maintained for arrival of all the produce of all the farmers in the Mandi instead of pick & choose. The rates on which the produce was sold of individual farmer shall be mentioned in the H-register.
- Mode rate of that Mandi will be calculated by considering all the sale proceeds during the day on the basis of entries in the H-register. HSAMB shall develop a calculation sheet and that will be linked to BBY Portal.

2) Market Intervention and Modus Operandi

- HSAMB will set up a Help Desk in each Fruit and Vegetable Market to facilitate the farmers to approach for their unsold produce and other issues.
- In case, produce of any farmer remains unsold during the day (tomato and cauliflower) and for one or two days (onion and potato). The unsold quantity shall be assessed by Chairman/ Vice-Chairman and Secretary of the concerned Market Committee and they shall intervene to facilitate procurement/ disposal of produce of farmer. For this the Local Market Committee shall designate one/two commission agents.
- The designated commission agents will purchase such produce on the designated day at the last/ lowest price of that day or previous day for that particular commodity.
 - HSAMB shall compensate the agent for the offering last lowest price and also give service charges as decided by HSAMB.
 - HSAMB shall compensate the farmer on the basis of BBY rate of day and protected price.

The quantity so purchased by the agent shall be disposed of by the designated commission agents. The disposal of quantity shall be assessed by Chairman/ Vice-Chairman and Secretary of the concerned Market Committee. It will be sold further by commission agent with the permission of them.

12. Scheme Publicity: A wide publicity shall be made through various sources like print and electronic media, awareness camps, orientation and training programs, meeting with producers groups, HSAMB staff, commission agents and other involved stake holders. Mass contact programme shall also be conducted in the form of field days and awareness campaigns under different programmes & schemes of Agriculture & Horticulture Departments.

13. Programme Monitoring:

a. State Level Monitoring Committee (SLMC):

A state level monitoring Committee with following composition will be constituted to monitor and evaluate the program at state level time to time:

- | | | |
|---|---|-------------|
| 1. Chief Secretary | : | Chairman |
| 2. ACS/Finance | : | Member |
| 3. PS/ACS, Food & Supplies | : | Member |
| 4. PS (Agriculture &FW) | : | Member |
| 5. Special Secretary/Revenue | : | Member |
| 6. CGM, NABARD, Chandigarh | : | Member |
| 7. Director, Agriculture & FW | : | Member |
| 8. DG Horticulture | : | Member |
| 9. Director Land Record | : | Member |
| 10. Director Extension, Horticulture University | : | Member |
| 11. CA, HSAMB | : | Member Sec. |

b. District Level Monitoring Committee (DLMC):

A District Level Monitoring Committee with following composition will be constituted to monitor and evaluate the program at district level time to time:

- | | | |
|----------------------------------|---|------------------|
| 1. Deputy Commissioner | : | Chairman |
| 2. Deputy Director Agriculture | : | Member |
| 3. District Manager NABARD | : | Member |
| 4. District Horticulture Officer | : | Member |
| 5. District Revenue Officer | : | Member |
| 6. DMEO, HSAMB | : | Member Secretary |

The State & District Level Monitoring Committees shall review the scheme from time to time and give suggestions for its effective implementation.

Annexure-A

Bhavantar Bharpayee Yojna (BBY) - A Risk Mitigation Scheme for Horticulture Producers during Low Price in Markets in Haryana

A. Market Arrival of Selected Crops in wholesale markets in Haryana:

(Source: HSAMB)
(Arrival in Lakh Qtl.)

Year	Potato	Onion	Tomato	Cauliflower
2008	33.44	14.45	-	-
2009	41.16	15.89	-	-
2010	37.31	14.52	-	-
2011	44.63	14.76	-	-
2012	48.74	18.15	13.54	6.38
2013	40.70	17.92	14.22	6.99
2014	40.09	14.33	12.23	6.90
2015	37.75	13.77	11.24	5.17
2016	39.33	14.12	10.57	5.28
2017	41.64	16.70	10.79	5.30

Year	Kinnow	Guava	Carrot	Pea	Capsicum	Brinjal
2010	0.93	2.36	1.46	0.57	0.10	1.65
2011	1.17	1.36	6.68	3.35	0.34	1.83
2012	1.47	1.92	3.97	1.88	0.73	2.60
2013	1.34	1.63	5.60	2.34	0.55	3.13
2014	1.31	1.90	6.16	3.29	0.39	2.79
2015	1.49	1.12	3.05	1.74	0.24	2.33
2016	1.51	0.72	2.31	1.77	0.23	2.07
2017	1.51	0.60	1.72	1.99	0.43	2.65
2018	1.41	0.88	2.68	2.27	0.43	1.76
2019	1.33	0.48	3.34	2.48	0.54	1.44

Year	Bhindi	chilly	Bottle gourd	Bitter gourd	Radish	Cabbage	Garlic	Turmeric	Mango
2010	0.95	1.04	1.18	0.57	2.66	1.32	0.21	-	6.36
2011	1.54	1.51	1.97	0.81	2.68	2.08	0.11	-	5.26
2012	2.02	1.41	1.97	0.90	2.51	2.28	0.35	-	5.38
2013	6.02	1.46	1.99	1.05	3.13	2.58	0.25	-	6.03
2014	1.43	0.94	1.88	0.52	2.11	1.64	0.14	-	4.36
2015	1.02	0.86	2.35	0.53	1.84	1.47	0.08	-	3.25
2016	1.72	1.05	4.65	1.05	1.37	1.50	0.11	-	3.31
2017	1.10	1.09	3.81	0.49	2.09	2.36	0.16	-	2.56
2018	1.16	0.90	2.53	0.48	1.38	1.02	0.18	-	3.33
2019	1.16	0.46	2.16	0.29	0.30	0.46	0.08	-	2.18

Year	Litchi	Ber
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2011	0.10	0.14
2012	0.04	0.19
2013	0.11	0.08
2014	0.02	0.08
2015	0.04	0.08
2016	0.07	0.07
2017	0.01	0.07
2018	0.04	0.09
2019	0.03	0.02
2020	0.01	0.008

Crop	Potato	Onion	Tomato	Cauliflower
Area (ha)	34529	31005	31821	39513

Crop	Kinnow	Guava	Carrot	Pea	Capsicum	Brinjal
Area (ha)	21789	12595	28972	15586	4430	16994

Crop	Bhindi	Chilly	Bottle gourd	Bitter gourd	Radish	Cabbage	Garlic	Turmeric	Mango
Area (ha)	24334	15944	24959	7482	33080	21572	3293	921	9563

Crop	Litchi	Ber
Area (ha)	223	4314

B. Production and Productivity of Selected Crops in Haryana (Base Year: 2016-17)

	Potato	Onion	Tomato	Cauliflower
Production (Lakh Qtl.) (Horticulture Department)	93.60	61.70	64.40	61.60
State Productivity (Qtl./acre) (Horticulture Department)	99.64	92.12	93.44	64.08
Survey Productivity (CCSHAU, Hisar) (Qtl./acre)	134.00	102.96	167.22	92.25
Haryana Kisan Aayog (Qtl./acre)	120.00	100.00	140.00	100.00
Benchmark yield - (Qtl./acre)	120.00	100.00	140.00	100.00

	Kinnow	Guava	Carrot	Pea	Capsicum	Brinjal
Production (Lakh Qtl.) (Horticulture Department)	39.78	25.16	46.47	14.47	3.61	33.35

Productivity (Qtl./acre) (Horticulture Department)	115.96	84.64	71.84	39.84	32.68	78.51
Productivity (CCSHAU, Hisar) (Qtl./acre)	104	70	100	50	80	110
Benchmark yield - (Qtl./acre)	104	70	100	50	80	110

	Bhindi	Chilly	Bottle gourd	Bitter gourd	Radish	Cabbage	Garlic	Turmeric	Mango
Production (Lakh Qtl.) (Horticulture Department)	24.15	12.28	38.35	6.07	56.87	38.34	4.26	1.10	11.61
Productivity (Qtl./acre) (Horticulture Department)	41.20	29.52	56.08	32.76	68.88	56.00	44.44	18.32	37.76
Productivity (CCSHAU, Hisar) (Qtl./acre)	70	70	110	40	100	100	50	80	50
Benchmark yield - (Qtl./acre)	70	70	110	40	100	100	50	80	50

	Litchi	Ber
Production (Qtl.) (Horticulture Department)	2530	41238
Productivity (Qtl./acre) (Horticulture Department)	65.28	54.28
Productivity (CCSHAU, Hisar) (Qtl./acre)	-	-
Benchmark yield -(Qtl./acre)	40	77

Annexure-B

A. Maximum and Minimum Wholesale Price (Rs. per Qtl.) in wholesale markets in Haryana.

(Source: AgMarket)

Crop/ Period	Potato (February to April)	Onion (March to April)	Tomato (May to June)	Cauliflower (January to February)
10 Year data				
Minimum	164.08	452.00	255.21	270.58
Maximum	660.33	1399.62	1603.08	774.97
2016-17 data				
Minimum	176.66	835.42	750.56	357.49
Maximum	279.49	1066.67	1835.19	508.20

Crop/ Period	Kinnow (December to February)	Guava (July to August)	Carrot (December to February)	Pea (December to February)	Capsicum (April to June)	Brinjal (February to May)
10 Year data						
Minimum	1030.30	796.16	391.03	901.19	710.9	521.25
Maximum	2362.35	2558.78	968.91	2060.43	1948.73	1365.78
2018-19 data						
Minimum	1563.24	1803.91	582.98	1340.44	1655.17	1044.84
Maximum	2362.35	2139.03	767.89	1656.29	2049.34	1337.51

Crop/ Period	Bhindi	Chilly	Bottle gourd	Bitter gourd	Radish	Cabbage	Garlic	Turmeric	Mango
10 Year data									
Minimum	874.06	847.51	401.84	741.40	142.13	323	1198.87	-	1140.44
Maximum	2304.27	2963.59	1477.0	1980.07	573.75	1038	7365.22	-	3812.53
2018-19 data									
Minimum	1875.75	1975.66	940.0	1445.21	403.23	564	2057.31	-	2259.83
Maximum	2304.27	2508.0	1260.68	1883.16	525.42	717	2629.78	-	3657.10

Crop/ Period	Litchi	Ber
10 Year data		
Minimum	2573	591
Maximum	6789.27	2187.62
2019-20 data		
Minimum	3961.55	1708.34
Maximum	5011.36	2187.62

B. Financial Implication (on minimum price of last 10 year and market arrival of 2016-17)

(Rs. in crore)

One Year Incentive Liability (Rs. in Crore)			
Sn.	Crop	Minimum rate in the last 10 years and last year produce arrival in the market	
		2017-18	2018-19
1	Potato	0.00	98.24
2	Onion	11.35	11.35
3	Tomato	15.64	15.64
4	Cauliflower	0.00	12.19
	Total	26.99	137.42
	Admn. Charges @5%	1.35	6.87
	Grand Total	28.34	144.29

One Year Incentive Liability (Rs. In Crore)			
Sn.	Crop	Minimum rate in the last 10 years and last year produce arrival in the market	
		2018-19	2019-20
1	Kinnow	0	0
2	Guava	0	0
3	Carrot	10.30	10.30
4	Pea	4.93	4.93
5	Capsicum	1.03	1.03
6	Brinjal	0	0
	Total	16.26	16.26
	Admn. Charges @5%	0.81	0.81
	Grand Total	17.07	17.07

One Year Incentive Liability (Rs. In Crore)		
Sn.	Crop	Minimum rate in the last 10 years and last year produce arrival in the market
		2019-20
1	Bhindi	4.35
2	Chilly	1.10
3	Bottle gourd	4.59
4	Bitter gourd	2.44
5	Radish	0.84
6	Cabbage	1.51
7	Garlic	0.72
8	Turmeric	0.00
9	Mango	5.00
	Total	20.55
	Admn. Charges @5%	1.027
	Grand Total	21.577

One Year Incentive Liability (Rs. In Crore)		
Sn.	Crop	Minimum rate in the last 10 years and last year produce arrival in the market
		2019-20
1	Litchi	0.00
2	Ber	0.06
	Total	0.06
	Admn. Charges @5%	0.003
	Grand Total	0.063

Annexure-1

Market Arrival and Price Trend in last 10 years:						Crop	Potato
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2008	3343955	419.95	400	-19.95	0.00	
2	2009	4115793	164.08	400	235.92	97.10	
3	2010	3731400	284.52	400	115.48	43.09	
4	2011	4463038	211.31	400	188.69	84.21	
5	2012	4874420	506.66	400	-106.66	0.00	
6	2013	4070247	579.31	400	-179.31	0.00	
7	2014	4008679	660.33	400	-260.33	0.00	
8	2015	3775419	430.01	400	-30.01	0.00	
9	2016	3932600	498.24	400	-98.24	0.00	
10	2017	4164278	199.58	400	200.42	83.46	
				Total Liability (in 10 yrs)		307.86	
				Av. Yearly liability		30.79	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		4164278	164.08	400	235.92	982436466	98.24 cr.
Liability Amount on the basis of last year quantity & last year average rate		4164278	199.58	400	200.42	834604597	83.46 cr.

Annexure-2

Market Arrival and Price Trend in last 10 years:						Crop	Onion
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2008	1444534	452.00	500	48.00	6.93	
2	2009	1588646	887.78	500	-387.78	0.00	
3	2010	1452044	560.71	500	-60.71	0.00	
4	2011	1475690	675.44	500	-175.44	0.00	
5	2012	1815232	687.04	500	-187.04	0.00	
6	2013	1791537	813.66	500	-313.66	0.00	
7	2014	1433448	1049.3	500	-549.3	0.00	
8	2015	1376936	1328.57	500	-828.57	0.00	
9	2016	1412025	1399.62	500	-899.62	0.00	
10	2017	1670282	1066.67	500	-566.67	0.00	
				Total Liability (in 10 yrs)		6.93	
				Av. Yearly liability		0.69	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		1670282	452	500	48	11,35,00,000	11.35 cr.
Liability Amount on the basis of last year quantity & last year average rate		1670282	1066.67	500	-566.67	0	0

Annexure-3

Market Arrival and Price Trend in last 10 years:						Crop	Tomato
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2008	1353980	255.21	400	144.79	19.60	
2	2009	1353980	329.58	400	70.42	9.53	
3	2010	1353980	523.88	400	-123.88	0.00	
4	2011	1353980	386.87	400	13.13	0.00	
5	2012	1353980	528.23	400	-128.23	0.00	
6	2013	1422087	453.58	400	-53.58	0.00	
7	2014	1222867	540.60	400	-140.6	0.00	
8	2015	1124426	1603.08	400	-1203.08	0.00	
9	2016	1057436	833.74	400	-433.74	0.00	
10	2017	1079095	806.60	400	-406.6	0.00	
				Total Liability (in 10 yrs)		29.14	
				Av. Yearly liability		2.91	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		1079095	255	400	145	156468775	15.64 cr.
Liability Amount on the basis of last year quantity & last year average rate		1079095	806.6	400	-406.6	0	0

Annexure-4

Market Arrival and Price Trend in last 10 years:						Crop	Cauliflower
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2008	638866	491.79	500	8.21	0.00	
2	2009	638866	270.58	500	229.42	14.66	
3	2010	638866	359.88	500	140.12	8.95	
4	2011	638866	293.82	500	206.18	13.17	
5	2012	638866	774.97	500	-274.97	0.00	
6	2013	699843	437.94	500	62.06	4.34	
7	2014	690035	503.69	500	-3.69	0.00	
8	2015	517281	679.07	500	-179.07	0.00	
9	2016	528112	413.68	500	86.32	4.56	
10	2017	530346	357.49	500	142.51	7.56	
				Total Liability (in 10 yrs)		53.24	
				Av. Yearly liability		5.32	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		530346	270	500	230	121979580	12.19 cr.
Liability Amount on the basis of last year quantity & last year average rate		530346	357.49	500	142.51	75579608	7.55 cr.

Annexure-5

Market Arrival and Price Trend in last 10 years:						Crop	Kinnow
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	92887	1175.91	1100	-75.91	0.00	
2	2011	117454	1282.06	1100	-182.06	0.00	
3	2012	147075	1285.26	1100	-185.26	0.00	
4	2013	134213	1333.29	1100	-233.29	0.00	
5	2014	130797	1472.00	1100	-372.00	0.00	
6	2015	148696	1515.43	1100	-415.43	0.00	
7	2016	150705	1619.17	1100	-519.17	0.00	
8	2017	151020	1771.71	1100	-671.71	0.00	
9	2018	141245	1679.44	1100	-579.44	0.00	
10	2019	133259	1853.68	1100	-753.68	0.00	
				Total Liability (in 10 yrs)		0.00	
				Av. Yearly liability		0.00	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		133259	1175.91	1100	-75.91	0.00	0.00
Liability Amount on the basis of last year quantity & last year average rate		133259	1853.68	1100	-753.68	0.00	0.00

Annexure-6

Market Arrival and Price Trend in last 10 years:						Crop	Guava
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	236424	796.16	1300	+503.84	11.91	
2	2011	135825	1034.48	1300	+265.52	3.61	
3	2012	192269	1047.23	1300	+252.77	4.86	
4	2013	162506	1757.14	1300	-457.14	0	
5	2014	189808	1032.05	1300	+267.95	5.08	
6	2015	111542	1313.11	1300	-13.11	0	
7	2016	71734	2107.07	1300	-807.07	0	
8	2017	60427	2064.50	1300	-764.50	0	
9	2018	88437	1943.98	1300	-643.98	0	
10	2019	47474	2558.78	1300	-1258.78	0	
				Total Liability (in 10 yrs)			
				Av. Yearly liability			
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		47474	796.16	1300	+503.84	2.39	
Liability Amount on the basis of last year quantity & last year average rate		47474	2558.78	1300	-1258.78	0	

Annexure-7

Market Arrival and Price Trend in last 10 years:						Crop	Carrot
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	145523	410.43	700	+289.57	4.21	
2	2011	667717	391.03	700	+308.97	20.63	
3	2012	396740	698.09	700	+1.91	.07	
4	2013	559889	582.75	700	+117.25	6.56	
5	2014	616196	456.78	700	+243.22	14.98	
6	2015	304446	876.47	700	-176.47	0	
7	2016	231349	546.96	700	+153.04	3.54	
8	2017	172381	608.95	700	+91.5	1.57	
9	2018	268346	968.91	700	-268.91	0	
10	2019	333560	659.96	700	+40.04	1.33	
				Total Liability (in 10 yrs)			
				Av. Yearly liability			
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		333560	391.03	600	+308.97	10.30	
Liability Amount on the basis of last year quantity & last year average rate		333560	659.96	600	-59.56	0	

Market Arrival and Price Trend in last 10 years:						Crop	Pea
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	57426	1087.50	1100	+12.5	0.07	
2	2011	335099	1265.09	1100	-165.09	0	
3	2012	187863	901.19	1100	+198.81	3.73	
4	2013	233886	1368.45	1100	-268.45	0	
5	2014	328691	1394.32	1100	-294.32	0	
6	2015	174337	1956.53	1100	-856.53	0	
7	2016	177291	2060.43	1100	-960.43	0	
8	2017	199215	1075.86	1100	+24.14	0.48	
9	2018	226670	1668.83	1100	-568.83	0	
10	2019	248216	1432.76	1100	-332.76	0	
				Total Liability (in 10 yrs)			
				Av. Yearly liability			
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		248216	901.19	1100	+198.81	4.93	
Liability Amount on the basis of last year quantity & last year average rate		248216	1432.76	1100	-332.76	0	

Annexure-9

Market Arrival and Price Trend in last 10 years:						Crop	Capsicum
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	10933	1033.91	900	-133.91	0	
2	2011	340052	710.9	900	+189.1	6.43	
3	2012	73702	1948.73	900	-1048.73	0	
4	2013	55442	1279.42	900	-379.42	0	
5	2014	39724	904.25	900	-4.25	0	
6	2015	24088	1712.99	900	-812.99	0	
7	2016	23625	1124.28	900	-224.28	0	
8	2017	43136	1306.08	900	-406.08	0	
9	2018	43053	1141.57	900	-241.57	0	
10	2019	54568	1667.5	900	-767.5	0	
				Total Liability (in 10 yrs)			
				Av. Yearly liability			
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		54568	710.9	900	+189.1	1.03	
Liability Amount on the basis of last year quantity & last year average rate		54568	1667.5	900	-767.5	0	

Annexure-10

Market Arrival and Price Trend in last 10 years:						Crop	Brinjal
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	165393	521.25	500	-21.25	0	
2	2011	183405	556.52	500	-56.52	0	
3	2012	259925	984.46	500	-484.46	0	
4	2013	313035	998.48	500	-498.48	0	
5	2014	279428	682.99	500	-182.99	0	
6	2015	233350	1103.96	500	-603.96	0	
7	2016	207069	929.65	500	-429.65	0	
8	2017	265224	815.30	500	-315.30	0	
9	2018	175813	990.82	500	-490.82	0	
10	2019	143922	1365.78	500	-865.78	0	
				Total Liability (in 10 yrs)			
				Av. Yearly liability			
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		143922	521.25	500	-21.25	0	
Liability Amount on the basis of last year quantity & last year average rate		143922	1365.78	500	-865.78	0	

Annexure-11

Market Arrival and Price Trend in last 10 years:						Crop	Bhindi
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	94870	808.35	1050	241.65	2.29	
2	2011	154029	676.48	1050	373.52	5.75	
3	2012	202464	1084.55	1050	-34.55	0.00	
4	2013	601703	1077.19	1050	-27.19	0	
5	2014	142924	805.5	1050	244.5	0	
6	2015	101901	1268.06	1050	-218.06	0	
7	2016	171734	1590.68	1050	-540.68	0	
8	2017	109535	1074.34	1050	-24.34	0	
9	2018	116308	1246.06	1050	-196.06	0	
10	2019	116359	1200.63	1050	-150.63	0	
				Total Liability (in 10 yrs)		8.05	
				Av. Yearly liability		0.80	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		116359	676.48	1050	373.52	4.35	0
Liability Amount on the basis of last year quantity & last year average rate		116359	1200.63	1050	-150.63	-1.75	0

Annexure-12

Market Arrival and Price Trend in last 10 years:						Crop	Chilli
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	103752	906.08	950	43.92	0.46	
2	2011	151149	708.97	950	241.03	3.64	
3	2012	141264	2603.48	950	-1653.48	0.00	
4	2013	145733	1227.05	950	-277.05	0.00	
5	2014	94230	843.67	950	106.33	1.00	
6	2015	86333	1230.48	950	-280.48	0.00	
7	2016	105282	2380.67	950	-1430.67	0.00	
8	2017	108985	1767.11	950	-817.11	0.00	
9	2018	90169	1251.27	950	-301.27	0.00	
10	2019	45602	2486.12	950	-1536.12	0.00	
				Total Liability (in 10 yrs)		5.10	
				Av. Yearly liability		0.51	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		45602	708.97	950	241.03	1.10	
Liability Amount on the basis of last year quantity & last year average rate		45602	2486.12	950	-1536.12	-7.01	

Annexure-13

Market Arrival and Price Trend in last 10 years:						Crop	Bottle gourd
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	118068	434.35	450	15.65	0.18	
2	2011	197144	237.37	450	212.63	4.19	
3	2012	196775	771.25	450	-321.25	0.00	
4	2013	199253	520.76	450	-70.76	0.00	
5	2014	187931	506.97	450	-56.97	0.00	
6	2015	234898	412.3	450	37.7	0.00	
7	2016	464548	1151.96	450	-701.96	0.00	
8	2017	381377	623.52	450	-173.52	0.00	
9	2018	252904	921.16	450	-471.16	0.00	
10	2019	216025	740.16	450	-290.16	0.00	
				Total Liability (in 10 yrs)		4.38	
				Av. Yearly liability		0.44	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		216025	237.37	450	212.63	4.59	
Liability Amount on the basis of last year quantity & last year average rate		216025	740.16	450	-290.16	-6.27	

Annexure-14

Market Arrival and Price Trend in last 10 years:						Crop	Bitter gourd
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	57023	520.4	1350	829.6	4.73	
2	2011	81163	529.7	1350	820.3	6.66	
3	2012	90366	1002.52	1350	347.48	3.14	
4	2013	104835	1095.09	1350	254.91	0.00	
5	2014	51909	704.1	1350	645.9	0.00	
6	2015	52654	985.28	1350	364.72	0.00	
7	2016	104601	1468.67	1350	-118.67	0.00	
8	2017	48905	918.87	1350	431.13	2.11	
9	2018	47600	791.41	1350	558.59	0.00	
10	2019	29447	1155.42	1350	194.58	0.00	
				Total Liability (in 10 yrs)		16.64	
				Av. Yearly liability		1.66	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		29447	520.4	1350	829.6	2.44	
Liability Amount on the basis of last year quantity & last year average rate		29447	1155.42	1350	194.58	0.57	

Market Arrival and Price Trend in last 10 years:						Crop	Radish
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	266310	169.8	450	280.2	7.46	
2	2011	268037	257.87	450	192.13	5.15	
3	2012	250882	320.66	450	129.34	3.24	
4	2013	312676	379.73	450	70.27	2.20	
5	2014	211379	318.06	450	131.94	0.00	
6	2015	183518	439.8	450	10.2	0.19	
7	2016	137002	276.61	450	173.39	2.38	
8	2017	209343	301.87	450	148.13	3.10	
9	2018	137894	446.67	450	3.33	0.05	
10	2019	29854	446.5	450	3.5	0.01	
				Total Liability (in 10 yrs)		23.77	
				Av. Yearly liability		2.38	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		29854	169.8	450	280.2	0.84	
Liability Amount on the basis of last year quantity & last year average rate		29854	446.5	450	3.5	0.01	

Annexure-16

Market Arrival and Price Trend in last 10 years:						Crop	Cabbage
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	132385	323.44	650	326.56	4.32	
2	2011	207676	613.45	650	36.55	0.76	
3	2012	228402	435.85	650	214.15	4.89	
4	2013	257839	405.5	650	244.5	6.30	
5	2014	164020	432.74	650	217.26	3.56	
6	2015	146782	900.38	650	-250.38	0.00	
7	2016	150300	462.19	650	187.81	2.82	
8	2017	235511	411.54	650	238.46	5.62	
9	2018	101966	1040.39	650	-390.39	0.00	
10	2019	46171	727.24	650	-77.24	0.00	
				Total Liability (in 10 yrs)		28.28	
				Av. Yearly liability		2.83	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		46171	323.44	650	326.56	1.51	
Liability Amount on the basis of last year quantity & last year average rate		46171	727.24	650	-77.24	-0.36	

Market Arrival and Price Trend in last 10 years:						Crop	Garlic
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	20522	1964.23	2300	335.77	0.69	
2	2011	10781	2911.92	2300	-611.92	0.00	
3	2012	35045	1599.33	2300	700.67	2.46	
4	2013	24560	1369.02	2300	930.98	2.29	
5	2014	13642	2809.78	2300	-509.78	0.00	
6	2015	8460	3291.58	2300	-991.58	0.00	
7	2016	10568	4741.16	2300	-2441.16	0.00	
8	2017	15980	4047.18	2300	-1747.18	0.00	
9	2018	18459	2391.28	2300	-91.28	0.00	
10	2019	7750	3513.79	2300	-1213.79	0.00	
				Total Liability (in 10 yrs)		5.43	
				Av. Yearly liability		0.54	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		7750	1369.02	2300	930.98	0.72	
Liability Amount on the basis of last year quantity & last year average rate		7750	3513.79	2300	-1213.79	-0.94	

Annexure-18

Market Arrival and Price Trend in last 10 years:						Crop	Turmeric
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	not available	not available	1400	1400	0.00	
2	2011			1400	1400	0.00	
3	2012			1400	1400	0.00	
4	2013			1400	1400	0.00	
5	2014			1400	1400	0.00	
6	2015			1400	1400	0.00	
7	2016			1400	1400	0.00	
8	2017			1400	1400	0.00	
9	2018			1400	1400	0.00	
10	2019			1400	1400	0.00	
				Total Liability (in 10 yrs)		0.00	
				Av. Yearly liability		0.00	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years				1400	1400	0.00	
Liability Amount on the basis of last year quantity & last year average rate				1400	1400	0.00	

Annexure-19

Market Arrival and Price Trend in last 10 years:						Crop	Mango
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2010	636067	1721.1	1950	228.9	14.56	
2	2011	526107	1804.86	1950	145.14	0.00	
3	2012	537825	1794.98	1950	155.02	8.34	
4	2013	602703	1899.57	1950	50.43	0.00	
5	2014	435999	2076.72	1950	-126.72	0.00	
6	2015	325478	2457.6	1950	-507.6	0.00	
7	2016	331091	1919.89	1950	30.11	0.00	
8	2017	256171	3031.89	1950	-1081.89	0.00	
9	2018	332929	2361.51	1950	-411.51	0.00	
10	2019	218404	3062.56	1950	-1112.56	0.00	
				Total Liability (in 10 yrs)		22.90	
				Av. Yearly liability		2.29	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		218404	1721.1	1950	228.9	5.00	
Liability Amount on the basis of last year quantity & last year average rate		218404	3062.56	1950	-1112.56	-24.30	

Annexure-20

Market Arrival and Price Trend in last 10 years:						Crop	Litchi
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2011	10093	4790.99	2400	-2390.99	0.00	
2	2012	3665	4116.93	2400	-1716.93	0.00	
3	2013	11481	3912.18	2400	-1512.18	0.00	
4	2014	2081	4263.01	2400	-1863.01	0.00	
5	2015	3616	5415.97	2400	-3015.97	0.00	
6	2016	6707	8145.8	2400	-5745.8	0.00	
7	2017	1278	5519.81	2400	-3119.81	0.00	
8	2018	4314	6002.08	2400	-3602.08	0.00	
9	2019	3109.6	5771.21	2400	-3371.21	0.00	
10	2020	1204.6	4532.05	2400	-2132.05	0.00	
				Total Liability (in 10 yrs)		0.00	
				Av. Yearly liability		0.00	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		1204.6	3912.18	2400	-1512.18	0.00	
Liability Amount on the basis of last year quantity & last year average rate		1204.6	4532.05	2400	-2132.05	0.00	

Annexure-21

Market Arrival and Price Trend in last 10 years:						Crop	Ber
Sn.	Year	Whole sale market		Base Price	Difference	Estimate Liability	Remarks
		Arrival	Peak Month Av. Rate				
		Qtl.	Rs. / qtl	Rs. / qtl	Rs. / qtl	Rs. in Crore	
1	2011	14451	752.67	1500	747.33	1.08	
2	2012	18895	1905.34	1500	-405.34	0.00	
3	2013	7590	1762.26	1500	-262.26	0.00	
4	2014	8389	1340.8	1500	159.2	0.13	
5	2015	8443	1338.38	1500	161.62	0.14	
6	2016	7384	1379.49	1500	120.51	0.09	
7	2017	7024	1561.79	1500	-61.79	0.00	
8	2018	8637	1163.84	1500	336.16	0.29	
9	2019	5886	1621.02	1500	-121.02	0.00	
10	2020	833	2087.48	1500	-587.48	0.00	
				Total Liability (in 10 yrs)		1.73	
				Av. Yearly liability		0.17	
Liability Amount on the basis of last year quantity & minimum rate in last 10 years		833	752.67	1500	747.33	0.06	
Liability Amount on the basis of last year quantity & last year average rate		833	2087.48	1500	-587.48	0.00	

Cost of cultivation and returns of Tomato during 2018-19

District		CCS HAU recommended cost of production 2016-17			Committee recommended cost of production 2019-20		
S.N.	Item	Qty	Val.	(%)	Qty	Val.	(%)
1	Preparatory tillage	5.37	2651	4.11		2700	3.62
2	Pre-sowing Irrigation		400	0.62		400	0.54
3	Sowing		1130	1.75		1150	1.54
4	Ridging		742	1.15		750	1.01
5	Seed (gm)	44.92	2481	3.85		2500	3.35
6	Seed Treatment		0	0			
7	FYM(qtl)	34.26	1028	1.59		1050	1.41
8	Fertilizer nutrients						
	(a)Nitrogen	43.83	531	0.82	65.69	387	0.52
	(b)Phosphatic	35.33	1459	2.26	54.35	1549	2.08
	(c)Potassic	10.12	152	0.24	33.5	636	0.85
	(d)Zinc Sulphate	4.83	141	0.22	0	0	0.00
	Total Ferti.Invest		2283	3.54			
9	Fertilizer Application		133	0.21		150	0.20
10	Irrigation	10.81	4134	6.41		4200	5.63
11	Hoeing /Weeding						
	(a) Chemical		385	0.6		400	0.54
	(b) manual		4330	6.72		4400	5.90
12	Plant Protection		3723	5.78		3750	5.03
13	Harvesting		12358	19.17		16000	21.45
14	Sorting		1795	2.79		1800	2.41
15	Miscellaneous		177	0.27		2500	3.35
	Total(1to 15)		37749	58.57		44322	
16	Interest on working Capital		1699	2.64		1721.25	2.31
17	Variable cost		39448	61.21		46043.25	
18	Management charges		3945	6.12		4604.33	6.17
19	Risk factor		3945	6.12		2302.16	3.09
20	Transportation		4584	7.11		6000	8.04
21	Market Charges		1191	1.85		1200	1.61
22	Packing Charges		2408	3.74		2450	3.28
23	Rental value of land		8929	13.85		12000	16.09
24	Total Cost with rental value		66942	100		74599.74	100
25	Total Cost without rental value					62599.74	
26	Production (qtl.)	167.22					
27	Cost of production with rental value					446.12	
28	Cost of production without rental value					374.36	

Cost of cultivation and returns of Onion during 2018-19

District		CCS HAU recommended cost of production 2016-17			Committee recommended cost of production 2019-20		
S.N.	Item	Qty	Val.	(%)	Qty	Val.	(%)
1	Preparatory tillage	5.21	2615	4.15		2700	4.14
2	Pre-sowing Irrigation		457	0.73		500	0.77
3	Sowing		8405	13.35		8500	13.03
4	Ridging		170	0.27		200	0.31
5	Seed (Kg)	4.32	5364	8.52		5400	8.28
6	Seed Treatment		0	0			0.00
7	FYM(qtl)	26.48	795	1.26		800	1.23
8	Fertilizer nutrients						
	(a)Nitrogen	29.61	360	0.57	91.68	540	0.83
	(b)Phosphatic	28.03	1162	1.85	43.48	1239	1.90
	(c)Potassic	13.88	254	0.4	16.75	318	0.49
	(d)Zinc Sulphate	6.34	191	0.3	0	0	0.00
	Total Ferti.Invest		1968	3.12			
9	Fertilizer Application		114	0.18		150	0.23
10	Irrigation	10.96	4493	7.13		4500	6.90
11	Hoeing /Weeding						
	(a) Chemical		679	1.08		700	1.07
	(b) manual		3557	5.65		3600	5.52
12	Plant Protection		1074	1.71		1100	1.69
13	Harvesting		8123	12.9		8200	12.57
14	Sorting		1600	2.54		1600	2.45
15	Miscellaneous		180	0.29		200	0.31
	Total(1to 15)		39595	62.87		40247	
16	Interest on working Capital		1782	2.83		1811.25	2.78
17	Variable cost		41376	65.7		42058.25	
18	Management charges		4138	6.57		4205.83	6.45
19	Risk factor		4138	6.57		2102.91	3.22
20	Transportation		2015	3.2		2100	3.22
21	Market Charges		608	0.97		650	1.00
22	Packing Charges		2025	3.21		2100	3.22
23	Rental value of land		8678	13.78		12000	18.40
24	Total Cost with rental value		66942	100		65216.99	100
25	Total Cost without rental value					53216.99	
26	Production (qtl.)	102.96					
27	Cost of production with rental value					633.42	
28	Cost of production without rental value					516.87	

Cost of cultivation and returns of Potato

District		CCS HAU recommended cost of production 2016-17			Committee recommended cost of production 2019-20		
S.N.	Item	Qty	Val.	(%)	Qty	Val.	(%)
1	Preparatory tillage	8.17	3992	5.96	8.17	4092	6.42
2	Pre-sowing Irrigation		282	0.42		290	0.46
3	Sowing		1563	2.33		1600	2.51
4	Ridging		701	1.05		718	1.13
5	Seed (qtl)	11.72	11596	17.32	12	11596	18.20
6	Seed Treatment		284	0.42		284	0.45
7	FYM(qtl)	111.46	3344	5	111.46	3344	5.25
8	Fertilizer nutrients						
	(a)Nitrogen	70.06	898	1.34	113.41	668	1.05
	(b)Phosphatic	46.29	1880	2.81	43.48	1239	1.94
	(c)Potassic	48.86	782	1.17	67	1273	2.00
	(d)Zinc Sulphate	6.37	172	0.26	10	280	0.44
	Total Ferti.Invest		3732	5.57			
9	Fertilizer Application		162	0.24		175	0.27
10	Irrigation	5.8	1593	2.38	5.8	1600	2.51
11	Hoeing /Weeding						
	(a) Chemical		495	0.74		520	0.82
	(b) manual		0	0			
12	Plant Protection		1365	2.04		1400	2.20
13	Harvesting		7332	10.95		7698	12.08
14	Sorting		2074	3.1		2178	3.42
15	Miscellaneous		127	0.19		150	0.24
	Total(1to 15)		38643	57.73		39105	
16	Interest on working Capital		1739	2.6		1860.52	2.92
17	Variable cost		40382	60.32		40965.52	
18	Management charges		4038	6.03	10%	4096.552	6.43
19	Risk factor		4038	6.03	5%	2048.276	3.21
20	Transportation		2449	3.66		2500	3.92
21	Market Charges		344	0.51		350	0.55
22	Packing Charges		1669	2.49		1754	2.75
23	Rental value of land		14022	20.95		12000	18.83
24	Total Cost with rental value		66942	100		63714.348	100
25	Total Cost without rental value					51714.348	
26	Production (qtl.)	134.01					
27	Cost of production with rental value					475.44	
28	Cost of production without rental value					385.90	

Cost of cultivation and returns of Cauliflower during 2018-19

District		CCS HAU recommended cost of production 2016-17			Committee recommended cost of production 2019-20		
S.N.	Item	Qty	Val.	(%)	Qty	Val.	(%)
1	Preparatory tillage	5.86	3180	4.63	5.86	3200	4.76
2	Pre-sowing Irrigation		290	0.42		300	0.45
3	Sowing		2092	3.05		2100	3.12
4	Ridging		1227	1.79		1250	1.86
5	Seed (gm)	192.07	7223	10.52		7250	10.78
6	Seed Treatment		0	0			
7	FYM(qtl)	57.55	1725	2.51		1725	2.56
8	Fertilizer nutrients			0			
	(a)Nitrogen	71.48	886	1.29	91.68	540	0.80
	(b)Phosphatic	27.96	1141	1.66	43.48	1239	1.84
	(c)Potassic	21.2	389	0.57	33.5	636	0.95
	(d)Zinc Sulphate	6.35	203	0.3	10	280	0.42
	Total Ferti.Invest		2619	3.81			
9	Fertilizer Application		222	0.32		250	0.37
10	Irrigation	9.29	2706	3.94		2750	4.09
11	Hoing /Weeding			0			
	(a) Chemical		348	0.51		350	0.52
	(b) manual		5275	7.68		5300	7.88
12	Plant Protection		4690	6.83		4700	6.99
13	Harvesting		5695	8.29		5700	8.47
14	Sorting		1176	1.71		1200	1.78
15	Miscellaneous		224	0.33		250	0.37
	Total(1to 15)		38690	56.34		39020	
16	Interest on working Capital		1741	2.54		1814	2.70
17	Variable cost		40431	58.88		40834	
18	Management charges		4043	5.89		4083.4	6.07
19	Risk factor		4043	5.89		2041.7	3.04
20	Transportation		6663	9.7		6700	9.96
21	Market Charges		951	1.39		1000	1.49
22	Packing Charges		517	0.75		600	0.89
23	Rental value of land		12020	17.5		12000	17.84
24	Total Cost with rental value		66942	100		67259.10	100
25	Total Cost without rental value					55259.10	
26	Production (qtl.)	92.25					
27	Cost of production with rental value					729.10	
28	Cost of production without rental value					599.01	

Cost of cultivation and returns of Bhindi during 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	6	3000	4.09
2	Pre-sowing Irrigation		300	0.41
3	Sowing/ Transplanting		3000	4.09
4	Ridging		800	1.09
5	Seed (Kg)	18	4500	6.13
6	Seed Treatment		0	0.00
7	FYM(qtl)	100	3000	4.09
8	Fertilizer nutrients			
	(a)Urea	68	360	0.49
	(b)DAP	50	1250	1.70
	(c)MOP	0	0	0.00
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.20
10	Irrigation	6	3000	4.09
11	Hoeing /Weeding			
	(a) Chemical		525	0.72
	(b) manual		4000	5.45
12	Plant Protection		2000	2.72
13	Harvesting		15000	20.43
14	Sorting		1000	1.36
15	Miscellaneous		200	0.27
	Total(1 to 15)		42085	
16	Interest on working Capital (4.5%)		1893.83	2.58
17	Variable cost (VC)		43978.83	
18	Management charges (10% VC)		4397.88	5.99
19	Risk factor (5% VC)		2198.94	2.99
20	Transportation		2500	3.40
21	Market Charges (Loading/ unloading)		350	0.48
22	Packing Charges		2000	2.72
23	Rental value of land (6 months)		18000	24.51
24	Total Cost		73425.65	100
25	Production (qtl.)	70		
26	Cost of production		1048.94	
27	Recommended base Price per qtl. for the year 2019-20		1050	

Cost of cultivation and returns of Cucumber during 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	6	3000	5.74
2	Pre-sowing Irrigation		300	0.57
3	Sowing/ Transplanting		1500	2.87
4	Ridging		600	1.15
5	Seed (Kg)	1.5	3000	5.74
6	Seed Treatment		0	0.00
7	FYM(qtl)	60	1800	3.44
8	Fertilizer nutrients			
	(a)Urea	34	180	0.34
	(b)DAP	25	625	1.19
	(c)MOP	16	304	0.58
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.29
10	Irrigation	6	3000	5.74
11	Hoeing /Weeding			
	(a) Chemical		0	0.00
	(b) manual		2000	3.82
12	Plant Protection		2000	3.82
13	Harvesting		6000	11.47
14	Sorting		600	1.15
15	Miscellaneous		200	0.38
	Total(1 to 15)		25259	
16	Interest on working Capital (4.5%)		1136.66	2.17
17	Variable cost (VC)		26395.66	
18	Management charges (10% VC)		2639.57	5.05
19	Risk factor (5% VC)		1319.78	2.52
20	Transportation		2100	4.01
21	Market Charges (Loading/ unloading)		350	0.67
22	Packing Charges		1500	2.87
23	Rental value of land (6 months)		18000	34.41
24	Total Cost		52305.00	100
25	Production (qtl.)	50		
26	Cost of production		1046.10	
27	Recommended base Price per qtl. for the year 2019-20		450	

Cost of cultivation and returns of Bitter gourd during 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	4	2000	3.65
2	Pre-sowing Irrigation		300	0.55
3	Sowing/ Transplanting		2000	3.65
4	Ridging		800	1.46
5	Seed (Kg)	1.5	4500	8.22
6	Seed Treatment		0	0.00
7	FYM(qtl)	60	1800	3.29
8	Fertilizer nutrients			
	(a)Urea	34	180	0.33
	(b)DAP	25	625	1.14
	(c)SSP	0	0	0.00
	(d)MOP	16	304	0.56
	Total Ferti.Invest			
9	Fertilizer Application		150	0.27
10	Irrigation	6	3000	5.48
11	Hoeing /Weeding			
	(a) Chemical		0	0.00
	(b) manual		2000	3.65
12	Plant Protection		2000	3.65
13	Harvesting		6000	10.96
14	Sorting		1000	1.83
15	Miscellaneous		200	0.37
	Total(1to 15)		26859	
16	Interest on working Capital (4.5%)		1208.66	2.21
17	Variable cost (VC)		28067.66	
18	Management charges (10% VC)		2806.77	5.13
19	Risk factor (5% VC)		1403.38	2.56
20	Transportation		2100	3.84
21	Market Charges (Loading/ unloading)		350	0.64
22	Packing Charges		2000	3.65
23	Rental value of land (6 months)		18000	32.89
24	Total Cost		54727.80	100
25	Production (qtl.)	40		
26	Cost of production		1368.20	
27	Recommended base Price per qtl. for the year 2019-20		1350	

Cost of cultivation and returns of Bitter gourd during 2019-20

District		Committee recommended cost of production 2019-20		
S.N.	Item	Qty	Val.	(%)
1	Preparatory tillage	6	3000	5.66
2	Pre-sowing Irrigation		300	0.57
3	Sowing		1500	2.83
4	Ridging		200	0.38
5	Seed (Kg)	0.1	2000	3.77
6	Seed Treatment		150	0.28
7	FYM(qtl)	80	2400	4.53
8	Fertilizer nutrients			
	(a)Nitrogen	12	132.5	0.25
	(b)Phosphatic	20	875	1.65
	(c)Potassic	0	0	0.00
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.28
10	Irrigation	4	2000	3.77
11	Hoeing /Weeding			
	(a) Chemical		525	0.99
	(b) manual		2000	3.77
12	Plant Protection		2000	3.77
13	Harvesting		8000	15.09
14	Sorting		0	0.00
15	Miscellaneous		200	0.38
	Total(1 to 15)		25432.5	
16	Interest on working Capital	4.50%	1144.44	2.16
17	Variable cost (VC)		26576.94	
18	Management charges (10% VC)	10%	2657.69	5.01
19	Risk factor (5% VC)	5%	1328.85	2.51
20	Transportation		2100	3.96
21	Market Charges (Loading & unloading)		350	0.66
22	Packing Charges		2000	3.77
23	Rental value of land (6 months)		18000	33.95
24	Total Cost with rental value		53013.48	100
25	Total Cost without rental value		41013.48	
26	Production (qtl.)		110.00	
27	Cost of production with rental value		481.94	
28	Cost of production without rental value		372.85	
29	Recommended base Price per qtl. for the year 2019-20		500	

Cost of cultivation and returns of Carrot 2019-20

Committee recommended cost of production 2019-20				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	8	4000	5.94
2	Pre-sowing Irrigation		300	0.45
3	Sowing		1600	2.38
4	Ridging		800	1.19
5	Seed (kg)	5	2500	3.71
6	Seed Treatment		300	0.45
7	FYM(qtl)	200	6000	8.91
8	Fertilizer nutrients			
	(a)Nitrogen	24	265	0.39
	(b)Phosphatic	12	525	0.78
	(c)Potassic	12	475	0.71
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		200	0.30
10	Irrigation	5	2000	2.97
11	Hoeing /Weeding			
	(a) Chemical		0	0.00
	(b) manual		2000	
12	Plant Protection		0	0.00
13	Harvesting		10000	14.85
14	Sorting		5000	7.42
15	Miscellaneous		200	0.30
	Total(1to 15)		36165	
16	Interest on working Capital	4.5%	1627.42	2.42
17	Variable cost (VC)		37792.42	
18	Management charges (10% VC)	10%	3779.242	5.61
19	Risk factor (5% VC)	5%	1889.621	2.81
20	Transportation	lump-sump	2500	3.71
21	Market Charges (loading & unloading)		1400	2.08
22	Packing Charges		2000	2.97
23	Rental value of land (6 months)		18000	26.72
24	Total Cost with rental value		67361.283	100
25	Total Cost without rental value		55361.283	
26	Production (qtl. per acre)		100.00	
27	Cost of production with rental value Rs. per qtl.		673.61	
28	Cost of production without rental value Rs. per qtl.		553.61	
29	Recommended base price per qtl. for the year 2019-20		700	

Cost of cultivation and returns of Cabbage during 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	6	3000	4.47
2	Pre-sowing Irrigation		300	0.45
3	Sowing		2000	2.98
4	Ridging		800	1.19
5	Seed (gm)	250	7500	11.17
6	Seed Treatment		0	
7	FYM(qtl)	200	6000	8.94
8	Fertilizer nutrients			
	(a)Urea	90	477	0.71
	(b)DAP	50	1250	1.86
	(c)MOP	32	608	0.91
	(d)Zinc Sulphate	10	500	0.74
	Total Ferti.Invest			
9	Fertilizer Application		250	0.37
10	Irrigation		2750	4.10
11	Hoeing /Weeding			
	(a) Chemical		350	0.52
	(b) manual		4000	5.96
12	Plant Protection		2000	2.98
13	Harvesting		6000	8.94
14	Sorting		1000	1.49
15	Miscellaneous		200	0.30
	Total(1to 15)		38985	
16	Interest on working Capital (4.5%)		1754	2.61
17	Variable cost		40739	
18	Management charges (10%)		4074	6.07
19	Risk factor (5%)		2037	3.03
20	Transportation		6700	9.98
21	Market Charges		1000	1.49
22	Packing Charges		600	0.89
23	Rental value of land (4 months)		12000	17.87
24	Total Cost		67150	100
25	Production (qtl.)	100		
26	Cost of production		672	
27	Recommended base Price per qtl. for the year 2019-20		650	

Cost of cultivation and returns of Chilly during 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	6	3000	4.59
2	Pre-sowing Irrigation		300	0.46
3	Sowing/ Transplanting		2000	3.06
4	Ridging		800	1.22
5	Seed (Kg)	0.1	2500	3.82
6	Seed Treatment		0	0.00
7	FYM(qtl)	100	3000	4.59
8	Fertilizer nutrients			
	(a)Urea	45	240	0.37
	(b)DAP	25	625	0.96
	(c)MOP	20	380	0.58
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.23
10	Irrigation	6	3000	4.59
11	Hoeing /Weeding			
	(a) Chemical		525	0.80
	(b) manual		4000	6.12
12	Plant Protection		2000	3.06
13	Harvesting		12000	18.36
14	Sorting		1000	1.53
15	Miscellaneous		200	0.31
	Total(1to 15)		35720	
16	Interest on working Capital (4.5%)		1607.40	2.46
17	Variable cost (VC)		37327.40	
18	Management charges (10% VC)		3732.74	5.71
19	Risk factor (5% VC)		1866.37	2.85
20	Transportation		2100	3.21
21	Market Charges (Loading/ unloading)		350	0.54
22	Packing Charges		2000	3.06
23	Rental value of land (6 months)		18000	27.53
24	Total Cost		65376.51	100
25	Production (qtl.)	70		
26	Cost of production		933.95	
27	Recommended base Price per qtl. for the year 2019-20		950	

Cost of cultivation and returns of Capsicum during 2019-20

Committee recommended cost of production 2019-20				
S.N.	Item	Qty	Val.	(%)
1	Preparatory tillage	6	3000	4.31
2	Pre-sowing Irrigation		300	0.43
3	Sowing/ Transplanting		2000	2.87
4	Ridging		800	1.15
5	Seed (Kg)	0.15	15000	21.55
6	Seed Treatment		0	0.00
7	FYM(qtl)	100	3000	4.31
8	Fertilizer nutrients			
	(a)Nitrogen	25	265	0.38
	(b)Phosphatic	12	625	0.90
	(c)Potassic	12	380	0.55
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.22
10	Irrigation	6	3000	4.31
11	Hoeing /Weeding			
	(a) Chemical		525	0.75
	(b) manual		4000	5.75
12	Plant Protection		2000	2.87
13	Harvesting		8000	11.49
14	Sorting		1000	1.44
15	Miscellaneous		200	0.29
	Total(1to 15)		44245	
16	Interest on working Capital		1991.02	2.86
17	Variable cost (VC)		46236.02	
18	Management charges (10% VC)		4623.60	6.64
19	Risk factor (5% VC)		2311.80	3.32
20	Transportation		2100	3.02
21	Market Charges (Loading/ unloading)		350	0.50
22	Packing Charges		2000	2.87
23	Rental value of land (4 months)		12000	17.24
24	Total Cost with rental value		69621.42	100
25	Total Cost without rental value		57621.42	
26	Production (qtl.)		80.00	
27	Cost of production with rental value		870.27	
28	Cost of production without rental value		720.27	
29	Recommended base Price per qtl. for the year 2019-20		900	

Cost of cultivation and returns of Pea during 2019-20

Committee recommended cost of production 2019-20				
S.N.	Item	Qty	Val.	(%)
1	Preparatory tillage	6	3000	5.59
2	Pre-sowing Irrigation		300	0.56
3	Sowing		1500	2.80
4	Ridging		200	0.37
5	Seed (Kg)	30	1500	2.80
6	Seed Treatment		150	0.28
7	FYM(qtl)	80	2400	4.48
8	Fertilizer nutrients			
	(a)Nitrogen	12	132.5	0.25
	(b)Phosphatic	20	875	1.63
	(c)Potassic	0	0	0.00
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.28
10	Irrigation		2000	3.73
11	Hoeing /Weeding			
	(a) Chemical		525	0.98
	(b) manual		2000	3.73
12	Plant Protection		1000	1.86
13	Harvesting and Sorting		15000	27.97
15	Miscellaneous		200	0.37
	Total(1to 15)		30932.5	
16	Interest on working Capital		1392.00	2.60
17	Variable cost (VC)		32324.50	
18	Management charges (10% VC)		3232.45	6.03
19	Risk factor (5% VC)		1616.23	3.01
20	Transportation		2100	3.92
21	Market Charges (loading/unloading)		350	0.65
22	Packing Charges		2000	3.73
23	Rental value of land (4 months)		12000	22.38
24	Total Cost with rental value		53623.18	100
25	Total Cost without rental value		41623.18	
26	Production (qtl.)		50.00	
27	Cost of production with rental value		1072.46	
28	Cost of production without rental value		832.46	
29	Recommended base Price per qtl. for the year 2019-20		1100	

Cost of cultivation and returns of Radish 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	6	3000	6.45
2	Pre-sowing Irrigation		300	0.64
3	Sowing		1600	3.44
4	Ridging		800	1.72
5	Seed (kg)	3	1200	2.58
6	Seed Treatment		300	0.64
7	FYM(qtl)	200	6000	12.90
8	Fertilizer nutrients			
	(a)Urea	50	265	0.57
	(b)DAP	50	1250	2.69
	(c)SSP	0	0	0.00
	(d)MOP	16	304	0.65
	Total Ferti.Invest			
9	Fertilizer Application		200	0.43
10	Irrigation	5	2000	4.30
11	Hoeing /Weeding			
	(a) Chemical		0	0.00
	(b) manual		2000	
12	Plant Protection		0	0.00
13	Harvesting		4000	8.60
14	Sorting		400	0.86
15	Miscellaneous		200	0.43
	Total(1to 15)		23819	
16	Interest on working Capital (4.5%)		1071.86	2.30
17	Variable cost (VC)		24890.86	
18	Management charges (10% VC)		2489.09	5.35
19	Risk factor (5% VC)		1244.54	2.68
20	Transportation		2500	5.37
21	Market Charges (loading & unloading)		1400	3.01
22	Packing Charges		2000	4.30
23	Rental value of land (4 months)		12000	25.79
24	Total Cost		46524.48	100
25	Production (qtl. per acre)	100		
26	Cost of production		465.24	
27	Recommended base price per qtl. for the year 2019-20		450	

Cost of cultivation and returns of Turmeric 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	8	4000	3.55
2	Pre-sowing Irrigation		300	0.27
3	Sowing		3000	2.66
4	Ridging		800	0.71
5	Seed (Kg)	700	17500	15.51
6	Seed Treatment		300	0.27
7	FYM(qtl)	100	3000	2.66
8	Fertilizer nutrients			
	(a)Urea	68	360	0.32
	(b)DAP	50	1250	1.11
	(c)MOP	33	627	0.56
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.13
10	Irrigation		4500	3.99
11	Hoeing /Weeding			
	(a) Chemical		0	0.00
	(b) manual		5000	4.43
12	Plant Protection		1100	0.98
13	Harvesting		12000	10.64
14	Sorting		3000	2.66
15	Miscellaneous		200	0.18
	Total(1to 15)		57087	
16	Interest on working Capital (9 %)		5137.83	4.55
17	Variable cost		62224.83	
18	Management charges (10%)		6222.48	5.52
19	Risk factor (5%)		3111.24	2.76
20	Transportation		2500	2.22
21	Market Charges		650	0.58
22	Packing Charges		2100	1.86
23	Rental value of land (1 year)		36000	31.91
24	Total Cost		112808.55	100
25	Production (qtl.)	80		
26	Cost of production		1410.11	
27	Recommended base price per qtl. for the year 2019-20		1400	

Cost of cultivation and returns of Garlic 2019-20

Committee recommended cost of production 2019-20 (Rs. per acre)				
S.N.	Item	Qty	Per acre cost (Rs.)	(%)
1	Preparatory tillage	6	3000	2.61
2	Pre-sowing Irrigation		300	0.26
3	Sowing		5000	4.35
4	Ridging		200	0.17
5	Seed (Kg)	200	28000	24.35
6	Seed Treatment		300	0.26
7	FYM(qtl)	200	6000	5.22
8	Fertilizer nutrients			
	(a)Urea	50	265	0.23
	(b)DAP	50	1250	1.09
	(c)MOP	16	304	0.26
	(d)Zinc Sulphate	0	0	0.00
	Total Ferti.Invest			
9	Fertilizer Application		150	0.13
10	Irrigation		4500	3.91
11	Hoeing /Weeding			
	(a) Chemical		700	0.61
	(b) manual		5000	4.35
12	Plant Protection		2000	1.74
13	Harvesting		10000	8.70
14	Sorting		3000	2.61
15	Miscellaneous		200	0.17
	Total(1to 15)		70169	
16	Interest on working Capital (6.75%)		4736.41	4.12
17	Variable cost		74905.41	
18	Management charges (10%)		7490.54	6.51
19	Risk factor (5%)		3745.27	3.26
20	Transportation		2100	1.83
21	Market Charges		650	0.57
22	Packing Charges		2100	1.83
23	Rental value of land (8 months)		24000	20.87
24	Total Cost		114991.22	100
25	Production (qtl.)	50		
26	Cost of production		2299.82	
27	Recommended base price per qtl. for the year 2019-20		2300	

Operational Cost & Returns from Mango 2016-17

(Rs. per acre)

Sr. No.	Cost of Production/ Recommended by Committee	Qty.	Cost Rs. per acre	%
1	Inter-culture Operations & Hoeing		2584	3.05
2	FYM (qtl)		2160	2.55
3	Fertilizer			
	(a) Urea	36	191	0.23
	(b) SSP	72	504	0.59
	(c) Zn So4/MOP	72	1368	1.61
	(d) Any other	0	0	0.00
4	Irrigation & maintenance of Drip system		4034	4.75
5	Pruning & Cutting		4184	4.93
6	Insecticide & Fungicides		4188	4.94
7	Watch & Ward		2289	2.70
8	Plucking		3144	3.71
9	Packing including packing material		7333	8.64
10	Miscellaneous		567	0.67
11	Total (1 to 10)		32546	38.36
12	Interest on working Capital (9%)		2929	3.45
13	Variable cost (VC)		35475	41.81
14	Interest on fixed capital (9% of estb cost)		11577	13.65
15	Management charges (10% VC)		3671	4.33
16	Risk factor (5% VC)		1835.5	2.16
17	Market cost (Loading/unloading)		5417	6.39
18	Transportation charges		3748	4.42
19	Rental value of land (1 year)		23115	27.25
20	Total Cost		84839	100.00
21	Production (qtl.)	50		
22	Cost of production/qtl		1697	
	Cost of production 2019-20			
23	2016-17 (base year)		1697	
24	2017-18 (increase 5 %)		1782	
25	2018-19 (increase 5 %)		1871	
26	2019-20 (increase 5 %)		1964	
27	Recommended base Price per qtl. for the year 2019-20		1950	

Operational Cost & Returns from Guava 2016-17

(Rs. per acre)				
Sn	Recommended by Committee	Qty.	Val.	%
1	Inter-culture Operations & Hoeing		3093	3.94
2	FYM (qtl)		1823	2.32
3	Fertilizer			
	(a) Urea		645	0.82
	(b) SSP		763	0.97
	(c) Zn So4/MOP		546	0.70
	(d) Any other		244	0.31
4	Irrigation & maintenance of Drip system		3283	4.18
5	Pruning & Cutting		3605	4.59
6	Insecticide & Fungicides		4591	5.85
7	Watch & Ward		2084	2.65
8	Plucking		5494	7.00
9	Packing including packing material		3791	4.83
10	Miscellaneous		498	0.63
11	Total (1 to 10)		30458	38.81
12	Interest on working Capital	9%	2741	3.49
13	Variable cost (VC)		33199	42.30
14	Interest on fixed capital (9% of estb cost)		4442	5.66
15	Management charges (10% VC)	10%	3320	4.23
16	Risk factor (5% VC)	5%	1660	4.23
17	Market cost (Loading/unloading)		4663	5.94
18	Transportation charges		5305	6.76
19	Rental value of land (1 year)		24237	30.88
20	Total Cost (including rental value)		76826	
21	Total Cost (excluding rental value)		52589	
22	Production (qtl.)		70	
27	Cost of production/qtl (including rental value		1097.51	
28	Cost of production/qtl (excluding rental value		751	
	Cost of production 2019-20 including rental value			
29	2016-17 (base year)		1097.51	
30	2017-18 (increase 5 %)		1152.38	
31	2018-19 (increase 5 %)		1210	
32	2019-20 (increase 5 %)		1270.5	
33	Recommended base Price per qtl. for the year 2019-20		1300	

Operational Cost & Returns from Kinnow Orchard

(Rs. per acre)

Sn	Particulars	Qty.	Val.	%
1	Inter-culture Operations & Hoeing		4164	4.40
2	FYM (qtl)		1947	2.06
3	Fertilizer			
	(c) Urea		762	0.81
	(d) SSP		1348	1.42
	(c) Zn So4/MOP		1282	1.35
	(d) Any other			
4	Irrigation & maintenance of Drip system		2445	2.58
5	Pruning & Cutting		3488	3.68
6	Insecticide & Fungicides		6507	6.87
7	Watch & Ward		1500	1.58
8	Plucking		8754	9.25
9	Packing including packing material		7449	7.87
10	Miscellaneous		1093	1.15
11	Total (1 to 10)		40739	43.03
12	Interest on working Capital		3667	3.87
13	Variable cost (VC)		44406	46.91
14	Interest on fixed capital		5292	5.59
15	Management charges	10%	4441	4.69
16	Risk factor	5%	4441	4.69
17	Market cost (loading/unloading)		5577	5.89
18	Transportation charges		6601	6.97
19	Rental value of land (1 year)		23915	25.26
20	Total Cost (including rental value)		94671	100.00
21	Total Cost (excluding rental value)		70756	100.00
22	Production (qtl.)		104	
27	Cost of production/qtl (including rental value		908	
28	Cost of production/qtl (excluding rental value		680	
29	2016-17 (base year)		910	
30	2017-18 (increase 5 %)		955.50	
31	2018-19 (increase 5 %)		1003.275	
32	2019-20 (increase 5 %)		1053.43	
33	Recommended base Price per qtl. for the year 2019-20		1100	

Operational Cost & Returns from Ber 2021-22

(Rs. per acre)

Sr. No.	Cost of Production/ Recommended by Committee	Qty.	Cost Rs. per acre	%
1	Inter-culture Operations & Hoeing		5000	4.45
2	FYM (qtl)	36	1260	1.12
3	Fertilizer			
	(a) Urea	90	480	0.43
	(b) SSP	180	1368	1.22
	(c) MOP	0	0	0.00
	(d) Zink	0	0	0.00
4	Irrigation & maintenance of Drip system		3374	3.01
5	Pruning & Cutting		8000	7.13
6	Insecticide & Fungicides		5000	4.45
7	Watch & Ward		5000	4.45
8	Plucking		10000	8.91
9	Grading, Packing including packing material		5000	4.45
10	Miscellaneous		1200	1.07
11	Total (1 to 10)		45682	40.70
12	Interest on working Capital (9%)		4111	3.66
13	Variable cost (VC)		49793	44.36
14	Interest on fixed capital (9% of estb cost)		8760	7.80
15	Management charges (10% VC)		4980	4.44
16	Risk factor (5% VC)		2490	2.22
17	Market cost (Loading/unloading)		5210	4.64
18	Transportation charges		5003	4.46
19	Rental value of land (1 year)		36000	32.08
20	Total Cost		112236	100.00
21	Production (qtl.)	77		
22	Cost of production/qtl		1458	
23	Recommended base price per qtl. for the year 2021-22		1458	

Operational Cost & Returns from Litchi 2021-22

(Rs. per acre)

Sr. No.	Cost of Production/ Recommended by Committee	Qty.	Cost Rs. per acre	%
1	Inter-culture Operations & Hoeing		5000	5.18
2	FYM (qtl)	45	1575	1.63
3	Fertilizer		0	
	(a) Urea	126	672	0.70
	(b) SSP	162	1231	1.27
	(c) MOP	43	821	0.85
	(d) Zinc	0	0	0.00
4	Irrigation & maintenance of Drip system		5000	5.18
5	Pruning & Cutting		2000	2.07
6	Insecticide & Fungicides		5000	5.18
7	Watch & Ward		5000	5.18
8	Plucking		10000	10.35
9	Grading, Packing including packing material		5000	5.18
10	Miscellaneous		1200	1.24
11	Total (1 to 10)		42499	44.00
12	Interest on working Capital (9%)		3825	3.96
13	Variable cost (VC)		46324	47.96
14	Interest on fixed capital (9% of estb cost)		3825	3.96
15	Management charges (10% VC)		4632	4.80
16	Risk factor (5% VC)		2316	2.40
17	Market cost (Loading/unloading)		1000	1.04
18	Transportation charges		2500	2.59
19	Rental value of land (1 year)		36000	37.27
20	Total Cost		96597	100.00
21	Production (qtl.)	40		
22	Cost of production/qtl		2415	
23	Recommended base price per qt. for the year 2021-22		2415	

Say Rs. 24/-
Per kg.