



# livelihoods

*today and tomorrow*

January 2019

**Special  
Supplement**

## Minimum Support Prices to Vegetables?

Vegetable production can make a significant difference to small land holders' livelihoods. As production of vegetable only needs a small area of land with minimal capital outlay, and provides access to a valuable food under subsistence conditions and can be the initial step towards establishing an income base for poorer households. Vegetable production gives higher tonnage per unit area in less time than cereals, and provides better nutrient values. Being labour intensive, it also offers better employment opportunities. Enhancing vegetable production will fulfill the objective of household food, nutritional and economic security in a single go. Thus, in this supplement our 'livelihoods' will try to analyze Vegetable production and its potential and problems!



Vegetable cultivation was first introduced as an intercrop on garden lands by marginal farmers in the 1960s. These farmers obtained plentiful surpluses initially even with use of primitive methods and gradually vegetable cultivation began to spread. Over time, as paddy cultivation turned increasingly uneconomic and demand for vegetables increased, landowners began to cultivate paddy in one season and cultivated vegetables for the rest. (<http://www.fao.org/docrep/pdf/011/i0526e/i0526e.pdf>)

However, it is better to cultivate vegetables in smaller gardens than on a larger scale, as it ensures -

- ⇒ Regular supply of vegetables
- ⇒ Vegetables at low cost;
- ⇒ More varied diet to farm family;
- ⇒ Can be used to teach smallholders to grow vegetables (as testing cultivation practices is less risky and costly on a garden than on a larger scale);
- ⇒ Testing out vegetables that weren't planted before;
- ⇒ Income from sale of vegetables;
- ⇒ Participation of all genders in employment and economic activities;
- ⇒ Employment for disabled and elderly.

Most vegetables are bulky and perishable, in contrast to staple foods that can be stored. As a result of improved roads, vegetable production has developed in areas where land and climatic conditions are good. For improving

List of Vegetables/leafy vegetables			
S.No	Vegetable Name	S.No	Vegetable Name
1	Amaranth Leaves	2	Ash gourd/Pumpkin
3	Brinjal, Eggplant	4	Bottle gourd/white gourd
5	Beet root	6	Bitter gourd
7	Cabbage	8	Carrot
9	Capsicum	10	Cauliflower
11	Cluster bean	12	Coconut
12	Coriander leaves	14	Corn
15	Cucumber	16	Curry leaves
17	Drumsticks	18	Fenugreek leaves
19	French beans/green beans	20	Garlic
21	Fresh ginger	22	Green chilli
23	Jack fruit	24	Lemon/lime
25	Malabar spinach	26	Mushroom
27	Mustard leaves	28	Onion
29	Okra/lady fingers	30	Flat green beans/hyacinth beans
31	Peas	32	Mint leaves
33	Potato	34	Radish/daikon
35	Raw Banana	36	Red chilli
37	Snake gourd	38	Spinach
39	Sweet potato	40	Tomato
41	Taro roots/Colocasia	42	Turnip
43	Ivy gourd/gherkins	44	Elephant yarn
45	Knolkol/gathgobi		

livelihoods in this sector, apart from increased vegetable production yields, focus should be on parallel improvements in associated infrastructure, post-harvest and marketing activities.

### **Supply Chain Management**

Supply Chain Management (SCM) represents the management of the entire set of production, manufacturing/transformations, distribution and marketing activities. SCM encompasses planning and management of all activities involved in sourcing procurement, conversion, and logistics management. It also includes coordination and collaboration with channel partners, which may be suppliers, intermediaries, third-party service providers, or customers. The entire SCM process is a value chain where bottlenecks, value adding factors and liability factors are identified and addressed; thus, enabling the retail organization to have an efficient supply chain. The supply is the part of retail operations that ensures that the right product is in the right place, at the right time and at the right cost. The supply chain perspective can help the retailers identify superior suppliers and distributors and help them to improve productivity, which ultimately brings down customers costs.

- ◇ Supply chain in Vegetables industries will ensure:
- ◇ Reduction of product losses in transportation and storage.
- ◇ Increase in sales.
- ◇ Dissemination of technology, capital and knowledge among chain partners.
- ◇ Better information about flow of products, markets and technologies.
- ◇ Transparency of supply chain.
- ◇ Tracking and tracing to the source.
- ◇ Better control of product safety and quality.
- ◇ Large investments and risks shared among partners in the chain.
- ◇ Productivity Improvement
- ◇ High customer satisfaction
- ◇ Increased profit
- ◇ On time delivery,



### **Storage of vegetables and its conditions**

Vegetables can be preserved by storage at low temperatures, as it retards the activities of microorganisms such as bacteria, yeast, molds, which are the spoilage agents. Low temperature does not totally destroy spoilage agents as high temperature does, but greatly reduces their activities, providing a practical way of preserving perishable foods in their natural state which is not possible through heating. The low temperature necessary for preservation depends on the storage time required and the type of product. Major vegetables such as onions, tomatoes, potatoes need cold storages.

Cost of cultivation (Including labour cost) (Per hectare)								
Crop	Field preparation	Nursery and planting / sowing	Weeding	Plant protection	Fertilizers	Wages	Staking, transport & other	Total (Rs.)
Tomato	6000	7000	10000	12000	8000	13000	5000	61000
Chilli	6000	7000	10000	12000	6000	5000	-	46000
Paprika	6000	8000	10000	12000	8000	5000	-	49000
Capsicum	6000	8000	10000	12000	8000	5000	-	49000
Brinjal	6000	7000	10000	10000	7000	10000	-	50000
Bhendi	6000	12000	5600	5000	6000	6000	-	40600
Cabbage	6000	10000	10000	12000	8500	5000	-	51500
Cauliflower	6000	10000	10000	12000	8500	5000	-	51500
Tapioca	6000	5000	8000	2000	3000	6000	-	30000
Watermelon	6000	10000	10000	8000	8000	8000	-	50000
Muskmelon	6000	14000	10000	8000	8000	8000	2000	56000
Ribbed	6000	8000	8000	8000	7000	5000	-	42000
Bottle gourd	6000	8000	8000	8000	7000	5000	-	42000
Gherkins	6000	8000	7000	9000	7000	6000	5000	48000
Turmeric	6000	10000	8000	8000	8000	5000	-	45000
Coriander	6000	6000	6000	6000	4000	4000	-	32000
Banana	6000	8000	8000	10000	10000	6000	8000	56000
Chrysanthemum	6000	15000	8000	10000	9000	7000	-	55000
Golden rod	6000	30000	10000	10000	11000	10000	-	77000

Costs and benefits of annual Horticultural crops				
Crop	Cost of cultivation (Rs.)	Yield (MT/ha)	Net income (Rs.) (at the lowest price)	Market price range (Rs.)
Tomato	61000	50	39000 (@ Rs. 2/kg)	2 - 30/kg
Chilli	46000	22	64000 (@ Rs.5/kg)	5 - 15/kg
Paprika	49000	37	136000 (@ Rs. 5/kg)	5 - 20/kg
Capsicum	49000	18	95000 (@ Rs. 8/kg)	8 - 25/kg
Brinjal	50000	60	70000 (@ Rs. 2/kg)	2 - 30/kg
Bhendi	40600	10	19400 (@ Rs.6/kg)	6 - 15/kg
Cabbage	51500	75	173500 (@ Rs. 3/kg)	3 - 10/kg
Cauliflower	51500	32000 flowers	108500 (@ Rs. 5/flower)	5 - 15/flower
Tapioca	30000	30	54000 (@ Rs. 2.8/kg)	2.8 - 5/kg
Watermelon	50000	40	50000 (@ Rs. 2.5/kg)	2.5 - 10/kg
Muskmelon	56000	22	54000 (@ Rs.5/kg)	5 - 25/kg
Ribbed gourd	42000	20	38000 (@ Rs. 4/kg)	4 - 15/kg
Bottle gourd	42000	40	78000 (@ Rs. 3/kg)	3 - 15/kg
Gherkins	48000	20	72000 (@ Rs. 6/kg)	6 - 12/kg
Turmeric	45000	5	55000 (@ Rs. 2000/Q)	2000 - 4000/Q
Coriander	32000	87000 bundles	55000 (@ Rs. 1/bundle)	1 - 2/bundle
Banana	56000	75	319000 (@ Rs. 5/kg)	5 - 12/kg
Chrysanthemum	55000	20	245000 (@ Rs. 15/kg)	15 - 25/kg
Golden rod	77000	15000 bunches	73000 (@ Rs. 10/bunch)	10 - 14/bunch

[Source: [http://agritech.tnau.ac.in/horticulture/horti\\_cost%20of%20cultivation.html](http://agritech.tnau.ac.in/horticulture/horti_cost%20of%20cultivation.html)]

**Vegetable crop Duration and farmers' net income**

1. Tomatoes are harvested within 2-3 months of plantation. Depending on market demand, 8-10 harvesting of tomato are done on a yearly basis. The average tomato crop yield per acre in India is about 10 tonnes although the yield varies from 15-20 tonnes per acre in case of irrigated crops. Net income for farmers is 31000 for 90 (31000/ 90days = Rs.344 (per day)).
2. Potatoes are harvested about 7 to 8 weeks after planting. It is time to harvest when the vine leaves attain a yellowish hue and wilt. Harvest should be done on a dry day as the soil will not be compact. In India, the average potato yield stands at about 26 tonnes per hectare (2.47 acre). At Rs. 100 for 50 kg or about half his/her investment.
3. Onions are harvested depending upon the purpose for which the crop is planted. Onion crop is ready for harvesting in five months for dry onion. During hot days when soil is hard, bulbs are pulled out between 70 to 90 days. 70 quintal onions are produced per acre and sold at the rate of Rs 900 per quintal.

**Vegetables value addition**

Vegetables are seasonal and perishable. Dehydration is one of the methods to preserve them and make them available throughout the year in hygienic conditions at reasonable cost. The dehydrated vegetables are easy to transport and can be used in various preparations at any time. Traditional sun drying is time consuming, less hygienic and climate dependent. The process for controlled dehydration of vegetables consists of grading/ sorting, washing, peeling/ trimming, size reduction, blanching, chemical treatment, dehydration and packing. The value addition for Tomato, Potato and Onion are given below:

- ◇ Tomato is extensively grown in India and used for the preparation of puree, paste, ketchup, sauce and ready-to-eat products. There is a good domestic and export market. Since the fast food sector is expanding rapidly the demand, particularly for tomato ketchup and sauces, is also increasing.
- ◇ Potato is used for making many ready-to-eat products. Units based on potato products can easily be established in rural areas and urban and semi urban markets can be exploited. Potato flour, granules and mash are used in the preparation of instant foods, soups etc., as binding materials and also for preparing kheer, tikki, chops, pakoda, cutlets, stuffed paratha, etc. Potatoes are grown extensively in the northern and eastern region of India. During the glut season, growers do not get remunerative prices.
- ◇ Onion offers a huge potential for value creation through advances in the field of processing. Different value added products such as minimally processed ready to cook, paste, dehydrated onion flakes, powder, oil, vinegar, sauce, etc.

**Issues and Problems**

As such vegetable farming is highly profitable than growing cereals but two factors need to be considered- vegetables perish quickly and there is an enormous gap in demand and supply. To combat these problems-

- Farmers need to grow longer keeping quality vegetables to increase their profitability. Vegetables such as cucurbits, beets, tomato, onion, carrots, etc are highly remunerative compared to field crops.
- Most of the vegetables harvest in shorter duration, so farmers can get yields quicker than other crops.
- Farmers should plan to cultivate year long to supply to hotels or malls by undertaking MOUs. This way they can skip the middle men and increase their profitability.

- They should grow vegetables in offseason as it will bring higher returns and bridge the gap in demand and supply. There are various methods and structures for off-season cultivation such as using green house, glass house, net house, poly house, etc. Though the investment is more, farmers can get government subsidies.
- If they have sufficient land they should consider planting 3 or 4 crops to balance risk and beat market fluctuations, weather and disease problems.

Vegetables now form a substantial part of our diet, resulting in their increased demand. Vegetable production gives higher tonnage per unit area and time compared to cereals besides being labour intensive. At the global level, vegetables occupy an area of 53.97 million hectare with an annual production of 1012.52 million tonne. India is the second largest producer of vegetables in the world, accounting for roughly 14 percent of the world's production. The production of vegetables in India in 2010-11 stands at over 146.55 million tonne from an area of 8.5 million hectare.

### Minimum Price for vegetables

India processes only about 2% of the fruit and vegetables it produces compared to the US (60%) or even smaller nations like Morocco (35%). For governments, instead of creating a viable value chain for wide range of fresh produce, the focus has been on staples like potato, tomato and onion.

Minimum Support Price (MSP) is a form of market intervention by the Government of India to protect the producer - farmers - against excessive fall in price during bumper production years and ensure a guarantee price for their produce. MSPs are announced by the Government of India at the beginning of the sowing season for certain crops on the recommendations of the Commission for Agricultural Costs and Prices (CACP). The major objectives are to support the farmers from distress sales and to procure food grains for public distribution. In case the market price for the commodity falls below the announced minimum price due to bumper production and glut in the market, government agencies purchase the entire quantity offered by the farmers at the announced minimum price.

Farmers have been demanding maximum retail prices (MRPs) to be fixed for farm produce. "The government needs to cap the prices of vegetables and other farm produce. It is unfair that a farmer sells tomato at Rs 5 per kg, but the same it sold at mandis (markets) for Rs 30. The cost rises to Rs 50 per kg by the time it reaches the consumer. A farmer purchases all raw materials at maximum retail price, but sells the produce at minimum retail price".

The government should declare MSP for all major crops. Currently, the government has declared MSP for only 23 crops. The rest are outside the MSP range. The government has the right intention, but it has to help reduce the cost of production. If you look at Goods and Services Tax, there is no input credit for farmers. Reduce the cost of production or, at the very least, provide input subsidy directly to farmers. The government has to chart a course to achieve its target of doubling farmer's income by 2022.

***"The union government has denied possibility of announcing the minimum support price (MSP) for vegetables and milk products. "It is not possible to fix MSP for vegetables and milk products due to geographical and production differences across the country," said the union minister of state for agriculture and farmers welfare".***

### Some Insights

The government should ensure supply of quality seeds treated with insecticides/pesticides to farmers for better results. Extension services should reach farm level. The farmers should be made aware about diseases in different vegetables and remedies to overcome these.

The government should ensure the supply of electricity for 8 hours a day, particularly during summer season, so that it may not affect the productivity of vegetables.

The government should announce the minimum support price for major vegetables like Tomato, Potato, and Onions as it observed that the yield will fluctuate and leave farmers in distress-selling mode.

An Indian meal is not complete without a vegetable curry, which is healthy as well as tasty! In fact, Vegetables are in demand all year round, but why then are vegetable farmers getting a pittance in return for selling them! That is something the government needs to ponder on, not whose statue we need next, or whose loan should we waive off next- the diamond merchant's or the liquor baron's? ❖