



# GURU NANAK COLLEGE BUDHLADA

Under the Management of Shiromani Gurdwara Parbandhak Committee, Sri Amritsar Sahib

Session 2022-23

## Report of Incubation Center on Organic Vegetable Production

The organic vegetables that is cultivated in a land not without the use of any chemical or synthetic fertilizer and spray of any pesticide or weedicide. Organically grown vegetable are not only a healthy produce but also rich in various nutrients such as carbohydrates, protein, Fat, Minerals, Vitamins, dietary fiber, roughages and amino acids and have better shelf life.

India is on the path of organic production from last two decades but still optimization of process and popularization of this technique among conventional farmers is a very challenging task. Production of organic vegetables is not only an environmentally sustainable option but it is also a viable option for small farmers to get vegetable produce with better shelf life.

Vegetable crops produce 4-5 times more biomass compared to cereals and pulses and most of them are short duration in nature hence 3-4 crops can be taken in a year. India mainly exports onions and green peas to the countries of the Middle East, and other countries such as the United Kingdom and the United States of America. The demand of organic vegetable produce is increasing day by day and reaches 20-25% per annum. A wide range of vegetable crops can be grown with the availability of skilled and cheap labour, technical expertise, small and marginal land holdings.

### **Non-profitability in traditional vegetable cultivation to farmer**

**Lack of technology:** Lack of improved and adequate production technology packages for year-round cultivation of vegetables causes low yield and poor return

**Non-availability of hybrid/improved Variety seeds:** Farmers mostly rely on local varieties due to non availability of improved varieties/hybrids for crop cultivation

**Climatic conditions:** Adverse climatic conditions in some months hampers the cultivation of vegetable crops in the open field, specially vegetables grown in summer and rainy season are seriously affected by drought or heavy rainfall.

**Market acceptability:** Price instability or seasonal fluctuations in the price of fresh vegetables causes' low return of the produce.

Organic vegetables can bring a sea change in profitability, prosperity and economic development of the vegetable growers. The conventional vegetable crops such as peas, cauliflower, beet root, radish, brinjal and carrots are choice of masses so to grow these vegetables organically can be a great business opportunity for farmers.



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The Indian agricultural-economy is rapidly growing by market of organic vegetables. India is also the largest producer of several agricultural commodities. The government is proactive in forming and executing several policies to strengthen the market growth. The rising increase in the organic vegetable demand has attracted corporate houses to boost their investments in the industry like airtel, reliance and Walmart etc. The country also offers incentives that are in favour of the investor, such as favorable policies for foreign direct investment in trading, including through e-commerce.

The improving infrastructure is also aiding the industry growth in India. Increasing international trade in fruits and vegetables strengthens the market growth of organic vegetables in India. The industry is also aided by the shifting trend to fresh organic produce. The vast production of chemical free vegetables offers great opportunities for export. The country is home to a highly skilled workforce pool, which helps in providing a considerable produce to the masses. In the coming years, the industry is expected to be supported by the growing number of farms specializing in producing organic and conventional vegetables. The growing demand rising from foodservice sectors projected to propel the industry growth further.

### **Objectives of incubation centre at GNC Budhlada:**

- To nurture culture of environment friendly concern at campus.
- To provide an alternative to traditional cropping pattern to farmers.
- To uplift farmers income and livelihood.
- To provide fresh organic vegetables to the consumers with enhanced shelf life.
- To conduct short courses and trainings for the development of farming skills in rural youth, farm women, self-help groups.

**The facilities available at incubation centre/Nursery area:** A vegetable nursery is a place or an establishment for raising or handling of young vegetable seedlings until they are ready for transplanting. There are some vegetables with very small sized seeds and are first sown in the nursery for better care and to combat with the time for field preparation and after about 20-25days of seed sowing, transplanted in the main field. In organic vegetable incubation centre the institute has both open and protected area for the nursery production. The institute also has Hi-Tech net house I poly house for early or late or on time nursery production technology. This poly house has micro-irrigation and fertigation systems with fan and pad system which are used to maintain the desired temperatures and humidity.

**Growing media:** Institute used both soil and soil-less media for nursery and crop production. Coco peat, vermiculite and soil based different growing media combinations are used.

**Soil Science lab:** The institute has a soil science lab in the campus which is equipped with preliminary soil testing facilities such as pH, EC, NPK, OC, estimation etc

**Work done under organic vegetable incubation centre:**



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Native crops are selected as per the season (Rabi | Kharif & Zaid) such as Tomato, eggplant capsicum & chilli, onion, garlic pea and beans, cauliflower, cabbage, spinach, methi etc are grown. Vegetables were grown on raised beds, under drip irrigation | sprinkler irrigation system to minimize water conservation, hand weeding and hoeing were used to reduce weeds and for crop management to improve quality and productivity of crop.

