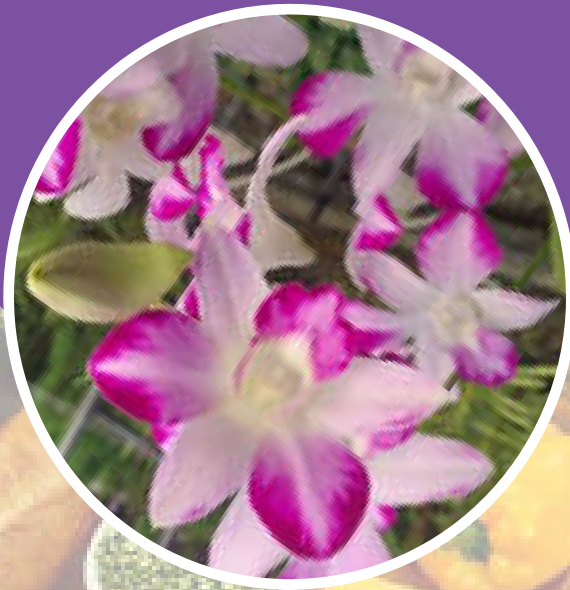




Department of Food Processing Industries and Horticulture  
Government of West Bengal  
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# FOOD PROCESSING INDUSTRIES AND HORTICULTURE OPPORTUNITIES | POTENTIAL

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# Welcome to West Bengal

Let your aspirations become reality.



1. Blossoming flowers, fresh vegetables, trees laden with fruits and the sweetness of honey gathered from the flowers by industrious bees.
2. The rivers meandering through the state have given rise to some of the most fertile plains in the world. An abundance of Natural Resources, Water, Electricity, Infrastructure.

3. The terrain is lush. Agriculture, Horticulture and Agri-allied Sectors provide the foundation for this land of plenty. Food Processing is the natural extension of this rich bounty.
4. In a world aspiring towards good living, processing of food is an industry that makes ample sense. West Bengal is a growing market for baskets overflowing with goodness, both eco-friendly and profitable.



Consider these facts:

1. West Bengal is the **Largest** producer of rice, vegetables like Brinjal, Cabbage, Cauliflower, Pointed Gourd, Radish, Capsicum, Cucumber and Betel leaves, pineapples and cut flowers in the country.
2. West Bengal is the **Second Largest** producer of potatoes, litchi, tea and fish in India. West Bengal ranks **Third** in total meat production (lean meat and red meat).
3. Significant producer of mangoes, mandarin oranges and sapota.
4. West Bengal grows 145 varieties of medicinal plants and herbs.

Wherever the sun shines, flowers bloom and fruits hang low from the boughs. Abundance greets the eyes at every step. A wealth of natural goodness awaits.

## MAJOR AGRO-PRODUCTION ZONES

### 1. **PINEAPPLE**

Cooch Behar – Jalpaiguri – Siliguri - Uttar Dinajpur

### 2. **MANGO**

Malda – Murshidabad – Nadia - North 24 Paraganas

### 3. **LITCHI**

Murshidabad – Malda – Nadia - South 24 Paraganas

### 4. **VEGETABLES**

Nadia - North 24 Paraganas - South 24 Paraganas – Murshidabad - Hooghly

### 5. **POTATO**

Hooghly – Purba Bardhaman – Bankura - Paschim Medinipur

### 6. **FLOWERS**

Purba Medinipur – Jalpaiguri – Nadia – Siliguri - Howrah

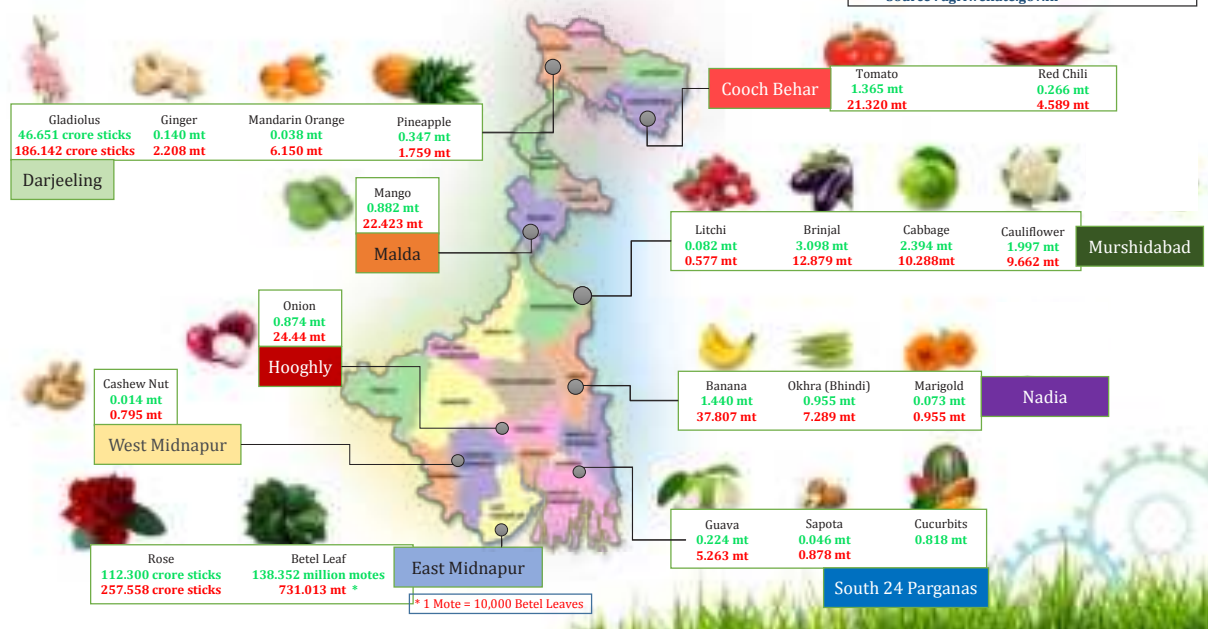
### 7. **RICE**

Purba Bardhaman – Hooghly - Paschim Medinipur – Dakshin Dinajpur



## WEST BENGAL Major Horticulture Crops 2023-24

- West Bengal (total in million ton)
- India (total in million ton)
- Source : agriwelfare.gov.in



### Major Horticulture Crops

- Pineapple (Leading with 19.73% of national production)
- Litchi (Runner up with 14.30% of national production)
- Banana
- Guava
- Mandarin Orange
- Mango
- Sapota
- Coconut
- Cashew Nut
- Elephant's foot yam (Leading with 35.65% of national production)
- Capsicum (Leading with 25.89% of national production)
- Cabbage (Leading with 23.27% of national production)
- Brinjal (Leading with 24.04% of national production)
- Pointed Gourd (Leading with 38.68% of national production)
- Cucumber (Leading with 17.35% of national production)
- Cauliflower (Leading with 20.69% of total production)
- Radish (Leading with 18.03% of total production)
- Okra (Bhindi) (First Runner up with 13.05% of total production)
- Tomato
- Betel Leaf
- Ginger
- Onion
- Marigold
- Rose
- Tuberose

## **PROCESS SIMPLIFICATION**

### **Ever Ready to Help**

The Government of West Bengal is committed to assist investors and facilitate enterprises through the Ease of Doing Business initiatives. Prospective investors receive support from every level of the government. Almost all permissions are available through Single Window Clearance.

### **Time-bound Delivery of Services**

All statutory permissions from issuing of Trade Licenses to sanction of Building Plans, Conversion and Mutation of Land, Environmental Clearance, Fire License, Power Connection and Water Permit are delivered within prescribed timelines.

### **Streamlined Processes**

- ◆ Innovative measures introduced to reduce documentation burden for registration of Industry, Trade License, Pollution Clearances and Land Conversion.
- ◆ Sanction of building plans in Industrial Parks / Estates is given by the concerned Industry Development Corporation.
- ◆ Leveraging of Information Technology: all Acts, Rules, Processes, Application Forms are now available on the websites of the respective government departments.
- ◆ Digital Reports and Returns for all Labour Law related obligations introduced.
- ◆ Tax Administration and Payment for all Government Transactions made online.

### **Single Window Services**

- ◆ Micro, Small & Medium Enterprise (MSME) Facilitation Centres (MFC) have been introduced for Single Window Clearance for every district.
- ◆ New Administrative Framework has been implemented in Labour and Environment Departments to help business entities as Single Window Service.

### **Deemed Approval**

- ◆ Provisions for deemed approvals introduced for applications on which suitable action is not completed within prescribed time limits related to Building Plan Sanctions, Mutation and Conversions of Land, Factory License Registration/ Renewal.

### **Delinking of various Licenses**

- ◆ Prior permission from other government departments have been done away with for faster clearances and licenses are given by respective departments at the point of application. E-Governance initiatives of West Bengal have been widely appreciated.

## **BANANA as on 2023-24**

<b>Area</b>	65,752 Hectare
<b>Production</b>	14,40,007 MT
<b>Major growing districts</b>	Nadia   North24-Paraganas   Hooghly
<b>Business opportunities</b>	Major Export Destinations: UAE   Iran   Saudi Arabia   Oman   Kuwait   Qatar   Nepal   Maldives   Malaysia Scope for processing: Ripened Banana   Banana Puree   Banana chips
<b>FPOs Involved</b>	Karimpur Agro Producer Company Limited at Nadia
<b>Presence of clusters or organized markets</b>	Nadia   Murshidabad   North24-Paraganas   Hooghly



## LITCHI as on 2023-24

<b>Area</b>	11,792 Hectare
<b>Production</b>	82,497 MT
<b>Major growing districts</b>	Murshidabad   Malda   Nadia   South 24-Paraganas
<b>Business opportunities</b>	Major Export Destinations: Netherlands   UK   Russia   UAE   Saudi Arabia   Germany   Thailand   Sri Lanka   Finland–Ukraine  Scope for processing: Dried Litchi   Canned Litchi   Juice   Jam   Syrup Wine   Frozen Litchi   Cordial   Squash   Pulp
<b>FPOs Involved</b>	Gour Banga Agro–Producer Company, Malda
<b>Presence of clusters organized markets</b>	Murshidabad   Malda   South24-Paraganas  Market: Machhua Bazar, Kolkata



## MANGO as on 2023-24

<b>Area</b>	1,16,162 Hectare
<b>Production</b>	8,82,271 MT
<b>Major growing districts</b>	Malda   Murshidabad   Nadia   Hooghly   Bankura   Purulia   North 24-Paraganas
<b>Business opportunities</b>	Major Export Destinations: UAE   UK   Saudi Arabia   Qatar Scope for processing: Pickles   Puree   Cannedor Frozen Slices   Juice   Squash   Powder   Flakes   Mango Bar   Jam   Drink
<b>FPOs Involved</b>	Gour Banga Agro – Producer Company, Malda
<b>Presence of clusters</b>	Malda   Murshidabad   Nadia   Hooghly   Bankura   Purulia   North 24 Paraganas
<b>Ororganized markets Cluster:</b>	Market: Wholesale Markets of above Districts



## OKRA as on 2023-24

<b>Area</b>	81,329 Hectare
<b>Production</b>	9,54,946 MT
<b>Major growing districts</b>	Nadia   South 24 -Paraganas   Bankura   North 24-Paraganas   Purba Barddhaman   Mushidabad   Paschim Medinipur   Purba Medinipur   Hooghly
<b>Business Opportunities</b>	Major Export Destinations: UAE   Bangladesh   Malaysia   Netherlands   Sri Lanka   Nepal   UK   Saudi Arabia   Pakistan   Qatar  Scope for processing: Fresh Vegetable   IQF
<b>FPOs Involved</b>	All FPOs
<b>Presence of clusters or Organised markets</b>	All North, Central and South Bengal Districts



## GREEN CHILLIES as on 2023-24

<b>Area</b>	60,203 Hectare
<b>Production</b>	2,66,231MT
<b>Major growing districts</b>	Cooch Behar   Uttar Dinajpur   Nadia   Murshidabad   North 24-Paraganas   South 24-Paraganas   Paschim Medinipur
<b>Business opportunities</b>	Major Export Destinations: UAE   Bangladesh   Malaysia   Netherlands   Sri Lanka   Nepal   UK   Saudi Arabia   Pakistan   Qatar  Scope for Processing: Crushed Chilli   Chilli Powder   Whole Chilli   Stemless Chilli   Chilli Sauce   Pickle   Chilli Flakes
<b>FPOs Involved</b>	Bhangar Vegetable Producer Company Limited   Howrah Agro producer Company Limited   Purba Medinipur Agro Producer Company Limited   Ghatakpukur Agro Producer Company Limited   Joynagar Agro Producer Company Limited   Gourbanga Agro Producer Company Limited   Baruipur Agro Producer Company Limited   Panskura Vegetable Producer Company Limited   Uluberia Agro Producer Company Limited
<b>Presence of Clusters</b>	
<b>Organized markets</b>	All principal market yards of West Bengal



## **BETEL LEAF as on 2023-24**

<b>Area</b>	19,618 Hectare
<b>Production</b>	1,38.352 lakh Motes (1Mote=10,000 Leaves)
<b>Mazor Growing Districts</b>	Nadia   South 24-Paraganas   Howrah   Purba Medinipur   Paschim Medinipur
<b>Business opportunities</b>	Major Export Destinations: UAE   Afghanistan   Australia   Bangladesh   Canada   France   Germany   Hong Kong   Kenya   Nepal   UK   Saudi Arabia   Oman   Pakistan   Qatar   USA   Yemen  Scope for Processing: Freshor Raw Leaves   Essential Oil used in Mouth Freshener and Ayurvedic Medicine   Usedas Wrapin Cuisine
<b>FPOs Involved</b>	Dantan Agro Producer Company, Dantan, Paschim Medinipur
<b>Presence of Clusters</b>	Ramnagar Pan Mandi, Purba Medinipur   Karimpur
<b>Organized markets</b>	Pan Mandi, Nadia



## CUT FLOWERS as on 2023-24

<b>Area</b>	15,265 Hectare
<b>Production</b>	3943.24 Million sticks
<b>Major growing districts</b>	Nadia   Howrah   Purba Medinipur   Darjeeling
<b>Business opportunities</b>	Major Export Destinations: USA   UK   Germany   Netherlands   UAE
<b>FPOs Involved</b>	Nakashipara Farmer's Producer Company Limited, Nadia
<b>Presence of Clusters</b>	Purba Medinipur   Howrah   Nadia   Darjeeling
<b>Organized markets</b>	Market:Mallikghat Phool Bazar   Siliguri Market



## GERBERA as on 2023-24

<b>Area</b>	36 Hectare
<b>Production</b>	58.04 Million sticks
<b>Major growing districts</b>	Nadia   Jalpaiguri
<b>Business opportunities</b>	Major Export Destinations: USA   UK   Germany   Netherlands   UAE
<b>FPOs Involved</b>	Nakashipara Farmers' Producer Company Limited, Nadia
<b>Presence of clusters</b>	Nadia   Jalpaiguri
<b>ororganized markets</b>	Mallikghat Phool Bazar



## GLADIOLI as on 2023-24

<b>Area</b>	3077 Hectare
<b>Production</b>	446.51 Million sticks
<b>Major growing districts</b>	Darjeeling   Kalimpong   Nadia   Purba Medinipur
<b>Business opportunities</b>	Major Export Destinations : USA   UK   Germany   Netherlands   UAE
<b>Presence of clusters</b>	Kalimpong   Nadia   Purba Medinipur
<b>organized markets</b>	Mallikghat Phool Bazar



## HONEY as on 2023-24

<b>Production</b>	21,500MT
<b>Major growing districts</b>	North 24-Paraganas   South 24-Paraganas   Malda
<b>Business opportunities</b>	Major Export Destinations: USA   UAE   Saudi Arabia   Bangladesh  Scope for processing : Honey   Bee Pollen   Bee Wax   Royal Jelly   Propolis   Organic Honey   Cosmetics
<b>FPOs Involved</b>	Bee-keepers' Association - North 24-Paraganas, South 24-Paraganas, Malda



**Support available from Government in Horticulture Sector under RKVY & MIDH Schemes – These benefits are available to all Farmers / FPOs / Organizations / Companies etc. who qualify under the norms. MODIFIED AS PER LATEST COST NORMS**

SI No	Components	Cost Norm/ Project cost	Pattern of Assistance
1	Green House (Tubular structure)	Rs. 1200/sq.m	50% of cost limited to 2500 sq.m. per beneficiary
2	Green House (Bamboo structure)	Rs. 450/sq.m	50% of cost limited to 2500 sq.m per beneficiary
3	Shade Net House Tubular Structure	Rs. 710/sq.m	50% of cost limited to 2500 sq.m. per beneficiary
4	Shade Net House (Bamboo structure)	Rs.450/sq.m	50% of cost limited to 2500 sqm per beneficiary
5	Cost of planting material & cultivation of high value vegetables grown in poly house/net house	Rs. 150/sq.m	50% of cost limited to 2500 sq.m. per beneficiary
6	Cost of planting material & cultivation of Carnation & Gerbera under poly house	Rs. 600 Sq.m.	50 % of the cost limited to 2500 sq.m. per beneficiary
7	Cost of planting material & cultivation of orchid & anthurium under Poly house/net house	Rs. 700/sq.m	50% of cost limited to 2500 sq.m. per beneficiary
8	Cost of planting material & cultivation of Rose, Chrysanthemum & Lilium under Poly house	Rs. 450 /Sq.m.	50% of cost limited to 2500 sq.m. per beneficiary
9	Plastic mulching/Jute/Agro Textile/ any other biodegradable material	Rs.40,000/Ha	50% of cost limited to 2 Ha per beneficiary
10	Establishment of Vermicompost Unit	Vermicompost (size 7'X3'X1') @ Rs. 5000 per unit	
11	HDPE vermibed	Rs. 16000/ unit	50% of cost conforming to the size of 96 cft (12' X 4' X2')
12	Low cost onion/Garlic storage structure (25 MT)	Rs. 2.5 lakh / unit	50% of the total cost
13	Powered Knapsack sprayerr (capacity 12-16 lts)	Rs. 8000 /unit	50% to beneficiary
14	Mushroom Production Unit	Rs. 30 lakh/unit	40% of cost for private sector for infrastructure as credit linked backended subsidy
15	Mushroom Spawn Making Unit	Rs. 20 lakh/unit	40% of cost for private sector for infrastructure as credit linked backended subsidy

SI No	Components	Cost Norm/ Project cost	Pattern of Assistance
16	Powered Knapsack sprayer/Power Operated Taiwan sprayer (capacity above 16/lts)	Rs. 20,000 /unit	50% to beneficiary
17	Powered Knapsack sprayer (capacity 8-12 lts)	Rs. 6000 /unit	50% to beneficiary
18	Establishment of Small Mushroom Production Units (50 ft. X 20 ft. = 1000 sq. ft.)	Rs. 66,500 / unit	50% of the total cost
19	Area expansion of Seed Spices	Rs. 50,000/ha	Assistance @ 40% in two instalment at 60:40
20	Area expansion of Hybrid Vegetables	Rs. 60,000/ha	40% of cost
21	Area Expansion of Perennial Spices (Bay leaves/Black Pepper)	Rs. 1 lakh/ha	Assistance @ 40% in two instalment at 60:40
22	Area Expansion of Cut Flower	Rs. 1.25 lakh/ha	40% of cost in two instalment at 60:40
23	Area Expansion of Loose Flower	Rs.50,000/ha	40% of cost in two instalment at 60:40
24	Area Expansion of Bulbous Flower	Rs. 2.5 lakh/ha	40% of cost in two instalment at 60:40
25	One unit of Bee Hives/Boxes of 8 frames with Bee colonies	Rs. 4000/unit	40% of cost limited to 50 colonies / beneficiary
26	Bee Hives	Rs. 2000 / hive	40% of cost limited to one set / beneficiary
27	Power Tiller (8 BHP and up to 11 BHP)	Rs. 2 lakh/ unit	50% to beneficiary
28	Cold Storage	Rs. 9600/MT or Rs. 12000/ MT (Maximum of 5,000 MT Capacity)	Credit linked back-ended assistance @35%.
29	Post Harvest (integrated pack house)	Maximum of Rs. 160 lakh per beneficiary	Credit linked back-ended assistance @35%.
30	Ripening Chamber (non pressurised)	Rs. 1.00 lakh/MT	Credit linked back-ended assistance @35%.
31	Low cost onion/Garlic Storage	Rs. 7000/MT	Credit linked back-ended assistance @50%.
32	Integrated cold chain	Maximum of Rs. 1000 lakh / project	Assistance @35%
33	Integrated supply chain	Maximum of Rs. 2000 lakh / project	Credit linked back-ended assistance @40%.

## **Food Processing Sector**

The possibilities in the food processing sector are immense. Owing to the huge availability of raw materials like fruits, vegetables, flowers, spices, potatoes, rice and the advantage of competitively priced skilled labour, this sector is considered as the sunrise sector.

### **Availability of robust infrastructure**

- ✓ Availability of robust infrastructure - 5 Food Parks including a Mega Food Park
- ✓ As per the annual survey of industries 2023-2024, MOFPI, Gol, there are 2,078 registered food processing units in the State
- ✓ The State has thirteen (13) cold chain projects which have been incentivized by the Ministry of Food Processing industries (MoFPI) under cold chain scheme

### **Potential Food Processing units in the state**

- ✓ Bakery & Confectionery
- ✓ Milk and processed Milk Products manufacturing
- ✓ Potato processing
- ✓ Meat processing
- ✓ Fish Processing – Export oriented
- ✓ Honey Processing– Export Oriented
- ✓ Rice & Rice Bran Oil-composite project

### **West Bengal Food Processing Industries Incentive Scheme (WBFPIIS) 2021:**

An incentive scheme titled 'West Bengal Food Processing Industries Incentive Scheme (WBFPIIS) 2021' has been operational to offer financial assistance for the setting up/expansion/modernization of micro food processing industries in the form of credit-linked capital subsidy at 40% of the cost of plant and machinery, with a maximum ceiling of INR 10 lakh per unit.

**Centrally Sponsored Scheme:** Ministry of Food Processing Industries (MoFPI), in partnership with the States, has launched scheme for providing Financial, Technical and Business support for setting up/ upgradation of existing micro food processing enterprises.

### **Setting Up Upgradation of Individual Micro Food Processing Units**

Individual micro food processing units desirous of Setting Up upgradation of their unit can avail credit-linked capital subsidy @ 35% of the eligible project cost with a maximum ceiling of Rs.10 lakh per unit.

### **Guidelines & Contact**

Detailed guidelines of the scheme maybe viewed at Department website [www.wbfpih.wb.gov](http://www.wbfpih.wb.gov). In Individual entrepreneurs and other stake holders may contact District Nodal Officer of the respective Districts for details of scheme and contact points at the district level.

### Potential areas for investment

Crop	Processed products that may be derived
Rice	Milled rice, Rice bran oil, Powder, Poha, Puffed rice, Noodles, etc.
Potato	Chips, Flakes, Powder, Fries, Starch etc.
Cauliflower, Cabbage, Carrot	Fresh cut, Frozen and Assorted products
Tomato	Puree, Juice, Concentrate, Ketchup, Sauce etc.
Banana	Starch, Chips, Powder
Guava	Juice, Concentrate, Fruit drinks, Frozen halves, Candies
Citrus Fruits (Amla)	Juice, Candy, Powder
Pineapple	Juice, Candy, Pulp, Concentrate, Jam, Jelly, etc.
Mango	Pickle, Aam Papad, Chutney, Candy, Dried mango powder etc.
Raw Milk	Butter, Creme, Ghee, Cottage Cheese, Flavoured milk, Spreads, Milk powder, Ice-cream, Curd, Buttermilk
Fish	Fresh and Frozen processed
Meat	Fresh and Frozen processed
Flowers	Food Colour, Manufacturing value added food products, Food flavours etc.

### Investment Opportunities

Opportunities	Investment range
Large investment opportunities in the production of rice bran oil with a capacity of 10,000 tonnes per annum	<b>Crude Edible Oil</b> INR 7.5 – 10.5 crore  <b>Refined Oil</b> INR 6.5 – 7.5 crore
Investment opportunities in integrated rice mills with a capacity of 24,000 tonnes per annum	INR 11-15 crore
Bakery and Confectionery segment has huge potential for growth	INR 7.5 – 11.5 crore
Animal and Fish feed segment has huge potential for growth	INR 2 – 5 crore
With mango production growing steadily, investments in processing units for mango pulp and allied products with a capacity of 50,000 MT per year	INR 20-25 crore
With the availability of raw tomatoes, investment in tomato processing units with a capacity of 40,000 MT per year	INR 15-20 crore
With growing peanut production, investments in peanut processing units with a capacity of 30,000 MT per year	INR 12-15 crore
With increased production, investments in potato processing units with a capacity of 50,000 MT per year	INR 18-22 crore

## Investment Opportunities in Cinchona and Medicinal Plants sector

### 1. Cinchona Bark & Dry Ipecac Root

- a. **Cinchona Bark:** High global demand for quinine in pharmaceuticals and beverages.
- b. **Ipecac Root:** Used in the pharmaceutical industry for producing emetics and herbal medicines.

### 2. Essential Oils (Lemongrass & Citronella)

- a. Widely used in aromatherapy, cosmetics, and natural repellents.
- b. Growing demand in wellness and personal care industries.

### 3. Mandarin Orange, Kiwi, and Coffee

- a. Fresh, high-quality fruits with strong export potential.
- b. Coffee caters to premium markets with rising global consumption.

### 4. Cardamom and Chirata




- a. **Cardamom:** High-value spice for culinary and medicinal use.
- b. **Chirata:** Valued in traditional medicine for detox and immunity.

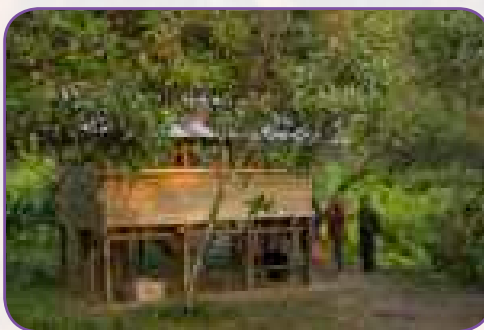
### 5. Rubber Sheets

- a. Reliable supply of natural rubber for industrial applications.
- b. High market demand for eco-friendly materials.

These is ample for value – added products from there, as well as in marketing these niche high – value products.

## Why Invest?

-  Direct access to sustainably sourced, high-quality raw materials of medicinal and various fruits.
-  Opportunity to tap into pharmaceutical, wellness, and export markets.
-  Collaboration ensures reliable supply and competitive pricing.



## **Benefits, Prospect and possibilities of Tissue Culture**

The plantlets of many valuable crops like banana, pineapple, papaya, pomegranate, and flowers like gerbera, orchids etc can be raised commercially through plant tissue culture that can lead to become one of the best profitable industry enterprise in near future.

Tissue Culture is useful for Rapid Propagation, Disease-Free Plants, Genetic Consistency, Space and Resource Efficiency, Conservation of Rare and Endangered Species, Year-Round Production, Faster Growth and Better Quality and Reduction in Land Use.

This potential sector is open for investment in the State, and would be supported and incentivized through many existing schemes for new entrants. The demand for TC plants is high in the state, which is a top producer of vegetables, flowers and fruits.

Department of FPI&H had set up a Tissue Culture Laboratory at Ayeshpur Farm, Nadia through West Bengal State Food Processing & Horticulture Development Corporation Limited and is operational. In the financial year 2023-24, 26.14 lakh of T.O lab produced plants were supplied in different Districts of West Bengal and in the F.Y-2024-25, the number is expected to be close to 30 lakh.

Department of FPI&H shall provide technical guidance for setting up of Tissue Culture Labs on commercial basis in West Bengal.

## **Prospect and possibilities of Flowers and Orchids**

### **Floriculture**

- West Bengal is the highest producing state for 'Cut Flowers' during last five years.
- The state also be the highest producer of Tube Rose for last five years.
- West Bengal is the highest producer of Gladiolus for last three years.
- In Rose production this state is among two largest producers all over the country in last five years.

The potential of the state in floriculture is yet to be fully tapped across the value chain. With increasing appreciation for exotic flowers like orchids, produces /exporters can tap into markets in Europe, the Middle East, and South east Asia for fresh cut flowers and decorative plants. Forward linkages, sale in faraway states and export are still areas which need investment opportunities are aplenty.

West Bengal's varied climate allows the cultivation of a wide range of flowers throughout the year, providing consistent supply for international markets. Besides, on-line floral export platforms and partnerships with global delivery services make it easier to reach international consumers with minimal logistical challenges. High valued Exotic / Aromatic products can be derived from flowers with international demands.

Flower	Products	Flower	Products
Rose	Rose Syrup, Gulkand, Chocolates, Ice cream, Candy, Rose water, Jam, Kulfi, Rose milk	Orchid	Orchid nectar, Vanilla (flavouring and aromatic substance)
Chrysanthemum	Dried Chrysanthemum, powder, tea, honey, cookies, ice cream	Jasmin	Jasmine infused honey, syrup, tea
Marigold	Marigold tea, oil, Fried marigold petals Natural colouring agent (Carotenoids) extraction for food products	Anthurium	Anthurium Anthocyanin extrac, Anthocyanin acts as colouring agent and it is rich in anti-oxidant
Gladiolus	Gladiolus Pickles & syrup		

## Orchids

### Why Orchids

We may spare the tedious botany lessons, but there are trivia about Orchid, which might pique your interest in these enchanting gifts from nature.

Orchids belonging to the Orchidaceae family, a diverse and widespread family of flowering plants. They are of great value in ornamental and medicinal uses. It is one of the most prominent family of plants, boasting almost 31,000 species. They are ubiquitous, being found in nearly all habitats save the glaciers and, in all continents, other than the Antarctica. Most orchids are epiphytes, i.e. they grow anchored to trees and shrubs. Some are lithophytes growing on rocks or very rocky soils, and some are ground orchids. Orchid flowers display resplendent colours, and complex designs and are highly prized for their beauty. Several species are used in perfumery, the most well-known being vanilla. Since the 19th century, when tropical orchids were cultivated, horticulturists have developed more than 1,00,000 hybrids and cultivars. Orchids are commercially traded as cut flowers and plants grown under controlled conditions. There is an ever-increasing demand for orchids in for ceremonial occasions are driving the global market like never before.

### Need for a Production Centre

The global orchid market is poised to grow at a CAGR of 4%, with a projected demand of nearly half a billion dollars by 2030. With our conducive weather (in North Bengal), we see every opportunity to grab a slice of this large and diversified pie. India needs to catch up in orchids' contribution to the overall floriculture market despite a high investment in the business. It thus necessitates addressing the initial stumbling blocks and empowering the farmers to harness natural resources. While the Department of Food Processing Industries & Horticulture has been encouraging the cultivation of orchids in north and south Bengal, there were quite a few challenges confronting the farmers.

The first and foremost challenge is the availability of good quality planting materials in adequate quantities that can be grown commercially. There are very few suppliers of authentic planting materials, and because there are only a few suppliers, the farmers often have to pay a high price for planting materials. There is the additional challenge of preparing a proper environment for commercial cultivation of orchids.

### **A Relevant Detour: Utsarika Horticulture Farm**

The WBSFP&HDCL's horticulture farm in Mohitnagar, renamed as Utsarika Horticulture Farm, now registered with the National Horticulture Board, began production of fruit and spice saplings through a PPP arrangement from July, 2021. It has adequate land, good soil and a source of water for irrigation. Not far from the district headquarters of Jalpaiguri, the farm has earned adequate experience in production of planting materials. The produced plants in this farm are mostly distributed to the districts in North Bengal.

The Utsarika farm possesses an environment ideally suited for bulk production of orchid saplings, firstly because of the favourable climate and infrastructure and secondly, the expertise of the private partner. The principal challenge of providing good quality orchid saplings to the farmers at a fair price is sought to be addressed through the production of orchid saplings at the Utsarika Horticulture Farm for which adequate infrastructure was needed to be created.

### **Supply of Tropical Orchid plants:-**

<b>Tropical Orchids</b>	<b>Quantity supplied in 2024</b>
Dendrobium	22565
Mokara	5160
Vanda	8837
Cattleya	1845
<b>Total</b>	<b>38407</b>

### **Urvi – Zara Production Facility**

If you are still wondering about the thread that ties the Greeks and Confucius, the answer is orchids. They have been around for more than three thousand years. The spectacular gift of nature has time travelled to our sitting rooms, traversing cultures across ancient Greek, Roman, Chinese and the Orient.

The splendour of the flower can now be enjoyed by all in the sprawling Tropical Orchid Display facility, which is named Urvi–Zara. The Earth in Urvi blooms in the radiance of Zara! Like orchids, a fusion of Sanskrit and Arabic in coining the name is truly symbolic of the timeless appeal that transcends cultures and geographies that these idyllic flowers possess.

The Urvi–Zara Tropical Orchid Display Facility consists of an 860 sqm naturally ventilated polyhouse, developed as an orchid garden open to tourists and orchid aficionados. This garden currently displays 35 varieties of orchids belonging to 8 species, many in bloom. It has created a micro eco-system with a variety of flora, including ferns, hedges and foliage plants.

Urvi–Zara Tropical Orchid Display Facility would be of immense interest to all the tourists and enthusiasts, including horticulturists and environmentalists alike. The production component of Urvi – Zara is an 800 sqmpolyhouse with fan-pad cooling facility designed for the hardening of orchid plants before distribution to farmers and sale to the public. This facility, under the observation of the Regional Plant Quarantine Station, Kolkata, will be the destination for all imported orchid plants till the plant pathologists of BCKV clear them. Currently, this polyhouse, which is vector proof, is hardening and nurturing the young imported orchid varieties of Phalaenopsis, Mokara, Vanda, Dendrobium, Oncidium, Cattleya and Spathogloyttis species. The facility can support up to 1,00,000 young orchid plants at any time.

Another polyhouse of <shadow-hall type> measuring about 1,008 sqm is erected with a capacity of 150,000 lakh orchid saplings to augment the present capacity, considering the potential of orchid cultivation in North Bengal.

Hardened orchid plants would be transferred to 21 polyhouses under the Directorate of Cinchona and Other Medicinal Plants (DCOMP) in the hills of Kalimpong and Darjeeling, where they would be grown. At these facilities, farmers would be provided hands-on training in orchid cultivation. These polyhouses would also produce cut flowers and potted plants, which would be sold. The revenue earned from these polyhouses would be ploughed back for the expansion of orchid cultivation in North Bengal.

In some cultures, orchids are totems for prosperity. As dainty the flowers are, we sincerely hope that our farmers get robust support in livelihood in embracing such new horticultural practices. As more and more people come to appreciate the aesthetics, the market will grow. The right kind of interventions can either leverage or overcome the price and technology barrier. Urvi–Zara thrives as the pivotal intervention in putting the sleepy hamlet of Mohitnagar on the global orchid production map.

We welcome you all there, in the world of radiance, which we call Urvi–Zara.

There is a scope for partnering with West Bengal State Food Processing & Horticulture Development Corporation Limited in all these activities. We welcome queries and questions in this regard at [wbsfphdcl1@gmail.com](mailto:wbsfphdcl1@gmail.com).

