

## COMMERCIAL CROP PRODUCTION

The sub-tropical climate of Bangladesh is very much suitable for the production of many crops, which has high demand for both national and international markets. These crops can be sold as fresh and also be processed and marketed.

The country imports more than 2B \$ equivalent fruits annually but the actual import values will be much higher, due to under invoice.

**There are different approaches by which these crops could be grown and processed and marketed as business venture.**

### CROP PRODUCTION AS BUSINESS:

- Crop production in the open field
- Protected culture or Greenhouse crops
- Processing Industry

### FIELD CROPS:

- Fruits: Dragon, Date palm, Avocado, Persimmon, Longan, Pomelo, Grapefruit, Grapes, Custard apple, Various Citrus (Chinese seedless or Mandarin orange, Indian Nagpur orange, Kumquat, Persian Lemon, Yellow lemon etc)., Dwarf and Hybrid coconut. Passion fruit, etc.
- Spices: Black pepper, Nutmeg, Vanilla, Cardamom
- MD2 pineapple, G-9 Banana
- Industrial Crops: Coffee, Cashewnut, Hazelnut, Cacao plants, Industrial Mango and Jackfruits
- Sweet Corn and Sweet Potatoes for Fresh and Processing, both for national and international market.
- Asparagus and other high value vegetables

## GREENHOUSE OR PROTECTED CULTURE:

There are many crops that cannot be grown in the open field, need special shade. Like Greenhouse, Shade house, or Tunnel house.

- Flowers, Lily, Daisy, Dutch rose, Orchids, Gerbera etc.
- Salad Crops, Capsicum, Cherry tomatoes, Lettuce, Celery
- Melons (Netted Melon, Cantaloupe, Musk melon)
- Orchid industries

## PROCESSING INDUSTRIES:

- Cashewnut, (It is a billion \$ industries)
- Dry fruits/ Mango, Jackfruit, Banana, Sweet potato, etc.
- Canning and Juices, Many fruits/ Citrus
- Sweet corn & Sweet potatoes
- Coconut industries

Vietnam exports 4 B \$ equivalent processed Cashewnut in 2017-18, Coffee 3.5 B \$, Many agricultural processed and fresh items for many billion dollars.

In 1986 Vietnam exported only 16,000-ton Coffee, in 2017, exported 1.7 million tons Coffee, equivalent 3.5 billion \$, In 1990 Vietnamese government started promoting cashewnut production and processing. In that year, they processed only 1000 tons. In 2006, they surpassed India as main exporter. Until now, they remain top processor and exporter of cashewnut. Now the import 50% of the raw nuts from Africa and grow 50% in the country.

## COST-BENEFIT ANALYSIS OF THESE CROPS

SL.	CROPS	Seedlings/ acre	Cost tk. / seedling	Cultivation cost tk/acre	Years to fruit	To be continue Yrs	Yield ton/ acre	Income per acre/ yr (Lakh Tk.)
1	Dragon	3000	50/-	5 lac	1 to 1.5	25-30	6-8	10-12
2	Date palm	72	8500/-	6.50	3	35-40	7/8	15-16
3	Mulberry	300	800/-	3.0	2	20-25	3/4	5/6
4	Avocado							
	Black or Hass	160	1500/-	3.0	2	35-40	4-5	8-10
	Tropical green	150	1100/-	2.5	2	35-40	4-5	7-8
5	Cashew nut	200	200/-	1	2	40-45	0.5-1.0	0.5-1.0
6	Coffee	1000	120/-	2	2	20-25	1-2	6/7
7	Black pepper	1000	75/-	3	2	25-30	1.5-2	6/7
8.	Longan	150	1250/-	2.5	2	25-30	4-5	5/6
9	Persimmon	150	1250/-	2.5	2	30	5	7/8
10	Pomelo	200	1000/-	2	2	25	3-4	5/6
	Grapefruit	200	1000/-	2	2	25	3-4	5/6
11	Thai super fast jackfruit	120	1000/-	2	2	30	5-6	5/6
12	Special Mango	120	800/-	2	2	30	5-6	5-6
13	PEACH	180	800/-	2	2	25-30	4	5/6
14	KIWI	150	1200/-	3	2	30-35	6	7/8
15	Orange China	300	1000/-	4	2	20-25	6	5/6
16	Orange India	300	600/-	3	2	20-25	6	5/6
17	Plum	150/	800/-	2	2	20-25	5	5
18	Big Jujube Taiwan	300	600/	2	1	10/15	4-6	4/5
19	Vanilla	1000	300/-	5	2	20-25	0.2-0.3	25/30

For Dragon fruit and Black pepper and Vanilla cultivation, due to its vine type nature, need support of concrete poles.

For Dragon fruit, one acre accommodates 600 poles, 4 inch by 4 inch dia. and 6.5 feet height.

For 1-acre Black pepper 1000 concrete poles or convenient supporting plants of 10 feet height needed.

For Vanilla cultivation, either concrete, wooden or Bamboo supports needed.

## Cumulative COST and INCOME from 100 Acres Up to 8 Years:

### Costs Tk. Crore/100 Acres, (Initial and Maintenance)

Crops	1 <sup>st</sup> yr	2 <sup>nd</sup> Yr	3 <sup>rd</sup> Yr	4 <sup>th</sup> Yr	5 <sup>th</sup> Yr	6 <sup>th</sup> Yr	7 <sup>th</sup> Yr	8 <sup>th</sup> Yr	Total
Dragon	5.89	1.50	2.00	3.00	3.00	3.00	3.00	3.00	21.39
Date	6.89	1.00	2.00	2.00	2.00	2.00	2.00	2.00	17.89
Avocado	2.76	1.00	2.00	2.00	2.00	2.00	2.00	2.00	13.76
Coffee	2.79	1.00	2.00	2.00	2.00	2.00	2.00	2.00	13.79
Total	18.33	4.50	8.00	9.00	9.00	9.00	9.00	9.00	75.83
Cumulative Total	18.33	22.83	30.83	39.83	48.83	57.83	66.83	75.83	<b>75.83</b>

### Income Tk. Crore/ 100 Acres Tk. (Rate of Dragon Fruit Tk. 150/-, Date 250/- Avocado 250/, and Coffee 500/- Kg)

CROPS	1 <sup>st</sup> Yr	2 <sup>nd</sup> Yr	3 <sup>rd</sup> Yr	4 <sup>th</sup> Yr	5 <sup>th</sup> Yr	6 <sup>th</sup> Yr	7 <sup>th</sup> Yr	8 <sup>th</sup> Yr	Total
Dragon	-	4.00	7.00	9.00	11.00	12.00	12.00	12.00	67.00
Date	--	-	-	5.00	10.00	14.00	16.00	16.00	61.00
Avocado	-	-	1.50	2.50	3.00	5.00	6.00	7.50	25.50
Coffee	-	-	2.00	4.00	5.00	6.00	6.00	6.00	29.00
Total		4.00	10.50	20.50	29.00	39.00	40.00	41.50	182.50
Cumulative Total		4.00	14.50	35.00	64.00	101.00	141.00	182.50	<b>182.50</b>

So, after 8 years approximately **Total Cost** will be Tk. **75.83 Crore Tk.**

Total Revenue up to 8 years will be approximately Tk. **182.50 Crore Tk.**

So, **Net Profit** will be approximately **106.67 Crore Tk.**

## **IMPORTANCE OF DRAGON FRUITS**

- ▶ It can be grown in everywhere in Bangladesh
- ▶ Very easy to cultivate, once established last for 15-20 years
- ▶ Yield is very high, 8-10 tons/acre
- ▶ Very high price in local market,
- ▶ Very high demand in the international market
- ▶ Vietnam export 10-12 lakhs ton per year
- ▶ Very healthy, anticancer, antioxidant fruit
- ▶ Could be processed to many items

## **IMPORTANCE OF DATE PALM**

- ▶ It is one of the highest income generating cash crops
- ▶ Tissue culture seedlings start fruiting from 3<sup>rd</sup> year
- ▶ From 6<sup>th</sup> yr, to onward yield per plant will be 150 kg
- ▶ Retail price per kg of imported yellow Barhee date Tk. 800-1000/-kg
- ▶ It is highly nutritious and tasty
- ▶ It can be eaten as raw at the yellow stage
- ▶ Can be processed to make many item

## **IMPORTANCE OF AVOCADO**

- ▶ Bangladesh is one of the very suitable countries for producing AVOCADO
- ▶ Both tropical and subtropical varieties can be grown here easily
- ▶ It is a super healthy fruit
- ▶ From 2000 to 2015, avocado consumption increased 400% in the USA
- ▶ All the developed countries consume avocado in huge quantity, but they cannot produce, due to cool climate
- ▶ Can be used fresh and processed, has many other uses
- ▶ Its international demand and prices are very high and increasing

## **IMPORTANCE OF COFFEE & CASHEWNUT**

- ▶ Both Coffee & Cashewnut can be produced al all the hilly & high land of Chittagong, Sylhet and many other parts of the country
- ▶ It is a very healthy drink
- ▶ Coffee is 2<sup>nd</sup> most trading item in the world after hydrocarbon
- ▶ It has worldwide demand
- ▶ From 1986 to 2016 Vietnam produced 17000 tons to 17,00,000 tons coffee
- ▶ Climate of Bangladesh and soils are favourable for coffee production