

# Banana

**Plant Name:** Banana

**Scientific Name:** *Musa Paradisiaca*

**Family:** *Musaceae*

**Spacing:** 5x5, 5x6, 5x7, 6x5, 6x6, 6x7 feet (plant to plant and row to row distance)

**Varieties:** Grand Nain Tissue culture, Blue java Tissue culture

**Properties of Banana:** India is the largest producer of banana in the world and AP is the leading state in the production followed by Maharashtra, Karnataka, and Tamilnadu. It is a plant of virtue, multi nutritional fruit, rich source of fiber, potassium and vitamins.

**Soil:** Well drained, medium to black organic matter rich soil, having optimum pH range 6.5–7.5 suitable for cultivation.

**Climate:** Banana is a Tropical plant requiring hot and humid climate and temperature 20–30° C. Low and high temperatures are harmful for cultivation. Temperature below 10° C affects plant growth. suitable annual rainfall ranging from 100–320 cm.

**Production:** Production starts in 10–12 months after plantation, 25–30 kg/plant (35–40t/acre).





# Banana

## *Grand Nain Tissue culture*

**Variety:** Grand Nain Tissue culture

**Plantation date:** 06/07/2023

**Spacing:** 5 x 6 feet

**Plantation Area:** 15 R

**No. of plants:** 580

**Character of Grand Nain:** G9 is high yielding variety (30kg/plant), long, cylindrical bunch, attractive fruits, good keeping quality & good for long transport. Suitable for tissue culture. Disease and pest resistance.

**Production:** Average 25-30 kg/plant production goes up to 35-40 kg/plant. (35-40t/acre).



# Banana

## *Blue java Tissue culture*

**Variety:** Grand Nain Tissue culture

**Plantation date:** 06/07/2023

**Spacing:** 5 x 6 feet

**Plantation Area:** 1.6 R

**No. of plants:** 60

**Character of Blue java:** Blue java is a hardy cold tolerant banana cultivar, known for its aromatic fruit having ice cream like vanilla flavor and bluish color. This highted banana is also known as ice-cream banana. Fruit size is medium.

**Production:** 12-15 kg/plant (15-18 t/acre).







## Banana Crop Economics



| Subject                                    | Crop   | Plantation distance | Total area (acres) | No. of plants     |
|--|--|---------------------|--------------------|-------------------|
|  | Banana G9 Tissue Culture                               | 6 x 5 Feet          | 1 (40 R)           | 1452              |
|  |  |                     |                    |                   |
|  | Details  | Expense statement   | Expense statement  | Expense statement |
|  |  | First year          | Second year        | Third year        |
| (A) Capital required once at planting time | Soil testing   | 400                 | 0                  | 0                 |
|  | Water testing  | 300                 | 0                  | 0                 |
|  | Ploughing  | 2,500               | 0                  | 0                 |
|  | Rotavator  | 2,500               | 0                  | 0                 |
|  | Manure 4 trolleys (per trolley 5000x4) )               | 20,000              | 0                  | 0                 |
|  | Basal dose   | 10,000              | 10,000             | 10,000            |
|  | Bamboo cost  | 18,000              | 0                  | 0                 |
|  | Drip cost  | 30,000              | 0                  | 0                 |
|  | Price per plant (16x1452)                              | 23,232              | 0                  | 0                 |
|  | The cost of planting seedling                          | 2,000               | 0                  | 0                 |
| Cost A                                     | Rs.  | 108,932             | 10,000             | 10,000            |
|  |  |                     |                    |                   |
| (B) Total cost includes till harvesting    | Chemical Fertilizer cost                               | 14,400              | 14,400             | 14,400            |
|  | Spraying cost  | 8,800               | 8,800              | 8,800             |
|  | Labour cost  | 5,000               | 5,000              | 5,000             |
|  | Other expenses   | 5,000               | 5,000              | 5,000             |
| Cost B                                     | Rs.  | 33,200              | 33,200             | 33,200            |
| Total Cost (A + B)                         | Rs.  | 1,41,132            | 43,200             | 43,200            |
|  | Crop duration  | 12 Months           | 24 Months          | 36 Months         |
|  | Fruit Harvesting Period                                | 9 to 12 Months      | 18 to 24 Months    | 30 to 36 Months   |
|  | Total plants   | 1,452               | -                  | -                 |
| Total Production                           | Total Plants x Yield per Plant (kg) x Rate per kg (Rs) | 1,452 *30 * 9 Rs    | 1,452 *28 *9 Rs    | 1,452 *25 *9 Rs   |
| Total income per year                      |  | 3,92,040            | 3,65,904           | 3,26,700          |
| Net profit/Net return                      | (Total income - Total cost)                            | 3,92,040-1,41,132   | 3,65,904-43,200    | 3,26,700-43,200   |
| Net profit                                 |  | 2,50,908            | 3,22,704           | 2,83,500          |
| BCR (Cost benifit ratio)                   | Total income ÷ Total cost                              | 1:2.76              | 1:8.47             | 1:7.56            |

Note: The above planting is at a 6 x 5 feet spacing, but changes in spacing, as well as changes in management practices, land, soil-climate, market, etc., may result in higher cost and lower production