

## Prospectus of banana

G.B. Tuppad, K. Manjunatha chari and N.R. Koushik

University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA

Email : tuppadgb@gmail.com

Banana is an important source of energy and one of the cheapest sources of nutrients for the bulk of our population. An Arabic word for banana *mauz* and word *banana* itself might have come from the Arabic *banan*, which means “finger”. The old scientific names *Musa sapientum* and *Musa paradisiaca* are no longer used. Bananas come in a variety of sizes and colors when ripe, including yellow, purple and red. The scientific names of bananas are *Musa acuminata*, *Musa balbisiana*.

Banana native to tropical south and Southeast Asia, and are likely to have been first domesticated in Papua New Guinea. They are cultivated throughout the tropics. Banana is the most important fruit crop in India and accounts for 31.7 per cent of the total fruit production. It is widely cultivated in varying agro climatic regions under different systems of production. Nevertheless, conservation and characterization of genetic diversity, improvement Due to wider adaptability, banana is cultivated from humid tropics to subtropics, arid subtropics, and from sea level up to an elevation of 1500 m above MSL.

### Area production and productivity in world:

India, China, Philippines and Indonesia are the major banana producers in this region. India is contributing 48% of the total production in Asia from 37% of total area. China contributes almost 17% production from 15% area. Among various continents, Asia has the share of 60% in global banana production. During the last decade, India remained as the largest producer of bananas in the world.

Banana is the most important fruit crop in India and accounts for 31.7 per cent of the total fruit production and it is widely cultivated in varying agro climatic regions under different systems of production. India alone produces 26.99 million tons from an area of 0.748 million ha and largest producer of banana in the world and also in Asia and contributes 22.15 per cent to global production from 7.4 % area followed by China and Philippines. Although Brazil has the second largest area under bananas (0.49 million ha), the country ranks only fourth in terms of production.

An appreciable increase in productivity of banana between 2001 and 2009 in India remained as the largest producer of bananas in the world from the last decade. Increase in production is partly due to enhanced area under cultivation and largely due to increased productivity by adoption of high yielding varieties like Grand Nine, Robusta

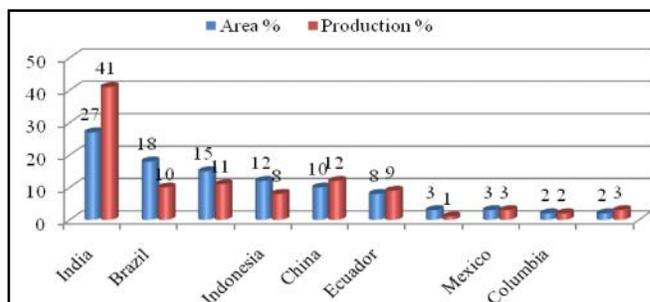
Area, production and productivity of bananas (2009-10)

Country	Area (000 Ha)	Production (Million tons)	Productivity (t/ha)
India	748	26.99	35.87
Brazil	491	6.58	13.41
Philippines	415	7.48	13.56
Indonesia	315	5.45	15.49
China	269	8.04	23.20
Ecuador	227	6.13	27.07
Cameroon	082	0.79	9.72
Mexico	078	2.36	29.99
Columbia	062	1.58	25.15
Costa-Rica	042	2.22	52.54
Others	7473	56.02	-
Total	10100	121.85	--

and Cavendish clones and also mainly by use of quality planting material, integrated nutrient and water management, high density planting and integrated pests and disease management. Year round demand and higher net returns have attracted many farmers to shift to banana cultivation in the country. Banana is mainly propagated using suckers but due to the problem of viral diseases and uniformity, *in-vitro* plants have become success. Currently, 110 million tissue cultured plants are planted every year. Plant health management and extending the use of tissue culture plants for enhancing productivity.

### Area production and productivity in India (2009-10):

Tamil Nadu has the largest area followed by Maharashtra and Karnataka. Tamil Nadu also ranks first in production, followed by Maharashtra. However, the highest productivity is recorded in Maharashtra followed by Gujarat, Tamil Nadu and Madhya Pradesh. Maharashtra excels in productivity owing to monoculture of high yielding Cavendish clones coupled with adoption of improved technologies like high density planting, fertigation and growing tissue culture plants.



Graphical representation of area and production

State	Area (000 Ha)	Production (Million tons)	Productivity (t/ha)
Tamil Nadu	133.4	6368.4	47.9
Maharashtra	85.0	5200.0	61.3
Gujarat	61.9	3779.8	61.0
Andhra Pradesh	80.0	2804.0	35.0
Karnataka	81.2	2023.1	24.9
Madhya Pradesh	36.8	1867.9	50.7
Bihar	32.2	1416.8	45.6
West Bengal	41.0	982.2	23.9
Assam	54.0	835.0	15.5
Kerala	59.8	472.9	7.9
Other	82.7	1247.0	15.1
Total	748.1	26996.6	36.1

### Market for banana:

India is the largest producer of banana and all the produce are consumed domestically with meager export, less than 0.5 per cent. The US is the major importer, followed by European Union and Japan. Latin American countries are the major exporter to US and European Union, while Philippines for Japan. In 2009, India led the world in banana production, representing approximately 28% of the worldwide crop, mostly for domestic consumption. The six leading exporting countries together accounted for about two-thirds of exports, each contributing more than 6 million tons, according food and agriculture organization to statistics. The European country has imported many of bananas from European countries paying prices above global market rates.

Indian market details of catchment areas of markets of banana in leading states are Maharashtra (Jalgaon, Dhule and Buldhana), Tamil nadu (Thiruchirapalli, Coimbatore and Theni), Madhya Pradesh (Khandwa, Dhar and Badwani), Andhra Pradesh (Guntur, Vijayanagram and Prakasham), Gujarat (Surat and Anand) and Karnataka (Uttarkannada and Udupi).

### Banana as medicine (BAM):

- Bananas contain tryptophan, an amino acid that can be converted to serotonin, leading to improved mood
- Bananas are relatively high in iron, which helps the body's hemoglobin function
- Due to their content in fiber, they help maintain a normal bowel function.
- Diarrhea usually depletes your body of important electrolytes of which the most important is potassium, contained in high amounts in bananas.
- Bananas are an exceptionally rich source of *fructooligosaccharide*, a compound that nourishes probiotic (friendly) bacteria increase both in number and function, and helps increasing our body's calcium absorption.
- In addition, green bananas contain indigestible

Banana	Maximum	Minimum
Banana - Ripe	3000	2050
Medium	2400	1200
Nendra Bale	2400	2300
Palayamthodan	1750	1000
Poovan	3800	2400
Rasakathai	3400	2900
Red Banana	4000	3000
Robusta	1800	1000

Nutritive value (Nutrient value per 100 g)	
Energy	371 kJ (89 kcal)
Carbohydrates	22.84 g
-Sugars	12.23 g
-Dietary fiber	2.6 g
Fat	0.33 g
Protein	1.09 g
Vitamin-A	3 µg (0%)
Thiamine (Vit. B1)	0.031 mg (3%)
Riboflavin (Vit. B2)	0.073 mg (6%)
Niacin (Vit. B3)	0.665 mg (4%)
Pantothenic acid (Vit. B5)	0.334 mg (7%)
Vitamin B6	0.4 mg (31%)
Folate (Vit. B9)	20 µg (5%)
Choline	9.8 mg (2%)
Vitamin C	8.7 mg (10%)
Calcium	5 mg (1%)
Iron	0.26 mg (2%)
Magnesium	27 mg (8%)
Manganese	0.3 mg (14%)
phosphorus	22 mg (3%)
Potassium	358 mg (8%)
Zinc	0.15 mg (2%)

Percentages relative to US recommendations for adults (USDA nutrient data base)

short chain fatty acids (SCFAs) that are very nutrient to the cells that make up the mucosa of the stomach. These cells, when healthy, absorb calcium much more efficiently.

- Daily consumption of whole fruits and vegetables, especially bananas, is highly protective to kidney health.
- Bananas are extremely high in potassium (about 4673 mg), yet very low in sodium (1mg), thus having a perfect ratio for preventing high blood pressure.
- Bananas contain *protease inhibitors* that help eliminate bacteria in the stomach that cause of ulcers in human.
- Many people report that rubbing the inside of a banana peel on a mosquito bite is very effective in reducing itching and swelling
- Bananas are high in potassium, which helps normalize the heart beat and regulate the water balance of body.

### Reference:

- [www.nrcb.res.in](http://www.nrcb.res.in)
- Agricultural statistics at a glance

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