ORIGINAL ARTICLE

BANANA PRODUCTION IN TAMILNADU – A STUDY

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Abstract:

Consuming fruits gives several benefits to human body. Among various fruits mango gets an important place and which is followed by banana. Bananas are packed with nutrition that help health of human beings. India contributes one fourth of total banana production in the world. Banana production may not equal during all the years there may be fluctuating in production and productivity hence it is necessary to study the trend of banana production. Banana production was found high in India. India is the leading country in banana production and utilizing huge land for cultivating banana, but in productivity the country pulled into fourth place. The country may adopt innovative methods in order to improve productivity of banana in the country.

KEYWORDS:

Banana, Horticulture, Productivity, Cultivation and Fruit.

INTRODUCTION:

Consuming fruits gives several benefits to human body. Even in the modern world with packed foods most of the people like to consume fruits. Among various fruits mango gets an important place and which is followed by banana. Banana is easy to consume and it is a packed by nature itself. Banana is one of the important fruits consumed by people in the world. Banana is a part of meal in most of the home in India. Bananas are packed with nutrition that help health of human beings. This tasty yellow fruit is hearthealthy, may help prevent depression and can even soothe an upset stomach. Banana has its own benefits; it has Vitamin B6, Manganese, Vitamin C, Fiber, Potassium, Biotin and Copper. It is suggested by doctors that Bananas help overcome depression due to high levels of tryptophan, which is converted into serotonin which is the happy-mood brain neurotransmitter. Eat two bananas before a strenuous workout to pack an energy punch and sustain your blood sugar. Protect against muscle cramps during workouts and nighttime leg cramps by eating a banana. Counteract calcium loss during urination and build strong bones by supplementing with a banana. Improve your mood and reduce PMS symptoms by eating a banana, which regulates blood sugar and produces stress-relieving relaxation. Bananas reduce swelling, protect against type II diabetes, aid weight loss, strengthen the nervous system, and help with the production of white blood cells, all due to high levels of vitamin B-6. Strengthen your blood and relieve anemia with the added iron from bananas. High in potassium and low in salt, bananas are officially recognized by the FDA as being able to lower blood pressure and protect against heart attack and stroke.

HISTORY OF BANANA

Bananas were originally found in South East Asia, mainly in India. They were brought west by

Arab conquerors in 327 B.C. and moved from Asia Minor to Africa and finally carried to the New World by the first explorers and missionaries to the Caribbean. The mass production of bananas started in 1834 and really started exploding in the late 1880's 1 . Banana is the leading fruit production followed by mango in the world. India, China, Philippines are the leading producers of banana in the world.

REVIEW OF LITERATURE

Calderon RP and Rola AC (2003), in their study found that the demand for the product in developed countries is so high that its export promises a favorable trade performance. John Jagwe et., al., (2007), evidenced that the margins obtained by the traders vary along the chain according to the importance of the type of banana traded in a particular area. It also evidenced that insufficient finances, inadequate transport facilities, difficulty in assembling the produce, inadequate storage, unfair taxation and inconsistent price signals were among the challenges faced by the banana traders in the area. Melinda Smale and Wilberforce Tushemereirwe K (2007), found that Demand for planting material of potential host varieties for gene insertion varies according to household and physical farm characteristics, markets, and the attributes of varieties. Montfort Mlachila et., al., (2010), found that changes in the level of implicit assistance have had a considerable macroeconomic impact, especially on Caribbean real GDP growth. Pednekar Achut P (2011), found that pineapples, coconuts, and betel nuts reveal positive correlation whereas cashew nut and banana show negative correlation. Efficient functioning of market yards in a way was clearly ascertained by their technique of attracting the farmer's produces. Velu Suresh Kumar (2014), noted that there was significant increase in production and productivity of banana in India and climate changes was the major problem faced by banana cultivators and it led to increase production cost.

STATEMENT OF THE PROBLEM

India is one of the leading banana producers in the world. The study has analyzed the position of India in banana production in the world. India contributes one fourth of total banana production in the world. Banana production may not equal during all the years there may be fluctuating in production and productivity hence it is necessary to study the trend of banana production. In India all the states are not contributing to total banana production considerably. There is regional wise variation so the study has analyzed state-wise banana production. Tamilnadu is one of the leading states of banana production both in area and production. This paper has studied district wise banana production in the state of Tamilnadu.

OBJECTIVES OF THE STUDY

The study has the following objectives.
To study the trend of banana production in India.
To study the regional wise status of banana production.

METHODOLOGY

The study is based on secondary data. The secondary data were collected from Indian Horticulture Database, 2013, National Horticulture Board, Gurgaon and Department of Economics and Statistics, Chennai for the period of ten years from 2003-04 to 2012-13.

RESULTS AND FINDINGS

The following table gives the results regarding top countries in banana production in the world. It gives area of banana cultivation, quantity of banana production, productivity, percentage share of area of banana cultivation, percentage of banana production of each country on total banana production in the world and rank of each country.

Table 1 Leading Banana Producing Countries (2012-13)

Country	Area in HA	Production in MT	Productivity (MTPHA)	% of total Area on total	Ramk	% of on total Production	Rank
India	7,75,995	2,65,09,096	34.16	15.50	1	25,58	1
China	4,00,000	1,05,50,000	26.38	7.99	5	10.18	2
Philippines	4,54,179	92,25,998	20.31	9.07	3	8.90	3
Ecuador	2,10,894	70,12,244	33.25	4.21	6	6,77	4
Brazil	4,81,116	69,02,184	14.35	9.61	2	6.66	5
Indonesia	1,05,000	61,89,052	58.94	2.10	S	5.97	6
Angola	1,15,749	29,91,454	25.84	2.31	7	2.89	7
Guatemala	66,000	27,00,000	40.91	1.32	10	2.61	8
United Republic of Tanzania	4,42,190	25,24,740	5.71	8.83	4	2,44	9
Mexico	72,617	22,03,861	30.35	1.45	9	2.13	10
Rest of the World	18,83,780	2,68,23,720	14.24	37.62		25.88	
Total	50,07,520	10,36,32,349	20,70	100.00		100.00	

Source: Indian Horticulture Database, 2013, National Horticulture Board, Gurgaon.

Table 1 shows that in the world banana was produced in the total area of 50,07,520 hectors, among them India stood first in area of production in banana and which was 7,75,995 hectors and it accounted 15.50 per cent of the total area of banana production in the world. Next to India Brazil stood second in the area of production, it produced banana in 4,81,116 hectors followed by Philippines in 4,54,179 hectors and United Republic of Tanzania in 4,42,190 hectors. China stood in fifth place in area of production with 4,00,000 hectors. Banana was produced in Ecuador, Angola, Indonesia, Mexico and Guatemala in 2,10,894 hectors, 1,15,749 hectors, 1,05,000 hectors, 72,617 hectors and 66,000 hectors respectively. In the rest of the world it was produced in 18,83,780 hectors and it accounted 37.62 per cent on total area of banana production.

World's total banana production during 2012-13 was 103.63 million metric tones. India stood first in production of banana during the year with the production of 26.51 million metric tones which accounted one fourth of total banana production in the world followed by China with 10.55 million metric tones and it accounted 10.18 per cent. Banana production in Philippines was 9.23 million metric tones, it was 8.90 per cent of total production followed by Ecuador with 7.01 million metric tones which was 6.77 per cent of the total production. Banana production in Brazil and Indonesia was more than 6 million metric tones and it accounted 6.66 per cent and 5.97 per cent respectively on total banana production. Banana production in Angola, Guatemala, United Republic of Tanzania and Mexico were at 2.99 million MT, 2.70 million MT, 2.52 million MT and 2.20 million MT respectively. Banana production in the rest of the world stood at 26.82 million MT and it accounted 25.88 per cent of the total production and it was equal to the production level of India.

Productivity of banana was found higher in Indonesia, which was 58.94 MT per hector followed by Guatemala 40.91 MT per hector. India stood third in productivity of banana with 34.16 MT per hector followed by Ecuador at 33.25 MT per hector. Productivity of banana was found 30.35 MT per hector in Mexico. China stood sixth place in banana productivity with 26.38 MT per hector. Productivity of banana in Angola and Philippines were 25.84 MT and 20.31 MT per hector respectively. Productivity in rest of the world was found 14.24 MT tones and world's average productivity of banana was found to be 20.70 MT per hector.

As banana is a major fruit cultivated in India. Hence, it is necessary to know its trend of

^{*}HA-Hectare

^{**}MT-Metric Tones

production. The following table gives the results of area of cultivation, production and productivity of banana and total fruit production in India for the period of ten years from 2003-04 to 2012-13.

Table – 2
Trend of Banana Production and other fruits in India

Year		Banana					Other Fruits				no
	Area ('000 ha)	% Change	Production (YOO MT)	% Chinge	Productivity (in MTPHA)	Area ('000 lus)	% Clange	Production ('000 MT)	% Cleange	% in area	% in production
2003-04	498.60	- 30	13,856.60		27,79	4,659.81	+	45,580.92	-	10.70	30.40
2004-05	589.60	18.25	16,744.50	20.84	28.40	4,954.62	6.33	49,248.53	8.05	11.90	34.00
2005-06	569.50	-3.41	18,887.80	12.80	33.17	5,322.43	7.42	55,389.44	12.47	10,70	34.10
2006-07	604.00	6.06	20,998.00	11.17	34.76	5,541.28	4.11	59,484.42	7,39	10.90	35.30
2007-08	658.00	8.94	23,823.00	13.45	36.21	5,875.00	6.02	65,628.10	10.33	11,20	36.30
2008-09	709.00	7.75	26,217.00	10.05	36.98	6,112.07	4.04	68,451,70	4.30	11.60	38.30
2009-10	770.30	8.65	26,409.50	0.73	34.28	6,313.93	3.30	71,377,03	4.27	12.20	37.00
2010-11	830.00	7.75	20,780.00	-21.32	25.04	6,384.62	1.12	67,467.53	-5.48	13.00	30.80
2011-12	796.50	-4.04	28,455.10	36.94	35.73	6,693.28	4.83	76,492.20	13.38	11.90	37.20
2012-13	776.00	-2.57	26,509.10	-6.84	34.16	6,990.99	4.45	81,316.26	6.31	11.10	32.60
CAGR	4.52		6.70			4.14		5.96			

Source: National Horticulture board, Gurgaon, India

CAGR - Compound Annual Growth Rate

The above table shows that both area of banana cultivation and production was increasing over the study period from 2003-04 to 2012-13. Area of banana production was 4,98,600 hectors during 2003-04, it increased by 18.25 per cent over the previous year and it stood at 5,89,600 hectors and it decreased to 5,69,500 hectors. During the following years area of banana cultivation was increasing till 2010-11 and its rate of increase was gradual during the years. During the year 2011-12 area of banana cultivation decreased to 7,96,500 hectors, which accounted 4.04 per cent decrease over its previous year and during 2012-13 area of production decreased further by 2.57 per cent and during the year banana was cultivated in 7,76,000 hectors. The result of CAGR of area of banana cultivation stood at 4.52 per cent. It was considered low and therefore growth in banana producing area was less.

Banana was produced 13,856.60 thousand MT in India during 2003-04, banana production was increasing over the study period. It increased by 20.84 per cent during 2004-05 with the production of 16,744.50 thousand MT and it increased further to 18,887.80 thousand MT with 12.80 per cent growth over the previous year. Banana production increased further by 11.17 per cent, 13.45 per cent and 10.05 per cent respectively over the previous year during 2006-07 to 2008-09 with the production of 20,998 thousand MT, 23,823 thousand MT and 26,217 thousand MT respectively. During the year 2010-11 banana production went down drastically by 21.32 per cent over the previous year and quantity of production stood at 20,780 thousand MT, but during the next year (2011-12) production of banana increased rapidly with 36.94 per cent over the previous year and its production was 28,455.10 thousand MT. Production of banana went down again during 2012-13 to 26,509.10 thousand MT and its rate of decrease was 6.84 per cent. The calculated value of CAGR of banana production stood at 6.70 MT per hector, which was higher than area of production; hence it is appreciable growth over the study period.

Productivity of banana was found fluctuating over the study period. Productivity of banana ranged between 25.04 MT per hector to 36.98 MT per hector over the study period. It was found low during the first two years of the study period, with 27.79 MT and 28.40 MT per hector. Productivity of banana was found to be 35.73 MT and 34.16 MT per hector respectively during 2011-12 and 2012-13. The above table also shows area of cultivation and production of all fruits in India. It revealed that area of fruit production in India was increasing over the study period. It was cultivated in 4,659.81 thousand hectors during 2003-04 and it was increasing over the study period and during 2012-13 fruits were cultivated in 6,990.99 thousand hectors. CAGR of total fruit production was 4.14, it showed that area of fruit cultivation increased over the study period but the rate seems to be low.

Production of fruits in India was increasing over the study period except during 2010-11. Total

fruit production was 45,580.92 thousand MT during 2003-04. It increased at higher rate during 2011-12 with 76,492.20 thousand MT with the growth rate of 13.38 per cent over the previous year. CAGR of 5.96 per cent of fruits production was higher than CAGR of land area of fruit production, it indicated efficiency of cultivation of fruits in India and it will lead productivity of fruits in India. The table also showed that in total fruit producing area banana was produced in more than 10 per cent. The share of area of banana cultivation ranged from 10.70 per cent to 13 per cent. During 2010-11 the share of banana cultivating land area was found high and during such year banana was cultivated in 13 per cent of total fruit producing area. These results showed that among total fruit production banana occupies more than one fourth share with the land sharing of one tenth of total fruit producing area.

As per the results of the above tables India is the largest producer of banana. Banana is cultivated in almost all the states of India, but production level differs from state to state. The following table gives the results of state wise production of banana, its cultivating area, yield, share in area and share in production on total banana production for the years 2011-12 and 2012-13. It enables to know major producers of banana.

Production 7000 typics T000 Leason lu (tomos) tha (Source) Share in Pares 100 ta Nes 000 State Mes Sak E S ž 2,900 14.98 Andhra Pradesh \$7.0 10.41 10 10 91. 3.211 12.01 745 16.25 Assam 49.1 5.16 2.62 9 5.56 1.59 6.84 49.25 33.1 Bihar 1.581 4.03 6 382 23.29 2.06 1.34 14 18.7 22.09 2.59 Chhattis garh 16.4 413 1.66 Gujarat 65.0 4.048 62.28 8.16 14,23 3 70.6 4,524 64.08 9.78 18.19 Kamataka 91.6 2,352 11.50 8.27 13.49 32.4 53.5 420 \$ 00 6.59 1.48 594 4.49 Ketala 12 24.8 1.379 55:60 3.11 4.85 26.0 55.69 3.60 5.82 Madhya Pradesh 1,448 Maharashtra 82.0 4,315 52.62 15.16 \$2.0 3,600 43.90 11.36 14.48 13.49 4.71 1.18 18.95 Orissa 37.5 506 12 27.5 521 3.81 2.09 130.4 6,736 51.66 6.37 23.67 3,808 43.72 Tamilnadu 1,346 2.3 46.52 Uttar Pradesh 32.5 41.42 4.58 4.73 8 107 0.32 0.43 14 West Bengal 43.7 1,054 24.12 5.49 3.70 9 44.3 1,078 24,12 6.19 4.33 7.06 10.54 Other States 56.2 692 2.43 55.8 588 12.31 11 2.36 Total 796.5 28,466 36.73 100.00 100.00 721.8 24,870 34.46

Table – 3
State Wise Banana production in India

Source: NHB,2012-13

The above table indicates that the state of Tamilnadu stood first in banana production during 2011-12 with the quantity of 6,736 thousand MT in the land area of 130.4 thousand hectors. Productivity of banana also was considerable in Tamilnadu during the year, which was 51.66 MT per hector. Tamilnadu contributed 23.67 per cent of total banana production in India, which was around one fourth of total production. Tamilnadu contributed 16.37 per cent of total land area in India where banana cultivated. But during 2012-13 production in Tamilnadu went down drastically and Tamilnadu pulled into second place in banana production with the production of 3,808 thousand MT in the land area of 87.1 thousand hectors. During the year the state of Gujarat stood first in banana production. Productivity of banana in Tamilnadu also decreased to 43.72 MT per hector. During the year the contribution of Tamilnadu in total banana production in India went down to 15.31 per cent and share of land area stood at 12.07 per cent of total banana cultivating area in India.

The state of Gujarat stood third in banana cultivation during 2011-12 with the production of 4,048 thousand MT in the land area of 65 thousand hectors, their productivity was found very higher than any other state with 62.28 MT per hector. The state contributed 14.23 per cent of total banana production in the country and the share of land area was 8.16 per cent of total banana cultivating area in India. The production of banana in the state increased to 4,524 thousand MT in the land area of 70.6 thousand hectors during 2012-13 and the state become first largest banana producer in the country and pulled Tamilnadu into second place. Their contribution in total banana production was 18.19 per cent during the year and the share of area was 9.78 per cent.

Maharashtra is another major state which is producing banana. It produced 4,315 MT of banana during 2011-12 and stood second position and which was cultivated in 82 thousand hectors. Their

productivity was 52.62 MT per hector. The state contributed 15.16 per cent of total banana production. Banana production in Maharashtra went down during 2012-13 to 3,600 thousand MT in the land area of 82 thousand hectors and it went to third place in banana production. Productivity of banana also went down drastically to 43.90 MT per hector. Their share of production was 14.48 per cent. The state of Andhra Pradesh occupied fourth place in banana production both during 2011-12 and 2012-13 with the production of 2,900 thousand MT and 3,211 thousand MT respectively. The state of Karnataka stood fifth place in banana production in India with the quantity of 2,352 thousand MT during 2011-12 and 2,530 thousand MT during 2012-13. Their contribution in total production was 8.27 per cent in 2011-12 and it increased to 10.17 per cent during 2012-13. Bihar occupied sixth place in banana production both during 2011-12 and 2012-13 with the quantity of 1,581 thousand MT during 2011-12 and 1,701 thousand MT during 2012-13. Productivity of banana in Bihar was found high with 49.25 MT per hector and 51.39 MT per hector respectively during 2011-12 and 2012-13. The state of Madhya Pradesh stood seventh place in banana production in India both during 2011-12 and 2012-13 and their share of production stood at 4.85 per cent during 2011-12, which increased to 5.82 per cent during 2012-13. Productivity of banana was found high in the state with 55.60 MT per hector in 2011-12 and 55.69 MT per hector during 2012-13 next to Gujarat. The state of Utter Pradesh stood at 8th place in banana production in 2011-12 and contributed 4.73 per cent of total production, but during 2012-13 it went down rapidly to 0.43 per cent and went down to 14th place. West Bengal occupied 9th place in banana production in 2011-12 and its production increased during the next year and it improved to 8th place during the year. The state of Assam contributed 2.62 per cent of total banana production and stood 10th place during 2011-12 and its production increased and it contributed 3.37 per cent of total production during 2012-13 and went up to 9th position.

The state of Orissa contributed 1.78 per cent of total banana production and stood 11th position during 2011-12 with 13.49 MT per hector. Productivity of banana in the state of Kerala was found very low, which was only 8 MT per hector during 2011-12 and it was 15.56 MT per hector during 2012-13. The state of Chhattisgarh occupied 13th position in banana production and contributed 1.34 per cent of total banana production during 2011-12 and during 2012-13 it occupied 12th position with the contribution of 1.66 per cent of total banana production. Rest of the states in India all together produced 692 thousand MT of banana during 2012-13 and 588 thousand MT during 2012-13 and they contributed only 2.43 per cent of total production in 2011-12 and 2.36 per cent during 2012-13. The results of the above table Tamilnadu is the leading state in banana production. It is necessary to know district wise banana production in Tamilnadu. The following table gives area of production, production, productivity, share in area, share in production and its state rank for each districts of Tamilnadu.

Table – 4 District Wise Banana Production in Tamilnadu (2011-12)

SI. No.	District	Area in ha	Production in MT	Productivity MT per HA	Share in Area	Share in Production	Rank
1	Kancheepuram	258	11,273	43.69	0.25	0.25	28
2	Tiruvallur	1,095	47,846	43.69	1.06	1.06	21
3	Cuddalore	4,133	97,421	23.57	4.01	2.16	18
4	Villupuram	1,282	56,016	43.69	1.24	1.24	20
5	Vellore	6,179	2,97,556	48.16	5.99	6.60	5
6	Tiruvannamalai	3,205	1,40,041	43.69	3.11	3.11	11
7	Salem	2,379	1,03,949	43.69	2.31	2.31	16
8	Namakkal	2,928	1,27,938	43.69	2.84	2.84	13
9	Dharmapuri	838	36,616	43.69	0.81	0.81	25
10	Coimbatore	8,634	3,39,894	39.37	8.37	7.54	4
11	Erode	5,246	1,59,356	30.38	5.09	3.54	10
12	Tiruchirappalli	8,767	4,83,495	55.15	8.50	10.73	2
13	Karur	4,812	2,12,215	44.10	4.67	4.71	6
14	Perambalur	188	8,215	43.70	0.18	0.18	29
15	Thanjavur	3,212	1,21,277	37.76	3.12	2.69	14

16	Tiruvarur	422	18,439	43.69	0.41	0.41	27
17	Nagapattinam	645	28,183	43.69	0.63	0.63	26
18	Pudukkottai	3,123	2,06,796	66.22	3.03	4.59	8
19	Madurai	2,370	1,03,556	43.69	2.30	2.30	17
20	Theni	5,767	4,53,756	78.68	5.59	10.07	3
21	Dindigul	5,307	1,30,919	24.67	5.15	2.91	12
22	Ramanathapuram	106	4,632	43.70	0.10	0.10	31
23	Virudhunagar	917	40,068	43.69	0.89	0.89	23
24	Sigagangai	1,025	44,787	43.69	0.99	0.99	22
25	Tirunelveli	8,854	2,11,954	23.94	8.59	4.70	7
26	Thoothukudi	9,586	6,21,672	64.85	9.30	13.80	1
27	Kanniyakumari	5,982	1,63,039	27.25	5.80	3.62	9
28	The Nilgiris	883	38,582	43.69	0.86	0.86	24
29	Krishnagiri	1,768	77,252	43.69	1.71	1.71	19
30	Ariyalur	144	6,292	43.69	0.14	0.14	30
31	Tiruppur	3,057	1,12,400	36.77	2.96	2.49	15
	Total	1,03,112	45,05,435	43.69	100.00	100.00	

Source: Department of Economics and Statistics, Chennai.

Table 4 reports that total production of banana in the state of Tamilnadu was 45,05,435 MTs in the land area of 1,03,112 hectors during 2011-12. State's productivity of banana was 43.69 MT per hector. Thoothukudi is the leading banana producing district in the state of Tamilnadu with the production of 6,21,672 MT in the land area of 9,586 hectors and it stood first place with the productivity of 64.85 MT per hector. The district contributed 13.80 per cent of total banana production of the state and shared 9.30 per cent of banana producing land area. The district of Tiruchirapalli occupied second position in banana production with the production of 4,83,495 MT in the land area of 8,767 hectors with the productivity of 55.15 MT per hector. It contributed 10.73 per cent of total banana production. The district of Theni occupied third position in banana production in Tamilnadu with production of 4,53,756 MT and its productivity was 78.68 MT per hector. The district contributed 10.07 per cent of total state banana production.

Coimbatore district produced 3,39,894 MT of banana from the land area of 8,634 hectors, but their productivity was found low at 39.37 MT per hector with the contribution of 7.54 per cent of total banana production. Vellore district stood fifth place in banana production in the state of Tamilnadu with the production of 2,97,556 MT from the land area of 6,179 hectors. This district shared 6.60 per cent of total banana production and shared 5.99 per cent of total banana producing land area. Karur district of Tamilnadu produced 2,12,215 MT of banana from 4,812 hectors of land area. Productivity of the district was 44.10 MT per hector and the district contributed 4.71 per cent of total banana production. Tirunelveli district occupied 7th place in banana production with the production of 2,11,954 MT from 8,854 hectors. Productivity of the district was 23.94 MT per hector. Pudukottai district stood 8th place in banana production with the production of 2,06,796 MT from 3,123 hectorsand their productivity was 66.22 MT per hector. Kanniyakumari district produced 1,63,039 MT of banana from 5,982 hectors with the productivity of 27.25 MT per hector. Erode district contributed 3.54 per cent of total banana production and it shared 5.09 per cent of total area. Banana production of other districts was found low and their contribution on total banana production of the state Tamilnadu was less than 3 per cent.

CONCLUSION

Banana production was found high in India. India is the leading country in banana production and utilizing huge land for cultivating banana, but in productivity the country pulled into fourth place. The country may adopt innovative methods in order to improve productivity of banana in the country. It was also evidenced by the paper that all the states of India are not good in producing banana. The Government should concentrate in the states where production and productivity of banana were found lower. Major variation was found in productivity of banana from state to state, reasons for the variation may be found and rectified in order to increase productivity of banana and which will lead to give more income to banana

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cultivators in the country. Similarly, wide variation was found in both production and productivity of banana in different districts in Tamilnadu. Steps can be taken in order to increase productivity of banana in the districts where low productivity was found.

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