

## “A STUDY OF FARMERS AWARENESS TOWARDS BIOFERTILIZERS CONSUMPTION IN AURANGABAD DISTRICT”

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### INTRODUCTION

India is an agricultural country. Agriculture is the main occupation of India from thousand of the year. Agriculture is considered to be backbone of India, M.S. Swaminathan opines that without its improvement in agricultural sector, the backbone of the country we will be unable to free our national economy from jeopardy. Around 29 percent of its Gross Domestic Product (GDP) accounts by agricultural sector. Even then considering growing population, it becomes necessary to make improvement in it as 70 percent of the population depends on it. In response to that the efforts had been made out in science and technology and whatever truth came out was being applied to increase the productivity. It includes proper use of fertilizers technology and other inputs.

### Introduction of Biofertilizer:

Biofertilizers are defined as preparations containing living cells or latent cells of efficient strains of microorganisms that help crop plants' uptake of nutrients by their interactions in the rhizosphere when applied through seed or soil. They accelerate certain microbial processes in the soil which augment the extent of availability of nutrients in a form easily assimilated by plants. Very often microorganisms are not as efficient in natural surroundings as one would expect them to be and therefore artificially multiplied cultures of efficient selected microorganisms play a vital role in accelerating the microbial processes in soil. Use of Biofertilizers is one of the important components of integrated nutrient management, as they are cost effective and renewable source of plant nutrients to supplement the chemical fertilizers for sustainable agriculture. Several microorganisms and their association with crop plants are being exploited in the production of Biofertilizers. They can be grouped in different ways based on their nature and function.

Types of Biofertilizers are Rhizobium, Azotobacter, Azospirillum, Cyanobacteria, Azolla, Phosphate solubilising microorganism (PSM, AM fungi, Silicate Solubilising Bacteria (SSB), Plant Growth Promoting.

Advantages of using Biofertilizers are it helps to increase agriculture production with improvement of fertility of soil, it makes reduction in the use of chemical fertilizers, helps in plant growth, it protects the plant against attack by pathogens & also there is no need to take care of plant/crops while using Biofertilizers.

### Objectives of the study:

- 1) To know the farmers awareness towards Biofertilizer consumption in Aurangabad District.
- 2) To disclose the importance of Biofertilizer consumption for agriculture sector.

### Hypothesis of the study:

- 1) Majority of farmers are aware towards Biofertilizer consumption.

### Research Methodology:

The data is collected from both the primary & secondary sources.

**Primary Data:** It is collected through field survey with the help of questionnaire, personal interview of farmers, consumers and NGO's.

**Secondary Data:** It is collected from journals, books, magazines, newspapers, research paper, annual reports, internet & various published reports from time to time by the government, NGO's reports, etc.

**Sampling Method:**

The researcher selected 100 farmers from Aurangabad District according to convenience sampling for data collection.

**Rationale of the study:**

The significance of the study is to know the farmer's awareness towards Biofertilizers consumption in Aurangabad district & also it will helps to create & increase awareness among them & increase agricultural production. This study surely put an important brick in the build of the subject.

**Limitation of the study:**

Period of the study is for the year 2008 to 2011. This study is limited to farmer awareness towards Biofertilizer consumption in Aurangabad District.

**Introduction of Agriculture Sector in Aurangabad District:**

Agriculture is the mainstay of the state of Maharashtra. It is the main occupation of the people. Total 308 lakh hectares land in Maharashtra. Out of that 2/3 means approximately 225.6 lakh hectares of land is under cultivation. The Maharashtra agriculture sector accounts for 16.86 percent of Maharashtra's gross domestic product (GDP).

Aurangabad is a historic city in Maharashtra. Agriculture sector in Aurangabad district is diversified, wide range of crops are grow in the district. Cotton is major cash crop in the district & major food grains are jawar, pearl millet, wheat and gram, oilseeds soybean.

**Land holding & land operated in by farmers Aurangabad District.**

Sr. No.	Category of Farmer	Number of Land Holder	Area Operated	% of land holders	% of land operated	State level %	
						No. Cultivator	Land operated
1	0-10	264373	142753.81	49	20.63	48.97	16.12
2	10-20	175839	247299.88	33.18	35.75	29.58	29.03
3	20-40	71404	186571.57	13.47	26.97	15.76	29.17
4	40-100	16897	93376.81	3.18	13.49	5.19	20.20
5	100 Above	1348	21782.90	0.25	3.14	0.50	5.48
	Total District	529861	691704.97	100	100	100	100
	Average Landholding=1.30 ha						1.66 ha

Source: Data Supplied by Dept. Of Agriculture. GOM (Table No. 10)

**Biofertilizers Consumption in Aurangabad District:**

Biofertilizer is the best in encouraging flower & fruit growth, it is also good for strength development roots & steam. Biofertilizer can be one of the successful alternative ways of optimising the use of resources & to generate income. Chemical is less expensive less than Biofertilizer due to lack of technology & skills.

This research study demonstrated that productivity can potentially be improved through the use of appropriate Biofertilizer. It is observed that the consumption level of farmers regarding Biofertilizer is increasing & likely to reach at maximum level in near future. The farmers are getting conscious regarding increasing the quality of soil and also of the product and therefore they are using Biofertilizers in their fields.

In Aurangabad district itself it is found that highest yields are obtained due to consistent use of Biofertilizer as comparative to chemical fertilizer. Government is also providing subsidies to farmers who are purposely using Biofertilizer and doing natural farming.

**Data Analysis & Interpretation**

Table No. 1 Fertilizers used by farmers for farming

Sr. No	Fertilizers used by farmer	No. Of Farmer
1.	Only biofertilizer	50
2.	Chemical fertilizer	30
3.	Both	20
Total		100

Field Survey  
Graph No. 1

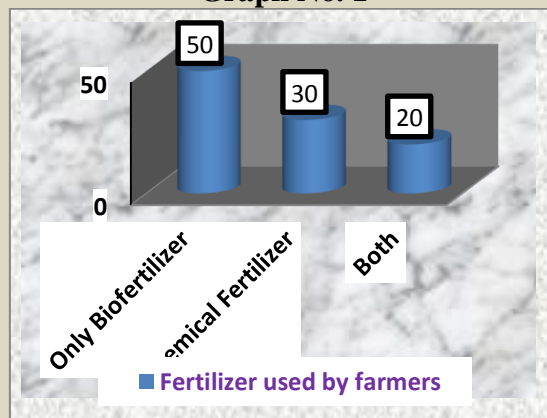


Table No. 2

Farmers opinion regarding whether agricultural production increase or not due to using Biofertilizer

Sr.No.	Farmers opinion	No. of Farmers
1.	Yes	70
2.	No	30

Field Survey  
Graph No. 2

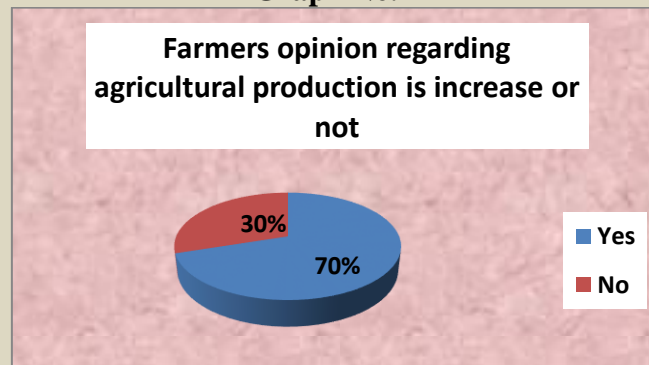
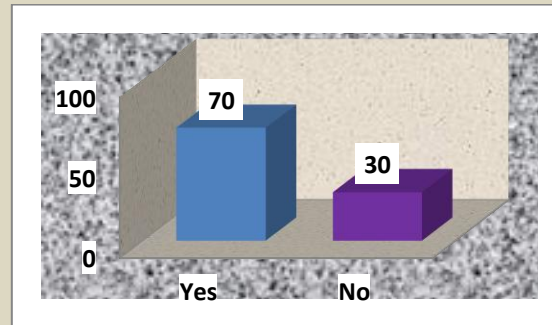


Table No. 3

Farmers opinion regarding Biofertilizer is cheaper than chemical fertilizer

Sr.No.	Farmers opinion	No. Of farmers
1.	Yes	70
2.	No	30

Field Survey  
Graph No. 3



### **Conclusion & Suggestions:**

#### **Conclusions:**

- 1) Table no. 1 conclude that majority of farmers (50%) are using only Biofertilizer for farming activity, 30% farmers are using only chemical fertilizer & 20% farmers using both types of above fertilizer.
- 2) Table no. 2 concludes that 70% of the farmer agree about Biofertilizer helps to increase agricultural production & 30% farmers are not agreed.
- 3) Table no. 3 show the 70% farmer's opinion is that Biofertilizer is cheaper than chemical fertilizer & 30% farmers said no.
- 4) This study is conclude that the relevance of Biofertilizers usage particularly for formers, it is cheap & safe source of inputs of agriculture, protect environment eco-friendly and helpful to increase production as well as decrease in the pollution & soil contamination.

#### **Suggestions:**

- 1) There is a need to create awareness among few farmers (those who are not using Biofertilizer) about consumption of Biofertilizer.
- 2) The Government of Maharashtra should encourage to farmers for use of Biofertilizer because of it is cost effective & eco-friendly.

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