

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE AND FARMERS WELFARE  
DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1941**  
TO BE ANSWERED ON 12/03/2021

**IMPORTANCE OF BIO- FERTILIZERS**

1941. SHRI PRABHAKAR REDDY VEMIREDDY:

Will the Minister of AGRICULTURE & FARMERS WELFARE be pleased to state:

- (a) the manner in which bio-fertilizers are useful when compared to conventional fertilizers;
- (b) whether bio- fertilizers help in soil fertility and make it biologically alive;
- (c) the reasons that bio-fertilizers available in the market have low count of micro-organisms;
- (d) the efforts being made by Government to address the issue;
- (e) whether it is a fact that well-qualified microbiologists are also not available;
- (f) if so, the efforts being made by Government to increase the pool of well- qualified microbiologists; and
- (g) whether BIS certification is not available for all bio-fertilizers and, if so, the reasons therefor?

**ANSWER**

MINISTER OF AGRICULTURE AND FARMERS WELFARE

(SHRI NARENDRA SINGH TOMAR)

(a) & (b): Bio- fertilizers are solid and liquid carrier based living microorganism, which when applied to soil as seed or soil treatment, increase the availability of nutrients to plants through nitrogen fixation, phosphorous solubilisation or nutrient mobilization to boost up the soil and crop productivity.

Bio-fertilizers are considered as eco-friendly and have the following advantage:

- Enhance sustainable crop productivity by way of Improvement of soil health and soil fertility.
- Reduces cost of production
- Reduces environmental pollution

- Mitigates climate change and global warming by reducing dependence on chemical fertilizer
- Regular application of bio-fertilizer enhances soil microbial load soil biological activities.

(c) to (f): The following bio-fertilizers have been notified under Schedule III of Fertilizers Control Order 1985.

- Rhizobium
- Azospirillum
- Azotobacter
- Acetobacter
- Phosphate Solubilising bio-fertilizers
- Mycorrhizal bio-fertilizers
- Potash mobilizing bio-fertilizers
- Zinc solubilizers, Carrier based Consortia
- Liquid Consortia
- Phosphate Solubilising Fungal bio-fertilizer etc.

It is mandatory for each bio-fertilizer production unit to adhere to all the specified quality standard of bio-fertilizer of FCO, 1985, including viable cell count. For ensuring quality, regular sampling and quality testing are being done as per procedure laid down in Scheduled III of FCO, 1985. 29 quality testing laboratories including 9 Regional Centre of Organic farming (RCOF) in the country have been notified for regular quality testing of bio-fertilizer samples. Many Universities are offering Post Graduate course in Agricultural Microbiology and National Centre of Organic Farming (NCOF) also organizes specific training course for enhancing capacity of Microbiologist in production and quality control of bio-fertilizer.

(g): BIS specification is available for 4 bio-fertilizers namely Rhizobium, Azotobacter, Phosphate Solubilisation Bacteria, Blue Green Algae etc. which are voluntary

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