

“Schedule III

1. Rhizobium

(i)	Base	Carried based in form of moist/dry powder or granules or liquid based
(ii)	Visual cell count	CFU minimum 5×10^7 cell/g of powder, granules or carrier material or 1×10^8 cell/ml of liquid.
(iii)	Contamination level	No contamination at 10^5 dilution
(iv)	pH	6.5 – 7.5
(v)	Particle size in case of carrier based material	All material shall pass through 0.15-0.212 mm IS sieve
(vi)	Moisture per cent by weight, maximum in case of carrier based.	30-40%
(vii)	Efficiency character	Should show effective nodulation on all the species listed on the packet.

Type of carrier:

The carrier material such as peat, lignite, peat soil, humus, wood charcoal or similar material favouring growth of the organism.

2. Azotobacter

(i)	Base	Carried based in form of moist/dry powder or granules or liquid based
(ii)	Visual cell count	CFU minimum 5×10^7 cell/g of powder, granules or carrier material or 1×10^8 cell/ml of liquid.
(iii)	Contamination level	No contamination at 10^5 dilution
(iv)	pH	6.5 – 7.5
(v)	Particle size in case of carrier based material	All material shall pass through 0.15-0.212 mm IS sieve
(vi)	Moisture per cent by weight, maximum in case of carrier based.	30-40%
(vii)	Efficiency character	The strain should be capable of fixing at least 10 mg of nitrogen per g of sucrose consumed..

Type of carrier:

The carrier material such as peat, lignite, peat soil, humus, wood charcoal or similar material favouring growth of the organism.

3. Azospirillum

(i)	Base	Carried based in form of moist/dry powder or granules or liquid based
(ii)	Visual cell count	CFU minimum 5×10^7 cell/g of powder, granules or carrier material

		or 1×10^8 cell/ml of liquid.
(iii)	Contamination level	No contamination at 10^5 dilution
(iv)	pH	6.5 – 7.5
(v)	Particle size in case of carrier based material	All material shall pass through 0.15-0.212 mm IS sieve
(vi)	Moisture per cent by weight, maximum in case of carrier based.	30-40%
(vii)	Efficiency character	Formation of white pellicle in semisolid nitrogen free bromothymol blue media.

Type of carrier:

The carrier material such as peat, lignite, peat soil, humus, wood charcoal or similar material favouring growth of the organism.

4. Phosphate Solubilising Bacteria

(i)	Base	Carried based in form of moist/dry powder or granules or liquid based
(ii)	Visual cell count	CFU minimum 5×10^7 cell/g of powder, granules or carrier material or 1×10^8 cell/ml of liquid.
(iii)	Contamination level	No contamination at 10^5 dilution
(iv)	pH	6.5 – 7.5 for moist / dry powder granulated carrier based and 5.0-7.5 for liquid based.
(v)	Particle size in case of carrier based material	All material shall pass through 0.15-0.212 mm IS sieve
(vi)	Moisture per cent by weight, maximum in case of carrier based.	30-40%
(vii)	Efficiency character	The strain should have phosphate solubilizing capacity in the range of minimum 30%, when tested spectrophotometrically. In terms of zone formation, minimum 5mm solubilisation zone in prescribed media having at least 3 mm thickness.

Type of carrier:

The carrier material such as peat, lignite, peat soil, humus, wood charcoal or similar material favouring growth of the organism.

5. Mycorrhizal Biofertilisers

(i)	Form/Base	Fine powder/tablets/granules/root biomass mixed with growing substrate.
(ii)	Particle size in case of carrier based material	90% shall pass through 250 micron IS sieve powder formulations (60 BSS)
(iii)	pH	6.5 – 7.5
(iv)	Moisture content per cent maximum	8-12

(v)	Total viable propagules/g of product, maximum	100/gm of finished product.
(vi)	Infectivity potential	80 infection points in test root/gm of micorrhizal inoculum used.

6. Potassium Mobilising Biofertilisers (KMB)

(i)	Base	Carried based in form of moist/dry powder or granules or liquid based
(ii)	Visual cell count	CFU minimum 5×10^7 cell/g of powder, granules or carrier material on dry weight basis or 1×10^8 cell/ml of liquid.
(iii)	Contamination level	No contamination at 10^5 dilution
(iv)	pH	6.5 – 7.5 for carrier based in the form of powder or granules and 5.0-7.5 for liquid basis
(v)	Particle size in case of carrier based material	Powder material shall pass through 0.15 to 0.212 mm IS sieve
(vi)	Moisture per cent by weight, maximum in case of powder based	30-40
(vii)	Efficiency character	Minimum 10 mm solubilisation zone in prescribed media having at least 3 mm thickness.

Type of carrier:

The carrier material such as peat, lignite, peat soil, humus, wood charcoal or similar material favouring growth of the organism.

7. Zinc Solubilising Biofertilisers (ZMB)

(i)	Base	Carried based in form of moist/dry powder or granules or liquid based
(ii)	Visual cell count	CFU minimum 5×10^7 cell/g of powder, granules or carrier material on dry weight basis or 1×10^8 cell/ml of liquid.
(iii)	Contamination level	No contamination at 10^5 dilution
(iv)	pH	6.5 – 7.5 for carrier based in the form of powder or granules and 5.0-7.5 for liquid basis
(v)	Particle size in case of carrier based material	Powder material shall pass through 0.15 to 0.212 mm IS sieve
(vi)	Moisture content per cent by weight, maximum in case of carrier based.	30-40
(vii)	Efficiency character	Minimum 10 mm solubilisation zone in prescribed media having at least 3

		mm thickness
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PART B

TOLERANCE LIMIT OF PHOFERTILISERS

1. In case of Rhizobium, Azotobacter, Azospirillum and Phosphate Solubilising Bacteria, the total viable count shall not be less than 1×10^7 CFU/gm of carrier material in the form of powder or granules or 5×10^7 CFU/ml in case of liquid formulations during the entire period of shelf life.
2. In case of Mycorrhizal Biofertilisers, the viable propagules shall not be less than 80 per gram.

PART C

‘PROCEDURE FOR DRAWAL OF SAMPLE OF BIOFERTILISERS

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PROCEDURE FOR SAMPLING OF BIOFERTILIZERS’, -

“1. General Requirements of Sampling

- 1.0 In drawing, preparing and handling the samples, the following precautions and directions shall be observed.
- 1.1 Sampling shall be carried out by a trained and experienced person as it is essential that the sample should be representative of the lot to be examined.
- 1.2 Samples in their original unopened packets should be drawn and sent to the laboratory to prevent possible contamination of sample during handling and to help in revealing the true condition of the material.
- 1.3 Intact packets shall be drawn from a protected place not exposed to dampness, air, light, dust or soot.”

2. Scale of Sampling

2.1 Lot

All units (containers in a single consignment of type of material belonging to the same batch of manufacture) shall constitute a lot. If a consignment consists of different batches of the manufacture the containers of the same batch shall be separated and shall constitute a separate lot.

2.2 Batch

All inoculant prepared from a batch fermentor or a group of flasks (containers) constitute a batch.

2.3 For ascertaining conformity of the material to the requirements of the specification, samples shall be tested from each lot separately.

2.4 The number of packets to be selected from a lot shall depend on the size of the lot and these packets shall be selected at random and in order to ensure the randomness of selection procedure given in IS 4905 may be followed.”

“3. Drawal of Samples

3.1 The Inspector shall take three packets as sample from the same batch. Each sample constitutes a test sample.

3.2 These samples should be sealed in cloth bags and be sealed with the Inspector’s seal after putting inside Form P. Identifiable details such as sample number, code number or any other details which enable its identification shall be marked on the cloth bags.

3.3 Out of the three samples collected, one sample so sealed shall be sent to incharge of the laboratory notified by the State Government under clause 29 or to National Centre for Organic Farming or to any of its Regional Centres. Another sample shall be given to the manufacturer or importer or dealer as the case may be. The third sample shall be sent by the inspector to his next higher authority for keeping in safe custody. Any of the latter two samples shall be sent for referee analysis under sub-clause (2) of clause 29B.

3.4 The number of samples to be drawn from the lot

Lot/Batch Samples	Number of
Upto 5,000 packets	03

5,001-10,000 packets	04
More than 10,000 packets	05