

"Paraspar Deo Bhav"

Shri Gurudeo Shikshan Prasarak Mandal, Yeola's

SWAMI MUKTANAND COLLEGE OF

SCIENCE YEOLA. DIST. NASIK 423401

DEPARTMENT OF BOTANY

Project Report on

**BIOFERTILIZER: APPLICATION,
USES AND BENEFITS IN
AGRICULTURE**

YEAR: 2017-18

Department of Botany
Departmental Project on Biofertilizer

Agro services: Use of Bio fertilizers, guidance to farmers.

Goal:

1. To change the attitude of farmers for using the bio fertilizers.
2. To popularize the use of bio fertilizers among the farmers
3. To familiarize the farmers about hazardous effects of chemical fertilizers.

The Context:

Our college is located in the rural area where farming is the main occupation. The farmers cultivate various seasonal crops such as corn, onion, cotton, pulses and cereals along with leafy vegetables. The crops are seriously affected by use of chemical fertilizers and have adverse effect on the growth and productivity of crop. To overcome such problem use of bio fertilizer is helping the farmers to increase the soil fertility and crop productivity.

Practice:

1. Teachers of Department of Botany are involved in creating awareness among farmers to use biofertilizers.
2. In both Kharip and rabbi season the teacher and final year students arrange the demonstration Programme on application of bio fertilizers in the field of farmers, vicinity to Yeola.
3. Teacher gives information of adverse effect of chemical fertilizers and thereby importance of biofertilizers.

Evidences of Success: It has helped to farmers.

REPORT OF BIOFERTILIZER DEMONSTRATION

The department of botany Swami Muktanand college of Science Yeola organized a demonstration practice of use of biofertilizers their applications and benefits to farmers, at Purangaon Tal- Yeola Dist-Nasik on 01/10/2017.

The demonstration is given in the field of farmer Mr. Pramod Thombare

Treatment to the Gram seeds.

Name of farmer	: Shri. Mr. Pramod Thombare
Name of village	: Purangaon Tal-Yeola.
Name of crop	: Gram (<i>Cicer arietinum</i> L.) and Onion
Name of Treatment	: Rhizobium to the gram seeds and PSB to Onion Seedlings
Time of Treatment	: 1/10/2017 at 10.00 am onwards on the same day
Participation	: The farmers of Purangaon, Botany students And Faculty of botany.

All the faculty members of department of botany and Botany students arrange Programme of demonstration of treatment of biofertilizers (Rhizobium) to the Gram seeds and PSB treatment to Onion seedlings in the field of shri.Pramod Thombare where the field was ready for sowing.

First of all our faculty member Dr. Datir R.B., Dr.Pachore M.V., Dr. Patale S. W. and prof. Bhagwat V.C. explained the all valuable information regarding applications, use and benefitsof different biofertilizers such as Rhizobium, Azotobacter, and Phosphate Solubilizing Bacteria (PSB) to the farmers. He also explained the hazards of chemical fertilizersand their bad effect on the health of soil, crop and their yield. He explained that whyonly the rhizobium biofertilizers is used to treat the gram seeds, how these bacteria forms the root nodules on the roots of gram and fix the atmospheric nitrogen and provides the to the crop and the increase in the yield.

Prof. Bhagwat V.C has given the demonstration i.e. actual treatment of Rhizobium to the gram seeds is given in the following steps

1. He took the jgarry about 1 kg and mixed it with warm water and slurry is madein a bucket.
2. Then the slurry is cooled down for half an hour.
3. Then Rhizobium biofertilizers is taken and mixed with slurry homogeneouslyin a plastic flat bottom pot.
4. The seeds are mixed with slurry thoroughly and slowly, the slurry sticks to seeds with microbes. And forms a coating around the seeds.
5. The seeds are dried under shade for half an hour and then are sown separatelyfor comparison with controlled for taking observations in future. And for keeping the record.



Prof Bhagwat V.C. Showing demonstration treatment of Rhizobium.



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