



Biofertilizer Group Newsletter

Issue No.1, April 2002

Production and Use of Biofertilizer

Project Proposal for FNCA from Japan

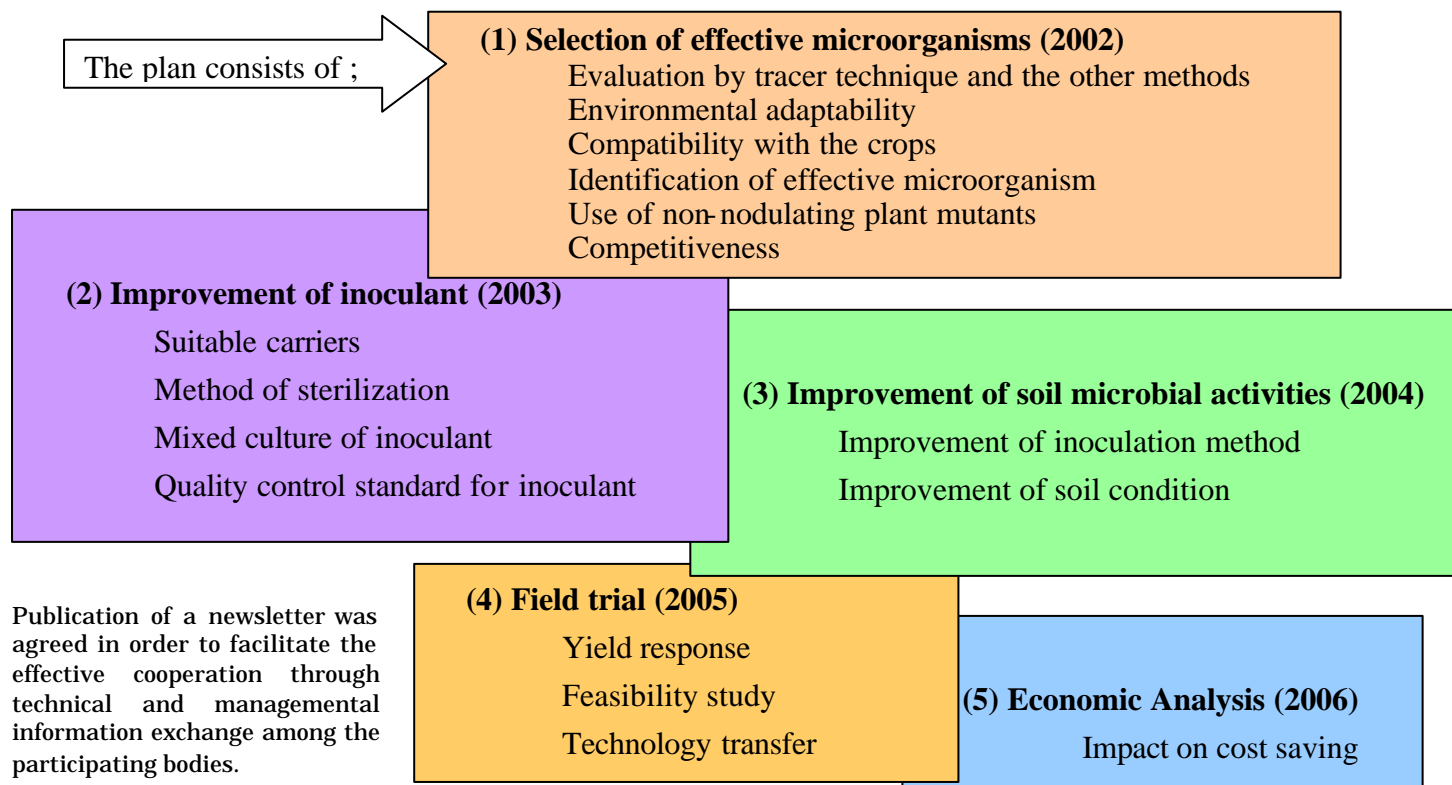
1 . Objectives of the project

The production and use of biofertilizer is proposed in order to increase crop yields by using root nodule bacteria (rhizobium) which remarkably improve the efficiency in nitrogen fixation within legumes. In many Asian countries, legumes are major dietary protein sources. The most effective rhizobium for each specific crop will be identified by measuring nitrogen fixation efficiency using nitrogen-15 as a tracer. Radiation is also used to sterilize the soil as the carrier of the rhizobium.

In the point of view of socio-economic impact, the use of biological nitrogen fixation can decrease the use of chemical nitrogen fertilizer. Thus the biological nitrogen fixation is ecologically favorable for sustainable agriculture. The method is also expected to help alleviate the problems of repeated same-crop cultivation by encouraging rotation of crops (rice and beans) in turn, leading to sustainable farming practices that help reserve the land and maintain its fertility.

2 . Work plan


The working plan was discussed in the project formulation meeting held from 5 to 9 August 2001 in Bangkok and the following plan was approved by all participating countries.





Call from the Project Leader

To the person who are concerning to or interested in the use of microorganisms for agriculture in Asia.



From 2002 the Biofertilizer project of FNCA (Forum for Nuclear Cooperation in Asia) started by the agreement of the representatives of participating countries, i.e. China, Indonesia, Republic of Korea, Malaysia, the Philippines, Thailand, Vietnam, and Japan. The goal of this project is to increase the crop production in Asia by efficient use of rhizobia, mycorrhizae and other effective microorganisms to support nutrient uptake of the crops in order to reduce chemical fertilizer usage for sustainable agriculture.

The main working plan for five years is (i) Selection of effective microorganisms (ii) Improvement of inoculant (iii) Improvement of soil microbial activities (iv) Field trials, (v) Economic analysis. These program includes the use of radioactive and stable isotopes for evaluation and radiation sterilization for inoculant carriers.

In the last meeting in Bangkok, we agreed about making mailing list of scientists, producers, farmers or any people who are concerning to or interested in biofertilizers to facilitate the exchange of information and cooperation among Asian countries.

Based on the personal lists, we would like to construct a computer mailing list in which anyone can access, and announce about meeting schedules or some questions for all the listed members. This will be kindly managed by Dr. Tsuguo Genka, Secretariat of Biofertilizer Project through e-mail address:

t-genka@jaif.or.jp .

Please send your personal list and any comments and suggestions about Biofertilizer project. We would like to welcome anyone who belong to Universities, Public or Private Institutes, farmers and any individuals who would like to exchange information about biofertilizer use in agriculture. Please feel free to transfer this mail to your colleges and friends concerning to biofertilizers.

Thank you very much for your cooperation.

Sincerely yours.

Takuji Ohyama
Project Leader of Biofertilizer Project FNCA,
Prof. Faculty of Agriculture,
Niigata University, Japan



(Please copy this for your registration)

Contents of the personal list for biofertilizers in Asia

Name:

e-mail address:

Organization:

Mailing address (Office):

Home page (if available):

Description of work on bio-fertilizer:

Related papers or products:

International cooperation:

Any comments:

Example of the contents

Name: Tokachi Mamezo

e-mail address: mamezo@agr.niigata.co.jp

Organization: Rhizobium Institute, Hokuriku Federation of Agricultural Cooperation

Mailing address (Office): 2-8050, Ikarashi, Niigata, 950-2181, JAPAN

Home page: www://rhizobi.hokuriku.or.jp

Telephone number: +81-25-222-1111

Fax number: +81-25-222-2221

Description of field and works on bio-fertilizer:

Our institute study the production of rhizobium for leguminous crops such as soybean and clover.

Related papers or products:

We develop new inoculants of rhizobium using organic materials sterilized by gamma-ray (Soil Sci. Plant Nutr. , 45 (2) 111-1211 (1999) The use of rhizobium inoculant sterilized by gamma-ray).

International cooperation:

Our institute and Chiang Mai University have cooperative works on the development of new inoculant since 1990.

Comments: We hope the field test of our inoculants in Asian countries.

Time has come...

To the Project Leaders:

Dr. Pan Jiarong (China)

Ms. Soertini Gandanegara (Indonesia)

Dr. Jang-Sun Suh (Korea)

Prof. Takuji Ohyama (Japan)

Dr. Norimah Yusof (Malaysia)

Ms. Crispina M. Rosales (the Philippines)

Dr. Omsub Nopamornbodi (Thailand)

Dr. Pham van Toan (Vietnam)



The Third FNCA Coordinators Meeting was held from 6 to 8 March 2002 in Tokyo Japan (Photo 1). In this meeting, the project proposal of "Production and Use of Biofertilizer" (see page 1) which was discussed in the workshop of August 2001 in Bangkok was officially approved. As an expert in the field of biofertilizer, Dr. Ampan Bhromsiri of Chiang Mai University, Thailand was invited to present and appeal the importance of biofertilizer in agriculture. Also in the meeting, next workshop was proposed by the National Coordinator of China, Mr. Li Xiang to be held on **19 to 23 August 2002 in China**.

Now the time has come to implement the work along with the plan as discussed in Bangkok and to prepare the country report for the next workshop in due course. Some of member countries have already started the study on **Selection of effective microorganisms** (the topic for 2002) for their own country. The items under the topics are rather general so that the participants are encouraged to carry out whatever fit and adequate to the circumstances in the individual country.

Please inform me about the current status of the topics and responsible researchers in your country. In addition, over 40 people have joined biofertilizer mailing list, but only a few people are listed except Japan. Please ask the people who are responsible or interested in biofertilizer to join the biofertilizer mailing list. I am convinced that this group in each country will help you to proceed this project.

Tsuguo Genka
Secretariat of Biofertilizer Project

Editor: Tsuguo Genka, PhD

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