

2005FNCA Biofertilizer Project Technical Meeting on Sterilization of Carrier by Irradiation, 20 June, 2005

Non-nodulating line

Nodulating line



Beneficial effect of biological N fixation in
soybean cultivation

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1/5

2005FNCA-TM Biofertilizer(2005.6.20)

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Implementation Plan of Radiation Sterilization Carriers of Biofertilizer

- Selection of carrier material.
- **Determination of required dose** of radiation (25 ~ 30kGY).
- Preparation and arrangement of **radiation processing using existing radiation facility in collaboration with nuclear research institutes.**
- Production of biofertilizer inoculants by mixing micro-organism and sterilized carrier.
- **Field trial for quality assurance tests.**
- Comparison with conventional carrier in **terms of plant yields and quality.**

2/5

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Extension Strategy of Biofertilizer-(1)

- **Benefits of biofertilizer** should be well informed to farmers and relevant government officials:
 - Low cost** in comparison with chemical fertilizer for both Rhizobium and Mycorrhiza.
 - No environmental contamination** caused by chemical fertilizer.
- **Field demonstration** of bio-fertilizer application for the **suitable plants** at the **suitable location** is very important for effective dissemination of the technology.

3/5

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Extension Strategy of Biofertilizer-(2)

- **The cost-benefit ratio** of biofertilizer should be evaluated based on field demonstration and large scale application.
- **Government policy** of promoting **organic agriculture** should be established and announced.
- To **apply the bio-fertilizer** in order to meet government plan of agriculture and forestry for the suitable crops and trees for which **bio-fertilizer is significantly effective.**

4/5

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Extension Strategy of Biofertilizer-(3)

- For **extension campaign**, **bio-fertilizer** should be distributed to farmers **free of charge**, and necessary **training** should be provided to farmers.
- For application of **radiation technology** for the sterilization of carriers, **collaboration between nuclear research institute and agriculture institute** should be arranged.