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# NITRASEC

## Legume inoculant for Dry beans.

Registration number L9677 Act 36 of 1947

Net weight 200gm

Made in Uruguay

Active ingredient: *Rhizobium tropici* U808 & U809  
Microbial strengths:  $2 \times 10^9$

Distributed by:  
Microbial Solutions (Pty) Ltd, P O Box 1180,  
Strubens Valley 1735, South Africa  
Tel: (011) 475-4362; Fax: (086) 610-7809;  
Email: [info@microbial.co.za](mailto:info@microbial.co.za)

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Batch number:

Expiry Date:

## NITRASEC – Dry Beans

### Dosage

200gm of Nitrasec inoculates 50 kg dry beans.

### Recommendations

Check the expiration date. Keep the inoculant in a cool place, preferably at a temperature not exceeding 20°C. Work in a cool shady place using clean utensils. Use fresh or rainwater. Always use this inoculant together with the Bioprotector supplied with the product. Seeds must be planted no later than the day after inoculation. If a chemical seed treatment is required first check compatibility with this inoculant to ensure rhizobium survival, and apply it first followed by the rhizobium. This can be achieved in a single procedure using the Microbial Solutions seed treatment machine, or as two separate inoculations using older methods.

### Inoculation

- 1) Prepare the Bioprotector solution by mixing 50 ml Bioprotector into 300 ml clean water.
- 2) Slowly pour 200gm Nitrasec inoculant into the Bioprotector solution just prepared.
- 3) Mix thoroughly into a uniform suspension which will end up at around 500ml.
- 4) Methods of seed treatment used –
  - a) If the Microbial Solutions seed treatment is used carefully calibrate the machine to ensure that the correct amount of inoculant is used on 50kg seed.
  - b) If a concrete mixer or eccentric drum is used ensure that the inoculant is applied evenly and slowly to ensure uniform coating on the seeds.
- 5) It is important to ensure that all of the seeds are uniformly covered by the inoculant suspension.
- 6) Allow the seeds to ventilate and dry for about one hour before filling the planter bin.
- 7) Plant as soon as possible thereafter in adequate soil humidity conditions.

### Strains

Formulated with strains U808 and U809 *Rhizobium tropici* as supplied by the Uruguayan Ministry of Livestock, Agriculture and Fisheries.

### Concentrations

Contains more than  $2 \times 10^9$  / gm (2 billion) specific bacteria at the date of its formulation, and no less than  $1 \times 10^9$  / gm (1 billion) at the date of expiry.

### Quality Controls

- 1) This batch of inoculant has been analysed and approved by the Uruguayan Ministry of Livestock, Agriculture and Fisheries and declared suitable for sale.
- 2) On arrival in South Africa random samples are drawn by the South African Department of Agriculture and sent to the Agriculture Research Council for analysis and approval before release.

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