

# Spuranzo

## *Phosphate Solubilising Bacteria (P.S.B.)*

Spuranzo is a unique liquid based formulation containing various microbes useful for phosphorus solubilization. Phosphate solubilizers dissolve fixed phosphate into plant utilizable form. Phosphate solubilizers produce organic acids (viz, citric acid, succinic acid, lactic acid, etc.), hormones (viz, indole acetic acid, gibberellins etc.) and enzymes (viz, phytase, nuclease, lecithinase etc.) that help, in solubilisation of insoluble phosphates into plant utilizable form.

### **Composition:**

Bacterial inoculum population density ( <i>Bacillus megaterium</i> )	:	$2 \times 10^9$ min. C.F.U/ml
Microbial Media Residue	:	95-97%

### **Product Mode of Action**

Up to 40 to 50 percent of  $P_2O_5$  (Phosphorus pentoxide) after separating from Phosphatic fertilizer, became unavailable due to formation of bond (salt) with cation like Zn, Ca, Mg, Fe etc. Microbes of Spuranzo release various enzymes which break bond between cation (viz, Ca, Mg, Fe) and  $P_2O_5$  and make  $P_2O_5$  free for consumption by plants. By this, cost of application of phosphatic fertilizer is reduced. Microbes also release  $P_2O_5$  deposited previously applied fertilizer.

Mostly farmer uses DAP as a phosphatic source. As we apply DAP it get dissolve and liberate  $P_2O_5$ . These  $P_2O_5$  have negative valiancy so remain negatively charge. In soil there is so many positive charged element is present like Zn, Cu, Fe, Ca etc. so positive and negative get attracted and make fix bond. These bonds become unavailable to plant and thus  $P_2O_5$  become as available salt. Day by day these salts get deposited and soil becomes hard. When PSB microbes incorporated in soil they release various organic acids which break this bond of positive negative and make  $P_2O_5$  available to plants.

### **Product benefits:**

- Save up to 50 % application of phosphatic chemical fertilizer
- Add up to 10-15 kg phosphorus per hectare per year
- Reduce soil erosion
- During solubilization of phosphorus, liberate various micronutrient which can be use full for plant as a food
- Improve plant vigor, plant health etc.
- Increase beneficial soil biomass
- Improve soil texture and soil fertileley
- It help to increases the crop yield

**Direction for use:**

**Seed Treatment:**

Mix 10 ml of Spuranzo per kg of seeds with a sufficient solution of 5 % jaggery. Dry the seed in shade for half an hour. Sow the seeds within 24 hours for maximum advantage.

**Seedling Root Dipping:**

Mix 1 lit of Spuranzo in 100 liter of 5 % jaggery water. Dip the root portion of the seedling required for an acre in the mixture for 30 minutes before transplanting.

**Set Dipping:**

Mix 1 lit of Spuranzo in 100 liter of 5 % jaggery water and dip the sets required for an acre in this mixture for half an hour (30 min) before transplanting.

**Soil application:**

Mix 1 lit of Spuranzo with 100 kg of well compost FYM or any other biocompost and simply broad cast in the main field just before sowing or transplanting or apply in standing crop by row or furrow or broad casting method in sufficient moisture.

**Drip application:**

Add 1 lit Spuranzo in drip tank contain clean water. Start the drip and liberate contain of drip tank in drip line .Microbes reach by these up to root zone of every plant.

**Packing available**

- Liquid form – 1 lit, 5 lit, 20 lit,

**Self life** – Liquid 1 years



**RbH**

**R B Herbal Agro,  
"Herbal House",  
120, Savarkar Nagar,  
Satana, Dist., Nasik (Maharashtra)  
Phone No., 02555-225206, 225204  
Website: [www.rbhpomo.com](http://www.rbhpomo.com)**

**Email: [rbharbalagro@gmail.com](mailto:rbharbalagro@gmail.com), [rbherbalagro@gmail.com](mailto:rbherbalagro@gmail.com)**