

# NUTRIPLANT® Seed Treatment

**NUTRIPLANT® SD** - powder  
**NUTRIPLANT® SL** - liquid

**NUTRIPLANT® SEED TREATMENT** is applied to seed just prior to planting. It is a nutritional supplement to enhance seedling emergence and growth.

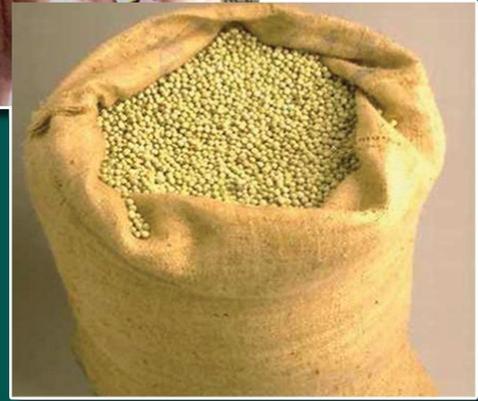
**NUTRIPLANT® SEED TREATMENT** contains magnesium, sulfur, cobalt, copper, iron, manganese, molybdenum, and zinc. (**NUTRIPLANT® SD** also contains calcium.) Calcium is needed for root and leaf development and improved plant vigor. Magnesium regulates uptake of other nutrients and activates a number of crucial enzymes. Sulfur, zinc, and copper are essential for formation of proteins and activation of enzymes necessary for seedling growth. Iron and manganese are crucial in sugar metabolism to produce energy for seedling emergence. Magnesium and molybdenum aid in the transport of phosphorus, which is important in energy transfer. Cobalt influences plant resistance to stress.

*The synergism of all of these elements makes **NUTRIPLANT® SEED TREATMENT** effective.*

**NUTRIPLANT® SEED TREATMENT** is intended as a supplement to a regular fertilizer program, and will not by itself provide all of the nutrients normally required by plants.

## Benefits Reported by Farmers

- Comes up quicker
  - Better stands
  - Stronger, bigger root systems
  - Increased yields
- Easy to apply
- Cost-effective



Average yield increase  
in USA for 9 crops is  
**10.4%**

Tested for 25 years  
in 264 trials

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**NUTRIPLANT®  
Seed Treatment  
is available in 2 forms:**

**NUTRIPLANT® SD  
is a powder for on-farm  
application.**

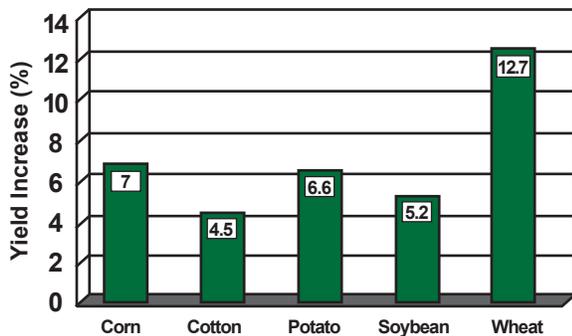
**NUTRIPLANT® SL  
is a liquid for application  
using commercial  
equipment.**

# NUTRIPLANT® Seed Treatment



**Average U.S. yield increase for selected crops:**  
NUTRIPLANT® increased corn yield by an average of 7%, cotton by 4.5%, potatoes by 6.6%, soybeans by 5.2% and wheat by 12.7%

## Field Results



## Economic Benefit for Selected Crops\*

- Beans - \$54/acre increase** (based on an average yield of 1,716 lb/acre, 12% yield increase and an average price of \$0.26/lb of beans)
- Corn - \$65/acre increase** (based on an average yield of 151 bu/acre, 7% yield increase and an average price of \$6.12/bu of corn)
- Cotton - \$23/acre increase** (based on an average yield of 879 lb/acre, 4.5% yield increase and an average price of \$0.57/lb of cotton)
- Potatoes - \$272/acre increase** (based on an average yield of 397 cwt/acre, 6.6% yield increase and an average price of \$10.37/cwt of potatoes)
- Soybeans - \$29/acre increase** (based on an average yield of 41 bu/acre, 5.2% yield increase and an average price of \$13.50/bu of soybeans)
- Wheat - \$43/acre increase** (based on an average yield of 41 bu/acre, 12.7% yield increase and an average price of \$8.28/bu of wheat)

\* Average yields from USDA - NASS 2007, on-farm prices from USDA - NASS June 2008

## Methods of Application:

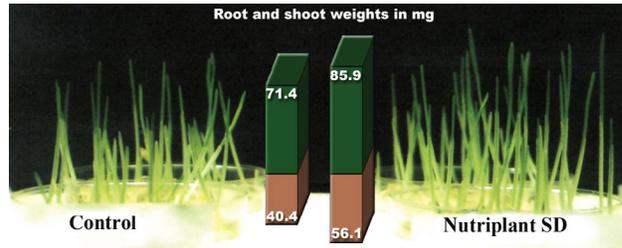
Apply NUTRIPLANT® SEED TREATMENT to the seeds before planting. Application should be made in such a way that all seeds are thoroughly coated.

NUTRIPLANT® SD can be applied right in the planter box. Fill each box about half full of seed. Apply half of the recommended rate of NUTRIPLANT® SD and mix thoroughly. Add the rest of the seed and the rest of the NUTRIPLANT® SD and mix again. Properly treated seed will have a fine coating of powder.

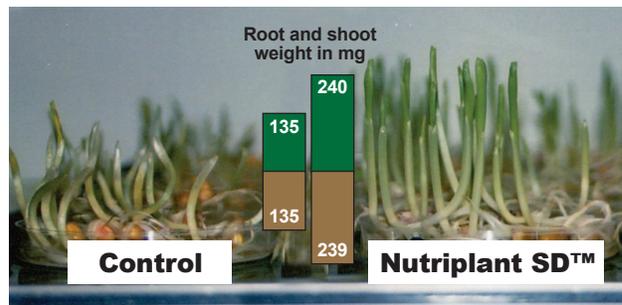
Apply NUTRIPLANT® SL using commercial equipment. Apply as a fine mist to obtain a uniform coating. Dilute only as necessary for uniform application. Mix seeds until dry and do not stick. Keep seed dry until planting. Plant seeds as usual.

## Laboratory Results

NUTRIPLANT® SD increased both root and shoot weights of barley seedlings.



NUTRIPLANT® SD increased both root and shoot weight of corn seedlings.



NUTRIPLANT® SD also increased the root hairs.

## Compatibility

NUTRIPLANT® SEED TREATMENT is compatible with most seed treatments including inoculums, fungicides and insecticides. It can also be used on pelletized seed.

## Recommended NUTRIPLANT® SEED TREATMENT application rates for selected crops:

CROP	NUTRIPLANT® SD	NUTRIPLANT® SL (Per 100 lb of seed)
Corn*	8 oz	4 fl oz
Soybeans	4 oz	2 fl oz
Wheat	3.5 oz	2 fl oz
Barley, Oats, Rye	3.5 oz	2 fl oz
Milo, Sorghum	10 oz	5 fl oz
Cotton	12 oz	6 fl oz
Potatoes	16 oz	8 fl oz per ton of seed

\*Corn seed is sold in bags of 80,000 kernels, which weight an average of 50 lb and plant 2.5 acres at 32,000 seeds/acre.