

What is Pre-Nutrition on Crops?





- To increase optimal crop yield, balanced nutrition is required at all stages of a crop development.
- Now our target is focusing on the seed and its treatment with plant nutrients.



Emergence Beginning of tillering



**Tillers formed** 



Beginning of erect growth



Leaf sheaths strongly erect



#### **Seed Treatment -**

- In general focused on insecticides and fungicides.
- Is now a sophisticated science and a growing market.

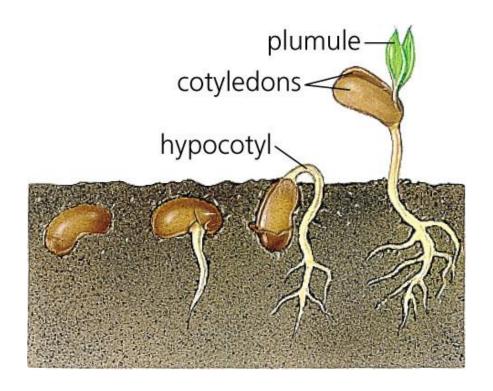


#### The majority of seeds are now pre-treated.

- Seed and pesticide industries continue to improve their applications and formulations in order to improve the market of treated seeds.
- There is a further opportunity to improve seeds performance with the targeted nutritional additions.



One of the critical period for nutrient application of a crop is between germination and crop establishment, just before the effective root system has developed.















Two factors that are effective about nutrition at this stage are;

- nutrient reserves in the seed
- surrounding soil's ability to supply essential nutrients





#### User – Farmer

#### **Better performance from the seed**

- Good rates of germination
- Increased early vigour and strong crop establishment
- High resistance against stress at early stages (drought, disease, pests, etc..)

#### **Return on Investment – improvements in yield and/or quality of product**

High benefits in a short time with less financial input and less effort.

#### **Easy treatment**

Applicable by farmer or specialists.





#### **User – Seed Supplier**

- Supply additives to maximize the genetic potential of seed.
- Provide proven improvements of plant nutrition on new and existing varieties to add value.
  - Highlight their own seed varieties in the market.
- **Easy to use and compatible with many existing seed treatments.**





Seed treatment of nutrition is an important and internationally accepted procedure.

It has developed from NPK and Micro Nutrients plus special additives !!!

#### It Offers:

- High nutrient input.
- Security of application the crop receives treatment before planting (i.e. independent of weather conditions, machinery etc.).
- Application for local conditions and crops.
- Earliest possible treatment of the crop to improve germination.
- Easy to use with all crop production program.





### **Product Safety – Germination, Trials**



















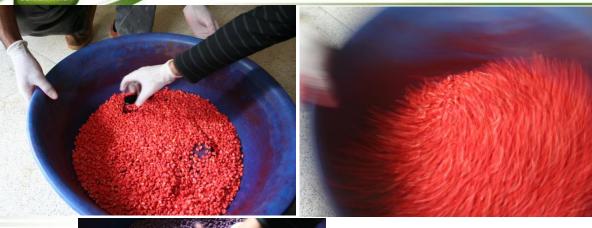
































**Dose Trials** 

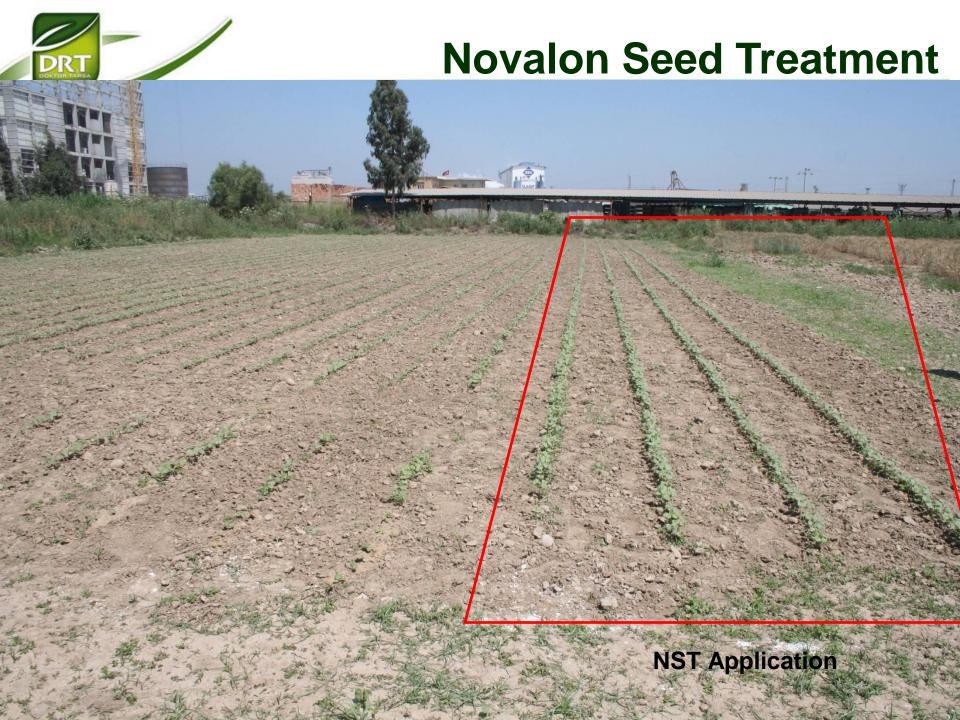
















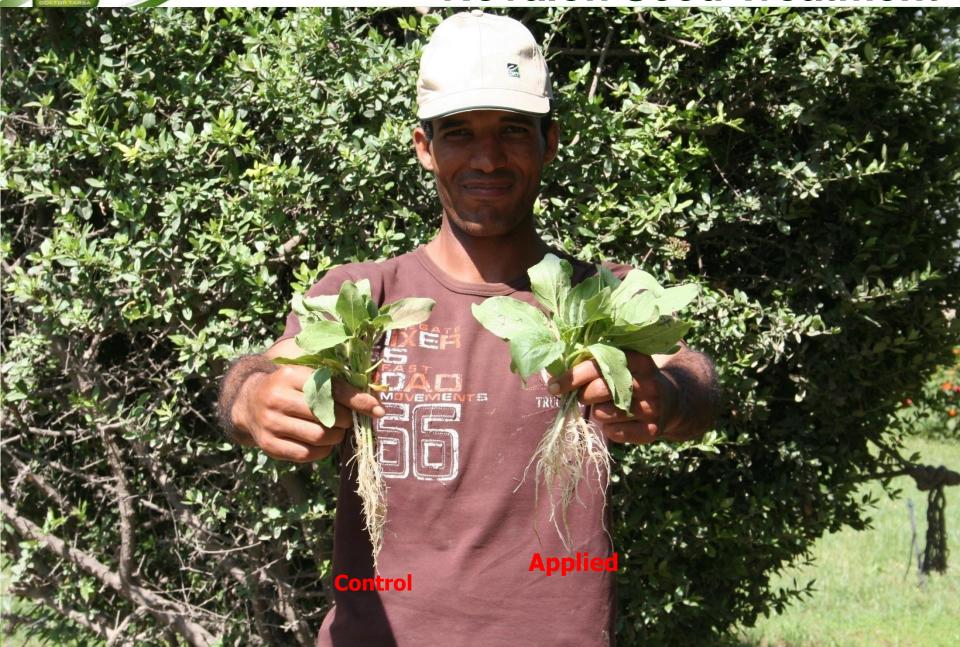














Visual responses: Improved crop development.







Novalon Seed Treatment is suitable for;

- Field crops such as
  - Cereals (wheat, maize, sorghum)
  - Oilseeds (sunflower, groundnut)
  - Soybean, peas
  - Cotton

Crops with small seeds (most of the vegetables) !??
 -Project trial stage-





#### Application Rates

```
Cereals
                                  750 – 1200 gr / 20 liters water / MT Seeds
                                 1100 - 1750 gr / 20 liters water / MT Seeds
Cotton
Maize
                                  750 - 1200 gr / 20 liters water / MT Seeds
Rice
                                  900 - 1450 gr / 20 liters water / MT Seeds
Bean
                                  750 - 1200 gr / 20 liters water / MT Seeds
Sunflower
                                 1800 – 2500 gr / 20 liters water / MT Seeds
Groundnut
                                  700 – 1150 gr / 20 liters water / MT Seeds
                                  200 - 320 gr / 4 liters water / 100 kg Seeds
Lawns
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Lawns, to use in Hydroseeding
 3000gr / 1000 liters Tank

Or apply directly to the seed bed; 200gr / 100 liters water

Rooting/Transplanting Solution: 15gr / 20 liters water to use at the time of transplanting, soaking roots.





 Is Novalon Seed Treatment sprayed on Crops as a foliar spray?

Novalon Seed Treatment is not formally recommended for spraying as a foliar.

 Is Novalon Seed Treatment applied to seeds with other seed treatment products (fungicides and insecticides)?

Yes, with most of them. But pre-test is recommended.

| Active Ingredient                     |
|---------------------------------------|
| Carboxin + thiram                     |
| Metalaxyl                             |
| Fubericazole + Tradimenol             |
| Fludioxonil                           |
| Ethirimol + Flutiafol + Thiabendazole |
| Imidacloprid                          |
| Gamma HCH                             |
| Mecarpodimethur                       |
| Guazatine + 1.2-ethanediol            |
| Carbendazim + Copper                  |
| Oxyqunolate + Antraquinone            |
| Terbuconazole + Triazoxide            |
| Tolclofos-methyl                      |
| Iprodione                             |
| Bendiocarb                            |
| Thiocarb                              |
| Thiram                                |
| Carboxin + Gamma HCH + Thiram         |











#### **Our Product Contains:**

|                         | <u>%</u>   |
|-------------------------|------------|
| N                       | 6,6        |
| P205                    | 10,2       |
| <u>K20</u>              | <u>8,8</u> |
| CaO                     | 0,1        |
| <u>S</u>                | 0,7        |
| Zn EDTA                 | 3,0        |
| Fe EDTA                 | 1,3        |
| Mn EDTA                 | 0,3        |
| В                       | 0,1        |
| Cu EDTA                 | 0,06       |
| Mo                      | 0,01       |
| Plant Growth Regulators | 0,049      |
| Amino Acids             | 0,3        |
| Humic+Fulvic Acid       | 10,8       |
|                         |            |





# "Thanks"

