

# Magic-gro

Biological yield enhancer,  
and stress buster for plants



MalaTECH  
water

## MAGIC-GRO – PRODUCT DESCRIPTION

It is a consortium of biological agents, which are natural and safe. Magic-gro Plus is designed to facilitate plant growth and development. It enhances soil biology, increases yield and makes the plant disease resistant. Magic-gro Plus uses technology based on 'biosensors and bioactivators.' Biosensors sense the micro nutrient deficiencies in the plant system and activate the Bioactivators which transport the micro nutrients such as minerals, enzymes, amino acids, growth hormones etc. from the local environment into the plant system. Magic-gro Plus improves overall plant health and growth rate.



MAGIC-GRO TREATED CHILLIES

The key ingredient in Magic-gro Plus is a proprietary microbial system capable of fixing nitrogen, solubilize phosphorus and secrete plant growth factors in soil. It is not only how many bacteria but also the type and functionality of the bacteria that matters. These microbes are able to extract nutrients from the mineral part of the soil and supply it to plants. Magic-gro Plus is not a substitute for fertilizer. Fertilizer provides N, P and K essential for plant growth. Magic-gro Plus facilitates availability of essential ingredients e.g. vitamins, amino acids, plant growth hormones, micro nutrients, plant stress relievers and essential microbes to improve overall plant conditions. It helps plants to assimilate nutrients better and grow healthy.



MAGIC-GRO TREATED COFFEE



## MAGIC-GRO – FIELDS OF APPLICATION



- Commercial agriculture (wheat, corn etc.)
- Ornamental plants
- Floriculture
- Lawn and Turf
- Nut Trees- Almond, beechnut, butternut, cashew, chestnut, filbert, hickory nut, macadamia, nut, pecan, walnut, etc.
- Fruit Trees- Grape fruit, lemon, lime, orange, tangerine, tangelo, citrus hybrids, apple, cherry, nectarine, peach, plum, prune, etc.
- Berries - Blackberry, blueberry, boysenberry, cranberry, currant, dewberry, elderberry, fig, gooseberry, ground cherry, kiwi fruit, loganberry, mulberry, paw paw, pineapple, raspberry, strawberry, sugar apple, grape, persimmon, etc.
- Tropical Fruits - Avocado, banana, date, granadilla, loquat, mango, papaya, passion fruit, pomegranate, chickoo, etc.
- Garden Vegetables - Eggplant, okra, peppers, tomatoes, broccoli, Brussels, sprouts, cabbage, cauliflower, Chinese cabbage, lettuce, mustard, radish, spinach, cucumber, pumpkin, melons, beans, peas, etc.
- Roots and Tubers - Turmeric, ginger, potato, onion, garlic, beet root, tapioca, groundnut, etc.
- Home plants
- Potted plants and creepers
- Plant Nurseries
- Others - Tobacco, sugarcane, medicinal plants and herbs, etc.



MAGIC-GRO TREATED COTTON PLANT



MAGIC-GRO TREATED CUSTARD GRAPES



## BENEFITS OF MAGIC-GRO

- Promotes conversion of soil elements including phosphorus, into plant available forms.
- Increases resistance to plant diseases.
- Revitalizes the soil. Helps decompose soil organics.
- Biodegradable and not harmful to the soil.
- Increases soil buffering properties by increasing humus level.
- Chelates metal ions in alkaline conditions, increasing plant availability.
- Stimulates plant growth by naturally accelerating cell division.
- Increases seed germination and viability.
- Stimulates root growth, thus increasing root density.
- Increases root respiration.
- Stimulates plant enzymes.
- Helps reduce fertilizer load.
- Helps reduce dependence on chemical applications.
- Better quality and yield
- Faster flowering and fruiting.
- Completely organic.
- Helps reduce dependence on chemical applications
- Stimulates plant enzymes
- Increases photosynthetic activity
- Increases Cytokinins and Auxins to enhance plant growth
- Stimulates plant growth by naturally accelerating cell division
- Improves plants immunity to diseases
- Performs well during environmental stress



MAGIC-GRO  
PLUS MAIZE

NON-TREATED  
MAIZE



MAGIC-GRO TREATED  
CUSTARD APPLE



MAGIC-GRO TREATED  
BANANA



## APPLICATION OF MAGIC-GRO

Magic-gro can be applied to any plant life. Magic-gro has to be mixed with water, and applied. Magic-gro can be used as a foliar application, and/or used for root/soil application. The product is recommended to be applied in late hours of the day, dusk, or morning hours, or on a cloudy day. Magic-gro has stronger activity in this case than on a bright, sunny day. Avoid pesticide or insecticide application before, and after 48 hours of Magic-gro application.

## DOSING OF MAGIC-GRO

Recommended typical dosage agri-applications: 0.6-1.3 kg / hectare  
For home plants, terrace gardens, lawn etc: 2-5 g / litre of water

Please roll down in this document for more details regarding dosages of Magic-gro for various species of plants.

## PACKAGING INFORMATION

The product is available in 0.5 kg double-wall bags, 20 bags make up 1 carton box which is the lowest unit for ordering.

## STORAGE INFORMATION

Keep the product in a cool and dry place below 30 Celsius. Avoid exposure to direct sunlight.



MAGIC-GRO TREATED  
LEMON



MAGIC-GRO TREATED SUGARCANE



MAGIC-GRO TREATED STRAWBERRIES

# “Magic-gro Plus” for Agriculture

## Grapes

### April Pruning

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
10 days after pruning	500 gm.	200 to 250 lits.	Root application
90 days after pruning	500 gm.	200 to 250 lits.	Foliar application

### October Pruning

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
20 days after pruning	500 gm.	200 to 250 lits.	Root application
45 days after pruning	500 gm.	150 to 200 lits.	Foliar application
80 days after pruning	500 gm.	150 to 200 lits	Foliar application
<b>Total 2.5 kg. / Acre</b>			

## Sugarcane

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
10 after planting.	500 gm.	200 to 250 lits	Root application
60-65 days after planting	500 gm.	150 to 200 lits	Foliar application
100-120 days after planting during 2 <sup>nd</sup> ridging	500 gm.	150 to 200 lits	Foliar application
<b>Total 1.5 kg. / Acre</b>			

## Banana

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
During Plantation	500 gm.	200 to 250 lits	Root application
30 days after plantation	500 gm.	200 to 250 lits	Root application
100 days after plantation	500 gm.	200 to 250 lits	Root application
175 days after plantation	500 gm.	200 to 250 lits	Root application
<b>Total 2 kg. / Acre</b>			

## Turmeric / Ginger

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
During Plantation	500 gm.	200 to 250 lits	Root application
30 days after plantation	500 gm.	200 to 250 lits	Root application
90 days after plantation	500 gm.	150 to 200 lits	Foliar application
120 days after plantation	500 gm.	200 to 250 lits	Root application
<b>Total 2 kg. / Acre</b>			



## Oil seeds / Wheat / Rice / Jowar / Bajara

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
20-25 days after plantation	500 gm.	150 lits	Foliar application
Just before flowering	500 gm.	150 lits	Foliar application
<b>Total 1 kg. / Acre</b>			

## Leafy Vegetables

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
10 days after plantation	250 gm.	150 lits	Foliar application
20-25 days after plantation	250 gm.	150 lits	Foliar application
<b>Total 500 gm. / Acre</b>			

## Fruit Vegetables

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
5-10 days after plantation	500 gm.	200 lits	Root application
45-50 days after plantation	500 gm.	150 lits	Foliar application
<b>Total 1 kg. / Acre</b>			

## Flowers

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
During plantation	500 gm.	200 lits.	Root application
25-30 days after plantation	500 gm.	150 lits.	Foliar application
<b>Total 1 kg. / Acre</b>			

## Underground Tubers & Bulbs

Time of application	Qty of Magic-gro Plus	Qty of water	Type of application
During plantation	500 gm.	200 lits	Root application
25-30 days after plantation	500 gm.	150 lits	Root application
<b>Total 1 kg. / Acre</b>			

### Please Note :

1. Mix required amount of Magic-gro Plus in plain water overnight before application.
2. All application should be done in the evening or early morning.
3. Do not mix pesticide or insecticide with the Magic-gro Plus.
4. No pesticide or insecticide should be added 2 days before and after application of Magic-gro Plus.
5. Store the Magic-gro Plus in an air tight container, away from sunlight and in a cool place.

*Please Note: Magic-gro Plus is not a pesticide, fungicide, insecticide and fertilizer and should not be used to replace them, but will reduce your need for the same.*

## “Magic-gro Plus” for Horticulture

Horticulture Crops		
Time of application	Qty of Magic-gro Plus	Type of application
1 <sup>st</sup> Dose	10 gm per tree	Root application
2 <sup>nd</sup> Dose During flowering	5 gm per tree	Spray application
3 <sup>rd</sup> Dose During fruiting	5 gm per tree	Spray application

*The above dose can be lowered by 50% if the trees are younger and have not started bearing fruits. Though higher dose will not harm the tree in any way since it's an organic product.*

### **Please Note :**

- 1. Mix required amount of Magic-gro Plus in plain water overnight before application.**
- 2. All application should be done in the evening or early morning.**
- 3. Do not mix pesticide or insecticide with the Magic-gro Plus.**
- 4. No pesticide or insecticide should be added 2 days before and after application of Magic-gro Plus.**
- 5. Store the Magic-gro Plus in an air tight container, away from sunlight and in a cool place.**

*Please Note: Magic-gro Plus is not a pesticide, fungicide, insecticide and fertilizer and should not be used to replace them, but will reduce your need for the same.*

## FIELD TESTING METHODOLOGY FOR MAGIC GRO PLUS

### Selection of field testing area

1. Ensure that your test plot (plot to be treated by Magic Gro product) has the same soil quality as the control plot.
2. The plots must not be situated on steep slopes as this can heavily alter effects perceived due to treatment
3. Irrigation system applied must be identical in both plots
4. Seed variety across the test and control plot should remain the same
5. Nutrition and Pest Management system should be maintained in both plots
6. Treatment of Magic Gro must not be simultaneously coupled with usage of other chemicals and pesticides.
7. Area to be treated with Magic Gro must be equal to area left untreated. If this is not possible, an exact estimation of the treated and control area must be made.
8. A substantial gap must be left between the treated and the control plot as not to allow due to any carryover of the treatment solution.
9. Magic Gro Plus is not a replacement to any fertilizer or pesticide, but its application may reduce your chemical input consumption.

### Method of Application

#### Seed Treatment

Dissolve required amount of product Magic Gro Plus in 1 litre (depending on size & volume of seed) of water and let it soak for between 5-6 hours to overnight (depending on feasibility). Sprinkle this solution on quantity of seeds required to sow over 1 hectare of land , **immediately shade dry and then sow.**

#### Soil Application

Dissolve required amount of product Magic Gro Plus in 40-50 litres of water and let it soak for between 5-6 hours to overnight (depending on feasibility). Before application, add this solution to the total amount of water required to irrigate one hectare of land through drip.



## Foliar Treatment

Dissolve required amount of product Magic Gro Plus in 40-50 litres of water and let it soak for between 5-6 hours to overnight (depending on feasibility). Before application, add this solution to the total amount of water required to spray 1 hectare plot. Mix well and apply as foliar spray to cover entire area

## Magic Gro Application Schedule

SUGARCANE			
Time of Application	Quantity of Magic-Gro Plus	Quantity of Water*	Type of Application
Sett treatment before planting	0.25 kg/hectare	As per requirement	Sett treatment involves immersing the mature cane stalk in Magic Gro Plus solution for 5-6 hours after which it may be planted
10 days after planting	1.25 kg/hectare	500-625 litres	Root Application
60-65 days after planting	1.25 kg/hectare	375-500 litres	Foliar Spray
100-120 days after planting	1.25 kg/hectare	375-500 litres	Foliar Spray

\*Amount can be altered on basis of conventional agronomic practices in your country

RAPESEED			
Time of Application	Quantity of Magic-Gro Plus	Quantity of Water*	Type of Application
20-25 days after plantation	1.25 kg/hectare	350-375 litres	Foliar Spray
Prior to onset of flowering	1.25 kg/hectare	350-375 litres	Foliar Spray

\*Amount can be altered on basis of conventional agronomic practices in your country

WHEAT			
Time of Application	Quantity of Magic-Gro Plus	Quantity of Water*	Type of Application

Seed treatment	0.125 kg/hectare		As per directive mentioned in application protocol
20-25 days after plantation	1.25 kg/hectare	350-375 litres	Foliar Spray
Prior to onset of flowering	1.25 kg/hectare	350-375 litres	Foliar Spray

**\*Amount can be altered on basis of conventional agronomic practices in your country**

<b>SUGAR BEET</b>			
<b>Time of Application</b>	<b>Quantity of Magic-Gro Plus</b>	<b>Quantity of Water*</b>	<b>Type of Application</b>
Seed treatment	0.125 kg/hectare		As per directive mentioned in application protocol
20-25 days after plantation	1.25 kg/hectare	350-375 litres	Soil application
Prior to onset of flowering	1.25 kg/hectare	350-375 litres	Soil application

**\*Amount can be altered on basis of conventional agronomic practices in your country**

<b>SUNFLOWER</b>			
<b>Time of Application</b>	<b>Quantity of Magic-Gro Plus</b>	<b>Quantity of Water*</b>	<b>Type of Application</b>
Seed treatment	0.25 kg/hectare		As per directive mentioned in application protocol
During plantation /	1.25 kg/hectare	500 litres	Soil application
Prior to onset of flowering	1.25 kg/hectare	350-375 litres	Foliar application

**\*Amount can be altered on basis of conventional agronomic practices in your country**

<b>BARLEY</b>			
<b>Time of Application</b>	<b>Quantity of Magic-Gro Plus</b>	<b>Quantity of Water*</b>	<b>Type of Application</b>
Seed treatment	0.125 kg/hectare		As per directive



			mentioned in application protocol
20-25 days after plantation	1.25 kg/hectare	350-375 litres	Foliar Spray
Prior to onset of flowering	1.25 kg/hectare	350-375 litres	Foliar Spray

**\*Amount can be altered on basis of conventional agronomic practices in your country**

CORN			
Time of Application	Quantity of Magic-Gro Plus	Quantity of Water*	Type of Application
Seed treatment	0.25 kg/hectare		As per directive mentioned in application protocol
20-25 days after plantation	1.25 kg/hectare	350-375 litres	Foliar Spray
Prior to onset of flowering	1.25 kg/hectare	350-375 litres	Foliar Spray

**\*Amount can be altered on basis of conventional agronomic practices in your country**

### Method Undertaken for Observations before and during the harvest

During the vegetative and reproductive growth phase, the evaluator may observe differences in morphological and physiological parameters, difference in fruiting bodies, difference in disease pressure etc. and keep record of the same

At the time of the harvest, three 5m x 5m plots may be demarcated with the treated and the control plots and the harvest may be collected and assessed for calculation of productivity. The yield can be used for extrapolation into productivity per hectare.

A far more accurate analysis can be carried out through harvesting the entire control and treated plot and comparative analysis of yield and productivity. Further more, the quality of the produce also may be compared for a detailed understanding of product performance.