



MARS MINERALS

— TRADING AGENCY —

INTRODUCTION

Mars Minerals is a professionally managed company and having 10 years of technical experience offers a wide range of Organic Inputs mainly various types of neem based products like Neem Oil cake, Neem Deoil cake, Neem pellets, Neem kernel cake, Neem oil, Neem leaf powder, castor cake, Pungam cake, Mahua cake, Phosphate rich Organic Manure (PROM). Organic Granule, Organic Manure. Soil Conditioner for sustainable organic Agriculture and Horticulture

These products specifically address the degradation and threat posed to human health as a result of chemical inputs, Mars Minerals products are safe to use and help to increase crop yields. Mars Minerals is one of the major producers of Neem cake in south India and products have been used in integrated crop and pest Management systems.



NEEM KERNEL CAKE ORGANIC FERTILIZER (NEEM KERNEL CAKE POWDER / PELLET)

Neem cake is rich in sulphur Compounds (6%) . bitter Terpenoids (2%) such as Epinimbin - a natural nitrification inhibitor functioning like Nitrotyran, Azadirachtin is effective at concentrations as low as 00.04% PPM). Meliantriol, Salannin, Nimbin, Azadiradione and other minor bitter compounds are also present. Acts as a fertilizer & a pest repellent/ Protects the roots of crops from Nematodes termites, fungi, bacteria & other soil borne insects.

ECO - Friendly Advantages

- A. Totally natural and no contamination of ground water by use of the natural product
- B. Calcium & Magnesium in cake helps in reducing alkalinity in soil
- C. Helps in Using lesser use of in - organic fertilizers in tea garden, Helps in slow release of fertilizers and thereby greatly reduces the fertilizer consumption by 30 %
- D. Neem Cake (ground application) is found to be effective and beneficial for all crops.

Neem KERNEL Cake (ground application) is found to be effective and beneficial in the following crops.

| | |
|--------------------------|---|
| Orange | : Controlling Citrus Nematodes |
| Tomato | : Controlling Tomato Seeding Nematodes |
| Tobaco | : Controlling Root Knot Nematodes |
| Areca Catechu | : Reducing Nematodes |
| Fodder Trees | : Controlling Nematodes |
| Tectone Grandess: | Increasing Dry Mass |
| Rice | : (With Urea Increasing N Uptake slow release of fertilizer urea) |

Recommended Usage :

Required 200 kg Neem Kernel Cake per acre. For household use apply 100gm Per plant.

Typical Analysis

- Azadirachtin - 100 ppm to 1000ppm
- Salanin - 100 to 1500ppm
- Nimbin - 100 to 1000ppm
- Nitrogen - 1.5 to 5.0 %
- Phosphorous - 0.1 to 0.6 %
- Potassium - 0.5 to 1.5 %
- S - More than 1.0 %
- Ca - More than 0.50 %
- Mg - 22mg per Kg %
- Zn - 50 mg per Kg
- Oil - 6.00 to 7.00 %
- Moisture - 10.00 % Max
- Sand Silica - 10.00 % Max
- pH - 5.5
- Total Aflatoxin - < 5 ppm
- Form - Flakes / Powder/ Pellet

IT IS AVAILABLE IN POWDER FORM AND PELLET FORM WITH VARIOUS SIZES.

PACKINGS :

AS PER CUSTOMER REQUIREMENT (OR) 1 KG TO 50 KGS PACKING IN HDPE WOVEN BAGS.



COLDPRESSED NEEM OIL (CONTAINING AZADIRACHTIN > 1500PPM)

As we are expert in the field of Neem, We are collecting Neem seeds from some selected places from Tamilnadu having more percentage of Azadirachtin. Thus purchased Neem seeds cleaned with water and dried up. Kernel is separated from the seeds by removing the Neem Husk. The Kernel thus obtained is crushed and Neem Oil extract by using cold processing method without heating up, filtering 3 times. This Oil is containing 2000 ppm to 3000 ppm of Azadirachtin.

Typical Analysis

- Azadirachtin A & B : More than 1500 PPM
- Nimbin - More than 3000 PPM
- Salanin - More than 3000 PPM
- Colour : Dark - Greenish Brown
- Odour : Garlic, Repulsive
- Moisture & Insoluble Impurities : 1 %
- Refractive index at 40 °C : 1.465 to 1.4705
- Specific Gravity @ 30 °C : 0.908 to 0.934
- Titer : 35.8 °C
- Loden Value : 65 to 80
- Saponification Value : 75 to 205
- Unsaponifiable Matter %

Microbiological analysis : Our oil is absent from Salmonella and ecoli bacteria

Pesticide Residue :

- The study of analysis conducted on our oil is to certify that no pesticide residues can be detected.
- As per TLC method no aflatoxin is detected.
- As per EU norms aflatoxin less than limited value i.e. B1, B2, G1, G2 < 4 PPM

PACKINGS : 100 ML TO 200 LITRES IN HDPE CONTAINER

WATER SOLUBLE NEEM OIL PESTICIDE (CONTAINING AZADIRACHTIN 300 PPM TO 1500 PPM)

It is neem oil based botanical pesticide which contains more than 1500 ppm of Azadirachtin and other derivatives . It is an environment friendly pesticide.

TARGET PESTS

White Flies, Leaf Miner, Hoppers, Caterpillar, Thrips, Aphids, Mites, TARGET CROPS : Pulses. Oil Seeds. Fibres, Vegetables, Tublers, Beverages, Fruits, Spices and Floricultures.

- A broad spectrum botanical insecticide derived from the Neem tree seed kernel.
- Control of Thrips, whitefly, aphid (also nasinoia ribis nigri) caterpillar, scale insects medy bug.
- The azadirachtin compound in Mars Neem Oil is produced by an exclusive. cold pressed, extraction process resulting in purified active ingredient.
- Mars Neem Oil can replace (or) enhance traditional chemical treatments and is beneficial to both organic as well as conventional agriculture.
- The product prevents insecticide resistance due to its numerous (>60) active ingredients.
- The product is free of aflatoxin and solvent residue.
- It does not harm beneficial insects & predators.
- No evidence of acute toxicity (or) reproductive effects obtained in valid studies.
- No residues of azadirachtin detected in trials three days after application.

Chemical group : Tetranortriterpenoid

Maximum transport quantity : No Limit



Mode of action : Mars Neem Oil , is slow acting naturally based anti-feeding insecticide. When used early or prior to an increase in pest numbers, it leads to feeding inhibition and to moulting, also to a reduction in fecundity and breeding ability. The formulation of the product greatly assists the transport of the active ingredient to the leaf, The formulation is naturally based neem oil, neem extract and a surfactant from a renewable resource.

Environment : Not a water hazardous material.

Environmental fate : Mars Neem Oil formulations are metabolized by micro - organisms and water very rapidly. The active ingredient is rapidly degraded hydrolytically and thermolytically.

IPM :

When applied at the recommended rates, this product is usually harmless to non- target species and to beneficial insects like Encarsia Wasp and predatory mites of the family phytoseiidac.

Withholding period :

Nil all crops. Trials have shown no residues on crops (apple, grape, avocado). A period of 3 days should elapse between the last applications and harvesting of all crops as a precautionary approach.

USAGE RATES :

0.75 to 1.5 litres/Acre / Application in 200 to 250 Litres of Water In combination with other pesticides. 50% of above mentioned rate. Duration between sprays 7 to 15 days, in case of severe infestation 3 to 5 days till minimum threshold limits are reached.

PACKINGS : 100 ML TO 200 LITRES IN HDPE CONTAINER(OR)MS CONTAINER

AZADIRACTIN EC 0.03 % TO AZADIRACTIN EC 5.0%

It is neem oil based botanical pesticide which contains more than 3000 PPM of Azadirachtin and other derivatives. It is an environment friendly pesticides.

TARGET PESTS

White Flies, Leaf Miner, Hoppers, Caterpillar, Thrips, Aphids, Mites.

TARGET CROPS :

Cereals, Pulses, Oil Seeds, Fibres, Vegetables, Tubers, Beverages, Fruits, Spices and Floriculture.

SALIENT FEATURES AS SAME AS NEEM OIL PESTICIDE

- i. Neem Oil EC Containing Azadirachtin 300 ppm
(NEEMWORLD 300 PPM) 2.5 to 3 Litrs / Acre/ Application in 200 - 250 Litres of Water
- ii. Neem Oil EC Containing Azadirachtin 1500 ppm
(NEEMWORLD 1500 PPM) 0.75 to 1.5 Litrs / Acre / Application in 200 - 250 Litres of Water
- iii. Neem Oil EC Containing Azadirachtin 3000 ppm
(NEEMWORLD 3000 PPM) 0.75 to 1.5 Litrs / Acre / Application in 200 - 250 Litres of Water
- iv. Azadirachtin EC 10000 ppm (NEEMWORLD 10000 PPM)
0.25 to 0.75 Litrs/ Acre/ Application in 200 - 250 Litres of Water
- v. Azadirachtin EC 30000 ppm (NEEMWORLD 30000 PPM) 2.5 to 7.5 gms/ Acre/ Application
- v. Azadirachtin EC 50000 ppm (NEEMWORLD 50000 PPM)
2.5 to 7.5 gms/ Acre/ Application In combination with other pesticides, 50 % of above mentioned rate. Duration between sprays 7 to 15 days, in case severe infestation 3 to 5 days till minimum threshold limits are reached.

NEEMWORLD Works systemically as well and is suitable for tree injection, root spraying where roots are exposed and as soil drench to control termites.

Root spray, Neemworld 3000 ppm
Concentration of a. i. in water 20-30 ppm
3000 ppm - 6.5 ml / litre
Soil Drench, NEEM WORLD 3000
Concentration of a. i. in water 20-30 ppm

CASTOR MEAL :

Castor meal - the residue obtained from castor cake - is one of the most versatile natural manures. It serves as organic manure that enhances the fertility of the soil without causing any damage or decay. It is enriched with three big elements which will be vital and conducive to the proper growth of crops - Nitrogen, Phosphorus and Potassium. It also has traces of nutrients like Manganese, Zinc and Copper, thus making it a balanced fertiliser.



Advantages :

1. Provides all the major & minor nutrients necessary for better plant growth
2. Helps in increasing the nutrients uptake by plants
3. Improves soil fertility and Productivity ; improves yield & quality of the farm produce
4. Protects plants from nematodes and termites.

Main Uses of Castor Meal

The two primary uses of castor meal today are as fertilizer and as fuel

Benefits of castor cake as a soil fertilizer :

- Increasing yield
- Improving soil P indices
- Increasing cane yield and sucrose content in juice
- Increasing N content in grain and straw
- Controlling nematodes
- Increasing tuber yield

Plants best fertilized by castor de-oiled cake :

- Maize, Sugarcane, Rice, Banana, Jute, Tomato, Wheat/Barley, Potato and Tobacco
- Castor Meal Composition
- Nutrient Content of Deoiled Castor Cake/Meal

A Typical Composition of Castor residue / meal is as follows :

Organic Matter 80-85% (The organic matter consists of proteins about 32-33%, fibers about 25-30%, as content - about 6 %)

| | | | |
|----------------------|-----------------|-------------|---------------------|
| Nitrogen | : 5% | Moisture | : 10% max . approx. |
| Phosphorus (as P2O5) | : 2% | Oil Content | : 0.7% max. approx. |
| Potassium | : 1.25% - 1.5 % | | |

It also contain some micro nutrients viz, Calcium, Magnesium, Sulphur, Iron, Zinc, Manganese, Copper etc.

Castor meal is an excellent fertilizer because of high content of N (6.4%), Phosphoric Acid (2.55%), Potash (1%) and moisture retention.

The protein content of castor seed meal varies between 21-48% depending upon the extent of decortications. It has an ideal amino acid profile with moderately high cysteine, methionine, and isoleucine.

While it is rich in proteins, castor cake be used as cattle fodder because of its toxicity.





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— TRADING AGENCY —

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INTRODUCTION

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These products specifically address the degradation and threat posed to human health as a result of chemical inputs, SPS ORGANICS products are safe to use and help to increase crop yields. SPS Organics is one of the major producers of Neem cake in south India and products have been used in integrated crop and pest Management systems.

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Recommended Usage :

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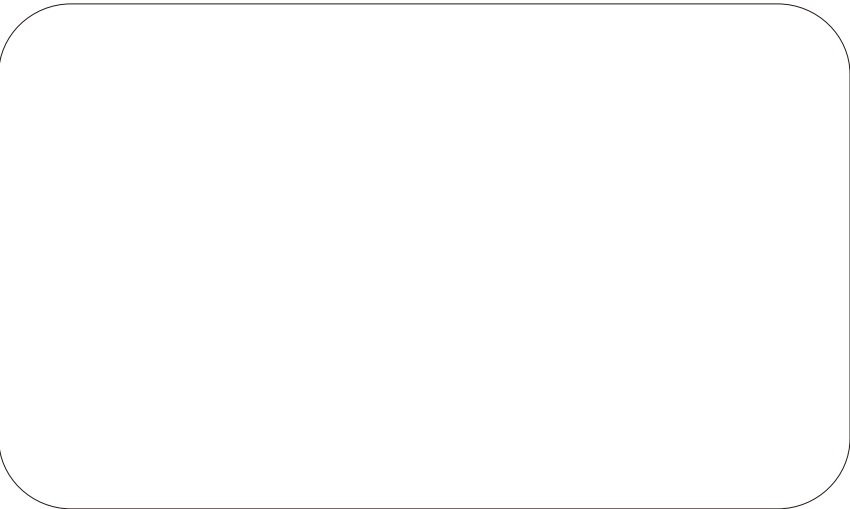
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