

SPECIALITY PRODUCTS FOR INCREASING THE EFFICIENCY OF FERTILIZERS

- Urease Inhibition (NBPT)
- Nitrification Inhibitor (DMPP)
- Neem Oil and Neem Cake
- Anticaking and Dust Suppressors for Fertilizer
- Colouring Agents for Fertilizer
- Micronutrients Coatings









ith the growing concern for quality improvement in every field and for every commodity, fertilizer is no exception. To improve fertilizer characteristics like anticaking properties, granule strength and free-flowing nature, the new generation chemicals of Neelam Agua have made the most innovative contributions.

These products result from 44 years of R&D and continuous usage in fertilizer plants. Their effectiveness, economy and environment-friendly qualities bring a breakthrough in fertilizer quality improvement.

Neelam Aqua is well established in the Indian Fertilizer Industry for providing fertilizer quality improvement chemicals and other specialty chemicals.

NEELCOAT 1N 1000:

Neelcoat 1N1000 is a revolutionary product meticulously crafted to enhance the effectiveness of fertilizers, specifically urea. Unlike conventional urea, Neelcoat 1N1000 significantly amplifies urea's power, resulting in a remarkable increase in efficiency. Traditional urea is susceptible to rapid hydrolysis in the soil, leading to nitrogen loss through ammonia release, especially in prills or granules. Neelcoat 1N1000 eliminates these drawbacks effortlessly, offering a ready-to-use formulation for urea. At the core of its efficacy lies NBPT, the main active component, ensuring optimal nutrient retention and maximizing the impact of fertilizers. With Neelcoat 1N1000, we provide a cutting-edge solution to elevate agricultural productivity and address the challenges associated with urea application.

ADVANTAGES OF NEELCOAT 1N 1000

1. Reduced Ammonia Volatilization:

• NBPT-treated urea cuts ammonia losses by 50-60%, enhancing nitrogen availability for plant uptake and boosting fertilizer efficiency.

2. Increased Crop Yields:

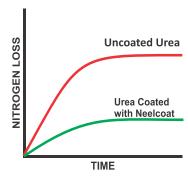
• NBPT usage leads to up to 10% higher crop yields by curbing nitrogen loss.

3. Improved Nitrogen Use Efficiency (NUE):

 NBPT enhances NUE by reducing nitrogen losses, making it more accessible to plants.

4. Reduced Environmental Impact:

- NBPT lowers ammonia volatilization, addressing air pollution and acid rain concerns.
- It potentially delays nitrification, aiding in preventing nitrogen leaching.
- NBPT's fungicidal activity may suppress soilborne diseases.



NITRIFICATION INHIBITORS

NEELCOAT DM-100

NEELCOAT DM-100 (3,4-dimethylpyrazolphosphate). This cutting-edge solution tackles the challenges of nitrogen leaching and enhances nitrogen efficiency in agricultural practices. During the active phase of DMPP, which typically spans 4 to 10 weeks based on soil temperature and humidity, the transformation of ammonium to nitrate is delayed. This adaptation aligns nitrogen availability with the specific requirements of plants, resulting in increased nitrogen efficiency and improved crop yields. By incorporating DMPP-containing fertilizers, farmers can optimize mineral fertilizer usage, reduce the frequency of nitrogen applications, and ultimately achieve higher yields at current fertilizer-N rates. Nitrification inhibitors play a crucial role by depressing the activity of Nitrosomonas bacteria, thereby delaying the bacterial oxidation of ammonium ions. This inhibition, lasting for a specified duration, prevents the rapid conversion of ammonium to nitrate, mitigating nitrogen losses through leaching and minimizing nitrous oxide production.







NEEM OIL

Neem oil, from the neem tree, serves as a protective coating for urea fertilizer, preserving its integrity against environmental factors. It prevents nitrogen loss and acts as a natural insect repellent, maintaining the quality and efficacy of urea. Neem oil's biopesticide properties provide an eco-friendly alternative, aligning with sustainable agricultural practices to enhance the efficiency and longevity of urea fertilizers.



NEEM CAKE

Neem cake, derived from neem tree seeds, is a nutrient-rich organic fertilizer with nitrogen, phosphorus, and potassium. It acts as a natural pest repellent, thanks to azadirachtin, providing sustained plant supply due to its slow-release nutrients. Neem cake improves soil structure, water retention, and long-term fertility. Cost-effective and eco-friendly, it promotes sustainable agriculture by reducing reliance on synthetic fertilizers and minimizing environmental impact.



ANTICAKING AGENTS

To keep fertilizer granules/prills free flowing, Neelam Aqua offers a wide range of anticaking agents for fertilizers like Urea, ANP, CAN, AN, DAP, NPK, and other phosphatic and complex fertilizers. For phosphatic and complex fertilizers, the NEELCOAT range of formulations and for Urea the URECOAT range of formulations are available. These agents maintain free flowing fertilizer during prolonged storage in adverse conditions. Conveniently sprayed on granules/prills via conveyors or coating drums, these agents ensure effective anticaking performance.



DUST SUPPRESSORS

Dust generation during and after granulation/prilling creates problems in the plant and the bagging and storage department. Neelam Aqua offers a NEELCOAT series of coating chemicals to overcome the issues arising due to dust generation.



COLOURING AGENTS

NEELCOAT-CL: Color-coded fertilizers for precise nutrient application, preventing mixing and ensuring efficient, sustainable farming practices. Enhances visual identification, optimizing crop yields and promoting safety through distinct colors. The distinct colors also reduce the risk of mishandling.



MICRONUTRIENT COATINGS

Neelam Aqua & Speciality Chem introduces an innovative micronutrient coating for fertilizers, addressing essential plant nutritional needs with elements like Boron, Copper, Zinc, Manganese, Iron, and Molybdenum. These trace micronutrients are crucial for plant growth, and their scarcity can impact crop production and animal health. Tailoring solutions to diverse crop needs, Neelam's coatings cater to specific requirements; Brassicas and legumes respond well to Molybdenum and Boron, while corn and cereals favor Zinc and Copper. This targeted approach enhances plant development, contributing to overall agricultural productivity.











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