

Research across India favours Nano DAP; Demonstrates benefits to farmers



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Data from field experiments by reputed agricultural research institutes demonstrated 2.4% to 27% rise in yield as a result of using Nano DAP

Data from the field experiments conducted by several reputed Indian Council of Agricultural Research (ICAR) institutes and state agricultural universities across the country's diverse agro-climatic zones have demonstrated that Nano DAP can enhance the yield of crops to the tune of 2.4% to 27% when applied at a recommended dose. This data showcases the unique advantage of Nano DAP in comparison to conventional DAP.

The experiments were held in farmers' fields across India over 3,000 locations, led by a team of Agronomists who have studied the response of Gromor Nano DAP in a spectrum of crops, including rice, wheat, maize, moong, chickpea, red gram, groundnut, cotton, potato, onion, bottle gourd and cabbage, covering the states of Tamil Nadu, Andhra Pradesh, Telangana, Karnataka, Maharashtra, Odisha, West Bengal, Gujarat, Uttar Pradesh, Madhya Pradesh, Chhattisgarh and Punjab. The data depicted that farmers who have started using Nano DAP are convinced with the results and begin to benefit from the Nano fertilizers.

Gromor Nano DAP was tested across the country as part of the research, including several reputed Indian Council of Agricultural Research (ICAR) Institutes such as India Agricultural Research Institute (IARI) – New Delhi, Indian Institute of Rice Research (IIRR) – Hyderabad, Indian Institute of Millets Research (IIMR) – Hyderabad, Indian Institute of Pulses Research (IIPR) – Kanpur, Central Institute for Cotton Research (CICR) – Nagpur, Indian Institute of Horticultural Research (IIHR) – Bengaluru and Indian Institute of Vegetable Research (IIVR) – Varanasi. It was also tested at various state agricultural universities such as Tamil Nadu Agricultural University – Coimbatore, Professor Jayashankar Telangana State Agricultural University (PJTSAU) – Hyderabad, Mahatma Phule Krishi Vidyapeeth (MPKV) – Rahuri, Dr. Panjabrao Deshmukh Krishi

Vidyapeeth (PDKV) - Akola and Punjab Agricultural University- Ludhiana besides unequivocally demonstrated in farmers' fields.

The Indian agriculture faces a wide array of constraints such as decline in soil organic carbon, imbalanced fertilization, multi-nutrient deficiencies and less fertilizer response ratio besides impacts of climate change and huge sum of fertilizer subsidies. The scientists have started exploring cutting edge technologies like nanotechnology which enables atomic manipulation to achieve processes and products that are precise to deliver input without associated loss of nutrients synchronized with environmental issues. To resolve this, Coromandel International has been manufacturing Gromor Nano DAP since 2023.

In alignment with the national-level nano fertiliser recommendations, the recommended dose of Gromor Nano DAP at 500 ml per acre twice at 20-25 and 40-45 days after sowing or transplanting, along with 75% recommended dose of conventional phosphatic fertilisers for optimum output.

In order to gain insights, rapid absorption of Nano DAP in comparison to conventional DAP was assessed using high resolution electron microscopy, quick assimilation and turnover of amino acids using enzyme assays besides internalization in crops as stated by Dr K S Subramanian, Scientific Advisor, Coromandel International Limited and Former Director of Research, TNAU. Gromor Nano DAP was designed, developed and notified by Fertilizer Control Order (FCO) in 2023, at a time when the country is facing a phosphatic fertiliser availability crisis.

About Coromandel

Coromandel International Limited is amongst India's pioneers and leading Agri solutions provider, offering diverse products and services across the farming value chain. It operates in two major segments: Nutrient and other allied businesses and Crop Protection. These include Fertiliser, Crop Protection, Bio Products, Specialty Nutrients and Organic businesses. The Company is 2nd largest manufacturer and marketer of Phosphatic fertiliser in India. The Company's Crop Protection products are marketed in India as well as in international geographies, offering wide range of technical and formulation products. The Specialty Nutrients business of the Company focuses on water soluble fertiliser, secondary & micronutrients and nano fertiliser products. The Company is leading marketer of Organic fertiliser in India. The Bio Products business of the company focusses on plant extractions for various applications. It also operates a network of around 750+ rural retail outlets across Andhra Pradesh, Telangana, Karnataka and Tamil Nadu. Through these Retail outlets, the Company offers agri inputs and farming services including crop advisory, soil testing and farm mechanization to around 3 million farmers. The Company has 7 R&D centers and a strong Regulatory setup, supporting the businesses in process development and new product introduction. The Company has 18 manufacturing facilities, spread widely across India, producing wide range of Nutrient and Crop Protection products, which are marketed through an extensive network of dealers and its own retail centers.

The Company clocked a turnover of Rs. 22,290 Crores during FY23-24. Its efforts towards environment have been well recognized by international organizations like UNDP and has also been voted as one of the ten greenest companies in India by TERI. Coromandel is a part of the INR 778 billion (INR 77,881 Crores) of the Murugappa Group.

About Murugappa Group

A 124-year-old conglomerate with presence across India and the world, the INR 778 billion (77,881 crore) Murugappa Group has diverse businesses in agriculture, engineering, financial services and more.

The Group has 9 listed companies: Carborundum Universal Limited, CG Power & Industrial Solutions Limited, Cholamandalam Financial Holdings Limited, Cholamandalam Investment & Finance Company Limited, Coromandel International Limited, EID Parry (India) Limited, Shanthi Gears Limited, Tube Investments of India Limited and Wendt India Limited. Other major companies include Cholamandalam MS General Insurance Company Limited and Parry Agro Industries Limited. Brands such as Ajax, Hercules, BSA, Montra, Montra Electric, Mach City, Chola, Chola MS, CG Power, Shanthi Gears, CUMI, Gromor, Paramfos, Parry's are part of the Group's illustrious stable.

Abrasives, technical ceramics, electro minerals, electric vehicles, auto components, fans, transformers, signalling equipment for railways, bicycles, fertilisers, sugar, tea and several other products make up the Group's business interests.

Guided by the five lights — integrity, passion, quality, respect and responsibility — and a culture of professionalism, the Group has a workforce of over 83,500 employees.

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