Revolutionizing Animal Feed: TDB-DST partners with Chemlife Innovations for Innovative Bio-Trace Minerals Project

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The Technology Development Board (TDB), operating under the Department of Science & Technology (DST), is thrilled to announce its strategic partnership with M/s Chemlife Innovations Pvt. Ltd., headquartered in Bengaluru, Karnataka. This collaboration marks a significant stride in advancing the project titled "Commercialization and Manufacturing of Bio-Trace Minerals used in Feed for Animals," a visionary endeavour that harmonizes seamlessly with TDB's commitment to fostering impactful scientific innovation.

Amid the present urgency for innovative solutions propelling sustainable progress, a crucial dimension of this collaboration aligns harmoniously with the National Livestock Mission—a cornerstone of India's strategic framework. Guided by the Prime Minister's vision, the mission aims to enhance livestock productivity, optimize feed and fodder resources and infuse technology into livestock management.

Aligned with this national roadmap, TDB and M/s Chemlife Innovations Pvt. Ltd. embark on a transformative journey, marking a pivotal milestone in the "Commercialization and Manufacturing of Bio-Trace Minerals used in Feed for Animals" project. TDB's unwavering support is evidenced by its commitment of ₹ 84 lakh, significantly contributing to the total project cost of ₹ 142.60 lakh.

Speaking on the occasion, Shri Rajesh Kr. Pathak, Secretary, TDB, said, "We're thrilled to support Chemlife Innovations Pvt. Ltd. in their pioneering endeavour. This project exemplifies technological innovation and sustainable manufacturing, aligning seamlessly with TDB's goals. As the project advances, it's poised to enhance animal nutrition, transform livestock and poultry & dairy production, and set new eco-friendly manufacturing benchmarks. This collaboration aligns with the National Livestock Mission's objectives, addressing vital aspects of animal nutrition through innovative bio-trace minerals in animal feed."



Driven by innovation and sustainability, M/s Chemlife Innovations Pvt. Ltd. envisions revolutionizing the manufacturing of bio-trace minerals for animal feed, particularly targeting the livestock and poultry/dairy sectors. Anchored by the ground breaking 'Accelerated Natural Bio Transformation' (ANBioT) technology, the project introduces a proprietary nutrient medium that facilitates chelation reactions under milder conditions, aligning seamlessly with principles of environmental sustainability.

Central to this endeavour is the ingenious use of pupa proteins, rich in hydroxy amino acids, offering an

economical alternative to imported ligands like yeast hydrolysate and Methionine hydroxy analogue (MHA). This strategic shift not only enhances economic viability but also aligns with India's self-sufficiency goal.

The company's unwavering commitment to quality is substantiated by its attainment of Global Certification for Animal Feed Additive Quality and Feed Safety, alongside the esteemed FAMI-QS certification—a globally recognized benchmark. Third-party validation confirms the efficacy of their developed product 'MinBioZen,' showcasing compatibility and promising results.

Beyond the realm of innovation, this project contributes to the circular economy by repurposing silk worm pupae meal, thereby mitigating waste generated by the silk industry. The company's membership in Pharmexcil augments export prospects, fostering economic growth. Leveraging locally available by-products from the silk industry enhances economic viability, aligning with import substitution objectives and potential foreign exchange savings.

Their comprehensive approach, fortified by global certifications, exemplifies their commitment to green chemistry principles and sustainable resource utilization. Innovative products like MinBioZen address the indispensable need for bio trace minerals—zinc, copper, manganese, iron, and selenium—in optimizing livestock health and growth. Aptly named MinBioZen, the product seamlessly integrates bioavailability and stability, symbolizing their dedication to innovation and environmental stewardship.

SNC/PK

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