

ISSN 2832-3335 agribusinessreview.com APAC Special

AGRI BIOTECH

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## Embracing Organic Farming for Sustainable Living

PI Polene, Thailand's leading cement and building products manufacturer, is no stranger to innovation. Leveraging its robust background in cement manufacturing and renewable power, the firm now pioneers groundbreaking products that enhance farming efficiency, support livestock health and has the potential to redefine Thailand's agricultural landscape.



OUR ROBUST CULTURE
OF RESEARCH AND
INNOVATION EMPOWERS
US TO EXTRACT GREATER
VALUE FROM WASTE
MATERIALS AND DEVISE
PRODUCTS THAT PROVIDE
EFFECTIVE SOLUTIONS
AND OFFER COMPELLING
VALUE PROPOSITIONS,
WHICH BENEFITS SMALLSCALE FARMERS

The company also deals with petrochemicals, construction materials, renewable energy and bio-green agricultural inputs Like soil boosters, soil enhancerss, probiotics, bioorganic fertilizers, organic wood vinegar to chase away insects without using insecticides, biosan to clean up the farms, health care products for humans. Its products are produced in an eco-friendly manner, considering social and ethical factors, with the scalability to meet high-volume demands. Using advanced technology and innovation, TPI Polene maximizes value of processed waste to produce world-class products. Recognised for creating Thailand's first synbiotic product for livestock, TPI Synbiotics incorporates at least seven selected microbe species. This unique combination elevates soil conditions as well as nurtures plant and animal growth. Its products receive innovation certificates from the government.

The company's unique approach also utilises byproducts from its cement operations. One such byproduct, Micromeknox, a calcium-compound derived from TPI Polene's mining activities, plays an integral role in eliminating bacteria and viruses in farms and safeguarding livestock's health. Notably, Micromeknox is specifically formulated for the benefit of animals like cats, dogs, chickens, pigs and cattles, and this formula can be modified to suit the needs of different livestock species.

TPI Polene's yellow spray powder is another example of a calcium phosphate compound, an amalgamation of calcium and

herbs that suppresses allergic reactions in animals and facilitates wound healing. The firm has developed this product by using bioorganic compounds derived from its from its intensive research and development enabling the use of household garbage for power production, and organic matters for the production of bioorganic fertilizers.

The company also offers a diverse range of products like Natu Piglet and Natu Chick, which are derived from innovations in the cement industry. Natu Piglet is specifically designed to combat bacteria, while NatuChickis used to regulate farm humidity. These two products are indispensable for farm management, making a substantial contribution to maintaining a healthy and hygienic farming environment.

Another of such bi-organic product developed is Bio San that aid in odour management and water treatment in farms, replacing the expensive, imported alternatives for farmers. These cost-effective products are currently patronized by agro-industrial companies, including CP Foods, a Thai agri-food conglomerate. Being one of the world's largest poultry, swine and shrimp producers, CP Foods employs TPI Natu Chick and Turbo Dolomite in its farms to maintain robust disease prevention measures. Thai Foods Group is another company that has benefited from TPI Polene's product offerings. They have successfully implemented Bio San in their chicken farms to solve the clogging issue in wastewater treatment plants.

Widely known as the 'kitchen of the world,' Thailand has faced challenges in maintaining its position as a leading global producer of shrimp and tiger prawns due to early mortality syndrome. However, TPI Polene's shrimp pond humus emerges as a viable solution, restoring pond floor health and boosting the growth of shrimp and aquatic animals that potentially revitalises small-scale producers. The company has developed a modified version of Bio San suitable for water conditions in aquaculture, which also contributes to the recovery of the shrimp industry.

"Our robust culture of research and innovation empowers us to extract greater value from organic materials and devise products that provide effective solutions and offer compelling value propositions, which benefits farmers," Pakorn Leophairut, Executive Vice President – Sales & Marketing of TPI Polene Plc and President of TPI Polene Power Plc.

The company's global expansion in the fertilizer manufacturing sector was achieved through its subsidiary, TPI Polene Power—a privately owned municipal solid waste-fuelled power producer. The fine-tuning of processes and handling of municipal solid waste (MSW) has brought TPI Polene to a competitive cost curve, making it a viable alternative to fossil fuels.

## **TPI Polene**



The annual listing of 5 companies in Thailand that are at the forefront of providing Agri Biotech solutions and impacting the marketplace