

Question: By practice every 2nd year farmers here in Thatta apply one truck (approximately 6 to 10 MT of cow manure) in one acre.

The soil here is mostly silty clay and therefore it is said that the manure helps to improve soil texture. As well as provide a little bit of npk.

After land Prep the manure is dropped onto the land in mounds (photo below) and spread with chali. Then 1 last culti is done followed by release of water and rice sowing.

Should we stop this practice entirely or fine tune it to the above recommendation?



Side-by-Side Comparison Chart of Farmyard Manure and the Aerobic Compost

Component	Farmyard Manure	Aerobic Compost
Primary Ingredients	Animal excreta (dung, urine) from livestock (e.g., cows, horses, poultry)	Green waste (e.g., vegetable scraps, grass clippings) + Brown waste (e.g., dry leaves, straw, cardboard) and animal waste
Bedding Material	Straw, sawdust, wood shavings, or other absorbent materials used in animal stalls	Not typically included, but straw or dry leaves may be added as carbon source
Carbon-to-Nitrogen Ratio	Variable, often 20:1 to 40:1 depending on animal type and bedding	Balanced, ideally 30:1 (adjusted by mixing green and brown materials)
Moisture Content	High, often 60-80% due to urine and fresh dung	Moderate, 40-60% (maintained for optimal microbial activity)
Microbial Activity	Contains native microbes from animal gut; may include pathogens if not composted	Diverse aerobic microbes (bacteria, fungi); pathogens reduced through heat
Additional Inputs	May include feed residues, farm waste, or soil from barns	May include manure, garden soil, or compost activators (e.g., molasses)
Processing	Often minimally processed; may be aged or composted	Actively managed with turning/aeration to ensure oxygen supply
Odor	Strong, ammonia-like if fresh; reduced if aged	Earthy, minimal odor if properly aerated
Pathogens/Weeds	May contain pathogens or weed seeds if not properly composted	Pathogens and weed seeds typically destroyed due to high temperatures (131-160°F)

PQNK is the self-sustaining food production system designed by nature that has been working for 400 million years without depleting any resources

Answer: The addition of farmed manure and biogas plant slurry is meaningless in the PQNK farming system. The roots of cover crops, whose growth is part of the conversion process, along with crop residues, are sufficient to open soil pores, increase aeration and water infiltration, enhance organic matter, and provide habitat for microorganisms to function properly. However, aerobic compost, when applied correctly, can rapidly promote the growth of diversified aerobic microbes.

A ratio of up to ten tons of farmyard manure is too little; furthermore, it contains native microbes from animal gut flora, which include harmful pathogens. Everything else becomes meaningless debris due to water inundation and the higher temperatures of exposed soil in conventional systems.