

Impacts of organic fertilizers

There are different types of organic fertilizers:

Farm Yard Manure (FYM)



Farm Yard Manure

Compost



Decomposition of organic material by micro-organisms

Fresh Bio-Slurry



Decomposition through anaerobic digestion of organic materials

Bio-slurry enriched Compost (BEC)



Bioslurry added during compost composition process

Short and long-term impact

Short-term impacts provide quick crop nutrient results in one growing season, while long-term impacts relate to changes in soil pH, structure, and microbial life. Long-term effects are seen several years after fertilizer application.

Fertiliser type	Chemical Fertilizer	Farmyard Manure	Bio-slurry Fresh	Bio-slurry dried	Compost	BEC
Immediate - Chemical	● ● ●	●	● ●	●	●	● ●
Long term - Chemical	● ●	●	●	●	●	●
Long term - Physical	●	● ●	●	●	● ● ●	● ● ●
Long term - Biological	● ●	● ●	● ●	● ●	● ● ●	● ● ●

LEGEND

● ● Negative

● Slightly negative

● Slightly positive

● ● Positive

● ● ● Highly Positive

Short term impacts	
FYM	Slow nutrient release, decomposition of 45% of organic matter (OM)
Compost	Slow nutrient release, decomposition of 10-15% of OM
Fresh Bio-slurry and BEC	Fast nutrient release

Long-Term Impacts	
FYM Bio-slurry Compost BEC	<ul style="list-style-type: none"> Increased soil pH Improved structure and organic matter Enhanced water holding capacity Root growth boosts microbial biomass
Compost	Highly beneficial for soil structure and nutrient retention because of high formation of stable humus

