




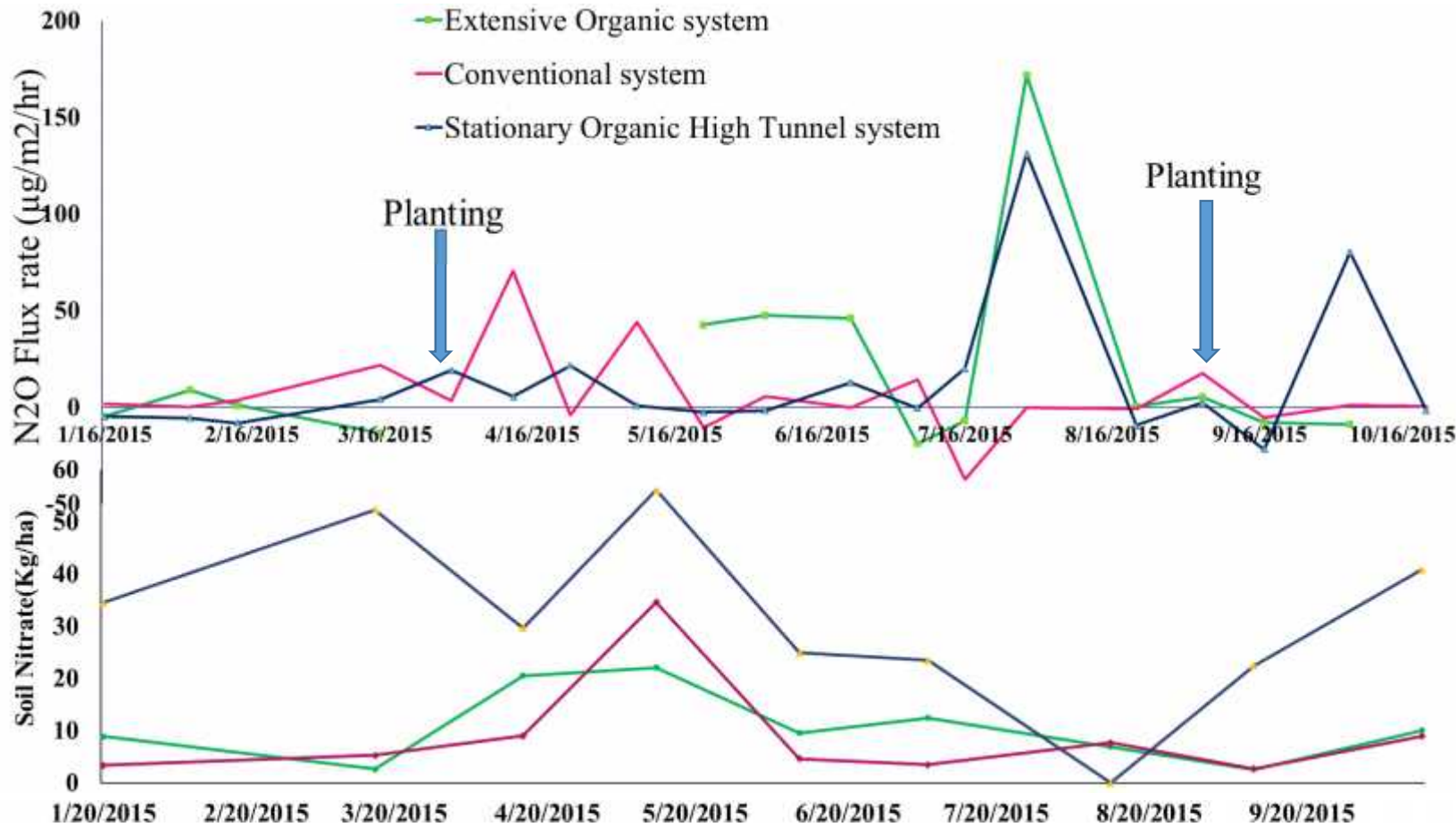
The Effect of Intensification on Nitrogen Dynamics and Losses on Diversified Organic Farms

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	Extensive Organic	Conventional	Stationary Organic High Tunnel
			
Production	Seasonal*	Seasonal*	Year-round
Fallow Periods	5 year forage-based fallow, with rotational grazing	Annual cover crop once per year	None
Tillage Frequency	None (fallow) -> Intensive semi-annual primary and secondary (horticulture)	Semi-annual primary and secondary tillage	Quarterly secondary tillage, frequent cultivation for weed control
Nutrient inputs	Fallow, cover crop, minimal compost	Cover crop, synthetic fertilizer	Compost, granular manure-based fertilizer
Intensification	Low		High



N₂O fluxes high in Organic High Tunnel, although it has higher soil nitrate content at all depth.
 Nitrous emissions – affected by How we manage the system.



Future work- understanding the processes-modelling works.