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Organic fertigation system restores soil health in saline–sodic soils

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There is a gap in appropriate options between sustainable crop production and restoration of soil health. Agriculture must adopt organic fertigation systems as soon as possible to restore soil health and check land degradation. An organic fertigation system can reduce salt concentration in irrigation water and increase nitrogen-fixing diazotrophs in soils. The organic fertigation system increases photosynthetic activities in plants, microbial biomass carbon, bacterial colonization, plant–mycorrhizal association, and phospholipid-derived fatty acids from microbes.

A review in *Agronomy Journal* looks at 101 studies from the last 25 years of organic fertigation systems in the context of achieving sustainable development goals. The system increases essential soil nutrients, including soil organic carbon, and salt/water stress tolerance while reducing sodium ion toxicity in plants by regulating abscisic acid pathways.

This review sketches the role of silicic acid, salicylic acid, and liquid organics in plant growth mechanisms. Using organic fertigation reports enhanced photosynthesis, increased salt/water tolerance, and reduced sodium ion toxicity. It also emphasizes a community–corporate farming system to adopt cost-effective green technologies for bioresource regeneration, diverse market production, and social capital generation. It shows that we can develop a synergy between organic fertigation systems and community–corporate farming to achieve much-needed agricultural sustainability.

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Kumar, C., Ramawat, N., & Verma, A.K. (2021). Organic fertigation system in saline–sodic soils: A new paradigm for the restoration of soil health. *Agronomy*

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