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Social networks of manuresheds

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Manure is applied on cropland. Photo by Robb Meinen.

The specialization and concentration of modern agriculture has enabled great gains in fuel, food, and fiber production. However, these forces have also presented challenges,

such as a dependence on finite fertilizer resources and geographic nutrient imbalances. Manureshed management—the strategic use of manure nutrients prioritizing balanced recycling between livestock and cropping systems—could offer a solution to these challenges.

In a new article that is part of an upcoming special section on manuresheds in the *Journal of Environmental Quality*, researchers evaluate the social dimensions of manuresheds by mapping aspirational network diagrams and reviewing relevant case studies of functioning manuresheds at a variety of spatial scales (on-farm, local, regional, and national). The team found that, regardless of scale, common, core sets of individuals are needed to successfully redistribute nutrients between crop and livestock production systems. For example, in addition to agricultural producers, extension and advisory services (both in public and private sectors) are important for ensuring optimal outcomes at all spatial scales examined.

Given the level of collaboration required for manureshed management, these aspirational networks start a dialogue for considering who needs to be engaged within nested geographic scales to ensure the sustainable use of manure nutrients.

Dig deeper

Meredith, G.R., Spiegal, S., Kleinman, P.J., & Harmel, D. (2022). The social networks of manureshed management. *Journal of Environmental Quality*. **https://doi.org/10.1002/jeq2.20334**

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