

Manure Treatment Technology Adoption by Swine and Dairy Producers: Survey Feedback

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BACKGROUND

A variety of manure treatment technologies are available, and new technologies continue to be developed for managing nutrients, solids, energy, water, and other components of manure. But, while these new treatment technologies have potential to improve the environmental, economic, and social sustainability of livestock and poultry production, questions remain regarding producer adoption of treatment systems on their operations.

WHAT DID WE DO?

Two surveys were developed, one tailored to dairy producers and one for swine producers. The surveys were administered using Qualtrics, an online survey platform. Questions asked covered manure-related practices in animal facilities, manure handling, and land application. Additional questions asked producers to prioritize their needs for manure treatment, factors influencing technology selection, current technologies being utilized, and principal barriers for adoption. Swine respondents had farms in Nebraska (7), Iowa (2), and Ohio (1). For dairy, 7 of the farms were in Nebraska and 1 was in Minnesota.

Herd size information of dairy and swine farms represented in the survey responses

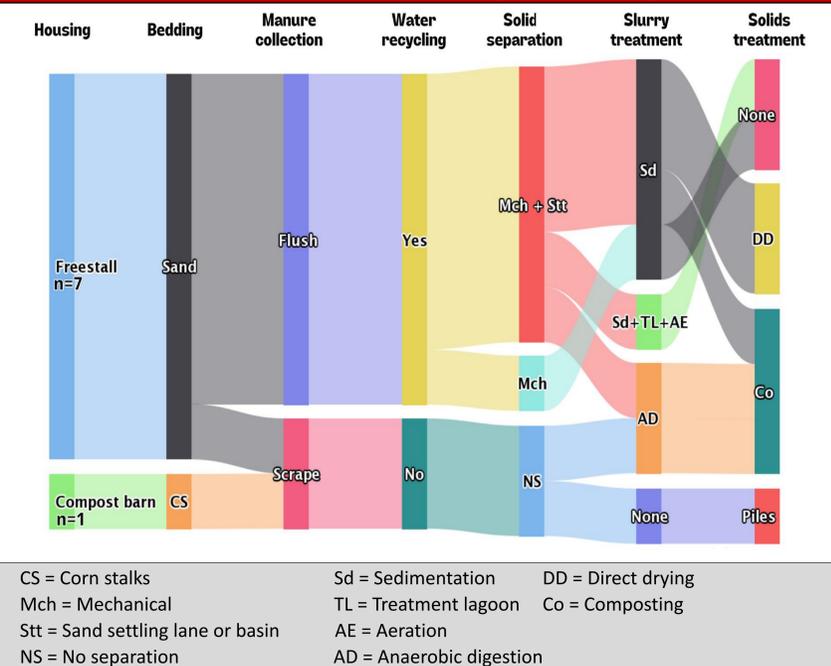
Species and herd type	Number of farms	Herd size - average	Herd size - range
Dairy – lactating cow herd	8	933	30 to 2,150
Swine (farrowing) – sow herd	4	2,762	250 to 7,500
Swine (finishing) – finisher herd	5*	23,600	1,200 to 70,000

Note: *One finishing farm did not share its herd size information.

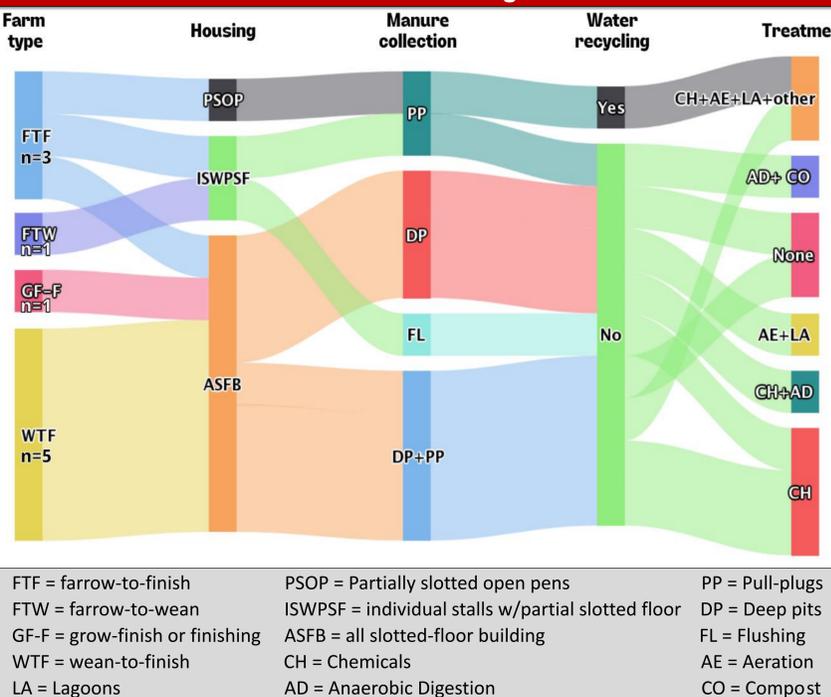
Objective: Assess needs, desired outcomes, and barriers for adoption of manure treatment technologies, current levels of technology adoption and satisfaction of swine and dairy producers in the Midwest.

WHAT HAVE WE LEARNED?

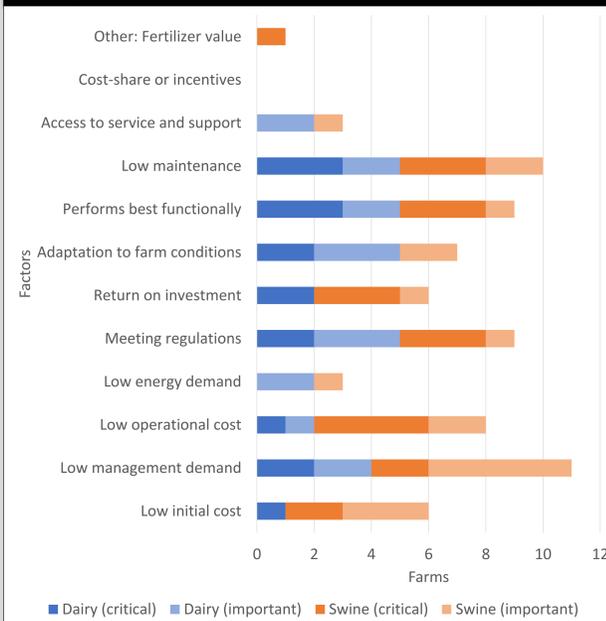
Farm characterization and manure management of eight dairy farms.



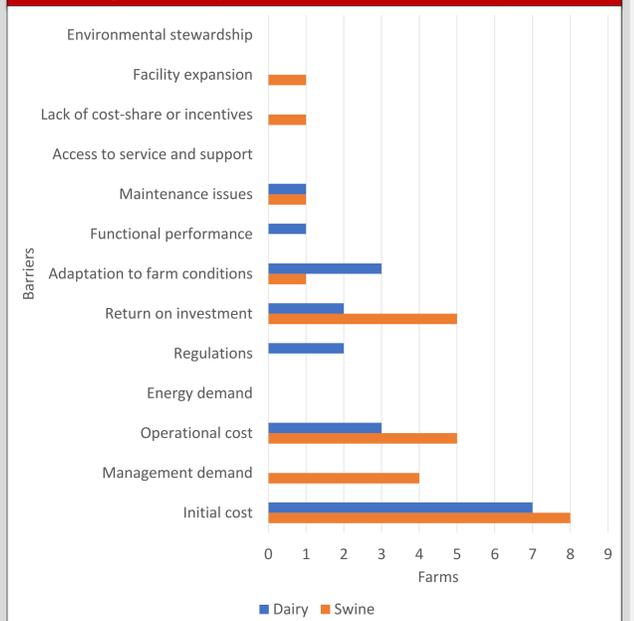
Farm characterization and manure management of ten swine farms.



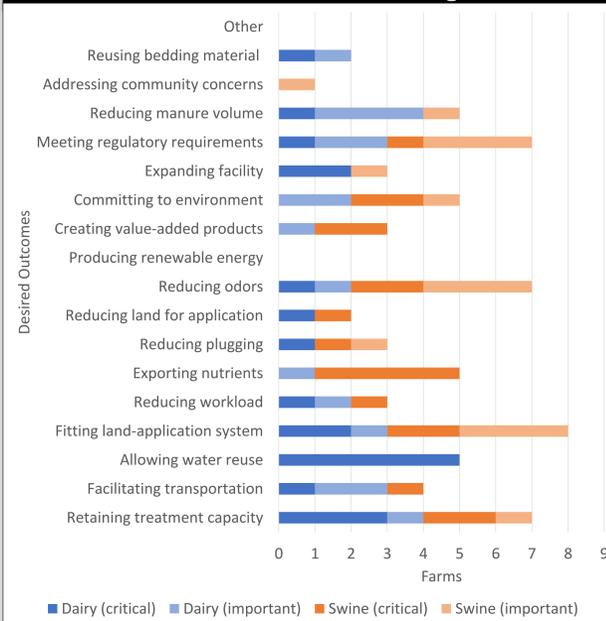
Factors that most influenced the selection of implemented manure treatment technologies.



Barriers to upgrading the farm's manure management system in swine and dairy farms



Primary desired outcomes for implementation of manure treatment technologies



FUTURE PLANS

Our research work has moved into qualitative exploration. Focus groups will be held with swine and dairy producers, where they will discuss and share their manure treatment needs and desired outcomes from new treatment options. These activities will be organized online and will allow producers to share their manure management perspectives for the present and future. The results of our surveys and focus groups are being used to inform a decision-support tool being developed as part of the Management of Nutrients for Reuse (MaNuRe) project. Our findings will also be used to help develop extension programs that meet the needs of producers for manure management in Nebraska and neighboring states.

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