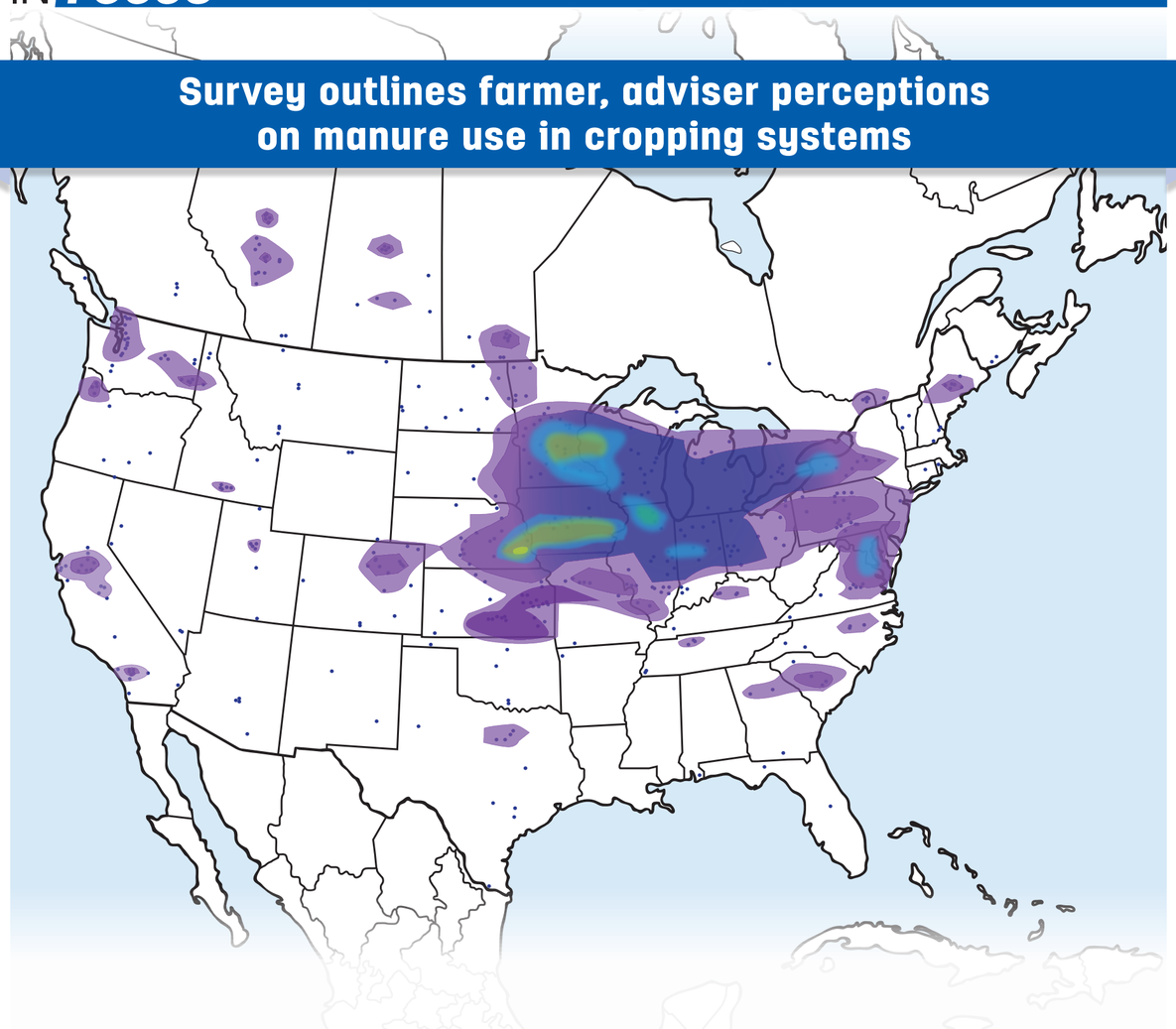
IN *FOCUS*

Survey outlines farmer, adviser perceptions on manure use in cropping systems

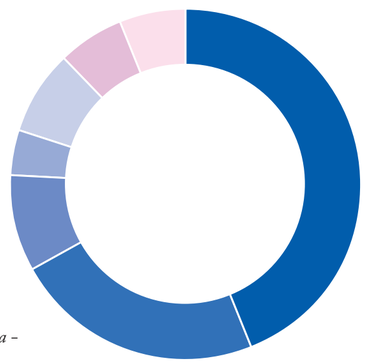


Survey participants were primarily from the Midwest

A faculty team from University of Nebraska, University of Minnesota and Iowa State University is addressing the need to expand the crop acres receiving animal manures. The project team, with the guidance of a stakeholder advisory group of farmers and advisers, implemented a survey of perceptions of animal manure's benefits and challenges. During the winter of 2020, 957 farmers and their advisers shared their perspective on the benefits and barriers to manure use. Here are the preliminary results from the survey.

73%

of farmers reported using manure annually on at least some fields



Survey results were provided by Rick Koelsch, professor of biological systems engineering and animal science at the University of Nebraska – Lincoln. For more information, contact him at rkoelsch1@unl.edu or (402) 472-3935.

Perceptions on manure's benefits to crops or soils

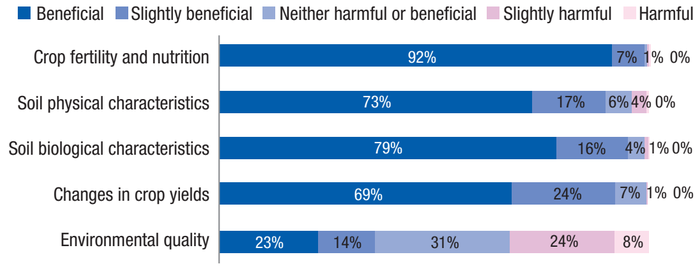
The agronomic and yield effects of animal manures are commonly valued as beneficial. Ninety nine percent of farmers and advisors labeled manure as beneficial or slightly beneficial to meet crop fertility needs.

Farmers and their advisers have a mixed opinion of manure's benefits to environmental quality (described primarily as water quality). Roughly equal responses described manure as either "beneficial" (37% of responses) and "harmful" (32% of responses) to water quality.

92%

see manure as beneficial or slightly beneficial for improving crop yields

Beneficial / Harmful: To what degree do you consider manure to benefit or harm these cropping system characteristics (n=802)



Combination of manure and commercial fertilizer use

The survey asked, "Which of these statements do you personally believe is most true in your management decisions (or recommendations) with respect to use of manure and fertilizer in cropping programs?" With most individuals answering the survey being regular users of manure, it is probably not surprising that 70% responded that "Fertilizer and manure regularly complement each other in crop fertility programs." Only a small group viewed manure and fertilizer as competitive with an equal number indicating manure versus fertilizer being preferred.

Survey participants' responses to what they personally believe is most true in their management decisions (or recommendations) with respect to use of manure and fertilizer in cropping programs.

Barriers to manure use

A critical purpose of the survey was to identify those challenges that commonly prevent manure use on some fields. A list of 33 challenges was assembled into five broad categories identified as agronomic challenges, economic challenges, neighbor and rural community, regulatory and logistical challenges. The following is a list of top 10 challenges to using manure in cropping systems and the regularity of these challenges being identified as a frequent barrier (either real or perceived) preventing manure use. Identifying these top challenges will help researchers find strategies that can be applied to reduce these barriers and encourage manure's use.

Top 10 challenges:

1. Transportation and application costs — Category: Economic — % of responses: 90
2. Odors — Category: Neighbor — % of responses: 78
3. Timeliness of application — Category: Logistical — % of responses: 72
4. Field conditions limiting application — Category: Logistical — % of responses: 66
5. Time/labor requirements — Category: Logistical — % of responses: 63
6. Application equipment compaction — Category: Agronomic — % of responses: 57
7. Poor uniformity of application — Category: Agronomic — % of responses: 51
8. Manure is more regulated — Category: Regulatory — % of responses: 50
9. Weed seed from manure — Category: Agronomic — % of responses: 48
10. Initial costs for adding manure — Category: Economic — % of responses: 46