

Communication within the agricultural sector for antimicrobial use & monitoring



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**Science
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Key Takeaways

Design for
usability and
attention

Effective science
communication for
antimicrobial use +
monitoring



Address
survey fatigue

Cultivate quality
relationships,
shared narratives

Context

For the NAHMS' Antimicrobial Use (AMU) Study

To explore agricultural stakeholders' experiences of and preferences for the federal government research process and product (i.e., the report)

To formulate recommendations to improve communication and relations among a federal agency and its stakeholders regarding AMU

Source: Abrams, K. et al (2020). Exploring science communication effectiveness in the us federal government research process: A case study with the US livestock producers' antimicrobial use research. *Journal of Applied Communications*

Collecting Vital Information on Animal Health

National Animal Health Monitoring System (NAHMS) national studies provide essential information on livestock and poultry health and management to decisionmakers, including producers, researchers, and policymakers. Each animal group is studied at regular intervals, providing up-to-date and trend information needed to monitor animal health, support trade decisions, assess research and product development needs, answer questions for consumers, and set policy.



Need more variety

Current reports useful in limited contexts

More active outreach

Increase interpersonal communication



Desire more involvement in research process



Need to feel heard

Extension agents are an untapped resource

What Influences Relationship Quality?

6 dimensions of relationship quality (Hon & Grunig, 1999):

“**Control mutuality:** the degree to which parties agree on who has rightful power to influence one another

“**Trust:** one party’s level of confidence in and willingness to open oneself to the other party

“**Satisfaction:** the extent to which one party feels favorably toward the other because positive expectations about the relationship are reinforced

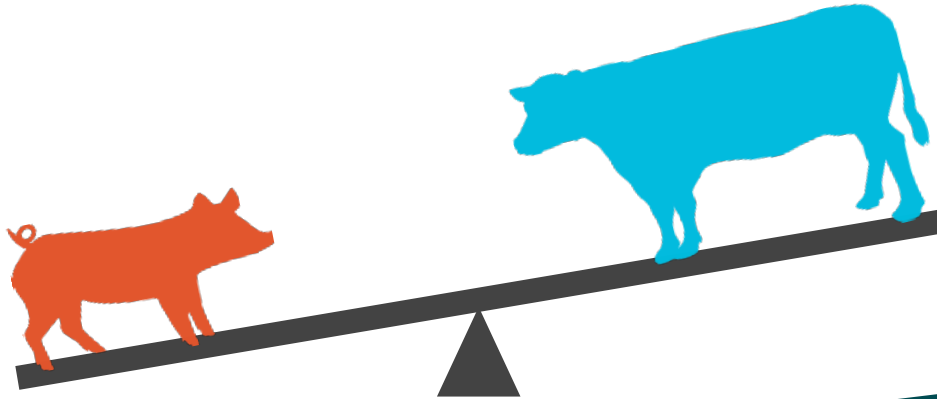
“**Commitment:** the extent to which one party believes and feels that the relationship is worth spending energy to maintain and promote.

“**Exchange relationship:** both parties provide benefits because each has received or expects to receive benefits from the other

“**Communal relationship:** both parties provide benefits to the other because they are concerned for the welfare of the other—even when they get nothing in return. (p. 19-20)

Differences between livestock sectors

Cattle industry had **weaker** relationship quality with federal government, while the *swine industry* had a **stronger** relationship.



AMU/R Science Comm. Recommendations

Diversify data communication tools and strategies

- Include subscription option
- Increase mini-reporting of AMU/R: varied highlights, more visuals, social media posts, newsletter
- Increase interpersonal or small group communication, particularly in person

Create relations with extension and journalists

- Cultivate their roles as **knowledge brokers** to prevent attacks from groups spreading misinformation

AMU/R Science Comm. Recommendations

Maintain existing efforts with swine industry

Build trust with cattle industry

These issues can be repaired through:

1. Highlighting the give and take in the development and deployment of AMU/R monitoring on farms
2. Conveying concern for the industry's welfare
3. Reigniting and demonstrating commitment to the relationship.

AMU/R Science Comm. Recommendations

Post-crisis or post-research communication should:

1. Identifying ways in which they did influence AMU/R federal data collection and reiterate the “why” of the study in terms of concern over their welfare
2. Expressing gratitude for contributions and identify commitments made and future commitment to the relationships
3. Highlighting benefits *given* of their insight and the benefits *received*
4. Reminding them of the boundaries of influence that are needed in order to ensure the study is credible and robust to biased attacks by demonstrating inclusiveness and balancing of viewpoints

Success with PEDv

Uncertainty = competing narratives emerge

Competing narratives about the risk and biosecurity steps quickly resolved due to **effective collaborative networks** collecting and sharing research and key messages

Pre-crisis planning should:

Encourage industry cohesiveness

Develop networking and rapid research capacity

Effectively communicate and disseminate science and recommended actions

HOW?

Collaborative network: Pork, meat, + swine vet groups; USDA-APHIS; veterinarians; university extension agents; and academic researchers in high pork producing states

Weekly conference calls

Rapid research + science comm

Swine industry media outlets, veterinarians



Key Takeaways

Study communication processes and behavior change techniques to improve biosecurity and AMU

Design for usability and attention

Effective science communication for antimicrobial use + monitoring



Address survey fatigue

Ensure resources for forming collaborative networks pre-crisis and studying relationship quality, particularly when conducting AMU/R research

Cultivate quality relationships, Shared narratives



Thank you

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