

Early Detection/Rapid Response: Connecting Non-commercial Livestock and Fowl Owners (NFLO) with Veterinary Information

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INTRODUCTION

In the past, foreign animal and zoonotic disease (FAZD) outbreaks in other countries have been responsible for tremendous economic losses to livestock industries, overwhelming health issues in affected human populations, and had devastating sociologic and economic effects experienced by communities. To prevent the United States from experiencing similar debilitating losses, early detection and rapid reporting is essential. Individual livestock owners must be our first line of defense against an FAZD outbreak. By implementing biosecurity practices, livestock owners could potentially reduce the threat to the agricultural infrastructure from introduction of an FAZD (F. C. Faries and A. I. Dement, personal communications, May 21, 2007). "They must keep a sharp eye on livestock and promptly report any unusual signs of disease. Early detection and reporting could prevent the loss of billions of dollars for our livestock industries and communities" (Faries and Dement, 2006, p. 1 - 2).

It is believed that the 2003 Exotic Newcastle Disease (END) outbreak, which decimated California's poultry industry, flourished for nearly six months in backyard flocks before diagnosis and detection occurred. By which time, the depopulation of fowl was entering the millions. Early detection and reporting by non-commercial livestock and fowl owners (NFLO) communities could significantly have mitigated the resultant damage from this outbreak to the agricultural infrastructure.

Reaching non-commercial livestock and fowl owners with science-based information, timely emergency alerts, and proper reporting procedures and eliciting their trust and cooperation is crucial to the protection and stability of the U.S. agricultural infrastructure.

The United States Department of Homeland Security has identified non-commercial minority livestock and fowl owners (NFLO) as a difficult demographic group to reach with timely science-based information and educational materials. Large livestock and poultry operations are easily identified due to their size and economic contribution to the animal industry, whereas NFLO may be backyard fowl or livestock owners or hobbyists who do not produce or sell large quantities of animals. Unlike large livestock and poultry operations who aggressively monitor their operations and follow government guidelines

to ensure the economic viability of their operations. NFLO may not follow quarantine procedures when introducing new animals into their operation, may not know the symptoms associated with foreign animal and zoonotic diseases (FAZD), understand the impact spread of FAZD may have, or see the need to report unusual symptoms or death loss among their animals to officials. Furthermore many of these individuals may have contact with, or work for, the larger animal operations, greatly increasing the risk of accidental transmission. The important question, therefore, is “How do we identify NFLO and then effectively communicate with these groups and elicit their participation in FAZD detection and reporting?”

METHODOLOGY

In order to identify best-practices for NFLO identification and communication, the National Center for Foreign Animal and Zoonotic Disease Defense (FAZD), Texas Cooperative Extension (TCE), and Prairie View A&M University (PVAMU) a 1894 land grant institution conducted three focus groups consisting of a purposive sample of County Extension Agents (CEAs) and local feed retail owners based on population density.

The objectives of these focus groups were to:

1. To identify key social communication systems and institutions in each community.
2. To identify credible sources of information for the community.
3. To identify key languages and indicators of how to effectively communicate with the population.

TCE’s involvement was a logical choice as TCE has a network of over 600 County Extension Agents (CEAs) in 248 of the 254 Texas counties. These CEAs conduct outreach education in their respective counties as well as serving as community resources for information. Feed retail owners were included as they would have the greatest likelihood of conducting business with NFLO through the sale of animal feedstuffs. Dividing focus groups by population density into urban areas, rural/urban “rurban” areas and rural areas was deemed appropriate as each areas’ non-commercial communities might have issues such as culture, employment, animal type, or language distinct from each other. Focus groups were conducted via teleconference as the best method of including CEAs and feed retail owners in different geographic locations who shared similar population density characteristics in their communities. Prior to each focus group, targeted CEAs were emailed the questions that would guide the focus group and encouraged to enlist one to two local feed retail owners to join the teleconference.

Questions generated and disseminated to participants as a guide for dialogue in the focus groups were:

1. How do people get their information?
2. Where do you get your information?
3. Ask feed store owners
 - a. How many people gain information from you?
 - b. What are the materials or methods you use to impart information?
 - c. What is the literacy level of the customers?

- d. Who are the Promotoras in your area?
4. Literacy Level
 - a. Should the materials be pictorial?
5. What is the best method of reaching these people?
 - a. Radio?
 - b. TV?
 - c. Word of Mouth? (Local Coffee Shop?)
 - d. Radio and TV?
 - e. Would local newspaper be effective?
 - f. What is the most effective combination?
 - g. ESL Classes?
 - h. Promotora (Cultural Agent)?
 - i. Spanish Radio/TV professionals?
 - j. Other?
6. Could EPNEP help identify change agents in non-commercial communities?
7. Are there local celebrities/influential people who would promote the information?
8. Can you identify the 2 or 3 most “listened” to people in your area? (Who is the person everyone says “Well, so and so mentioned ...)
9. How hard would it be to get these people involved?
10. How could you reach the children?
11. What languages should the material be in?
12. Are there ethnic mores (traditions) we need to be aware of?
13. What are the demographics of the majority of the clients?
14. Who would they identify with?
15. County Feed Store Manager Database

Not all questions were utilized during the focus groups as several were aspects of more inclusive questions.

Focus groups were each one and a half hours in length and occurred September 12th, 13th, and 14th. The first focus group (September 12, 2006) was for urban communities and consisted of three CEAs, one representative from PVAMU who had been a feed retail owner and two representatives from Texas A&M University (TAMU). The second focus group (September 13, 2006) was for rural communities and consisted of four CEAs, one feed retail owner, one representative from PVAMU who had also been a feed retail owner, and two representatives from TAMU. The third focus group (September 14, 2006) was for rural communities and consisted of four CEAs, two representatives from PVAMU one of which had also been a feed retail owner, and two representatives from TAMU. Transcripts of the dialogue occurring in each focus group were taken by each of the TAMU participants, typed, cross-referenced, and combined to provide an accurate record of each focus group. Each combined transcript was then sent to participants for member-checking. Focus group responses to each question were analyzed using Glaser’s (1965) constant comparative method to identify major themes among focus group responses.

FINDINGS

Responses by rural and urban focus groups to the question: “How do people get their information?” identified word of mouth as the primary source of information for NFLO. NFLO gained their information from trusted individuals, feed retail personnel, and CEAs. The urban focus groups identified mass media such as radio, newspapers, TV, as the primary information source for their communities. All focus groups identified feed retail businesses, pamphlets, radio, newspapers, TV, libraries, and the internet as information sources for their populations. The internet was considered to be used primarily by educated retirees just entering livestock practice.

In answer to the question: “*Where do you get your information?*,” Participants indicated they received their information primarily from relevant state agencies and animal organizations.

In answer to the questions: “*What is the literacy level among NFLO?*” “*Should materials be pictorial?*” and “*What languages should materials be created in?*” Responses indicated that literacy levels were generally at the high school level or below, materials should include a mix of printed material supplemented with numerous pictures, and be created in both English and Spanish.

In answer to the question: “*What is the best method of reaching NFLO?*” Responses indicated the best method of disseminating information to these populations was point of purchase materials in feed retail businesses distributed at the counter and placed directly into the person’s hands. It was emphasized again that materials should be easy to read and contain numerous pictures and illustrations. Participants also indicated that TV/VCR combinations available in feed retail businesses with educational tapes customers could either view in the store or check out to view at home would be an effective method of information dissemination to NFLO. Additionally it was indicated that having a looped video feed with a CEA on-site for questions and answers or providing presentations would be effective in not only feed retail businesses, but other locations such as county fairs, rodeos, parts-stores, implement companies, etc.

Life-sized poster displays that catch customers eyes, logo embossed courtesy bags including TCE’s contact information and informational pamphlets, special English as a Second Language (ESL) classes, and televised shows and media updates on such programs as RFD TV were also identified as effective means to disseminate information to NFLO. Other methods proposed for disseminating information to NFLO were for CEAs to attend churches, revivals, group job activities, animal trading days, and cultural celebrations and present information. It was discussed that information could be provided to FFA and 4-H members to use in method demonstrations and radio competitions with locally publicized presentations by these youth to local clubs and organizations. Major livestock shows were also identified as a venue in which information should be disseminated in order to reach NFLO. Especially as transportation to and from these events has great potential as a source of rapid disease transmission.

CEAs indicated that using local celebrities to promote educational events or disseminate information may increase information dissemination to NFLO and increase NFLO acceptance of information. Rural areas were more limited in availability of local celebrities than urban or rural areas.

In answer to the question of *“How could you reach the children?”* Responses indicated that CEAs’ best methods for reaching children were through 4-H, FFA, and Agri-Science teachers. Those children not in 4-H and FFA could be reached through school curricula enrichment programs, youth groups, and home schooling programs.

In answer to the question: *“Are there ethnic mores (traditions) we need to be aware of?”* Rural and rural focus groups indicated no vital traditions affecting the dissemination of information. The urban focus group indicated awareness of the different ethnic groups in the community was vital to acceptance of information. Depending on the ethnic group, CEAs should first approach either community elders (such as in Native American communities), the local church (especially in African American communities), or the adult male family member (in Hispanic communities) when disseminating information in order to gain acceptance of the information.

In response to the idea of a national database of county feed retail managers, there was some division between the focus groups. Urban and rural focus groups indicated that a national database was a good idea and would allow for the rapid dissemination of information to NFLO groups. They indicated that membership in the national database would increase the feed retail businesses’ community prestige as well as increasing the dissemination of accurate information to NFLO. The rural CEAs had reservations about the national nature of the database. They indicated that their local stakeholders did not trust the government and would resist the idea of their contact information being available to governmental entities. The CEAs did not wish to lose the trust of their local feed retail businesses by proposing such an idea. Instead the rural CEAs proposed a national database of CEAs who possessed county level databases of feed retail owners as a viable alternative.

RECOMMENDATIONS

Information on best methods to reach NFLO for timely dissemination of accurate information and updates indicates that feed retail operators have the greatest contact with NFLO and greatest likelihood of having NFLO trust. Therefore the most effective means of transmission of educational materials would be through local feed retail businesses. Printed materials should be written below the high school level in both English and Spanish, and should contain many interesting photographs and illustrations. Feed retailers should place information directly in the customers hand for greatest likelihood of customers reading materials. Displays and posters should be eye-catching, interesting, and prominently displayed. The findings indicate that the creation of a national database of CEAs with county level databases of feed retail businesses would be a powerful tool for rapid dissemination of educational information and disease alerts to NFLO

communities, as feed retailers already have the trust of the community and contact with NFLO.

REFERENCES

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